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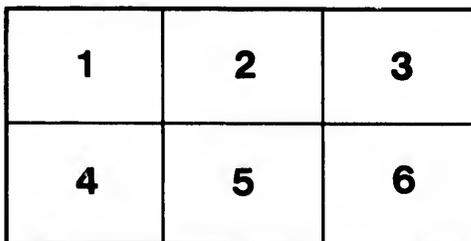
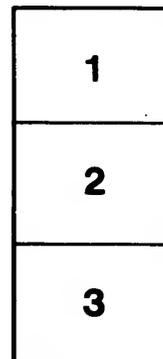
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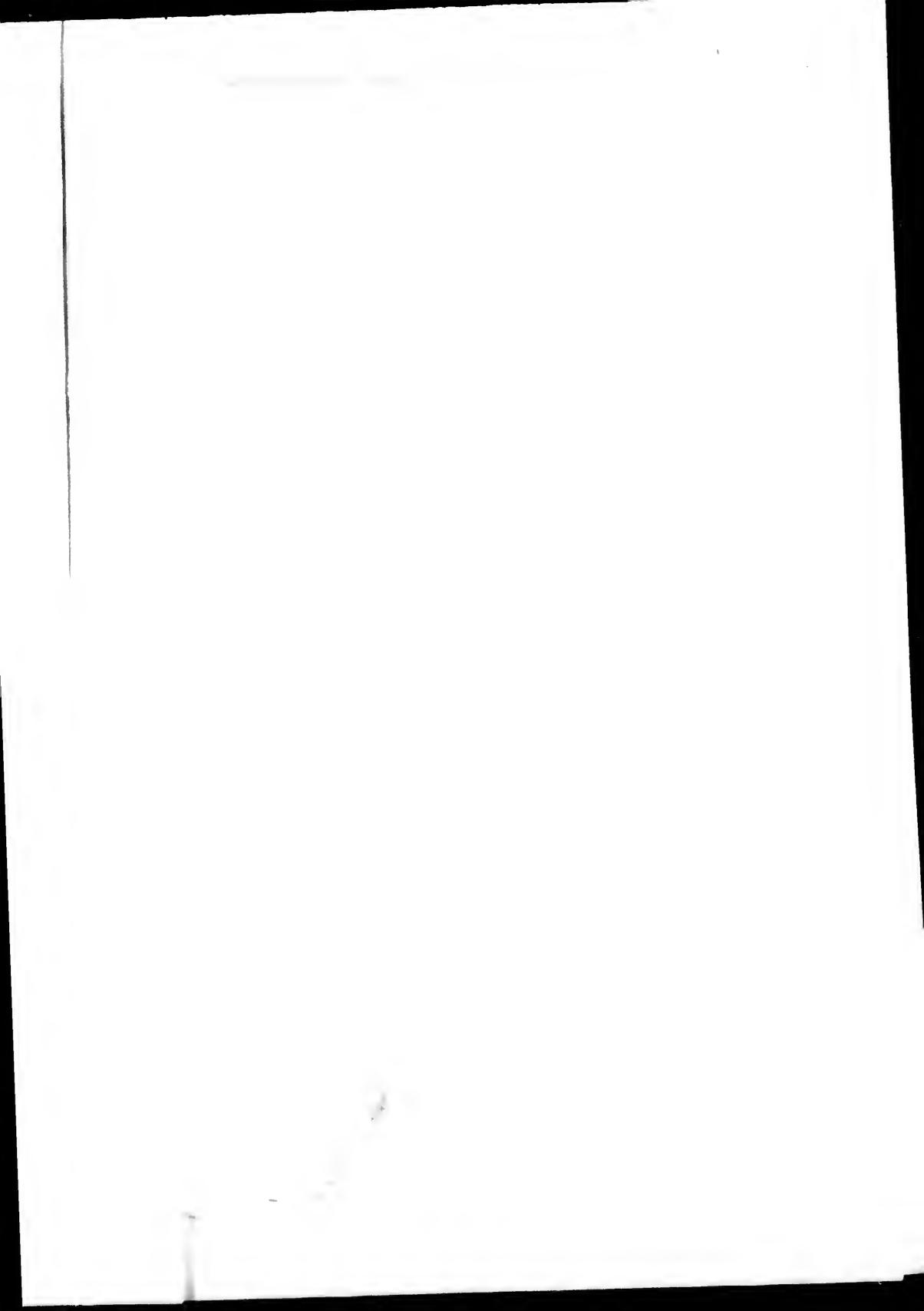
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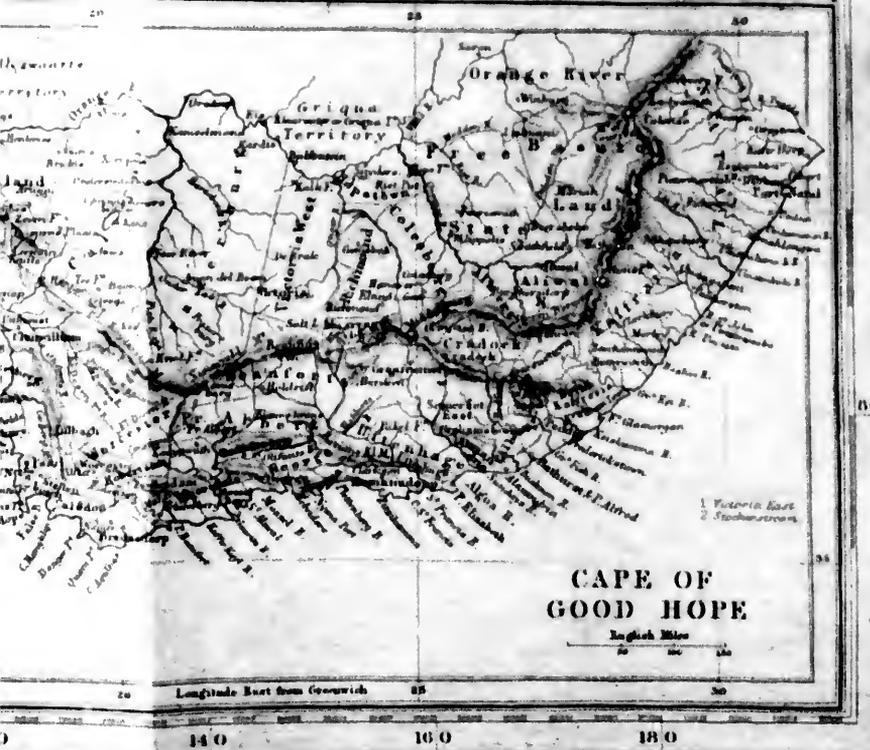
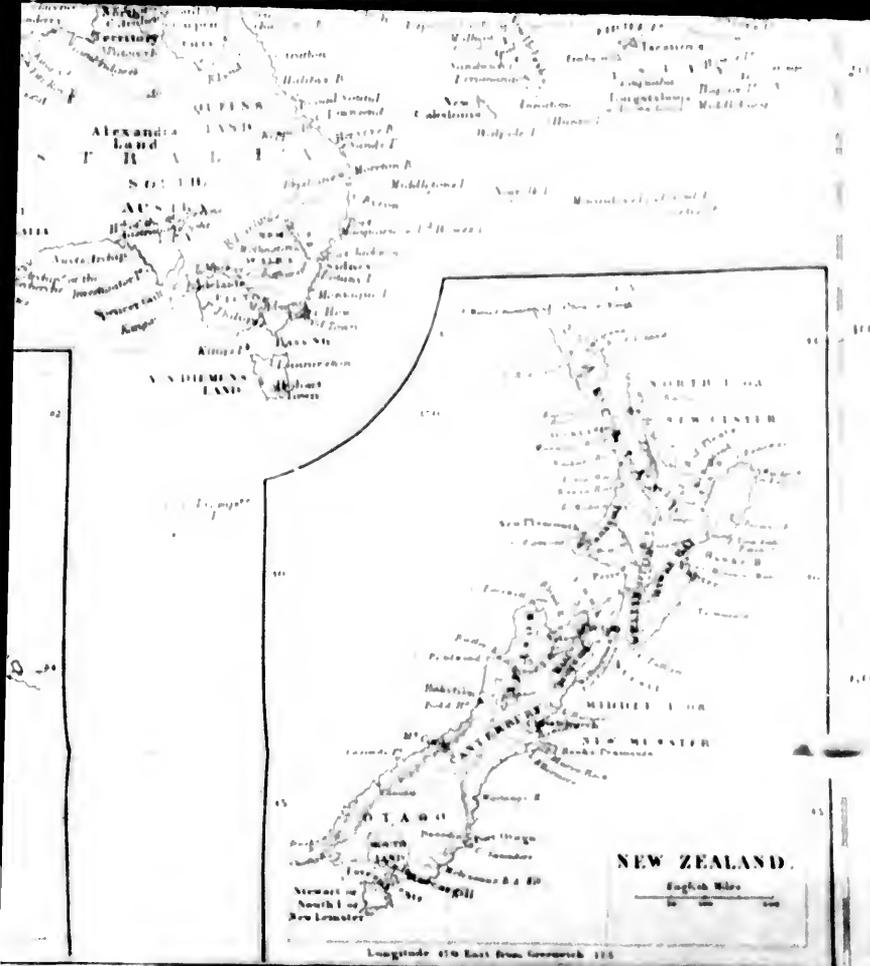












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# A DICTIONARY

PRACTICAL, THEORETICAL, AND HISTORICAL

OF

## COMMERCE AND COMMERCIAL NAVIGATION.

BY THE LATE

*auth 2/135-41*  
**J. R. M'CUCCLOCH**

OF H. M. STATIONERY OFFICE.

WITH A BIOGRAPHICAL NOTICE BY THE EDITOR.

**NEW EDITION,**

**REVISED AND CORRECTED THROUGHOUT.**

EDITED BY

**HUGH G. REID**

SECRETARY TO MR. M'CUCCLOCH FOR MANY YEARS.

LONDON :

**LONGMANS, GREEN, AND CO.**

1869.

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Though immediately and primarily written for the merchants, this Commercial Dictionary will be of use to every man of business or of curiosity. There is no man who is not in some degree a merchant; who has not something to buy and something to sell, and who does not therefore want such instructions as may teach him the true value of possessions or commodities. The descriptions of the productions of the earth and water which this volume contains, may be equally pleasing and useful to the speculatist with any other Natural History. The descriptions of ports and cities may instruct the geographer as well as if they were found in books appropriated only to his own science; and the doctrines of funds, insurances, currency, monopolies, exchanges, and duties, is so necessary to the politician, that without it he can be of no use either in the council or the senate, nor can speak or think justly either on war or trade.

We, therefore, hope that we shall not repent the labour of compiling this work, nor flatter ourselves unreasonably, in predicting a favourable reception to a book which no condition of life can render useless, which may contribute to the advantage of all that make or receive laws, of all that buy or sell, of all that wish to keep or improve their possessions, of all that desire to be rich, and all that desire to be wise.

JOHNSON, *Preface to Roll's Dict.*

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## PREFACE

TO

THE EDITION OF 1869.

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It has been well observed of M'Culloch's *Commercial Dictionary*, that though it must be continually re-edited, to meet the constant changes of our times, the work is so carefully founded on great principles that the necessity of completely remodelling it can scarcely arise.

The Author, after making the necessary preparations, had actually commenced a new Edition of the book a few months before his death; and in completing this task the Editor has, as far as possible, adhered to the Author's plan and arrangement of the work, and above all has respected, by preserving intact, the expressions of his well-considered and well-known opinions on the various subjects treated of in this Dictionary. For these opinions, however, the Author, and not the Editor, should be held responsible.

A few articles on subjects with regard to which science must necessarily be progressive, such as those on ACIDS and ALKALIES, have been entirely recast; and many subjects, such as PASSPORTS, PETROLEUM, TELEGRAPHS, TRANSIT, &c., are introduced to the reader's notice for the first time, under their appropriate heads.

It will be observed, by those familiar with former issues of this work, that much of the very small type has disappeared from the present impression; and, with a view to facilitate reference, this Edition has been printed throughout in double columns. As indicating the freshness of the new matter given in the following pages, it may be noted that extracts from the Russian Tariff of 1869 will be found under PETERSBURG; and that Mr. Lowe's Resolutions affecting the Customs and Inland Revenue are embodied in the article TARIFF, BRITISH, and referred to under TEA, WHEAT, &c.

In a work of such extent the Editor has necessarily been indebted to very many for aid, and to those more especially who have rendered gratuitous assistance he would offer his best thanks. Though it seems almost invidious to distinguish any, where all have so readily afforded valuable information and efficient help, he cannot refrain from expressing his heavier obligations to Mr. Robert Slater of Fore Street (unfortunately since deceased), Mr. Robin Allen, the Secretary, and Mr. John Inglis, Assistant-Secretary of the Trinity House; Mr. B. C. Stephenson, Secretary of Lloyd's; Mr. W. S. Lindsay, formerly M.P. for Sunderland; Mr. Thomson, of Messrs. Bell, Rannie & Co.; and to the Rev. G. W. Cox, M.A., Editor of Brande's Dictionary of Science, &c.

The Editor is bound also to acknowledge the aid he has derived from the various Commercial Reports of the British Consuls. But it is only just and right that M'Culloch's *Commercial Dictionary* should have the fullest benefit from this source of information—for it would appear that it was at the Author's suggestion that Lord Aberdeen called for these Reports in the form and detail which they now exhibit. And it may not be too much to say here, that the adoption of Mr. M'Culloch's plan has resulted in the production of that series of accurate, business-like, and instructive documents which have been thought worthy of being printed, and laid before Parliament.

The Editor, as son-in-law as well as Secretary to the Author, has had ample opportunities of being familiar with his views on many subjects, and as his Secretary acquired considerable experience in the mode of compiling this work by assisting Mr. M'Culloch more or less, from 1843 downwards, in its tabular and more mechanical portions.

H. G. R.

LONDON: May 1869.

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## PREFACE

TO

THE EDITION OF 1859.

THOUGH in part a reprint, the edition of this Dictionary now laid before the reader, has undergone many alterations, and is, we trust, considerably improved. The extraordinary increase of manufactures and commerce in almost all countries,\* and the opening of various new and important channels of intercourse, have rendered changes necessary in most parts of the work. We had, for example, to notice the new arrangements with China and Japan; the abolition of the Sound Duties; the termination of the rule of the East India Company in India; the continued efflux of the precious metals to that continent and China; the introduction of several new articles, such as VEGETABLE WAX and SHEA BUTTER, into the list of imports; with an all but endless variety of other matters.

The rules and regulations, too, under which trade is carried on, have been materially modified within the last four or five years. The United States and Russia passed, in 1857, new and comparatively moderate tariffs. And we are glad to have to state that the greater number of the changes which we have had to notice in the commercial legislation of foreign countries, have been of a liberal character. It seems, also, reasonable to suppose that the freedom of trade and industry will be more and more diffused, according as nations and their rulers become better acquainted with the sound principles on which it is founded, and with the wonderful progress we have made, and are continuing to make, in industrial pursuits, since we shook off the shackles of the protective system.

The greater importance of some of the many topics we have had to discuss, has necessarily required for them the greatest share of our attention. We have not, however, neglected or slurred over the others, but have endeavoured to set the different matters treated of in the clearest point of view that the information at our disposal would permit. This, it is true, has sometimes been neither so ample, so recent, nor so precise, as might have been desired. But we have

\* There is, it must be admitted, one great exception to this statement. The fertile, well situated, and extensive countries subjected to Turkish misgovernment and oppression continue sunk in barbarism; or, if there be anywhere any symptoms of improvement, they are only to be found among the subjugated races. The Turks themselves have retrograded; and their religion, and the institutions and opinions to which it has given birth, are insuperable obstacles to anything like real progress. But it is not to be supposed, despite the support it will no doubt receive, that this worthless and superannuated system of misrule should exist much longer. And there can be no doubt that its overthrow, whether it be effected by the righteous rebellion of those it has so long trampled under foot, or by foreign force, will be a vast gain to humanity. It will do more than anything else that can be done to extend the sphere of civilisation and commerce.

done our best to obviate these defects by resorting to the quarters most likely to be well-informed. And on this, as on other occasions, those to whom we applied, have, with but few exceptions, evinced the greatest readiness, and even anxiety, to give us every assistance in their power. We have noticed some gentlemen to whom we have been indebted at the end of the articles to which they especially contributed; and among these and others, we may specify Sir James Emerson Tennent, and W. M. Bucknall, Esq., of the Board of Trade; Alfred Latham, Esq., Deputy Governor of the Bank of England; Andrew Jamieson, Esq., of the firm of Jamieson, Brothers & Co.; R. C. Crosbie, Esq., of Liverpool; Robert Slater, Esq., of Fore Street, London; Marmaduke Hornidge, Esq., of the East India House; W. S. Lindsay, Esq., M.P.; J. A. Messenger, Esq., Inspector-General of Imports and Exports; Dr. Strang, of Glasgow; John Crawford, Esq., late of Singapore; and the very learned bookseller, Nicholas Trübner, Esq., of Paternoster Row. It is only by the assistance of individuals having correct information at their disposal, and of those engaged in different lines of business, in different parts of the world, that a work of this sort can be rendered of any considerable value. No diligence of enquiry can acquire satisfactory information respecting most part of the subjects of which we have had to treat from books and statistical returns, even when these exist and are accessible, which is frequently not the case. It can only be acquired by comparing these, or, where they are wanting, supplying their place with the communications of intelligent individuals familiar with the matters referred to.

We would fain hope that there are fewer errors in this than in the previous impressions of this work, and that it will be found to be in various respects more complete and serviceable. No ordinary amount of labour has been expended upon it. And though the details incident to most part of the subjects which it embraces be perpetually changing, the principles by which it is pervaded are, we are well assured, of an enduring character, and will be no less applicable in the ages that are to come than at present.

\* \* We added to the preface to a former edition of this work the following brief notice of one of the most upright and patriotic statesmen that this country has ever produced. However defective it may be reckoned, the place, at least, was not inappropriate for its introduction. And whatever mutations this book may be destined to undergo, this notice will not, we hope, be displaced, unless it be to make room for one less unworthy of the subject.

‘We may, perhaps, be excused, if, before concluding this notice introductory to a work which he honoured with his approbation, we briefly advert to the irreparable loss which the United Kingdom, and the commercial world generally, have sustained since the publication of our last edition, in the premature death of Sir Robert Peel. There are but few of the more important topics treated of in this volume in which we have not had to refer to the enlightened and well-digested measures of that great statesman. The maintenance of our old monetary standard, and the sound and comparatively satisfactory state of our banking system, are mainly a consequence of his exertions. To say that he did more to promote the public well-being, by introducing enlarged and liberal principles into our economical policy, than any other minister, would be to say little or nothing; for he did more to forward these great ends than all our other ministers put together, from the Revolution down to the present times. Not

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that we mean to say that we equally approve of all his measures, or think that some of them might not have been in some respects amended. But we refer to the spirit which pervaded his policy, its object, and its general influence. England was the centre of his solicitude; but the majority of the measures which he supported and carried, and his great example, have redounded, and will continue to redound, not to the advantage of this country only, but of the world. And hence the deep regret which his death excited in all but the most barbarous nations—“*Finis vitæ ejus amicis luctuosus, patriæ tristis, extraneis etiam ignotisque non sine cura fuit.*” \*

‘Though slow to change an opinion or system of policy, he had none of that miserable pride or partisan bigotry, which so often passes for principle, that disdains to profit by experience, and is above the acknowledgment of an error. He was at all times ready to inquire, and open to conviction. And whenever he had fully satisfied himself that it was necessary, to promote or secure the public welfare, that he should abandon an old or adopt a new course, he did so at once. The moment he was impressed with that conviction, all doubts and difficulties vanished from his mind. His duty to his country absorbed every other consideration. Neither the taunts of opponents nor the desertion of friends could influence his resolution. And he spared no efforts, and shrunk from no sacrifice, however unparalleled, to accomplish his patriotic purposes. Other ministers have equalled, and a few may perhaps have surpassed, Sir Robert Peel in ability. But he stands foremost among British statesmen for disinterestedness; and for a determination to support and advance, at whatever cost to himself, what he believed to be the lasting and real interests of the community.

\* Taciti Vit. Agricol. c. 43.

## PREFACE

TO

### THE SECOND EDITION.

THE first impression of this Dictionary, consisting of 2,000 copies, was entirely sold off in less than nine months from the date of its publication. We feel very deeply indebted to the public for this unequivocal proof of its approbation; and we have endeavoured to evince our gratitude, by labouring to render the work less undeserving a continuance of the favour with which it has been honoured. In the prosecution of this object, we have subjected every part of it to a careful revision; have endeavoured to eradicate the errors that had escaped our notice; to improve those parts that were incomplete or defective; and to supply such articles as had been omitted. We dare not flatter ourselves with the idea that we have fully succeeded in these objects. The want of recent and accurate details as to several important subjects, has been an obstacle we have not, in all cases, been able to overcome; but those in any degree familiar with such investigations will not, perhaps, be disposed severely to censure our deficiencies in this respect.

The changes in the law bearing upon commercial transactions have been carefully specified. Copious abstracts of the late Customs Acts are contained in the articles COLONIES AND COLONY TRADE, IMPORTATION AND EXPORTATION, NAVIGATION LAWS, REGISTRY, SMUGGLING, WAREHOUSING &c.

The abolition of the East India Company's commercial monopoly, and the great and growing interest\* that has in consequence been excited amongst all classes respecting the commercial capabilities and practices of India, China, and other Eastern countries, have made us bestow peculiar attention to this department. The articles BANGKOK, BATAVIA, BOMBAY, BUSHIRE, BUSSORAH, CALCUTTA, CANTON, COLUMBO, EAST INDIA COMPANY AND EAST INDIES, INDIGO, MACAO, MADRAS, MANILLA, MALIBAIN, MOCHA, MUSCAT, NANGASACKI, OPIUM, RANGOON, SINGAPORE, TATTA, TEA, &c. contain, it is believed, a greater mass of recent and well-authenticated details as to the commerce of the vast countries stretching from the Arabic Gulph to the Chinese Sea, than is to be found in any other English publication.

The article BANKING is mostly new. Besides embodying the late Act prolonging the charter of the Bank of England, and the more important details given in the Report of the Select Committee on the Renewal of the Bank Charter, this article contains some novel and important information not elsewhere to be met

\* The recent events in China have added greatly to this interest, and have made us enter, in this edition, into several additional details.

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with. No account of the issues of the Bank of England has hitherto been published, that extends further back than 1777. But this deficiency is now, for the first time, supplied; the Directors having obligingly furnished us with an account of the issues of the Bank on February 28 and August 31, of each year, from 1698, within four years of its establishment, down to the present time. We have also procured a statement, from authority, of the mode of transacting business in the Bank of Scotland; and have been able to supply several additional particulars, both with respect to British and to foreign banks.

We have made many additions to, and alterations in, the numerous articles descriptive of the various commodities that form the materials of commerce, and the historical notices by which some of them are accompanied. We hope they will be found more accurate and complete than formerly.

The Gazetteer department, or that embracing accounts of the principal foreign emporiums with which this country maintains a direct intercourse, was, perhaps, the most defective in the old edition. If it be no longer in this predicament, the improvement has been principally owing to official co-operation. The sort of information we desired as to the great sea-port towns could not be derived from books, nor from any sources accessible to the public; and it was necessary, therefore, to set about exploring others. In this view we drew up a series of queries, embracing an investigation of imports and exports, commercial and shipping regulations, port charges, duties &c., that might be transmitted to any port in any part of the world. There would, however, in many instances, have been much difficulty in getting them answered with the requisite care and attention by private individuals; and the scheme would have had but a very partial success, had it not been for the friendly interference of Mr. Poulett Thomson. Alive to the importance of having the queries properly answered, he undertook to use his influence to get them transmitted to the Consuls. This was accordingly done; and answers have been received from the greater number of these functionaries. There is, of course, a considerable inequality amongst them; but for the most part they embody a good deal of valuable information, and some of them are drawn up with a degree of skill, and display an extent of research and a capacity of observation, that reflect high credit on their authors.\*

The information thus obtained, added to what we received through other but not less authentic channels, supplied us with the means of describing twice the number of foreign sea-ports noticed in our former edition; and of enlarging, amending, and correcting the accounts of such as were noticed. Besides much fuller details than have ever been previously published of the nature and extent of the trade of many of these places, the reader will, in most instances, find a minute account of the regulations to be observed respecting the entry and clearing of ships and goods, with statements of the different public charges laid on shipping, the rates of commission and brokerage, the duties on the principal goods imported and exported, the prices of provisions, the regulations as to quarantine, the practice as to credit, banking &c., with a variety of other particulars. We have also described the ports; and have specified their depth of water, the course to be steered by vessels on entering, with the rules as to pilotage, and the fees on account of pilots, light-houses &c. As it is very difficult to convey a sufficiently distinct idea of a sea-port by any description, we have given plans, taken from the latest and best authorities, of about a dozen of the principal foreign ports. Whether we have succeeded, is more than we can venture to say; but we hope we have said enough to satisfy

\* The returns furnished by the Consuls at Hamburg, Trieste and Venice, Naples, Dantzic, Bordeaux, Christiania, Amsterdam, Elsinore, New York, Charleston, &c. are particularly good.

the reader, that we have spared no pains to furnish him with authentic information in this important department.

The **TARIFF**, or Table of Duties on Imports, &c., in this edition, is peculiarly valuable. It is divided into three columns: the first containing an account of the existing duties payable on the importation of foreign products for home use, as the same were fixed by the Act of last year, 3 & 4 Wm. IV. c. 56; the next column exhibits the duties payable on the same articles in 1819, as fixed by the Act 59 Geo. III. c. 52; and the third and last column exhibits the duties as they were fixed in 1787 by Mr. Pitt's Consolidation Act, the 27 Geo. III. c. 13. The duties are rated throughout in Imperial weights and measures; and allowances have been made for differences in the mode of charging, &c. The reader has, therefore, before him, and may compare together, the present customs duties with the duties as they stood at the end of the late war, and at its commencement. No similar Table is to be met with in any other work. We are indebted for it to J. D. Hume, Esq., of the Board of Trade, at whose suggestion, and under whose direction, it has been prepared. Its compilation was a work of much labour and difficulty; and could not have been accomplished by any one not well acquainted with the Customs Acts, and the various changes in the mode of assessing the duties.

On the whole, we trust it will be found that the work has been improved throughout, either by the correction of mistakes, or by the addition of new and useful matter. Still, however, we are well aware that it is in various respects defective; but we are not without hopes that those who look into it will be indulgent enough to believe that this has been owing as much to the extreme difficulty, or rather, perhaps, the impossibility, of obtaining accurate information respecting some of the subjects treated of, as to the want of care and attention on our part. Even as regards many important topics connected with the commerce and manufactures of Great Britain, we have had to regret the want of authentic details, and been obliged to grope our way in the dark. The condition and habits of the English and Scotch are so very different from those of the Irish, that conclusions deduced from considering the trade or consumption of the United Kingdom *en masse*, are frequently of little value; and may, indeed, unless carefully sifted, be the most fallacious imaginable; while, owing to the want of any account of the cross-channel trade between the two great divisions of the empire, it is not possible accurately to estimate the consumption of either, or to obtain any sure means of judging of their respective progress in wealth and industry. As respects manufactures, there is a still greater deficiency of trustworthy details. But the articles relating to them in this work having been submitted to the highest practical authorities, we incline to think they are about as accurate as they can well be rendered.

The statistical Tables published by the Board of Trade embrace the substance of hundreds of accounts, scattered over a vast mass of Parliamentary papers. They seem to be compiled with great care and judgment, and are a very valuable acquisition. We have frequently been largely indebted to them. But their arrangement, and their constantly increasing number and bulk, make them quite unfit for being readily or advantageously consulted by practical men. Most part of the returns relating to the principal articles given in this work go back to a much more distant period than those published by the Board of Trade.

We have seen no reason to modify or alter any **PRINCIPLE OF COMMERCIAL POLICY** advanced in our former edition. In some instances, we have varied the exposition a little, but that is all. In every case, however, we have separated the practical, legal, and historical statements from those of a speculative nature; so that those most disposed to dissent from our theoretical notions will, we hope,

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be ready to admit that they have not been allowed to detract from the practical utility of the work.

The maps given with the former edition have been partially re-engraved, and otherwise improved. Exclusive of the plans already referred to, the present edition contains two new maps: one, of the completed and proposed canals and railroads of Great Britain and Ireland; exhibiting, also, the coal-fields, the position of the different lighthouses, &c.: the other map exhibits the mouths of the rivers Mersey and Dee, and the country from Liverpool to Manchester, with the various lines of communication between these two great and flourishing emporiums. Care has been taken to render them accurate.

We are under peculiar obligations to many official, mercantile, and private gentlemen in this and other countries, who have favoured us with communications. We hardly ever applied to anyone, however much engaged in business, for any information coming within his department, which he did not readily furnish. We have seldom met with any mystery, concealment, or affectation of concealment. Most individuals seemed disposed to tell us all that they knew; and several gentlemen have taken a degree of trouble with respect to various articles in this work, for which our thanks make but a poor return.

## PREFACE

TO

### THE FIRST EDITION.

It has been the wish of the Author and Publishers of this Work, that it should be as extensively useful as possible. If they be not deceived in their expectations, it may be advantageously employed, as a sort of *vade mecum*, by merchants, traders, ship-owners, and ship-masters, in conducting the details of their respective businesses. It is hoped, however, that this object has been attained without omitting the consideration of any topic, incident to the subject, that seemed calculated to make the book generally serviceable, and to recommend it to the attention of all classes.

Had our object been merely to consider commerce as a science, or to investigate its principles, we should not have adopted the form of a Dictionary. But commerce is not a science only, but also an *art* of vast practical importance, in the prosecution of which a very large proportion of the population of every civilised country is actively engaged. Hence, to be generally useful, a work on commerce should combine practice, theory, and history. Different readers may resort to it for different purposes; and everyone should be able to find in it clear and accurate information, whether his object be to make himself familiar with details, to acquire a knowledge of principles, or to learn the revolutions that have taken place in the various departments of trade.

The following short outline of what this Work contains may enable the reader to estimate the probability of its fulfilling the objects for which it has been intended:—

I. It contains accounts of the various articles which form the subject matter of commercial transactions. To their English names are, for the most part, subjoined their synonymous appellations in French, German, Italian, Russian, Spanish &c.; and sometimes, also, in Arabic, Hindoo, Chinese, and other Eastern languages. We have endeavoured, by consulting the best authorities, to make the descriptions of commodities as accurate as possible; and have pointed out the tests or marks by which their goodness may be ascertained. The places where they are produced are also specified; the quantities exported from such places; and the different regulations, duties &c. affecting their importation and exportation, which have been carefully stated, and their influence examined. The prices of most articles have been given, sometimes for a lengthened period. Historical notices are inserted illustrative of the rise and progress of the trade in the most important articles; and it is hoped that the information embodied in these notices will be found to be as authentic as it is interesting.

II. The Work contains a general article on COMMERCE, explanatory of its nature, principles, and objects, and embracing an enquiry into the policy of restrictions intended to promote industry at home, or to advance the public interests by excluding or restraining foreign competition. Exclusive, however, of this general article, we have separately examined the operation of the existing restrictions on the trade in particular articles, and with particular countries, in the accounts of those articles, and of the great sea-port towns belonging to the countries referred to. There must, of course, be more or less of sameness in the discussion of such points, the principle which runs through them being identical. But in a Dictionary this is of no consequence. The reader seldom consults more than one or two articles at a time; and it is of infinitely more importance to bring the whole subject at once before him, than to seek to avoid the appearance of repetition by referring from one article to another. In this Work such references are made as seldom as possible.

III. The articles which more particularly refer to commercial navigation are AVERAGE, BILLS OF LADING, BOTTOMRY, CHARTERPARTY, FREIGHT, INSURANCE (MARINE), MASTER, NAVIGATION LAWS, OWNERS, REGISTRY, SALVAGE, SEAMEN, SHIPS, TONNAGE, WRECK &c. These articles embrace a pretty full exposition of the law as to shipping: we have particularly endeavoured to exhibit the privileges enjoyed by British ships; the conditions and formalities, the observance of which is necessary to the acquisition and preservation of such privileges, and to the transference of property in ships; the responsibilities incurred by the masters and owners in their capacity of public carriers; and the reciprocal duties and obligations of owners, masters, and seamen. In this department, we have made considerable use of the treatise of Lord Tenterden on the Law of Shipping—a work that does honour to the learning and talents of its noble author. The Registry Act and the Navigation Act are given with very little abridgment. To this head may also be referred the articles on the COD, HERRING, PILCHARD and WHALE fisheries.

IV. The principles and practice of commercial arithmetic and accounts are unfolded in the articles BOOK-KEEPING, DISCOUNT, EXCHANGE, INTEREST AND ANNUITIES &c. The article BOOK-KEEPING has been furnished by one of the official assignees under the new Bankrupt Act. It exhibits a view of this important art as actually practised in the most extensive mercantile houses in town. The tables for calculating interest and annuities are believed to be more complete than any hitherto given in any work not treating professedly of such subjects.

V. A considerable class of articles may be regarded as descriptive of the various means and devices that have been fallen upon for extending and facilitating commerce and navigation. Of these, taking them in their order, the articles BANKS, BROKERS, BUOYS, CANALS, CARAVANS, CARRIERS, COINS, COLONIES, COMPANIES, CONSULS, CONVOYS, DOCKS, FACTORS, FAIRS AND MARKETS, LIGHT-HOUSES, MONEY, PARTNERSHIP, PILOTAGE, POST-OFFICE, RAIL-ROADS, ROADS, TREATIES (COMMERCIAL), WEIGHTS AND MEASURES &c. are among the most important. In the article BANKS, the reader will find, besides an exposition of the principles of banking, a pretty full account (derived principally from official sources) of the Bank of England, the private banks of London, and the English provincial banks; the Scotch and Irish banks; and the most celebrated foreign banks: to complete this department, an account of Savings' Banks is subjoined, with a set of rules which may be taken as a model for such institutions.\* There is added to the article COINS, a Table of the assay, weight, and sterling value of the principal foreign gold and silver coins.

\* Some of the improvements made on this article are noticed in the Preface to the Second Edition.

deduced from assays made at the London and Paris Mints, taken, by permission, from the last edition of Dr. Kelly's *Cambist*. The article *COLONIES* is one of the most extensive in the work: it contains a sketch of the ancient and modern systems of colonisation; an examination of the principles of colonial policy; and a view of the extent, trade, population, and resources of the colonies of this and other countries. In this article, and in the articles *CAPE OF GOOD HOPE*, *COLUMBO*, *HALIFAX*, *QUEBEC*, *SYDNEY*, and *VAN DIEMEN'S LAND*, recent and authentic information is given, which those intending to emigrate will find worth their attention. The map of the British possessions in North America is on a pretty large scale, and is second to none, of those countries, hitherto published in an accessible form. The article *COLONIES* is also illustrated by a map of Central America and the West Indies. An engraved plan is given, along with the article *Docks*, of the river Thames and the docks from Blackwall to the Tower; and the latest regulations issued by the different Dock Companies here and in other towns, as to the docking of ships, and the charges on that account, and on account of the loading, unloading, warehousing &c. of goods, are given verbatim. The statements in the articles *LIGHT-HOUSES* and *PILOTAGE* have been mostly furnished by the Trinity House, or derived from papers printed by order of the Admiralty, and may be implicitly relied upon. In the article *WEIGHTS AND MEASURES* the reader will find tables of the equivalents of wine, ale, and Winchester measures, in Imperial measure.

VI. Besides a general article on the constitution, advantages, and disadvantages of Companies, accounts are given of the principal associations existing in Great Britain for the purpose of conducting commercial undertakings, or undertakings subordinate to and connected with commerce. Among others (exclusive of the Banking and Dock Companies already referred to) may be mentioned the *EAST INDIA COMPANY*, the *GAS COMPANIES*, the *INSURANCE COMPANIES*, the *MINING COMPANIES*, the *WATER COMPANIES*, &c. The articles on the East India Company is of considerable length; it contains a pretty complete sketch of the rise, progress, and present state of the British trade with India; an estimate of the influence of the Company's monopoly; and a view of the revenue, population &c. of our Indian dominions. We have endeavoured, in treating of insurance, to supply what we think a desideratum, by giving a distinct and plain statement of its principles, and a brief notice of its history; with an account of the rules and practices followed by individuals and companies in transacting the more important departments of the business; and of the terms on which houses, lives &c. are commonly insured. The part of the article which peculiarly respects marine insurance has been contributed by a practical gentleman of much knowledge and experience in that branch.

VII. In addition to the notices of the Excise and Customs regulations affecting particular commodities given under their names, the reader will find articles under the heads of *CUSTOMS*, *EXCISE*, *IMPORTATION AND EXPORTATION*, *LICENSES*, *SMUGGLING*, *WAREHOUSING* &c. which comprise most part of the practical details belonging to the business of the Excise and Customs, particularly the latter. The most important Customs Acts are given with very little abridgment, and being printed in small letter, they occupy comparatively little space. The article *TARIFF* contains an account of the various duties, drawbacks, and bounties, on the importation and exportation of all sorts of commodities into and from this country.—We once intended to give the tariffs of some of the principal Continental states; but, from the frequency of the changes made in them, they would very soon have become obsolete, and would have tended rather to mislead than to instruct. But the reader will notwithstanding

find a good deal of information respecting foreign duties under the articles CADIZ, HAVRE, NAPLES, NEW YORK, TRIESTE &c.

VIII. Among the articles of a miscellaneous description, may be specified ALIENS, APPRENTICE, AUCTIONEER, BALANCE OF TRADE, BANKRUPTCY, CONTRABAND, CREDIT, HANSEATIC LEAGUE, IMPORTS AND EXPORTS, IMPRESSMENT, IONIAN ISLANDS, MARITIME LAW, PASSENGERS, PATENTS, PAWN-BROKING, PIRACY, POPULATION, PRECIOUS METALS, PRICES, PRIVATEERS, PRUSSIAN OR GERMAN COMMERCIAL UNION, PUBLICANS, QUARANTINE, REVENUE AND EXPENDITURE, SLAVES AND SLAVE TRADE, TALLY TRADE, TRUCK SYSTEM &c.\*

IX. Accounts are given, under their proper heads, of the principal emporiums with which this country has any immediate intercourse; of the commodities usually exported from and imported into them; of their moneys, weights, and measures; and of such of their institutions, customs, and regulations, with respect to commerce and navigation, as seemed to deserve notice. There are occasionally subjoined to these accounts of the great seaports, pretty full statements of the trade of the countries in which they are situated, as in the instances of ALEXANDRIA, AMSTERDAM, BORDEAUX, BUENOS AYRES, CADIZ, CALCUTTA, CANTON, COPENHAGEN, DANTZIC, GALACZ, GALVESTON, HAVANNAH, HAVRE, LIMA, MONTEVIDEO, NAPLES, NEW YORK, ODESSA, PALERMO, PETERSBURG, RIO DE JANEIRO, SMYRNA, STOCKHOLM, TRIESTE, VALPARAISO, VERA CRUZ, &c.\* To have attempted to do this systematically would have increased the size of the Work beyond all reasonable limits, and embarrassed it with details nowise interesting to the English reader. The plan we have adopted has enabled us to treat of such matters as might be supposed to be of importance in England, and to reject the rest. We believe, however, that, notwithstanding this selection, those who compare this work with others, will find that it contains a much larger mass of authentic information respecting the trade and navigation of foreign countries than is to be found in any other English publication.

The reader may be inclined, perhaps, to think that it must be impossible to embrace the discussion of so many subjects in a single octavo volume, without treating a large proportion in a very brief and unsatisfactory manner. But, in point of fact, this single octavo contains about as much letterpress as is contained in two ordinary folio volumes, and more than is contained in Macpherson's *Annals of Commerce*, in four large volumes quarto, published at 8*l.* 8*s.*! This extraordinary condensation has been effected without any sacrifice of beauty or distinctness. Could we suppose that the substance of the book is at all equal to its form, there would be little room for doubt as to its success.

Aware that, in a work of this nature, accuracy in matters of fact is of primary importance, we have rarely made any statement without mentioning our authority. Except, too, in the case of books in every one's hands, or Dictionaries, the page or chapter of the works referred to is generally specified; experience having taught us that the convenient practice of stringing together a list of authorities at the end of an article is much oftener a cloak for ignorance than an evidence of research.

Our object being to describe articles in the state in which they are offered for sale, we have not entered, except when it was necessary to give precision or clearness to their description, into any details as to the processes followed in their manufacture.

Besides the maps already noticed, the work contains a map of the world, on Mercator's projection, and a map of Central and Southern Europe and the

\* Several of these articles have been inserted for the first time in this (the third complete) edition of the work; but we thought it most convenient to enumerate them with the others.

Mediterranean Sea. These maps are on a larger scale than those usually given with works of this sort; and have been carefully corrected, and compared with the best authorities.

Such is a rough outline of what the reader may expect to meet with in this Dictionary. We do not, however, flatter ourselves with the notion that he will consider that all that has been attempted has been properly executed. In a work embracing such an extreme range and diversity of subjects, respecting many of which it is exceedingly difficult, if not quite impossible, to obtain accurate information, no one will be offended should he detect a few errors. At the same time we can affirm that neither labour nor expense has been spared to entitle the Work to the public confidence and patronage. The author has been almost incessantly engaged upon it for upwards of five years; and he may be said to have spent the previous part of his life in preparing for the undertaking. He has derived valuable assistance from some distinguished official gentlemen, and from many eminent merchants; and has endeavoured, wherever it was practicable, to build his conclusions upon official documents. But in very many instances he has been obliged to adopt less authentic data; and he does not suppose that he has had sagacity enough always to resort to the best authorities, or that, amidst conflicting and contradictory statements, he has uniformly selected those most worthy of being relied upon, or that the inferences he has drawn are always such as the real circumstances of the case would warrant. But he has done his best not to be wanting in these respects. Not being engaged in any sort of business, nor being under any description of obligation to any political party, there was nothing to induce us, in any instance, to conceal or pervert the truth. We have, therefore, censured freely and openly whatever we considered wrong; but the grounds of our opinion are uniformly assigned; so that the reader may always judge for himself as to its correctness. Our sole object has been to produce a work that should be generally useful, particularly to merchants and traders, and which should be creditable to ourselves. Whether we have succeeded, the award of the public will show; and to it we submit our labours, not with 'frigid indifference,' but with an anxious hope that it may be found we have not misemployed our time, and engaged in an undertaking too vast for our limited means.

The following notices of some of the most celebrated Commercial Dictionaries may not, perhaps, be unacceptable. At all events, they will show that there is at least room for the present attempt.

The *Grand Dictionnaire de Commerce*, begun and principally executed by M. Savary, Inspector of Customs at Paris, and completed by his brother, the Abbé Savary, Canon of St. Maur, was published at Paris in 1723, in two volumes folio; a supplemental volume being added in 1730. This was the first work of the kind that appeared in modern Europe: and has furnished the principal part of the materials for most of those by which it has been followed. The undertaking was liberally patronised by the French government, who justly considered that a Commercial Dictionary, if well executed, would be of national importance. Hence a considerable, and, indeed, the most valuable, portion of Savary's work is compiled from Memoirs sent him, by order of government, by the inspectors of manufactures in France, and by the French consuls in foreign countries. An enlarged edition of the *Dictionnaire* was published at Geneva in 1750, in six folio volumes. But the best edition is that of Copenhagen, in five volumes folio; the first of which appeared in 1759, and the last in 1765.

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proper object. It is, in fact, a sort of Dictionary of Manufactures as well as of Commerce; descriptions being given, which are, necessarily perhaps, in most instances exceedingly incomplete, and which the want of plates often renders unintelligible, of the methods followed in the manufacture of the commodities described. It is also filled with lengthened articles on natural history, the bye-laws and privileges of different corporations, and a variety of subjects nowise connected with commercial pursuits. No one, however, need look into it for any development of sound principles, or for enlarged views. It is valuable as a repertory of facts relating to commerce and manufactures at the commencement of last century, collected with laudable care and industry; but it is pervaded by the spirit of a customs officer, and not of a merchant or a philosopher. *‘Souvent dans ses réflexions, il tend plutôt à égarer ses lecteurs qu’à les conduire, et des maximes nuisibles au progrès du commerce et de l’industrie obtiennent presque toujours ses éloges et son approbation.’*

The preceding extract is from the Prospectus, in one volume octavo, published by the Abbé Morellet, in 1769, of a new Commercial Dictionary, to be completed in five or probably six volumes folio. This Prospectus is a work of sterling merit; and from the acknowledged learning and talent of its author, and his capacity for laborious exertion, there can be no doubt that, had the projected Dictionary been completed, it would have been infinitely superior to that of Savary. It appears (Prospectus, pp. 353–373) that Morellet had been engaged for a number of years in preparations for this great work; and that he had amassed a large collection of books and manuscripts relative to national economy, and the commerce, navigation, colonies, arts, &c. of France and other countries. The enterprise was begun under the auspices of M. Trudaine, Intendant of Finance, and was patronised by Messrs. L’Averdy and Bertin, Comptrollers General. But whether it were owing to the gigantic nature of the undertaking, to the author having become too much engrossed with other pursuits, the want of sufficient encouragement, or some other cause, no part of the proposed Dictionary ever appeared. We are ignorant of the fate of the valuable collection of manuscripts made by the Abbé Morellet. His books were sold at Paris within these few years.

A Commercial Dictionary, in three volumes 4to, forming part of the *Encyclopédie Méthodique*, was published at Paris in 1783. It is very unequally executed, and contains numerous articles that might have been advantageously left out. The editors acknowledge in their Preface that they have, in most instances, been obliged to borrow from Savary. The best parts of the work are copied from the edition of the *Traité Général du Commerce* of Ricard, published at Amsterdam in 1781, in two volumes 4to.\*

The earliest Commercial Dictionary published in England was compiled by Malachy Postlethwayt, Esq., a diligent and indefatigable writer. The first part of the first edition appeared in 1751. The last edition, in two enormous folio volumes, was published in 1774. It is chargeable with the same defects as that of Savary, of which, indeed, it is for the most part a literal translation. The author has made no effort to condense or combine the statements under different articles, which are frequently not a little contradictory; at the same time that many of them are totally unconnected with commerce.

In 1761, Richard Rolt, Esq., published a Commercial Dictionary in one pretty large folio volume. The best part of this work is its Preface, which was contributed by Dr. Johnson. It is for the most part abridged from Postlethwayt; but

\* This, when published, must have been a very valuable work. It is now, however, in a great measure obsolete.

it contains some useful articles purloined from other works, mixed, however, with many alien to the subject.

In 1766, a Commercial Dictionary was published, in two rather thin folio volumes, by Thomas Mortimer, Esq., at that time Vice-Consul for the Netherlands. This is a more commodious and better arranged, but not a more valuable work than that of Postlethwayt. The plan of the author embraces, like that of his predecessors, too great a variety of objects; more than half the work being filled with geographical articles, and articles describing the processes carried on in different departments of manufacturing industry; there are also articles on very many subjects, such as architecture, the natural history of the ocean, the land-tax, the qualifications of surgeons, &c., the relation of which to commerce, navigation, or manufactures, it seems difficult to discover.

In 1810, a Commercial Dictionary was published, in one thick octavo volume, purporting to be by Mr. Mortimer. We understand, however, that he had but little, if any thing, to do with its compilation. It is quite unworthy of the subject, and of the epoch when it appeared. It has all the faults of those by which it was preceded, with but few peculiar merits. Being not only a Dictionary of Commerce and Navigation, but of Manufactures, it contains accounts of the different Arts: but to describe these in a satisfactory and really useful manner, would require several volumes, and the co-operation of many individuals: so that, while the accounts referred to are worth very little, they occupy so large a space that room has not been left for the proper discussion of those subjects from which alone the work derives whatever value it possesses. There is an article of twenty-two pages technically describing the various processes of the art of painting, while the general article on commerce is comprised in less than *two* pages. The articles on coin and money do not together occupy four pages, being considerably less than the space allotted to the articles on engraving and etching. There is not a word said as to the circumstances which determine the course of exchange; and the important subject of credit is disposed of in less than *two lines*! Perhaps, however, the greatest defect in the work is its total want of any thing like science. No attempt is ever made to explain the principles on which any operation depends. Every thing is treated as if it were empirical and arbitrary. Except in the legal articles, no authorities are quoted; so that very little dependence can be placed on the statements advanced.

In another Commercial Dictionary, republished within these few years, the general article on commerce consists of a discussion with respect to simple and compound demand, and simple and double competition: luckily the article does not fill quite a page; being considerably shorter than the description of the kaleidoscope.

Under these circumstances, we do think that there is room for a new Dictionary of Commerce and Commercial Navigation: and whatever may be thought of our Work, it cannot be said that in bringing it into the field we are encroaching on ground already fully occupied.

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## BIOGRAPHICAL NOTICE.

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JOHN RAMSAY McCULLOCH, author of *The Commercial Dictionary*, and many other well-known works, economical and statistical, was the eldest son of Mr. William McCulloch, and was born at Whithorn in Wigtownshire on March 1, 1789.

His father, the eldest son of Edward McCulloch of Auchengool, a small landed proprietor in the stewartry of Kirkcudbright, died in Mr. McCulloch's infancy, and the latter having succeeded to his paternal property at a very early age, was reared and partly educated by his maternal grandfather, the Rev. Dr. James Laing, minister of the parish of Glaserton in Wigtownshire. He has described his grandfather, Dr. Laing, as a good classical scholar, and one who had a high relish for the beauties of literature, ancient and modern. In his library, which was extensive and valuable, Mr. McCulloch early acquired that passion for books which remained with him throughout life.

His mother having remarried, Mr. McCulloch resided with her and her husband, Dr. Dempster, at Kinross, and attended a school in that town for a few years. About 1805 he removed to Edinburgh, and commenced his studies at the University in that city. Among other classes, he attended those of Sir John Leslie, and Dr. Thomas Brown the metaphysician. His acquaintance with Leslie ripened into a lasting friendship, and he describes Sir John (in his *Catalogue* afterwards alluded to) as 'liberal in his views, of a social disposition, good-tempered, and without either artifice or pretence;' but of Brown he speaks somewhat disparagingly: 'I attended a course of Brown's lectures, which were nearly identical with those that were afterwards published; and whoever looks into the latter may easily imagine of what use such a course would be to a parcel of young men, who were neither permitted to take notes nor examined to ascertain whether they knew anything of what they had heard. The proceeding, in truth, was little better than a farce. A few students of superior talent, or having a taste for metaphysical research, might perhaps derive some little advantage from their attendance on Brown; but nine-tenths of his hearers would have profited quite as much by the greater number of the lectures, had he delivered them in Greek.' It would seem that Mr. McCulloch was originally intended for, if he did not choose, the profession of the law, and (as is usual in Scotland under such circumstances, whatever may be the branch for which the legal student is in-

tended) he entered the office of a Writer to the Signet or solicitor, to acquire the necessary practical knowledge of forms and details. But he quickly evinced a distaste for these minutiae, which generally prove unattractive to the young. Speaking of himself, he confesses, 'I had early the advantage, or disadvantage, I do not venture to say which, of being left to follow those studies, and read those books which I preferred, and to chalk out pursuits for myself.' So he forsook the law for a more congenial study, and eventually gave his almost undivided attention to that branch of science which he has done so much to advance and illustrate.

Mr. McCulloch took an ardent interest in the politics of the day. It may be said of him, as Sydney Smith said of Francis Horner, 'He loved truth better than he loved Dundas, at that time the tyrant of Scotland.' For though Liberalism was by no means so safe or profitable a profession of faith as it has been in our time, and political courage in the North was, in the early part of the century, at a very low ebb, he unhesitatingly joined the party of progress, and was one of the most formidable assailants of the faction which then dominated over that part of the empire. The recollection of the party heat and bitterness prevalent about the commencement of his career, was often a fruitful source of anecdote and amusement to him in his latter days. In 1817 he became a contributor to and shortly afterwards editor of the *Scotsman* newspaper; and in it gave fearless and forcible expression to his views, chiefly in support of measures which, though really necessary for the safety of the country, were little to the taste of those in power at the time. The *Scotsman* soon after that period became famous also for its political economy. The papers on that subject were written by Mr. McCulloch, and were not only new in a provincial newspaper, but gave it fame and character throughout the country.

As the reader will very naturally prefer having this short sketch as autobiographical as possible, we give the following account, in Mr. McCulloch's words, of his connection with the *Scotsman*, which continued till 1827:—

At the time when this paper was set on foot, the newspaper press of Scotland was in the most degraded state imaginable—without talent, or even the pretence of independence. And, in truth, it was then no easy matter for a Scottish journalist to be independent, to criticise any act of the general Government, or to hint at a defect in the institutions or administration of Scotland. For, owing to the vicious constitution of the Criminal Court, than which indeed no tribunal could be worse, and the practice of packing juries, a prosecution at the instance of the Lord Advocate against the editor, printer, or proprietor of a paper, was all but certain, whatever might be the nature of the case, to terminate in his imprisonment, or in his being sent on a tour to the antipodes. The *Scotsman*, however, partly by good management and partly by good luck, escaped this danger, and speedily attained to a large circulation and great influence. I believe, indeed, that its establishment did infinitely more to liberalise public opinion north of the Tweed than any other event that has taken place in the course of this century. The overthrow of the Dundas dynasty, and of the abominable caricature of a representative system that formerly existed in Scotland, were greatly facilitated by the vigorous and continued exertions of the *Scotsman*.

I had nothing to do with the establishment of this journal; but I became a contributor to it soon after its commencement, and was for a considerable time

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its editor. I was succeeded in the latter capacity by Mr. Charles Maclaren, one of its projectors, an able writer, and an excellent person. Mr. Wm. Ritchie, a solicitor, one of its projectors, was a ready contributor and most zealous for its success. This has deservedly been very great.

To the *Edinburgh Review* he early became a contributor, and he has often been heard to express the delight with which he saw his first article in 'the Blue and Yellow.' This led to his friendship with Mr. (afterwards Lord) Jeffrey, and among the more intimate friends whose society he enjoyed during his residence in Scotland may be mentioned Leslie, Macevey Napier, Thomas Thomson, Adam Black, and Mr. James Gibson Craig.

From the interesting notices contained in his *Catalogue*, to which further reference will presently be made, is copied his own account of his connection with the *Review*.

I made my *debut* in the *Edinburgh Review* in 1818, by contributing to it an article on Ricardo's *Principles of Political Economy*. I was not previously acquainted with Jeffrey, the editor, and as the theories advanced in the article were subversive of many doctrines previously entertained, Jeffrey was a good deal blamed for giving a person, of whom he knew nothing, permission to bring them forward. He, however, being satisfied of their correctness, was in no degree influenced by this petty hostility, and I continued for about twenty years to write pretty regularly for the *Review*. I contributed almost all the economical articles that appeared in it during that period, with a few on other subjects. Jeffrey was an admirable person, and my intercourse with him was of the most satisfactory description, and so, also, was my intercourse with his successor in the editorship, Mr. Macevey Napier. It was not owing to any proceeding on the part of the latter that I finally withdrew from the *Review*. My contributions to it make, when collected, three thick octavo volumes.

In 1825 an Edinburgh professorship seems to have been the height of his ambition, and at this time, with a desire to realise his wishes, an attempt, but a fruitless one, was made by some of his friends to induce the Government to endow a chair of Political Economy in the northern capital.

Lord Cockburn, in his *Life of Jeffrey*, vol. i. pp. 277-78, gives a short account of the attempt and its failure:—

Political Economy is so recent a science that no provision for its being taught could be made by the constitution of old colleges. Accordingly, it was never taught in any Scotch college, except by Professor Mylne at Glasgow, and by Dugald Stewart, in his two short and very general courses, at the beginning of this century. Having now become the most important of all the practical moral sciences, an effort was made during this summer (1825) to obtain a Regius Professorship for it in Edinburgh, and to confer the office on Mr. John R. McCulloch, who had already given excellent lectures on this subject, and was rising into the position he has attained, as the first economist of the age. The scheme was at first warmly patronised by Mr. Wallace, the President of the Board of Trade, by Canning, Huskisson, and Lord Dudley. Mr. Huskisson recommended that a memorial should be got from Edinburgh, respectably, but not numerously signed, offering to endow the chair, and praying the Crown to erect it, which he engaged to lay before the Government. Jeffrey, who took a deep interest in the affair, both from his conviction of its utility, and from his regard for Mr. McCulloch, and his certainty of his friend's fitness, drew up the memorial, which was subscribed by thirty or forty excellent names, including those of five judges and twelve professors, who, 'or some of them,' engaged to secure an adequate endowment. But at this stage an unworthy obstacle was thrown in the way from Edinburgh, and the plan was defeated.

We find, however, that previously, for three successive years, he had delivered lectures in Edinburgh on a variety of politico-economical subjects; and in 1824, and for some years subsequently, he delivered similar lectures in London. These were numerous, and among his auditors were several statesmen since distinguished as Cabinet Ministers, and many of the leading bankers, merchants, and foremost men of the day, of all shades of politics. The celebrity he thus acquired, and his well-established reputation as one of our ablest writers on economical questions, doubtless led to the offer made to him, in 1827, of the Professorship of Political Economy in the University College of London. This offer he ultimately accepted, and towards the end of 1828 he removed with his family to the metropolis; but, not finding the appointment what he expected or could wish, he resigned the chair in 1832.

His articles in the *Edinburgh Review* show how early Mr. McCulloch dealt with some subjects of that class which he afterwards treated so clearly and concisely in his great digest of Trade and Navigation. As will be seen from the annexed list, his contributions were seventy-eight in all; and we find him writing on the Currency in 1818, urging free trade with France in 1819, and attacking the Corn Laws and restrictions on our foreign commerce in 1820; in 1823 denouncing the Navigation Laws, the discriminating duties on East and West India sugar, and the duty on foreign wool; in 1824 exposing the iniquity of the East India Company's monopoly of tea, and so on with regard to many kindred abuses, till 1837, when he finally laid down the pen of a reviewer. They all show, too, how heartily he recommended those commercial and financial reforms which he fortunately lived to see effected.

After spending well-nigh twenty years in accumulating materials, the author, in 1832, produced *The Commercial Dictionary*, one of the greatest boons of a literary kind ever conferred upon the commercial world. In the preface to the first edition of this work, he explains how he arrived at the conclusion that there was room for a new Dictionary of Commerce and Commercial Navigation. The public agreed with him that it was a desideratum, and that he supplied what was really very much wanted. The success of the Dictionary has been almost unexampled. Edition after edition has been called for, and many thousands have been sold. It has been republished in America, and translated into several languages, and is referred to for the adjustment of mercantile disputes in all quarters of the globe. Since its first publication it has greatly increased in bulk, and is, in truth, a gigantic work, for if printed like ordinary books it would make at least thirty volumes octavo. The author was naturally proud of its popularity and reputation; and here we cannot resist the temptation to repeat, by way of illustration, an anecdote told lately at a public meeting by a friend of his, now a learned lord and a Scotch judge.\* He said, speaking of Mr. McCulloch, "He asked me once, "Do you ever quote my *Commercial Dictionary* in Court?" I said, with some emphasis, "Never; we never quote it, and we never mention it. Sometimes," I said, "a set of papers come in upon us at night upon a mercantile

\* Lord Neaves.

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question that we know nothing about, and we go up to our shelves and take down the *Commercial Dictionary*, and find all we want there, and next morning we come out, to the astonishment of our clients, with better information upon the subject than they have themselves; but we never mention McCulloch's *Dictionary*." (Laughter and cheers.) And that pleased the old man, who had been rather vexed by my first observation, better than it was easily possible to please him.'

While it may be said, therefore, that the *Commercial Dictionary* is undoubtedly his *opus magnum*, and that by which he is best known, still it would be unjust, even in the most cursory notice of his labours, not to particularise his *Descriptive and Statistical Account of the British Empire*, which first appeared in 1837, and the *Geographical Dictionary*, first published in 1841. Their titles are sufficiently suggestive of enormous toil and research, and if he had done nothing else, these works would afford very remarkable proofs of his untiring industry and vigorous faculties.

In the article 'Whithorn' in his *Geographical Dictionary* he appears to have been unable to repress his strong attachment to his native place, which finds vent in these words: 'We may perhaps be excused, if, towards the close of this lengthened and laborious survey of so many countries and places, we have lingered for a moment over scenes once familiar, and still well remembered. The associations which the mention of this locality calls up are all redolent of joy and youth, and are too soothing and pleasing to be instantly dismissed.'

This *Dictionary*, however, was scarcely out of hand before his thirst for work found vent in another project, to which he alludes in a letter of November 12, 1840, to an intimate friend in Edinburgh. After stating that he was anxious for the conclusion of the *Geographical Dictionary* only that he might plunge into another, he adds:—

I am resolved, unless some unforeseen event occur, to commence a Dictionary of Politics and Political Economy, the instant I get this one out of the way. I shall not be satisfied with myself if I do not produce this work, and it is necessary I should lose no time in grappling with it, as unfortunately one gets old, and not so fond of or fit for hard work.

This project was never carried out.

Of his minor works the best known are his *Principles of Political Economy*, his *Principles and Practical Influence of Taxation and the Funding System*, and his book on Wages, all of which have gone through several editions; his *Treatises and Essays on Economical Policy*, containing biographies of Quesnay, Smith, and Ricardo, and a work on *Succession to Property vacant by Death*, which treats of the effect of primogeniture and compulsory partition of land &c. on the state of a nation.

Of his editorial labours, the most important is his edition of the *Wealth of Nations*. Francis Horner and Malthus, we believe, had projected editions of Smith, but neither of them realised his intentions. An edition worthy of the subject was thus reserved for Mr. McCulloch, whose studies and pursuits eminently qualified him for this duty. The first edition was published in 1828, in 4 vols. 8vo.; and ten years later it was condensed into one very thick volume. The last edition, published in 1863,

embodying the editor's Life of Smith, an Introductory Discourse and Supplemental Notes and Dissertations, forms a complete code of Political Economy. Towards the end of his career Mr. McCulloch thus characterised the *Wealth of Nations*: 'It is not in truth a book for one country or one age, but for all countries and all ages; and will always be regarded as a noble monument of profound thinking, various learning, and persevering research, applied to purposes of the highest interest and importance.'

Next to Adam Smith, the father of the science, Mr. McCulloch ranked David Ricardo as having done most to advance it. From 1816 to 1823, the year of Ricardo's death, they had corresponded frequently on subjects connected with Political Economy. In one of his letters Mr. Ricardo thus characterises one of Mr. McCulloch's early papers on Currency: 'It appears to me so able, so clear, so convincing, that I shall be puzzled to account for the obstinate prejudices of those who no doubt will continue to refuse their assent to doctrines so mathematically demonstrated.' In 1846 he published an edition of Ricardo's works, in 1 vol. 8vo. The admiration for that writer's talents, expressed in Mr. McCulloch's first contribution to the *Edinburgh Review*, was apparently never lessened, for in his *Catalogue* he pronounces Ricardo's works 'one of the most valuable volumes, if it be not the most valuable, to be met with in the wide range of Economical Literature;' and he adds, that 'what the researches of Locke and Smith did for the production of wealth, those of Ricardo have done for its value and distribution.' Personal friendship may, perhaps, have slightly tinged this eulogium, which must, at any rate, satisfy the most enthusiastic of Ricardo's admirers.

Mr. McCulloch's advocacy of Liberal measures, and his unquestionable fitness for public employment, gave him strong claims on the Whig Government; yet, while their harvest was being gathered, this sower of good seed was for a time overlooked, and certainly it was not till after many irritating disappointments, and years of hope deferred, that he was, in 1838, appointed by Lord Melbourne to the Comptrollership of the Stationery Office, a situation he held till his death. Here his enlightened and practical views enabled him at an early period to carry out extensive reforms, and to effect, for upwards of a quarter of a century, large annual savings of the public money. His energy in this direction was constant and irrepressible. The nature and extent of his services are recorded in the Parliamentary papers of his time: their value, too, was fully recognised in high quarters, and there are good grounds for saying that Mr. McCulloch was nowhere more respected and appreciated than at the Treasury, where his valuable qualities as a public servant were necessarily well known. The *Times* of May 4, 1861, in an article devoted to the Stationery Office, complimented him by saying, 'It is controlled, fortunately for the country, by Mr. McCulloch, and a sturdier guardian of the public purse it would be hard to find.' But while he did his best to promote economy in the public expenditure, he did not neglect the material interests of those associated with him in official duties. He was always most desirous that those who worked well should be paid well.

No occupation, however, diverted him long from the study of his

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favourite science, and he was even wont to express a wish to return to this world some 300 years hence, to look for the solution of various problems, and see whether his doctrines and anticipations would prove true. Having expressed such a desire in a letter of December 9, 1842, to Jeffrey, we find the latter answering thus on the 12th: 'I quite sympathise with you in your wish that we could be allowed to see more than we are likely to do of the actual working of the causes that are now in operation, and the movements that are visibly begun. I am more modest, however, in my prayer for the gift of prescience than you are, and should be satisfied to have a clear vision of the condition of this country some time about the year 1900, before which, I feel persuaded, the problems we are puzzled about will all be substantially resolved. Indeed (if it were the same thing to the Power who can alone grant such prayers), I should prefer being *allowed to live and see the results* in their actual accomplishment, rather than wonder at them in a prophetic dream. But I should be glad to have either of the boons.\*'

The domain of Political Economy was no doubt that which Mr. McCulloch most assiduously cultivated, but he did not by any means give it his undivided attention. He was well read on a great variety of subjects, was possessed of much general information, and his classical attainments were not inconsiderable. He had also an extensive acquaintance with the literature of France, more especially those branches bearing on Political Economy and Biography. In 1843 he was elected a Foreign Associate of the French Institute, in the room of Sismondi, having 16 votes out of 18. As the other nominees were men of such mark as Hugo and Ranke, this unsolicited honour was highly prized by Mr. McCulloch, who did not set much value on literary distinctions that were common or easily attainable.†

By this time he occupied a conspicuous place in the public eye. Some of his doctrines might be disputed, but no one denied his great and unquestionable merits as the reformer of our commercial code. The well-known truths of free trade had been expounded in his writings and in his lectures long before their advocacy became a popular cry. In truth, no other writer had done so much to prepare the way for those memorable commercial reforms which signalised the administration of Sir Robert Peel. And he testified his respect for Mr. McCulloch's services by bestowing on him, in 1846, a pension of 200*l.* a-year. Few events in his life afforded him higher gratification than this. To a man with a numerous family, such an addition to his income was, doubtless, acceptable; but what he valued infinitely more was Sir Robert Peel's mode of giving it, and the high compliment paid to him by one for whom Mr. McCulloch had long entertained the highest regard. When he could not have had the remotest expectation of receiving such an honour from that statesman, Mr. McCulloch, in a pamphlet (*Observations on the State of the Country*), published anonymously in 1830, thus speaks of him:—

\* Cockburn's *Life of Jeffrey*.

† On March 4, 1865, Mr. Gladstone was elected Mr. McCulloch's successor in the French Institute.

Did popularity always attach to merit, Sir Robert Peel would be, at this moment, the most popular man in England. The country never has had, and never will have, a more upright and disinterested minister, and seldom one more able. He has made incomparably greater sacrifices than any man now in Parliament for the sake of the public.

Our author took the earliest opportunity of testifying his gratitude to Sir Robert for the substantial and unexpected benefit just referred to, by dedicating to him the third edition of the *Statistical Account of the British Empire*.

In the course of fifty years Mr. McCulloch amassed a very valuable library, consisting of about 10,000 volumes, and its gradual acquisition afforded him the highest gratification. He makes the following acknowledgment in the preface to his *Catalogue*: 'Their acquisition has been a business in which I have always taken the greatest interest; it has not palled upon me for a single moment; and their possession, besides the gratification it has afforded, has been so far useful that it has enabled me to finish works of much research and labour without either resorting to public libraries or borrowing books.' His love for books, particularly fine books, was certainly very great, and he defended his admiration of well-bound ones (if, indeed, any defence be necessary), by citing the example of his great chief, Adam Smith, who admitted he was a 'bean in his books.' For those that had only rarity to recommend them Mr. McCulloch cared nothing; but an English classic bound in old morocco gave him a delight which only the deeply initiated in such matters can either understand or appreciate. The only alloy to his pleasure seems to have been the belief that his library would be dispersed at his death. But his fears on this head proved to be ill-founded. His fine collection has been fortunately kept together, and acquired in its entirety by Lord Overstone, a friend for whom Mr. McCulloch entertained the very highest regard and respect.

In 1845, he published *The Literature of Political Economy*, a classified catalogue of select publications in the different departments of that science. In the preface he says:—

If we have succeeded in our object, this work will be in some measure a History of Political Economy, as well as a Critical Catalogue of the principal Economical works. It contains short notices of the rise of some of the principal theories, and of the circumstances which appear, at different periods, to have strongly determined public opinion upon economical questions and given birth to classes of books. Without such notices, indeed, no just estimate could be formed of the latter.

In 1856 he printed privately a *Catalogue raisonné* of the more important part of his library, which he afterwards elaborated and reprinted in 1862, under the title of *Catalogue of the Library of a Political Economist*. This abounds in curious and valuable information, critical, biographical, and bibliographical, but, being unpublished, is known only to his friends, by whom, however, it is much prized. Though some of his estimates of distinguished living writers are not free from prejudice, his critical opinions are generally sound and well-considered, and he has scattered through the work some autobiographical sketches, of which a few have been introduced into this notice.

He was an original member of the Political Economy Club, and selected for the press and wrote prefaces for two volumes of scarce and curious tracts on Money and Commerce, reprinted by that body in 1856.

His more extensive editorial services for Lord Overstone were performed, we believe, from personal friendship for his Lordship, between whom and Mr. McCulloch there existed complete agreement of opinion on some of the most important Economical questions. It was at Mr. McCulloch's suggestion that Lord Overstone agreed in 1857 to reprint, in a collected form, for distribution among his friends, the various tracts on the currency written by him at different times. It was at Mr. McCulloch's suggestion also that his Lordship reprinted privately in 1857-59 that collection of scarce tracts on trade, finance, currency &c., which, though limited in circulation, is well known to all who take an interest in such subjects. This collection consists of four large octavo volumes, and is of great value. Besides selecting the tracts to be reprinted, Mr. McCulloch wrote a preface and notes to each volume, and his having been instrumental in preserving and putting them into this shape was a source of great pride and satisfaction to him.

Dr. Johnson, in his *Life of Roger Ascham*, remarks that 'the incidents of a literary life are but seldom observed, and therefore seldom recounted.' While this apothegm is singularly inapplicable to Johnson himself, whose minutest sayings and doings have been so carefully chronicled by Boswell, it is appropriate enough to the subject of this brief memoir. The production of his several works and his literary successes formed the chief epochs of Mr. McCulloch's busy and useful life, which boasted none of those exciting episodes, that would in truth have been unsuitable to the position and studies of a philosopher.

In enumerating some of his more salient and good qualities it may be said, with great truth, that he was a warm and steady friend, and that in him the home affections and attachment to his family were particularly conspicuous. Sydney Smith says, 'Human excellence is so often inverted, and great talents considered as an excuse for the absence of obscure virtues.' This sarcasm, however, could not in the slightest degree be applied to the author of this *Dictionary*, for nowhere did he appear to so much advantage and so perfectly happy as in his own house, with all the members of it around him.

In a notice of his death given in the *Scotsman* (which in various parts bears the impress of his old friend and brother editor, the late Mr. Maclaren), some remarkable features in his character are well described in these terms:—

Endowed with an enormous capacity for the mastery of facts and figures; of great sagacity, and manly common sense; with a power of continuous application to the most arduous mental labour, that seemed absolutely exhaustless; with a vigour of will that led him readily into dogmatism; and an independence of judgment that occasionally revelled in arbitrary assertion and cherished prejudice, Mr. McCulloch, as compared with the milder literary stamp of our later day, had something almost Johnsonian in his intellectual aspect and style. In all his works this strong individuality of character from time to time asserts itself, sometimes oddly enough by the interjection perhaps of a strongly pronounced opinion in the midst of what seemed to be, and really ought to have been, only an unimpassioned statement of dry facts or abstract principles,

Mr. McCulloch was not a party politician, but he hailed good measures, especially for the enfranchisement of commerce, however they originated. So far as the Representation of the people in Parliament is concerned, he was not what is called an advanced reformer, inasmuch as he did not in the least sympathise with those who would commit a large share of political power to the million. What he inveighed against in his youth was the election of members of Parliament by the self-chosen town councils of the Scotch burghs, but he disliked and distrusted the opposite extreme quite as much.

We have heard it remarked that Mr. McCulloch possessed in a great degree the inflexibility of the old Roman character. But under an occasionally stern exterior there dwelt great simplicity of character, a good heart, and a most social and hospitable disposition. He was very decided both in his likes and dislikes, and in his expression of them he was pithy and unreserved. Most especially he hated all shams, from an inconvertible paper currency downwards. Very few objects claimed his admiration more than the merchant prince of high honour, who, having achieved a fortune, takes a creditable or distinguished part in the councils of the nation. On the other hand, he as cordially detested the merchant pirate, who under solvent colours preys on his fellows, and brings ruin on the ignorant and confiding. But Mr. McCulloch was quite enthusiastic in his praise of the upright man who strives, by self-denial and self-sacrifice, to do his duty to his neighbour. We have heard his own quote with emphasis and delight the well-known eulogy of Burns' poet on Heron of Kerroughtree, the banker, who, having been unsuccessful in business, gave up all, and lived in a cottage till he had paid every creditor to the utmost farthing.

And there will be trusty Kerroughtree,  
Whose honour was ever his law;  
If the virtues were pack'd in a parcel,  
His worth might be sample for a'.

*Burns's second Heron Ballad.*

Mr. McCulloch was tall and of strong constitution,\* on which, however, frequent attacks of bronchitis had made serious inroads during the last two years of his life.

He married early and most happily, and died at the Stationery Office, Westminster, on November 11, 1864 (the 53rd anniversary of his marriage), in the 76th year of his age. He was interred in the Brompton Cemetery on November 18, and there his widow, Isabella Stewart, was laid by his side in July 1867.

H. G. R.

May 1869.

\* Of the various portraits of Mr. McCulloch, those most worthy of notice are a kit-cat by Bewick, dated 1825, and a later full-length portrait by Macnæ. There are also two very good marble busts of him, the first by Joseph and the second by Slater.

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*LIST OF ARTICLES CONTRIBUTED TO THE EDINBURGH  
REVIEW BY MR. McCULLOCH.*

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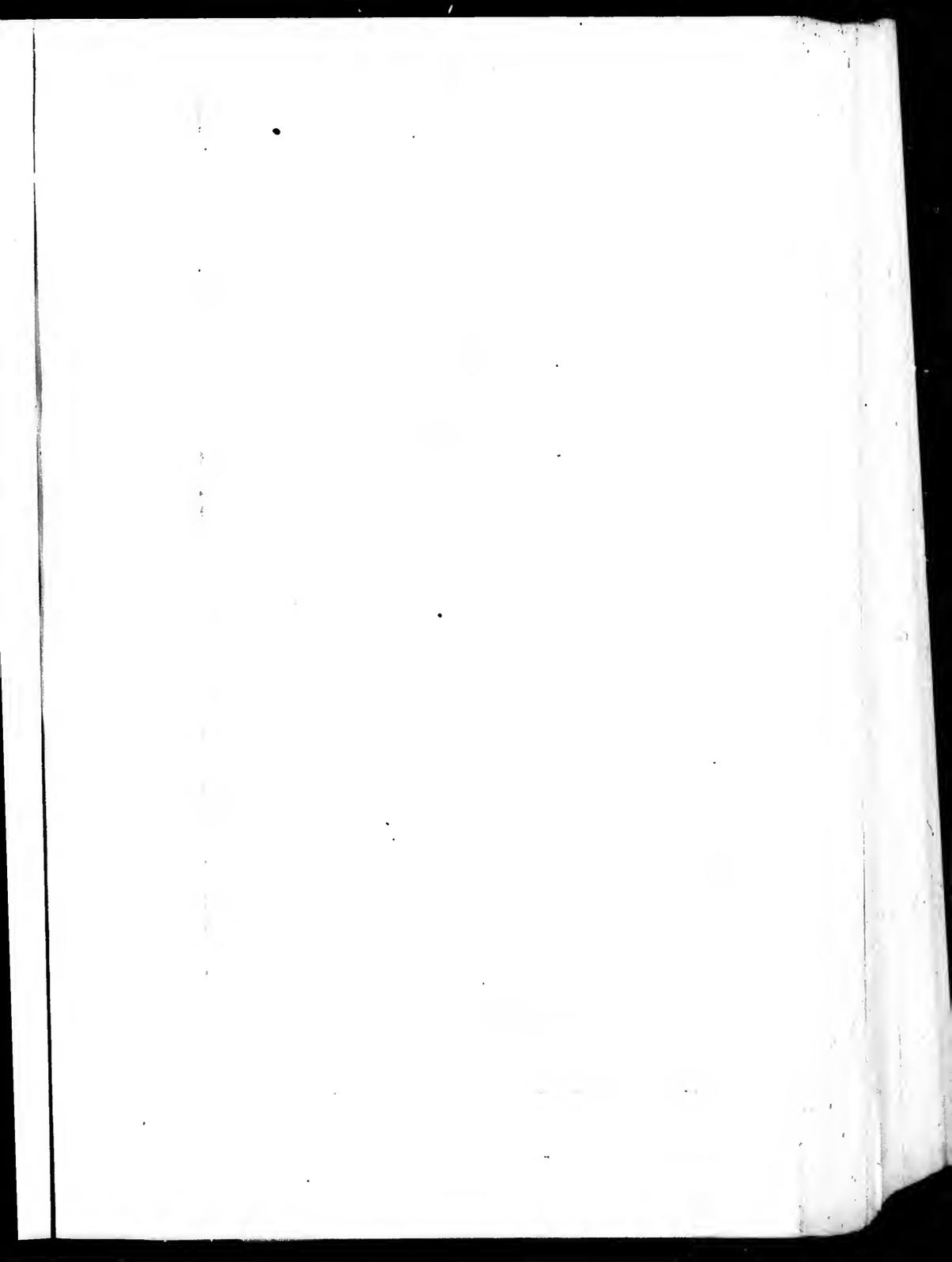
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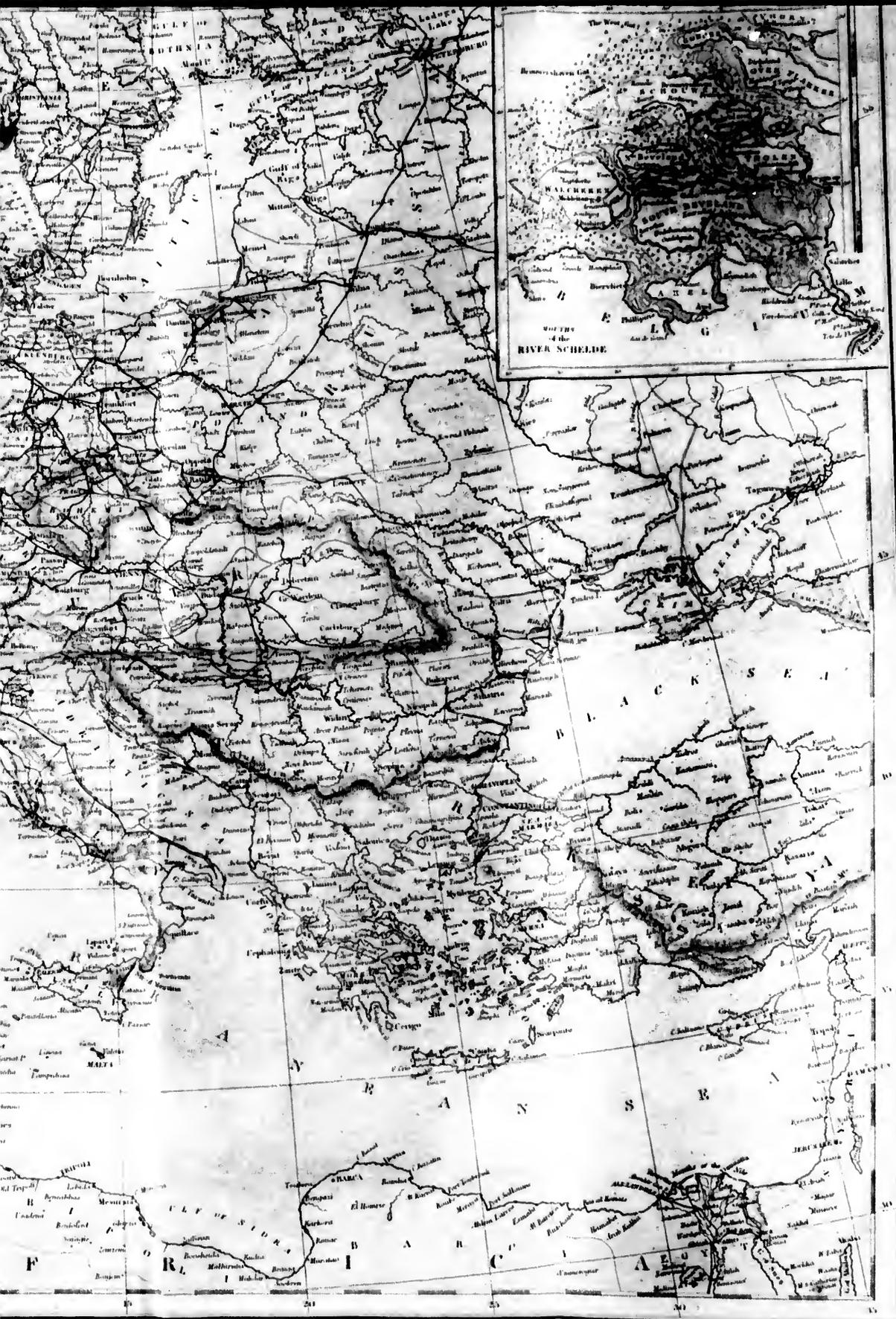
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A DICTIONARY  
OF  
COMMERCE AND COMMERCIAL NAVIGATION.

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AAM

AAM, AUM or AHM. A measure for liquids, used at Amsterdam, Antwerp, Hamburg, Frankfurt, &c. At Amsterdam it is nearly equal to 41 English wine gallons, at Antwerp to 36½ ditto, at Hamburg to 38½ ditto, and at Frankfurt to 39 ditto. It is principally used for wine and oil. The Amsterdam Aam of oil contains about 36 gallons.

ABACA. The Indian name of the hemp of the Philippine Islands. [HEMP MANILLAS.]

ABANDONMENT (Fr. *délaissement*). In Commerce and Navigation, this term is used to express the abandoning or surrendering of the ship or goods insured to the insurer.

It is held, by the law of England, that the insured has the right to abandon, and to compel the insurers to pay the whole value of the thing insured, in every case where, by the happening of any of the misfortunes or perils insured against, the voyage is lost, or not worth pursuing, and the projected adventure is frustrated; or where the thing insured is so damaged and spoiled as to be of little or no value to the owner; or where the salvage is very high; or where what is saved is of less value than the freight; or where further expense is necessary, and the insurer will not undertake to pay that expense, &c. (Marshall, book i. ch. xiii. s. 1.)

Abandonment is defined by Arnould (*Marine Insurance*) to be 'the act of cession by which in cases where the loss or destruction of the property though not absolute is highly imminent, or its recovery is too expensive to be worth the attempt, the assured, on condition of recovering at once the whole amount of the insurance, relinquishes to the underwriters all his property and interest in the thing insured as far as it is covered by the policy, with all the claims which may arise from its ownership and all the profits which may arise from its recovery.' (3rd edit. p. 852.)

The abandonment of the insured must be of his whole interest, in the thing insured, in so far as that interest is covered by the policy, the extent of the interest covered by the policy determining the maximum quantity which the underwriter can claim to have transferred to him. Hence the insured must discriminate in his policy the different subjects of insurance, for if ship and cargo are jointly insured, there cannot be a total abandonment. This is the law also in the United States, and is so held by Emerigon the French jurist

ABANDONMENT

(vol. ii. p. 215). But if different objects be insured for different sums, each may be insured by itself, and each abandoned by itself.

No one can abandon who has not at the time of the loss an absolute right of ownership. Hence one with whom a policy of insurance has been deposited as a security for a loan, has no implied authority to give notice of abandonment. That he should do so, requires the express authority of the owner. In the courts of the United States, it has been held that the assured after abandoning all his interests to one set of underwriters, cannot again make abandonment of the same interest to other underwriters. (13 *Mass. Rep.*)

Abandonment very frequently takes place in cases of capture: the loss is then total, and no question can arise in respect to it. In cases, however, in which a ship and cargo are recaptured *within such a time that the object of the voyage is not lost*, the insured is not entitled to abandon. The mere *stranding* of a ship is not deemed of itself such a loss as will justify an abandonment. If by some fortunate accident, by the exertions of the crew, or by any borrowed assistance, the ship be got off and rendered capable of continuing her voyage, it is not a total loss, and the insurers are only liable for the expenses occasioned by the stranding. It is only where the stranding is followed by *shipwreck*, or the ship is in any other way rendered incapable of prosecuting her voyage, that the insured can abandon.

It has been decided, that damage sustained in a voyage to the extent of forty-eight per cent. of the value of the ship did not entitle the insured to abandon. If a cargo be damaged in the course of a voyage, and it appears that what has been saved is less than the amount of freight, it is held to be a total loss. (*Park On Insurance*, ch. ix.)

When by the occurrence of any of the perils insured against the insured has acquired a right to abandon, he is at liberty either to abandon or not, as he thinks proper. He is in no case bound to abandon; but if he make an election, and resolve to abandon, he must abide by his resolution, and has no longer the power to claim for a partial loss. In some foreign countries specific periods are fixed by law within which the insured, after being informed of the loss, must elect either to abandon or not. In this country, however, no particular period is fixed for this purpose; but the

rule is, that if the insured determine to abandon, he must intimate such determination to the insurers within a *reasonable period* after he has got intelligence of the loss—any unnecessary delay in making this intimation being interpreted to mean that he has decided not to abandon. As short a period as five days after knowledge that the ship was condemned, was, however, held by Lord Ellenborough as too late a notice. (*Hunt v. Royal Exch. Assur. Co. 5 M. and Sel. 47.*)

No particular form or solemnity is required in giving notice of an abandonment. It may be given either to the underwriter himself, or the agent who subscribed for him. But it must be stated, whether orally or in writing, in unequivocal terms. Lord Ellenborough expressed an opinion that the word 'abandon' should be used in order to make it effectual. The notice ought also to contain a statement of the causes which have led to abandonment.

In some cases losses may be cumulative. Lord Ellenborough laid down, that 'there may be cases in which though *a priori* damages may be followed by a total loss, the assured may, nevertheless, have rights or claims in respect of that prior loss which may not be extinguished by any subsequent total loss. Actual payments for repairs made in consequence of injuries suffered at sea, and occurring prior to the total loss are of this character. It has been held by the Court of Common Pleas (*Le Cheminant v. Pearson, 4 Taunt. 367*) that a plaintiff might recover, in addition to a total loss, for sums so expended.

The effect of an abandonment is to make the owners trustees for the underwriters. Abandonment does not vest the property. The registry Acts prevent this from passing, except in a certain way. (Lord Tmro in the House of Lords, *Scottish Mar. Ins. Co. v. Turner*.) The latter become the legal owners of the ship, and as such are liable for all her future outgoings, and entitled to her future earnings. An abandonment, when once made, is irrevocable.

In case of a shipwreck or other misfortune, the captain and crew are bound to exert themselves to the utmost to save as much property as possible; and to enable them to do this without prejudice to the right of abandonment, our policies provide that, 'in case of any loss or misfortune, the insured, their factors, servants, and assigns, shall be at liberty to sue and labour about the defence, safeguard, and recovery of the goods, and merchandises, and ship, &c., without prejudice to the insurance, to the charges whereof the insurers agree to contribute, each according to the rate and quantity of his subscription.'

'From the nature of his situation,' says Mr. Serjeant Marshall, 'the captain has an implied authority, not only from the insured, but also from the insurers and all others interested in the ship or cargo, in case of misfortune, to do whatever he thinks most conducive to the general interest of all concerned, and they are all bound by his acts. Therefore, if the ship be disabled by stress of weather, or any other peril of the sea, the captain may hire another vessel for the transport of the goods to their port of destination, if he think it for the interest of all concerned that he should do so; or he may upon a capture, appeal against a sentence of condemnation, or carry on any other proceedings for the recovery of the ship and cargo, provided he has a probable ground for doing so; or he may, upon the loss of the ship, invest the produce of the goods saved in other goods, which he may ship for his original port of destination; for whatever is recovered of the effects insured, the captain is accountable to the

insurers. If the insured neglect to abandon when he has it in his power to do so, he adopts the acts of the captain, and he is bound by them. If, on the other hand, the insurers, after notice of abandonment, suffer the captain to continue in the management, he becomes their agent, and they are bound by his acts.

As to the sailors, when a misfortune happens, they are bound to save and preserve the merchandise to the best of their power, and while they are so employed they are entitled to wages, so far, at least, as what is saved will allow; but if they refuse to assist in this, they shall have neither wages nor reward.

The policy of the practice of abandonment seems very questionable. The object of an insurance is to render the insurer liable for whatever loss or damage may be incurred. But this object does not seem to be promoted by compelling him to pay as for a total loss, when, in fact, the loss is only partial. The captain and crew of the ship are selected by the owners, are their servants, and are responsible to them for their proceedings. But in the event of a ship being stranded, and so damaged that the owners are entitled to abandon, the captain and crew become the servants of the underwriters, who had nothing to do with their appointment, and to whom they are most probably altogether unknown. It is admitted that a regulation of this sort can hardly fail of leading, and has indeed frequently led, to very great abuse. We, therefore, are inclined to think that abandonment ought not to be allowed where any property is known to exist; but that such property should continue at the disposal of the owners and their agents, and that the underwriters should be liable only for the damage really incurred. The first case that came before the British courts with respect to abandonment was decided by Lord Hardwicke, in 1744. Mr. Justice Buller appears to have concurred in the opinion now stated, that abandonment should not have been allowed in cases where the loss is not total.

For further information as to this subject, see the excellent works of Mr. Serjeant Marshall (*book i. ch. xiii.*), of Mr. Justice Park (*ch. ix.*) *On the Law of Insurance*, Arnould *On Marine Insurance*, Pritchard's *Admiralty Digest*, Maude and Pollock's *Law of Merchant Shipping*, and Emérigon's *Traité des Assurances et des Contrats*. For *American Law*, see Duer, Parsons, Phillips.

**ABATEMENT or REBATE.** The name sometimes given to a discount allowed for prompt payment; sometimes for the difference between the value of an immature bill and the same instrument when arrived at maturity. It is also sometimes used to express the deduction that is occasionally made at the custom-house from the duties chargeable upon such goods as are damaged, and for loss in warehouses. All claims for abatement of customs' duties are regulated by the Customs Consolidation Act, 16 and 17 Vict. c. 107 (1853), ss. 76, 96 and 97. Goods derelict, &c., and droits of the Admiralty are treated as foreign goods. No abatement may exceed three-fourths of the duty to which such goods may be liable; and no abatement is allowed on *coculus indicus*, *nux-vomica*, rice, Guinea grains, lemons, spirits, corn, grain meal, flour, opium, sugar, cocoa, oranges, tea, coffee, pepper, tobacco, currants, raisins, wine and figs. The above are nearly all the articles still liable to customs' duty.

**ABSINTH.** *Wormwood.* Produced from the *Artemisia absinthium*. The plant is indigenous to Southern Europe, is bitter and aromatic, and is used in medicine, but is principally employed for distillation of a liqueur largely used on the Conti-

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ment, and of which the most important manufactories are at Couvet in Switzerland and at Pontarlier in France. The use of absinthe is reputed to be on the increase in France, and to be productive of very mischievous effects.

**ACACIA.** [*GUM ARABIC.*]

**ACAPULCO.** A celebrated sea-port on the western coast of Mexico, in lat. 16° 50' 29" N., long. 99° 46' W.

Before the emancipation of Spanish America, a galleon, richly laden, was annually sent from Acapulco to Manilla, and on her return a fair was held, much resorted to by strangers. This sort of intercourse is no longer carried on, the trade to Manilla and all other places being now conducted by private individuals. Acapulco is extremely unhealthy, and its commerce is inconsiderable. The moneys, weights and measures, are the same as those of Spain. [*CADIZ.*]

**ACIDS.** A class of bodies which are distinguished from all others by the following properties. They are generally possessed of a very sharp taste; redden the infusion of litmus and most organic blue or violet colouring matters; are often highly corrosive, and enter into combination with the alkalies, alkaline earths, and metallic oxides: forming compounds in which the characters of the constituents are totally destroyed and new ones produced, differing entirely from those previously existing. The last is the only one of these properties which can be considered essential to acids; indeed comparatively few acids possess them all.

The number of acids known is very great, but it is only those which are largely employed in the arts and manufactures that will be here treated of, as they only form articles of commerce. The most important acids of commerce are: arsenious, acetic, benzoic, boracic, carbolic, carbonic, citric, gallic, hydrochloric, hydrofluoric, hydrocyanic, malic, nitric, oxalic, pyrogallic, sulphurous, sulphuric, tannic, tartaric, uric, and the so-called fatty acids, stearic, margaric and oleic.

*Acetic or Pyroligneous Acid*—is obtained by the destructive distillation of dry hard woods, such as oak and beech, at a red heat. The distillation is conducted in an iron cylinder of large dimensions, to which a worm or condenser is attached; a sour water, a quantity of tar and much inflammable gas, pass over, leaving charcoal of excellent quality in the retort. The crude product is then purified by a second distillation, the first portion being collected apart for the sake of the methylic alcohol it contains, and the remainder is saturated with lime and concentrated by evaporation. When the acid is required for the fabrication of other compounds used in the arts and manufactures, where great purity is not essential, it is prepared direct from the crude lime-salt by distillation with hydrochloric or sulphuric acid. But when great purity is required, the lime-salt is first submitted to a moderate heat, whereby many of the impurities (oleaginous and tarry matters) are charred, and its solution is subsequently clarified by means of albumen. The lime-salt is then transformed into a soda salt by distillation with sulphuric acid, and saturation of the distillate with soda ash, instead of decomposing it as formerly by mixing it with sulphate of soda. From the acetate of soda, after it has been freed from the last traces of impurity by crystallisation, the pure acetic acid is obtained by distillation with sulphuric acid. The acid thus prepared is now extensively used for fortifying malt vinegar. The most recent improvement in the manufacture of pyroligneous acid, is that of using sawdust, spent dye woods, &c., instead of wood in the process of destructive

distillation. This is done by causing these substances to pass in continuous motion through heated retorts by means of suitable machinery. The greater portion of the pyroligneous acid prepared in this country is employed in the manufacture of the acetates, particularly acetate of lead for the use of dyers and calico printers, and only a small portion is purified for household and other purposes. Acetic acid is also extensively employed to preserve animal and vegetable substances, and the acid from wood is preferable for this purpose, on account of the traces of essential oils which it contains, and which increase its antiseptic properties. Vinegar is an impure and dilute acetic acid obtained by exposing either weak wines or infusions of malt to the atmosphere or other oxidising influences and a slow fermentation. In Germany the process is much expedited by allowing the alcoholic liquid to flow over wood shavings steeped in a little vinegar in a large cylindrical vessel, through which a current of air is made to pass. Pyroligneous or acetic acid is manufactured in England, France, Germany and Sweden on a large scale; also in other civilised countries where wood is abundant and a demand exists for the acetates used in dyeing. The strength or quality of acetic acid is determined by neutralising with a standard alkaline solution, but as the acid itself is volatile, the standard solution ought to be made with a caustic not a carbonated alkali.

*Arsenious Acid or White Arsenic.*—It formerly appeared in commerce in the form of a heavy white glassy looking substance with a smooth conchoidal fracture, but is now generally met with as a white powder. It is a weak acid, and sparingly soluble in cold water but readily soluble in hot hydrochloric acid; also in alkalies, forming arsenites. This substance is obtained as a product of the calcination of arseniferous tin and cobalt ores in Saxony and of certain copper ores in England, and the crude arsenious acid thus produced is purified by sublimation. It is chiefly employed in calico printing, also in glass making, to reduce the sesquioxide of iron to protoxide, and forms one constituent of the substances known as Scheele's or Schweinfurt green. It is a most violent poison and has a feeble sweetish and astringent taste, its antidotes being sesquioxide of iron and magnesia. The price of arsenious acid is very low, being about 1*l.* per ton.

*Benzoic Acid*—exists naturally, formed in the gum benzoin, and may be procured either by submitting the benzoin in fine powder to repeated sublimations, or by digesting it with lime and water, straining off the clear solution, and adding hydrochloric acid, which enters into combination with the lime, and the benzoic acid, being nearly insoluble in water, falls as a white powder. This may be further purified by a sublimation. Benzoic acid is of a beautiful pearly white colour when pure, has a very peculiar aromatic odour, and an acid, acid, and bitter taste; it is used in making pastilles and perfumed incense. This acid also occurs in the balsams of Tolu and Peru, and in the putrid urine of the horse and cow.

*Boracic Acid*—is found in an uncombined state in many of the hot springs of Tuscany, as also at Sessa in the Florentine territory, from whence it received the name of Sessolin. In Thibet, Persia, and South America, it occurs in combination with soda, and is imported from the former place into this country in a crystalline form, under the name of Tincal. These crystals are coated with a rancid, fatty substance, and require to be purified by repeated solutions and crystallisations; after which it is sold under the appellation of borax (bi-borate

of soda); from a hot solution of this salt the boracic acid is readily obtained, by the addition of sulphuric acid in slight excess; sulphate of soda is formed, and the boracic acid crystallises as the solution cools. When pure, these crystals are white, and have an unctuous greasy feel; they are soluble in alcohol, communicating a green tinge to its flame. When fused the acid forms a transparent glass, and has been found by Mr. Faraday to unite with the oxide of lead, producing a very uniform glass, free from all defects, and well adapted for the purpose of telescopes and other astronomical instruments. Borax is much employed in the arts, particularly in metallurgical operations as a flux; also in enamelling, and in pharmacy. [BORAX.]

**Carbolic Acid or Phenol**—an oily colourless liquid, with a burning taste and the smell of creosote, is found in considerable quantity in coal tar, and is easily extracted therefrom by heating the heavier coal tar oils—those boiling between 300° and 400° Fahr.—with a solution of soda or milk of lime. The aqueous liquid is then separated from the undissolved oil, decomposed by hydrochloric acid, and the oily product obtained purified by cautious distillation. Most of the commercial creosote is simply carbolic acid, mixed with more or less water. Carbolic acid is principally used as an antiseptic disinfectant, either for, or in combination with, lime and sulphate of soda and lime (McDougal's powder), also in the preparation of dyes; viz, phenol blue, or azuline, and picric, or carbazotic acid.

**Carbonic Acid**.—This acid occurs very abundantly in nature, combined with lime, magnesia, barytes, aerial acid, fixed air, mephitic acid: from any of these it is easily separated by the addition of nearly any of the other acids. In its uncombined form it is a transparent, gaseous fluid, having a density of 1.53, atmospheric air being unity; it is absorbed to a considerable extent by water, and when the water is rendered slightly alkaline by the addition of carbonate of soda, and a large quantity of gas forced into it by pressure, it forms the well-known refreshing beverage soda water. This gas is also formed in very large quantities during combustion, respiration, and fermentation. Carbonic acid gas is destructive of animal life and combustion, and from its great weight accumulates in the bottoms of deep wells, cellars, caves, &c., which have been closed for a long period, and numerous fatal accidents arise frequently to persons entering such places incautiously. The precaution should always be taken of introducing a lighted candle prior to the descent or entrance of anyone; for should the candle be extinguished, it would be dangerous to enter until properly ventilated. The combinations of carbonic acid with the alkalic, earths, and metallic oxides are termed carbonates.

**Citric Acid**—exists in a free state in the juice of the lemon, lime, and other fruits, combined, however with muckage, and sometimes a little sugar, which renders it, if required to be preserved for a long period, very liable to ferment; on this account the crystallised citric acid is to be preferred. It is prepared by saturating the lemon juice with chalk; the citric acid combines with the lime, forming an insoluble compound, while the carbonic acid is liberated; the insoluble citrate, after being well washed, is to be acted upon by dilute sulphuric acid, which forms sulphate of lime, and the citric acid enters into solution in the water; by filtration and evaporation the citric acid is obtained in colourless transparent crystals. The chief uses to which it is applied are as a preventive of sea scurvy, and in making re-

freshing acidulous or effervescent drinks; for which latter purposes it is peculiarly fitted from its very pleasant flavour. Selling price about 2s. per lb.

**Fatty Acids**.—These are certain constituents of fatty bodies, i.e. of oils and fats of different animals, which act the part of acids towards several bases forming salts which bear the generic name of *soaps*. Thus the saponification of oils and fats consists in the combination of the acids they contain with certain bases, chiefly the alkalies, potassa, and soda. These acids are three in number, viz, stearic, margaric, and oleic, and exist in variable proportions in different fatty bodies. Thus oleic preponderates in oils, stearic in the fat of herbivora, and margaric in the grease of carnivora. They are extracted by certain processes more or less complicated, which result in their separation from a neutral principle called glycerine; but the process now most generally adopted is to mix the oil or fat with about one sixth part of oil of vitriol in large copper vessels, and heat the mass to 350° Fahr. by superheated steam. The neutral principle, glycerine, is at this temperature decomposed and the fatty acids set free. The liberated acids are then distilled in a current of steam and heated to 500° or 600°, by transmission through a red-hot pipe, and run into pans to solidify. The acids have then the consistency of butter, and are subjected to pressure to squeeze out the more fluid oleic acid. The decomposition of fats by highly heated steam only has lately been carried to great perfection, and has the advantage of yielding the glycerine in a very pure state. Stearic and margaric acids are white and crystallisable. They are sometimes confounded in commerce with stearine and margarine, which however, differ somewhat from them, being combinations of these acids with glycerine. Oleic acid is liquid at the ordinary temperature, and is separated from the other two by pressure. Of the three acids, stearic is by far the most important, on account of its being the principal constituent of the well-known candles. It has a brilliant white appearance and crystallises in laminae of pearly lustre. Its point of fusion is 158° Fahr. and it burns with a clear white flame. Stearic acid of commerce contains invariably some margaric acid, and a small quantity of wax is usually added to it to impart a more homogeneous appearance and a pleasant odour. Margaric acid is only used mixed with steam, and in the manufacture of candles. Oleic acid of commerce always contains portions of stearic and margaric acids, and some foreign substances which give it a reddish-brown colour, and in the impure state as extracted in the manufacture of stearic acid, is used for the manufacture of soap. These fatty acids are manufactured in large quantities in England, France, Holland, Belgium, Germany, and Russia.

**Gallic Acid**.—This acid, together with tannic acid, is obtained from nut-galls, which are excrecences produced on the leaves of a species of oak, the *Quercus infectoria*, by the puncture of an insect. Fresh galls yield very little gallic acid, which is produced by the decomposition of tannic acid, and differs somewhat from it inasmuch as it does not precipitate gelatin. The simplest method of preparing this acid in quantity is to take powdered nut-galls, mix them with water to a thin paste, and expose the mixture to the air in a warm situation for the space of two or three months, adding water from time to time to replace that lost by drying up. The mouldy dark-coloured mass produced is strongly pressed in a cloth and the solid portion boiled. The solution contains abundance of gallic acid, which may be crystal-

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Used if required. When pure, gallic acid has a white and silky appearance, and a highly astringent and slightly acid taste.

The nut galls, which owe their properties to the gallic acid they contain, are employed very extensively in the arts, for dyeing and staining silks, cloths, and woods of a black colour; this is owing to its forming with the oxide of iron an intense black precipitate. Writing ink is made on the same principle; a very excellent receipt of the late Dr. Black's is, to take 3 oz. of the best Aleppo galls in fine powder, 1 oz. sulphate of iron (green vitriol), 1 oz. logwood finely rasped, 1 oz. gum arabic, one pint of the best vinegar, one pint of soft water, and 8 or 10 cloves; in this case the black precipitate is kept suspended by the gum.

The following receipt is taken from the Bursar's roll of New College Oxford, for the year 1418: 3lbs. galls, 3lbs. copperas (sulphate of iron), 1½lb. gum. This ink has stood for four and a half centuries.

**Hydrochloric Acid.**—It was formerly called *Muriatic Acid* or *Spirit of Salt*. It is next in importance to sulphuric acid on account of its varied applications in the arts and manufactures, and the large scale on which it is produced as a by-product of the manufacture of soda from common salt. Hydrochloric acid in its anhydrous state is a colourless gas of 1·247 density, having so strong an affinity for water that one volume of that liquid absorbs 480 times its volume of the gas, and when thus saturated the liquid acid has a density of 1·21. The commercial acid, however, generally varies from 1·10 to 1·18 in density, containing from 30 to 36 per cent. of the dry acid. The decomposition of chloride of sodium (common salt) by sulphuric acid in the first stage of the soda manufacture [ALKALI; SODA] evolves hydrochloric acid in enormous quantities, which gas is passed through large towers constructed of stone and filled with coke, through which a stream of water continually percolates. Owing to the great affinity for water above alluded to, this mode of condensation is exceedingly perfect, and of the 13,000 tons evolved per annum in the United Kingdom only 43 tons escape, and in many works not a trace even can be discovered in the exit pipes of the apparatus. The acid thus produced is of a slightly yellow colour, owing to the presence of a small quantity of iron, and may contain traces of sulphuric acid (indicated by chloride of barium) and of arsenic when pyrites has been employed in the preparation of the oil of vitriol. For the majority of the applications these impurities are not of any moment, and may be easily removed when necessary. Most of the acid produced is directly converted into bleaching powder or chloride of lime [BLEACHING POWDER] or bicarbonate of soda [ALKALIES], but it is also used in large quantities in the manufacture of chlorate of potassa, salts of ammonia, gelatine and glue; chloride of tin, oxychloride of lead, chloride of barium, for galvanising iron, and in the extraction of copper from poor silicious copper ores. The quantity produced in England is about 13,000 tons per annum, and the selling price from 10s. to 5l. per ton, according to the purity of the acid, and the distance from the seat of manufacture. It is produced in most manufacturing countries, but in none to so great an extent as in England.

**Hydrocyanic or Prussic Acid.**—The kernels of bitter almonds, apricots, plums, cherries; the blossoms of the peach, slue, and mountain ash, the leaves of the peach, cherry, and laurel; and many other vegetable substances, when soaked in water and distilled, yield hydrocyanic acid together with

bitter almond oil. It exists ready formed in the moister parts of these substances, but the greater portion is produced by a fermentation of the amygdalin contained in the plants. There are many methods of preparing this, and for the purposes of medicine and chemistry, but that most usually followed is to pass sulphide of hydrogen through a solution of cyanide of mercury so long as it is absorbed. The solution is separated by filtration from the sulphide of mercury; the excess of sulphide of hydrogen, if any, may be removed by carbonate of lead. Another method is to decompose ferrocyanide of potassium (yellow prussiate) by diluted sulphuric acid, the proportions being 10 parts finely-powdered ferrocyanide; 5 parts of sulphuric acid; and 14 parts of water. The distilled product is collected in a well-cooled receiver. This acid is the most virulent poison known, and may be easily recognised by its characteristic odour.

**Hydrofluoric Acid.**—It is found in the well-known mineral fluor spar in combination with lime: from which it is procured in the liquid form by distillation with dilute sulphuric acid in a leaden or silver retort; the receiver should be of the same material as the retort, and kept cool by ice or snow.

This acid is gaseous in its pure form, highly corrosive, and intensely acid; it is rapidly absorbed by water, communicating its properties to that fluid. Its chief use is for etching on glass, which it corrodes with great rapidity. For this purpose a thin coating of wax is to be melted on the surface of the glass, and the sketch drawn by a fine hard-pointed instrument through the wax; the liquid acid is then poured on it, and after a short time on the removal of the acid and coating, an etching will be found in the substance of the glass. A very excellent application of this property, possessed by fluoric acid, is in the roughing the shades for table lamps. All the metals, except silver, lead, and platinum, are acted upon by this acid.

**Nitric Acid or Aquafortis.**—This, which is one of the most useful acids, was formerly prepared by acting upon nitrate of potassa (saltpetre) with sulphuric acid, but now, owing to its comparative cheapness, and the greater yield of acid, nitrate of soda, or Chilian saltpetre, is generally substituted. The proportions best suited for the purpose, are 100 parts nitrate of potassa to 96 parts of oil of vitriol, or 100 nitrate of soda to 117 oil of vitriol, and 30 parts of water.

The distillation is generally conducted in a cast-iron retort or cylinder, the nitric acid passes over in the form of vapour, and is collected in earthenware vessels connected by tubes, and a bisulphate of potash or soda (Sal nixum) remains in the retort. Nitric acid of commerce has usually a dark, orange-red colour, giving off copious fumes and having a specific gravity of 1·500. It may be obtained perfectly colourless by a second distillation, rejecting the first portion that passes over. It is strongly acid and highly corrosive, attacking energetically all organic substances. It also dissolves most metals, disengaging yellowish red fumes, and is a powerful presiding agent. It is used in the manufacture of gun cotton, nitro-benzol and picric or carbazotic acid. It is much employed in the arts for etching on copper plates, for engraving, also in the assaying and refining of gold and silver. In pharmacy and surgery it is extensively used, and is employed for destroying contagious effluvia. Combined with hydrochloric acid it forms aqua regia, used as a solvent for gold, platinum, &c. The price of nitric acid is about 6d. per pound.

**Oxalic Acid.**—It occurs in combination with potassa as binonate of potassa in different varieties of sorrel, hence the name salt of sorrel. This acid was formerly prepared by the action of nitric acid on sugar or starch, but it is now manufactured on a large scale, and much more cheaply by treating sawdust with a mixed solution of potassa and soda. The mixture is kept for some hours at a temperature of 400° Fahr., care being taken to avoid charring. The product thus obtained is a grey powder, and is treated with water at about 60° Fahr., which leaves the oxalate of soda undissolved. The supernatant liquor is drawn off, evaporated to dryness, and heated in furnaces to recover the alkalis. The oxalate of soda is washed and decomposed by boiling with hydrate of lime, and the resulting oxalate of lime, again decomposed by sulphuric acid. The liquor decanted from the sulphate of lime is evaporated to crystallisation in leaden vessels, and the crystals of oxalic acid purified by recrystallisation.

It is sold in small transparent colourless prisms of a strongly acid taste. It is intensely poisonous. In cases of poisoning by this acid, lime, or chalk mixed with water to form a cream, should be immediately administered, the combination of oxalic acid with this substance being perfectly inert. It is employed principally in calico printing, and woollen dyeing, straw bleaching, also for whitening leather, removing ink stains, iron moulds, &c. from wood and linen, and for making binoxalate of potassa or salt of lemon. Oxalic acid may be very readily detected by adding sulphate of lime to its solution previously neutralised by ammonia. A white cloud is produced in a few minutes. Since the introduction of the new process the manufacture of oxalic acid has become nearly a monopoly of this country owing to the quantity of coal required, and its price has been very materially reduced. This ranges now from 10*d.* to 13*d.* per lb.

**Pyrogallic Acid.**—When gallic acid is heated at a temperature of 420° Fahr., or thereabouts, it is resolved into carbonic acid, and a volatile product which is termed pyrogallic acid. It is a powerful reducing or deoxidising agent, and on this account is much used in photography for the purpose of reducing the salts of gold and silver to a metallic state.

**Sulphuric Acid.**—Of all the acids this is the most extensively used in the arts, and consequently the most important; and of commerce, indeed, Baron Liebig very justly remarks that it is no exaggeration to say we may judge with great accuracy of the commercial prosperity of the country from the amount of sulphuric acid it consumes.

For many centuries sulphuric acid was manufactured from green vitriol or sulphate of iron, particularly at Nordhausen, in Germany; but since about the middle of the last century, it is directly prepared from the oxidation of sulphurous acid by means of water or steam and nitrous acid. If one views the gigantic scale on which the manufacture is carried on at the present day he must smile on looking back at the puny operations of former times. The sulphurous acid which used to be obtained exclusively by the burning of sulphur is now made by the calcination of various ores and compounds, containing sulphur, more particularly pyrites. For this purpose suitable apparatus, kilns or calciners for pyrites and iron plates, when sulphur is used, are employed. Once kindled the heat generated is sufficient to keep up the combustion, and a constant evolution of sulphurous acid gas takes place. This gas, together with nitrous acid (prepared by the decomposition of

nitrate of soda by sulphuric acid), is introduced into large leaden chambers the bottoms of which are covered with an inch or more of water. Into these chambers steam is introduced by a suitable arrangement of pipes connected with an ordinary steam boiler. Whatever may be the precise change that takes place in the chambers, all chemists agree that the nitrous acid serves simply as a carrier of the oxygen between the air and the sulphurous acid forming sulphuric acid which falls in a liquid state to the bottom of the chamber. This liquid acid, which usually has the density 1.50 and 1.55 is daily run into leaden pans, where it is concentrated by evaporation till it attains the density of 1.75. For many purposes this degree of concentration is sufficient, and the acid, called from its colour Brown vitriol, is run for sale into carboys or large globular bottles of green glass, protected by basket-work. If a further concentration is required, the brown acid is drawn off into retorts made of glass or platinum and evaporated until it has a density of 1.84 to 1.85. It has now the appearance of a white oily liquid, hence the name 'oil of vitriol,' and is transferred into carboys, in which form it is sold as rectified sulphuric acid. The sulphuric acid of commerce invariably contains lead, and, generally, nitrous compounds and traces of hydrochloric acid. When it has been prepared from pyrites, arsenic is nearly always present, but for many purposes to which it is applied these impurities are of no moment, and when it is requisite they may be easily removed. The quantity of sulphuric acid now manufactured may be roughly estimated, from the quantity of sulphur and sulphur ores consumed, at about 375,000 tons of 1.50 specific gravity. The greater portion produced, about 300,000 tons, is used in the manufacture of alkali, a very much greater and largely increasing quantity to the manufacture of superphosphate of lime for manure. The remainder is applied to the most various purposes in the manufacture of stearic, tartaric, acetic and other acids, in the preparation of sulphate of indigo, the purification of oils of every kind, and many other manufactures, for it is, as it were, the very key to most other chemical operations.

The selling price of the rectified sulphuric acid, specific gravity 1.84 and 1.85, varies from 3*d.* to 1*d.* per lb., that of the brown acid from 3*d.* 10*s.* to 5*d.* per ton.

**Sulphurous Acid.**—It is formed whenever sulphur is burnt in atmospheric air; it is a suffocating and pungent gas, strongly acid, bleaches vegetable colours with great rapidity, and is a powerful antiseptic. These properties render it useful in bleaching woollen goods and straws, and in arresting the process of vinous fermentation. Owing to its volatility and pungent odour, it is usually employed in combination with potassa and soda, or with lime.—These compounds are called sulphites. Its principal use, however, is in the manufacture of sulphuric acid.

**Tannic Acid or Gallotannic Acid.**—Tanning principle is contained in gall nuts of the *Quercus infectaria*, sumach, &c. Many other plants contain substances which resemble tannic acid, i.e. they precipitate albumen and gelatin from solution, and unite with animal membrane, forming a substance which resists putrefaction. It is on this principle that leather is manufactured, and the process is called tanning. All these substances are called tannic acids or tannin, although more exact investigations have shown them to differ in some essential properties from the gallotannic acid obtained from gall nuts.

**Tartaric Acid.**—This acid is procured from the cream of tartar (bitartrate of potassa), obtained

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by purifying the crust, which separates during fermentation of wines by solution and crystallisation. The purified bitartrate is dissolved in boiling water, and powdered chalk added as long as effervescence is excited, or the liquid exhibits an acid reaction; tartrate of lime and neutral tartrate of potassa result; the latter is separated from the former by filtration. The solution of tartrate of potassa is then mixed with excess of chloride of calcium, which throws down all the remaining acid in the form of a lime salt. The tartrate of lime thus obtained is treated with dilute sulphuric acid, sulphate of lime is then formed, and the tartaric acid enters into solution, and may be obtained by evaporation and crystallisation. This acid is manufactured largely in Austria and France, as well as in England, and is much employed in calico printing, also in making effervescing draughts and powders in pharmacy. Its selling price is about 1s. 6d. per lb.

*Uric Acid*.—It is found in the excrements of serpents and birds, and in guano as urate of ammonia. It is extracted from guano, by means of hot dilute hydrochloric acid. The principal use of this acid is for the purpose of making murexide, a beautiful purple dye, which some years since was manufactured on a large scale, but owing to the introduction of the aniline colours, the manufacture has gradually decreased.

For the above exhaustive account of commercial acids, we are indebted to the distinguished chemist and manufacturer Edmund Muspratt, Esq., of Liverpool.

**ACORNS** (Ger. eicheln, eekern; Fr. glands; Ital. ghiande; Span. bellotas; Russ. schedudli; Lat. glandes). The seed or fruit of the oak. Acorns, which are said to have formed part of the food of man in early ages (Virgil, *Georg.* i. 8, Ovid, *Met.* i. 106), are still used in some countries, in periods of scarcity, as a substitute for bread. With us they are now rarely used except for fattening hogs and poultry. They are said to make, when roasted, with the addition of a little fresh butter, one of the best substitutes for coffee. Their taste is astringent and bitter.

**ACRE**. A measure of land. The Imperial or standard English acre contains 4 roods, each rood 40 poles or perches, each pole 272½ square feet; and consequently each acre = 43,560 square feet. Previously to the introduction of the new system of weights and measures by the act 5 Geo. 4. cap. 74, the acres in use in different parts of England varied considerably from each other and from the standard acre; but these customary measures are now abolished. The Scotch acre contains 4 roods, each rood 40 fells, and each fell 36 ells; the ell being equal to 37.06 Imperial inches. Hence the Imperial is to the Scotch acre nearly as 1 to 1½, one Scotch acre being equal to 1.261 Imperial acres. The Irish acre is equal to 1 acre, 2 roods, and 10<sup>21</sup>/<sub>100</sub> poles; 30½ Irish being equal to 49 Imperial acres. [WEIGHTS AND MEASURES.]

**ADELAIDE**. A city of S. Australia, cap. of the British colony of that name, about 7 m. S.S.E. from its port, an inlet on the E. side of St. Vincent's Gulf, lat. 34° 57' S., long. 138° 38' E. Though founded so recently as 1844, and not well situated, this is a well-built, prosperous town. Some of the houses, and most part of the principal buildings, are of brick and stone. Pop. in 1855, 18,259; in 1861, 18,303.

The river Torrens, on which Adelaide is built, loses itself in a marsh before reaching the sea, so that the city is about 7 m. distant from its port, an inlet of St. Vincent's Gulf. This inland situation is a serious drawback on the trade of the city; and it would seem that a mistake was

committed in not building it on, or much nearer to, the coast. This, we are aware, has been denied, though, as we think, upon very unsatisfactory grounds. There appears, indeed, to be but little doubt that in no very lengthened period most part of the commerce of the town will be transferred to the port; and that it will be preferred as a residence by all commercial people. In the rainy season the Torrens is much flooded, though it seldom overflows its banks, which are steep and lofty; but in the dry season it has no current, its bed being then formed into a series of pools or tanks.

Port Adelaide, 7 m. N.N.W. from the city, in a low and marshy situation, consists of a number of dwelling-houses and warehouses, some of which are of stone with wharves, partly belonging to government, and partly to the South Australian Company. The inlet of the sea, forming the harbour, opposite the entrance to which a light vessel is moored, stretches from the gulf, from which it is separated by a narrow neck of land, for about 8 m. southward, surrounding Torrens Island. At its mouth is a sandy bar with 8 ft. water at ebb and 16 ft. at flood tide; this depth being considerably increased during S. and S.W. winds. Ships of 400 or 500 tons may, consequently, pass the bar in safety, and once over, there is depth enough for the largest ships to the head of the harbour. (Dutton, *S. Australia*, p. 112.) Large vessels are, however, obliged to lie in mid-channel: but projects were recently on foot for improving the harbour, either by carrying out piers into the deep water, or by establishing a new port about 2 m. nearer to the harbour's mouth, where the water in-shore is deeper, and the situation affords greater facilities for the accommodation of shipping. Port Adelaide has a custom-house; but vessels are exempted from all port charges in this and in the other ports of the colony.

*Sailing directions for Port Adelaide*.—After making Kangaroo Island, steer E. ½ N. through Investigator's Straits, between that island and Althorp Island. Should the wind be from the eastward, you will find no difficulty in beating through the straits, nor anything in the way more than is pointed out in Flinder's chart. If bound up Gulf St. Vincent, great care is requisite to avoid Troubridge shoal, situate on the west side of the entrance, as the flood tide through Backstairs passage sets strong (particularly on the change and fall of the moon) directly upon the shoal; therefore coming from the westward the course should not be altered until Point Marsden bears S.W. by W. ½ W.; when you will be about 10 miles from the highland, inside Cape Jervis, named in Flinder's chart North-West Bluff, when you may shape your course for the light-vessel N.N.E. 40 miles distant. For about six leagues up the gulf the land is high and bold, but above that the shore becomes very low with hummocks of sand upon it, and the same description of coast prevails to the head of the gulf. After passing the high coast land, the water shoals far out, and in some instances, when within the distance of 10 miles from the light, five fathoms will be found at a distance of four miles from the beach. Be careful of your soundings, particularly at night, and in running up to the light, keep as nearly as you can in between five and six fathoms water, not approaching inside five, as within that depth the water shoals suddenly; and if you keep outside six fathoms, you may pass to the westward of the light and not see it. In these soundings you will make the light ahead, which may be seen 12 miles from the deck of a ship. The shoal—called

the Bar—at the entrance of the port, bears N.E. one mile from the light-vessel. When you are within a proper distance, a boat will be sent to you from the light-vessel with a pilot and to receive all mails and letters. Should you sight the light in the early part of the night, you may anchor anywhere to the southward of it in six fathoms, or keep underweigh until daylight, taking care to be to the southward of the light, and as near it as possible in the morning, as the tide answers early. Where the light-vessel is moored, in lat. 34° 44' S., there anchorage is safe, but a good full scope of chain is required, never less than 50 fathoms, and, if it blow, a full chain. Never let go the second anchor if you can avoid it; rather give more chain, as your vessel will ride much easier with one anchor down than two.

When bound down the gulf steer from the light-vessel S.S.W., which will keep you in sight of the land on the east side of the gulf, and out of the influence of the tide through Backstairs passage, until you are to the southward of Troubridge shoal; but on no account shape a course that you may fancy will enable you to weather the shoals, thereby laying the ship's broadside exposed to a rapid tide running directly upon it, until you are sufficiently to the southward to shape your course down the strait.

In beating down the gulf never exceed a distance of 10 miles from the larboard shore (as the opposite side is shoal), and be careful when standing in to have a cast of the lead, as it is shoal a considerable distance off until you get down to the highland. In some places to the northward of Holdfast Bay there are not more than five fathoms, at a distance of four miles from the beach, and the water shoals very quickly within that depth; but where the highland fronts the sea the shore is steep except a reef that lies a mile off, about three miles to the southward of Holdfast Bay. The flag-staff at Holdfast Bay is in lat. 34° 58' 28" S. In moderate weather endeavour to be as close to the land as possible by sunset, when you will be certain of the wind off the land, which will lead you down the coast. Do not allow yourself to be thrown off until you are well down with Cape Jarvis, and to the southward of Troubridge shoal, which is an extensive flat, and only in the middle shows a patch of about 200 yards at high water.

Ships bound down Investigator's Straits, meeting a strong westerly wind, and wishing to anchor, will find good holding ground close in on the east side of Point Marsden, in six fathoms of water. Vessels coming from the eastward through Backstairs passage, and bound up the gulf, should not be approaching, must keep on the north side of the passage, and haul round Cape Jarvis, all that coast being quite bold. When the gulf is open shape a course N. by E. ½ E. for the light-vessel.

The trade of Adelaide is already extensive; and will continue to increase with the increase of the population and trade of the colony, of which it is the grand emporium. The colony is better suited for tillage than any other portion of the continent, and the exports of flour and grain are become of the first importance. The mines of copper, lead, &c., discovered in the vicinity of Adelaide, are of the richest description, and the ores furnished by them form a principal article of export. In 1852 the imports of copper ore into this country from South Australia, chiefly from the Burra-Burra mine, amounted to 8,582 tons. The discovery of the gold fields, by attracting many of the labourers from the copper mines, gave a serious check to the progress of the latter.

Harbour Dues.

tons	tons	£	s.	d.
Vessels under 100	-	-	-	0 10 0
above 100 and under 200	-	-	-	0 15 0
200	"	700	-	1 5 0
300	"	400	-	1 15 0
400	"	500	-	2 5 0
500 and upwards	-	-	-	3 0 0

Vessels registered in the province of under 50 tons, or whilst employed in the coasting trade, are exempt.

**Rates of Pilotage; Port Adelaide.**—For every vessel taking a Pilot: in, 3*l.* 5*s.*; out, 3*l.* 5*s.*

**Light Dues.**—On vessels in Port Adelaide or in any of the outports in St. Vincent's Gulf, Nepean Bay, and the other anchorages in Kangaroo Island to and from Great Britain and Foreign ports, 3*d.* per ton in and 3*d.* per ton out.

On vessels in Port Adelaide and above outposts to and from Victoria, Van Diemen's Land and other Australian Colonies 1½*d.* per ton in and 1½*d.* per ton out.

On vessels coastwise above 100 tons 1*d.* per ton in and 1*d.* per ton out.

Steam Tug Dues.

	£	s.	d.
From the Light-ship anchored at the Inner Harbour, Port Adelaide:—			
Vessels not exceeding 200 tons	-	-	8 0 0
For every ton over 200 tons	-	-	0 0 6
From the Light-ship Anchorage to Light's Passage, below Snapper Point; or from Light's Passage to North Arm:—			
Vessels not exceeding 200 tons	-	-	3 0 0
For every ton above 200	-	-	0 0 2
From Light-ship Anchorage to the North Arm:—			
Vessels not exceeding 200 tons	-	-	6 0 0
For every additional ton	-	-	0 0 4
From North Arm to the Port:—			
Vessels not exceeding 200 tons	-	-	2 0 0
For every additional ton	-	-	0 0 2

The same rates outwards.

Disabled steamers to pay on gross tonnage.

When two tugs are employed the above rates are to be increased by one third and the amount as augmented to be equally divided between the tugs employed, according to distance.

When two vessels are towed the rates are reduced one third, and when more than two vessels are towed one-half, according to distance for each vessel towed.

Fees to Licensed Marine Surveyors.

	£	s.	d.
For surveying a ship's hatches and cargo, including attendance as required by the master	-	-	3 3 0
For each set of certificates as required by consignees or merchants, in triplicate	-	-	0 10 6
Survey of a ship for insurance, including report as required by underwriters or agents	-	-	2 2 0
Survey of a ship for repairs, including attendance during the progress of such repairs, and drawing up of report on repairs being completed	-	-	4 4 0

**Wharves.**—Lay days allowed at wharves at Port Adelaide. All vessels under 100 tons are allowed 6 days for the purpose of discharging, and all vessels above 100 tons the following number of days, Sundays not included: vessels from 100 to 300 tons, 10 days; 300 to 600 tons, 16 days; above 600 tons, 21 days. Vessels discharging cargo have preference at the wharves. Vessels exceeding the time allowed and remaining on berth without permission to be charged one penny per ton for every week such lay days shall be exceeded. Vessels loading or discharging at the wharves will be charged 3*d.* per ton register.

Wharfage Dues on Goods landed at or shipped from the Company's Wharf, Port Adelaide.

	£	s.	d.
Arrowroot and Sago, per last of cwt.	-	-	0 3
(Other sizes in proportion.)			
Bacon, per cwt.	-	-	0 2
Ballast and Stone, per ton	-	-	1 0
Bark, per ton of 20 cwt.	-	-	2 0
Beef, per tierce	-	-	0 4
per barrel	-	-	0 3
Bellows (blacksmith's) per pair	-	-	0 2

Beer, Wholesale  
butt  
Ditto per pipe  
per hog  
per barrel  
per quarter  
per set  
bottled  
Boots and shoes  
Brazil and gold  
Brazil, per cwt  
Bricks, slate  
Small sizes  
Butter, per cwt  
Candles, per  
in lb  
Carriages  
Carrots per cwt  
Casks (empty),  
(in shoe)  
Cement, per cwt  
Cheese, per cwt  
Claret, per lb  
Coals, coals, and  
Cocoa nuts, per  
Coffee, per cwt  
Confectionery,  
  
Copper, per cwt  
Corks, per 100  
Earthenware,  
  
Flour, per 100  
per barrel  
Furofines, per  
Fish (dry or salt)  
  
Fruits (fresh),  
in lb  
Ginger, per cwt  
Glass (window),  
(plate), in  
Groceries (see C)  
Grain of all kinds  
Grindstones, e &c  
Hams or cheeks,  
Harrow, each  
Hay, per ton of  
Hides (boose), per  
Horns, per piece  
Horns and rattle  
Horns and hooft  
Iron, per cwt  
Iron tanks, 400  
Oils  
Lead, per cwt  
Machinery, per  
in lb  
Winnowing  
Thrashing  
Chaff cutters  
Mills, each  
Nails, shot, and  
  
Oatmeal, per barrel  
Ribs, turps, &c  
Oilmen's stores in  
Onions per cwt  
Orbs, per 100 feet  
Ores, per ton  
Pans, each  
Paint, per cwt  
Pepper, per cwt  
Pistachios, each  
Rice, per last  
Roughs, each  
Pork, per tierce  
per barrel  
Potatoes, per cwt  
Pots, each  
Rattans, per 100  
Rice, per cwt  
Rope, twine, cord  
Rush, per barrel  
Sage (see Arrowroot)  
Salt, per cwt  
Sandlines, per case  
Skins (sheep), per  
Soap, per box of  
in large pack  
Soda, per barrel  
Spades, shovels, pe  
Spices, per cwt  
Spirits (wide Beer)  
Sugar, per cwt  
Tar, per barrel  
Tea, per chest  
Tea, per half-chest  
per box  
Tobacco pipes, per  
Tin plates, per box  
Timber: Dry oak  
Doals, in  
load  
Fellows, p  
Laths and  
Painting, p

	s.	d.
Beer, Wines, Spirits, Cordials, Vinegar, Oil, &c., per tun		
Butt	1	6
Ditto per pipe or punchion	0	9
per hoghead	0	6
per barrel	0	4
per quarter-cask	0	3
per octave	0	2
bottled (in case or cask), per dozen quarts	0	1
Boots and shoes, per trunk	0	3
Iran and pollard, per 100 lbs.	0	1
Bread, per cwt.	0	2
Breeds, slates, and large tiles, per short 100	4	0
Small tiles	1	6
Butter, per cwt.	0	2
Candles, per box	0	2
in large packages, per cwt.	0	2
Carriages (4-wheel each)	4	0
(2-wheel each)	2	3
Carrots per cwt.	0	1
Casks (empty) per tun	0	6
(in shoals), per bundle	0	2
Cement, per barrel	0	3
Chalk, per cwt.	0	1
Cheese, per cwt.	0	1
Cigars, per 1,000	0	1
Coals, coke, and firewood, per ton	1	3
Cocoa nuts, per 100	0	6
Coffee, per cwt.	0	2
Confectionery, per box, measuring from 3 feet to 7 feet	0	3
under 1 foot	0	2
Large packages, per 40 feet	1	6
Copper, per cwt.	0	1
Casks, per 100 gross	0	9
Earthen ware, per crate	1	0
per half-crate	0	1
Flour, per 100 lbs.	0	1
per barrel	0	3
Furniture, per ton measurement	1	6
Fish (dry or salt), per bale	0	4
per barrel	0	3
per half barrel	0	2
per keg fish, or kit	0	1
per cwt.	0	2
Fruits (fresh), per butt	1	6
per carotol	0	9
per box	0	1
per case or barrel	0	6
(dried), per cwt.	0	2
Frying pans, per bundle	0	2
Finger, per cwt.	0	2
Glass (window), per box	0	2
per crate	0	6
(plate), in packages per 10 feet	1	6
Groceries (see Confectionery).		
Grain of all kinds, per bushel	0	0
Grindstones, each	0	1
Hairs or checks, per cwt.	0	2
Harrows, each	0	4
Hay, per ton of 20 cwt.	2	6
Hides (loose), per 100	5	0
Hops, per pocket or bale	0	6
Horses and cattle, per head	0	0
Horns and hoofs, per ton	2	6
Iron, per cwt.	0	1
Iron tanks, 400 gallons, each	1	0
Other sizes, in proportion.		
Lead, per cwt.	0	1
Machinery, per cwt.	0	1
in light packages, per 40 feet	1	6
Winnowing machines, each	1	6
Thrashing and reaping machines, each	5	0
Chaff cutters, each	0	6
Millstones, each	0	9
Nails, shot, and ironmongery, per bag, or keg of 1 cwt.	0	2
in heavy packages, per cwt.	0	1
Oatmeal, per barrel	0	1
Oils, turps, &c., per tin or basket	0	2
Oliver's stores (see Confectionery).		
Onions per cwt.	0	1
Oars, per 100 feet	0	4
Ores, per ton	1	3
Ovens, each	0	1
Paint, per cwt.	0	1
Pepper, per cwt.	0	2
Poundstones, each	1	6
Pitch, per barrel	0	3
Ploughs, each	0	4
Ports, per tierces	0	5
per barrel	0	3
Potatoes, per cwt.	0	1
Tons, each	0	1
Rattans, per 100 bundles	0	9
Rices, per cwt.	0	2
Ropes, twines, cordage, per cwt.	0	2
Resin, per barrel	0	3
Sago (see Arrowroot).		
Salt, per cwt.	0	1
Sardines, per case	0	3
Skins (sheep), per dozen	0	2
Sheep, pigs, and goats, per head	0	1
Soda, per less of less than 1 cwt.	0	2
in large packets per cwt.	0	2
Soda, per barrel	0	3
Squads, shovels, per bundle	0	3
Spices, per cwt.	0	2
Spirits (vide Beer).		
Sugar, per cwt.	0	2
Tar, per barrel	0	3
Tea, per chest	0	4
per half-chest	0	3
per box	0	1
Tobacco pipes, per 5 gross	0	1
Tin plates, per box	0	1
Timber: Dray poles, each	0	2
Beams, battens, spars, logs, end sawn timber, per		
load of 10 cubic feet	1	6
Fellows, per 100	0	1
Laths and shingles, per 1000	1	0
Paling, per 100	0	1

	s.	d.
Timber: Posts and rails, per 100	0	2
Spokes, per 100	0	4
Tallow, per cwt.	0	1
Tobacco, per tierce	0	9
per half-tierce	0	6
per keg or case	0	5
per basket or roll	0	1
Vinegar (vide Beer).		
Whalebone, per cwt.	0	2
Wheelbarrows, each	0	3
Wheels (cart or carriage) per pair	0	3
Whiting, per barrel	0	3
other packages, per 40 feet	1	6
Wood, per hole	0	4
Merchandise, not enumerated in the foregoing, say drapery,		
saree, &c., per ton of 30 cubic feet	0	1
Hardware, and other heavy goods, per cwt.	0	1
per ton of 40 feet	1	6
Where the measurement or weight cannot be obtained, the		
goods to be estimated at a fair average rate.		

### Wharfage Regulations.

No gunpowder, rubbish, or filth to be landed on the wharf.

No boats or casks to be placed, ballast landed, spars made, wood cut, or casks coopered on the wharf without permission.

No goods to be deposited on the wharf within fifteen feet from the Front Line.

Goods will be allowed to remain on the wharf 48 hours, after which time they will be liable to rent, and removed at the owner's expense.

The company will not be answerable for any goods that may be damaged whilst lying on the wharf, or what may be stolen from or plundered thereon.

Vessels loading or discharging coals, &c. must use tarpaulins to prevent them falling overboard.

No fires allowed on the wharf.

The line of rail must be kept sufficiently clear to allow the free passage of the truck.

**Banking.**—Five banks carried on business in Adelaide during 1864, and their operations were further extended by the opening of several new branches and agencies throughout the country districts. The increase in wealth and the soundness of the financial position of traders will be manifest on a comparison of the following statements of the aggregate assets and liabilities of the several banks for the three half years ending December, 1862, 1863, and 1864 respectively:—

### Liabilities.

	1862	1863	1864
Notes in circulation	£ 425,766	£ 232,181	£ 315,126
Bills in circulation	9,811	7,832	12,700
Balances due to other banks	17,171	24,901	11,715
Deposits	703,035	787,104	1,158,931
Total average liabilities	£ 955,823	£ 1,052,022	£ 1,498,472

### Assets.

	1862	1863	1864
Gold and bullion	£ 270,153	£ 326,875	£ 411,710
Government securities	4,600	4,600	4,600
Landed property and bank premises	56,461	55,185	60,808
Notes and bills of other banks	9,268	7,170	8,109
Balances due from other banks	47,211	82,561	131,512
Notes and bills discounted, and other debts due to banks not enumerated	1,512,806	1,603,561	1,721,750
Total average assets	£ 2,930,912	£ 3,079,555	£ 3,643,229

### Total Value of Imports and Exports, 1855-64.

Year.	Total Exports	Total Imports
1855	£ 988,215	£ 1,370,938
1856	1,665,740	1,366,329
1857	1,858,372	1,823,038
1858	1,512,182	1,769,351
1859	1,655,876	1,507,491
1860	1,783,716	1,639,391
1861	2,052,311	1,375,018
1862	2,115,795	1,820,656
1863	2,558,817	2,028,279
1864	3,535,945	2,112,931

Decennial Return of the Total Value of Exports from the Province, distinguishing the Countries to which Exported, during the Years 1856-65; also the Total Value of Exports, the Produce of the Colony.

Years	To Great Britain	To British Possessions							To Foreign Countries	Totals	Of which Exports, Free &c., of the Colony
		New South Wales	Victoria	Tasmania	Western Australia	East Indies and China	Mauritius	Other British Possessions			
1856	665,380	15,126	4,111	18,556	17,515	31,817	14,961	2,501	1,667,710	1,398,267	
1857	666,156	15,126	1,009,159	4,111	18,556	17,515	31,817	14,961	2,501	1,958,572	1,744,184
1858	590,491	115,011	814,633	1,690	19,516	35,340	3,288	1,081	1,812,185	1,550,611	
1859	577,593	149,116	839,516	3,295	7,701	53,929	17,100	1,271	2,092	1,658,876	1,501,055
1860	785,898	190,226	710,251	1,577	6,690	66,788	15,833	1,453	250	1,783,716	1,576,326
1861	821,869	232,715	895,739	3,255	19,742	46,516	32,765	35,157	3,032,511	1,838,639	
1862	915,607	295,991	556,124	9,310	13,178	116,000	49,633	115,380	3,183,596	1,993,387	
1863	935,880	337,478	558,001	9,640	18,051	208,000	27,661	266,147	1,973	2,538,817	2,095,236
1864	918,627	679,127	1,294,654	5,236	12,221	132,783	21,364	273,792	59,855	3,405,545	5,015,537
1865	964,894	557,695	1,244,613	10,611	28,490	17,155	5,571	919,214	592	3,199,846	2,754,637

\* The Returns do not give this information, in detail, prior to 1857.

Decennial Return of the Quantity and Value of Metals, Minerals, &c., the Produce of the Colony, Exported during the Years 1856-65.

Years	Copper		Lead		Copper Ore		Lead Ore		Regulus		Total Values
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
1856	cwts. 44,980	248,160	—	—	tons 9,468	156,351	tons 35	377	tons 71	2,851	408,042
1857	36,893	290,759	—	—	8,056	131,285	1,322	25,355	79	2,960	428,399
1858	47,793	360,042	—	—	6,697	101,500	853	14,200	154	1,260	375,292
1859	56,715	285,841	1,261	5,710	7,309	101,715	262	8,068	141	2,651	411,018
1860	65,129	331,775	1,824	8,275	7,097	89,150	68	2,180	338	14,877	416,537
1861	61,047	291,572	1,256	4,466	7,817	153,749	15	390	390	19,185	429,172
1862	83,872	400,591	1,226	981	6,216	121,965	97	2,266	418	19,518	547,619
1863	96,039	447,944	271	525	5,515	82,292	430	9,007	39	1,655	642,393
1864	174,035	637,701	63	121	1,541	38,455	566	15,167	92	4,680	691,654
1865	190,196	433,705	82	137	16,176	181,677	863	1,507	—	—	649,112

Return relative to Lighthouses on the Coasts and Harbours of South Australia, for the Years 1860-65.

Light-house or Light-ship where situated	Names	Nature of the Light	By whom managed	Expense of Management and Stores		Amount of Light-dues received			
				Year	Amount	Year	Amount		
Port Adelaide	Light-ship	Two fixed bright lights	3 keepers	£ 1,660	£ 1,055	1860	£ 1,812	9 7*	
Troubridge Shoal	Troubridge Lighthouse	Intermittent bright light	—	—	—	—	—	—	
Cape Borda, Kangaroo Island	Flinders	Revolving—white and red (4 min.)	—	—	—	—	—	—	
Cape Willoughby, Kangaroo Island	Sturt	Revolving—white (1 1/2 min.)	—	—	—	—	—	—	
Cape Northumberland	MacDunnell	Revolving—white, red, and green (1-min.)	—	—	—	—	—	—	
Glenselg Jetty	Glenselg	Fixed—green	1 keeper	1864	4,711	15	1861	2,740	9 6
Semaphoric Jetty	Semaphoric	Fixed—red	—	—	—	—	—	—	
Tippra Shoal	Tippra Light-ship	Fixed—white and red	3 keepers	1865	1,969	13	1865	5,269	7 6

\* Light Dues abolished October 31, 1860.

† Light Dues re-established on November 1, 1862.

Population of S. Australia on Dec. 31, 1865, 156,605. Revenue in 1864, 775,837. Expenditure in 1864, 626,688.

The revenue derived from the customs, the only source of taxation, the remainder having been acquired by land sales, &c., was, in the same year 203,349*l.*, being at the rate of 1*l.* 7*s.* 8*d.* per head of the population.

The governor of South Australia, in his report for the year 1864, mentions as indicative of the purchasing power of the community of that colony, that the sum paid per head for imported goods amounted in that year to 14*l.* 8*s.* per head of the whole population. Of British goods alone the consumption per head was 8*l.* 5*s.*

The value of the imports and exports from and to the United Kingdom were in the same years respectively:—

Imports	£	Exports	£
1860	939,515	1860	785,898
1861	1,104,252	1861	821,869
1862	1,178,903	1862	913,607
1863	1,177,796	1863	935,880
1864	1,217,568	1864	918,523

With regard to the amount of the export it is necessary to bear in mind that large quantities of South Australian produce, chiefly wool and minerals are shipped to the other Australian colonies for transhipment to the United Kingdom.

The principal produce of the colony consists in breadstuffs, wool and minerals (copper and copper ore); the table appended will show the percentage

ratio of the exports of each of these during the years specified.

Five Years ending with	Ratio of Average of Five Years' Exports of each Class to total Exports = 100			
	Breadstuffs.	Wool	Minerals	Miscellaneous
1855	per cent. 28 1/2	per cent. 28 1/2	per cent. 39 9	per cent. 6 1/4
1856	28 1/2	29 0	38 5	5 1/4
1857	40 1/4	30 8	27 6	4 2
1858	40 7	30 7	27 4	3 5
1859	39 3	31 5	27 1	4 2
1860	38 2	31 6	27 6	2 6
1861	39 0	32 5	26 7	2 8
1862	35 5	33 1	27 2	5 9
1863	35 2	35 9	27 0	3 9
1864	38 8	31 8	25 7	3 7

The relative values of the exports of each of these articles during the same year was as follows:—

Year	Breadstuffs, Grain, &c.	Minerals and Metals	Wool	
			Quantity	Value
1855	236,400	155,557	5,590,171	283,479
1856	256,371	408,042	8,236,221	412,163
1857	755,810	458,839	9,935,293	501,520
1858	845,308	373,282	7,775,225	460,335
1859	654,265	411,018	9,496,715	481,977
1860	499,162	446,537	11,731,371	573,368
1861	713,769	459,172	15,164,701	635,007
1862	635,411	517,619	13,239,600	637,470
1863	747,116	542,393	15,666,787	715,935
1864	1,464,593	691,624	16,092,095	775,556

Wheat Crop.—The important character of this large item of South Australian produce will amply

justify the colonial bl... the extent... The acre... 390,836 ac... land. In l... wheat, or s... increase thi... per cent... 4,252,949 bu... in the yield... decrease of... per acre bu... fourteen bu... average pro... On one ce... harvest bec... 1859-60, w... were reaped... other partic... wheat durin... given in the... in that short... has more tha...

Season
1858-59
1859-60
1860-61
1861-62
1862-63
1863-64
1864-65

Seven-eigh... by machine, i... last year, no... tion. Out of... gathered by m... acres secured... reaped by man... acres altogeth...

Ports
Port Adelaide
Augusta
Elliot
Macdonnell
Robe
Willaroo
Willunga
Yorke Bay
Victor
Total

In addition... cleared at port... river trade...

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justify the following valuable extract from the colonial blue book for the year 1864 in regard to the extent and nature of the crop.

The acreage of the wheat crop amounted to 390,836 acres, or two thirds of the total cultivated land. In 1854 there were 335,758 acres under wheat, or sixty per cent. of the filled land; the increase this season has therefore amounted to six per cent. The total produce of the harvest was 4,252,949 bushels, compared with 4,691,919 bushels in the yield of the previous harvest, showing a decrease of 438,970 bushels—the average yield per acre being only eleven bushels as against fourteen bushels, and one bushel less than the average production of the past seven seasons.

On one occasion only during that period has the harvest been less productive, viz. in the year 1859-60, when only 9 bushels 38 lbs. per acre were reaped. The yield for each season, and other particulars respecting the cultivation of wheat during the septennial period just closed, is given in the following table. It will be seen that, in that short space of time, the growth of wheat has more than doubled.

Season	Acres cultivated	Acres under Wheat	Produce, Wheat		Average per Acre
			bushels	b. lbs.	
1858-59	261,162	188,703	2,109,511	11 11	
1859-60	361,883	218,216	2,103,111	9 58	
1860-61	428,316	275,772	3,276,333	12 4	
1861-62	486,667	310,656	5,110,756	10 59	
1862-63	491,511	320,160	5,811,821	12 0	
1863-64	525,908	375,758	6,643,919	14 0	
1864-65	587,775	390,836	6,252,949	11 0	

Seven-eighths of the wheat crop was reaped by machine, the area hand-reaped being less than last year, notwithstanding the increased cultivation. Out of 390,836 acres, 339,518 acres were gathered by machine, being an increase of 57,021 acres secured in that manner, whilst the quantity reaped by manual labour only amounted to 51,095 acres altogether. One, if not the most important

advantage the farmers possess over those of the sister colonies is the expedition and economy with which their crops can be secured, owing to the successful working of the reaping machines now universally used on all but hilly land, permitting of the grain being reaped, winnowed, cleaned, and bagged on the harvest field, and removed into store ere the day is closed.

*Minerals.*—The annexed table affords a comparison of the amounts of copper and copper ore exported from the colony during the periods indicated. The most important copper mines are those of Kapunda and Burra Burra.

Periods	Copper cwt.	Copper Ore tons
In the year 1855	12,255	4,939
1859	56,715	7,366
1864	13,435	5,715
Total in five years, 1855-59	218,669	35,546
1860-64	412,112	51,918
Average of five years, 1855-59	43,734	7,109
1860-64	82,428	6,201

The annexed is a statement of the shipping and tonnage entered at and cleared from South Australian ports since the year 1855.

Years	Inwards		Outwards	
	Number	Tonnage	Number	Tonnage
1855	561	114,982	540	110,911
1856	430	115,651	437	116,729
1857	486	140,725	381	101,979
1858	371	98,802	567	95,549
1859	402	111,426	290	101,692
1860	321	100,981	528	105,555
1861	401	103,196	557	96,155
1862	371	105,251	392	111,290
1863	440	127,667	416	127,806
1864	617	160,025	619	161,293

The following is a summary of the tonnage entered and cleared respectively in the foreign trade in 1863-4, from the various ports of South Australia, of which there are eight in addition to Adelaide.

Ports	Inwards				Outwards			
	Ships		Tonnage		Ships		Tonnage	
	1863	1864	1863	1864	1863	1864	1863	1864
Port Adelaide	555	455	105,774	124,256	511	418	167,535	128,575
Angusta	1	5	298	479	5	6	2,196	5,055
Elliot	8	11	1,571	1,881	18	15	5,103	15,435
Macdonnell	51	38	1,717	4,751	23	58	1,890	4,553
Robe	5	15	2,255	5,223	6	15	5,226	4,098
Willaroo	55	69	10,735	17,275	10	39	5,617	8,031
Willunga	23	23	5,818	5,881	28	58	4,674	6,497
Vancouver	9	15	1,553	2,256	13	18	2,207	5,409
Victor	—	9	—	1,552	—	15	—	1,915
Total	440	611	171,067	160,223	116	619	127,826	161,541

In addition to the above upwards of 4000 tons cleared at ports on the Murray, engaged in the river trade.

The entries and clearances from and to Great Britain, Victoria, and New South Wales, constitute the most important item of the tonnage. They were in the years 1863-4 as follow:—

	1863	1864
Great Britain, entered	28,265	29,218
cleared	14,465	11,677
Victoria, entered	25,934	26,111
cleared	34,169	54,173
New South Wales, entered	30,905	45,553
cleared	21,873	25,908

The immense progress the colony has made during the past ten years is very clearly shown in the above statement. In that period produce has been exported of the value of over 17,000,000 sterling; and, during the latter half of the period, the exports amounted to 10,500,000, as compared with 6,750,000, in the preceding five years, showing an increase of one-third, or 3,750,000.

nearby. The average of the quinquennial period ending 1859, was 1,337,312, per annum, and during that ended in 1864, 2,089,269, annually. In 1855 the exports of produce amounted to 686,953; in 1859, to 1,502,165; and in 1865 they reached 3,015,537,—an advance of 100 per cent. during the last five years. In 1855 the exports of produce averaged 87 per head of the population; in 1859, 121. 3s. per head; and in 1866, at the rate of 207. 9s. per head of a population numbering about 150,000 souls.

*Customs Tariff, 1866.*

Beer, in wood	gall.	2	6
bottle, reputed quarts	doz.	1	0
Coffee, chicory, cocoa, and chocolate	lb.	0	6
Opium	lb.	0	1
Spirits, all sorts	gall.	10	0
Sugar	cwt.	5	0
Stearns and trecle	doz.	2	0
Tea	lb.	0	5
Tobacco, manufactured	lb.	1	6
she-pouch	doz.	0	5
cigars and snuff	doz.	2	0
Wine, in wood	gall.	2	0
bottle, reputed quarts	doz.	6	0
ports	doz.	5	0

Dried fruits, nuts, and almonds	cwt.	4	d.
Wood: posts, rails, handspikes, and poles	"	10	"
Palms	"	100	"
Shingles and laths	"	1,000	"
Trenails and spikes	"	100	"
Chairs	100 feet	2	0
Square timber and balks, spars, deals, battens, quarterings, planks, boards—sawn, hewn, or split timber	40 cubic feet	2	6
Cedar	"	5	0

N.B.—For changes in tariff, see *Colonial Possessions, Tariff of*, annually presented to parliament.

All imported goods not included in the above mentioned list, to which duties are attached, and not specified in the free list will pay an ad valorem duty of 5 per cent.

*Free List.*—Animals (living), baggage of passengers, bags and sacks, viz. corn sacks, ore bags, wool-packs; books (printed), bullion and coin, coals, coke, and other fuel; corn and flour, manures, plants and trees, green fruit, seeds and roots, potatoes, garden seeds, viz. lucern, clover-tares, and such like; skins and hides (raw), specimens of natural history, tallow, wool, unsmelted ores, shooks, and staves.

*Customs Tariff on Exports by the Murray River.* Proclamations dated December 3, 1857, and November 17, 1858, fix the subjoined tariff and drawbacks on goods intended for consumption in Victoria or New South Wales, and which have been agreed on by the governments of the said colonies. It is prescribed that the duties specified in the tariff shall be levied upon any goods imported into South Australia, and intended for consumption in either of the said colonies, or waterborne upon the river Murray for exportation into either of the said colonies. The drawbacks will be allowed for any duties which may have been paid on any such goods in accordance with any tariff for the time being in force in South Australia.

Beer, &c. in bulk	gall.	0	d.
"    "    "    "    "	"	0	2
Coffee and chicory	lb.	0	2
Brandy and gin, Swick's proof	gall.	10	0
Old Rum	"	10	0
Rum, whisky, and other spirits	"	7	0
Swedish liquors	"	10	0
Sugar, refined and candy	cwt.	6	8
"    "    "    "    "	"	5	0
Treacle and molasses	"	3	4
Tea	lb.	0	3
Tobacco and snuff	"	2	0
Cigars	"	5	0

*Return showing the Number and Tonnage of Vessels Built and Registered according to Law, in the Province of South Australia, to the year 1865, inclusive.*

Period	Vessels Built		Vessels Registered		Registers Cancelled		Vessels belonging to Port Adelaide	
	Number	Tons	Number	Tons	Number of Vessels	Tons	Number of Vessels	Tons
Previous to 1830	19	483	79	6,222	—	—	—	—
1830	7	195	3	500	—	—	—	—
1831	5	146	26	1,667	—	—	—	—
1832	3	56	21	2,296	120	10,561	—	—
1833	1	7	33	1,666	—	—	—	—
1834	3	77	19	2,612	—	—	—	—
1835	7	352	17	2,113	8	1,501	75	6,592
1836	7	471	14	4,850	13	1,924	80	2,351
1837	—	—	10	2,271	12	2,531	78	7,293
1838	9	505	20	1,860	19	2,617	79	6,506
1839	2	103	6	384	22	1,797	23	5,935
1840	4	268	12	1,335	10	1,125	75	6,935
1841	4	332	11	2,137	9	871	80	7,589
1842	1	218	8	1,978	7	631	81	8,576
1843	1	19	13	2,223	16	1,715	80	9,206
1844	4	131	23	1,966	9	1,110	91	12,012
1845	8	400	28	1,384	9	1,379	113	15,916

*Number, Tonnage, and Crews of Vessels of each Nation entered at Ports in the Colony of South Australia in the year 1865.*

Nationality of Vessels	Entered								
	With Cargoes			In Ballast			Total		
	Vessels	Tons	Crews	Vessels	Tons	Crews	Vessels	Tons	Crews
Gt. Britain	565	161,295	8,113	25	5,659	183	588	168,561	8,689
Bremen	1	296	10	—	—	—	1	296	10
France	2	592	22	—	—	—	2	592	22
Hamburg	6	1,638	65	—	—	—	6	1,698	65
Macklenbg.	1	214	8	—	—	—	1	214	8
Norway	1	598	18	—	—	—	1	598	18
Sweden	10	5,611	155	—	—	—	10	5,611	155
U. States	10	5,610	157	—	—	—	10	5,610	157
Gt. Britain River Murray	591	179,463	8,825	25	5,659	183	619	185,102	9,011
Total	56	4,556	209	—	—	—	56	4,556	209
Total	650	183,999	9,162	25	5,659	183	655	187,658	9,310

*Number, Tonnage, and Crews of Vessels of each Nation cleared at Ports in the Colony of South Australia, in the year 1865.*

Nationality of Vessels	Cleared								
	With Cargoes			In Ballast			Total		
	Vessels	Tons	Crews	Vessels	Tons	Crews	Vessels	Tons	Crews
Gt. Britain	179	128,656	7,031	87	29,130	1,029	566	157,836	8,060
Bremen	1	296	10	—	—	—	1	296	10
France	1	223	10	1	369	11	2	592	21
Hambourg	8	2,011	81	1	511	14	9	2,552	98
Macklenbg.	2	460	17	—	—	—	2	460	17
Norway	1	598	18	—	—	—	1	598	18
Sweden	9	1,110	36	9	5,177	117	11	6,527	183
U. States	3	1,233	48	6	5,321	81	9	6,287	129
Gt. Britain River Murray	157	153,717	7,371	101	39,671	1,289	601	174,168	8,566
Total	30	4,620	227	—	—	—	30	4,620	227
Total	256	139,737	7,601	191	59,071	1,282	610	175,808	8,853

ADEN. A town and seaport of Arabia Felix, in the province of Yemen. Lat. 12° 45' N.; long. 45° 3' E. It was captured in 1849, and has been attached ever since as an outlying possession under the government of Bombay. The territory consists of a mountainous peninsula connected with the main land by a narrow isthmus nearly covered in spring tides. There is a splendid harbour, and the port is free, there being no customs levied. The site is unrivalled as an entrepot for commerce. Light-vessel, south side of channel, inner harbour, moored in 21 feet. Lat. 12° 47' N., long. 45° 15' E. The light is fixed, it is seen seven miles in clear weather, and is 35 feet above high water. It fires a gun and burns a blue light on a vessel entering. It is said to be a very bad light. The trade has considerably increased under British management. Its military position is one of great importance, and the fortifications are unassailable by any native force. The climate may be considered healthy and agreeable, the seasons are divided into hot and cold, the former prevailing from April to October and the latter during the remainder of the year. Rain falls occasionally during December, January, February, and April. The trade of Aden amounted in 1863-64 to 1,478,988L, and in 1864-65 to 1,538,293L, showing an increase of 59,305L. This is nothing taking into consideration the article coal, which is supplied exclusively for the steamers plying at this port. The principal articles of import appear to be cotton, cotton and silk piece goods, grain, live-stock, metals, provisions, seeds, and tobacco. The chief articles of export are coffee, dyes, ostrich feathers, gum, hides and skins, ivory, pearls. The principal external trade is carried on with Africa, Arabia, and Persia, America, China, Calcutta, and





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Bombay. The export trade to Arabia amounted to 394,298*l.*, and the value of imports from the same source, to 159,778*l.*

## Shipping, 1864-6.

1862-5	Arrivals		Departure	
	ships	tons	ships	tons
British	184	190,550	171	180,960
French	41	47,522	40	46,788
Other foreign	5	25,110	5	2,510
Total	230	263,182	216	229,258
Country craft	715	27,011	686	25,402
Grand total	945	290,193	902	254,660

The principal places with which the country craft trade is carried on are Bombay, and Malabar, Africa, Red-Sea ports, Arabian and Persian Gulf.

**ADJUSTMENT.** In Commercial Navigation, the settlement of a loss incurred by the insured.

In the case of a total loss, if the policy be an *open* one, the insurer is obliged to pay the goods according to their *prime cost*; i.e. the invoice price, and all duties and expenses incurred till they are put on board, including the premium of insurance. Whether they might have arrived at a good or a bad market, is held by the law of England to be immaterial. The insurer is supposed to have insured a constant and not a variable sum; and in the event of a loss occurring, the insured is merely to be put into the same situation in which he stood before the transaction began. If the policy be a *valued* one the practice is to adopt the valuation fixed in it in case of a total loss, unless the insurers can show that the insured had a colourable interest only, or that the goods were greatly over-valued. In the case of all partial losses, the value of the goods must be proved.

'The nature of the contract between the insured and insurer is,' says Mr. Justice Park, 'that the goods shall come safe to the port of delivery; or, if they do not, that the insurer will indemnify the owner to the amount of the value of the goods stated in the policy. Wherever then the property insured is lessened in value by damage received at sea, justice is done by putting the merchant in the same condition (relation being had to the prime cost or value in the policy) in which he would have been had the goods arrived free from damage; that is, by paying him such proportion of the prime cost or value in the policy as corresponds with the proportion of the diminution in value occasioned by the damage. The question then is, how is the proportion of the damage to be ascertained? It certainly cannot be by any measure taken from the prime cost; but it may be done in this way: Where anything, as a hogshhead of sugar, happens to be spoiled, if you can fix whether it be a third, a fourth, or a fifth worse, then the damage is ascertained to a mathematical certainty. How is this to be found out? Not by any price at the port of shipment, but it must be at the port of *delivery*, when the voyage is completed and the whole damage known. Whether the price at the latter be high or low, it is the same thing; for in either case it equally shows whether the damaged goods are a third, a fourth, or a fifth worse than if they had come sound; consequently, whether the injury sustained be a third, fourth, or fifth of the value of the thing. And as the insurer pays the whole prime cost if the thing be wholly lost, so if it be only a third, fourth, or fifth worse, he pays a third, fourth, or fifth, not of the value for which it is sold, but of the value stated in the policy. And when no valuation is stated in the policy, the invoice of the cost, with the addition of all charge, and the premium of insurance, shall be the foundation upon which the loss shall be computed.'

Thus, suppose a policy to be effected on goods,

the prime cost of which, all expenses included, amounts to 1,000*l.*; and suppose further, that these goods would, had they safely reached the port of delivery, have brought 1,200*l.*, but that owing to damage they have met with in the voyage, they only fetch 800*l.*; in this case it is plain, inasmuch as goods that would otherwise have been worth 1,200*l.* are only worth 800*l.*, that they have been deteriorated *one third*; and hence it follows, conformably to what has been stated above, that the insurer must pay one-third of their *prime cost* (1,000*l.*), or 333*l.* 6*s.* 8*d.*, to be insured.

In estimating the value of goods at the port of delivery, the *gross* not the *net* proceeds of the sales are to be taken as the standard.

A ship is *valued* at the sum she is worth at the time she sails on the voyage insured, including the expenses of repairs, the value of her furniture, provisions, and stores, the money advanced to the sailors, and, in general, every expense of the outfit, to which is added the premium of insurance.

When an adjustment is made, it is usual for the insurer to indorse upon the policy 'adjusted this loss at (so much) per cent., payable in a given time, generally a month, and to sign it with the initials of his name. This is considered as a note of hand, and as such is *prima facie* evidence of the debt not to be shaken, but by proving that fraud was used in obtaining it, or that there was some misconception of the law or the fact upon which it was made. See, for a further discussion of this subject, the article MARINE INSURANCE. Park *On the Law of Insurance*, ch. vi.; Marshall, book i. ch. xiv.

**ADMEASUREMENT. [TONNAGE.]**

**ADMIRALTY COURT.** This court is strictly that of the lord high admiral of England. The judge is styled his lieutenant. Since, however, the office of lord high admiral has been in commission, the judge has been appointed by the crown, and possesses jurisdiction in all maritime cases, both of a civil and criminal nature.

The high court of admiralty was formerly held at St. Margaret's Hall in Southwark. During the plague of London it was held at Jesus College, Oxford, the principal of this society, Sir Leoline Jenkins, having been judge of the court. But at, or about, that time it was transferred to the common hall of Doctors' Commons. It is a court of great antiquity, and is said as early as 26 Edw. I. to have existed time out of mind. The rules by which it was governed were the ancient laws, customs, and usages of the seas, including such selections from the laws of Rhodes and Oleron, the Waterrecht of Wisbuy, the Hanseatic ordinances, the Consolato del Mare, the marine ordinances of Louis XIV. (1681), and others which from their natural justice and sound policy obtained generally in the admiralty courts of Europe. (Fitchard's *Digest*, Preface.)

In ordinary cases, the Court of Admiralty is said to be general, in prize cases it is known by the name of Instance Court, and is called into existence from time to time, and as occasion arises, by a special commission under the great seal, at the commencement of each year. Appeals in prize cases are by a recent Act referred to the Judicial Committee of Privy Council.

**ADVANCE**—implies money paid before goods are delivered, or upon consignment. It is usual with merchants to advance from a half to two-thirds of the value of goods consigned to them, on being required, on their receiving invoice, bill of lading, orders to insure them from sea risk, &c.

**ADVERTISEMENT.** In its general sense, any information as to any fact or circumstance that has occurred, or is expected to occur; but, in

a commercial sense, it is understood to relate only to intimations with respect to the sale of articles, the formation and dissolution of partnerships, bankruptcies, meetings of creditors, &c.

Previously to 1833 a duty of 3s. 6d. was charged upon all advertisements, long or short, inserted in the *Gazette*, or in any newspaper, or literary work published in parts or numbers. This duty added about 100 per cent. to the cost of ordinary advertisements, and having been in consequence much objected to, it was reduced in the above-mentioned year to 1s. 6d. We ventured, at the time, to predict that this reduction would not be productive of any very serious injury to the revenue, and the result did not disappoint our expectations. In 1832, the last year of the high duty, the advertisement duty amounted to 170,550*l.*, whereas in 1852 it amounted to 181,966*l.*; and though a large portion of this increase must be ascribed to the increase of population and of the demand for advertisements in the interval, still there is no room or ground for supposing that it would have been nearly so great but for the reduction of the duty. But notwithstanding its diminution, the tax was a serious obstruction to the diffusion of information useful to all classes, and especially indispensable to commercial men. And it was, at the same time, unfair and unjust. What could be more partial and oppressive than to impose the same duty on the notice of the publication of a sixpenny pamphlet, or of a servant out of place, as on the intimation of the sale of a valuable estate? And as it was quite impossible to obviate this injustice while the duty was maintained, its repeal, in 1855, was at once a wise and a popular measure.

The best evidence of the enormous increase of advertising since that year, will be found in the increase of newspapers, the advertisements in which are one of the main sources of their profits. It was estimated by a writer in the *English Encyclopædia* in 1859, that the number of advertisements in the United Kingdom amounted to upwards of 4,000,000 annually. Since that period, however, owing to the vast increase in the number of newspapers, periodicals, and other vehicles for advertisement, the numbers must be considerably in excess of that estimate. To these advertisements in newspapers and other printed publications should be added, the numerous notices at Railway stations, and other places of public resort.

**ADVICE.** It is usually given by one merchant or banker to another *by letter*, informing him of the bills or drafts drawn on him, with all particulars of date, or sight, the sum, to whom made payable, &c. Where bills appear for acceptance or payment, they are frequently refused to be honoured for *want of advice*. It is also necessary to give advice, as it prevents forgeries: if a merchant accept or pay a bill for the honour of any other person, he is bound to advise him thereof, and this should always be done under an *act of honour* by a notary public.

**AGAR-AGAR** (Ch. hui tsai, *sea vegetable*). This term includes all sorts of edible seaweed, the prepared agar-agar is called *liang tsai* or cooling vegetable; *shih hua tsai* is the name of large sorts of seaweed. Agar-agar is the Malay name for the marine alga (*Plocaria* [*Fucus*] *tenax*) growing on the rocky shores of the Malayan islands, from which a glutinous jelly is prepared for the table by boiling; the name is likewise given to the jelly, and something very similar to it is also made from other species of seaweed, and applied to many useful purposes. The bamboo framework of lanterns is covered with paper saturated with this gum, which when dried is semi-transparent; it is also used by the paper and silk manufacturers

as an ingredient in sizing some varieties of their goods. It is incomparable as a paste, and is, moreover, not liable to be eaten by insects. Over 150,000 piculs were imported into Shanghai alone in 1859, and the amount at other ports is not small; the average price there was 6 dollars per picul, but it is got for 1½ to 2 dollars at the south. Its cheapness and admirable qualities as a paste render it worthy the attention of manufacturers in other countries. (Williams's *Chinese Com. Guide*.)

**AGATE**, popularly **CORNELIAN** (Ger. achat; Dutch, achaat; Fr. agate; Ital. agata; Russ. agat; Lat. achates). A genus of semi-pellucid gems, so called from the Greek *ἀγάτης*, because originally found on the banks of the river of that name in Italy. It is never wholly opaque like jasper, nor transparent as quartz-crystal: it takes a very high polish, and its opaque parts usually present the appearance of dots, eyes, veins, zones, or bands. Its colours are yellowish, reddish, bluish, milk-white, honey-orange, or ochre-yellow, flesh-blood, or brick-red, reddish brown, violet blue, and brownish green. It is found in irregular rounded nodules, from the size of a pin's head to more than a foot in diameter. The lapidaries distinguish agates according to the colour of their ground: the finer semi-transparent kinds being termed oriental. The most beautiful agates found in Great Britain are commonly known by the name of *Scotch pebbles*, and are met with in different parts of Scotland, principally on the mountain of Cairngorm; whence they are sometimes termed Cairngorms. The German agates are the largest. Some very fine ones have been brought from Siberia and Ceylon. They are found in great plenty at the eastern extremity of the settlement of the Cape of Good Hope; and are still met with in Italy. But the principal mines of agate are situated in the little principality of Rajpepla, in the province of Gujrat, fourteen miles distant from the city of Broach, where they are cut into beads, crosses, snuff-boxes, &c. They are exported in considerable quantities to other parts of India, and to this country: and hence, perhaps, the jewellers' term *brooch*.

The German agates are principally obtained from the mines of Oberstein, at Gulgenberg. There are several varieties of the agate, the principal of which known in commerce are chalcodony, the colours of which are in parallel bands, the onyx, the cornelian, the mocha stone, which is procured from the East, the moss agate, the jasp and opal agates, the plasma or heliotrope, or blood stone, the chrysolite, the sarlonyx, and the chrysolite or peredox, or olwin. This stone being porous, its colours are frequently heightened by artificial means; the process was long kept a secret in the East, but is now commonly known in Germany and elsewhere. Chalcodony is capable of being coloured to imitate the turquoise.

**AGENT.** [FACITUR.]

**AGIO.** A term used to express the difference, in point of value, between metallic and paper money; or between one sort of metallic money and another.

**AL ROOT** (*Moriada citrifolia*). The varieties of the *Moriada* grow freely throughout India, Malacca, Borneo, and Java. The bark and root of the *Moriada citrifolia* are used in dyeing, and furnish the dye used principally in dyeing the Madras red turbans. The colours thus obtained are very permanent, and are of three shades, bright red, pink red, and light red. Mr. Dashwood states, 'The al root is cultivated in the Banda Purgunnah. The Hummerpoor district is the great producing country for al, probably from there being facilities for irrigation. The plants come to maturity in

three years into three fibres, 7 and then for the d equal to 10 pared fibr umbellata of India, cured from one of the colour the bright (Catalogue 1862.)

**ALABAMA** Fr. albâtre kind of stone this name seems and distinct from the variety The former ish colour, ing a pol very easily polish equ heavier than marble, but good Polish statues are common and best alabaster beautiful with France and tables, vases

**ALBANY** York, and the state, Albany Hudson, and New York etc. tion is well larly that of by means of with New York west, by 6 r timber trade in wool, corn The Erie ca where a capan ing a pier m off and encl forming a bar affords a safe navigating t dious wharfag

Table showing at Tide-

Years	HS
1859	35
1860	37
1861	30
1862	41
1863	46
1864	49

Table showing at Alb

Years	
1859	
1860	
1861	
1862	
1863	
1864	

three years. The roots are then dug up and sorted into three kinds, according to the fineness of the fibres. The fibres are then cut, beaten down well, and then ground to powder, which latter is used for the dye. The proportion of prepared fibre is equal to the raw material. The cost of the prepared fibre is 1 rupee per manud. The *Morinda umbellata* produces one of the commonest red dyes of India, called *manghuda*. The best dye is procured from the bark of roots three years old. It is one of the commonest red dyes of India; though the colour is dull yet it is considered faster than the brighter tints obtained from other substances. (*Catalogue of Indian Department of Exhibition of 1862.*)

**ALABASTER** (Ger. alabaster; Ital. alabastro; Fr. albâtre; Russ. alabastir; Lat. alabastrites). A kind of stone resembling marble, but softer. Under this name are confounded two minerals, the *gypseous* and *calcareous* alabasters; they are wholly distinct from each other when pure, but in some of the varieties are occasionally mixed together. The former, when of a white or yellowish or greenish colour, semi-transparent, and capable of receiving a polish, is employed for statuaries. It is very easily worked, but is not susceptible of a polish equal to marble. Calcareous alabaster is heavier than the former; it is not so hard as marble, but is notwithstanding susceptible of a good polish, and is more used in statuary. The statuaries distinguish alabaster into two sorts, the common and oriental. Spain and Italy yield the best alabaster. That produced at Montania, in the papal states, is in the highest esteem for its beautiful whiteness. Inferior sorts are found in France and Germany. Alabaster is wrought into tables, vases, statues, chimney-pieces, &c.

**ALBANY.** The capital of the state of New York, and the second most important city of that state. Albany is situated on the west bank of the Hudson, and is distant about 145 miles north of New York city. Pop. in 1860, 62,367. Its position is well adapted for commerce, more particularly that of the lakes, with which it communicates by means of canals. It has also communications with New York, New England, Canada, and the west, by 6 railways. It is the seat of an immense timber trade, and also possesses a large commerce in wool, corn, barley, and manufactured tobacco. The Erie canal enters the city at the north end, where a capacious basin has been formed by erecting a pier more than a mile in length, which cuts off and encloses a part of a bend in the river, forming a basin having an area of 32 acres, which affords a safe winter harbour for boats and vessels navigating the river and canals, and also commodious wharfing.

Table showing the Official Receipts by the Canals at Tule-Water during the Years named.

Years	Boards and Scantling		Shingles	Timber	Staves
	feet	m.			
1859	252,529,600	177,000	1,354,000	260,946,000	
1860	277,688,800	65,100	1,299,800	282,310,000	
1861	301,607,000	45,200	1,190,000	304,228,000	
1862	412,105,800	49,800	2,506,800	357,640,000	
1863	466,501,600	36,100	5,560,000	282,478,000	
1864	495,287,100	30,832	4,121,000	286,250,000	

Table showing the Official Receipts by the Canals at Albany during the Years named.

Years	Boards and Scantling		Shingles	Timber	Staves
	feet	m.			
1859	291,771,762	48,756	70,581	114,074,505	
1860	301,022,630	41,222	46,888	118,783,369	
1861	462,552,500	31,784	41,751	143,581,500	
1862	425,889,100	52,622	148,217	210,212,100	
1863	215,611,500	21,325	307,700	116,740,500	
1864	255,418,130	21,001	311,985	185,789,195	

The value of the lumber, shingles, and staves received in 1861 exceeded 8,500,000 dollars.

**ALBANY.** [The port of West Australia. [FERRIL.] **ALCOHOL.** *Ardent Spirit* (Fr. esprit de vin; Ger. weingeist; Ital. spirito ardente, spirito di vino, alcool). The name given to the pure spirit obtainable by distillation, and subsequent rectification, from all liquors that have undergone the vinous fermentation, and from none but such as are susceptible of it. It is light, transparent, colourless; of a sharp, penetrating, agreeable smell; and a warm stimulating taste. It is quite the same, whether obtained from brandy, wine, whisky, or any other fluid which has been fermented. The specific gravity of alcohol when perfectly pure is nearly '838 at 30° Fahr., that of water being 1,000; but spirit of this strength cannot be obtained by mere distillation. Alcohol has not been frozen by any known degree of cold. It boils at 174°. It is the only dissolvent of many resinous substances; and is extensively used in medicine and the arts. (Drs. A. T. Thomson, Ure, &c.)

**ALDER.** The *Betula alnus* of botanists, a forest-tree abundant in England and most parts of Europe and N. America. The charcoal made from its wood is of an excellent quality, and is esteemed for the manufacture of gunpowder. The bark is sometimes used for tanning, and by the addition of coppers and other ingredients forms a dye for several colours. It thrives best in marshy grounds and on the banks of rivers. It rarely attains to a very great size; its wood is extremely durable in water or in wet ground; and hence it is much used for piles, planking, pumps, pipes, sluices, and generally for all purposes where it is kept constantly wet. It soon rots when exposed to the weather or to damp; and when dry, it is much subject to worm. The colour of the wood is reddish yellow, of different shades, and nearly uniform. Texture very uniform, with larger septa of the same colour as the wood. It is soft, and works easily. (Tredgold's *Principles of Carpentry.*)

**ALE AND BEER.** Well-known and extensively used fermented liquors, the principle of which is extracted from several sorts of grain, but most commonly from barley, after it has undergone the process termed malting.

1. *Historical Notice of Ale and Beer.*—The manufacture of ale or beer is of very high antiquity. Herodotus tells us, that owing to the want of wine, the Egyptians drank a liquor fermented from barley (lib. ii. c. 77). Xenophon during his retreat from Central Asia found it in use among the inhabitants of the Armenian Mountains. Mead, or metheglin, was probably the earliest intoxicating liquor known in the North of Europe. Ale or beer was, however, in common use in Germany in the time of Tacitus (*Morib. Germ.* c. 23). 'All the nations,' says Pliny, 'who inhabit the West of Europe have a liquor with which they intoxicate themselves, made of corn and water (*fruge nudida*). The manner of making the liquor is somewhat different in Gaul, Spain, and other countries, and it is called by many various names; but its nature and properties are everywhere the same. The people of Spain, in particular, brew this liquor so well that it will keep good for a long time. So exquisite is the ingenuity of mankind in gratifying their vicious appetites, that they have thus invented a method to make water itself intoxicate.' (*Hist. Nat. lib. xiv. ch. xxii.*) The Saxons and Danes were passionately fond of beer; and the drinking of it was supposed to form one of the principal enjoy-

ments of the heroes admitted to the hall of Odin. (Mallet's *Northern Antiquities*, ch. vi., &c.) The manufacture of ale was early introduced into England. It is mentioned in the laws of Ina, King of Wessex; and is particularly specified among the liquors provided for a royal banquet in the reign of Edward the Confessor. It was customary in the reigns of the Norman princes to regulate the price of ale; and it was enacted, by a statute passed in 1272, that a brewer should be allowed to sell two gallons of ale for a penny in cities, and three or four gallons for the same price in the country.

The use of hops in the manufacture of ale and beer seems to have been a German invention. They were used in the breweries of the Netherlands, in the beginning of the fourteenth century; but they do not seem to have been introduced into England till 200 years afterwards, or till the beginning of the sixteenth century. In 1530, Henry VIII. enjoined brewers not to put hops into their ale. It would, however, appear that but little attention was paid to this order; for in 1552 hop plantations had begun to be formed. (Beckmann's *Hist. Invent.* vol. iv. pp. 336—341. Eng. ed.) The addition of hops render ale more palatable, by giving it an agreeable bitter taste, while, at the same time, it fits it for being kept much longer without injury. Generally speaking, the English brewers employ a much larger quantity of hops than the Scotch.

The manufacture of malt liquors is by no means peculiar to this country. In 1865, a committee of three of the Brewers' Association of Philadelphia, inspected the breweries of Europe, and found that the consumption of beer was largely on the increase in, besides the United Kingdom, Belgium, Hesse Darmstadt, Nassau, Baden, Württemberg, Bavaria, Austria, Saxony, Prussia, Switzerland, France, Russia, Denmark, Sweden and Norway.

2. *Distinction between Ale and Beer or Porter.*—This distinction has been well elucidated by Dr. Thomas Thomson, in his article on Brewing, in the *Encyclopædia Britannica*: 'Both ale and beer are in Great Britain obtained by fermentation from the malt of barley; but they differ from each other in several particulars. Ale is light-coloured, brisk, and sweetish, or at least free from bitter: while beer is dark-coloured, bitter, and much less brisk. What is called *porter* in England is a species of beer; and the term '*porter*' at present signifies what was formerly called *strong beer*. The original difference between ale and beer was owing to the malt from which they were prepared. Ale malt was dried at a very low heat, and consequently was of a pale colour; while beer or porter malt was dried at a higher temperature, and had of consequence acquired a brown colour. This incipient charring had developed a peculiar and agreeable bitter taste, which was communicated to the beer along with the dark colour. This bitter taste rendered beer more agreeable to the palate, and less injurious to the constitution than ale. It was consequently manufactured in greater quantities, and soon became the common drink of the lower ranks in England. When malt became high-priced, in consequence of the heavy taxes laid upon it, and the great increase in the price of barley which took place during the war of the French revolution, the brewers discovered that a greater quantity of wort of a given strength could be prepared from pale malt than from brown malt. The consequence was that pale malt was substituted for brown malt in the brewing of porter and beer. We do not mean that the whole malt employed was pale, but a considerable proportion of it. The wort, of course,

was much paler than before: and it wanted that agreeable bitter flavour which characterised porter and made it so much relished by most palates. The porter brewers endeavoured to remedy these defects by several artificial additions. At the same time various substitutes were tried to supply the place of the agreeable bitter communicated to porter by the use of brown malt. Quassia, cocculus indicus, and we believe even opium, were employed in succession; but none of them was found to answer the purpose sufficiently. Whether the use of these substances be still persevered in we do not know; but we rather believe that they are not, at least by the London porter brewers.'

3. *Adulteration of Ale and Beer—Substitution of Raw Grain for Malt.*—The use of the articles other than malt, referred to by Dr. Thomson, has been expressly forbidden, under heavy penalties, by repeated Acts of Parliament. The Act 56 Geo. III. c. 58 has the following clauses:—

'No brewer or dealer in or retailer of beer shall receive or have in his possession, or make, or use, or mix with, or put into any worts or beer, any liquor, extract, calx, or other material or preparation for the purpose of darkening the colour of worts or beer; or any liquor, extract, calx, or other material or preparation other than brown malt, ground or unground, as commonly used in brewing; or shall receive, or have in his possession, or use, or mix with, or put into any worts or beer, any molasses, honey, liquorice, vitriol, quassia, cocculus indicus, grains of paradise, Guinea pepper, or opium, or any extract or preparation of molasses, honey, liquorice, vitriol, quassia, cocculus indicus, grains of paradise, Guinea pepper, or opium, or any article or preparation whatsoever for or as a substitute for malt or hops, upon pain that all such liquor, extract, calx, molasses, honey, vitriol, quassia, cocculus indicus, grains of paradise, Guinea pepper, opium, extract, article, and preparation as aforesaid, and also the said worts and beer, shall be forfeited, together with the casks, vessels, or other packages, and may be seized by any officer of excise; and such brewer or dealer in, or retailer of beer, so offending, shall for each offence forfeit 200*l.*

'No druggist or vender of or dealer in drugs, or chemist, or other person whatever, shall sell, send, or deliver to any licensed brewer or, or dealer in, or retailer of beer, knowing him to be so licensed, or reputed to be so licensed, or to any other person for, or on account of, or in trust for, or for the use of such brewer, dealer, or retailer, any colouring, from whatever material made, or any other material or preparation other than *unground brown malt*, for the purpose of darkening the colour of worts or beer; or any liquor or preparation heretofore or hereafter made use of for darkening the colour of worts or beer, or any molasses or other articles, as mentioned in the first section, for or as a substitute for malt or hops respectively; and if any druggist, or vender or dealer in drugs, or any chemist, or other person whatever, shall so do, all such liquor called colouring, and material or preparation for the purpose aforesaid, and liquor and preparation used for darkening the colour of worts or beer, molasses, and articles or preparation to be used as a substitute for malt or hops, shall be forfeited, and may be seized by any officer of excise; and the druggist, vender, dealer, chemist, or other person so offending, shall forfeit 500*l.*

By the Act 1 Wm. IV. c. 51, for the repeal of the ale and beer duties, it is enacted (s. 17) that no brewer shall have in his brewery, or in any part of his entered premises, or in any mill connected with

such brewer, grain; and shall be found in any such mixed, shall any officer, to in which such be contained, grain, and the same may tained; and offence forfeit 200*l.*

4. *Descriptive* 1823 (there were brewed in beer of the value exclusive of the value of less than duty. In 1823 (1 Geo. IV. c. 5 certain conditions this sort of beer taste, or, which laid on the brew extensively in it.

This limitation sorts of ale and originated in the that these duties may be brewed of

The brewing of eipal, or rather, eipal, manufacture Edinburgh. The colour, mild, glut stronger and more 4 to 5 bushels of brewing a barrel to a bushel of m duce of the ale 1 estimated at above good ale is also m other Scotch town Edinburgh ale are trade has latterly may be produced it is doubtful wh porter; at all ev duced in very larg

Formerly it was porter could be ma Of late years, howe to high and not we certainly are no consider it as nee London porter.

Large quantities hopped variety of siderable time past where it is in high very extensively us

5. *Regulations as and Beer.*—Since these regulations a consist only in taki premises, and abste article, other than beer. A brewer usi the purpose of brew entry thereof at the for every such offe beer, and materials b with the mash-tun, seized by any officer, for every offence for ss. 15, 16.)

such brewery, any raw or unmalted corn or grain; and all unmalted corn or grain which shall be found in such brewing premises or mill, and all malted corn or grain with which such unmalted corn or grain may have been mixed, shall be forfeited, and may be seized by any officer, together with all vessels or packages in which such raw or unmalted corn or grain shall be contained, or in which such unmalted corn or grain, and the malted corn or grain with which the same may have been mixed, shall be contained; and every brewer shall for every such offence forfeit 200*l*.

4. *Description of Ale and Beer.*—Previously to 1823 there were only two sorts of beer allowed to be brewed in England, viz. *strong beer*, that is, beer of the value of 16*s*. and upwards the barrel, exclusive of the duty; and *small beer* or beer of the value of less than 16*s*. a barrel, exclusive of the duty. In 1823, however, an Act was passed, (1 Geo. IV. c. 51) authorising the brewing, under certain conditions, of an *intermediate* beer. But this sort of beer was either not suited to the public taste, or, which is more probable, the restrictions laid on the brewers deterred them from engaging extensively in its manufacture.

This limitation and classification of the different sorts of ale and beer, according to their strength, originated in the duties laid upon them; and now that these duties have been repealed, ale and beer may be brewed of any variety or degree of strength.

The brewing of ale has long constituted a principal, or rather, perhaps, we might say the principal, manufacturing employment carried on in Edinbrough. The best Edinbrough ale is of a pale colour, mild, glutinous and adhesive. It is much stronger and more intoxicating than porter, from 4 to 5 bushels of malt being generally used in brewing a barrel of ale, with about 1 lb. of hops to a bushel of malt. At present (1853) the produce of the ale breweries of Edinbrough may be estimated at above 201,000 barrels a year. Very good ale is also made at Preston Pans, Allon, and other Scotch towns. Considerable quantities of Edinbrough ale are sent to London; though this trade has latterly been decreasing. Very good ale may be produced by brewers on a small scale, but it is doubtful whether this be the case with porter; at all events the best porter is all produced in very large establishments.

Formerly it was not supposed that really good porter could be made anywhere except in London. Of late years, however, Dublin porter has attained to high and not unmerited reputation; though we certainly are not of the number of those who consider it as nearly approaching to the best London porter.

Large quantities of a light, pale, and highly-hopped variety of ale have been for some considerable time past exported to the East Indies, where it is in high estimation; and it is now also very extensively used in summer in this country.

5. *Regulations as to the Manufacture of Ale and Beer.*—Since the abolition of the beer duties these regulations are very few and simple; and consist only in taking out a licence, entering the premises, and abstaining from the use of any article, other than malt, in the preparation of the beer. A brewer using any place, or mash-tun, for the purpose of brewing, without having made an entry thereof at the nearest excise office, forfeits for every such offence 200*l*.; and all the worts, beer, and materials for making the same together with the mash-tun, are forfeited, and may be seized by any officer.—Brewers obstructing officers for every offence forfeit 100*l*. (1 Wm. IV. c. 51, ss. 15, 16.)

6. *License Duties.—Number of Brewers.*—The license duties payable by brewers of ale and beer, and the numbers of such licenses granted during the year 1864-5 were as follows:—

*Account showing the Number of Licenses issued to Brewers in the Year 1864-5, with the Rates of Duty charged thereon (supplied by the Excise).*

Common Brewers in the United Kingdom paying for Licenses			Amount Charged on each Class	The Supplementary Charge on the Licenses expiring on September 30, 1865	The Supplementary Distribution on the Licenses (expiring on September 30, 1865)						
Ex-ceeding	Not ex-ceeding	Num-ber	£	s	d.	£	s	d.	£	s	d.
barrels	barrels										
14,000	10,000	31,072	94,866	17	6	17,218	16	6	8,151	14	0
10,000	10,000	1,617	78,149	18	0	16,285	5	6	5,803	7	0
10,000	20,000	178	33,568	18	0	3,355	16	0	872	18	0
20,000	30,000	61	22,125	0	0	2,193	4	6	521	16	4
30,000	30,000	51	17,525	18	0	2,650	9	0	230	5	0
30,000	100,000	210	18,408	2	6	1,850	0	0	261	7	6
100,000	150,000	7	10,957	7	6	1,096	5	0	—	—	—
150,000	200,000	1	3,172	15	0	—	6	5	0	—	—
200,000	250,000	1	11,613	10	0	999	7	6	—	—	—
250,000	300,000	5	11,188	7	6	599	12	6	21	17	6
300,000	350,000	—	—	—	—	—	—	—	—	—	—
350,000	400,000	1	4,615	5	0	10	17	4	—	—	—
400,000	450,000	1	5,262	15	0	—	—	—	298	2	6
450,000	500,000	1	5,297	2	6	—	—	—	55	0	0
500,000	550,000	—	—	—	—	—	—	—	—	—	—
550,000	600,000	1	7,009	0	0	—	—	—	715	0	0
600,000	—	1	7,581	0	0	—	—	—	163	2	6
Brewers at											
1 <i>z</i> . 6 <i>d</i> .		4,718	2,967	10	0	—	—	—	—	—	—
		37,713	354,190	4	6	32,096	6	4	15,991	17	4
Not supplementary charges			28,101	9	0	28,101	9	4	—	—	—
Total amount paid by all classes			360,291	13	6	—	—	—	—	—	—

N.B.—The barrel contains 36 gallons or 4 firkins of 9 gallons each, imperial measure. It is enacted (1 Wm. IV. c. 51, s. 7), that brewers shall pay their license duty according to the malt used by them in brewing, and that every brewer shall be deemed to have brewed *one* barrel of beer for every *two* bushels of malt used by such brewer.

It is enacted (1 Wm. IV. c. 51), that every person who shall sell any beer or ale in less quantities than four and a half gallons or two dozen reputed quart bottles, to be drunk elsewhere than on the premises where sold, shall be deemed a dealer in beer.

7. *Progressive Consumption of Ale and Beer.*—Malt liquor early became to the labouring classes of England what the inferior sorts of wine are to the people of France, at once a necessary of life and a luxury; the taste for it was universally diffused. There are, however, no means by which an estimate can be formed of the quantity actually consumed previously to the reign of Charles II. But duties, amounting to 2*s*. 6*d*. a barrel on strong, and to 6*d*. a barrel on small ale or beer, were imposed, for the first time, in 1660. These duties being farmed until 1681, the amount of the revenue only is known; and as there are no means of ascertaining the proportion which the strong bore to the small beer, the quantities that paid duty cannot be specified. But since the collection of the duty was entrusted to officers employed by government accurate accounts have been kept of the quantities of each sort of beer on which duty was paid, as well as the rate of duty and its amount. Now it appears, that at an average of the ten years from 1681 to 1693 inclusive, the amount of ale annually charged with duty was as follows:—

Strong ale	4,567,295	barrels.
Small do.	2,376,218	do.

Soon after the Revolution, several temporary duties were imposed on ale and beer: but in 1694 they were consolidated, the established duties being then fixed at 4*s*. 9*d*. a barrel on the strong, and at 1*s*. 3*d*. on the small beer, instead of 2*s*. 6*d*.

Account of the Brewers, Licensed Victuallers, Persons Licensed for the Sale of Beer to be Drunk on and off the Premises, &c., with the Quantities of Malt used by such Brewers, &c. in England, Scotland, and Ireland, during the Year 1864-5.

	Number of				Number who brew their own Beer		Bushels of Malt consumed by each Class				
	Brewers	Vic-tuallers	Persons Licensed to sell Beer		Vic-tuallers	Persons Licensed to sell Beer		Brewers	Vic-tuallers	Persons Licensed to sell Beer	
			To be drunk on the Premises	Not to be drunk on the Premises		To be drunk on the Premises	Not to be drunk on the Premises			To be drunk on the Premises	Not to be drunk on the Premises
England	2,455	66,833	42,660	2,859	21,451	9,978	515	30,886,616	7,791,555	3,500,269	351,037
Scotland	110	12,182	—	—	88	22	—	1,352,313	282,651	—	—
Ireland	90	15,169	—	—	—	—	—	9,248,722	410	—	—
United Kingdom	2,135	94,126	42,660	2,859	21,449	10,000	515	35,267,253	8,077,445	3,500,269	351,037

and 6d., which had been the rates previously to 1690. This increase of duty had an immediate effect on the consumption, the quantity brewed during the ten years from 1691 to 1703 being as follows:—

Strong ale	5,774,604 barrels.
Small do.	2,190,761 do.

The whole of this decrease must not, however, be ascribed to the increase of the beer duties only, the duty on malt and hops having been, at the same time, considerably increased, operated partly no doubt to produce the effect.

During the five years ending with 1750 the ale brewed amounted, at an average, to 3,803,580 barrels of strong, and 2,162,540 barrels of small. (Hamilton's *Principles of Taxation*, p. 255.)

The ale brewed in private families for their own use has always been exempted from any duty; and it may, perhaps, be supposed that the falling off in the consumption, as evinced by the statements now given, was apparent only, and that the decline in the public brewery would be balanced by a proportional extension of the private brewery. But though there can be no doubt that the quantity of beer brewed in private families was increased in consequence of the peculiar taxes laid on the beer brewed for sale, it is abundantly certain that it was not increased in anything like the ratio in which the other was diminished. This is established beyond all dispute, by the fact of the consumption of malt having continued *very nearly stationary*, notwithstanding the vast increase of population and wealth, from the beginning of the last century down to 1750, and, indeed, to 1830. [MALT.] Had the fact as to malt been different, or had the demand for it increased proportionally to the increase of population, it would have shown that the effect of the malt and beer duties had not been to lessen the consumption of beer, but merely to cause it to be brewed in private houses instead of public breweries; but the long continued stationary demand for malt completely negatives this supposition, and shows that the falling off in the beer manufactured by the public brewers had not been made up by any equivalent increase in the supply manufactured at home.

During the years 1787 to 1830 the tax levied on the barrel of strong beer varied. It was 8s. at the first mentioned date, was varied to 9s. 5d. in 1802, and to 10s. in 1804. It varied between 9s. to 9s. 10d. in 1826, and was finally repealed in 1830.

The gross amount of revenue received by the excise, varied little between 1801 and 1830, being about 3,000,000*l.* per annum.

The stationary consumption of malt and beer during the greater part of last century is, most probably, in great part ascribable to the introduction and rapid diffusion of a taste for tea and coffee, and to the consequent change that was effected in the mode of living of the middle and

upper classes. No doubt, however, the oppressive duties with which malt and beer were loaded in the latter part of last century and down to 1830 narrowed their consumption in an extraordinary degree. After various previous additions the duty on malt was raised in 1804 to 4s. 5d. per bushel, or 35s. 10d. a quarter, the beer duties being then also raised to 10s. per barrel (old measure); and as a quarter of malt produced about three or three and a half barrels of beer, it follows that the duty on malt used in breweries really amounted at that period to from 65s. 10d. to 70s. 10d. a quarter, making the duty on strong beer, exclusive of that on hops, about 20s. a barrel. The duty on malt continued at this exorbitant rate till 1816; and to show its influence it is only necessary to state that during the 12 years ending with 1816 the consumption of malt amounted to no more than 23,197,754 bushels a year, being, notwithstanding the vast increase of wealth and population in the interval, less than it had been a century previously, the consumption having amounted to 24,191,304 bushels a year during the twelve years ending with 1720! [MALT.] The duties had, in fact, been completely overdone; and besides hindering the consumption of malt and malt liquors, they had the mischievous effect of vitiating the public taste and stimulating the consumption of ardent spirits, especially of those made from raw grain. In 1816, however, the duty on malt was reduced to 2s. 5d. a bushel, and since 1823 it has amounted to 2s. 7d. a bushel, or 20s. 8d. a quarter; and the beer duty having been abolished in 1830, this has been the only duty with which malt liquor has since been affected. And though we are unable, from the want of subsequent returns, to state how much the consumption of beer has increased since 1830, the increase in the consumption of malt shows that it must be very considerable.

We subjoin—

An Account of the Quantities of Malt brewed by the Fourteen principal London Porter and Ale Brewers, during the 7 Years ending with 1852.

[Unit 000 omitted: thus 112=112,000.]

	1816	1817	1818	1819	1820	1851	1852
Truman, Hanbury, and Co.	127	127	127	127	127	127	127
Darcelay, Perkins, and Co.	112	101	105	105	106	118	112
Meux and Co.*	87	61	60	59	60	65	66
Beal and Co.*	67	62	51	56	56	59	60
Whitbread and Co.	55	43	51	51	51	51	52
Cambe and Co.	51	42	41	43	45	48	47
Hoare and Co.	32	—	—	—	—	51	55
Ellis, Watney, and Co.	32	—	—	—	—	32	26
Caivert and Co.	32	31	28	24	23	35	32
Mann, Crossman, and Co.	19	19	21	21	25	28	30
Chatterton, Heath, and Co.	23	21	21	22	22	23	24
Taylor, Walker, and Co.	17	18	17	15	15	16	17
Gosling and Co.	19	17	15	15	15	16	16
Conrage and Co.	15	13	13	11	11	15	16

Those marked thus \* brew porter only. 1 627,188 lb. sugar.

The duties thus brewed were even more indefensible from the mode in which they were charged than

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from their amount. They affected only that description of beer which was brewed for sale; and as all the higher classes brewed their own beer, the duty fell only on the lower and middle ranks of the community, and particularly the former. It is singular that a tax so grossly unequal and oppressive should have been so long submitted to.

But besides the obstacles to the consumption of beer arising from the oppressive duties with which it was burdened, the system formerly in force for granting licenses for its sale opposed obstacles that were hardly less formidable. Previously to 1830 no one could open a house for the sale of beer without first obtaining a license renewable annually from the magistrates; and as these functionaries were accustomed only to grant licenses to the occupiers of particular houses, the brewers naturally endeavoured, in order to ensure the sale of their beer, either to buy up those houses or to lend money upon them; and in many extensive districts a few large capitalists succeeded in engrossing most of the public houses, so that even the appearance of competition was destroyed, and a ready market and good prices secured for the very worst beer. We, therefore, look upon the abolition of the beer duties, and the granting of leave to all persons to retail beer on their taking out proper licenses, as highly advantageous measures. The conditions under which such licenses are taken out, and the sale of beer conducted, are fixed by the Acts 1 Wm. IV. c. 64, and the 4 & 5 Wm. IV. c. 85. Under the former the commissioners of excise, or other persons duly authorised, were bound to grant licenses, costing 2*l.* 2*s.* a year, to all persons not excepted in the act, empowering them to sell ale, beer, porter, cider, &c. to be drunk indifferently either on or off the premises. But in consequence of the complaints (whether well or ill founded it is now needless to inquire) of the increase and bad character of beer shops, the Act 4 & 5 Wm. IV. c. 85 makes the obtaining of a license to retail beer to be drunk on the premises contingent on the applicant being able to produce a certificate of good character, subscribed by certain persons rated at a certain amount to the poor; it also raised the cost of such license to 3*l.* 3*s.*, and reduced the cost of a license to sell beer not to be drunk on the premises to 1*l.* 1*s.* These licenses are now (1853) 6*l.*s. 13*d.* and 22*s.* 0*d.* We subjoin an abstract of the Acts.

*Persons applying for a License to sell Beer to be drunk on the premises, to deposit a Certificate of good Character, &c.*—Every person applying for a license to sell beer or cider by retail, to be drunk in the house or on the premises, shall annually produce to and deposit with the commissioners of excise, collector, or other person authorised to grant such license within the parish or place in which the person applying intends to sell beer or cider by retail, a certificate signed by 6 persons residing in and being and describing themselves to be inhabitants of such parish, place, &c., and respectively rated therein to the poor at not less than 6*l.*, or occupying a house therein rated to the poor at not less than 6*l.*, none of whom shall be maltsters, common brewers, or persons licensed to sell spirituous liquors or beer or cider by retail, nor owners or proprietors of any houses licensed to sell liquors, beer, or cider by retail, stating that the person applying for the license is of good character; and at the foot of such certificate one of the overseers of the parish, township, or place shall certify (if the fact be so) that such 6 persons are inhabitants respectively rated as aforesaid; and such certificate shall respectively be in the form of the schedule annexed to this Act: provided always, that in any parish, township, or district

maintaining its own poor, in which there are not 10 inhabitants rated to their relief to the amount of 6*l.* each or not occupying houses respectively rated to the poor at 6*l.* each (not being maltsters, common brewers, or persons licensed to sell spirituous liquors or beer or cider by retail), the certificate of the majority of the inhabitants of such parish, township, or district maintaining its own poor, as are rated to the amount of 6*l.* each, shall be deemed to be a sufficient certificate for the purposes of this Act. (4 & 5 Wm. IV. s. 2.)

*Penalty on Overseers.*—Any overseer who shall, without due cause, refuse to certify that the persons who have signed the certificate are respectively rated to the poor's rate as aforesaid to forfeit not more than 5*l.* (Sec. 3.)

*Beer drunk in sheds.*—Any person licensed under the Act 1 Wm. IV. c. 64 to sell beer, cider, &c. not to be consumed on the premises, who shall employ, permit, or suffer any person or persons to take or carry any beer, &c. from his house or premises, to be drunk or consumed for his benefit or profit, in any other house, tent, shed, &c. belonging to, or hired, used, or occupied by such licensed person, such beer, &c. shall be held to have been consumed on the premises, and the person selling the same shall be subject to the like forfeitures and penalties as if it had been actually drunk or consumed in a house or upon premises licensed only for the sale thereof. (Sec. 4.)

*Billeting.*—Provisions for billeting soldiers under Mutiny Acts to extend only to those licensed to sell beer or cider to be drunk in the house or on the premises, and not to extend to those licensed to sell beer not to be consumed on the premises. (Sec. 5.)

*Justices to regulate the Opening and Closing of Houses.*—Justices in petty sessions are authorised to fix the hours at which houses and premises licensed to sell beer under this Act shall be opened and closed; but any person thinking himself aggrieved by any such order may appeal at any time, within 4 months from its date, to the justices in quarter sessions, on giving the justices making the order 14 days' notice of his intention; and the decision of the justices in quarter sessions shall be final: provided, however, that the hour to be fixed for opening any house shall not in any case be earlier than 5 o'clock in the morning, nor for closing the same later than 11 o'clock at night, or before 1 o'clock in the afternoon on Sunday, Good Friday, Christmas Day, or any day appointed for a public fast or thanksgiving; and the hours so fixed by the justices, with reference to the districts within their jurisdictions, shall be taken to be the hours to be observed and complied with under this Act as fully as if the same had been specially appointed by it. (Sec. 6.)

*Constables, &c. to visit licensed Houses.*—All constables and officers of police are authorised to enter into all houses licensed to sell beer or spirituous liquors to be consumed upon the premises whenever they shall think proper; and if any person licensed as aforesaid, or any servant or person in his employ or by his direction, shall refuse to admit such constables, &c. into such house or premises, the person having the license shall for the first offence forfeit and pay any sum not exceeding 5*l.*, together with the costs of conviction, to be recovered within 20 days before 1 or more justices; and it shall be lawful for any 2 or more justices, upon any person being convicted of such offence for the second time, to adjudge (if they think fit) that such offender be disqualified from selling beer, ale, porter, cider, or perry, by retail, for 2 years after such conviction, or for such shorter space as they may think proper. (Sec. 7.)

**Penalty for making or using false certificates.**—Persons certifying any matter having reference to this Act as true, who know the same to be false, or using any certificate, knowing the same to be forged, shall, on conviction of such offence before 2 or more justices, forfeit and pay the sum of 20*l.*; and every license granted to any person making use of any certificate to obtain the same, such persons knowing such certificate to be forged, or the matters certified therein to be false, shall be void to all intents and purposes; and any person using such certificate shall be disqualified for ever from obtaining a license to sell beer or cider by retail. (Sec. 8.)

**No License to be granted without a Certificate.**—No license for the sale of beer or cider by retail to be consumed or drunk in the house or on the premises shall be granted, except upon the certificate hereby required: provided, that in all extra-parochial places the certificate required by this Act may be signed and given by inhabitants rated in the poor at 6*l.* in any adjoining parish or parishes. (Sec. 9.)

**Retailers to produce their Licenses on Requisition of 2 Magistrates.**—In case any complaint be laid before 2 justices against any licensed person for an offence against the tenor of his license, or against this Act or the Act 1 Wm. IV. c. 64, the said justices may require such person to produce his license before them for their examination; and if he shall fully neglect or refuse so to do, he shall forfeit for such offence any sum, not exceeding 5*l.*, the said justices shall think proper; and such person may be convicted, proceeded against, and dealt with for such offence in the same manner, *mutatis mutandis*, as is directed by the Act 1 Wm. IV. c. 64, with regard to persons guilty of a first offence against said Act; and the penalty imposed for such offence is to be applied in the manner that a penalty for a first offence against said Act is directed to be applied. (Sec. 10.)

**Continuance of Powers, &c.**—The powers, provisions, and penalties of 1 Wm. IV. c. 64, to apply to persons licensed under this Act, and to their sureties, &c. (Sec. 11.)

**Duties on Beer Licenses.**—There shall be paid upon the licenses hereby authorised to be granted the duties following; viz.

For and upon every license to be taken out by any person for the sale of beer by retail, not to be drunk or consumed in or upon the house or premises where sold, the annual sum of 1*l.* 1*s.*

For and upon every license to be taken out by any person for the sale of beer by retail, to be drunk or consumed in or upon the house or premises where sold, the annual sum of 3*l.* 3*s.* (Sec. 13.)

The duties to be under the management of commissioners of excise, and to be recovered and accounted for under the provisions of the Act 1 Wm. IV. c. 64. (Sec. 14.)

**Not to affect Duty on Licenses to retail Cider and Perry.**—Nothing in this Act shall affect the amount of duty payable under the 1 Wm. IV. c. 64, on licenses to retail cider and perry; but every such license shall specify whether it be granted for the sale of cider and perry by retail not to be drunk in the house or premises where sold, or for the retail of the same to be drunk in the house or premises where sold. (Sec. 15.)

**Licenses under this Act not to authorise Persons to sell Wine.**—No license granted under the Act 1 Wm. IV. c. 64 and this Act, shall authorise any person to take out or hold any license for the sale of wine, spirits, or sweets or made wines, or mead or metheglin; and if any person licensed under the Act 1 Wm. IV. c. 64 and this Act, shall permit

or suffer any wine, spirits, &c. to be brought into his house or premises to be drunk or consumed there, or shall suffer them to be drunk or consumed in his house or premises, he shall, over and above any excise penalties to which he may be subject, forfeit 20*l.* (Sec. 16.)

**Penalty on unlicensed Persons.**—Such persons selling beer and cider by retail to be drunk off the premises, 10*l.*; to be drunk on the premises, 20*l.* (Sec. 17.)

**Board over the Door.**—Every person licensed to sell beer, cider, or perry, by retail, under the authority of the Act 1 Wm. IV. c. 64 and this Act, shall, on the board required by the former Act to be placed over his door, paint and keep thereon, after the words 'licensed to sell beer or cider by retail,' the additional words, 'not to be drunk on the premises,' or 'to be drunk on the premises,' as the case may be, on pain of forfeiting the penalty imposed by such Act for not having such board over the door. (Sec. 18.)

**What is retailing of Beer, &c.**—Every sale of beer or of cider or perry, in any less quantity than 4½ gallons shall be deemed and taken to be a sale by retail. (Sec. 19.)

**Penalties for selling Spirits or Wine without a License.**—Persons licensed to sell beer or cider under the Act 1 Wm. IV. c. 64 and this Act, who sell spirits or wine, sweets, &c. without being licensed, are liable to the penalties imposed by the laws of excise for selling spirits or wine, sweets, &c. without license. (Sec. 20.)

**Certificate not to be required for Houses in certain Situations, if Population exceed 5,000.**—The before-mentioned certificate shall not be required as to any house situated within the cities of London and Westminster, or within any parish or place within the bills of mortality, nor within any city or town corporate, nor within the distance of 1 mile from the place used at the last election as the place of election or polling place of any town returning a member to parliament, provided that the population, determined according to the last parliamentary census taken in such city, town, &c. shall exceed 5,000, provided that no license for the sale of beer, ale, porter, cider, or perry by retail on the premises in the cities of London and Westminster, or in any parish within the bills of mortality, or in any such city or town corporate, or town returning a member to parliament as before mentioned, shall be granted after the 5th day of April, 1836, unless the house or premises specified as those in which beer or cider is intended to be sold shall be of the value of 10*l.* per annum. (Sec. 21.)

#### Form of Certificate referred to in Sec. 2.

We, the undersigned, being inhabitants of the parish [or township as the case may be] of \_\_\_\_\_ and respectively rated to the poor at not less than 6*l.* per annum, and none of us being maltsters, common brewers, or persons licensed to sell spirituous liquors, or being licensed to sell beer or cider by retail, do hereby certify, That A. B., dwelling in \_\_\_\_\_ street [here specify the street, lane, &c.] in the said parish [or township, &c.] is a person of good character.

[Here insert the day of signing the certificate.]

(Signed) E. F.

G. H.

I. K.

L. M.

N. O.

P. Q.

[Here state the residence of each of the persons signing.]

I do hereby certify, that all the above-mentioned persons whose names are subscribed to this certificate are inhabitants of the parish [or township,

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## C. D.

[Overseer of the parish or township, &c.]  
Date

In addition to the above the following clauses of the Act 1 Wm. IV. c. 64, are still in force:—

Persons trading in partnership and in one house shall not be obliged to take out more than one license in any one year, provided also, that no one license shall authorise any person to sell beer, in any other than the house mentioned in such license. (Sec. 10.)

In cases of riot or expected riot or tumult, every person licensed under this Act, and keeping any house situate within their jurisdictions, shall close his house at any time which the justice or justices shall direct; and every such person who shall keep open his house at or after any hour at which such justices shall have so ordered or directed such house to be closed, shall be deemed to have not maintained good order and rule therein, and to be guilty of an offence against the tenor of his license. (Sec. 11.)

Every person licensed to sell beer by retail, shall sell (except in quantities less than a half pint) by the gallon, quart, pint, or half-pint measure, sized according to the standard; and in default thereof, he shall for every such offence forfeit the illegal measure, and pay not exceeding 4*s.*, together with the costs of the conviction, to be recovered within thirty days next after that on which such offence was committed, before two justices; such penalty to be over and above all penalties to which the offender may be liable under any other Act. (Sec. 12.)

Every seller of beer by retail, having a license under this Act, who shall permit any person to be guilty of drunkenness, or disorderly conduct, in the house mentioned in such license, shall forfeit the sums following: for the first offence, not less than 4*s.* nor more than 5*l.*, as the justices, before whom such retailer shall be convicted, shall adjudge; and for the second offence, any sum not less than 5*l.* nor more than 10*l.*; and for the third offence, any sum not less than 20*l.* nor more than 50*l.*; and it shall be lawful for the justices, before whom any such conviction for such third offence shall take place, to adjudge, if they shall think fit, that such offender shall be disqualified from selling beer by retail for the space of two years next ensuing such conviction, and also that no beer shall be sold by retail by any person in the house mentioned in the license of such offender; and if any person so licensed shall, knowingly, sell any beer, ale, or porter, made otherwise than from malt and hops, or shall mix, or cause to be mixed, any drugs or other pernicious ingredient with any beer sold in his house, or shall fraudulently dilute, or in any way adulterate, any such beer, such offender shall for the first offence forfeit not less than 10*l.* nor more than 20*l.*, and for the second such offence such offender shall be adjudged to be disqualified from selling beer, ale, or porter, by retail, for the term of two years, or to forfeit not less than 20*l.* nor more than 50*l.*, and shall be subject to a like penalty at every house where he shall commit such offence; and if any person shall during any term in which it shall not be lawful for beer to be sold by retail on the premises of any offender, sell any beer by retail on such premises knowing that it was not lawful to be sold, such offender shall forfeit not less than 10*l.* nor more than 20*l.*; every person suffering the conditions of the license to be infringed to be deemed guilty of disorderly conduct. (Sec. 13.)

Retailers' houses not to be open before four in the

morning, nor after ten in the evening: nor between the hours of ten in the forenoon and one in the afternoon, nor at any time between the hours of three and five in the afternoon on any Sunday, Good Friday, Christmas-day, or any day appointed for a public fast or thanksgiving: and any person offending herein shall forfeit 40*s.* for every offence; every separate sale to be deemed a separate offence. (Sec. 14.)

All penalties under this Act, except for selling beer by any person not duly licensed, shall be recovered, upon the information of any person before two justices in petty sessions; and every such penalty shall be prosecuted for within three calendar months next after the offence; and every person licensed under this Act, who shall be convicted before two justices, shall, unless proof be adduced to the satisfaction of such justices that such person had been theretofore convicted before two justices, within the space of twelve calendar months next preceding, be adjudged by such justices to be guilty of a first offence against this Act, and to forfeit and pay any penalty by this Act imposed for such offence, or if no specific penalty be imposed, then any sum not exceeding 5*l.*, together with the costs of the conviction; and if proof be adduced to the satisfaction of such justices that such person had been previously convicted, within the space of twelve calendar months next preceding, of one such offence only, such person to be adjudged guilty of a second offence against this Act, and to forfeit and pay any penalty by this Act imposed for such offence, or if no specific penalty be so imposed, then any sum not exceeding 10*l.*, together with the costs of conviction; and if proof shall be adduced that such person had been previously convicted, within the space of eighteen calendar months next preceding, of two such separate offences, and if proof be adduced that such person so charged is guilty of the offence charged against him, such person shall be adjudged to be guilty of a third offence against this Act, and to forfeit and pay any penalty imposed by this Act, in respect of such offence, or if no such specific penalty shall be imposed, then to forfeit and pay the sum of 50*l.*, together with the costs of conviction. (Sec. 15.)

The party, convicted of any such third offence, may appeal to the general sessions, or quarter sessions then next ensuing, unless held within twelve days after conviction, and in that case, to the then next subsequent sessions; and, in such case, the party convicted shall enter into a recognisance, with two sureties personally to appear at the said general or quarter sessions, to abide the judgment of the court; and to pay such costs as shall be by the court awarded; or, in failure of the party convicted entering into such recognisance, such conviction shall remain good and valid; and the said justices who shall take such recognisance are also required to bind the person who shall make such charges to appear at such general or quarter sessions, then and there to give evidence against the person charged, and, in like manner, to bind any other person who shall have any knowledge of such offence; and it shall be lawful for the said general or quarter sessions to adjudge such person to be guilty of such third offence against this Act, and such adjudication shall be final; and it shall be lawful for such general or quarter sessions to punish such offender by fine, not exceeding 100*l.* together with the costs of such appeal, or to adjudge the license to be forfeited, or that no beer be sold by retail in the house for the term of two years, and if such license shall be adjudged to be forfeited, it shall henceforth be void; and whenever, in such case, the license of such offender shall be adjudged to be void, such offender shall be deemed incapable

of selling beer, ale, or porter, by retail, in any house, kept by him, for the space of two years, to be computed from the time of such adjudication; and any license granted to such person during such term shall be void. (Sec. 16.)

In default of payment of penalties, proceedings may be had against the sureties. (Sec. 19.)

Any person summoned as a witness who shall neglect or refuse to appear, and not make such reasonable excuse for such neglect, &c., as shall be admitted by such justices of sessions, or who, appearing, shall refuse to be examined, shall, on conviction, forfeit not exceeding 10*l.* (Sec. 20.)

Offenders refusing or neglecting, within seven days after conviction, to pay the penalty imposed, and any costs assessed, such justices may issue their warrant to levy the amount by distress and sale, together with the costs of distress and sale; and in every such case, such offenders, if in custody, shall be forthwith discharged; but if the goods and chattels are not sufficient, such justices may commit the offender to the common gaol or house of correction for not exceeding one calendar month, if the penalty shall not be above 5*l.*; for not exceeding three calendar months, if the penalty shall be above 5*l.* and not more than 10*l.*; and for not exceeding six calendar months, if the penalty shall be above 10*l.*; provided, that whenever such offender shall pay to the gaoler or keeper, or to whomsoever such justices shall have appointed, the penalty and costs, together with all the costs of apprehension and conveyance to gaol, at any time previous to the expiration of the time for which such offender shall have been committed, such offender shall be forthwith discharged. (Sec. 21.)

No conviction under this Act, nor any adjudication made upon appeal therefrom, shall be quashed for want of form, nor removed by *certiorari*. (Sec. 27.)

Every action against any justice, constable, or other person, for anything done in execution of his duty under this Act, to be commenced within three calendar months, and not afterwards; and if any person be sued, he may plead the general issue, and give the special matter in evidence. (Sec. 23.)

This Act not to affect the two universities, nor the vintners' company in London; nor to prohibit the sale of beer at fairs, as heretofore.

11. *Scotch Ale and Beer Duties.*—The duties on ale and beer in Scotland have been for a lengthened period the same as in England.

At the union in 1707, the English duties on ale and beer were introduced into Scotland. But besides strong and small beer, the Scotch had an intermediate species, which they called *two-penny*, and which was their favourite beverage. The duty on this description of beer was fixed at the union at 2*s.* 1*d.* a barrel. For thirty years after its imposition, the quantity of two-penny that paid duty was always above 400,000, and sometimes exceeded 500,000 barrels a year. But in 1760 the duty on two-penny was increased to 3*s.* 4*d.*, and the consumption immediately fell off to between 100,000 and 200,000 barrels! The quantity that paid duty in 1800 amounted to 143,803 barrels. The manufacture of this species of beer ceased entirely in 1802.

*The Exportation of Beer and Ale*—has increased very rapidly of late years, and has become an important branch of our foreign trade. It was checked for a while by the difficulty of fixing a drawback proportioned to the duty on the malt and sugar employed in the manufacture. Down to 1817 only two rates of drawback were allowed, viz. 5*s.* per barrel if 2 bushel malt had been used to the barrel, and 7*s.* 6*d.* if 3 bushels were used. But since this epoch the mode of ascertaining the drawback has

been greatly improved, and no fewer than seven different rates, varying by  $\frac{1}{2}$  bushel each, are now allowed. The result of these and other changes has been, that whereas only 177,999 barrels were exported in 1850, the exports amounted in 1864-5 to 582,583 barrels, of the declared value of 2,148,326*l.* We subjoin

*An Account of the Exports of Ale and Beer, in Barrels, for the ten years 1856-65.*

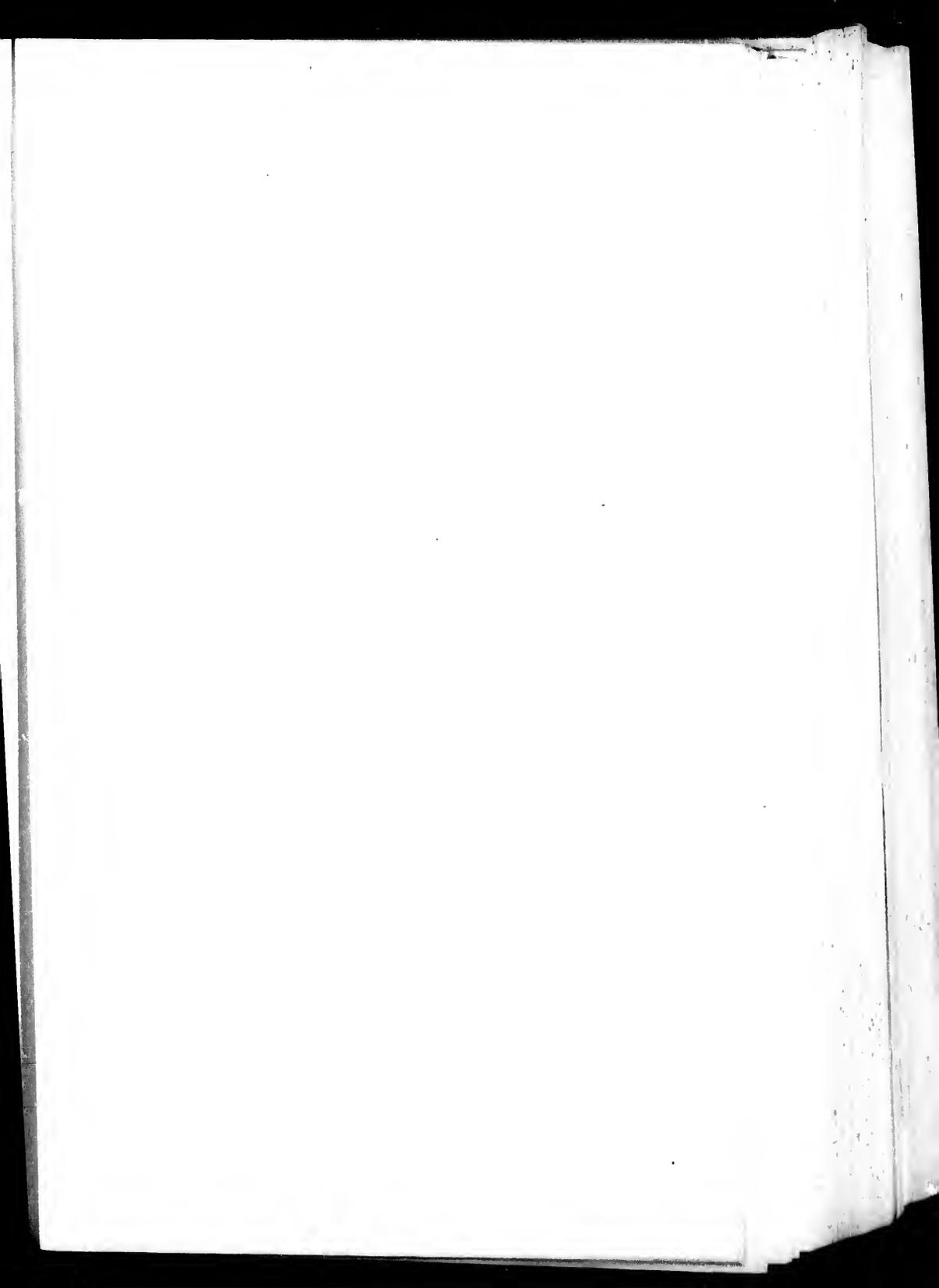
1856	-	-	410,352	1861	-	-	378,161
1857	-	-	435,354	1862	-	-	461,827
1858	-	-	535,898	1863	-	-	491,651
1859	-	-	611,156	1864	-	-	493,981
1860	-	-	534,827	1865	-	-	561,566

The chief consumption of British ale and beer is in Australia and British India, to which countries more than 60 per cent. of the exports are sent.

ALEXANDRIA. So called from its illustrious founder, Alexander the Great. The principal seaport of Egypt, on the coast of the Mediterranean, about 14 miles W.S.W. of the Canopic mouth of the Nile; the lighthouse being in lat. 31° 11' 43" N., long. 29° 51' 40" E. The light, which is fixed, is visible 20 miles in clear weather. The situation of this famous city was admirably chosen. Until the discovery of the route to India by the Cape of Good Hope, Egypt formed the centre of the commerce between the eastern and western worlds; and Alexandria was placed in the most favourable position in Egypt for an emporium, being the only port on its northern coast where there is, at once, deep water, and security for shipping throughout the year. The ports of Rosetta and Damietta, the former on the west, and the latter on the eastern arm of the Nile are both difficult of entrance, each having a bar, upon which there is always a dangerous surf. Ships bound for Alexandria avoid this serious inconvenience; and by means of an artificial navigation, stretching from the city to the western branch of the Nile, it has almost the same facilities for internal navigation that are enjoyed by the cities referred to.

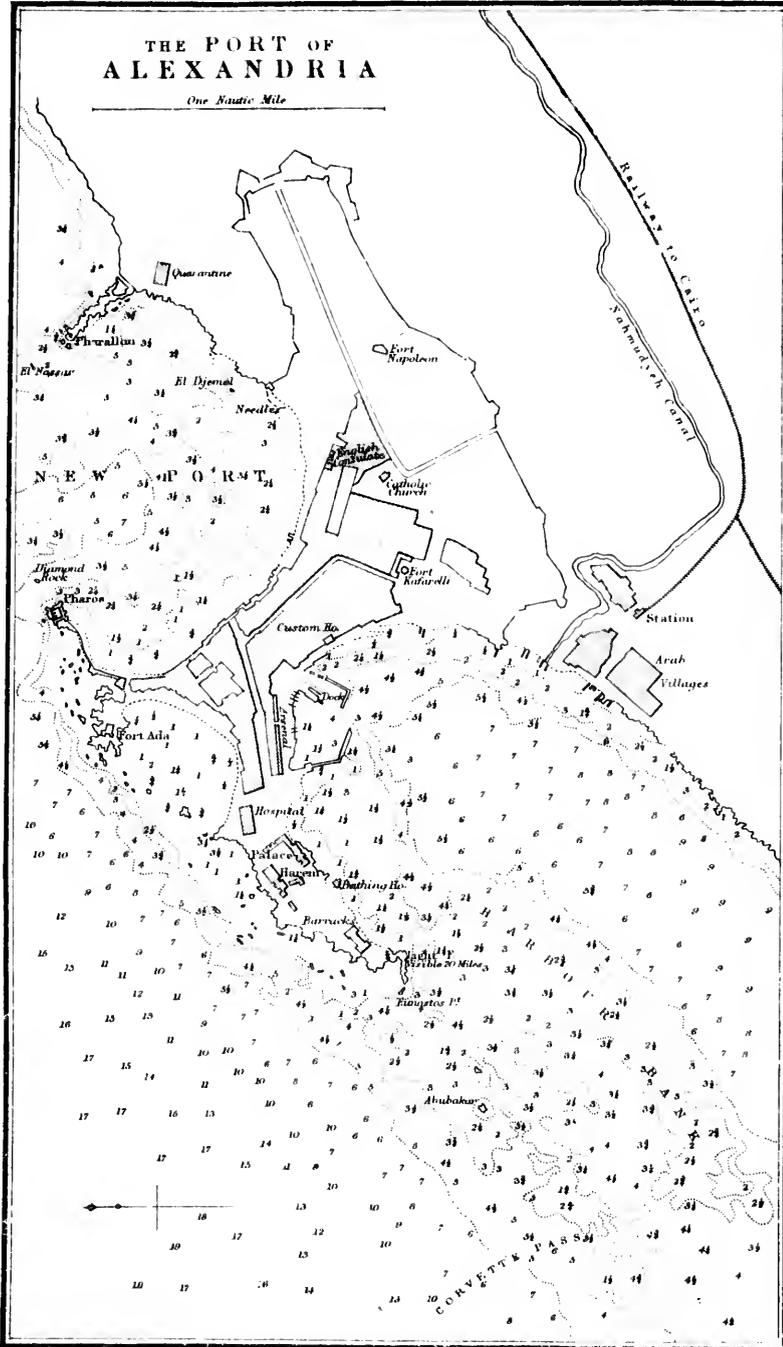
It may be proper, however, to mention that this artificial communication with the Nile has not always been open. It existed in antiquity, but fell into decay during the barbarism of more modern times. After being shut up for some centuries, it was reopened by Mehemet Ali, who dug the Mahmoudieh canal from Alexandria to Atfeh on the Nile, about 27 miles above Rosetta. This important work is 44 miles in length, 90 feet in breadth, and from 15 to 18 feet deep. It was opened in 1819, but owing partly to the nature of the ground, partly to some defects in its construction, and partly to the mud deposited by the water of the Nile, it is difficult to keep in repair; and can only be navigated by boats that draw little water, and are not suitable for the navigation of the Nile. But, with all its defects, the construction of this canal has been of great advantage, not to Alexandria only, but to Egypt and even Europe. Now (1859), however, that a railway has been constructed from Alexandria to Cairo, the canal has become of less importance.

*Ports, &c.*—The ancient city was situated a little more inland than the modern one, opposite to the small island of Pharos, on which was erected the lighthouse, so celebrated in antiquity. (Caesar, *De Bello Civili*, lib. iii. c. exii.) This island was, partly by artificial means, and partly by natural causes, gradually joined to the land by a mound, and on this the modern town is principally built. The isthmus and island have now the form of a T, its head being N.E. and S.W. A square castle or tower, built on a small islet or



# THE PORT OF ALEXANDRIA

One Nautic Mile



London Longman & Co.

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rock, at the extremity of a mole projecting from the north-east angle of the city, is still called the Pharos, and may, perhaps, occupy the site of the ancient lighthouse: a light was exhibited on it down to 1842, when it ceased. On each side of which there is a port. That on the western, or African side, called the Old Port, the *Ennastos* of the ancients, is by far the larger and better. It stretches from the town westwards to Marabout about 6 miles, and is about  $\frac{1}{2}$  mile in width. It is bounded on the north partly by the western tongue or angle of the island on which the city is partially built, at the extremity of which is the new lighthouse, and partly by rocks and sand banks. It has three entrances. The first, or that nearest the city, having 17 feet water, is about 13 miles S.W. from the lighthouse; but it is too narrow and difficult to be attempted by any one not thoroughly acquainted with the port. The *eastern* side of the second or middle entrance is marked by buoys which lie about  $2\frac{1}{2}$  miles S.W. from the lighthouse; it is about a quarter of a mile wide, and has, where shallowest, 27 feet water. The third or western entrance has its *western* boundary within about three-eighths of a mile from the east end of Marabout island; it is about half a mile wide, and has from 25 to 27 feet water in its shallowest places. This last is the best entrance. Ships, when in, may anchor close to the town in from 22 to 40 feet water, and there is good anchorage in deep water all along the shore. Foreigners were formerly excluded from this port; but this prohibition no longer exists, and it is now principally resorted to by the shipping frequenting the port.

What is called the New (though it be really the oldest) or Asiatic harbour is on the eastern side of the town. A rock called the Diamond lies a little to the east of the Pharos tower; and ships entering the port ought to have this rock about a cable's length on the right. If they get much further to the left they will come in contact with a shoal which stretches westward from the Pharos, or little tower, on the east side of the Pharos. The water immediately within the port S.W. from the Pharos is from 30 to 40 feet deep; but the space for anchorage is very limited, and is exposed to the northerly gales; and the ground being foul and rocky, hempen cables are very apt to chafe, and several accidents have happened in consequence to ships unprovided with iron cables. ordinary tides rise 2 feet; but during the overflow of the Nile the rise is 4 feet. Variation  $13^{\circ}$  west. (See *Plan of Alexandria*, by Lieut. Falbe.)

*Lighthouse*.—The new lighthouse, on the most westerly point of the island (an. *Pharos*), on which the city is partly built, was erected in 1812. It exhibits a fixed light, elevated 180 feet above the level of the sea, and is visible in clear weather at a distance of nearly 20 miles. This light must, of course, be kept on the left by those entering the great or western harbour, and on the right by those entering the small or eastern harbour. We may mention that a British vessel was totally lost in attempting to enter the W. harbour by a chart which identified the lighthouse with the old tower at the entrance to the E. harbour. But the light on the latter has, as already stated, ceased to be exhibited since 1812, and all charts should be corrected accordingly.

*Ancient and Modern City*.—Under the Ptolemies and Romans, Alexandria was the first commercial city in the world. It suffered greatly by its reduction by the Saracens in 640; but it continued to be a place of considerable commercial importance till the despotism of the Mamelukes and

Turks, and the discovery of the route to India by the Cape of Good Hope, completed its ruin. Under the Ptolemies, the population is believed to have amounted to about 300,000, and the city was adorned by a vast number of magnificent structures. The population in 1863, including troops and artisans in the arsenal, was estimated at 150,000. The rapid increase, which is still going on, dates from the opening of the Mahmoudieh canal. The appearance of the modern town used to be most unpromising. It may be justly said, that in the new city of Alexandria we find a poor orphan, whose sole inheritance has been the venerable name of his father. The vast extent of the ancient city contracted in the new to a little neck of land between the two ports. The most superb temples are changed into plain mosques; the most magnificent palaces into houses of a bad structure; the royal seat is become a prison for slaves; and a number of foreign traders, and to a small number of people have given way to a multitude of wretches, that are the servants of those on whom they depend: a place, formerly so famous for the extent of its commerce, is no longer anything more than a mere place of embarking; in time, it is not a phoenix that revives from its own ashes; it is, at most, a reptile, sprung from the dirt, dust, and corruption with which the Alcoran has infected the whole country. (Norden's *Travels*, Eng. trans. 8vo. ed. p. 57.) But this striking description, though accurate at the time when it was written (1737), is quite inapplicable to the present state of the city. The vigorous government of Mehemet Ali and his successors, by introducing comparative security and good order into Egypt, revived the commerce of Alexandria, which has again become a place of great importance in the trading world. Many new warehouses and other buildings have been constructed; and its appearance much improved.

*Trade of Alexandria*.—The imports consist of cotton stuffs and yarn, iron and hardware, copper plate and plated ware, machinery, coal, ammunition, books, &c. principally from England; with woollen and silk manufactures; timber, corlidge, indigo and other dyeing materials, sugar, glass, &c. The exports consist principally of raw cotton; wheat, beans, barley and maize; linseed and flaxseed; gum arabic and other gums; wool; scum, and other drugs; ivory and tortoiseshell; nitre, with opium, pearls, dates, soda, ostrich feathers, linen cloth, coffee, and a great variety of minor articles. It may be necessary to bear in mind that the nominal greatly exceed the real exports and imports, on account of the many articles, especially bullion and silk, that pass through Egypt *in transitu*, from the W. to the E. and conversely. The exports of grain and pulse declined for a while in consequence of the superior encouragement given by the government to the raising of cotton; but they still largely increased. Latterly, the impulse given to the cultivation of cotton, consequent on the American war, and the extension of corn supply to America, have reduced the Egyptian corn trade to a minimum. At present the chief exports of Egypt are cotton and silk. On the whole the trade has considerably increased of late years, and may be said to be in a flourishing condition.

Cotton has been grown in Egypt from a very remote period; previously, however, to the ascendancy of Mehemet Ali it was but little cultivated, and that little was of inferior quality, short-stapled, and closely resembled 'Surats,' under which name the small quantities exported from the country were usually sold. But, in 1820, a Frenchman

of the name of Jumel accidentally observed a very valuable variety of long-stapled cotton, raised from seeds brought from Dongola and Sennar, growing in the garden of Mahè lley at Cairo, Jumel having represented its superiority to the Pacha, its cultivation was undertaken on a large scale on account of the latter; and has succeeded so well, that Mahè or Makko cotton has been for a lengthened period by far the principal article of export from Egypt. At a later period seeds of the Sea-island cotton were introduced; and for a while it also answered remarkably well; its produce, which in Egypt was called Sennar, and in England 'Egyptian Sea-island,' ranking next in the estimation of the manufacturers to genuine 'sea-island.'

The course of the Egyptian cotton trade has been peculiar. The reader will find the amount imported from Egypt in the following page. In 1866, the supply from Egypt fell to 636,000 cantars, after a fluctuation from 365,108 cwts. in 1861, to 1,578,912 cwts. in 1865.

N.B.—The gross weight of a bale of Egyptian cotton at Alexandria averages 230 rottoili or 228-07 lbs.; and allowing 12 rottoili as tare for sacking and cordage, the net weight of the bale will be about 219 lbs. The cantar of cotton was fixed in 1836 at 100 rottoili. Exclusive of the cotton shipped from Egypt, about 30,000 cantars a year are supposed to have been annually wrought up in the Pacha's cotton factories at an average of the 10 years ending with 1838; but owing to the failure of most of these establishments, the quantity is now much less. (See the valuable

Treat of George R. Gliddon, Esq. *On the Cotton of Egypt.*)

We doubt, however, whether the encouragement given to the culture of cotton has not been really injurious to Egypt. At all events, we apprehend that the cotton of that country will have great difficulty in finding a profitable vent in the European markets in competition with American cotton, considering the extremely low price at which the latter can be sold. We have alluded to the degeneracy of the Sea-island cotton in Egypt, and it is alleged that the Mahè is also degenerating. But in the culture of wheat, beans, barley, and rice, Egypt has nothing to fear from any rivalry. In this department of industry she is, if not superior to every other country, inferior to none. In 1858 we imported 341,360 cwts. of cotton from Egypt; our imports being usually about two-thirds of the entire exports.

The fact that any great change in that which has been the staple product of Egypt, viz. wheat and other kinds of grain, for common, a precarious crop, to be sent to a precarious market, would be a serious evil, has been anticipated by the viceroy, when he told Dr. Forbes, who was sent on the part of the Cotton Supply Association to beg the viceroy to further the cultivation of cotton, that prices would be a sufficient stimulus, and that he depreciated the change. The anticipation was verified, for of late years, Egypt has had to import grain, &c. for the subsistence of her people.

We subjoin an account which shows the principal articles, and their estimated values, exported from Alexandria in 1866.

Exports from Alexandria, 1866.

Description of Merchandise	To England		To other countries		Total		Value in 1865
	Quantity	Value	Quantity	Value	English Weights where possible	Value, 1866	
Barley - - - - -	ardebels	1,750	—	—	grs.	1,091	—
Beans - - - - -	—	219,500	—	—	—	162,175	21,100
Buffalo horns - - -	—	32	—	—	—	59	749
Coffee - - - - -	—	9,899	25,800	75,169	cwt.	21,500	86,660
Cotton - - - - -	—	916,000	5,825,000	1,271,500	bales	209,000	7,096,500
Cotton seed - - - -	—	659,000	559,200	50,176	tons	7,631	5,64,170
Dates - - - - -	—	1,069	1,400	27,000	cwt.	23,100	35,000
Drugs - - - - -	—	6,400	—	—	—	81,750	31,400
Flax - - - - -	—	622	2,000	21	cwt.	610	10,060
Gum - - - - -	—	12,728	354	1,000	lbs.	176,670	2,200
Incense - - - - -	—	46,861	108,000	60,400	539,000	91,200	247,650
Lentils - - - - -	—	46,523	1,000	3,299	—	4,999	11,950
Lentils - - - - -	—	1,920	1,920	—	—	1,057	1,050
Manufactures - - -	—	—	—	—	—	1,500	51,000
Mother of pearl - -	—	2,100	2,200	11,809	19,100	11,800	11,300
Ostrich feathers - -	—	16,500	35,000	22,000	59,000	38,500	35,800
Rice - - - - -	—	75,550	25,000	6,000	6,000	11,800	25,180
Silk - - - - -	—	232	—	11,900	36,700	7,800	37,120
Salted hides - - -	—	15,800	5,000	71,240	25,200	85,540	20,500
Seeds - - - - -	—	900	800	—	1,500	888	3,250
Sundries - - - - -	—	—	15,800	—	116,400	—	150,000
Wheat - - - - -	—	11,200	11,800	2,800	3,050	8,750	14,650
Wool - - - - -	—	25,000	60,000	1,800	5,030	4,800	65,200

Constantinople and the islands of the Archipelago are great markets for the wheat and other grain exported from Egypt. The supplies are, however, extremely uncertain. Everything in Egypt depends on the Nile; and when it does not rise to the usual height, the crops are very much below an average. Beans are extensively cultivated, and have sometimes been brought to England, but rarely, if ever, with advantage to the importers. They are inferior to English beans, and are peculiarly subject to the worm. No oats are raised in Egypt, the horses being entirely fed upon barley. Silk is grown to some extent. The date-palm thrives in every part of Egypt, and the fruit is largely exported. It is singular, that notwithstanding the luxuriance of many of its vegetable productions, Egypt should be entirely destitute of timber.

Money.—Here, as at Constantinople, the current money consists in part of new gold and silver coins of 100, 50, 20, 10, and 5 piastres; and in part also of a great variety of European coins.

Accounts are kept in piastres of 40 paras or medins. Considerable sums are reckoned by the *his* or *purse* of 500 piastres. The exchange with England is generally about 100 piastres to 1*l*.

Weights and Measures.—The yard, or *pik*, = 26-8 English inches; hence 100 *piks* = 73-438 English yards. The measures for corn are the *rhubeh*, and the *quilloit* or *kisloz*; the former = 4-364 English bushels, the latter = 4-729 ditto. The *cantar* or *quintal* = 100 *rottoili*, but the *rottoili* has different names and weights: 1 *rottoili forjara* = 93-47 lb. avoirdupois; 1 *rottoili zaidino* = 1-335 lb. ditto; 1 *rottoili zauru* or *zuru* = 2-97 lbs. ditto; 1 *rottoili mina* = 1-67 lb. ditto. (*Manuel Universel de Nelkenbrecher.*)

Duties.—With the exception of the arbitrary principles on which the government sometimes fixes the prices of commodities, there is nothing objectionable in their policy as to commerce. The duties on imports are only 3 per cent. We believe, however, that a small increase of the customs duty would compensate the government for the

Principal and Other Art.

Coffee - - - - -	-
Corn & Wheat - -	-
Harley - - - - -	-
Beans - - - - -	-
Maize or In - -	-
Corn - - - - -	-
Cotton, raw - - -	-
Flax, dressed - -	-
Wool, rough or undres -	-
Gum, arabic - - -	-
India - - - - -	-
Hair or wool, goods	-
Manufactures of - -	-
Jewels, precious stones	-
(except diamonds), set	-
Mask - - - - -	-
Opium - - - - -	-
Yaris - - - - -	-
Bags and other mater	-
for making paper	-
Seeds: Lentils - - -	-
Linseed and Fl - -	-
Cotton - - - - -	-
Senna - - - - -	-
Silk, raw - - - -	-
Silks of India - - -	-
Cornals, chopras, ba	-
dannas, and tawee	-
cloths and others - -	-
Handkerchiefs - - -	-
Crape shawls, scar -	-
ves and handkerchiefs	-
and crape in pieces	-
Pongees and pongee	-
handkerchiefs - - -	-
Manufactures of oth -	-
ers - - - - -	-
Teeth, elephants' - -	-
Tortoise-shell or turtle	-
shell unmanufactured	-
Wool, sheep and lambs'	-
All other articles - -	-
Total - - - - -	-

Account of the Qu

Principal and Other Art

Apparel and habes -	-
Glassery - - - - -	-
Across and unmanu -	-
factured - - - - -	-
Para-arms (small) -	-
Impowder - - - - -	-
Books, printed - - -	-
Carriages, of all sorts	-
Coals, cinders, and culm	-
Copper, wrought and	-
unwrought - - - -	-
Cotton Yarn - - - -	-
Cottons, entered by the	-
yard - - - - -	-
Cottons, entered at value	-
of - - - - -	-
Drugs and chemical	-
products - - - - -	-
Earthenware and por -	-
celain - - - - -	-
Hardwares and cutlery,	-
unmanufactured - -	-
Iron, wrought and un -	-
wrought - - - - -	-
Lamens, entered by the	-
yard - - - - -	-
Machinery - - - - -	-
Steam engines - - -	-
All other sorts - - -	-
Mathematical instrum -	-
ents - - - - -	-
Paper of all sorts (in -	-
cluding paper hang -	-
ings) - - - - -	-
Plate, plated ware, -	-
jewellery, and watches	-
of all other - - - -	-
use described - - -	-
Silk manufactures - -	-
Stationery, other than	-
paper - - - - -	-
Telegraphic wire, &c. -	-
Woolens, entered by the	-
yard (including those	-
formerly entered by	-
the piece) - - - - -	-
Woolens, entered at	-
value - - - - -	-
All other articles - -	-
Total - - - - -	-

ALEXANDRIA

An Account of the Quantities and Computed Values of the Principal Articles imported into the United Kingdom from Egypt in 1861-5.

Principal and Other Articles	Quantities					Computed Real Value				
	1861	1862	1863	1864	1865	1861	1862	1863	1864	1865
Coffee - lbs.	397,711	371,605	151,366	24,827	80,892	£ 41,107	£ 14,665	£ 5,072	£ 931	£ 5,019
Corn - Wheat - cwt.	1,472,514	3,299,186	2,313,500	366,868	19,063	675,908	1,315,898	940,377	155,798	4,067
Barley - "	315,671	491,750	496,526	32,599	-	115,105	166,671	126,353	10,367	-
Oats - "	1,606,329	1,466,160	1,368,373	281,241	-	646,987	511,650	480,164	99,171	-
Maise or Indian Corn - "	266,019	235,691	431,491	9,238	-	95,571	72,998	135,653	9,962	-
Cotton, raw - "	365,108	626,897	853,289	1,120,175	1,578,912	1,516,898	3,723,149	8,811,557	11,300,507	13,906,611
Flax, dressed - "	9,647	2,852	1,237	1,275	-	6,581	7,229	5,591	4,089	-
rough or undressed - "	15,641	18,217	19,157	3,580	112	25,315	35,601	27,810	8,896	909
Gum, arabic - "	33,236	40,928	47,938	28,679	23,108	68,117	8,796	110,450	8,786	81,416
Gum, tragacanth - "	6,268	14,793	6,941	1,165	1,621	8,399	19,231	9,192	2,235	3,773
Hair or wool, goats' - value	-	-	-	-	-	337,103	380,987	258,013	300,928	198,763
manufacturers of - cwt.	3	569	651	166	62	115	17,978	15,280	2,380	1,311
Intago - value	-	-	-	-	-	15,927	4,270	31,690	8,780	4,300
Jewels, precious stones (except diamonds), un- set - value	50,619	16,557	10,370	24,513	9,457	42,774	19,681	12,666	27,213	12,086
Musk - lbs.	5,281	6,261	4,632	4,479	1,815	2,175	3,717	2,289	2,715	1,179
Opium - value	-	-	-	-	-	68,220	68,100	47,660	17,300	12,100
Pearls - value	-	-	-	-	-	33,016	53,728	35,538	26,156	15,626
Rice and other materials for making paper - tons	5,091	4,640	4,633	1,771	845	23,016	23,728	23,538	16,300	13,626
Seed: Lentils - bushels	134,361	316,926	291,536	65,518	-	26,891	63,204	28,310	11,762	-
Linseed and Flax- seed - qrs.	10,967	10,153	9,175	2,191	1,280	26,398	28,786	6,858	7,552	5,392
Cotton - tons	19,375	33,959	61,738	84,018	115,791	17,419	27,601	499,156	615,078	828,296
Senna - lbs.	336,339	239,732	251,068	38,001	4,073	7,131	4,218	4,726	6,594	4,912
Silk, raw - "	1,829,521	5,434,783	1,779,515	3,101,116	5,054,534	1,224,463	5,009,361	4,657,153	3,715,132	6,102,321
Silks of India: Corals, choppas, bandannas, and tussore cloths and other silk handkerchiefs - pieces	24,080	19,835	14,162	21,043	11,730	19,065	18,493	13,953	21,010	11,530
Crape shawls, scarfs, and handkerchiefs; and crape in pieces - lbs.	10,232	6,598	9,779	15,626	18,568	23,281	11,667	23,413	26,599	48,912
Pongees and pongee handkerchiefs - value	4,392	8,581	4,167	2,025	2,210	4,074	6,979	4,079	1,361	5,071
Manufacturers of other sorts - pieces	-	-	-	-	-	10,667	6,950	4,712	4,818	16,693
Teeth, elephants' - cwt.	1,019	3,450	1,211	2,356	666	29,685	50,189	34,370	75,042	21,297
Tortoise-shell or turtle-shell unmanufactured - lbs.	1,027	958	5,539	2,427	1,191	1,171	671	5,513	1,953	645
Wool, sheep and lambs' - value	1,425,993	2,626,126	1,362,828	1,289,081	1,807,782	70,221	142,561	87,518	75,896	100,271
All other articles - value	-	-	-	-	-	106,222	101,380	78,081	77,562	90,922
Total - value	-	-	-	-	-	£ 3,398,055	£ 13,215,783	£ 10,193,822	£ 19,042,233	£ 21,775,260

In Transit from India, China, and Japan.

Account of the Quantities and Declared Values of the Principal Articles of British and Irish Produce Exported from the United Kingdom to Egypt in 1861-65.

Principal and Other Articles	Quantities					Declared Real Value				
	1861	1862	1863	1864	1865	1861	1862	1863	1864	1865
Apparel and haberdashery - value	-	-	-	-	-	£ 210,778	£ 256,700	£ 269,130	£ 283,236	£ 328,414
Arms and ammunition: Fire-arms (small) - no.	1,055	5,190	4,997	4,698	11,712	15,711	19,907	21,905	18,601	19,212
Gunpowder - lbs.	53,530	319,520	151,623	185,801	264	1,101	4,175	3,627	5,099	16
Books, printed - cwt.	3,981	4,399	5,166	5,273	5,159	65,535	78,704	81,750	91,064	88,127
Carracks, of all sorts - no.	55	243	379	678	144	5,312	51,327	95,517	77,551	65,885
Floors, candles, and culm - tons	118,492	156,051	261,958	356,816	388,828	58,158	78,831	125,153	168,661	306,091
Copper, wrought and unwrought - cwt.	15,114	21,463	59,249	74,591	45,595	81,611	110,005	265,482	405,357	327,118
Cotton Yarn - cwt.	1,061,420	951,287	1,311,465	1,527,532	2,300,358	48,381	53,000	122,969	146,668	211,892
Cottons, entered by the yard - yards	77,848,797	55,531,065	97,401,551	105,687,199	111,017,175	867,668	719,818	1,010,289	2,192,997	2,570,165
Cottons, entered at value - value	-	-	-	-	-	10,456	11,221	20,429	33,231	15,733
Drugs and chemical products - value	-	-	-	-	-	7,737	12,558	16,117	21,223	19,933
Earthenware and porcelain - value	-	-	-	-	-	7,725	9,301	15,301	17,482	18,917
Hardware and cutlery, unmounted - cwt.	5,212	3,768	7,083	11,797	8,951	31,411	37,000	55,116	67,290	59,283
Iron, wrought and unwrought - tons	7,850	11,507	15,986	26,305	57,629	68,261	88,914	161,689	256,090	531,198
Linen, entered by the yard - yards	818,500	485,291	1,261,662	6,719,971	5,267,321	27,438	15,639	42,949	151,151	88,201
Machinery: Steam engines - value	-	-	-	-	-	9,208	50,540	161,193	312,881	369,717
All other sorts - value	-	-	-	-	-	62,362	74,891	252,421	402,071	311,971
Mathematical instruments - value	-	-	-	-	-	13,711	14,813	21,790	13,688	16,856
Paper of all sorts (including paper hangings) - cwt.	861	671	639	891	291	6,927	4,235	3,754	3,098	1,180
Plate, plated ware, jewelry, and watches - value	-	-	-	-	-	176,839	217,165	153,431	152,512	141,764
Provisions (not otherwise described) - value	-	-	-	-	-	8,129	13,163	17,469	19,155	23,701
Silk manufactures - value	-	-	-	-	-	179,617	221,810	298,118	271,850	314,813
Stationery, other than paper - value	-	-	-	-	-	58,201	56,800	41,752	46,794	52,834
Telegraphic wire, &c. - value	-	-	-	-	-	-	2,915	570	30,647	7,470
Woolens, entered by the yard (including those formerly entered by the piece) - yards	196,801	131,716	363,581	60,251	633,620	25,531	15,369	55,615	90,554	82,661
Woolens entered at value - value	-	-	-	-	-	3,865	1,835	6,877	10,922	7,772
All other articles - value	-	-	-	-	-	230,562	257,978	392,211	495,178	409,053
Total - value	-	-	-	-	-	£ 2,278,818	£ 7,015,352	£ 1,066,293	£ 6,651,680	£ 5,996,928

abolition of other oppressive charges, and there can be little doubt that the country would be materially benefited by the change.

**Pilotage.**—The pilotage paid by ships of war for being brought into the W. harbour is 5 dollars, and 4 dollars for being taken out of do. Merchant-vessels pay 3 dollars both on entering and clearing. The pilot-service, though not exempted from defects, is tolerably well conducted. It would be convenient were pilots stationed nearer the entrance of the port, at Marabout Island for example, or at the watering-place.

**Quarantine.**—Merchant-vessels coming with foul bills of health perform 15 days' quarantine, whether with or without cargo. When the bills are 'suspected,' the quarantine is 15 days, if with cargo, and 10 days if in ballast. But a vessel may be admitted to free-pratique 10 days after the total discharge of her cargo. The period of quarantine for goods is 20 days. Ships of war, bringing foul bills, perform 12 days; with 'suspected' bills, 7 days.

The quarantine charges are—

- For 2 guards, 10 piast. each per diem, and board.
- For guard boat, 15 piast. per diem.
- For disinfecting goods, 1 to 15 piast. per bale, according to size.
- For dues, 1 to 35 piast. per diem, according to tonnage.
- For the interrogatory, from 2 to 20 piast. according to tonnage.
- Bills of health for vessels bound to the Levant, 1 to 21 piast. according to size of vessel.

Travellers in Lazaretto pay for the guard 10 piast. per day, and 15 piast. for the whole term, as rent of room, and price of fumigations.

**Usages of the Port.**—The general usage of the port in loading and unloading vessels, when no clause of the charterparty exists to the contrary, is that inward cargoes are landed into the Custom-house, at the ship's expense. As regards outward cargoes, cotton is taken from the Shoona (warehouse) at the cost of the merchant, and is delivered to the shipmaster on the quay. The charges for portage, marking, sacking and commission, come to 1½ piast. per bale. The ship's subsequent outlay for pressing, lighterage, stowage, &c. is 7½ or 8 piast. per bale.

Corn seeds, &c. are shipped at the charge of the merchant, at the cost of 27 paras per ardeb.

Flax is delivered by the merchant on the quay, and his outlay is much the same as on cotton. This article is not pressed, and the ship's expenses for lighterage and stowage are about 2 piast. per bale.

The charge of lighters is 9 or 10 piast. per diem. Arabs working on board in stowing, &c. are paid 6 piast. per do.

It often occurs that lighters left in the charge of vessels whilst loading meet with injury. In that case the Arab owners apply against the master, and recover.

Most cargoes of corn, &c. are taken from the Paeha's Shoona, and a clause in the charterparties generally obliges the ship to conform to its distribution. That is effected by the receivers being classed and drawing lot for priority.

There is a time claimed against vessels that discharge their ballast into the harbour, instead of causing it to be taken on to a place appointed.

The following are the charges on business at Alexandria:—

### On Selling.

	per cent.
Freights, 20s. to 20s. per ton of 10 feet, and 10s. primage, say	2-3
Customs duties	5
Porterage and camel hire, piast. 12 to 15 per package.	
Shroffage	1
House and street brokerage	4
Commission for effecting sale	3
Ditto for attending sale	2
Ditto if proceeds are remitted by bill or in specie exclusively of 1 per mil. brokerage	5
Del. Credits, if required	3
Warehouse rent	1

### On Buying.

Customs duties	12
House and street brokerage	4-1
Commission on purchasing	5
Commission on drafts	3
Brokerage 1 per mil. on ditto	

Warehouse rent never incurred on government produce, which is shipped from the Shoona. When other produce is stored, the rent depends on the time and on the bulk of the goods. Shipping charges:—

- On Government cotton, piast. 1½ per bale.
- Private ditto, 1 piast. 30 paras, do.
- Government corn, 27 paras per ardeb.
- Private ditto, piast. 2 per ardeb.
- Government flax, piast. 1½ per cent.
- Private ditto, piast. 2 per cent.
- Gums, barrels, 18 to 19 piast.
- Other charges, 1 piast. 20 paras.

**Policy of Mehemet Ali.**—It is much to be regretted Mehemet Ali, who was in many respects one of the most extraordinary men of his age, should have had no just conception of the principles by the adoption of which his plans of improvement might have been perpetuated, and industry established on a solid foundation. He interfered with everything, and left as little as possible to the discretion and enterprise of individuals. He may, indeed, be said to have been the sole proprietor, manufacturer, farmer-general, and wholesale merchant in his dominions. It was no doubt stipulated in the treaty concluded between this country and the Turkish government in 1838, that the monopolies which previously existed in the different parts of the Turkish empire should all be abolished, and that, in future, all parties should be at liberty to buy and sell all descriptions of produce at such prices and in such a way as they thought fit. This stipulation has, however, been of little consequence in Egypt; for as the largest and best portion of the land has become the property of the Paeha or his dependents, and the taxes are mostly all paid in produce, the government continues, in effect, in possession of its old monopoly of the produce of the country, and has power to determine the price at which it shall be sold. A system of this sort is injurious alike to the interests of the producers and merchants; inasmuch as they are both liable to have their plans and speculations deranged by the caprices and regulations of those in authority. It is difficult, however, to suggest any means by which this inconvenience might be avoided; and it is much to be regretted that, when the European powers dictated the terms on which the Paeha and his family should hold the country, they did not make some stipulations in favour of the rights of the population; which, had they been properly devised, would have been as much for the advantage of the Pachas as of their subjects.

**Ancient Trade of Alexandria.**—As already remarked, Alexandria was, for a long series of years—first under the Greek successors of Alexander, and subsequently under the Romans—the principal entrepôt of the ancient world. Most part of the traffic between Asia and Europe that had at a more early period centred at Tyre, was gradually diverted to this new emporium. An intercourse

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between the ports on the eastern coast of Egypt, and those on the opposite coast of Arabia, had subsisted from a very early period. That between Egypt and India was more recent. It was at first carried on by ships, which having sailed down the Red Sea from Myos Hormos and Berenice, coasted along the Arabian shores till they reached Cape Bassigate, whence a short course brought them to India near the mouth of the river Indus. This was the course followed during the dynasty of the Ptolemies; but about 80 years after Egypt had been annexed to the Roman empire, Hippalus, the commander of an Egyptian ship trading to India, having observed the regular shifting of the trade winds, ventured to sail with the western monsoon from the Straits of Babelmandeb right across the Atlantic Ocean; and was fortunate enough, after a prosperous voyage, to arrive at Musiris, in that part of India now known by the name of the Malabar coast. Having taken on board a cargo of Indian produce, Hippalus returned in safety with the eastern monsoon to Egypt. This discovery was deemed of so much importance, that the name of the discoverer was given to the wind which had carried him across the Ocean to India; and how trifling soever this voyage may now appear, those who consider that Hippalus had no compass by which to direct his course, and that, owing to this circumstance, and the otherwise imperfect state of the art of navigation, the ancients seldom ventured out of sight of land, even in seas with which they were well acquainted, will be forward to admit that his enterprise and daring were no wise inferior to his success; and that he was well entitled to the gratitude of his contemporaries, and the respect of posterity.

From the epoch of this discovery, fleets traded periodically from Egypt to Musiris, conveying the products of Europe to India, and conversely. The Indian goods having been landed at Myos Hormos and Berenice were thence conveyed by caravans to Coptos (the modern Kéné), on the Nile, where they were put on board lighters and sent to Alexandria, whence they were distributed all over the western world. The goods sent to India were conveyed to Myos Hormos and Berenice by the same route. Myos Hormos was situated on the shore of the Arabian gulph, about a degree to the north of the modern port of Cossire. The distance from it to Coptos, in a straight line, is about 70 miles. Berenice was situated a good way farther south, being nearly under the tropic. It was built by Ptolemy Philadelphus. Its distance from Coptos is stated by Pliny at 258 Roman miles; the different resting-places on the road were determined by the wells, and the journey occupied about 12 days. Ptolemy seems to have preferred this station to Myos Hormos, though the land carriage to Coptos was so much farther, from its greater proximity to the Straits of Babelmandeb, and its lessening the voyage up the Red sea.

Pliny says that the cost of the Indian commodities brought to Rome through Alexandria was increased a hundred fold (*centuplicata venant*) by the expense of carriage, &c. We suspect however, that this is a rhetorical exaggeration, meaning merely that their price was very materially enhanced. If the increase was anything like that mentioned, it must have been owing to the imposition of oppressive tolls and duties, for it could not possibly have been occasioned by the mere expenses of conveyance. (Plin. *Hist. Nat.* lib. vi. cap. xxiii.; Amcillon, *Commerce des Egyptiens*, pp. 161—176, &c.; Robertson's *Ancient India*, note 20, &c.) In the sixteenth century, the cost of Indian commodities brought to Western Europe by way of Alexandria and Aleppo was about three

times the cost of those brought by the Cape of Good Hope. [EAST INDIA COMPANY.] But Egypt was then occupied by the Mamelukes and Turks, who threw every sort of obstacle in the way of commerce, and loaded it with the most oppressive exactions.

Besides this important traffic, which supplied Rome and the western world with the silks, spices, precious stones, and other products of Arabia and India, a great trade in corn was carried on from Alexandria to Rome. Egypt, for a lengthened period, constituted the granary from which Rome, and afterwards Constantinople, drew the principal part of their supplies; and its possession was, on that account, reckoned of the utmost consequence. Augustus employed merchantmen of a larger size than any that had previously traded in the Mediterranean to convey the corn of Egypt to Ostia. They were escorted by ships of war. The fleet received the names of *sacra* and *felix embolæ*; and enjoyed several peculiar privileges. The ships belonging to it were the only ones authorised to hoist the small sail called *sapparum*, when they drew near the coasts of Italy. Some of the fast-sailing vessels attached to the fleet were sent on before, to give notice of its approach; and a deputation of senators went down to Ostia to receive the ships, which anchored amid the acclamations of an immense number of spectators. The captains were obliged to make oath that the corn on board their ships was that which had been delivered to them in Egypt, and that the cargoes were entire as shipped. (Huet, *Commerce et Navigation des Anciens*, cap. xlviij.; Seneca *Epist.* cap. lxxvii.; and the chapter on the Commerce of the Romans in the volume of *Treatises* by the author of this work, 2nd ed. 1859.)

*Intercourse with India through Alexandria.*—These few details will, perhaps, serve to give a faint idea of the importance of Alexandria in the commerce of antiquity. It is impossible, indeed, for any one to glance at a map of the world, or of the ancient hemisphere, and not to perceive that Egypt is the natural *entrepôt* of the commerce between Europe and all the vast countries stretching E. from Arabia to China. The discovery of the route to India by the Cape of Good Hope, in 1498, must, no doubt, have, under any circumstances, diverted a considerable portion of the trade with the western states of Europe, and in the heavier and bulkier class of articles, into a new channel. It is, however, abundantly certain, that had the same facilities for conducting the trade with the East existed in Egypt in the sixteenth and seventeenth centuries that existed in it in antiquity, she would have continued to be the centre of the trade for all the lighter and more valuable products, and the route of the greater number of the individuals passing between Europe and Asia. But the lawless and arbitrary dominion of the Mamelukes, who loaded all individuals passing through the country with oppressive exactions, at the same time that they treated all foreigners, and especially Christians, with insolence and contempt, put an entire stop to the intercourse so long carried on by this shortest, most direct, and most convenient route. Happily, however, a new era has begun, and Egypt has once more become the grand thoroughfare of the eastern and western worlds. After good order and a regular government had been introduced into Egypt by Mehemet Ali, it was seen that it might be again made the channel of communication with India; and the importance of facilitating the intercourse with that continent forcibly attracted the attention of the British government and the East India Company. The establishment of a

steam communication between Europe and Southern Asia, by way of Alexandria and Suez, and the construction of a railway between these towns, are among the most striking and important events in recent times. They have shortened the journey to India from England more than a half, and rendered it comparatively safe and expeditious.

Steam-ships conveying the mails leave Southampton for Gibraltar, Malta, and Alexandria, on the 4th, 12th, 20th, and 27th of every month. They generally arrive at Gibraltar in about 5 days; and after a few hours' stay proceed to Malta, which they reach in about 3 days more, arriving at Alexandria in about 13 days from Southampton. Those passengers who proceed by Marseilles, embark at that port on board steamers which convey them to Malta, where they join the steamers for Alexandria. On arriving at the latter, passengers are now (1868) conveyed by rail-

way to Cairo, where they usually remain over night, and thence by railway to Suez. From the latter they are conveyed by steam-ships to Bombay, Ceylon, Madras, and Calcutta, or to Singapore and China. Another line of steamers sail from Aden to the Mauritius, and thence to Melbourne and other ports in Australia.

The existing (1868) rates of charge in the ships of the Peninsular and Oriental Steam Packet Company are as follows, viz. :—

I. Rates from Southampton.

To	1st class, single passage	Children, 3 years and under 10	3rd class, and passengers' servants
Gibraltar	£ 15	£ 6	£ 9
Malta	20	10	12
Alexandria	50	15	19

One child under three years of age, if with the parent, free.

II. Rates of Passage, including the amount paid by the Company to the Egyptian Transit Administration, for Conveyance of Passengers through Egypt.

From England to	Egypt										King of the Soudan, (for Alexandria, Melbourne and Sydney)	
	Aden	Bombay	Ceylon	Madras	Calcutta	Penang	Singapore	Hong Kong	Shanghai	Manilla		Mauritius
Gentlemen or ladies travelling singly, for one berth in a general cabin	£ 70	95	95	100	105	105	110	150	150	150	100	120
Married couples, occupying a reserved cabin	200	240	240	250	270	270	300	375	375	375	240	300
Children with the parent, 3 years and under 10	35	45	45	50	50	50	55	60	70	70	50	60
One child under 3 years (no berth provided)*	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Servants, European	35	45	45	50	50	50	55	60	70	70	50	60
native in face cabin	20	25	25	30	30	30	40	45	50	50	50	—

\* Except transit expenses through Egypt, if above 2 years.

First-class passengers are allowed 3 cwt. of personal baggage free of freight, and children (above three years) and servants 1½ cwt. each.

A passenger taking a whole cabin will be entitled to take in the steamers, free of freight, 4½ cwt.; and a married couple, paying for reserved accommodation, will be entitled to take 9 cwt.

The charge for conveyance of extra baggage, should there be room in the vessel, will be at the rate of 14. per cwt. between Southampton, Gibraltar, Malta, or Alexandria; 21. per cwt. between Suez and India, and 31. per cwt. between Suez, Mauritius, Australia, the Straits, and China.

Passengers passing through Egypt will have to pay the Egyptian Transit Administration, 14s. per cwt., for conveyance of baggage through, should it exceed, for first-class passengers, 3 cwt. each, and children and servants, 1½ cwt. each. This amount is collected on board the company's steamers for the convenience of passengers.

*Canal between the Nile and the Red Sea.*—It is affirmed, that had it not been for the hostilities in which the late Pacha was almost always engaged, he would have attempted to reopen the famous canal that formerly connected the Red Sea and the Nile. According to Herodotus, this canal was commenced by Necho, king of Egypt, and finished by Darius (lib. ii. s. 158, iv. s. 39). Under the Ptolemies, by whom, according to some authorities, it was completed, this canal became an important channel of communication. It joined the E., or Pelusiac branch of the Nile at Bubastis, the ruins of which still remain; it thence proceeded E. to the bitter or natron lakes of Temrah and Cheik-Anaded, whence it followed a nearly S. direction to its junction with the Red Sea at Arsinoe, either at or near where Suez now stands. It is said by Strabo (lib. xvii. p. 805) to have been 1000 stadia (122 m.) in length; but if we measure it on the best modern maps, it could hardly have exceeded from 85 to 95 miles. Hero-

dorus says that it was wide enough to admit two triremes sailing abreast. This great work having fallen into decay after the downfall of the Ptolemæic dynasty, was renovated either by Trajan or Adrian; and it was finally renewed by Amrour, the general of the caliph Omar, the conqueror of Egypt, anno 639 (Herodote, par Larcher, iii. 450). The French engineers traced the remains of this great work for a considerable distance; and but for the construction of a railway from Suez to Cairo, it would probably have been reopened.

The project of cutting a canal between the Red Sea and the Mediterranean has been seriously attempted by M. de Lesseps. Undoubtedly the success of this experiment would be of great commercial value. In addition to this, it would be a matter of the highest political significance to the government of this country, because it would expedite the access to Hindostan; provided of course always that large ships could easily pass such a canal, and the navigation of the Red Sea (now better known perhaps than that of any other sea) was artificially improved. At present indeed we are far from arriving at the results which the projectors of the canal propose, we are not satisfied that the entrance from the Mediterranean could be kept clear, that the canal could be maintained, or that the difficulties attending the Red Sea passage could be permanently obviated. On the whole it seems, that just as the philosopher's stone was the delusion which occupied the minds of the mediæval chemists, so the Suez canal and Red Sea passage is a similar *ignis fatuus* to continental engineers. No one we are convinced would be better pleased than the English would be to see the plan successful, and none could be more willing to acknowledge themselves in error than English engineers would be, if the result corresponded to the sanguine theories of M. de Lesseps.

A.L.F.A. [ESPARTO.]

ALGIERS.

French territory of whom 37, situated 36° 2'. The bay, of a and somewhat course of coast 20,000,000 francs about 220 acres Islet de la Mar 15 miles. Its of half a minute, the light There are besides head; that on green.

The value of to France in 1867 and in 1863 to imports from France nearly 94,000,000 almost all the duties. The article France are chiefly ore, and cast-iron skins, animals, &c. French government artificially to stimulate the latter article. The goods, which were reported from France, textile goods, wine &c.

The cultivation 1851, has made very seen from the following quantity bought on factors in France,

Years	Quantity
1851	—
1852	—
1853	—
1854	—
1855	—
1856	—
1857	—
1858	—

in addition to tobacco & gin.

Minerals, such as copper, and mercury, of most considerable amount, and of mouzala, near Algiers, from which is exported annually to well to observe, that most exclusively for France of the value of 8,410,000 of the value of 5,661,100 of the value of 67,423,100.

There exists near Tlemcen, a quarry of granite, which has been much admired, and which, as Per, betwixt Philippeville and Algiers, resembles the white Ferrarite. This article, and of ornamental value, was exhibited at the Exhibition of 1862, and since that period it has been employed. It sells at from 10 to 15 francs per cubic metre.

The cultivation of cotton with the same success in the province of Constantine, in the province of Oran, and in the province of Algiers, is particularly favourable, so that nearly four-fifths of the produce of

ALGIERS

ALGIERS. A city and port, the capital of the French territory of Algeria. Pop. in 1862, 58,315, of whom 37,145 were Europeans. This city is situated 36° 47' 20" N. lat., long. 3° 4' 32" E. The bay, of a regular crescent shape, is exposed and somewhat dangerous in winter. A port in course of construction has already cost upwards of 20,000,000 francs, it consists of a sheltered sheet of about 220 acres of water. The lighthouse on the Ilet de la Marine has a revolving light visible at 15 miles. Its partial eclipses being at intervals of half a minute, and total eclipse every two minutes, the light is catoptric, of the third order. There are besides two fixed lights on the mole head; that on the N. is red, and that on the S. green.

The value of the exports from Algerian ports to France in 1858 amounted to 28,461,697 francs, and in 1863 to 52,710,176. The value of the imports from France into Algeria was, in 1858, almost all the trade consisting of national produce, almost all the trade consisting of national produce. The articles exported from Algeria to France are chiefly minerals (copper, lead, iron ores, and cast-iron), casks, wool, tobacco, cereals, skins, animals, cotton, wool, and coral. The French government are making great efforts artificially to stimulate the production of the later article. The principal commodities exported from France to Algeria in return consist of textile goods, wines, and general articles of consumption.

The cultivation of tobacco in Algeria, since 1851, has made very great progress, as may be seen from the following table, which exhibits the quantity bought on account of the imperial manufacturers in France, viz.:

Years	Quantity	Value
1851	5,279	4
1852	17,794	8,156
1853	32,289	30,004
1854	37,838	57,906
1855	67,815	102,199
1856	57,621	119,499
1857	89,108	100,058
1858	65,700	170,552
		2,95,000

in addition to tobacco consumed annually in Algeria.

Minerals, such as copper, iron, lead, zinc, antimony, and mercury, are found in Algeria. The most considerable are those of copper, near Tenes, and of mouzania, near Blidah, in the province of Algiers, from which a considerable quantity is exported annually to Swansea; but it may be well to observe, that all other exports are most exclusively for France, 82,777 cwt. of iron, of the value of 8,110*l.*; 27,861 cwt. of iron, of the value of 5,661*l.*; and 136,782 cwt. of copper, of the value of 67,493*l.*; were exported during 1857.

There exists near Tleuclia, in the province of Ouan-dj-el-Bach, a quarry of translucent marble, which has been much admired, and another near the Cap de Fer, betwixt Philippeville and Bona, which resembles the white Ferrara marble. Specimens of this article, and of ornamental statuary manufactured from it, were exhibited at the International Exhibition of 1862, and attracted great attention. Since that period it has been considerably employed. It sells at from 1,500 to 3,000 francs per cubic metre.

The cultivation of cotton has not been attended with the same success in the province of Algiers as in the province of Constantina, and more especially in the province of Oran at the Sigs, where the situation is particularly favoured by climate and the soil, so that nearly four-fifths of the cotton raised in Algeria is the produce of that province.

The south of Algeria and the Ziban would produce, with proper irrigation, cotton as good, in every respect, as any grown in America, but it is rare in these districts. However, Artesian wells have been made of late, with invariably success, in these parts of the country, and luxuriant vegetation is the necessary consequence. Some fine specimens of cotton grown in Algeria were shown at the International Exhibition of 1862, but judging from its cost of production as compared with the cotton of India and of other countries, there is little probability of Algerian cotton being able to stand competition with the cotton of India. (See *Rapports du Jury International*, tom. ii, p. 55 *et seq.*)

The most important ports of Algeria are Algiers, Mers-el-Kebir, Oran, Bona, Stora and Philippeville, Mostaganem and Tenez.

The following table exhibits the total amount of shipping, French and foreign, which entered and cleared at Algerian ports in 1863.

	Entered	Number	Tonnage
French Cargoes	- - - -	532	62,780
Ballast	- - - -	27	2,729
Foreign Cargoes	- - - -	1,171	41,152
Ballast	- - - -	373	17,510
Total	- - - -	1,866	114,081
French Cargoes	Clear'd	- - - -	- - - -
Ballast	- - - -	210	49,806
Foreign Cargoes	- - - -	218	21,728
Ballast	- - - -	1,058	50,678
Total	- - - -	1,504	122,819
		1,870	141,717

The number of vessels which entered the United Kingdom from Algerian ports in 1863 was 69 and the tonnage 11,630 tons; in the same year, 92 vessels, 13,978 tons, cleared.

The commerce between France and Algeria is regarded as a coasting trade, and is still reserved to vessels of French register only.

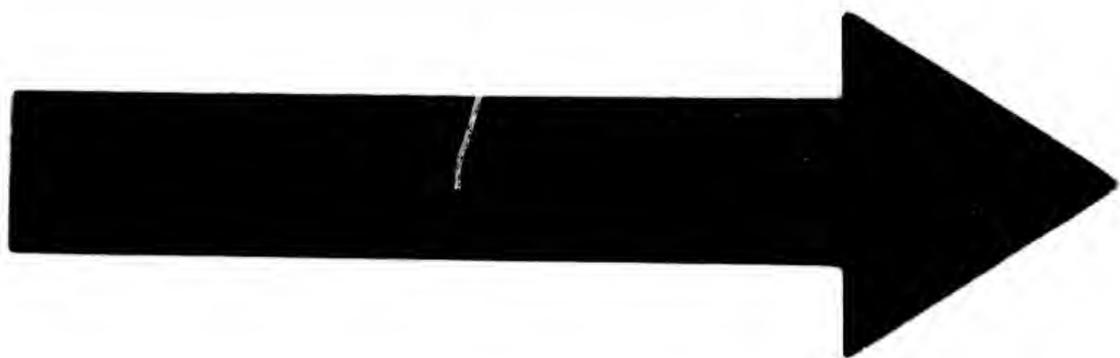
**Port Dues.**—The treaties of commerce at present existing between Great Britain and France do not apply to Algeria. Thus, when British ships arrive in the ports of this colony, loaded with any cargoes, except grain or dry provisions, they are subjected to a fixed duty of 4 francs per ton, from whatever country they arrive or load more than one port of the colony, the duty is only paid once for cargoes of this description.

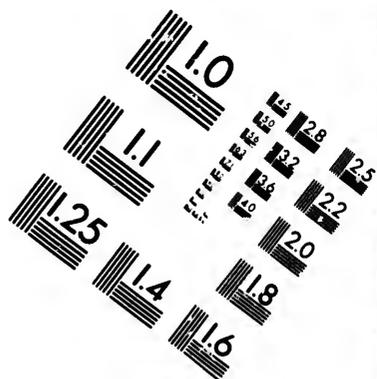
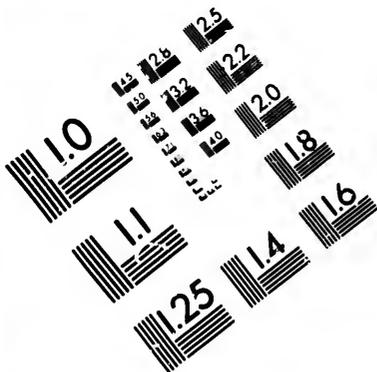
British ships, as well as all others, enjoy the privilege of exemption from the payment of a duty of 4 francs a ton, if they come from northern ports loaded with timber, and depart with a cargo of French or Algerine produce. Should the cargo, however, not be a full cargo, but not less than three-quarters, tonnage dues will be exacted from like regulations exist in leaving with a cargo of not less than half of French or Algerine produce.

French ships arriving in Algeria are completely exempted from tonnage dues, and the duties on some articles imported in French vessels are less than those on British or foreign vessels.

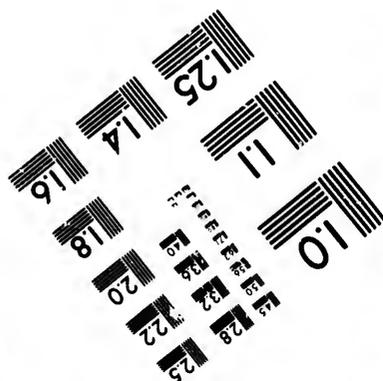
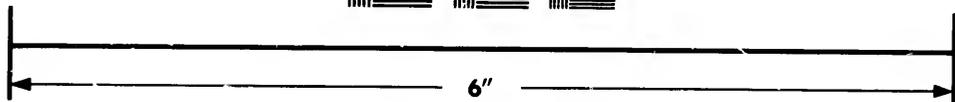
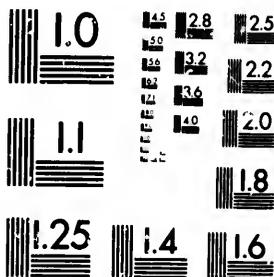
Art. 18 of the treaty of January 23, 1860, provides that the stipulations of that treaty, prohibiting the exportation of produce, and the importation of British goods, shall be applicable to Algeria. Consequently, in the direct trade, British commerce enjoys the same privileges as that of France.

British vessels are, however, still subject to the navigation dues, and, if occasion should arise, to the additional flag taxes; it is to be hoped, however, that the contemplated reforms in the French navigation laws will abolish or greatly reduce these charges. See *Lajoukair Tariff des Douanes de France (Algérie, pp. 74, 89)*.  
The *Droits de reconnaissance*, corresponding to





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most other articles of commerce being brought in Spanish vessels in order to avoid the differential duties imposed on foreign shipping.

The exportation at this port, in British and foreign vessels, amounted to 207,888*l.* in the same year, consisting of wine, almonds, liquorice, lead, and latterly esparto (9,000 tons of which were exported in the same year to Great Britain). The trade, however, in 1866, fell to 57,781*l.* The change is ascribed to the superior advantages of land carriage by the northern railway. In 1866, the number of ships visiting the port was 673, with a tonnage of 156,710 against 1069 ships of 247,222 tons in 1864: In the immediate ports of Denia and Jávea raisins and almonds to the value of 179,544*l.* were exported in 1864, and to the same extent in 1866; and from Torrevieja the exportation of salt, principally for the Baltic, and fruits and wine for Algeria, was valued at 83,437*l.*

The ordinary wine of this province is of good sound quality, and remarkably cheap, being shipped in the year 1865 at from 4*l.* ds. to 4*l.* 10s. per pipe of 100 imperial gallons, free on board, pipe included. Of late years large tracts of land were planted with vines, in consequence of the prospect of a great opening of trade by the reduction of duties on wine in England, but these being imposed according to the strength, and not *ad valorem*, the duties amount nearly to prohibition.

The only manufactory of any importance is that of cigars, a government monopoly, in which upwards of 4,000 women are employed, the tobacco used being from the United States, Cuba and the Philippine Islands. A branch of the Bank of Spain has been established here for some years, affording considerable facilities to commerce.

The exportation of esparto grass is one of the most notable in the returns of Alicante. The plant has long been used for making rope, matting and baskets. Fifteen miles from Alicante, at the town of Crevillente, there are 40 manufactories of matting and imitation carpets, which are sent to all parts of Spain, which give employment to 4,000 persons, consume annually 10,000 tons of esparto, and produce 175,000 pieces each of 40 to 50 yards in length. About 8,000 tons of this grass are annually exported from Alicante, and more could be carried if freights were lower.

After the opening of the railway to Madrid in 1857, the trade of Alicante was immensely increased, and the population, which was, twenty years ago, 17,000, has nearly doubled; but the opening of several other railroads to the capital having caused the monopoly to cease, it is found that the amount of commerce is proportionally diminishing, though, from the excellence of the harbour, and the railway being the shortest and cheapest, this port will always be preferred for heavy goods.

An electric telegraph has been for some years in operation between this and all the towns of importance of Spain, and consequently of Europe.

**Custom House Regulations.**—A manifest of the cargo, the ship's tonnage and number of crew, must be presented within twenty-four hours after *pratique* is given, together with a sealed register of cargo from the Spanish consul at the port of loading, when one or two officers are occasionally put on board to prevent smuggling. The consignees then make entry of the articles consigned to them, and obtain an order to discharge from the collector. To load the whole or part of an outward cargo, the master reports his intention to the collector, who gives his order permitting goods to be shipped, and the shippers make their specific entries. When the vessel is loaded the waiting officers make their return to the collector, who on receiving the port, sanitary, and consumption dues,

grants his clearance, upon which a bill of health is obtained and the vessel is clear for sea.

Alicante is not a favourable place for repairing ships.

**Warehousing System.**—The permission of the government to bond or deposit goods for one year, not having been taken advantage of by merchants, and a useless expense incurred, the order was rescinded after a trial of two years.

Vessels with foul bills of health, or coming from an infected or suspected place, though with clean bills, are usually ordered to the Lazaretto of Puerto Mahon; but vessels coming with clean bills obtain under ordinary circumstances immediate *pratique*.

Accounts are kept in rials vellon of twenty to the dollar, and in centimes of a rial. The official nomenclature for taxes and expenditure has recently been changed into escudos of ten rials or half a dollar.

**Weights and Measures.**—The cargo 2½ quintals or 10 arrobas; the Valencian arroba contains 24 lbs. of 18 ozs. or 36 of 12 ozs. At the custom house the Castilian quintal, containing 4 Castilian arrobas of 25 lbs. of 16 oz. each, which is nearly 10 per cent. less than the English cwt., and the new metrical system, are alone admitted.

The wine measure is the cantaro of 16 michetas. A pipe contains 40 cantaros or 100 imperial gallons. The yard or vara divided into 4 palms is 29·96, or very nearly 30 English inches.

(We are indebted for the above article to Colonel Barrie, H.M. consul at Alicante.)

**ALIENS.** According to the strict sense of the term, and the interpretation of the common law, all individuals born out of the dominions of the crown of England (*alibi natus*) are aliens or foreigners.

It is obvious, however, that this strict interpretation could not be maintained without very great inconvenience; and the necessity of making exceptions in favour of the children born of native parents resident in foreign countries was early recognised. The 25 Edw. III. stat. 2, enacts, that all children born abroad, provided both the parents were at the time of their birth in allegiance to the king, and the mother had passed the seas by her husband's consent, might inherit as if born in England. And this relaxation has been carried still further by several modern statutes; so that all children born out of the king's allegiance, whose fathers, or grandfathers by the father's side, were natural-born subjects, are now deemed to be themselves natural-born subjects; unless their ancestors were outlawed, or banished beyond sea for high treason, or were, at the birth of such children, in the service of a prince at enmity with Great Britain.

**Naturalisation of Aliens.**—Aliens may be naturalised by Act of Parliament, which puts them in exactly the same condition as natural-born subjects, except that they are incapable of being members of the privy council, of being elected to serve in parliament, or of holding any office of trust under the crown.

A *denizen* is an alien born, who has obtained letters patent, *ex donatione regis*, to make him an English subject. He occupies a kind of middle station between a natural-born subject and an alien. He may acquire lands by purchase or devise, but not by inheritance; and may transmit such lands to his children born after his denization, but not to those born before. (Blackstone's *Com.* book 1. ch. x.)

An alien may also be naturalised by serving on board any of his Majesty's ships of war, in time of war, for three years, or, if a proclamation has been issued to that effect, for two years. (6 Geo. IV. c. 109, ss. 16, 17.)

*Influence of the Residence of Aliens.*—There can be no doubt that, generally speaking, the resort of foreigners to a country, and their residence in it, are highly conducive to its interests. Those who emigrate in order to practise their calling in an old settled country are pretty uniformly distinguished for activity, enterprise, and good conduct. The native inhabitants have so many advantages on their side, that it would be absurd to suppose that foreigners should ever come into anything like successful competition with them, unless they were acquainted with some branch of trade or manufacture of which the others were ignorant, or possessed superior skill, industry, or economy. But whether aliens practise new arts, or introduce more perfect processes into the old, or display superior economy, &c., their influx cannot fail to be of the greatest advantage. They practically instruct those among whom they reside in what it most concerns them to know, that is, in those departments of art and science in which they are inferior to others; and enable them to avail themselves of whatever foreign sagacity, skill, or practice has produced that is most perfect. It is not easy, indeed, to overrate the benefits conferred on most countries by the resort of aliens. Previously to the invention of printing, there was hardly any other way of becoming acquainted with foreign inventions and discoveries; and even now it is far easier to learn any new art, method, or process, from the example and instruction of those familiar with its details, than from the best possible descriptions. The experience, indeed, of every age and country shows that the progress of nations in the career of arts and civilisation depends more on the freedom of commerce, and on the liberality with which they have treated foreigners, than on almost anything else.

*English Legislation as to Aliens.*—But, notwithstanding what has been stated above, an antipathy to resident foreigners seems to be indigenous to all rude and uncivilised nations. Whatever is done by them appears to be so much taken from the employment, and, consequently, from the subsistence of the citizens; while the advantages resulting from the new arts or improved practices they introduce, for the most part manifest themselves only by slow degrees, and rarely make any impression on the multitude. Hence the jealousy and aversion with which foreigners are uniformly regarded in all countries not far advanced in civilisation. The early Greeks and Romans looked upon strangers as a species of enemies, with whom, though not actually at war, they maintained no sort of friendly intercourse. 'Hostis,' says Cicero, 'apud majores nostros is dicebatur, quem nunc peregrinum dicimus.' (*De Off.* lib. i. c. xii.) It may, therefore, be considered as a striking proof of the good sense and liberality of those by whom it was framed, that a clause is inserted in *Magna Charta* which has the encouragement of commerce for its object; being to the effect, that 'all merchants (if not openly prohibited before) shall have safe and sure conduct to depart out of and to come into England, to reside in and go through England, as well by land as by water, to buy and sell without any manner of evil tolls, by the old and rightful customs, except in time of war; and if they be of a land making war against us, and such be found in our nation at the beginning of the war, they shall be attached without harm of body or goods, until it be known unto us, or our chief justice, how our merchants be entreated in the land making war against us; and if our merchants be well entreated there, shall be so likewise here.'

But until the era of Edward I. the stipulation in the Great Charter as to foreign merchants

seems to have been little attended to. It is doubtful whether, previously to his reign, they could either hire houses of their own, or deal except through the medium of some Englishman. But this intelligent prince saw the advantage that would result to the trade and industry of his subjects from the residence and intercourse of Germans, Flemings, Italians, and other foreigners, who, at that time, were very superior to the English in most branches of manufactures and commerce. He, therefore, exerted himself to procure a repeal of some of the more oppressive restrictions on aliens, and gave them a charter which conveyed considerable privileges. This charter was confirmed by Edward III. in 1328. Among other clauses, it has the following: viz. 1. That on any trial between foreigners and Englishmen the jury shall be half foreigners; 2. That a proper person shall be appointed in London to be justiciary for foreign merchants; and 3. That there shall be but one weight and measure throughout the kingdom. (Anderson, *anno* 1302.) Down, however, to the reign of Edward III., it continued to be customary to arrest one stranger for the debt, and even to punish him for the crimes and misdemeanours of others! It may appear extraordinary that the gross injustice of this barbarous regulation ever permitted it to be adopted; and yet it was probably, at one period, the common law of most European states. As soon, however, as the foundations of good order and civilisation began to be laid its operation was seen to be most pernicious. In 1325, Edward II. entered into a convention with the Venetians, in which it was expressly stipulated that they should have full liberty to come to England to buy and sell commodities, without being liable for the debts or crimes of others. Conventions to the same effect were entered into with other foreigners. At length, in 1353, this disgraceful practice was put an end to by 27 Edw. III. st. 2, c. 17; it being provided in this statute, not only that no stranger shall be impeached for the trespass or debt of another, but that, in the event of a war breaking out with any foreign power, its subjects, residing amongst us, shall be warned thereof by proclamation, and be allowed forty days to arrange their affairs, and to depart out of the kingdom; and that, under special circumstances, this term may be extended. There are few acts in the statute-book that reflect more credit on their proposers, or that have been more advantageous than this.

In consequence of the encouragement given by Edward III. to such of the woollen manufacturers of Flanders as chose to immigrate to England, a good many came over; and it is from their immigration that we may date the improvement and importance of the woollen manufacture in this country. [WOOLLEN MANUFACTURE.] But this policy, however wise and judicious, was exceedingly unpopular. The foreigners were openly insulted, and their lives endangered, in London and other large towns; and a few of them in consequence returned to Flanders. Edward, however, was not to be driven from his purpose by an unfounded clamour of this sort. A proclamation was issued, in which every person accused of disturbing or attacking the foreign weavers was ordered to be committed to Newgate, and threatened with the utmost severity of punishment. In a parliament held at York, in 1355, an Act was passed for the better protection and security of foreign merchants and others, by which penalties were inflicted on all who gave them any disturbance. This seems to have had the effect, for a while at least, of preventing any outrages.

The corporations of London, Bristol, and other

corporations see

great towns, have been at all times the principal enemies to the immigration of foreigners. Perhaps, indeed, they were not more hostile to them than to such of their own countrymen, belonging to another part of the kingdom, as should have attempted to settle amongst them without being free of their corporation. But in denouncing foreigners they had the national prejudice on their side; and their attempts to confirm and extend their monopolies by their exclusion were regarded as the noblest efforts of patriotism! Edward III. was fully aware of the real motives by which they were actuated, and steadily resisted their pretensions. But in the reigns of his successors they succeeded better: some of these were feeble and unfortunate, whilst others enjoyed the crown only by a disputed title, and in defiance of powerful competitors. The support of the great towns was of the utmost consequence to such princes, who, whatever might be their own opinion as to its policy, could hardly venture to resist the solicitations of such powerful bodies to exclude strangers, and to impose restrictions on commerce. From the death of Edward III. to the reign of Elizabeth, the progress made by the country was not inconsiderable, but it was little promoted by legislative enactments. Throughout the whole of this period, the influence of corporations seems to have predominated in all matters relating to trade and the treatment of foreigners; and our legislation partook of the selfish, monopolising character of the source whence it was principally derived. Were the Acts and proceedings as to aliens the only memorials of our policy from 1377 to 1560, we should certainly seem to have retrograded materially during the interval. Some of these Acts were passed with so little consideration, and were so very absurd, that they had to be immediately repealed. Of this sort was the statute of the 8 Henry VI. c. 24, to the effect 'that no Englishman shall within this realm sell, or cause to be sold, hereafter, to any merchant alien any manner of merchandises, but only for ready payment in hand, or else in merchandises for merchandises, to be paid and contented in hand, upon pain of forfeiture of the same.' But as an enactment of this sort was very speedily found to be more injurious to ourselves than to the foreigner, it was repealed in the following session.

The more tyrannical their conduct in other respects, the more were our princes disposed to humour the national prejudice against foreigners. If not a cheap, it was, at least, an easy method of acquiring popularity. In the very first parliament after the accession of Richard III., a statute was passed full of the most ridiculous, contradictory, and unfounded allegations as to the injury sustained by the influx of foreigners, and laying them under the most oppressive restraints. Considering, indeed, the sort of treatment to which aliens were then exposed, it may excite surprise that they should ever have thought of visiting the country; and, in point of fact, it appears that the resort of foreign merchants to our ports was materially impaired by the statutes referred to, and others of the same description. This is evident from the Act 19 Henry VII. c. 6, where it is stated that 'woollen cloth is not sold or uttered as it hath been in divers parts, and that 'foreign commodities and merchandises are at so dear and exceeding high prices that the buyer cannot live thereon.' But in despite of this authoritative exposition of the mischiefs arising from the restraints on aliens, and on trade, they were both increased in the reign of Henry VIII. And it was not till the reign of Elizabeth that the pretensions of the corporations seem to have been disregarded, and an

attempt made to act, not by starts, but consistently, on the policy of Edward III.

The influx of foreigners during the reign of Elizabeth was occasioned chiefly by the persecutions of the Duke of Alva and the Spaniards in the Low Countries. The friends of the reformed religion, which, at the time, was far from being firmly established, and the government, were glad to receive such an accession of strength; and from the superiority of the Flemings in commerce and manufactures, the immigrants contributed materially to the improvement of arts in England. It would seem, however, that the ministers of Elizabeth contented themselves, perhaps that they might not excite the public prejudice, with declining to enforce the laws against aliens, without taking any very active steps in their favour.

In the reign of James I. the corporation of London renewed with increased earnestness their complaints of aliens. In 1622 a proclamation was issued, evidently written by James himself, in which, under pretence of keeping 'a due temperment' between the interests of the complainants and those of the foreigners, he subjects the latter to fresh disabilities.

Since the revolution, more enlarged and liberal views as to the conduct to be followed with respect to aliens have continued to gain ground: several of the restraining statutes have fallen into disuse, while others were so much modified by the interference of the courts, which have generally been inclined to soften their severity, that their more offensive provisions became inoperative. In 1708, an Act was passed, notwithstanding the strenuous opposition of the corporations, for the general naturalisation of all foreign protestants; but the prejudice against them was still so powerful that it was repealed within about three years. Some attempts were afterwards made to carry a similar measure. One of these, about the middle of last century, occasioned the publication by Dr. Tucker of two excellent pamphlets in which the policy of a Naturalisation Act is ably vindicated and the arguments against it successfully exposed. (Historical Remarks on the late Naturalisation Bill, 1751; Queries occasioned by the late Naturalisation Bill, 1752.)

But, notwithstanding these efforts, nothing effectual was done to relieve aliens from the disabilities under which they laboured till 1844, when the 7 & 8 Viet. c. 66 was passed. This Act authorises the secretary of state for the home department, on his receiving such evidence as he may think necessary in regard to any application by an alien for a certificate of naturalisation, to grant, if he think fit, such certificate. If granted, the certificate conveys to the alien (unless some special reservation be made in it) all the rights and privileges of a natural born British subject, except that he cannot be a member of either house of parliament, or a privy councillor. Probably this is as good a law as could be enacted in regard to this matter.

The following regulations have been issued by the secretary of state in reference to the grant of certificates in pursuance of stat. 7 & 8 Viet. c. 66.

1. Upon an application to the secretary of state for the grant of a certificate of naturalisation, it will be necessary that the applicant should present to one of her Majesty's principal secretaries of state a memorial praying for such grant, stating the age, profession, trade, or other occupation of the memorialist, the duration of his residence within the United Kingdom, and of what friendly state he is a subject; whether he intends to continue to reside within this kingdom, and all other grounds on which he seeks to obtain any of

the rights and capacities of a natural-born British subject.

2. That the memorialist should make an affidavit before a magistrate, or other person authorised by law to administer an oath, verifying all the statements in his memorial.

3. That a declaration should be made and signed by four householders at least, vouching for the respectability and loyalty of the memorialist, verifying also the several particulars stated in the memorial as grounds for obtaining such certificate; and that this declaration should be made in 'due form, before a magistrate, or other person authorised by law to receive such declaration, in pursuance of the Act 5 & 6 Wm. IV.

*Policy of the Laws as to Aliens.*—The reason assigned by Mr. Justice Blackstone and others for preventing aliens from acquiring fixed property seem to be very unsatisfactory. In small states there might be grounds, perhaps, for fearing lest the easy admission of aliens to the rights of citizenship should give them an improper bias; but in a country like England such apprehensions would be quite futile. In this respect the example of Holland seems quite decisive. Notwithstanding the comparatively limited population of that country, it was 'the constant policy of the republic to make Holland a perpetual, safe, and secure asylum for all persecuted and oppressed strangers; no alliance, no treaty, no regard for, no solicitation of, any potentate whatever has at any time been able to weaken or destroy, or make the state recede from protecting, those who have fled to it for their own security and self-preservation.' (*Proposals for amending the Trade of Holland*, printed by authority. Lond. 1751.)

A short residence in the country, and a small payment to the state, was all that was required in Holland to entitle a foreigner to every privilege enjoyed by a native. And it is of importance to remark, that it has not been so much as insinuated that this liberal conduct was in any instance productive of a mischievous result. On the contrary, all the highest authorities consider it as one of the main causes of the extraordinary progress made by the republic in wealth and commerce. It is said in the official paper just quoted, that 'throughout the whole course of all the persecutions and oppressions that have occurred in other countries, the steady adherence of the republic to this fundamental law has been the cause that many people have not only fled hither for refuge, with their whole stock in ready cash, and their most valuable effects, but have also settled and established many trades, fabrics, manufactures, arts, and sciences in this country; notwithstanding the first materials for the said fabrics and manufactures were almost wholly wanting in it, and not to be procured but at a great expense from foreign parts.' (*Ibid.*)

With such an example to appeal to, we are warranted in affirming that nothing can be more idle than to suppose that any number of foreigners which it is at all likely should ever come to England under the most liberal system for industrial purposes, or to escape religious or political persecutions in their own countries, should occasion any political inconvenience. But it should always be understood that their residence here is to depend on the propriety of their conduct. If they abuse the privileges accorded to them, and come among us not for the sake of an asylum, or for the prosecution of industrious pursuits, but that they may make this country a theatre for carrying on plots and hatching conspiracies against the governments of countries with which we may be in amity, in such case they forfeit all claim to hospitality, and cannot justly complain if they be

(as they ought to be) deprived of their certificates and compelled to quit our shores. The 10 & 11 Viet. c. 83 refers to aliens in British colonies and dependencies.

**ALKALI** (derived from the Hebrew *Kalah*, to burn, similar to Arabic, to fry; Arabic, *al kala*, the burnt). The term *alkali* originally applied to the ashes of the burnt plants. The plant most used was then called after the name of the burnt ash. The name has now become generic, and is used in commerce to designate potash, soda, and ammonia; which are respectively distinguished by the terms vegetable, mineral, and volatile alkali. Lithia, caesia and rubidia are also alkalies. The distinguishing characteristics of these bodies are, a strong acrid and powerfully caustic taste, and a corrosive action upon all animal matter, destroying its texture with considerable rapidity. Exposed to the atmosphere when in their caustic state, they rapidly absorb carbonic acid, and become carbonated or milk, and by passing carbonic acid over them, they become bicarbonated or milder. Their action upon vegetable colours affords us means by which the presence of an uncombined or carbonated alkali may be detected; the yellow colour of turmeric is changed to brown; the blue colour of litmus, after being reddened by an acid, is restored; the violet infusion of red cabbage is changed to green, as also many other purple vegetable colours. Litmus paper, reddened by carbonic acid, is, however, the most delicate test of the presence of alkalies: they combine with acids, neutralising their acid properties, and forming a very important and extensive class of compounds called *salts*; a salt being any compound formed by the union of an acid with an alkali or other metallic oxide. The most important of the alkaline salts will be noticed below. Lime, magnesia, baryta and strontia have a similar action on vegetable colours, and are called *alkaline earths*.

The fixed alkalies are all oxides of metals, lighter than water. The caustic alkaline earths are oxides of metals still light, but heavier than water; the names of the metals ending in *um*, that of the caustic bodies chiefly in a *sodium* *soda*.

*Soda or Mineral Alkali.*—In part, the nitrum or natrum of the ancients, terms also applied to potash; the two alkalies, potash and soda, not being then recognised as distinct substances. Soda is believed to be mentioned by Solomon in Proverbs xxv. 20, 'as vinegar upon nitre,' and by Jeremiah, ch. ii. 22, 'although thou wash thee with nitre.' Soda was formerly prepared from barilla and kelp; 'barilla' being the name given to the ashes of plants which grew on the sea shore, and 'kelp' being the ashes of sea-weeds. These ashes are not now of any importance as sources of soda, however, they are of great value on account of the iodine salts they contain. Soda and its salts are now almost entirely manufactured directly or indirectly from common salt.

*Sodium*, the metal, is prepared by exposing to a white heat, in iron cylinders or retorts, a mixture of dry carbonate of soda and charcoal dust, a little chalk being added to keep the mixture in a pasty condition. The metal sodium distils over, and is condensed in a copper receiver, which must be well rolled and should be surrounded with ice, and must contain rock oil or naphtha. Sodium has a bluish white colour exposed to the air, it is quickly oxidised, when dropped into cold water it decomposes a portion of it, extricating hydrogen, and if the water be previously heated, the gas takes fire and burns with a bright yellow flame.

Sodium is manufactured on a commercial scale, and is extensively used in the preparation of aluminium or aluminium.

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*Chloride of Sodium, muriate of soda or common soda*—is found in immense quantities in the earth as rock salt. The mines of Cheshire and Worcestershire in this country, and those of Poland, Hungary, Spain, and many other places, may be said to be inexhaustible. Actual mining of salt is little practised with us. The water near the salt is saturated brine, which is purified up and evaporated in pans 30 to 60 feet long. The soil around Northwich is in many places much depressed by this, and the town itself is a constant succession of risings and fallings. It is also obtained in large quantities by the evaporation of sea water. In warm countries this is carried on in pits dug in the beach by the heat of the sun's rays, leaving the common salt, mixed with various salts of magnesia and lime, as a white incrustation. In colder climates the evaporation is conducted in iron pans on the sea shore, by the aid of fuel. The salt crystallises out, the crystals are then drained from the mother liquor, which is called *bittern*, and are ready for the market. Basket salt is made by placing the crystals obtained in the above process in conical baskets, and washing them with a saturated solution of salt, which dissolves and carries off any magnesia or lime salts.

In Cheshire, the mine salt has been sold, in 1863, at the pit mouth at even less than half-a-crown per ton. The large crystals used for soda are obtained from the pans at 4s. a ton. That salt which is rapidly evaporated with the fire is fine, and sold as salt. It contains a little sulphate of lime. The coarser salt is formed less rapidly, and the very large crystals, which appear ornamental rather than useful, are formed singly in quiet portions of the pan. They are in reality the purest.

Pure salt should not become sensibly moist on exposure to the air; it decrepitates when suddenly heated. Salt is employed extensively in the production of sulphate of soda, to be afterwards converted into carbonate of soda by Le Blanc's process. At the present time (1865), 350,000 tons of salt are annually consumed in this country in this one branch of industry. It is also largely used in many other chemical and metallurgical operations, and for the preservation of animal food. Common salt is an excellent antiseptic.

*Sulphate of Soda or Glauber's Salts*.—This is prepared by heating together a mixture of sulphuric acid and common salt; muriatic or hydrochloric acid is evolved and condensed in Wolfe's bottles on a small scale, or in vessels filled with coke or bricks on a large scale, while sulphate of soda remains in the retort. Sulphate of soda is also obtained as a residue in the preparation of nitric acid from nitrate of soda, and is found pretty extensively in various parts of the world, more particularly in Spain and South America. It exists in almost all waters; the mineral springs of Cheltenham and Leamington owe their purgative properties to its presence. Crystallised sulphate of soda is often found as an efflorescence upon plaster and brick-work in damp situations.

Sulphate of soda, when in crystals, is remarkably efflorescent, losing the whole of its water of crystallisation, at ordinary temperatures, on mere exposure to the atmosphere.

A convenient freezing mixture may be made by pouring five parts commercial hydrochloric acid upon eight parts of the crystallised sulphate.

*Carbonate of Soda*.—This is found native in several localities; in some places, Egypt, and for instance Hungary, being left as an incrustation when the so-called 'soda lakes' dry up in the summer; in other places, Hungary &c. it exudes from the ground. A considerable quantity of carbonate of soda was formerly, and indeed still

is, obtained from *Barilla*, the ashes of plants growing on the seashore; the ashes of the *Salsola clavifolia* yielding about 46 per cent., and the *Salsola soda* about 41 per cent. of their weight of this salt. *Kelp*, the ashes of sea-weeds, contains a notable proportion of carbonate of soda, but is valuable only as a source of iodine and potash. However, the quantity annually derived from these sources is very trifling when compared with the quantity manufactured from common salt.

The process now generally employed for the manufacture of carbonate of soda from common salt is substantially that recommended by Le Blanc in 1792, and consists first in the decomposition of the salt by sulphuric acid, as described above, and afterwards roasting the sulphate of soda so obtained in reverberatory furnaces with a mixture of lime or chalk and small coal, the proportions being two parts of sulphate of soda, two parts limestone or chalk, and one part small coal; the mixture melts into a pasty mass termed 'black ash,' which on being withdrawn from the furnace, cooled, and lixiviated with cold water, yields a solution containing principally carbonate of soda. The insoluble residue consists of a sulphate of calcium mixed with carbonate of lime &c., and is known as *blue waste, vat refuse, or soda waste*.

The solution containing carbonate of soda is evaporated to dryness; mixed with a small proportion of sawdust, and calcined at a moderate temperature. The product thus obtained is called *soda ash*, and contains from 44 to 50 per cent. of alkali.

*Soda Crystals or Washing Soda*.—This is obtained by dissolving the soda ash in water, evaporating, and crystallising in iron pans.

Carbonate of soda is also manufactured from *Cryolite*, a mineral found in West Greenland and also in the Ural mountains; it is a double fluoride of aluminium and sodium. The mineral is ground to powder, mixed with its own weight of lime, and either calcined, or mixed with as much water as will form a milk, and boiled for some time. Fluoride of calcium remains insoluble while aluminate of soda is dissolved by the water. On passing carbonic acid gas through the liquid the alumina is precipitated, and carbonate of soda is formed and may be obtained in crystals on evaporation. One ton of cryolite will yield from 1½ to 2 tons of soda crystals. The quantity of cryolite annually obtained from Greenland is stated to be about 3,000 tons, the greater portion of which is sent to Copenhagen, and the remainder to Boston, U. S.; at both of which places the above processes are carried on.

Carbonate of soda has also been obtained from soda felspar, but not to any considerable extent.

Soda ash and soda crystals are both very largely used in many industrial and chemical operations, more particularly in the manufacture of soap, and in dyeing and scouring.

In this country upwards of 300,000 tons of carbonate of soda are annually made. It is exported largely.

*Bi-carbonate of Soda*.—This is procured by exposing the crystallised carbonate to an atmosphere of carbonic acid. The crystals absorb the carbonic acid, and at the same time lose their water of crystallisation, crumbling down into a white powder. It is used in medicine, in the production of effervescent drinks, baking powders &c. On being subjected to a red heat it loses half of its carbonic acid, and is converted into the anhydrous simple carbonate.

*Caustic Soda*.—This may be prepared from the soda ash of commerce by boiling with an excess of fresh slaked lime. Insoluble carbonate of lime is formed, and caustic soda remains in solution; the

clear liquid is decanted, evaporated, fused, and, while still liquid, is run into iron casks, and when cold is ready for market.

The mother liquors from the manufacture of soda crystals are now generally used for the production of caustic soda. As they always contain a considerable amount besides carbonate, they are well suited for the purpose.

Caustic soda is daily becoming of more importance in the arts; large quantities are used for making soap, and for bleaching, scouring, dyeing. The commercial product generally contains from 60 per cent. to 70 per cent. of alkali.

*Nitrate of Soda, Cubic Nitre, or Chili Saltpetre*—is largely imported into this country, and is used as a source of nitric acid, also in the manufacture of nitrate of potash by double decomposition with chloride of potassium, and in manure. It is somewhat deliquescent. When heated to 591° Fahr. it fuses, and on exposure to a higher temperature suffers decomposition.

The following interesting account of the production of the nitrate beds in South America is extracted from the report of Mr. Salidán, late Her Majesty's consul at Lima:—

Iquique is the centre of the nitrate of soda trade, and to this article alone it owes its present position. The population of the province is estimated at 15,000, four-fifths of whom are more or less interested in it. Large and apparently inexhaustible beds of this and other salts are found in the pampa or plain of Iamarugal, say between the Valley of Camarones on the north, and the river Lox (the boundary line of Peru and Bolivia) on the south, a distance of over 150 miles, lying principally towards the Western side, distant from the shipping port from 6 to 12 leagues. The beds of nitrate, or calisheras, are insulated deposits, very irregular, some on the plain, others on the rising ground, varying much in size and shape, and in depth, beneath the surface crust of earth and clay, from 1 inch to many feet, and in thickness from 6 inches to as many feet. Amongst the other salts found in their vicinity may be enumerated carbonate and sulphate of soda, borates of lime and soda, magnesium-alum, chloride of sodium. Traces of iodine exist in the nitrate, and in most of the waters in the plain have been discovered traces of boracic acid.

Its cost at the works varies from 6½ reales to 8½ reales per quintal, according to the aptitude of the labourers, and the distance they may have to send for water and fuel. The rate of carriage to the coast also varies from 5½ to 7½ reales per quintal.

The average rate now paid for nitrate placed on the beach is 14 reales, and this would give the makers ¾ reale per quintal profit. Nitrate of soda is always sold deliverable alongside the ship's launch outside the surf. The merchant has to bag and embark it, which costs him about 1¾ reale per quintal, therefore selling at 17 reales would yield him 1½ per quintal profit.

The wages now given are, to the barretero (miner) and fondador (boiler of the nitrate) 1 real of the quintal produced, each; to the acendrador (who breaks the nitrate and separates the refuse) ½ real per 2 quintals; to other labourers from 1 dollar 4 cents, to 2 dollars per day.

The principal shipping places are Iquique, Paitillos, Mexillones, and Pisagua.

The total amount exported since the year 1830, when the trade was commenced, is:—

	quintals
1830—1834, inclusive	361,385
1835—1839	761,349
1840—1844	1,592,306
1845—1849	3,060,595
1850—1854	3,260,473
<b>Total</b>	<b>8,036,108</b>

The amount of exports in British ships, in 1864, were, 31,098 tons, of the value of 865,465 dollars.

*Sulphite of Soda or Antichlor.* It is prepared by passing sulphurous acid gas, obtained by the combustion of sulphur in air, into a solution of carbonate of soda, and crystallising. This salt was formerly used for removing the last traces of chlorine from the bleached pulp in the manufacture of paper, but is now to a great extent superseded by hyposulphite of soda.

*Hyposulphite of Soda.*—This may be readily prepared by digesting the above-mentioned salt with flowers of sulphur, evaporating, and crystallising. It may also be prepared from the *soda waste* produced in the manufacture of soda ash. Hyposulphite of soda is largely used by photographers for dissolving the undecomposed salts of silver. It is calculated that the quantity used in England alone for this purpose is not less than 200 tons per annum, while a far larger quantity is used by the paper manufacturers.

*Phosphate of Soda.*—Common tribasic phosphate of soda is prepared on a scale of some magnitude by treating powdered bone ash with dilute sulphuric acid, rendering slightly alkaline with carbonate of soda, filtering from the insoluble carbonate, phosphate and sulphate of lime, and crystallising. This salt is used in medicine. It also enters into the composition of the *dinging liquors*, used by calico printers. There are several other phosphates of soda, but they are of no importance in commerce.

*Bi-borate of Soda or Borax* (Sohaga, Tinenl, Indian names)—obtained in large quantities in the valley of Puga, in Ladakh, and at Thibet, is collected on the borders of the lakes as the water dries up; it is then smeared with fat to prevent loss by exportation, and transferred across the Himalayas on the backs of sheep and goats. It is refined at Umritsur and Lahore by washing with lime water. It is employed medicinally by the natives as a tonic, deobstruent, and diuretic. It is also obtained in California. It is obtained in the crude state by the evaporation of the waters of the lake whence it is derived, and is purified by dissolving in water, rendering slightly alkaline with carbonate of soda (to precipitate earthy salts), filtering and crystallising. Artificial borax is prepared largely by dissolving the boracic acid obtained from the lagoons of Tuscany in carbonate of soda or caustic soda, filtering, and crystallising slowly. In some works the crude boracic is mixed with soda potash and calcined at a low heat; the fritted mass is then lixiviated with water, and the clear solution evaporated and crystallised.

A native borate of lime and soda is found in large quantities in Peru; it is used for the preparation of boracic acid and borax.

Borax is obtained crystallised in two varieties, octahedral and prismatic, the former containing 30·8 per cent. water, and the latter 47·2 per cent. Both varieties, when exposed to the action of heat, lose the whole of their water, and melt below redness to a transparent colourless glass, which possesses the property of dissolving many of the metallic oxides, often with characteristic colours; hence it is much used in the laboratory as a blowpipe reagent. Borax is used in the arts as a flux, and by the refiner in the melting of gold and silver; it is also valuable for facilitating the soldering and welding of metals. In making enamels it is frequently added for the purpose of rendering the compound more fusible, and it is largely employed in fixing colours on porcelain; borax is also used in medicine.

*Silicate of Soda or Water Glass.*—is prepared by igniting 45 lbs. powdered quartz with 23 lbs.

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anhydrous carbonate of soda and 3 lbs charcoal; or, according to Buelmer, it may be prepared more cheaply from sulphate of soda, and in the proportion of 100 parts quartz, 60 parts anhydrous sulphate of soda, and 15 to 20 parts charcoal dust. After cooling, the vitreous mass is broken up and boiled with water for three or four hours, the water being replaced as it evaporates. When the whole is dissolved the solution is concentrated till it attains the specific gravity of from 1.24 to 1.26. In this state it is sufficiently liquid to be used for some purposes, for others it may be evaporated to a syrupy consistence.

The most important uses of silicate of soda are for hardening and preserving stones, preparing artificial stones, cement, &c. and for the preparation of colours for mural painting; it is also used by calico printers and paper makers, and in the preparation of printing ink, &c.

**Aluminate of Soda.**—This is used as a mordant for fixing madder colours in calico printing. It is generally prepared by adding caustic soda to a solution of alum until the precipitate at first formed is re-dissolved; prepared in this manner it contains a large quantity of sulphate of soda. It is obtained tolerably pure as an intermediate product in the manufacture of carbonate of soda from cryolite.

**Stannate of Soda.**—It is extensively used in dyeing and calico printing; it is prepared in a great variety of ways, generally by fusing tin or tin-ore with soda or a salt of soda.

**Arsenate of Soda.**—This is also used largely in calico printing 'dunping liquor.' One method is to heat arsenic with nitrate of soda.

**Tungstate of Soda.**—Prepared by fusing the ore with carbonate or sulphate of soda. Tungstate of soda is used in dyeing, as a mordant, in the same manner as stannate of soda: it has lately acquired considerable importance as a medium for rendering linen, cotton and other fibrous substances non-inflammable; for this purpose it is used in solution, either alone or in conjunction with phosphate of soda.

**Fluoride of Sodium and Aluminium.**—This is found native as *Cryolite* in Greenland, and in the Ural mountains; used as a source of carbonate of soda, also of aluminium.

**Acetate of Soda**—is prepared in large quantities during the purification of acetic acid; the crude acid obtained by the distillation of wood is neutralised by carbonate of soda or soda ash, and the salt thus obtained purified by crystallisation.

**Potash or Vegetable Alkali.**—Extensively distributed in the vegetable and mineral kingdoms; it is also present in animal juices, and in all fertile soils.

**Potassium.**—The metal of which potash is an oxide is prepared precisely in the same manner as sodium, substituting for the carbonate of soda the corresponding salt of potash. This metal is not nearly of as great importance in commerce as sodium, and is much more expensive. The properties of both are very similar.

**Chloride of Potassium.**—Large beds of this salt have been lately discovered at Stassfurt in Prussia, along with common salt and chloride of magnesium. It is also extracted in considerable quantity from 'kelp,' the ashes of sea-weeds, and is used largely in the manufacture of potash alums, in the preparation of the other salts of potash, and in manure.

**Bi-Sulphate of Potash.**—Obtained on a large scale as a residuary product in the manufacture of nitric acid from nitrate of potash; it is the *sal enisum* of the older writers. It is very soluble in water, the crystals fuse below a red heat, and on prolonged ignition are converted into the simple sulphate. The bisulphate is sometimes used as a

flux in cases where the action of an acid at a high temperature is required.

**Potash alum**—is a double sulphate of potash and alumina.

**Carbonate of Potash, Potashes, and Pearlashes.**—Carbonate of potash is obtained in large quantities for commercial purposes by lixiviating wood-ashes, evaporating and crystallising; the mother liquor, containing the carbonate of potash, is evaporated to dryness, yielding the *potashes* of commerce, and these when calcined constitute what is known as *pearlash*. Commercial potashes generally contain from 50 to 60 per cent. of alkali. Carbonate of potash is also obtained by decomposing the chloride and sulphate, as in the preparation of carbonate of soda from common salt; and from felspar, by exposing an intimate mixture of 100 parts, with about 150 parts lime, to a white heat, boiling the mass with water, and saturating the solution so obtained with carbonic acid, to precipitate silica and alumina; the clear liquid contains the mixed carbonates of potash and soda; on evaporation the carbonate of soda crystallises out, leaving the carbonate of potash in solution. Mr. F. O. Ward heats the felspar with fluor spar and lime. It has been found remunerative to extract potash from the grease taken from the wool of sheep; 1000 lbs. of wool yield about 80 lbs. carbonate of potash free from soda; also from the juice of the sugar beet in France.

Carbonate of potash is largely used in the arts, particularly in the manufacture of soap and glass, and for preparing caustic potash and its salts.

**Bi-carbonate of Potash** is prepared by passing a current of carbonic acid gas through a strong solution of the carbonate of potash; crystals of the bicarbonate are deposited. This salt is consumed medicinally in considerable quantities.

**Caustic Potash** is procured from its carbonate in precisely the same manner as caustic soda.

**Nitrate of Potash, Saltpetre, or Nitre.**—The principal supply of this important salt is derived from various districts in the East Indies, where it occurs sometimes as an efflorescence, at other times disseminated through the soil itself. For its formation it is necessary that the soil should contain felspar or other mineral yielding much potash. The nitre is extracted from the soil by lixiviation with water; evaporating the solution so obtained, removing any common salt which may fall, and crystallising; the crystals being purified by repeated re-crystallisations.

Nitre may be also made artificially in beds of decaying vegetable or animal substances, mixed with old mortar, or other refuse calcareous earth; these are watered occasionally, too much moisture being hurtful; after a certain period, depending on the rapidity with which the process has gone on, the whole is submitted to lixiviation together with wood-ashes; which contain carbonate of potash, and which decompose any nitrate of lime formed, of which there is generally a considerable quantity. After the lixiviation is complete, which takes some time, the solution is separated and boiled down; the common salt separates as in the other process, and the nitre is then crystallised. It was from this source that the whole of the nitre, nearly employed by the French during the long protracted war with the continental powers was obtained, as in former times in this country when the obnoxious Petrean collected it.

Nitre is now manufactured largely from nitrate of soda, by double decomposition with chloride of potassium; chloride of sodium and nitrate of potash are formed, and are separated by crystallisation. 85 of nitrate of soda are mixed with 74 of chloride of potassium.

Nitre has a cold, penetrating, and nauseous taste; enters into ligenous fusion at a gentle heat, and is then moulded into round cakes called sal prunella. It is employed in the manufacture of gunpowder, which is composed of 75 parts by weight of nitre, 16 of charcoal, and 9 of sulphur (the nitre for this purpose should be of great purity); as a flux it is one of the most powerful we possess; it is also used for the preservation of animal food, and in making frigorific mixtures; 1 oz. of nitre dissolved in 5 oz. of water lowers its temperature 15 degrees of Fahrenheit's thermometer. It was formerly used for procuring nitric acid and for giving nitrous fumes to the vitriol chambers, but the nitrate of soda has now taken its place in these operations. [SALTPETRE.]

*Chlorate of Potash*—is generally prepared by passing chlorine gas into a mixture of 300 parts caustic lime, 154 parts chloride of potassium, and 100 parts water, the operation being conducted in close leaden tanks, heated by steam, and provided with agitators; when the mixture is saturated with chlorine, the liquid is filtered off and evaporated nearly to dryness, and the resulting mass redissolved in hot water, and set aside to crystallise, the crystals being afterwards slightly washed and drained. In this process 154 parts chloride of potassium yield fully 200 parts chlorate of potash. The chlorate of potash of the best makers is a nearly pure product.

Chlorate of potash is extensively used in the preparation of lucifer matches, and in pyrotechnical mixtures. It enters into the composition used for filling percussion caps, &c., and is a convenient source of oxygen gas; 1 oz. of the salt yielding nearly 2 gallons of oxygen.

As an oxidising agent, chlorate of potash is used by the calico printer for heightening the intensity of 'steam colours;' and in the laboratory it is in constant request. Finally, it is of value in pharmacy, being sometimes administered in considerable doses by the physician.

*Hyposulphite of Potash, Silicate of Potash, Aluminate of Potash, Stannate of Potash, Tungstate of Potash.*—These salts are prepared exactly in the same manner as the corresponding salts of soda, substituting for the salt of soda, used in the preparation, a similar salt of potash. Their uses are also identical with the corresponding soda salts.

*Bichromate of Potash.*—A great many processes have been devised for the preparation of this salt. When the native chrome-iron ore is calcined with an alkaline hydrate or carbonate, in presence of an oxidising agent, the oxide of chromium in the ore is converted into chromic acid and unites with the alkali; thus by fusing the chrome-iron ore with half its weight of nitre for several hours, with frequent stirring, a mass is obtained which, on lixiviation with water and evaporation, yields crystals of neutral chromate of potash. By dissolving the chromate of potash so obtained in water, and adding a strong mineral acid, generally nitric acid, it is converted into the bichromate; and by evaporating the solution to the crystallising point, mechanically separating the crystals of bichromate from those of the nitrate (or other potash salt), formed at same time, and recrystallising several times, the bichromate is obtained pure—a large orange-red rectangular tables.

The above process of preparing the chromate may be rendered more economical by substituting carbonate of potash for a portion of nitre, and still more by dispensing with the nitre altogether, and effecting the oxidation by means of air admitted into the furnace. The addition of lime is found to facilitate the oxidation. Some manufac-

turers dispense with potash in the calcination altogether, using only lime, and afterwards decomposing the chromate of lime formed by carbonate of potash.

Bichromate of potash is extensively used in dyeing and calico-printing, in preparing pigments, and in bleaching tallow, palm oil, &c. It is soluble in ten times its weight of cold water.

*Iodide of Potassium*—is obtained by dissolving iodine in caustic potash, evaporating to dryness, gently igniting the mass, to decompose iodate of potash, redissolving in water or alcohol, and crystallising. It may also be obtained by digesting 2 parts iodine and one part iron filings in a stoppered vessel with ten parts water; under these circumstances iodide of iron is formed by the direct union of the metal with the iodine: the liquid is then boiled, and a solution of carbonate of potash is added in small quantities so long as a precipitate is formed, the solution is filtered from the insoluble carbonate of iron and set aside to crystallise.

Liebig has recently proposed the following process for the preparation of iodide of potassium: 1 part of phosphorus is placed in a basin with 40 parts hot water, to which 20 parts iodine are gradually added, with frequent agitation. The resulting colourless liquid, containing phosphoric and hydriodic acids, is poured off, and milk of lime added till the mixture is alkaline; it is then filtered and boiled down to half its bulk with 12 parts sulphate of potash, and allowed to cool. A small quantity of pure carbonate of potash is then added to precipitate any lime, and the filtered solution yields on evaporation crystals of pure iodide of potassium.

Some manufacturers employ an excess of caustic alkali in order to give the crystals a certain degree of opacity; others dip the crystals into a solution of carbonate of soda, and afterwards dry them in a stove.

*Bromide of Potassium.*—This is prepared in a precisely similar manner to iodide of potassium. Both salts are employed in photography to a considerable extent, and in medicine.

*Ferrocyanide of Potassium or Yellow Prussiate of Potash.*—This important salt is formed when azotised matters are heated to redness with carbonate of potash and iron. It is manufactured on a large scale by heating dried blood, horns, parings of hides, and other animal matters containing nitrogen, with an equal weight of carbonate of potash, and about one-third their weight of iron filings stirred in an iron pot. The mass when treated with water yields a solution containing ferrocyanide of potassium. On evaporation the salt is obtained in large lemon-yellow crystals, which are soluble in about 4 parts of cold water and in 2 parts of boiling water.

Ferrocyanide of potassium is manufactured in large quantities for use in dyeing and calico-printing. It produces a beautiful bright blue colour, which, however, will not bear washing with alkalies or soap. It is also used in the preparation of Prussian blue. It is the source from which prussic acid, and other compounds of cyanogen, are usually obtained, but is not itself poisonous. It has a saline, bitter taste.

*Ferridcyanide of Potassium or Red Prussiate of Potash.*—Obtained by passing chlorine gas through a solution of the preceding salt, until the liquid ceases to give a blue precipitate with perchloride of iron. The solution on evaporation yields magnificent ruby-red crystals, which are soluble in 2½ parts cold water, and in 1½ part of boiling water. Red prussiate may also be obtained by exposing powdered yellow prussiate to the action of a current of chlorine gas. Red prussiate is

used by dyers and calico printers for discharging the blue colour of indigo from calico; also for dyeing blue colours.

**Cyanide of Potassium**—may be prepared by heating to dull redness, in a covered iron crucible, a mixture of 8 parts dry yellow prussiate with 3 parts dry carbonate of potash, until the fused mass has lost its yellow colour, and ceases to give off bubbles of gas. After the particles of iron have subsided to the bottom of the crucible, the fused cyanide is poured on a cold slab, and solidifies on cooling to a milk-white mass. This salt is very deliquescent, has an alkaline reaction, and when moist emits the odour of hydrocyanic (prussic) acid. It is very poisonous. Cyanide of potassium is a powerful reducing agent, and as such is constantly used in the laboratory. Large quantities are used for the purpose of dissolving the salts of gold and silver in the processes of electrotyping; also in photography.

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

**Rochelle Salt**.—A double tartrate of potash and soda.

**Binoxalate of Potash or Salt of Sorrel**.—Abundant in the juice of the common sorrel (*Rumex acetosa*), of the wood sorrel (*Oxalis acetosella*), and in the leaf stalks of the common rhubarb. It is principally used for removing ink spots and iron stains from cloth.

**Ammonia, Spirits of Hartshorn, or Volatile Alkali**—in its uncombined form, an elastic gaseous body, having a very pungent and suffocating odour, destroys animal life, converts the yellow of turmeric paper to a brown, which, from the volatility of the alkali, is again restored by a gentle heat to its original colour. This gas is rapidly absorbed by water, which takes into solution 727 times its volume at 59° Fahr., and 1050 times its volume at 32° Fahr., forming the *liquor ammonie* of commerce.

**Chloride of Ammonium or Sal Ammoniac**.—So called from the circumstance of its first having been procured near the temple of Jupiter Ammon in Libya, from the soot produced by burning camels' dung (there used as fuel). It is now, however, prepared in this country from the ammoniac liquor of the gas-works, by saturating it with muriatic acid, evaporating and crystallising; or by distilling the liquor, and conducting the distillate into muriatic acid. The crystals are purified by sublimation. Sublimed chloride of ammonium forms semi-transparent fibrous masses, very soluble in water, with great reduction of temperature; hence it is a common ingredient in freezing mixtures. Used in soldering and galvanising iron, with iron filings as cement for iron, &c.

**Sulphate of Ammonia**.—It is procured from gas liquor in some manner as the chloride, by substituting sulphuric acid for muriatic. It cannot be purified by sublimation, but may be purified by recrystallisation. It is soluble in twice its weight of cold water. Sulphate of ammonia is sometimes applied to muslins and other fabrics for the purpose of preventing them from burning with flame, should they accidentally take fire. The finished goods are dipped into a solution containing 10 per cent. of the crystallised salt, and dried in a centrifugal machine.

**Liquor Ammoniac**.—This is prepared from either of the two preceding salts by mixing them with slaked lime, heating the mass in iron retorts, and conducting the gas evolved into water. The most concentrated solution of ammonia has a specific gravity of .875, water being equal to 1.000.

**Carbonate of Ammonia**.—This is prepared by mixing the chloride, or sulphate, with twice its weight of chalk, and heating the mass in iron retorts. The vapours of carbonate of ammonia are conducted into large leaden chambers, termed *balloons*, where they are condensed; the salt thus obtained is purified by slow sublimation in iron pots having conical leaden covers. As met with in commerce carbonate of ammonia is a semi-transparent, fibrous mass, having the pungent odour of ammonia. It is used largely by confectioners in the preparation of light pastry. It is entirely dissipated during the baking, so no ill effect can arise from its use. It is also used for smelling-salts.

**Tungstate of Ammonia**.—It is used for rendering linen, cotton, and other fabrics non-combustible.

All the salts of ammonia are characterised by the following properties; viz. they are volatile at most at a low red heat; the fixed alkalies and alkaline earths decompose them, uniting with the acid and liberating the ammonia, which may be recognised by its odour and by its alkaline reaction on vegetable colours.

Ammonia is always formed when organic matters containing nitrogen are submitted to destructive distillation; a considerable quantity is formed during the distillation of bones in the preparation of *Dippel's oil*.

The salts of ammonia are valuable as ingredients in manures, but their chief use is in the production of *ammonia alum*, which is a double sulphate of ammonia and alumina.

Ammonia, being a highly elastic gas, has been used in place of steam or compressed air to give motion to portable machinery; the compressed gas not only gives motion to the piston by virtue of its elastic force, but after passing the cylinder, may be absorbed by water, thus causing a partial vacuum, and assisting the piston on its return stroke. Owing to these properties it may also be used as a refrigerator, and water frozen by it. To effect this, two strong closed metallic vessels are connected by a pipe. One of these is partly filled with a strong solution of ammonia in water, the other is empty. If now heat be applied to the former, while the latter is kept cool, the ammonia is driven from the water which dissolved it and compressed in the cooler vessel. On the removal of the heat the ammonia returns, to be with great rapidity dissolved in the water again, and in so doing causes a sudden evaporation in the other vessel, and so great an absorption of heat as to freeze a vessel of water in which it may be immersed.

**Lithia**.—Until very lately supposed to exist only in four minerals, but, by the aid of spectrum analysis, it is now proved to be very extensively distributed in nature in small quantities. It is found

in many minerals, as *lepidolite*, *spodumene*, *petalite*, &c., in the ashes of plants, particularly the tobacco plant, and in mineral waters, and in some of the pits of Cornwall in considerable quantity.

**Carbonate of Lithia.**—The only salt of this alkali of any commercial importance; it is used in the preparation of artificial mineral waters and in medicine for gonit.

**Cesia and Rubidia.**—Lately discovered and very rare alkalis; they occur in minute quantities in some mineral waters, and in a very few minerals, *lepidolite* for instance. They are of no commercial importance.

Richardson and Watt's *Chemical Technology*—the principal store of information on alkalis—has been freely used.

**Alkaloids or Vegeto-Alkalies**—may be divided into two classes, natural and artificial, the former being found ready formed in plants; the latter known only as the result of chemical manipulation.

Amongst the natural alkaloids the following are the principal:—aconitine, atropine, brucine, cinchonine, codeine, opium, daturine, digitaline, hyoscyamine, meconine, morphine, narcotine, nicotine, quinine, strychnine, theine, veratrine, &c.

The artificial alkaloids are too numerous to mention here; amongst those known to commerce are aniline, toluidine, naphthylamine, &c.

We are indebted to Dr. Angus Smith, the eminent chemist, and the government inspector of alkali works, for the above article.

**ALKANET or ANCHUSA** (Ger. orkanet; Dutch, alkanna; Fr. orcanette; Ital. anusa; Span. alcaneta). A species of bugloss (*Anchusa tinctoria*, Linn.; *Lithospermum tinctorium* (Dec.). It has been cultivated in England; but is found of the finest quality in Siberia, Spain, and more particularly in the South of France, in the vicinity of Montpellier. The roots of the plant are the only parts that are made use of. When in perfection, they are about the thickness of the finger, having a thick bark of a deep purplish red colour. This, when separated from the whitish woody pith, imparts a fine deep red to alcohol, oils, wax, and all unctuous substances. To water it gives only a dull brownish hue. It is principally employed to tint wax, pomatum, and unguents, oils employed in the dressing of mahogany, rose-wood, &c. The alkanet brought from Constantinople yields a more beautiful but less permanent dye than that of France. (Lewis's *Mat. Med.*; Magnien, *Dictionnaire des Productions*.)

The duty, which was previously very oppressive, was reduced in 1832 to 2s. a cwt.; was reduced (1842) to 1s. a cwt. and is now repealed. The imports are inconsiderable. The price varies from 27s. to 32s. a cwt.

**ALLOWANCES, TARES, &c.** In selling goods, or in paying duties upon them, certain deductions are made from their weights, depending on the nature of the packages in which they are inclosed, and which are regulated in most instances by the custom of merchants, and the rules laid down by public offices. These allowances, as they are termed, are distinguished by the epithets, *Draft*, *Tare*, *Tret*, and *Clough*.

**Draft** is a deduction from the original or gross weight of goods, and is subtracted before the tare is taken off.

**Tare** is an allowance for the weight of the bag, box, cask, or other package, in which goods are weighed.

**Real or open tare** is the actual weight of the package.

**Customary tare** is, as its name implies, an established allowance for the weight of the package.

**Computed tare** is an estimated allowance agreed upon at the time.

**Average tare** is when a few packages only among several are weighed, their mean or average taken, and the rest tared accordingly.

**Super-tare** is an additional allowance, or tare where the commodity or package exceeds a certain weight.

When tare is allowed, the remainder is called the *nett weight*; but if tret be allowed, it is called the *suttle weight*.

**Tret** is a deduction of 4 lbs. from every 104 lbs. of *suttle weight*.

This allowance, which is said to be for dust or sand, or for the waste or wear of the commodity, was formerly made on most foreign articles sold by the pound avoirdupois; but it is now nearly discontinued by merchants, or else allowed in the price. It is wholly abolished at the East India warehouses in London; and neither tret nor draft is allowed at the Custom House.

**Clough**, or **Clough**, is another allowance that is nearly obsolete. It is stated in arithmetical books to be a deduction of 2 lbs. from every 3 cwt. of the *seconduttle*; that is, the remainder after tret is subtracted; but merchants, at present, know clough only as a small deduction, like draft, from the original weight, and this only from two or three articles. (Kelly's *Combiat*, art. 'London.')

For an account of the tares and allowances at London, see **TARE**; for the tares and allowances at the great foreign trading towns, see their names.

**ALMONDS** (Ger. mandel; Dutch, amandelen; Fr. amandes; Ital. mandorli; Span. almendras; Port. amendoas; Russ. mandal; Lat. amygdala; amare, dulces). A kind of medicinal fruit, contained in a hard shell, that is enclosed in a tough sort of cotton skin. The tree (*Amygdalus communis*) which produces this fruit nearly resembles the peach both in leaves and blossoms; it grows spontaneously only in warm countries, as Spain, and particularly Barbary. It flowers early in the spring, and produces fruit in August. Almonds are of two sorts, sweet and bitter. They are not distinguishable from each other but by the taste of the kernel or fruit. The Valencia almond is sweet, large, and flat-pointed at one extremity, and compressed in the middle. The Italian almonds are not so sweet, smaller, and less depressed in the middle. The Jordan almonds come from Malaga, and are the best sweet almonds brought to England. They are longer, flatter, less pointed at one end and less round at the other, and have a paler cuticle than those we have described. The sweet almonds are imported in mats, casks, and boxes; the bitter arrive in boxes. (Thomson's *Dispensatory*.)

Previously to 1832 almonds were grossly over-taxed; but the duties were then considerably reduced, and they were also still further reduced in 1842 and 1853. The duty on all varieties (inc. Jordan) of sweet almonds was fixed in the last mentioned year at 10s. a cwt., that on bitter almonds having been previously repealed. That on sweet almonds was repealed in 1860. In 1865, 32,037 cwts. were imported chiefly from Spain and Morocco, valued at 103,900*l.* The Morocco almonds are mostly shipped at Mogadore.

**ALMONDS, BITTER OIL OF.** [Oils.]

**ALMONDS, DIKA.** The fruits of the *Mangifera gabonensis*, which grows on the west coast of Africa. They yield on pressure from 65 to 70 per cent. of a grease resembling the butter of cocoa, which is stated to be fitted for the manufacture of soap.

**ALMONDS, SWEET OIL OF.** [Oils.]

**ALOES** (Dutch aloë; Fr. aloés; Ger. and Lat. aloë; Russ. sabir; Sp. aloë; Arab. mucibar). A bitter, gummy, resinous, inspissated juice, obtained

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from the leaves of the plant of the same name. There are four sorts of aloes met with in commerce; viz. *Socotrine*, *Hepatic*, *Caballine*, and *Cape*.

1. *Socotrine*.—So called from the island of Socotra, in the Indian Ocean, not very distant from Cape Guardafui, where the plant (*aloe spicata*), of which this species is the produce, grows abundantly. It is in pieces of a reddish brown colour, glossy as if varnished, and in some degree pellucid. When reduced to powder it is of a bright golden colour. Its taste is extremely bitter; and it has a peculiar aromatic odour, not unlike that of the russet apple decaying. It softens in the hand, and is adhesive, and yet is sufficiently pulverulent. It is imported by way of Smyrna and Alexandria, in chests and casks, but is very scarce in England.

2. *Hepatic*.—The real hepatic aloes, so called from its liver colour, is believed to be the produce of the *Aloe perfoliata*, which grows in Yemen in Arabia, from which it is exported to Bombay, whence it finds its way to Europe. It is duller in the colour, bitterer, and has a less pleasant aroma than the Socotrine aloes, for which, however, it is sometimes substituted. Barbadoes aloes, which is often passed off for the Hepatic, is the produce of the *Aloe vulgaris*. It is brought home in calabashes, or large gourd shells, containing from 60 to 70 lbs. It is cashier in its line than the Bombay, or real hepatic aloes, and the taste is more nauseous, and intensely bitter. The colour of the powder is a dull olive yellow.

3. *Caballine or Horse Aloes*.—This seems to be merely the coarsest species or refuse of the Barbadoes aloes. It is used only in veterinary medicine, and is easily distinguished by its rank fetid smell.

*Cape Aloes*.—The produce of the *Aloe spicata*, which is found in great abundance in the interior of the Cape Colony, and in Meliada. The latter furnishes the greater part of the extract sold in Europe under the name of Socotrine aloes. The odour of the Cape aloes is stronger and more disagreeable than that of the Socotrine; they have, also, a yellower hue on the outside; are less glossy, softer, and more pliable; the colour of the powder is more like that of gamboge than that of the true Socotrine aloes. (*Ainslie's Mat. Indica*; Thomson's *Dispensatory and Mat. Medica*.)

975,456 lbs. of aloes, chiefly from the Cape and Bombay, were imported in 1865. Duties repealed in 1845.

**ALOF WOOD** (Ger. aloeholz; Dutch, aloëhout, paradyshout; Fr. bois d'aloës; Ital. legno di aloè; Span. aloë chino; Sans. aguru; Malay, agila; Siam, k'sna). The produce of a large forest-tree, to be found in most of the countries between China and India, from the 24th degree of north latitude to the equator.

Dr. Mason says with relation to this subject (see Mason's *Burma*, London, Trillner 1860): 'It is imported into Mergui by the Selungs, who, as they profit from the trade, endeavour to keep all in ignorance of the tree from which they obtain it.'

Sir J. Bowring states that only one species of the tree possesses the odorous element, and that the dark wood, which alone is valuable, is sold at about 10s. per lb. Every Christian family in the district where it grows is bound to pay to the King of Siam a tribute of 2 lbs. of eagle wood. It is principally found in the islands situated in the Gulf of Cambodia. (Bowring's *Siam*, p. 204.)

It seems to be the result of a diseased action confined to a small part of a few trees, of which the rest of the wood is wholly valueless. It appears to be more or less frequent according to soil and climate, and from the same causes to differ materially in quality. It is produced both in the greatest quantity and perfection in the

countries and islands of the east coast of the Gulf of Siam. This article is in high repute for fumigations, and as incense, in all Hindu, Mohammedan, and Catholic countries. It formerly brought a very high price, being at one time reckoned nearly as valuable as gold. It is now comparatively cheap, though the finest specimens are still very dear. The accounts of this article in most books, even of good authority, are singularly contradictory and inaccurate. This is more surprising, as La Londe has distinctly stated that it consisted only of 'certains endroits connus dans des arbres d'une certaine espèce. Toute arbre de cette espèce n'en a pas; et ceux qui en ont, ne les ont pas tous en même endroit.' (*Royaume de Siam*, t. i, p. 45, 12mo, ed.) The difficulty of finding the trees which happen to be diseased, and of getting at the diseased portion, has given rise to the fables that have been current as to its origin. The late Dr. Roxburgh introduced the tree which yields this production into the Botanical Garden at Calcutta, from the hills to the eastward of Sylhet, and described it under the name of *Aquilaria Agalocha*.

**ALPACA, LLAMA, AND VICUNA WOOLS.** These wools are derived from various quadrupeds of the genus *Lama* inhabiting the Cordillera of the Andes, below the line of perpetual snow. They are found principally in Peru and Chili, and exist also, but rarely, in Columbia and Paraguay. The race represents the camel of the new world (*Auchenia camelus paco*, Cuv.), and constitutes, according to Dr. Gray and others, four varieties, the guanaco, llama, alpaca, and vicuña. The wool of the two former animals is principally used in the manufacture of coarse native fabrics; that of the latter is fine and beautiful, and is rapidly becoming employed in Europe in the manufacture of dress. The first references to these animals are in *Garcilasso*, quoted by John de Laet (folio, Leyden, 1633), and the manufacture of their wool is mentioned by Acosta (*Historia Naturalis Moral de las Indias*), 'This wool the barbarians clean, spin, and weave into garments.' According to Hill (*Travels in Mexico and Peru*, vol. 1, p. 104), the guanaco, or huanaco, the largest of the llama species, is about 3 feet 6 inches in height, and its wool, which is of a light brown colour, is inferior to that of the llama.

The llama is about three feet in height; the male is usually employed in carrying burdens, and is able to perform a day's journey with a weight varying from 100 to 150 lbs. The wool is generally of a dirty brown colour, and occasionally is speckled grey. The wool of the female is finer than that of the male.

The vicuña, which is most highly prized for its wool, is smaller than the llama, and is about 2 feet 9 inches high. The wool is fine, short, and curly. The colour of the greater part of the body is reddish-yellow with a white breast. Their skins are worth, according to Mr. Hill, about 4 dollars each, and are stated to belong to the priests.

Various unsuccessful attempts have been made to introduce these animals into Europe. It was considered possible to introduce them into the Australian colonies; and recently Mr. Charles Ledger (notwithstanding the Peruvian edict intended against their exportation) succeeded, after immense difficulties, in shipping a flock from Copiapo in Chili for Sydney. For some time the experiment was thought likely to be successful, but later accounts are unfavourable. See an able paper read by Mr. C. Ledger before the Society of Arts (*Jour. of Soc. of Arts*, vol. ix, p. 212).

The number of hands employed by Mr. Salt, of

Saltaire, near Bradford, is about 3,000, and of these about two-thirds are engaged in the various processes by which alapa and mohair are made into cloth.

Some of the goods supplied by this great manufactory are woven from pure alapa and mohair yarns; some have mixed alapa, mohair, and wool. Mohair and alapa cloths have always a warp of either cotton or silk, never of wool. In some instances mohair yarns are mixed with silk, in others with a vegetable substance called *Rhe. fibre*. The yarn made for the Velours and Utrecht trade is mostly pure mohair.

#### Alapa Imports.

1856-1859	-	-	-	-	560,000 lbs.
1851	-	-	-	-	2,180,100 "
1861	-	-	-	-	2,968,100 "

Price 10*d.* per lb. in 1836—3*s.* 1*d.* per lb. in 1862.

#### Mohair Imports.

1851	-	-	-	-	1,011,780 lbs.
1851	-	-	-	-	1,215,280 "
1861	-	-	-	-	3,756,800 "

Price 1*s.* 10*d.* per lb. in 1851—3*s.* 6*d.* per lb. in 1863.

*Weight.*—In many districts the packages have to be carried by mules, in which case they are generally from 60 to 80 lbs. each. In other districts, where better roads or railways are available, the packages vary from 125 to 200 lbs., but few are so heavy as the greater weight.

*Quality.*—The indications of the best qualities are, length of staple, fineness and evenness of quality, softness and brilliancy of colour. The colours are black, white, brown, grey, and parti-colours. These colours are packed separately, each shipment containing a proportion of all; but no difference is made in the price of the respective colours. The average weight of a fleece of alapa is from 3lbs. to 4lbs., that of a llama from 5lbs. to 6lbs.

*Length.*—The ordinary length of a staple of good alapa is about 6 inches. The average length of a staple of llama is about 7 to 8 inches, and the fibres of the wool are not so regular, and are mixed with a coarse hair which renders it much less valuable than the true alapa.

*Price.*—The average value of alapa may be quoted about 2*s.* 6*d.* per lb., and of llama 1*s.* per lb.

ALUM (Ger. alun; Dutch, alun; Fr. alun; Ital. allume; Span. allumbre; Russ. kwasszë; Lat. alumen; Arab. sheb). A salt of great importance in the arts, consisting of a ternary compound of *alumina*, or pure argillaceous earth, potass, and sulphuric acid. Alum is sometimes found native; but by far the greater part of that which is met with in commerce is artificially prepared. The best alum is the Roman, or that which is manufactured near Civita Vecchia, in the Papal territory. It is in irregular, octahedral, crystalline masses, about the size of a walnut, and is opaque, being covered on the surface with a farinaceous efflorescence. The Levant, or Roch alum, is in fragments, about the size of the former, but in which the crystalline form is more obscure; it is externally of a dirty rose-colour, and internally exhibits the same tinge, but clearer. It is usually shipped for Europe from Smyrna; but it was anciently made at Roeha, or Edessa, in Syria; and hence its name Roch alum. English alum is in large, irregular, semi-transparent, colourless masses, having a glassy fracture; not efflorescent, and considerably harder than the others. It is very inferior to either the Roman or Roch alum. The principal use of alum is in the art of dyeing, as a mordant for fixing and giving permanency to colours which otherwise would not adhere at all, or but for a very short time; but it is also used for a great variety of other purposes.

Beckmann has shown (*History of Inventions*, vol. i. art. 'Alum') that the ancients were unacquainted with alum, and that the substance which they designated as such was merely vitriolic earth. It was first discovered by the Orientals, who established alum works in Syria in the thirteenth or fourteenth century. The oldest alum works in Europe were erected about the middle of the fifteenth century. Towards the conclusion of the reign of Queen Elizabeth, Sir Thomas Chaloner established the first alum work in England, in the vicinity of Whitby, in Yorkshire, where the principal works of the sort in this country are still carried on; the shipments of alum from Whitby in 1811 amounted to 3,237 tons. There is, also, a large alum work at Hurllett, near Paisley, the produce of which may be estimated at about 1,200 tons a-year. Alum is largely manufactured in China, and is thence exported to all the western Asiatic countries.

Of alum and vitriolic schist the produce in Austria is about 40,000 cwts.; it is chiefly procured from Bohemia, Styria, and Moravia. In Spain about 80,000 kilogrammes are obtained from the province of Murcia. In Prussia about 425,000 cwts. of alum ore were produced in 1861.

Alum is both largely produced in, and exported from, China to India, and other Eastern countries. As an indication of the extent of this branch of Chinese industry and commerce, we extract the following from the sixth edition of Dr. Williams's valuable *Chinese Commercial Guide*: 'Alum is exported to India and the Archipelago, where it is regarded as superior to the native product. About 75,000 piculs have been annually exported. It is found in argillaceous schist, or, *alum shale*, in the provinces of Ngánhwi, Húnán, and Chekiáng, and finds its way chiefly to Ningpo and Shanghai; the markets of Swatow and Amoy also furnish large quantities drawn from neighbouring districts.

The mineral is extensively worked in the Sungyang hills in the district of Pingyang in Wanchau fi, near the borders of Fuhkien, and not far from Pihwan harbour. The supply seems to be inexhaustible, and the daily product was estimated by a visitor, in 1853, at 18 tons of alum, which would amount to not less than 6,000 tons per annum. This alum is equal to the best Roman. It is chiefly employed by the Chinese for bleaching purposes.

In 1862 there were exported from the port of Tien-tsin 951 piculs (1 pic=133½ lbs. avoird.), valued at 1,902 taels (1 tael=6*s.* 2*d.* sterling). From the port of Tamsuy the exports in the same year were 1000 piculs, and from the port of Amoy 186,666 lbs., and 891 piculs from the port of Hankow. The Chinese market price in the same year was from 9*s.* 10*d.* to 10*s.* per picul.

The imports of alum into Great Britain are not large; they amounted in 1863 to 10,355 cwts., value 3,007.

AMBER (Ger. bernstein; Dutch, barnsteen; Dan. bernsteen, Rav.; Fr. ambre jaune; Ital. ambragialla; Span. ambar; Russ. jautar; Pol. barnsztyn; Lat. succinum, electrum). A brittle, light, hard substance usually nearly transparent, sometimes nearly colourless, but commonly yellow, or even deep brown. It has considerable lustre. Specific gravity, 1.065. It is found in nodules or rounded masses, varying from the size of coarse sand to that of a man's hand. It is tasteless, without smell, except when pounded or heated, when it emits an fragrant odour. It is highly electric. Amber is undoubtedly of vegetable origin, and, as is clear from the insects, &c. often preserved in it, was originally exuded in a fluid state from some extinct species of pine.

On the Prussian coast of the Baltic, between Königsberg and Memel, amber is more abundant than in any other known locality, and the Prussian government are stated to derive a revenue of about 3,500*l.* per annum from its collection. The chief amber beds in the north of Prussia are near New Kechren, Brusterort and Lapöhen. In the United States it is found principally at Amboy, New Jersey; at Gayhead and at Cape Sable in Maryland.

Amber is used in the manufacture of various kinds of varnish, dissolved with drying linseed oil, asphaltum, and resin; it is used as a coach-maker's varnish, and the spirit varnishes, which are prepared from the solution of amber in alcohol or ether, are used for photographic purposes. (*Ure's Dict. of Arts &c.* by Hunt.)

The quantities of amber imported into the United Kingdom in 1863 were:

	Cwt.	Value.
Amber, rough	70	62 <i>l.</i>
Manufactures not enumerated	-	87 <i>l.</i>

Amber has been recently discovered in the Lake of Ausserche, in the duchy of Courland, and in other parts of the district. It is mostly transparent, and some pieces have been discovered of considerable size.

Amber is also found in considerable quantities on the shores of several islands of the Indian Archipelago and on the eastern shores of Africa, and at one period constituted a considerable article of export from Aken. It is largely in demand for court beads in China, where the transparent lively yellowish brown variety is most prized, foul and opaque pieces being almost valueless. The price in China varies from 8 dollars to 14 dollars per catty. False amber, brought from India, is also largely used, and is sold at Canton for prices nearly equal to those of the genuine article. (*Dr. Williams's Chinese Guide.*) See an interesting account of the ideas entertained by ancient Eastern nations, in *Asiatic Researches*.

**AMBER GRIS or AMBER GREASE** (*Ger.* amber; *Dutch.* amber; *Fr.* ambergris; *Ital.* ambrogria; *Span.* anbar gris; *Lat.* ambrā, *ambra grisea*). A solid opaque, generally ash-coloured fatty, inflammable substance, variegated like marble, remarkably light, rugged, and uneven in its surface, and has a fragrant odour when heated; it does not effervesce with acids, melts freely over the fire into a kind of yellow resin, and is hardly soluble in spirits of wine. It is found on the sea-coast, or floating on the sea near the coasts of India, Africa and Brazil, usually in small pieces, but sometimes in masses of 50 or 100*lbs.* weight. 'Various opinions have been entertained respecting its origin; but it is now well established that it is a concretion formed in the stomach or intestines of the *Physeter macrocephalus*, or spermæct whale.' (*Thomson's Chemistry.*) Ambergris ought to be obtained in large pieces, of an agreeable odour, entirely grey on the outside, and grey with little black spots within. The purchaser should be very cautious, as this article is easily counterfeited with gums and other drugs.

'Persons engaged in the whale fishery look for Ambergris in the intestines of the spermæct whale, and are most successful in finding it in those that appear torpid, sick, and lean; from whence it would appear that it is the product of disease. The lumps of it are from 3 inches to a foot in diameter, and from 1 *lb.* to 30 *lbs.* in weight; its value in this country is about 16*s.* per oz.'

**AMETHYST** (*Ger.* eisenkeisel; *Fr.* amethyste; *Ital.* amatista; *Span.* ametisto; *Lat.* amethystus). A precious stone, of which there are two species differing widely in quality and value.

According to Mr. Emanuel (*Diamonds and Precious Stones*), 'the Oriental amethyst is a ruby or sapphire possessing an amethyst colour, which may be distinguished from the ordinary amethyst by its superior brilliancy and play, as well as by its hardness, &c. It is a gem of rare occurrence, and even Jewellers frequently confound it with the ordinary amethyst. There are some fine specimens in the Grüne Gewölbe at Dresden, and there are also in the Vatican one or two engraved intaglios of this stone of very early date.'

The common or Occidental amethyst is a violet coloured quartz. It is, according to the same authority, found in India, Ceylon, the Brazils, Persia, Silesia, Hungary, Saxony, Spain, and also at Reboyn in Ireland. 'Many years ago,' says Mr. Emanuel, 'such amethysts were of considerable value, ranking next to the sapphire, and worth as much as 30*s.* the carat when very fine. Large quantities, however, were sent from Brazil, and the stone declined in public estimation. The taste, however, is still reviving. A fine deep-coloured amethyst of the size of a two-shilling piece is worth from 10*l.* to 15*l.*; smaller pieces and in poorer qualities are sold from 2*s.* to 5*l.* The best cutting of amethyst is in a brilliant form, with the table slightly domed. Most amethysts are cut in Germany, owing to the price of labour being cheaper in that country than in England.' (*Emanuel On Diamonds &c.* 114, 156, 399.)

**AMIANTHUS, ASBESTOS or MOUNTAIN FLAX** (*Lat.* amianthus-abeustum; *Ger.* asbert; *Fr.* amiante; *Span.* asbesto, alumbre de pluma; *Port.* asbestos; *Ital.* asbesto). A mineral of which there are several varieties, all more or less fibrous, flexible, and elastic. It is inconsumable by a high degree of heat; and in antiquity the art was discovered of drawing the fibres into threads, and then weaving them into cloth. Pliny says that he had seen napkins made of this substance, which, when soiled, were thrown into the fire, and that they were better cleaned by this means than they could have been by washing! Hence it obtained from the Greeks the name of *Amiantos* (*undefiled*). Its principal use, as stated by Pliny, was to wrap round the bodies of the dead previously to their being exposed on the funeral pile, that the ashes of the corpse might not be mixed with those of the wood. And in corroboration of this statement we may mention, that in 1702 a skull, some calcined bones, and a quantity of ashes were found at Rome, in a clod of amianthus nine Roman palms in length by seven in width. Its employment in this way was, however, confined to a few of the very richest families, incombustible cloth being very scarce, and bringing an enormously high price. *Rarum inventum, difficile textu propter brevitatem. Cum inventum est, sequit prætia excellentium margaritarum.* (Pliny, *Hist. Nat.* lib. xix. ch. 1.) The disuse of the practice of cremation, or of burning the dead, caused the manufacture of amianthine cloth to be neglected.

In the Tarentaise of Savoy a variety of amianthus exists, of which the threads are entirely separated and of a brilliant whiteness, and capable of being elongated to upwards of ten times their original length. Cloths and even lace have been prepared from the amianthus derived from this locality, and there exists in the Institute of France a work printed entirely on paper made from this material.

There are several varieties of amianthus: the twisted asbestos, which is of a dirty grey or whitish yellow colour, sometimes exists in thick spongy pieces, and is then vulgarly called *fossil flesh*; sometimes it resembles and is called *fossil cork*; occasionally, when of a hard mem-

braneous character, it is called *fossil leather*, and the thinner and more flexible kinds of the same character are termed *fossil paper*. The woody asbestos is of a reddish brown colour, and resembles splinters of wood.

Asbestos is now employed to a considerable extent for burning in gas stoves. (*Bulletin du Musée de l'Industrie*.)

According to M. Bezon (*Dictionnaire général des Tissus*), the art of making cloth from amianthus was, in modern times, revived by Madame Candida Lena Perpoint (*Journal de la Société d'Encouragement des Arts et des Sciences*, Milan, No. 30). She attempted to render the fibre flexible by treating it with oil and water, but finding the former means not so efficacious as the latter, she made her future experiments with water, and succeeded in getting filaments of such length and tenacity as were available for spinning and weaving. Her first successful attempt was the manufacture of a pair of gloves. The amianthus was supplied from the Vultureline. She also made paper of excellent quality, and, in order to supply an ink which should be equally indestructible, used a fluid containing  $\frac{1}{2}$  sulphate of iron to  $\frac{3}{4}$  black oxide of manganese.

Later, however, the manufacture of this article into a fabric has been revived by M. Aldini having succeeded in manufacturing it without the aid of any foreign substance: the cloth is made loose in its fabric, and the threads are about the fifteenth part of an inch in diameter. Asbestos is found in Piedmont, Savoy, Saltzburg, the Tyrol, Dauphiné, Hungary, Silesia, Corsica, at Staaten Island in New York Harbour, St. Kevern in Cornwall, and in various parts of the north of Scotland, the Cape of Good Hope, and at Metchursk in Siberia.

AMMONIAC, SAL. [ALKALIES (*Muriate of Ammonia*).]

AMMONIACUM (Fr. *gomme ammoniacque*; Ital. *gomma ammoniaca*; Span. *goma ammoniaca*; Lat. *ammoniaca*; Arab. *fesluok*). A concrete resinous juice obtained from the *Dorena ammoniacum*, a plant resembling fennel, found in the north of Africa, Arabia, Persia, the East Indies, &c. The name is supposed to be corrupted from Armeniacum, and to indicate the route by which the drug was originally imported into Europe. Pliny says that it derived its name from its being produced in the vicinity of the temple of Jupiter Ammon in Africa. (*Hist. Nat. lib. xii. c. xxxiii.*) It has a faint but not ungrateful smell, and a bitter, nauseous, sweet taste. The fragments are yellow on the outside and white within, brittle, and break with a vitreous fracture; their specific gravity is 1.207. The best ammoniacum is brought from Persia by Bombay and Calcutta, packed in cases and chests. It is in large masses, composed of small round fragments or tears; or in separate dry tears, which is generally considered a sign of its goodness. The tears should be white internally and externally, and free from seeds or other foreign substances. Reject that which is soft, dark-coloured, and foul. It is used principally in the materia medica, and the quantity imported is but small. (*United States Dispensatory*.)

AMMUNITION. A term expressive of the various implements used in war.

Sec. 45 of the Customs Consolidation Act of 1854 (16 & 17 Vict. c. 107) provides that the importation of arms, ammunition, gunpowder or any other goods, may be prohibited by proclamation or order in council, and by sec. 150, that by the same means such articles, and all military and naval stores may be prohibited to be exported or carried coastwise under penalty of forfeiture; and

sec. 159 declares that 'gunpowder, ammunition, arms, or utensils of war, except from the United Kingdom or any British possession, are hereby absolutely prohibited to be imported or brought either by sea or inland carriage, or navigation, into the British possessions in America and the Mauritius.'

The exportation of ammunition and arms has largely increased since the American Civil war.

Since the year 1853 the number of small fire arms exported from Great Britain has been—

1859	-	-	171,329	1863	-	-	437,812
1860	-	-	272,918	1864	-	-	434,151
1861	-	-	315,509	1865	-	-	291,055
1862	-	-	702,254	1866	-	-	268,092

[GUNPOWDER.]

AMOY. A Chinese port open to commerce with the United Kingdom, situated in the Fukien province, lat. 24° 40' N., long. 118° E. The town, which contains about 300,000 inhabitants, is on an island called Iliu Mun.

The town of Amoy was visited soon after the Europeans became acquainted with China. In 1544, the Portuguese resorted thither, but were forcibly expelled by the authorities, in consequence, it is said, of their misconduct towards the native traders. The Dutch traded at the port in 1624. Up to 1730 it appears that the English visited Amoy; but at this time the Spaniards were alone permitted to make use of this port, all other foreign trade having been centred at Canton. Amoy was captured in 1841 by Gough and Parker, and was thrown open to foreign trade by the treaty of Nanjing.

According to Dr. Williams, Amoy is the most accessible of all the consular ports in China, no pilots being required on entering or departing, though boatmen often board the ship to offer assistance. Some regulations were once issued requiring British merchantmen to engage pilots to and from the Chan Chat rocks, but their use is now optional. The water communication with the interior is not, however, equal to that enjoyed by the other ports.

The harbour is a bay, and an inner harbour. The inner harbour is one of the best on the coast. There is good holding ground in the outer harbour, and vessels can anchor in the inner, within a short distance of the beach, and be perfectly secure. The tide rises and falls from 14 to 16 feet. The western side of the harbours, from 375 to 840 yards wide, is formed by the island of Kulangsu.

The channel round the island of Amoy is so narrow and winding that directions would be useless, the chart being the best guide. Besides the excellent shelter that this harbour affords, the Chinese have docks for repairing and building their largest junks.

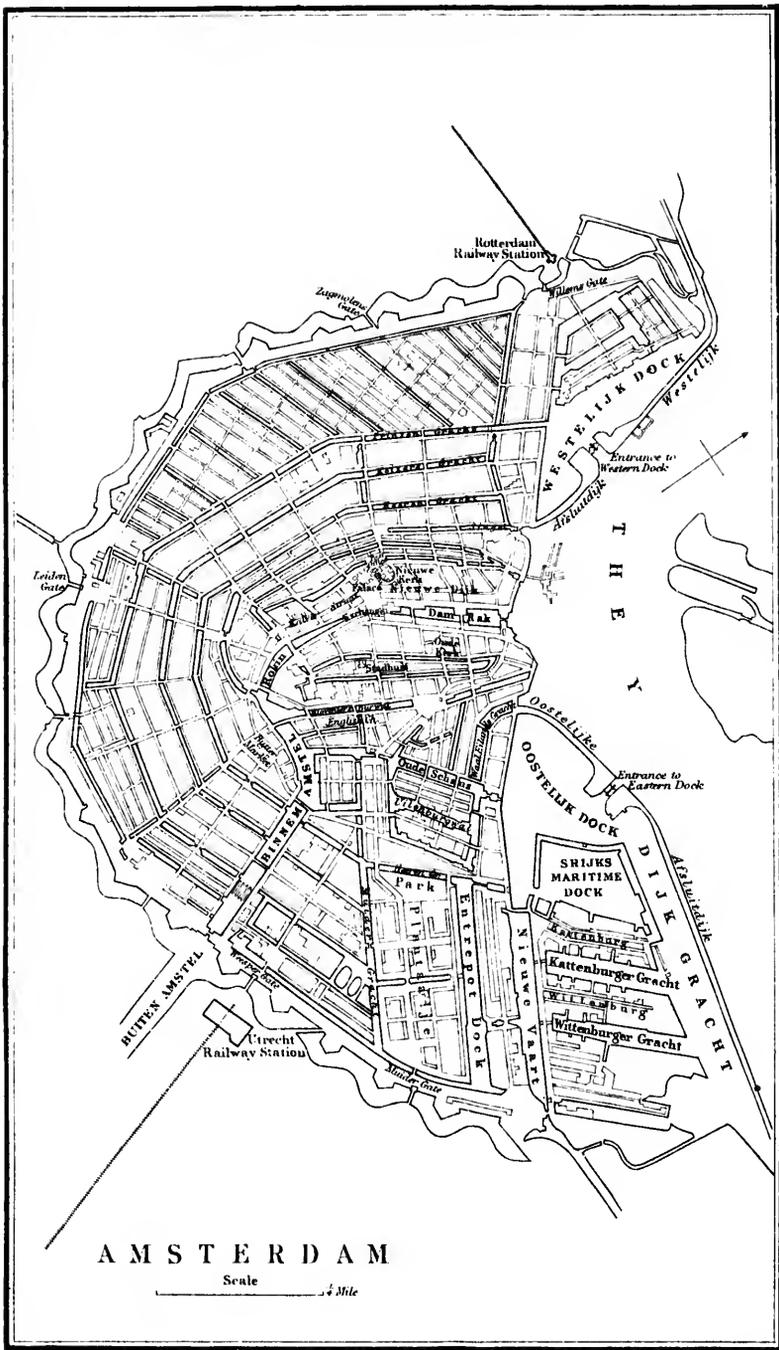
Native emigration from Amoy is considerable. The arrangements are under the management of the British West Indian Emigration Agency, and the official supervision of the British consul.

The docks of Amoy are worthy of notice. Vessels of almost any size can obtain anything necessary for repairs. The company's large granite dock is 286 feet long on the blocks, and at average springs can take vessels drawing from 16 to 17 feet. The dock is fitted with a caisson gate, and with a centrifugal steam pump of great power, ensuring despatch at all states of the tide.

*Customs Regulations.*—The limits of the port are defined within lines drawn from the southernmost point of Amoy island, south-eastward to the nearest island, and thence, in the direction of the high pagoda, to the point of Lam-tai-hoo hill, and from the northernmost point of Amoy island to the opposite point on the mainland.

The shipment and discharge of cargo can be





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only carried on in the inner harbour between Kulang-su and Amoy, northern and southern limits. The authorised customs' jetties for the examination, landing, and shipment of goods, are those known as the Taou-mei-ma-tau, Kang-nh-kow, Sin-lo-tow, and Sai-long wharves.

Masters of merchant vessels must deposit their ships' papers and import manifest with their consul (if they have no consul, with the customs) within 48 hours after entering the port.

The import manifest must contain a true account of the cargo on board, and must be handed to the customs before any application to break bulk can be attended to.

The landing and discharging of cargo must be carried on within the limits of the inner-anchorage, and can only take place between sunrise and sunset, and cannot go on, without special provision, on Sundays and holidays. Cargo boats employed for the shipment and landing of merchandise cannot make use of other jetties than those specified above.

When ready to discharge cargo, the consignee must send to the customs an application in Chinese and English, giving full particulars of the cargo to be discharged, when he will be furnished with a permit to insure his consignment from the ship by which imported, and to place the same in a cargo boat. The cargo boat must then repair to one of the authorised jetties, in order that the goods may be examined and assessed for duty. A customs 'memo.' will thereupon be issued, to be taken to the bank by the consignee, who, upon payment of the duty therein noted, will be supplied with a 'duty receipt;' upon the presentation at the office of customs of the duty receipt, a duty-paid order will be issued. The goods imported may be removed from the customs jetty, and placed in the merchants' godown.

In the case of goods to be shipped, the shipper must send to one of the authorised jetties for examination, with an application in Chinese and English for a permit to ship, containing all necessary particulars. The goods will then be examined, and a customs memo. issued, and on the production at the office of the 'duty receipt,' a 'duty-paid order' will be issued authorising the shipment.

Cargo for which a shipment permit has been issued, but which cannot be received on board, must be brought to one of the authorised jetties for examination before being reloaded.

No transhipment can take place without special written permission.

Drawback exemption, or coast-trade duty certificates will be issued simultaneously with the permit for the shipment of goods covered by them; exemption or coast-trade duty certificates for goods imported must be presented simultaneously with the consignee's application for the permit to land.

Before application is made for the 'customs clearance,' the export manifest must be handed in. All dues and duties having been paid, the clearance will be issued.

Cargo boats must be registered at the customs, and must have their respective numbers conspicuously painted on them in English and Chinese characters. No cargo can be transhipped, shipped, or landed, without special permission, except in duly registered cargo boats.

For further particulars on the trade, &c. of Amoy, see Dr. Williams's *Chinese Commercial Guide* (1863) and Messrs. Mayers, Denny's, and Kings' *Treaty Ports of China and Japan* (1867). Both these works are published at Shanghai.

AMSTERDAM. The principal city of Holland,

situated on the Y, an arm of the Zuyder Zee, in lat. 52° 23' 17" N., long. 4° 53' 15" E. From 1580 to 1750, Amsterdam was, perhaps, the first commercial city of Europe; and though her trade has experienced a great falling off since the last-mentioned epoch, it is still very considerable. In 1785, the population is said to have amounted to 235,000; in 1815 it had declined to 180,179; but in December 1863 it had risen, according to the *Almanach de Gotha*, to 266,679. The harbour is spacious and the water deep; and it has recently been much improved by the construction of docks, two of which are already completed, and a third in a very advanced state. Owing, however, to a bank (the Pampus) where the Y joins the Zuyder Zee, large vessels going or coming by that sea are obliged to load and unload a part of their cargoes in the roads. The navigation of the Zuyder Zee is also, by reason of its numerous shallows, very intricate and difficult; and as there were no hopes of remedying this defect, it became necessary to resort to other means for improving the access to the port. Of the various plans suggested for this purpose, the preference was given to the scheme for cutting a canal capable of admitting the largest class of merchantmen, from the north side of the port of Amsterdam to Newdiep, opposite to the Texel, and a little to the east of the Helter. This canal has fully answered the views of the projectors, and has proved of signal service to Amsterdam, by enabling large ships to avoid the Pampus, as well as the difficult navigation of the Zuyder Zee, where they were frequently detained for three weeks, and to get to and from Newdiep without any sort of risk in less than 24 hours. The canal was begun in 1819, and completed in 1825. It has 5 sluices large enough to admit ships of the line; the dues and charges on account of towing, &c. being at the same time very moderate. At Newdiep the water is deeper than in any other port on the coast of Holland, and ships are there in the most favourable position for getting expeditiously to sea. This canal having been found insufficient in depth of water for large steamers, it was resolved to make a more direct communication between Amsterdam and the North Sea at Wky au Zee, by draining a portion of the river Y, and cutting a canal through the sandhills. This was begun by the Amsterdam Canal Company in 1865, and its completion is expected in about seven years. [CANALS.] The imports principally consist of sugar, coffee, spices, tobacco, cotton, tea, indigo, cochineal, wine and brandy, wool, grain of all sorts, timber, pitch and tar, hemp and flax, iron, hides, linen, cotton and woollen stuffs, hardware, rock salt, tin plates, coal, dried fish, &c. The exports consist partly of the produce of Holland, partly and principally of the produce of her possessions in the East and West Indies, and other tropical countries, and partly of commodities brought to Amsterdam, as to a convenient *entrepôt* from different parts of Europe. Of the first class are cheese and butter (very important articles), madder, clover, rape, hemp, and linseeds, rape and linseed oils, Dutch linen, &c. Geneva is principally exported from Schiedam and Rotterdam; oak bark and cattle principally from the latter. Of the second class are spices, coffee, and sugar, principally from Java, but partly also from Surinam, Brazil, and Cuba; indigo, cochineal, cotton, tea, tobacco, and all sorts of Eastern and colonial products. And of the third class, all kinds of grain, linsens from Germany, timber and all sorts of Baltic produce; Spanish, German, and English wools; French, Russian, and Hungarian wines, brandy, &c. The trade of Amsterdam may, indeed, be said to comprise

every article that enters into the commerce of Europe. Her merchants were formerly the most extensive dealers in bills of exchange, and though London be now, in this respect, far superior to Amsterdam, the latter still enjoys a respectable share of this business.

The Bank of the Netherlands was established at Amsterdam in 1814. It is not, like the old Bank of Amsterdam, which ceased in 1796, merely a bank of deposit, but a bank of deposit and circulation formed on the model of the Bank of England. Its capital, which originally amounted to 5,000,000 fl., was doubled in 1819. It has the exclusive privilege of issuing notes. Its original charter, which was limited to 25 years, was prolonged in 1838 for 25 years more, and again in 1863 for an additional period of 25 years.

**Public Works.**—Many steps have been taken for the important project of cutting a canal through the narrowest part of North Holland for the purpose of having a shorter and more direct communication between Amsterdam and the North Sea. The great difficulty from first to last has been to convince capitalists of the feasibility of the undertaking.

Happily in the latter end of November 1864, after much exertion, the required sum was subscribed.

On August 16, 1857, a permanent exhibition building (Palace of Industry) was opened in the city with great ceremony.

It is contemplated to enlarge Amsterdam, as the population has been of late on the increase. Unlike most European towns, it has no suburbs, and is girdled around by a canal, the overstepping of which has been dreaded on account of polder malaria. As house-rent is exorbitant, the proposed enlargement would be a great boon. New hotels have been designed on the principle now adopted in other parts of the continent, and one has been commenced. The present establishments are anything but good. As Holland is about the most heavily taxed country in Europe, the cost of living is high, and to the inhabitants of a city like Amsterdam it is more so through the local or town dues. The duty on coal and turf was excessive, and, though recently reduced, calls still for reduction. The duties on other articles of consumption are proportionately high, excepting colonial produce, such as tea, coffee, sugar &c. coming from the Netherlands East Indian possessions, and Dutch tobacco, the only really cheap article in Holland.

The average rate of wages for carpenters, masons, painters, plumbers &c. is about 2s. per day of nine hours in summer, and 1s. 6d. per day of seven hours in winter.

The rate of exchange on London during 1864 has varied from 11 florins 68 cents to 11 florins 95 cents, and for bills at two months from 11 florins 53 cents to 11 florins 77 cents per 1l. sterling.

The *Almanach de Gotha* gives the population, on the 31st of December 1863, at 266,679.

For an account of the Dutch fisheries, see the arts. **FISHING FISHERY** and **WHALE FISHERY**.

About 311 ships with a tonnage of 115,110 belong to Amsterdam; they are employed in the East and West India trades, and in trading to the Baltic, the Mediterranean &c. There is comparatively little coasting trade at Amsterdam, the communication with most other ports in the vicinity being principally kept up by canals, and that with Friesland by regular packets.

There belonged to Holland on January 1, 1865, 1,837 ships, of the aggregate burden of 388,684 tons, ex river craft and small coasters.

The total imports into Holland in 1863 were

estimated at 442,488,906 florins, and the exports at 374,730,947. The United Kingdom, the German Customs Union, Belgium, Java, France, and Russia, are the countries with which she carries on the most extensive trade.

**Dutch Commercial Policy.**—The policy of Holland, civil, religious, and commercial, has long been of the most liberal and enlightened description (see *post*); and she was the first country to follow the example we set in repealing the navigation laws in 1849. The Dutch law on this subject was passed in 1850. Previously to that period discriminating duties were imposed on most articles imported on foreign bottoms; and also on those imported by foreigners into Java and her other colonies. But these preferences no longer exist. The following is an extract from the law relative to these matters:—

Differential duties are abolished on the vessels of those states which

a. Place the Dutch flag on the same footing with their national flag trading to and from their own ports (coasting trade and fisheries excepted);

b. Which place the Dutch flag on the same footing with their national flag trading to and from their colonies, if they possess any; and

c. Which do not levy other differential duties to the disadvantage of the produce of the Netherlands colonies, or to the prejudice of produce imported from other parts of the world, from Netherlands ports, than those which are levied in favour of the produce of their own colonies, when imported direct.

The fisheries and the coasting trade of Holland and of her colonies are reserved to Dutch ships. But it is no longer necessary that the latter should be of Dutch build. Foreign-built ships have, however, to pay on being registered an ad valorem duty of 2 per cent. over and above the fee charged on the registration of Dutch-built ships. Several important reductions were at the same time made in the tariff of import duties.

The navigation dues or tolls that were formerly charged on vessels or goods passing through Holland by the Rhine and the Yssel, and transit duties of kinds, have also been repealed. And though it may be said, and truly, that these wise and liberal measures will be much more advantageous to the Dutch than to any other people, still they are of the greatest importance to all commercial nations, and especially to those who, like ourselves, have an extensive intercourse with them.

We are glad to have to state that this liberal policy has in Holland, as in England, had its appropriate reward. Commerce has been largely extended. The mercantile marine is in a highly prosperous state, and is daily receiving large additions. Many Dutch ships have lately been chartered by English merchants.

Besides these exports, a considerable amount of foreign and colonial produce is exported by Great Britain to Holland. During the years 1861-5, these amounted to 4,554,830l., 4,594,861l., 6,339,322l., 7,168,223l., and 6,823,196l., respectively. Of these commodities the largest in value was cotton, representing on an average two-fifths of the whole amount. Coffee, indigo, oils, ice, silk, wool, and seeds were also considerable objects of trade. Tea is also becoming an important article of export from Great Britain to Holland.

The greater portion, however, of the trade between the United Kingdom and Holland is carried on with Rotterdam, which is much more conveniently situated for such intercourse than Amsterdam. But the latter continues to engross by far the larger share of the commerce with the flourishing colony of Java and the other Dutch

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*Account of Quantities and Values of the principal Articles, the Growth and Produce of Great Britain and Ireland, exported from the United Kingdom to the Netherlands during the 5 years ending with 1865*

Principal and Other Articles	Quantities					Declared Real Value				
	1861	1862	1863	1864	1865	1861	1862	1863	1864	1865
						£	£	£	£	£
Alkali, soda - - - cwt.	156,891	154,149	167,957	165,917	173,111	46,653	47,829	49,523	53,533	65,918
Apparel and haberdashery - - - val.	269,025	251,311	216,202	211,532	237,602	19,980	76,510	78,621	89,719	104,123
Coals, clinders, & culm tons	20,163	20,163	41,698	32,827	45,271	106,952	106,952	54,733	101,329	108,669
Copper, wrought and unwrought - - - cwt.	37,576,580	18,993,122	11,015,153	13,115,911	40,935,590	120,168	93,272	181,751	154,617	199,266
Cotton yarn - - - lbs.	37,700,091	26,366,371	15,498,101	17,399,586	28,140,578	2,075,120	1,243,758	1,179,483	1,383,027	2,053,216
Cottons, entered by the yard - - - yds.	37,700,091	26,366,371	15,498,101	17,399,586	28,140,578	692,170	515,228	436,961	536,480	784,951
Cotton, entered at val. - - - val.	1,875,949	3,191,613	1,173,529	3,688,771	4,165,531	41,646	74,919	63,571	76,770	74,865
Drugs and chemical products - - - val.	1,875,949	3,191,613	1,173,529	3,688,771	4,165,531	19,170	39,584	40,536	35,503	42,790
Earthenware and porcelain - - - val.	1,875,949	3,191,613	1,173,529	3,688,771	4,165,531	25,516	90,118	22,705	21,812	22,292
Grease - - - cwt.	1,875,949	3,191,613	1,173,529	3,688,771	4,165,531	4,991	11,046	7,759	5,590	6,007
Hardware and sundries, unaccompanied - - - val.	1,875,949	3,191,613	1,173,529	3,688,771	4,165,531	2,516	2,991	2,516	2,991	2,516
Iron, wrought and unwrought - - - tons	20,171	15,122	16,283	14,556	15,650	92,423	74,000	90,455	85,551	69,662
Iron, wrought and unwrought - - - tons	20,171	15,122	16,283	14,556	15,650	92,423	74,000	90,455	85,551	69,662
Iron, wrought and unwrought - - - tons	20,171	15,122	16,283	14,556	15,650	92,423	74,000	90,455	85,551	69,662
Leather, wrought and unwrought - - - lbs.	2,817,567	3,656,092	3,812,507	3,688,771	4,165,531	516,813	675,023	553,038	548,340	741,791
Linens, entered by the yard - - - yds.	2,817,567	3,656,092	3,812,507	3,688,771	4,165,531	43,927	39,390	48,705	41,987	36,133
Linens, entered at val. - - - val.	1,875,949	3,191,613	1,173,529	3,688,771	4,165,531	32	3,086	5,642	3,392	781
Machinery - - - val.	1,875,949	3,191,613	1,173,529	3,688,771	4,165,531	90,117	76,534	66,910	65,565	72,535
Steam engines - - - val.	1,875,949	3,191,613	1,173,529	3,688,771	4,165,531	142,924	187,315	235,310	273,871	295,196
All other sorts - - - val.	1,875,949	3,191,613	1,173,529	3,688,771	4,165,531	15,721	15,609	37,504	19,582	36,572
Oil, seed - - - gals.	1,168,701	1,111,610	624,362	1,203,568	1,718,157	13,156	21,954	51,646	207,150	229,782
Painters' colours (not otherwise described) val.	1,168,701	1,111,610	624,362	1,203,568	1,718,157	219,535	162,863	163,835	207,150	229,782
Salt - - - tons	28,743	26,001	35,617	23,226	21,215	140,717	156,321	102,114	170,723	231,107
Silk, yarn - - - tons	28,743	26,001	35,617	23,226	21,215	25,995	22,869	15,885	12,198	14,175
" thrown - - - cwt.	28,743	26,001	35,617	23,226	21,215	10,650	8,712	8,871	8,426	6,321
" manufactures - - - val.	28,743	26,001	35,617	23,226	21,215	49,369	91,149	76,406	72,337	60,229
" in sheets and lams - - - val.	28,743	26,001	35,617	23,226	21,215	195,096	311,192	210,612	208,892	174,227
Wool, clean and worsted yarn - - - lbs.	452,113	678,486	723,673	629,957	745,810	59,273	31,440	37,675	20,122	20,811
Woolens, entered by the yard (including those formerly used by the piece) - - - yds.	452,113	678,486	723,673	629,957	745,810	32,850	25,164	22,875	32,933	29,532
Woolens, entered at value - - - val.	5,806,536	5,610,905	7,283,700	7,069,297	7,089,480	56,036	56,164	58,876	57,419	67,999
All other articles - - - val.	7,781,473	7,864,142	8,023,661	8,480,719	8,725,266	643,982	790,127	1,248,403	1,371,821	1,273,333
<b>Total</b> - - - val.	7,781,473	7,864,142	8,023,661	8,480,719	8,725,266	432,503	477,846	527,577	541,856	577,440
						421,831	11,389	7,696	8,290	12,547
						490,771	575,660	589,665	629,530	649,530
						6,454,919	6,016,242	6,321,696	6,884,237	6,137,753

possessions in the East; and is, consequently, the principal continental mart for Eastern produce. The following is a memorandum of expenses on a ship of 360 register, or about 400 Dutch tons, drawing 12 feet English, or 36 palms, from and to the East Indies, with a full cargo, inwards and outwards.

Pilotage from sea to Nieuwediep (in winter 15 fl. 20 cts.) - - -	0. 25
Steamboat entered at Nieuwediep (if used) - - -	18. 60
Inward clearance at the North Holland canal, 45 cents per ton - - -	18. 00
Nieuwediep harbour dues, 14 cents per ton and regulations - - -	4. 00
Inward canal dues, 20 cents per ton - - -	8. 00
Measurement and measure bill - - -	1. 50
Inward lights and beacons, 20 cents per ton - - -	8. 00
Outward lights and beacons, 10 cents per ton - - -	8. 00
Custom house officers for clearance - - -	4. 00
Dock and sluice dues, 15 cents per ton - - -	3. 75
Harbour master - - -	1. 00
Outward canal dues, 12 cents per ton - - -	2. 40
Pilotage from Amsterdam to Nieuwediep - - -	1. 50
Nieuwediep to sea (in winter 22 fl. 60 gl.) - - -	48. 00
Steamboat from Amsterdam to Nieuwediep - - -	19. 60
Outward clearance at Nieuwediep - - -	18. 00
Nieuwediep to sea - - -	65. 00
Attendance of custom house officers during lading - - -	7. 50
Noting and extending protest - - -	2. 00
Petty expenses, stamps, permits, &c. - - -	4. 00
Steamboat service across the river - - -	1. 15
<b>Total</b> - - -	1,011. 90

Equivalent to about 87½ at 12 fl. per fl. Ships are also towed by horses through the canal, which is far cheaper, but the wear and tear of ropes make the steamer preferable. If a ship clear in ballast, and does not draw more than 9½ or 10 feet water, she can depart through the Zuider Zee, and in that case her expenses from Amsterdam to sea would amount to about 4l. or 5l. Ballast costs in Amsterdam 70 cents per ton, and 15 to 20 cents per ton for putting it on board. Taking in ballast whilst in the canal, and putting it on board, cost 50 cents per ton. Loading and stowing a general cargo cost from

55 to 60 cents per ton; discharging the same, from 35 to 40 cents per ton.

Ships laden from Great Britain, the Baltic, and north of the Canaries pay 9½ cents per ton for lights and beacons, and 3 cents per ton for bound; ships in ballast pay half of the dues for inward and beacons, and half of the canal dues instances (when laden and in ballast) the clearance at the custom-house is reduced to 3 fls.

Ships laden with timber or coals pay only half of the canal dues, and 8 cents per ton for dock and sluice dues, and half the towage dues across the river. Pilotage is likewise a little less when steam tugs are employed.

No ships are exempted from pilotage. **Quarantine.**—The quarantine station is at the island of Wierengen, near the Helder.

**Commission.**—The usual rate of the commission or brokerage on the purchase or sale of goods is 2 per cent, and on bill transactions ½ and ¾ per cent, according to their nature.

Provisions of all sorts are abundant at Amsterdam, and reasonably cheap. The wages of Amstercarpenters vary from 1 flcr. 20 cents to 1 flcr. 80 cents; that is, from about 2s. to 3s. a day. For an account of the corn trade of Amsterdam, see CORN TRADE AND CORN LAWS.

**Custom-house Regulations.**—Captains of ships are bound to make, within 24 hours of their arrival at Amsterdam, or any Dutch port, their declaration in writing of the goods of which their cargo consists. If the captains be not acquainted with the goods of which the cargo consists, they must make their declaration under the general term of *merchandise*, and exhibit the bills of lading along with the declaration. The custom-house officers are instructed to inform the captains of almost all formalities required by law.



# AMSTERDAM

East Indian possessions being a government monopoly is erroneous. As landlord of the greater part of Java the Dutch government obtains a large proportion and in some articles the whole of the government produce, except the very small portion sold in the island, is exclusively exported by the Netherlands Trading Society. This company having the monopoly of the export of the crown produce has been erroneously considered a government institution, but has had no concern in the government of the colony or any other connection with the state than as a mere agent of the Dutch joint stock company with limited liability. It has its head office in Amsterdam and its principal factory in Batavia, with agencies at the chief ports in Java, and in other parts of Netherland India.

The company was established at Amsterdam in 1821. Its original capital was 37,000,000 florins, or 3,000,000 sterling. This capital was reduced in 1827 to 24,000,000 florins, and in 1835 to 23,000,000. The company's first charter was for a term of 25 years, and an interest of 4½ per cent. per annum was guaranteed by King William I. of Holland, who was himself one of the largest shareholders. The early adventures of the company appear not to have been successful. In 1827 part, and in 1830 the whole, of the guaranteed interest had to be paid by the King. It was in this year that the new Java culture system was introduced by General Van den Bosch, and from this period dates the prosperity of the company.

In return for the advances made by the society, the government appointed the sole agent of the government supplies, and in exporting the government produce from Java and selling it in Holland. (The above is abridged from ch. viii, vol. i. of M. Money's excellent work on Java.) [BATAVIA.] An abridged and clearly defined tariff has long been wanting, and has at length been obtained. The law of August 15, 1862, unites the dispositions necessary for a tariff of duties, and all former laws are annulled.

The new tariff is so far distinct that almost all duties are made ad valorem. Only those articles are excepted which cannot be taxed as by measure, the duty on these being calculated so as not to surpass 5 per cent., the maximum fixed in the tariff. The articles not mentioned are duty free, and those articles which are not classed, but which are of use for manufacture, have to pay from 2 to 3 per cent. Only a few articles of luxury are higher charged. The 15 additional cents on the duty are abolished.

In the new tariff all the export-duties are repealed, except 5 guilders per 100 lbs. of rags. The fee for registering to naturalise foreign ships, before 4 per cent., is reduced to 2 per cent.

The difference of duties on importation of some tropical products from the Dutch colonies is annulled, likewise the distinction of flags, fixed by the law of August 8, 1850, relative to the navigation between the colonies and the Dutch harbours.

It is known that in 1850 the duty on transit was abolished. In 1851 (Law of September 2) the navigation taxes on the Maese were abolished; and a royal resolution of February 7, 1852, decreases the rates of pilotage. These liberal measures were followed by the suppression of the tonnage-taxes for sea-ships (Law of July 14, 1853).

The Dutch government also assimilates foreign ships with national ships, as well for direct as for indirect navigation. They have only to pay in

Dutch harbours the common duty, for lighthouses, buoys, &c.

[The above has been taken from an English translation of the Dutch tariff published at the Hague in 1862, and the *London Gazette*.]

The following are the principal articles of the Netherlands Customs law above referred to:—

*Art. 2.*—No duty is to be paid on articles not mentioned in the tariff, except that they could be classed, according to their nature or destination, under one of the articles of merchandise mentioned in the list.

*Art. 3.*—No import-duty is to be paid on:

*a.* Merchandise, re-landed within two years from Dutch colonial possessions, after being exported from the Netherlands.

*b.* Merchandise of certified Dutch origin, re-landed within two years, after being exported to foreign markets.

*c.* Merchandise re-landed, after being exported from the Netherlands to places where they cannot be imported in consequence of prohibition or augmentation of import-duty, which could not be known when exported.

*Art. 4.*—When merchandise mentioned by Art. 3 is exported from the Netherlands, with drawback allowed, it cannot be re-landed before the drawback is repaid.

*Art. 5.*—No import-duty is to be paid on provisions and victuals for consumption on board of inward-bound ships, save merchandise as declared as such, and this must not surpass the quantity fixed by the Law.

When they exceed the fixed quantity, freedom of import-duty will be granted, when they are to be exported in the same ship. In this case they must remain, until the exportation, under the care of the custom-house.

These articles are free of excise.

*Art. 6.*—No import-duty is to be paid on:

*a.* Utensils and cartages belonging to and used on rafts of wood descending the rivers, save that this use must be duly stated by an inventory when imported;

*b.* Goods belonging to ambassadors of Foreign States in the Netherlands, but only for those States where the goods of Dutch ambassadors are also exempted from duty;

*c.* Carriages wherewith Dutchmen return from a journey, or wherewith foreigners enter the country to make a journey;

*d.* Luggage for the use of travellers;

*e.* Furniture in use;

*g.* Empty bags, barrels, baskets, and objects used for the transport of merchandise when exported;

*Art. 8.*—For the calculation of the import-duty, the parts of the pound, the litre, the cubic ell or the florin, shall be counted for the whole.

Fractions of cents are counted for whole cents. *Art. 9.*—The import-duty is at least five cents for every declaration, however trifling the quantity or value may be.

*Art. 10.*—For merchandise, of which the tare is not fixed by the tariff, the following tare may be subtracted from the gross weight:

*a.* For merchandise packed in barrels, or wooden boxes, fifteen per cent.;

*b.* For merchandise packed in leather, mats, baskets, canisters, linen, or such objects, eight per cent.

*Art. 11.*—When the importers are not content with the tare, as fixed by the preceding article, then they may pay the import-duty of the net weight, which shall be determined by the custom-officers at the expense of the importers.

*Art. 12.*—When there is a great number of barrels, casks, baskets, canisters, bales or packets



Tares and Allowances on the principal Articles sold at Amsterdam.

AMSTERDAM

Articles	Tares and Allowances	Discount
Coffee	3 per cent.	cash 1 per cent.; Neth. Trading Comp., 1 1/2 per cent.
Rice: in bales	5 kilos. per bale, 1 1/2 per cent., and 2 per cent.	2 per cent. and 1 per cent. for cash.
casks	2 1/2 kilos. per cask, and 1 1/2 per cent.	ditto.
half casks	2 1/2 kilos. per half cask, and 1 1/2 per cent.	ditto.
Tobacco: Maryland	nett weight, 1 per cent., 2 per cent., and 3 per cent.	1 per cent. and 1 per cent. for cash.
Virginia	3 per cent.	ditto.
Kentucky	ditto	ditto.
Java	2 kilos. per bale	ditto.
other kinds	according to agreement	1 per cent. for cash.
Butter: Eristani	7 kilos. per irkin	none.
N. & S.	8 kilos. per irkin, and 1 per cent.	none.
Holland	4 1/2 kilos. per half irkin	none.
Cheese: Florida and Leyden	1 per cent.	1 per cent. for cash.
Edam	2 per cent.	ditto.
Gouda	1 per cent.	ditto.
Indigo	1 per cent. and 2 per cent.	ditto.
Cochineal	real tare	2 per cent. and 1 1/2 per cent. for cash.
Fustic	12 kilos. per mille, 2 per cent. and 3 per cent.	2 per cent. and 1 per cent. for cash.
Logwood	ditto	ditto.
Gums	and tare, 1 per cent. and 2 per cent.	ditto.
Madder	real tare, and 5 kilos. per cask. Casks are charged in account at about 5s. each	ditto.
Raw sugar: casks	15 per cent.	1 per cent. and 1 1/2 per cent. for cash.
cases	18 per cent.	2 per cent. and 1 per cent. for cash.
bags	8 per cent.	ditto.
baskets	1 per cent. and 12 per cent.	ditto.
Molasses	1 per cent.	1 per cent. and 1 1/2 per cent. for cash.
Tin plates	2 per cent. and 18 per cent.	2 per cent. and 1 per cent. for cash.
Herrings	—	ditto.
Cotton: Surat, Bengali, American, and Surinam	6 per cent.	ditto.
Japan and Chinese	nett weight	ditto.
Gin	—	cash.
Flax	—	ditto.
Hemp	2 per cent.	ditto.
Liquorice	nett tare, 1 kilo. for rope, and 1 per cent.	1 per cent. and 1 per cent. for cash.
Pepper	—	2 per cent., 1 per cent., and 1 per cent. for cash.
Cinnamon	5 kilos. per bale	2 per cent. for cash.
Claves, pimento, mace, and nutmeg	13 kilos. per bale, and 1 per cent.	1 1/2 per cent. for cash.
Ginger	nett weight	ditto.
Saltpetre	9 1/2 kilos. per case	1 per cent. for cash.
Wool: Cape	3 per cent.	2 per cent., 1 per cent., and 1 per cent. for cash.
Buenos Ayres	6 kilos. per bale	1 per cent.
Kurrachee	4 1/2 per cent.	ditto.

officers, and the tare for the whole quantity will then be reckoned according to the average weight.

When goods on which the duty is to be paid according to their weight, are packed together with goods taxed according to their value, the nett weight of the first can be taken by the custom-house officers at the expense of the importers.

For all liquids free or excisable, rated by the measure, on importation by sea, a reduction is granted for leakage as follows:—

Coming from ports in the North and Baltic Sea, France, Portugal, and Spain on this side of the Straits of Gibraltar, 6 per cent.; from other ports, 12 per cent.

If the importers think that this reduction for leakage is insufficient, or if they should assert a claim to a reduction in those cases in which the law does not grant it, they will be at liberty to pay duty according to the actual quantity, which is to be determined by the custom-house officers at the expense of the importers.

**Money.**—Accounts are kept in *guldens* and *cents*, of which 5 cents are equivalent to 1 *stiver*, and 100 cents, or 20 *stivers*, to 1 *guilder* or *florin*. The florin is equal to 1 s. 3d. sterling par of exchange. Generally speaking, however, the rate of exchange is below par, varying from 11 florins 65 cents to 11.95. The coins in circulation are the *rijksdaalder*, or 250 cents, the *guilder*, or 100 cents, the *halve guilder*, or 50 cents, the *leeuwt guilder*, or 25 cents, the *dubbeltje*, or 10 cents, the *stuiver*, or 5 cents, the *cent* and the *halve cent*, all of which are of silver excepting the two last named, which are of copper. The bank notes in circulation are those of 1,000, 300, 200, 100, 60, 50, 40, 25 and 10 *gulden*. There is no gold coinage. Formerly gold and a great variety of silver coins were in circulation, but these have been called in.

**Weights and Measures.**—In 1820 the French system of weights and measures was introduced into the Netherlands, the names only being changed.

The *pond* is the unit of weight, and answers to the French *kilogramme*. Its divisions are the *ons*, *lood*, *wigtje*, and *korrel*. 1.015 kilogrammes, or Netherlands' lbs., are equal to 2.240 English lbs., or 50 1/2 kilogrammes are equal to 1 cwt.

The *elle*, which is the unit or element of long measure, equals the French *metre*. Its decimal divisions are the *palm*, *duim*, and *streep*; and its decimal multiples, the *roede* and *mijle*.

The *vierkante elle*, or square ell, is the unit of superficial measure; and answers to the *centiare* or *metre carré* of France. Its divisions are the *vierkante palm*, *vierkante duim*, and the *vierkante streep*; and its multiples, the *vierkante roede* and *vierkante hunder*.

The *kubicke elle* is the unit of measures or capacity; and equals the French *stère*. Its divisions are the *kubicke palm*, *kubicke duim*, and *kubicke streep*.

The term *wisse* is given to a *kubicke elle* of firewood.

The *hop* is the unit of measures for dry wares, and is the cube of the palm; answering to the French *litre*. Its division is the *maatje*, and its multiples the *schepel* and *mudde*; the latter is also called the *zak*, and equals the French hectolitre. 30 *mudden* make 1 last.

The *kan* is the unit for liquid measure, and is the cube of the palm; it corresponds to the French *litre*. Its divisions are the *maatje* and *vingerhoel*, and 100 *kans* make a *vat* or *cask*, which equals the French hectolitre.

The apothecary's new lb. is 12 oz., 96 dr., 288 scr., or 5,760 gr.; and answers to 375 gram., or 5,787 English grains.

The above are the customary tares and other allowances made by the merchants in their transactions with each other. But in paying the import-duties at the custom-house, the tare upon goods paying duty by weight is, with the exception undermentioned, fixed at 15 per cent. for such as are in casks or cases made of wood, and at 8 per cent. for such as are in packages, canisters, mats, baskets, leather, linen, &c.

**Exception: Tea.**—Of ordinary tea-chests weighing 55 kilos or more, 18 per cent.; ordinary tea-chests weighing less than 55 kilos, 25 per cent.

In case the importers are not satisfied with the tare fixed as above by the law of 1862, they can pay the duty according to the nett weight of the goods, in such a way as it shall be settled by the custom-house authorities, at the expense of the importers.

In case there are a great number of casks, cases, or packages of the same kind and size, the tare can be fixed by weighing a part of the empty casks &c., to be pointed out by the custom-house

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By the old method of calculating, which is not yet entirely superseded, the lb. of Amsterdam was = to 109 lbs. avoirdupois, or 100 lbs. Amsterdam = 108:23 lbs. avoirdupois.

The last or measure for corn = 30 madden = 10 11-10ths quarters Winchester measure. The *aan* 1 quid measure = 4 ankers = 8 steekans = 21 viertels = 64 stoops or stoppen = 281 mingles = 256 pints = 41 English wine gallons.

The stoop contains 5 1/4 pints English measure. 100 mingles are equal to 32 English wine gallons, or 26 1-5th English beer gallons, or 26 2/3 imperial gallons.

French wine is sold per hoghead of 180 mingles. Spanish and Portuguese wine per pipe of - - - - - 349 ditto.

French brandy, per hoghead of - 30 viertels. Beer, per barrel (equal to the *aam*) of - - - - - 128 mingles.

Vegetable oils, per *aam*, of - - - 120 ditto. Whale oil, per ditto - - - 16 ditto.

Rum is sold per *anker* of 2 steekans = 10 1/2 English wine gallons.

The foot of Amsterdam = 11 1-7th English inches. The Rhineland foot = 12 ditto. The *elk*, cloth measure = 27 1-12th ditto.

Rock salt is sold per hondert of 404 maaten, making 20 tons, or 4,000 lbs. Dutch.

Pit coal is sold per hooed of 38 maaten; 9 hooeds are 5 chaldrons of Newcastle, or 6 hooeds are 5 chaldrons of London.

Butter is sold per barrel; the barrel of Leyden is 320 lbs. nett—that of Friesland 28 lbs. nett—and the common Dutch barrel 336 lbs. gross.

A last of herrings is reckoned at 12, 13, or 14 barrels.

A last of pitch is 12 barrels. A last of tar, 13 Winchester quarters.

A bag of seed = 2 1/2 Winchester quarters. 8 hogsheds (or *oxhofs*) of wine }  
12 barrels of pitch } are reckoned  
13 barrels of tar } as one last  
20 chests of lemons, &c. } in settling  
4,000 lbs. of iron, copper, and co- } the freight  
lonial produce } of ships.  
4,000 lbs. of almonds }  
2,000 lbs. of wool or feathers }

A last of wheat is considered 10 per cent. higher than one of rye, and the latter 20 1/2 per cent. higher than oats, and 12 per cent. higher than seed. A last of ballast is only 2,000 lbs.—These details have been derived from the answers by the British consul to the circular queries; in the *Dictionnaire du Commerce (Ency. Method.)*, tom. ii. pp. 551-650; Kelly's *Cambist, private information*, &c.

A last for freight is 2,000 kilogrammes, equivalent to about 1 ton, 19 cwts. 1 qr. 18 lbs. English.

According to the tariff of the Netherlands' Trading Company the last, in settling freights from the Netherlands' East Indies, varies as follows:—

For Arrack	It equals	kilos.	For Gum benzoin	It equals	kilos.
Cochineal	1,500		Gum copal	1,500	
Sugar	2,000		Gold dust	2,000	
Coffee, in bags	1,800		Gutta percha	1,100	
Coffee, all in bags	1,500		India rubber	1,000	
Coffee, in casks	1,550		Hemp	900	
Coffee, sweepings	2,000		Hides	1,200	
Narc	1,200		Indigo	1,100	
Copper	2,000		Cambhor	900	
Turmeric root	1,800		Cinnamon	950	
Olives	1,000		Rice	2,000	
Nutmegs, un-sound	1,550		Sago	1,500	
Nutmegs, sound	1,500		Tortoise shell	1,000	
Nutmeg soap	1,500		Tobacco	800	
Mother of pearl	2,000		Tea, Java	930	
Pepper	1,500		Tin	2,000	
			Flax	900	
			Wax	2,000	
			Wool	650	

*Magnitude of the Commerce of Holland in the Seventeenth Century: Causes of its Prosperity and Decline.*—We believe we need make no apology for embracing this opportunity to lay before our readers the following details with respect to the commerce and commercial policy of Holland. It forms one of the most instructive topics of investigation; and it is to be regretted that so little attention should have been paid to it in this country.

Previously to the commencement of the long-continued and glorious struggle made by the Dutch to emancipate themselves from the blind and brutal despotism of Old Spain, they had a considerable marine, and had attained to distinction by their fisheries and commerce; and the war, instead of being injurious to the trade of the republic, contributed powerfully to its extension. After the capture of Antwerp by the Spaniards, in 1585, the extensive commerce of which it had been the centre was removed to the ports of Holland, and principally to Amsterdam, which then attained to the distinction she long enjoyed, of the first commercial city of Europe.

In 1602 the Dutch East India Company was formed; and notwithstanding the pernicious influence of that association, the Indian trade increased rapidly in magnitude and importance. Ships fitted either for commercial or warlike purposes, and having a considerable number of soldiers on board, were sent out within a few years of the establishment of the company. Amboyna and the Moluccas were first wrested from the Portuguese, and with them the Dutch obtained the monopoly of the spice trade. Factories and fortifications were in no long time established, from Bussorah, near the mouth of the Tigris, in the Persian Gulf, along the coasts and islands of India as far as Japan. Alliances were formed with several of the Indian princes; and in many parts, particularly on the coasts of Ceylon, and in various districts of Malabar and Coromandel, they were themselves the sovereigns. Batavia, in the large and fertile island of Java, the greater part of which had been conquered by the Dutch, formed the centre of their Indian commerce; and though unhealthy, its port was excellent, and it was admirably situated for commanding the trade of the Eastern Archipelago. In 1651 they planted a colony at the Cape of Good Hope, which had been strangely neglected by the Portuguese.

Every branch of commerce was vigorously prosecuted by the Dutch. Their trade with the Baltic was, however, by far the most extensive and lucrative of which they were in possession. Guicciardini mentions that the trade with Poland, Denmark, Prussia, &c., even before their revolt was so very great, that fleets of 300 ships arrived twice a year at Amsterdam from Dantzic and Livonia only; but it increased prodigiously during the latter part of the sixteenth and the beginning of the seventeenth centuries. The great population of Holland, and the limited extent and unfruitful nature of the soil, render the inhabitants dependent on foreigners for the greater part of their supplies of corn. The countries round the Baltic have always furnished them with the principal of those supplies; and it is from them that they have been in the habit of bringing timber, iron, hemp and flax, pitch and tar, tallow ashes, and other bulky articles required in the building of their houses and ships, and in various manufactures. Nothing, however, redounds so much to the credit of the Dutch, as the policy they have invariably followed with respect to trade in corn. They have, at all times, had

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large capital embarked on this business. The variations which are perpetually occurring in the harvests, early led them to engage very extensively in a sort of speculative corn trade. When prices low, they bought and stored up large quantities of grain, in the expectation of profiting by the advance that was sure to take place on the occurrence of an unfavourable year. Repeated efforts prevail on the government to prohibit exportation; but they steadily refused to interfere. In consequence of this enlightened policy, Holland has long been the most important European entrepôt for corn; and her markets have on all occasions been furnished with the most abundant supplies. Those scarcities which are so very disastrous in countries without commerce, or where the trade in corn is subjected to fetters and restraints, have not only been totally unknown in Holland, but became a copious source of wealth to her merchants, who then obtained a ready and advantageous vent for the supplies accumulated in their warehouses. 'Amsterdam,' says Sir Walter Raleigh, 'is never without 700,000 quarters of corn, none of it of the growth of Holland; and a dearth of only one year in any other part of Europe enriches Holland for seven years. In the course of a year and a half, during a scarcity in England, there were carried away from the ports of Southampton, Bristol, and Exeter alone, nearly 200,000; and if London and the rest of England be included, there must have been 2,000,000, more.' (*Observations touching Trade and Commerce with the Hollander*, Miscel. Works, vol. ii.)

The very well-informed author of the *Richesse de la Hollande*, published in 1778, observes in allusion to these circumstances, 'Que la disette de grains règne dans les quatre parties du monde; vous trouverez du froment, du seigle, et d'autres grains à Amsterdam; ils n'y manquent jamais.' (Tome i. p. 376.)

The Bank of Amsterdam was founded in 1609. The principal object of this establishment was to obviate the inconvenience and uncertainty arising from the circulation of the coins imported into Amsterdam from all parts of the world. The merchants who carried coin or bullion to the Bank obtained credit for an equal value in its books; this was called bank-money; and all considerable payments were effected by writing it off from the account of one individual to that of another. This establishment continued to flourish till the invasion of the French in 1795.

Between the years 1651 and 1672, when the territories of the republic were invaded by the French, the commerce of Holland seems to have reached its greatest height. De Witt estimates at Munster in 1643, to 1669, at fully a half. He lost the greater part of her naval power; that since the peace, the Dutch had obtained most of the trade to that country, which had been previously carried on by the Hanseatic merchants and the English; that almost all the coasting trade of Spain was carried on by Dutch shipping; that Spain had even been forced to hire Dutch ships to sail to her American possessions; and that so great was the exportation of goods from Holland to Spain, that all the merchandise brought from the Spanish West Indies was not sufficient to make returns for them.

At this period, indeed, the Dutch engrossed, not by means of any artificial monopoly, but by the greater number of their ships, and their superior

skill and economy in all that regarded navigation, almost the whole carrying trade of Europe. The value of the goods exported from Flanders in Dutch bottoms, towards the middle of the fourteenth century, exceeded 40,000,000 livres; and the commerce of England with the Low Countries was, for a very long period, almost entirely carried on in them.

The business of marine insurance was largely and successfully prosecuted at Amsterdam; and the ordinances published in 1551, 1563, and 1570 contain the most judicious regulations for the settlement of such disputes as might arise in conducting this difficult but highly useful business. It is singular, however, notwithstanding the sagacity of the Dutch, and their desire to strengthen their industrious habits, that they should have prohibited insurance upon lives. It was reserved for England to show the advantages that might be derived from this beautiful application of the science of probabilities.

In 1690 Sir William Petty estimated the shipping of Europe at about 2,000,000 tons, which he supposed to be distributed as follows: viz. England, 500,000; France, 100,000; Hamburg, Denmark, Sweden, and Dantzic, 250,000; Spain, Portugal, and Italy, 250,000; that of the Seven United Provinces amounting according to him, to 900,000 tons, or to nearly one half of the whole tonnage of Europe! No great dependence can, of course, be placed upon these estimates; but the preponderance in favour of Holland would have been greater than it appears to be; for the official returns to the circulars addressed in 1701 by the commissioners of customs to the officers at the different ports, show that the whole mercantile navy of England amounted at that period to only 261,222 tons, carrying 27,196 men. (*Mempherson's Annals of Commerce*, anno 1701.)

It may, therefore, be fairly concluded that during the seventeenth century the foreign commerce and navigation of Holland was greater than that of all Europe besides; and yet the country which was the seat of this vast commerce had no native produce to export, nor even a piece of timber fit for ship-building. All had been the fruit of industry, economy, and a fortunate combination of circumstances.

Holland owed this vast commerce to a variety of causes: partly to her peculiar situation, the industry and economy of her inhabitants, the comparatively liberal and enlightened system of civil as well as of commercial policy adopted by the republic; and partly also to the wars and disturbances that prevailed in most European countries in the sixteenth and seventeenth centuries, and prevented them from emulating the successful career of the Dutch.

The ascendancy of Holland as a commercial state began to decline from about the commencement of last century. After the war terminated by the treaty of Aix-la-Chapelle, the attention of the government of Holland was forcibly attracted to the state of the shipping and foreign commerce of the republic. The discovery of the means by which their decline might be arrested, and the trade of the republic, if possible, restored to its ancient flourishing condition, became a prominent object in the speculations of everyone who felt interested in the public welfare. In order to procure the most correct information on the subject, the Stadtholder, William IV., addressed the following queries to all the most extensive and intelligent merchants, desiring them to favour him with their answers:—

1. What is the actual state of trade? And if

the same should be found to be diminished and fallen to decay, then, 2. To enquire by what methods the same may be supported and advanced, or, if possible, restored to its former lustre, repute, and dignity?

In discussing these questions, the merchants were obliged to enter into an examination, as well of the causes which had raised the commerce of Holland to the high pitch of prosperity to which it had once attained, as of those which had occasioned its subsequent decline. It is stated that, though not of the same opinion upon all points, they, speaking generally, concurred as to those that were most important. When their answers had been obtained, and compared with each other, the Stadtholder had a dissertation prepared from them, and other authentic sources, on the commerce of the republic, to which proposals were subjoined for its amendment. Some of the principles advanced in this dissertation apply to the case of Holland only; but most of them are of universal application, and are not more comprehensive than sound. We doubt, indeed, whether the benefits resulting from religious toleration, political liberty, the security of property, and the freedom of industry, have ever been more clearly set forth than in this dissertation. It begins by an enumeration of the causes which contributed to advance the commerce of the republic to its former unexampled prosperity: these the authors divide into three classes, embracing under the first those that were natural and physical; under the second, those they denominated moral; and under the third, those which they considered adventitious and external; remarking on them in succession as follows:—

‘I. The natural and physical causes are the advantages of the situation of the country on the sea and at the mouth of considerable rivers; its situation between the northern and southern parts, which, by being in a manner the centre of all Europe, made the republic become the general market, where the merchants on both sides used to bring their superfluous commodities, in order to barter and exchange the same for other goods they wanted.

‘Nor have the barrenness of the country, and the necessities of the natives arising from that cause, less contributed to set them upon exerting all their application, industry, and utmost stretch of genius, to fetch from foreign countries what they stand in need of in their own, and to support themselves by trade.

‘The abundance of fish in the neighbouring seas put them in a condition not only to supply their own occasions, but with the overplus to carry on a trade with foreigners, and out of the produce of the fishery to find an equivalent for what they wanted, through the sterility and narrow boundaries and extent of their own country.

‘II. Among the moral and political causes are to be placed, the unalterable maxim and fundamental law relating to the free exercise of different religions; and always to consider this toleration and connivance as the most effectual means to draw foreigners from adjacent countries to settle and reside here, and so become instrumental to the peopling of these provinces.

‘The constant policy of the republic to make this country a perpetual, safe, and secure asylum for any persecuted and oppressed strangers. No alliance, no treaty, no regard for or solicitation of any potentate whatever, has at any time been able to weaken or destroy this law, or make the state recede from protecting those who have fled to it for their own security and self-preservation.

‘Throughout the whole course of all the persecutions and oppressions that have occurred in other countries, the steady adherence of the republic to this fundamental law has been the cause that many people have not only fled hither for refuge, with their whole stock in ready cash and their most valuable effects, but have also settled, and established many trades, fabrics, manufactories, arts, and sciences in this country, notwithstanding the first materials for the said fabrics and manufactories were almost wholly wanting in it, and not to be procured but at a great expense from foreign parts.

‘The constitution of our form of government, and the liberty thus accruing to the citizen, are further reasons to which the growth of trade, and its establishment in the republic, may fairly be ascribed; and all her policy and laws are put upon such an equitable footing, that neither life, estates, nor dignities depend on the caprice or arbitrary power of any single individual; nor is there any room for any person, who, by care, frugality, and diligence, has once acquired an affluent fortune or estate, to fear a deprivation of them by any act of violence, oppression, or injustice.

‘The administration of justice in the country has, in like manner, always been clear and impartial, and without distinction of superior or inferior rank, whether the parties have been rich or poor, or were this a foreigner and that a native; and it were greatly to be wished we could at this day boast of such impartial quickness and despatch in all our legal processes, considering how great an influence it has on trade.

‘To sum up all, amongst the moral and political causes of the former flourishing state of trade may be likewise placed the wisdom and prudence of the administration, the intrepid firmness of the councils, the faithfulness with which treaties and engagements were wont to be fulfilled and ratified, and particularly the care and caution practised to preserve tranquillity and peace, and to decline instead of entering on a scene of war, merely to gratify the ambitious views of gaining fruitless or imaginary conquests.

‘By these moral and political maxims were the glory and reputation of the republic so far spread, and foreigners animated to place so great a confidence in the steady determinations of a state so wisely and prudently conducted, that a course of them stocked this country with an augmentation of inhabitants and useful hands, whereby its trade and opulence were from time to time increased.

‘III. Amongst the adventitious and external causes of the rise and flourishing state of our trade may be reckoned—

‘That at the time when the best and wisest maxims were adopted in the republic as the means of making trade flourish, they were neglected in almost all other countries; and anyone reading the history of those times may easily discover that the persecutions on account of religion, throughout Spain, Brabant, Flanders, and many other states and kingdoms, have powerfully promoted the establishment of commerce in the republic.

‘To this happy result, and the settling of manufacturers in our country, the long continuance of the civil wars in France, which were afterwards carried on in Germany, England, and divers other parts, has also very much contributed.

‘It must be added, in the last place, that during our most burdensome and heavy wars with Spain and Portugal (however ruinous that period was for commerce otherwise), these powers had both neglected their navy; whilst the navy of the re-

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public, by a conduct directly the reverse, was at the same time formidable, and in a capacity not only to protect the trade of its own subjects, but to annoy and crush that of their enemies in all quarters.' (The Dissertation was translated into English, and published at London in 1751. We have quoted from the translation.)

We believe our readers will agree with us in thinking that these statements reflect the greatest credit on the merchants and government of Holland. Nothing, as it appears to us, could be conceived more judicious than the account they give of the causes which principally contributed to render Holland a great commercial commonwealth. The central situation of the country, its command of some of the principal inlets to the Continent, and the necessity under which the inhabitants have been placed, in consequence of the barrenness of the soil and its liability to be overflowed, to exert all their industry and enterprise, are circumstances that seem to be in a great degree peculiar in Holland. But though there can be no doubt that their influence has been very considerable, no one will pretend to say that it is to be compared for a moment with the influence of those free institutions which, fortunately, are not the exclusive attributes of any particular country, but have flourished in Phœnicia, Greece, England, and America, as well as in Holland.

Many dissertations have been written to account for the decline of the commerce of Holland. But, if we mistake not, its leading causes may be classed under two prominent heads: viz. first, the natural growth of commerce and navigation in other countries; and, second, the weight of taxation at home. During the period when the republic rose to great eminence as a commercial state, England, France, and Spain, distracted by civil and religious dissensions, or engrossed wholly by schemes of foreign conquest, were unable to apply their energies to the cultivation of commerce, or to withstand the competition of so industrious a people as the Dutch. They, therefore, were under the necessity of allowing the greater part of their foreign, and even of their coasting trade, to be carried on in Dutch bottoms, and under the superintendency of Dutch factors. But after the accession of Louis XIV. and the ascendancy of Cromwell had put an end to internal commotions in France and England, the energies of these two great nations began to be directed to pursuits of which the Dutch had hitherto enjoyed almost a monopoly. It was not to be supposed that when tranquillity and a regular system of government had been established in France and England, their active and enterprising inhabitants would submit to see one of their most valuable branches of industry in the hands of the foreigners. The Dutch ceased to be the carriers of Europe, without any fault of their own. Their performance of that function necessarily terminated as soon as other nations became possessed of a mercantile marine, and were able to do for themselves what had previously been done for them by their neighbours.

Whatever, therefore, might have been the condition of Holland in other respects, the natural advance of rival nations must inevitably have stripped her of a large portion of the commerce she once possessed. But the progress of decline seems to have been considerably accelerated, or, rather, perhaps, the efforts to arrest it were rendered ineffectual, by the extremely heavy taxation to which she was subjected, occasioned by the unavoidable expenses incurred in the revolutionary struggle with Spain, and the subsequent wars with France

and England. The necessities of the state led to the imposition of taxes on corn, on flour when it was ground at the mill, and on bread when it came from the oven; on butter, and fish, and fruit; on income and legacies; the sale of houses; and, in short, almost every article of either necessity or convenience. Sir William Temple mentions that in his time—and taxes were greatly increased afterwards—one fish sauce was in common use, which directly paid no fewer than *thirty* different duties of excise; and it was a common saying at Amsterdam, that every dish of fish brought to table was paid for *once* to the fisherman, and *six* times to the state.

The pernicious influence of this heavy taxation has been ably set forth by the author of the *Richesse de la Hollande*, and other well-informed writers; and it has also been very forcibly pointed out in the Dissertation already referred to, drawn up from the communications of the Dutch merchants. 'Oppressive taxes,' it is there stated, 'must be placed at the head of all the causes that have co-operated to the prejudice and discouragement of trade; and it may be justly said, that it can only be attributed to them that the trade of this country has been diverted out of its channel and transferred to our neighbours, and must daily be still more and more alienated and shut out from us, unless the progress thereof be stopped by some quick and effectual remedy: nor is it difficult to see, from these contemplations on the state of our trade, that the same will be effected by no other means than a *diminution of all duties*.'

'In former times this was reckoned the only trading state in Europe; and foreigners were content to pay the taxes, as well on the goods they brought hither, as on those they came here to buy; without examining whether they could evade or save them, by fetching the goods from the places where they were produced, and carrying others to the places where they were consumed: in short, they paid us our taxes with pleasure, without any further enquiry.'

'But, since the last century, the system of trade is altered all over Europe: foreign nations, seeing the wonderful effect of our trade, and to what an eminence we had risen only by means thereof, they did likewise apply themselves to it; and, to save our duties, sent their superfluous products beside our country, to the places where they are most consumed; and in return for the same, furnished themselves from the first hands with what they wanted.'

But, notwithstanding this authoritative exposition of the pernicious effects resulting from the excess of taxation, the necessary expenses of the state were so great as to render it impossible to make any sufficient reductions. And, with the exception of the transit trade carried on through the Rhine and Meuse, which is in a great measure independent of foreign competition, and the American trade, most of the other branches of the foreign trade of Holland, though still very considerable, continue in a comparatively depressed state.

In consequence principally of the oppressiveness of taxation, but partly, too, of the excessive accumulation of capital that had taken place, while the Dutch engrossed the carrying trade of Europe, profits in Holland were reduced towards the middle of the seventeenth century, and have ever since continued extremely low. This circumstance would of itself have sapped the foundations of her commercial greatness. Her capitalists, who could hardly expect to clear more than 2 or 3 per cent. of net profit by any sort of undertaking carried on

at home, were tempted to vest their capital in other countries, and to speculate in loans to foreign governments. There are the best reasons for thinking that the Dutch were, until very lately, the largest creditors of any nation in Europe. It is impossible, indeed, to form any accurate estimate of what the sums owing them by foreigners previously to the late French war, or at present, may amount to; but there can be no doubt that at the former period the amount was immense, and that it is still very considerable. M. Demeunier (*Dictionnaire de l'Economie Politique*, tom. iii. p. 720) states the amount of capital lent by the Dutch to foreign governments, exclusive of the large sums lent to France during the American war, at seventy-three millions sterling. According to the author of the *Richesse de la Hollande* (ii. p. 292), the sums lent to France and England only, previously to 1778, amounted to 1,500,000 livres tournois, or 60,000,000*l.* sterling. And besides these, vast sums were lent to private individuals in foreign countries, both regularly as loans at interest, and in the shape of goods advanced at long credits. So great was the difficulty of finding an advantageous investment for money in Holland, that Sir William Temple mentions, that the payment of any part of the national debt was looked upon by the creditors as an evil of the first magnitude. 'They receive it,' says he, 'with tears, not knowing how to dispose of it with interest with such safety and ease.'

Among the subordinate causes which contributed to the decline of Dutch commerce, or which have, at all events, prevented its growth, we may reckon the circumstance of the commerce with India having been subjected to the trammels of monopoly. De Witt expresses his firm conviction, that the abolition of the East India Company would have added very greatly to the trade with the East; and no doubt can now remain in the mind of anyone, that such would have been the case. (For proofs of this, see the article on the commerce of Holland in the *Edinburgh Review*, No. CII., from which most of these statements have been taken.) The interference of the administration in regulating the mode in which some of the most important branches of industry should be carried on, seems also to have been exceedingly injurious. Every proceeding with respect to the herring fishery, for example, was regulated by the orders of government, carried into effect under the inspection of officers appointed for that purpose. Some of these regulations were exceedingly vexatious. The period when the fishery might begin was fixed at five minutes past twelve o'clock of the night of June 21! and the master and pilot of every vessel leaving Holland for the fishery were obliged to make oath that they would respect the regulation. The species of salt to be made use of in curing different sorts of herrings was also fixed by law; and there were endless regulations with respect to the size of the barrels, the number and thickness of the staves of which they were to be made; the gutting and packing of the herrings; the branding of the barrels, &c. &c. (*Histoire des Pêches &c. dans les Mers du Nord*, tom. i. ch. xxiv.) These regulations were intended to secure to the Hollanders that superiority which they had early attained in the fishery, and to prevent the reputation of their herrings from being injured by the bad faith of individuals. But their real effect was precisely the reverse of this. By tying up the fishers to a system of routine, they prevented them from making any improvements; while the facility of counterfeiting the public marks opened a much wider door to fraud than would have been opened

had government wisely declined interfering in the matter.

In despite, however, of the East India monopoly, and the regulations now described, the commercial policy of Holland has been more liberal than that of any other nation. And in consequence, a country not more extensive than Wales, and naturally not more fertile, conquered, indeed, in great measure from the sea, from the irruptions of which it is defended by immense dykes, constructed and kept up at a vast expense, had accumulated a population of upwards of two millions; has maintained wars of unexampled duration with the most powerful monarchies; and besides laying out immense sums in works of utility and ornament at home, has been enabled to lend hundreds of millions to foreigners. To those who consider what intelligence, industry, and perseverance have done for Holland, the ingenious epigram of Piteairn will not appear extravagant—

Tellurem fecere Dii, sua littora Beldas,  
Immensaque fuit molis uterque labor.  
Dii v'cano spem, glomerant æthere terras,  
Nil ubi quod capitis possit obesse fuit.  
At Beldas maria, et credis, natusque terram  
Obstitit; obstantes hi domere Deos.

(*Selecta Poemata Piteairni*, Edinburgi, 1727, p. 2. Though he has not copied Piteairn, no doubt, but in his recollection the famous epigram of Sannazarus on Venice: see the article on that city.)

During the occupation of Holland by the French, first as a dependent state, and subsequently as an integral part of the French empire, her foreign trade was almost entirely destroyed. Her colonies were successively conquered by England; and, in addition to the loss of her trade, she was burdened with fresh taxes. But such was the vast accumulated wealth of the Dutch, their prudence, and energy, that the influence of these adverse circumstances was far less injurious than could have been imagined; and, notwithstanding all the losses she had sustained, and the long interruption of her commercial pursuits, Holland continued, at her emancipation from the yoke of the French in 1814, to be the richest country in Europe! Java, the Moluccas, and most of her other colonies were then restored, and she is now in the enjoyment of a large foreign trade. Her connection with Belgium was an unfortunate one for both countries. The union was not agreeable to either party, and was injurious to Holland. Belgium was an agricultural and manufacturing country; and was inclined, in imitation of the French, to lay restrictions on the importation of most sorts of raw and manufactured produce. A policy of this sort was directly opposed to the interests and the ancient practice of the Dutch. But though their deputies prevented the restrictive system from being carried to an extent that materially affected the trade of Holland. Whatever, therefore, may be the consequences as to Belgium, there can be little doubt that the separation of the two divisions of the kingdom of the Netherlands will redound to the advantage of Holland. It must ever be for the interest of England, America, and all trading nations, to maintain the independence of a state by whose means their productions find a ready access to the great continental markets. It is to be hoped that the Dutch, profiting by past experience, will adopt such a liberal and conciliatory system towards the natives of Java, as may enable them to avail themselves to the full of the various resources of that noble island. And if

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## ANCHORAGE

they do this, and freely open their ports, with as few restrictions as possible, to the ships and commodities of all countries, Holland may still be the centre of a very extensive commerce, and may continue to preserve a respectable place among the mercantile nations. Even at this moment, after all the vicissitudes they have undergone, the Dutch are, beyond all question, the most opulent and industrious of European nations. And their present, no less than their former state, shows that a free system of government, security, and the absence of restrictions on industry, can overcome almost every obstacle; can convert the barren rock with verdure, and make the desert smile with flowers.

**ANCHORAGE or ANCHORING GROUND.** Good anchoring ground should neither be too hard nor too soft; for, in the first case, the anchor is apt not to take a sufficient hold, and in the other to drag. The best bottom is a stiff clay, and next to it a firm sand. In a rocky bottom the flukes of the anchor are sometimes torn away, and hepen cable are liable to chafe, and be cut through. It is also essential to a good anchorage that the water be neither too deep nor too shallow. When too deep, the pull of the cable, being nearly perpendicular, is apt to jerk the anchor out of the ground; and when too shallow, the ship is exposed to the danger, when riding in a storm, of striking the bottom. Where a ship is in water that is land-locked, and out of the tide, the nature of the ground is of comparatively little importance.

In most harbours and roadsteads the places where ships may anchor are pointed out, and all masters are bound, except when compelled by stress of weather to act otherwise, to obey the directions that may be given them in respect to anchoring by the harbour-master or other parties in authority. In some roadsteads peculiar localities is appropriated for the use of Her Majesty's ships, and merchant ships are generally prohibited, under considerable penalties, from anchoring in such locality.

Anchorage also means a duty laid on ships for the use of the port or harbour.

**ANCHORS and CABLES** (Fr. ancre; Lat. anchora; Gr. ἀγκυρα; Ger. anker; Span. ancla-ancora; Port. ancora; Ita. ancori.) Are used in mooring ships. The common anchor consists of a *main piece* or *shank* crossed at the lower end by the *arms*, and at the upper end by the *stock* and the *arms* are placed at right angles to each other, and a *ring* is *shot* or riveted to the end of the stock. To this ring the cable is attached. This instrument is of great antiquity. The old Admiralty anchor differs but little from the anchor described by Pliny. *Swivel* anchors, such as Porter's and Trotman's, are of comparatively recent date.

**Law and practice respecting anchors.**—Every manufacturer of anchors shall, in case of each anchor which he manufactures, mark in legible characters on the crown and also on the shank under the stock his name and initials, with the addition of a progressive number and the weight of such anchor; and if he makes default in doing so he shall for each offence incur a penalty not exceeding 5*l.* (*Merchant Shipping Act, 1845, s. 483.*)

No ship is deemed seaworthy unless she be provided with suitable anchors and cables; and any deficiency in this respect has the same legal effect as if it were in the hull or rigging.

Vessels anchoring in a river or other narrow channel are bound to mark the situation of their

## ANCHORS

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anchors by buoys; for if they do not, and other vessels be injured by coming in contact with them, they will have to make good the damage. (Abbott by Shee, p. 307, ed. 1854.)

When cables are cut or anchors cast away to avoid imminent danger, they become the subjects of general average.

The most important provisions of the Chain Cables and Anchors Act, 1864, 27 & 28 Vict. c. 27, are the following:

Sec. 2. Licenses to be granted by Board of Trade to persons called testers.

Sec. 7. Testers to subject such anchors, &c. to the same trials as those to which similar implements in the navy are put, and stamp them.

Sec. 8. Certain charges for the service.

Sec. 11. From July 1, 1865, anchors, &c. must be tested before sale. Penalty, 50*l.*

Sec. 12. Penalties on fraud not more than 2 years, with or without hard labour, or with or without solitary confinement.

The following are the general conditions to be complied with by owners of proving establishments in order to obtain licenses under the Act.

1. The machine shall be constructed to test not more than 15 fathoms at one time.

2. In hydraulic machines the cylinder shall be sufficiently long to allow of 15 fathoms of chain fresh hold to complete the necessity for taking a fresh hold to complete the strain.

3. The apparatus shall be provided with levers and dead weight sufficient to test the accuracy of the machine and the strain actually applied to the cable. In hydraulic machines these levers and dead weight shall range to 25 per cent. of the full power of the machine, and shall be fitted in addition to the gun metal plunger and pressure gauges ordinarily fitted. In other than hydraulic machines the levers and dead weight shall range to the full power of the machine.

4. In hydraulic machines an indicator shall be fitted to show the strain at which a chain breaks.

5. An examining bench of proper height shall be provided in a light place for the purpose of examining the chains after they are tested, and before they are blacked.

6. The machine shall be so arranged that the workmen employed at and near to it shall be in no danger from the fragments of links that fly about when a cable breaks.

7. Where there is more than one machine in an establishment, the whole of them must be licensed if one of them is.

Although the Board of Trade will not refuse to license any machine simply on account of the proportions of the levers and knife edges named below not being observed, they recommend that in all future machines those proportions should be adopted.

8. The leverage of the lever apparatus to be attached to hydraulic machines (referred to in paragraph 3 above) should not exceed the proportion of 100 to 1.

9. In the lever apparatus to be attached to hydraulic machines (referred to in paragraph 3 above) the distance between the two centres of each lever should not be less than 4 inches in machines for testing up to 100 tons, and not less than 8 inches in machines for testing up to 200 tons, and not less than 12 inches in machines for testing up to 300 tons.

10. The length of the knife edges should not be less than at the rate of one inch for every five tons of pressure upon them, and the form of the knife edge should be in conformity with a pattern approved by the Board of Trade.

Scale of Proofs showing the Tensile Strain to which Chain Cables are subjected before being received for the use of her Majesty's Naval Service.

Diameter of Iron of Common Links	Common Links		Stay Pins, Weight of each not to exceed	Weight of 100 Fathoms of Cable in Lengths, including 4 Swivels, and 3 Joining Shackles, not to be exceeded by more than 1.20th part.*	Weight by which to be proved equal to 650 lbs. per circular inch
	Mean Lengths, 6 1/4-in. diameters of Iron of Common Links not to be over more than 1 1/10th of a Diameter	Mean Width 3/8 Diameters of the Iron; not to be over or under more than 1/10th of a Diameter			
inches	inches	ozs.	Cwts.	qrs.	lbs.
2 1/2	16 1/2	9 9	72	3 5/8	0 0 136 1/2
2 1/4	15	3 1/2	54	6 0	0 0 112 1/2
2 1/8	13 1/2	8 5/8	47 5/8	2 7/8	0 0 104 1/2
2 1/8	13 1/2	8 1/2	40	2 1/2	0 0 91 1/2
2 1/8	12 1/2	7 5/8	33 5/8	2 1/8	0 0 81 1/2
2 1/8	11 1/2	7 1/8	29	1 9/8	0 0 72 1/2
2 1/8	11 1/2	6 7/8	23	1 6 5/8	0 0 63 1/2
2 1/8	10 1/2	6 5/8	18 7/8	1 7/8	0 0 55 1/2
2 1/8	9 1/2	5 8 5/8	15	1 2 5/8	0 0 47 1/2
2 1/8	9 1/2	5 4	11 5/8	1 0 8	0 0 40 1/2
2 1/8	8 1/2	4 9 5/8	9	9 3	0 0 34 1/2
2 1/8	7 1/2	4 5	6 8 3/8	7 5/8	0 0 28 1/2
2 1/8	6 1/2	4 0 5/8	4 9 5/8	6 0	0 0 22 1/2
2 1/8	5 1/2	3 5 3/8	3 5	4 8	0 0 18 1/2
2 1/8	4 1/2	3 1 1/2	2 5 1/4	3 6	0 0 13 1/2
2 1/8	4 1/2	2 7	1 4 1/2	2 7	0 0 10 1/2
2 1/8	4 1/2	2 4 1/2	1 1 1/2	2 2	0 0 8 1/2
2 1/8	3 1/2	2 2 1/2	8 5/8	1 8	0 0 7 1/2
2 1/8	3 1/2	2 0 1/2	7 1/2	1 6	0 0 6 1/2
2 1/8	3 1/2	1 8	6 1/2	1 4 1/2	0 0 5 1/2
2 1/8	2 1/2	1 5 1/2	4 7 1/2	1 0	0 0 4 1/2
2 1/8	2 1/2	1 5 1/2	2 9 1/2	9 0	0 0 3 1/2

\* The tensile strain is applied to each of the 8 lengths separately, and not to the whole length of 100 fathoms at one time.

The law as to wrecked or cast-away anchors and cables, &c., is stated in the articles SALVAGE and WRECK, to which we beg to refer.

Lloyd's Table showing the Minimum Weights (ex. Stock) of Anchors of unobjectionable form and proportions; Sizes and Lengths of Chain Cables; and the Proof Strain to which they are to be tested; and Sizes and Lengths of Husers and Warps.

Ship's Tonnage	Anchors						Stud Chain Cables †			Husers and Warps			
	Number		Weight				Minimum Size	Proved to Admiralty Test	Length	Stream			
	Bowers	Stream	Ex. Stock	Admiralty Test	Stream	Kedge				Chain	Hoop	Huser	Warp
			cwts.	tons	cwts.	cwts.	inches	tons	fathoms	inches	inches	inches	
50	2	1	2 1/2	4 7/4	1 1/2	1 1/2	11-16	120	120	7-16	5	5	—
75	2	1	3 1/2	5 2 1/4	1 1/2	1 1/2	12-16	120	120	7-16	5	5	—
100	2	1	4 1/2	6 4-10	1 1/2	1 1/2	13-16	119-120	120	8-16	5 1/2	5 1/2	—
125	2	1	5 1/2	7 6-10	1 1/2	1 1/2	14-16	118	120	8-16	5 3/4	5 3/4	—
150	2	1	6 1/2	8 2-10	1 1/2	1 1/2	15-16	116	120	9-16	6	6	—
175	2	1	7 1/2	9 5-10	1 1/2	1 1/2	16-16	114	120	10-16	6 1/2	6 1/2	—
200	3	1	8 1/2	10 4-10	1 1/2	1 1/2	1 17-16	112	120	10-16	6 3/4	6 3/4	—
250	3	1	10 1/2	12 10-10	1 1/2	1 1/2	1 18-16	110	120	10-16	7	7	—
300	3	1	12 1/2	15 9-10	1 1/2	1 1/2	1 19-16	108	120	11-16	7 1/2	7 1/2	—
350	3	1	14 1/2	18 8-10	1 1/2	1 1/2	1 20-16	106	120	11-16	7 3/4	7 3/4	—
400	3	1	16 1/2	21 7-10	1 1/2	1 1/2	1 21-16	104	120	12-16	8	8	—
450	3	1	18 1/2	24 6-10	1 1/2	1 1/2	1 22-16	102	120	12-16	8 1/2	8 1/2	—
500	3	1	20 1/2	27 5-10	1 1/2	1 1/2	1 23-16	100	120	13-16	8 3/4	8 3/4	—
550	3	1	22 1/2	30 4-10	1 1/2	1 1/2	1 24-16	98	120	13-16	9	9	—
600	3	1	24 1/2	33 3-10	1 1/2	1 1/2	1 25-16	96	120	14-16	9 1/2	9 1/2	—
650	3	1	26 1/2	36 2-10	1 1/2	1 1/2	1 26-16	94	120	14-16	10	10	—
700	3	1	28 1/2	39 1-10	1 1/2	1 1/2	1 27-16	92	120	15-16	10 1/2	10 1/2	—
750	3	1	30 1/2	42 1-10	1 1/2	1 1/2	1 28-16	90	120	15-16	10 3/4	10 3/4	—
800	3	1	32 1/2	45 1-10	1 1/2	1 1/2	1 29-16	88	120	16-16	11	11	—
850	3	1	34 1/2	48 1-10	1 1/2	1 1/2	1 30-16	86	120	16-16	11 1/2	11 1/2	—
900	3	1	36 1/2	51 1-10	1 1/2	1 1/2	1 31-16	84	120	17-16	11 3/4	11 3/4	—
950	3	1	38 1/2	54 1-10	1 1/2	1 1/2	1 32-16	82	120	17-16	12	12	—
1,000	3	1	40 1/2	57 1-10	1 1/2	1 1/2	1 33-16	80	120	18-16	12 1/2	12 1/2	—
1,000	4	1	42 1/2	60 1-10	1 1/2	1 1/2	1 34-16	78	120	18-16	12 3/4	12 3/4	—
1,500	4	1	45 1/2	63 1-10	1 1/2	1 1/2	1 35-16	76	120	19-16	13	13	—
2,000	4	1	48 1/2	66 1-10	1 1/2	1 1/2	1 36-16	74	120	19-16	13 1/2	13 1/2	—
2,500	4	1	51 1/2	69 1-10	1 1/2	1 1/2	1 37-16	72	120	20-16	14	14	—
3,000	4	1	54 1/2	72 1-10	1 1/2	1 1/2	1 38-16	70	120	20-16	14 1/2	14 1/2	—

Men. — For steamers the anchors and cables will not be required to exceed in weight and length those of a sailing vessel of two-thirds their total tonnage.

\* Two of the bower anchors must not be less than the weight set forth above, but in the third a reduction of 15 per cent. will be allowed. All anchor stocks must be of acknowledged and approved description.

† Unstudded close-link chains of 1 inch in diameter and under, will be admitted as cables, if proved to two-thirds the test required for stud chains. But in all such cases a short length, not less than twelve links, must be tested up to the full strain for stud-link chains.

‡ In cases where parties are desirous of using or supplying chains of smaller size than is set forth above, a reduction will be allowed, not exceeding 1-fifth of an inch in chains of 1 inch to 1 1/2 inch diameter, and 1/8th of an inch in chains above 1 1/2 inch diameter, provided they are subjected to the Admiralty strain for the size for which they are to be substituted; and, further, that a few links, not less than twelve, to be selected by the tester, shall be proved to the breaking strain, and show a margin of at least 10 per cent. beyond the Admiralty proof for a chain of the full size required by the table.

Scale of Proofs showing the Tensile Strain to which Anchors are subjected before being received for the use of her Majesty's Naval Service. Test of Anchors in Tons, proportioned to their Weight in Cwts.

Weight	Test										
	cwt.	tons									
100	6 1/2	7 1/2	80	5 1/2	6 1/2	60	4 1/2	5 1/2	40	3 1/2	4 1/2
90	6 1/4	7 1/4	75	5 1/4	6 1/4	55	4 1/4	5 1/4	35	3 1/4	4 1/4
98	6 6 1/2	7 6 1/2	78	5 5 1/2	6 5 1/2	58	4 5 1/2	5 5 1/2	38	3 5 1/2	4 5 1/2
97	6 6 1/4	7 6 1/4	77	5 5 1/4	6 5 1/4	57	4 5 1/4	5 5 1/4	37	3 5 1/4	4 5 1/4
96	6 5 3/4	7 5 3/4	76	5 5 3/4	6 5 3/4	56	4 5 3/4	5 5 3/4	36	3 5 3/4	4 5 3/4
95	6 5 1/2	7 5 1/2	75	5 5 1/2	6 5 1/2	55	4 5 1/2	5 5 1/2	35	3 5 1/2	4 5 1/2
94	6 5	7 5	74	5 5	6 5	54	4 5	5 5	34	3 5	4 5
93	6 4 3/4	7 4 3/4	73	5 4 3/4	6 4 3/4	53	4 4 3/4	5 4 3/4	33	3 4 3/4	4 4 3/4
92	6 4 1/2	7 4 1/2	72	5 4 1/2	6 4 1/2	52	4 4 1/2	5 4 1/2	32	3 4 1/2	4 4 1/2
91	6 4	7 4	71	5 4	6 4	51	4 4	5 4	31	3 4	4 4
90	6 3 3/4	7 3 3/4	70	5 3 3/4	6 3 3/4	50	4 3 3/4	5 3 3/4	30	3 3 3/4	4 3 3/4
89	6 3 1/2	7 3 1/2	69	5 3 1/2	6 3 1/2	49	4 3 1/2	5 3 1/2	29	3 3 1/2	4 3 1/2
88	6 3	7 3	68	5 3	6 3	48	4 3	5 3	28	3 3	4 3
87	6 2 3/4	7 2 3/4	67	5 2 3/4	6 2 3/4	47	4 2 3/4	5 2 3/4	27	3 2 3/4	4 2 3/4
86	6 2 1/2	7 2 1/2	66	5 2 1/2	6 2 1/2	46	4 2 1/2	5 2 1/2	26	3 2 1/2	4 2 1/2
85	6 2	7 2	65	5 2	6 2	45	4 2	5 2	25	3 2	4 2
84	6 1 3/4	7 1 3/4	64	5 1 3/4	6 1 3/4	44	4 1 3/4	5 1 3/4	24	3 1 3/4	4 1 3/4
83	6 1 1/2	7 1 1/2	63	5 1 1/2	6 1 1/2	43	4 1 1/2	5 1 1/2	23	3 1 1/2	4 1 1/2
82	6 1	7 1	62	5 1	6 1	42	4 1	5 1	22	3 1	4 1
81	6 3/4	7 3/4	61	5 3/4	6 3/4	41	4 3/4	5 3/4	21	3 3/4	4 3/4

Note.—The strain is applied on the arm or on the palm at a spot which, measured from the extremity of the bill, is one-third of the distance between it and the centre of the crown.

It is worthy of remark that chain cables and anchors do not appear under the head of exports, and are consequently almost lost sight of as an article of manufacture exported in great quantities from this country. The anchor and cable manufacture represents a most important branch of British trade.

Table

Length - Size of T. Sm	Length - Size of Hole from Diameter of	Length - Size of Throat Small Blades, size a	Length - Breadth Thickness close At t	Diameter of Iron Out
20	20 1/2	16	8	1 1/2
18	18 1/2	14	7	1 1/4
16	16 1/2	12	6	1 1/4
14	14 1/2	10	5	1 1/4
12	12 1/2	8	4	1 1/4
10	10 1/2	6	3	1 1/4
8	8 1/2	4	2	1 1/4
6	6 1/2	3	1 1/2	1 1/4
4	4 1/2	2	1	1 1/4
3	3 1/2	1 1/2	3/4	1 1/4
2	2 1/2	1	1/2	1 1/4

ANCHOR (Anchovis), common sprat, Tuscan Sea and the chosen sardine within. The sardine, a fish anchovy, is frequently 120,000 lbs. weight. But being then repeated in 783,419 lbs. in ANGELICA (large umbelliferous stalks, of which grows wild, and in London, and in Lapland to Spain and resinous, have a bitterish and a pleasant sweetness late for a long time dried, and kept in other parts of the flavour as the root. The leaves and seed when kept. The sweetest of the to direct that none should be kept by the roots are some times the stalks are eaten is used only in com medica. (Lewis's M &c.)

A duty of 4s. per cwt. in 1845.

In Commerce, the sylvestris is sometimes varied variety, which odour.

ANILINE, former derivative from coal preparation of mauve a colourless oil-like liquid aromatic flavour. aniline in 1865 was, Dictionary of Chemical Manufactures.)

ANISEED (Fr. anis; A small seed of an oblong in Germany, but the

## ANCHOVY

Table showing the correct proportions and dimensions of an Admiralty Anchor.

		Fr.	In.
<i>Shank.</i>			
Length	9	9 1/2	
Size of Throat	1	1 1/8	
Tread	8	3 3/8 x 7 7/16	
Small	7	11-16 x 6 13-16	
		6 1/2 x 5 1/2	
<i>Square.</i>			
Length	2	2 1/8	
Size of the nuts	2	6 1/16 x 5 1-8	
Hole from the end	5	3-8	
Diameter of hole			
<i>Arms.</i>			
Length	3	7 1/2	
Size of Throat	8	3-8 x 7 7-16	
Small		6 3/4 x 5 1/2	
Blades, size at Head of the palm		5 x 3 1/2	
Point of the palm		2 7-16 x 3 3-16	
Length of the point		3 7-8	
<i>Palms.</i>			
Length	1	7	
Breadth	1	5 1/2	
Thickness close to the blade		1 1/2	
At the edge		1 3-16	
<i>Shackle.</i>			
Diameter of Iron	1	3 3-16	
Out to out		6 1/2	

**ANCHOVY** (Fr. *anehois*; Ital. *acciughe*; Lat. *encrascolus*). A small fish (*Clupea encrascolus*, Lin.), common in the Mediterranean, resembling the sprat. Those brought from Gorgona in the Tuscan Sea are esteemed the best. They should be chosen small, fresh pickled, white outside and red within. Their backs should be round. The sardine, a fish which is flatter and larger than the anchovy, is frequently substituted for it. About 120,000 lbs. were entered for consumption in 1852. But being then subject to a duty of 2s. 10d. per lb., repealed in 1863, the imports have increased to 783,419 lbs. in 1865.

**ANGELICA** (Lat. *Archangelica officinalis*). A large umbelliferous plant, with hollow jointed stalks, of which there are several varieties. It grows wild, and is cultivated in moist places near London, and in most European countries from Lapland to Spain. Its roots are thick, fleshy, and resinous, have a fragrant agreeable smell, and a bitterish pungent taste, mixed with a pleasant sweetness glowing on the lips and palate for a long time after they have been chewed. To preserve them they must be thoroughly dried, and kept in closely stopped bottles. The other parts of the plant have the same taste and flavour as the roots, but in an inferior degree. The leaves and seeds do not retain their virtue when kept. The London confectioners make a sweetmeat of the tender stems. The faculty used to direct that none but the root of Spanish angelica roots are sometimes used as bread, and in Iceland the stalks are eaten with butter. Here the plant is used only in confectionary and the materia medica. (Lewis's *Mat. Med.*; Rees's *Cyclopaedia*, &c.)

A duty of 4s. per cwt. on angelica was repealed in 1845.

In Commerce, the wild angelica (*Angelica sylvestris*) is sometimes substituted for the cultivated variety, which has much more taste and odour.

**ANILINE**, formerly called Crystalline. A derivative from coal tar, largely used in the preparation of mauve and magenta dyes. It is a colourless oil-like liquid, of a strong odour and a hot aromatic flavour. The value of the exports of aniline in 1865 was, however, but 1,914l. (Watt's *Dictionary of Chemistry*; Ure's *Dictionary of Manufactures*.)

**ANISEED** (Fr. *anis*; Ital. *anise*; Lat. *anisum*). A small seed of an oblong shape. It is cultivated in Germany, but the best comes from Alicant in

## ANNATTO

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Spain. It is also a product of China, whence it is exported. It should be chosen fresh, large, plump, newly dried, of a good smell, and a sweetish aromatic taste.

A duty of 5s. per cwt. on aniseed was repealed in 1845. In 1865, 2,257 cwts. were imported, the exports during the same year being 1,503 cwts.

**ANISEED STARS** (Fr. *badiane*; Chinese syn. *tú hurie* and *páh-kioh*, i.e. *eight horns*; the broken is known as *páh-kioh-chá*). This name is given to the fruit of a small evergreen tree, *Illicium anisatum*, which grows in Fukkien and the neighbouring provinces, in Japan and the Philippines. They are prized for their aromatic taste resembling anise. The name of *star* is applied to them on account of the manner in which they grow, the pods being in small clusters formed together at one end and diverging in six or seven rays. The husks have a more aromatic flavour than the seeds, but are not so sweet. Those which are bruised or mouldy should be rejected. They are chiefly exported to England and the continent of Europe. The average value in China is 15 dollars per picul.

*Oil of Aniseed* (Chinese, *páh-kioh-yú*).—This is made by distilling the pods and seeds. A picul of the raw material produces about 7 catties of oil. It is put up in tin cases inclosed in wood, and exported chiefly to Europe and the United States. The average export is about 250 piculs annually, and the value 150 dollars per picul. It is used in perfumery, medicine, and confectionary. (Extracted from 6th edit. of Dr. Williams's *Chinese Guide*.)

**ANKER**. A liquid measure at Amsterdam. It contains about 10 1/2 gallons English wine measure.

**ANNATTO** or **ARNATTO** (Fr. *rocou*; Ger. *orlean*; Ital. *oriana*). A species of red dye formed of the pulp enveloping the seeds of the *Bixa orellana*, and West Indies; but dye is made, at least to any extent, only in the first.

It is prepared by macerating the pods in boiling water, extracting the seeds, and leaving the pulp to subside; the fluid being subsequently drawn off, the residuum, with which oil is sometimes mixed up, is placed in shallow vessels and gradually dried in the shade. It is of two sorts, viz. *flag* or *cake*, and *roll annatto*. The first, which is by far the most important article in a commercial point of view, is furnished almost wholly by Cayenne. It is imported in square cakes, weighing 2 lbs. or 3 lbs. each, wrapped in banana leaves. When well made, it should be of a bright yellow colour, soft to the touch, and of a good consistence. It imparts a deep but not durable orange colour to silk and cotton, and is used for that purpose by the dyers. Roll annatto is principally brought from Brazil. The rolls are small, not exceeding 2 oz. or 3 oz. in weight; it is hard, dry, and compact, brownish on the outside, and of a beautiful red colour within. The latter is the best of all ingredients for the colouring of cheese and butter; and is now exclusively used for that purpose in all the British and in some of the continental dairies. In Gloucestershire it is the practice to allow 1 oz. of annatto reckoned sufficient for a cheese of 60 lbs. are genuine, it neither affects the taste nor the smell of cheese or butter. The Spanish Americans mix annatto with their chocolate, to which it gives a beautiful tint. (Gray's *Supplement to the Pharmacopoeias*; London's *Ency. of Agriculture*, and *Private Information*.)

Previously to 1832 the duty on flag annatto was 18s. 8d. a cwt., and on other sorts 5l. 12s. The duty was then reduced to 1s. a cwt. on the former

and to 4s. on the latter, and was finally repealed in 1815.

In 1865, 3,647 cwts. were imported chiefly in the form of flag annatto. Of this the greater part came from France. The average value of roll was 4*l.* 5*s.*, of flag 8*l.* 3*s.* per cwt.; 722 cwts. were exported.

**ANNUITIES.** [INTEREST AND ANNUITIES.]  
**ANTIGUA.** [COLONY TRADE; ST. JOHN'S; SUGAR.]

**ANTIMONY** (Ger. and Dutch spiesglas; Fr. antimoine; Ital. antimonio; Russ. antimonia; Lat. antimonium). A metal which, when pure, is of a greyish white colour, and has a good deal of brilliancy, showing a radiated fracture when broken; it is converted by exposure to heat and air into a white oxide, which sublimes in vapours.

It is found in Saxony and the Hartz, also in Cornwall, Spain, France, Mexico, Siberia, the Eastern Islands, and Martaban in Pegu. We are at present wholly supplied with this metal from Singapore, which receives it from Borneo.

It is also said to exist in considerable quantities in the province of Victoria, and in Tulare county, California. It is found in large quantities in the territory of Sarawak in Borneo, from which about 6,500*l.* worth was exported in 1863.

It is imported in the shape of ore, and commonly as ballast. It is about as hard as gold; its specific gravity is about 6.7; it is easily reduced to a very fine powder; its tenacity is such that a rod of  $\frac{1}{16}$ th of an inch diameter is capable of supporting 10 lbs. weight. Antimony is used in medicine, and in the composition of metal types for printing. The ores of antimony are soft, and vary in colour from light lead to dark lead grey; their specific gravity varies from 4.4 to 6.8; they possess a metallic lustre, are brittle, and occur in the crystallised massive forms. (Thomson's *Chemistry*, and *Private Information*.)

The imports into the United Kingdom of antimony in 1863, were, ore of antimony 1,948 tons, crude 1,171 cwts. and regulus 295 cwts. The value of the whole was about 23,500*l.* Antimony is also found in Tuscany at Pereta in the Maremme and also at Castagneto Meccano in the Volterrano. The mines at Pereta yielded in 1845 according to Pilla 48½ tons. A small amount (about 800 quintals) is annually produced in Spain. The production of the French antimony mines amounted in 1858 to 6,729 quintals, the total value of which was 144,759 francs. The mines from which these supplies were principally drawn were those of Corsica (3,750 quintals) and the Department of Cantal (2,000 quintals).

**ANTOL.** A Hungarian wine-measure containing about 116 imp. gallons.

**ANTWERP.** The principal seaport of Belgium, lat. 51° 13' 16" N., long. 4° 24' 10" E. A large, well-built, and strongly fortified city, on the Scheldt. Pop. in 1861, 114,669.

Previously to its capture by the Spaniards, under Farnese, in 1585, Antwerp was one of the greatest commercial cities of Europe; but it suffered much by that event. In 1648, at the treaty of Westphalia, it was stipulated by Spain and Holland that the navigation of the Scheldt should be shut up; a stipulation which was observed till the occupation of Belgium by the French, when it was abolished. In 1803, Napoleon I., who intended to make Antwerp a great naval establishment, undertook the construction of docks on a grand scale, for the accommodation of ships of war; and of 10 years new and convenient docks and warehouses have been opened for the use of the steamers and other vessels connected with the trade of the port. Down to 1863 the port charges

of Antwerp were extremely high. This was in consequence of the Belgians having charged themselves with a payment to indemnify the Dutch for consenting to abolish the duties they had been in the habit of levying on the vessels and goods ascending the Scheldt. To reimburse themselves, the Belgians imposed heavy tonnage, pilotage, and other duties on vessels entering Antwerp (which has more than three-fourths of the entire shipping trade of the country), Ostend, and other ports, and these, of course, were much objected to by the foreigners on whom they fell. At length, after a great deal of negotiation, the precedent set in the case of the Sound Duties was followed; the different powers agreeing to pay the Belgian Government certain sums proportioned to the extent of their trade with this city, &c., stipulating per contra that the tonnage duty should be abolished, and the charges for pilotage reduced at from 25 to 30 per cent. (Treaty of July 16, 1863, Art. 3). And though the trade of Antwerp has more recently been accidentally depressed, there can be no doubt that this effectual reduction of the charges on vessels entering her port will powerfully contribute to its advancement. Our contribution to the purchase, which was much the largest, amounted to 8,782,320 fr. Ships of the largest burden come up to the town, and goods destined for the interior are forwarded with the greatest facility by means of canals and railways.

From the principal part of the commerce of Belgium carried on by sea centring in Antwerp, it has again become a place of much commercial importance. The great articles of export are corn, especially wheat; flax, butter, cattle, sheep, and pigs; cast and wrought iron; muskets, fowling-pieces, and small arms, vast quantities of which are produced at Liège; woollen fabrics; linen ditto; clover and other seeds; coal, spelter, books, &c.

The great articles of import are raw cotton, sugar, coffee, and other colonial products; indigo and all sorts of dyewoods; spices, wine, machinery, rice, ashes, fish, oils, &c.

Goods may be warehoused in Antwerp, *en entrepôt*, at the rates of charge specified in a fixed tariff.

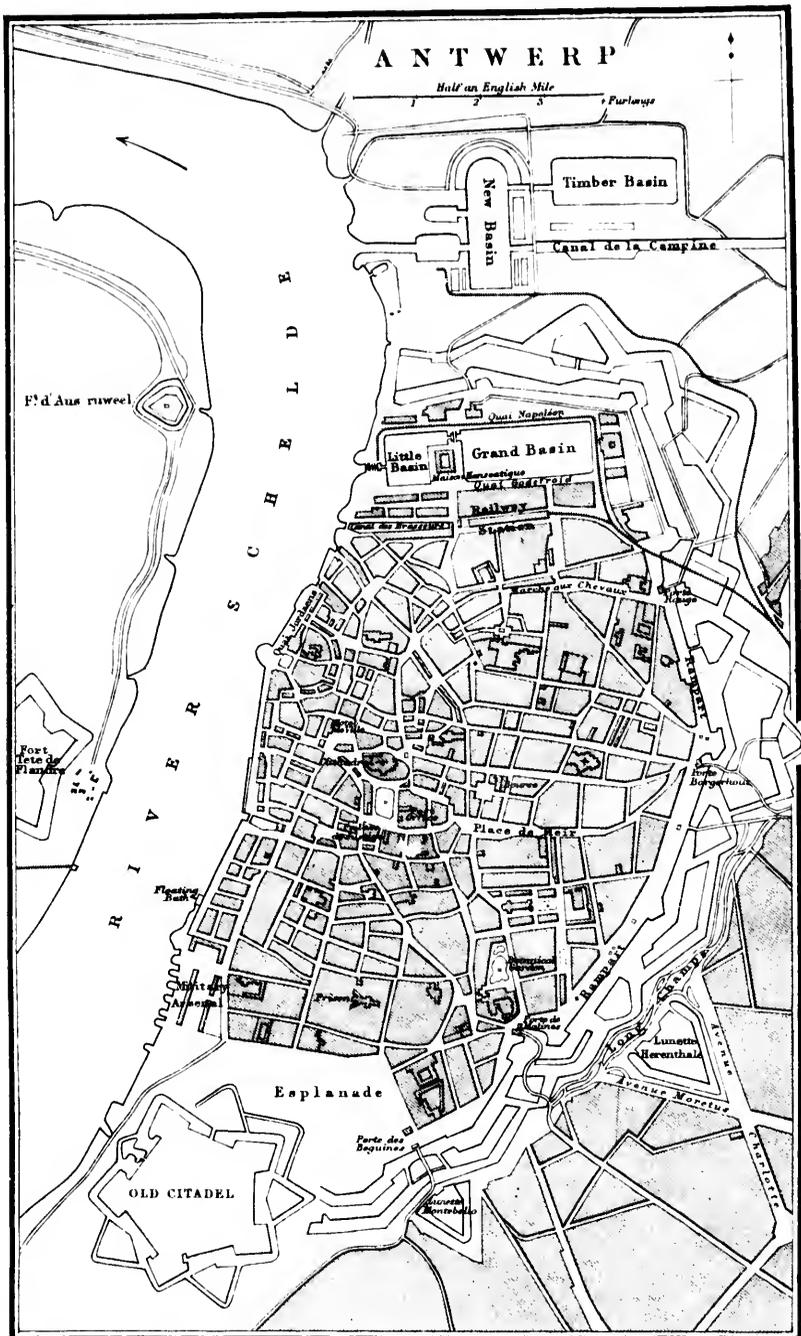
In 1864 the values of the imports into Belgium amounted to 688,878,101 francs, and those of the exports to 596,892,863 francs. The trade with England is the most extensive carried on with Belgium by sea, and next to it that with the Baltic, the United States, France, Holland, &c. The trade of France with Belgium generally is, however, much greater than that of any other country. But it is principally carried on by land, across the frontier between the two countries. A considerable proportion of the imports into Antwerp not being intended for home consumption, but for transit to other countries, their amount is commonly a good deal better than that of the exports.

The value of our imports from Belgium amounted in 1866 to 7,906,867*l.*, and of the exports of British productions to 2,861,065*l.* In the same year we exported to Belgium 3,920,908*l.* value of foreign and colonial merchandise.

*Conditions under which Goods are sold.*—On goods generally 2 per cent. is allowed for payment in twenty days, and 1½ per cent. on credit of six weeks or two months. On cottons at twenty days' credit, 3 per cent. are allowed, and 1½ per cent. on a credit of two or three months. Of ashes, hides, and sugar, 3 per cent. for twenty days, and 1½ per cent. for three months' credit.

On May 1, 1861, a Treaty of Commerce an





Navigation Belgium, reduced tariff the advantage conceded to Belgium of the same year the two countries in either of them before the (Belgium).] Money, W. a system of money been adopted were kept in the quintal former referred to, = 10 Commercial Bank founded in Antwerp fr. (1,000,000), of 1,000 fr. each business. Here insurance companies to Brussels, 284 successful, and both cities, but Custom-house arriving at Antwerp must make, with writing of the goods specifying the parcels, &c., their price at the time the name of the ship the captain, and belongs, &c.

The following charges at Antwerp tons, under the new

To pilotage from sea to  
 To ditto from Flushing  
 To ditto from Antwerp  
 To ditto from Flushing  
 To the pilot for night  
 Pilots for moving the vessel  
 Sea Protest and extending  
 Tribunal of Commerce for  
 Surveyor's fees upwards  
 Harbour dues on 200 tons  
 For manifest, provision list  
 After bailli's mustering  
 Brokerage on 200 tons at  
 Light dues at 18 1/2-100 cts  
 Custom-house clearance  
 Bill of Health and visa, ac  
 Consul's fees

Total  
 at florins, 159 per  
 at 25 francs per  
 at francs 5-20 per

In addition to the charges, by regulation using the basins, &c.:

Vessels below 100 (Belgian tons)	100
from 100 to 150	150
151 to 200	200
201 to 250	250
251 to 300	300
above 300	350

These dues are reduced making more than two

3rd voyage, reduction of 6th voyage, reduction of 6th and succeeding voyages

Steam-vessels lading or at the quays will pay voyages in one year 20 ten voyages 15 centime voyage 10 centimes.

Previously to the abolition the shipping charges were they are now.

E. J. W. H. L.

Navigation was concluded between France and Belgium, securing mutually to each country reduced tariff rates and other concessions. All the advantages thus obtained by France were conceded to Great Britain by our treaty with Belgium of July 23, 1863. On November 13 of the same year a convention was signed between the two countries giving to joint stock companies in either of the two countries the right of appearing before the tribunals of the other. [TREATIES (Belgium).]

**Money, Weights, and Measures.**—The French system of moneys, weights, and measures has been adopted in Belgium. Formerly accounts were kept in florins, worth 1s. 8½d. sterling. The quintal formerly in use, and still sometimes referred to, = 103½ lbs. avoirdupois. In 1837, the Commercial Bank, a joint-stock association, was founded in Antwerp. It has a capital of 25,000,000 fr. (1,000,000l. sterling), divided into 25,000 shares of 1,000 fr. each, and transacts all sorts of banking business. Here, also, are two considerable insurance companies. The railway from Antwerp to Brussels, 28½ miles in length, has been signally successful, and has been of great advantage to both cities, but especially to Antwerp.

**Custom-house Regulations.**—Captains of ships arriving at Antwerp, or any of the Belgian ports, must make, within 24 hours, a declaration in writing of the goods of which their cargo consists, specifying the marks and numbers of the bales, parcels, &c., their value, according to the current price at the time when the declaration is made, the name of the ship or vessel, as well as that of the captain, and of the country to which she belongs, &c.

The following is a pro formâ account of port charges at Antwerp, for a vessel measuring 200 tons, under the new system:—

To pilotage from sea to Flushing on 38 palms	fr. cts.
To ditto from Flushing to Antwerp, 38 ditto	79 55
To ditto from Antwerp to Flushing, 28 ditto	82
To ditto from Flushing to sea, 28 ditto	54
To the pilot for night on board and gratuity	27 09
Fines for moving the vessel in and out the dock	4 2
Sea Protest and extending same at Tribunal of Commerce	25
Tribunal of Commerce for appointing surveyors inwards	15
Surveyor's fees inwards	20
Harbour dues on 200 tons at 80 centimes and 15 per cent.	110
For manifest, provision list, stamps, &c.	11 20
Water bailiff's mustering of the crew and certificates	150
Brokerage on 200 tons at 75 centimes per ton	37 40
Light dues at 18 10-100 centimes per ton	
Custom-house clearance papers, cancelling bonds	
Bill of Health and visa, according to circumstances	
Comal's fees	
<b>Total</b>	<b>690 91</b>
at florins, 189 per francs 400	Florins 292 45
at 25 francs per pound sterling	£ 21 16
at francs 5-20 per American dollar	Dollars 119 75

In addition to the above, the following dues are charged, by regulation of July 22, 1863, to vessels using the basins, &c.:—

Vessels below 100 (Belgian measure)	40 per ton
from 100 to 150	45 "
151 to 200	50 "
201 to 250	55 "
251 to 300	65 "
above 300	70 "

These dues are reduced as follows on vessels making more than two voyages in the year—

- 3rd voyage, reduction of one-fourth
- 4th voyage, reduction of one-half
- 5th and succeeding voyages, reduction of three-quarters

Steam-vessels lading or discharging in harbour or at the quays will pay per ton, for the first ten voyages in one year 22 centimes, for the second ten voyages 15 centimes, and for each following voyage 10 centimes.

Previously to the abolition of the Scheldt duties, the shipping charges were more than double what they are now.

**Entry at Lillo.**—(Lillo, the first Belgian custom-house, opposite Doel.) Here the custom-house officers come on board, and the master has to hand them:—

1. A manifest of the cargo, with the exact number of boxes, bales, casks, cases, packages, &c., with the marks, number and contents as exact as possible.

2. A specification of the provisions, such as salt, beef, pork, bread, flour, groats, peas, fish, butter, wine, brandy, gin, beer, coals, firewood and planks for dunnage, pigs, cauvas, new ropes, iron-ballast, &c. &c., also the number of the crew.

The vessel then proceeds for Antwerp with or without a custom-house officer, as may be prescribed.

The custom-house laws being very severe, every master of a vessel is recommended to be most particular in making this entry; but should a mistake have taken place, or there be goods in dispute, he should inform his broker at Antwerp on his arrival, so as to be enabled immediately to take the needful steps to obtain a rectification.

**Draft of Water.**—On the arrival of a vessel before the town, the pilot-boat goes alongside, to ascertain the draft of water in palms or decimeters; it is therefore advisable for the master or the mate to be present at the hooking, to convince himself of the real draft of water, according to which the sea and river pilotage are settled.

**Vessels remaining in the River.**—These must ride with two anchors or have a pilot on board, which costs from 4 francs 24 cents. per every twenty-four hours.

**Docking the Vessel.**—Every vessel must have a Belgian pilot, to bring her into the dock, as well as going out. The harbour-master assigns to each vessel her place in the dock, and no hauling can be done without his permission.

**Fire and Light.**—Vessels lying in the docks are prohibited to have fire and light on board, except during the winter season, when permission is usually granted by the police.

**Water Bailiff.**—A list containing the names of the crew, passengers and their passports, is handed to him on arrival. Sailors are paid off and engaged before this officer, who also orders the arresting of sailors on written demand of the master.

**Flag.**—On Sundays and holidays it is customary to have the colours hoisted.

**Cleanliness.**—Lying alongside the quay, the crew must take care that the place before the vessel be swept every day, and the rubbish put up against the poles, it being forbidden to throw any rubbish into the docks.

**Ballast.**—Sand ballast is brought alongside in lighters, and costs 2 francs 25 cents. per last of about 2 tons in the dock and 2 francs 10 cents. in the river. The lighters are discharged by the ship's crew or by labourers paid by the master. A tarpaulin or sail must be put between the vessel and the lighter, to prevent the sand from falling into the dock. Discharging ballast into lighters, costs in the dock 1 franc 55 cents.—in the river 1 franc 40 cents. per last. Fifteen per cent. additional on all these rates.

**Brokerage.**—Fixed by law at 75 centimes per ton measurement, which include reporting and clearing at the custom-house.

**Survey inwards.**—For the whole time of discharging, a vessel under 100 tons, 12 francs. 100 to 200 tons, 20 francs. 201 to 300 tons, 30 francs. 301 to 400 tons, 45 francs. 401 to 800 tons, 55 francs. 800 to 1,200 tons, 82 francs 25 cents. above 1,200 tons, 110 francs.

**Mooring.**—Masters must be particular, in mooring

their vessels, to have the chains or hawsers well secured with chafing gear so as not to injure the quays.

**Cooking-house charges.**—For vessels of all nations under 35 tons 1 franc, 35 to 100 tons 2 francs, 101 to 200 tons 3 francs, 201 to 300 tons 4 francs, 301 or above 5 francs, all with 15 per cent. additional.

A part of a week is reckoned as a whole. Vessels laid up in the dock pay after the first 2 months only  $\frac{1}{3}$  of the tax until they fit out again.

**Carriage dues.**—Vessels of all nations under 100 tons . . . francs per day, 100 to 149 tons 11 cents, per ton a day, 150 to 199 tons 13 cents., 200 to 249 tons 12 cents., 250 to 299 tons 11 cents., 300 to 349 tons 10 cents., 350 to 399 tons 9 cents., 400 and above 8 cents, per ton a day.

**N.B.**—All vessels leaving Antwerp must be provided with a surveyor's certificate that they are sea-worthy. When in ballast, this certificate costs from 6 francs to 13 francs 50 cents.; when loaded, from 10 francs to 30 francs, according to the burden of the vessel, besides 11 francs 40 cents, for certificate of tribunal. The cooking-house duties depend on the size of the vessel, and must be paid whether the house be used or not.

About 85 ships of from 11,000 to 12,000 tons burden belong to Antwerp; and from 4,000 to 5,000 passengers arrive annually at the city by the steam-packets from England.

In 1863, 2,553 vessels of 608,553 tons arrived at Antwerp; of these, 917 vessels of 236,758 tons were British. The number of vessels which arrived at all the Belgian ports in the same year was 3,893, the tonnage of which amounted to 712,373; of these, 597 of 62,525 tons were Belgian; 1,581 of 281,510 tons British; and the remainder Swedish, French, Dutch, &c.

The total number of vessels entering from Belgium into ports of the United Kingdom in 1866 was 2,916, with a tonnage of 674,956.

The commerce of Belgium is almost exclusively confined to European countries; the trade with those countries being about 95 per cent. of the whole.

**Fisheries.**—In 1863 there were 275 smacks

measuring 9,579 tons engaged in the Belgian Fisheries.

**Value of Belgian Imports and Exports in 1863.**

	Imports.	Exports.
Home consumption . . . . .	616,390,000	653,709,000
From Great Britain . . . . .	1,000,000	107,500,000
Total . . . . .	1,616,390,000	991,700,000

The general condition of Belgium is singularly prosperous, and her public revenue is almost annually in excess of the expenditure. In addition to great and well-developed agricultural resources she possesses in her mineral and metallurgic industries a large source of wealth. Of these last we subjoin a table compiled by Mr. Barron, her Majesty's secretary of legation at Brussels, from an original source, and which exhibits their condition and progress during recent years.

**Table and Number of the Belgian Merchant Marine, 1837-63.**

Years	Number			Tonnage		
	Sailing Vessels	Steamers	Total	Sailing Vessels	Steamers	Total
1837	151	4	155	21,620	1,177	23,097
1838	148	5	153	21,557	1,984	23,541
1839	151	5	156	22,417	1,988	24,405
1840	155	6	161	21,762	1,910	23,672
1841	139	5	144	21,956	1,077	23,033
1842	115	7	122	22,037	4,911	27,948
1843	154	8	162	21,977	5,004	26,981
1844	134	—	—	22,511	—	—
1845	136	5	141	23,947	1,960	25,777
1846	137	6	143	24,796	2,160	26,956
1847	140	3	143	25,458	1,718	27,176
1848	151	4	155	26,589	1,928	28,517
1849	149	—	—	26,572	1,606	28,178
1850	156	5	161	33,515	1,604	35,119
1851	157	6	163	34,816	1,577	36,393
1852	155	5	160	33,700	1,512	35,012
1853	154	6	160	34,575	1,907	36,482
1854	151	7	158	35,763	1,511	37,274
1855	150	8	158	37,957	2,592	40,549
1856	140	8	148	36,365	4,474	40,839
1857	142	5	147	40,397	2,950	43,417
1858	156	6	162	38,831	3,517	42,348
1859	151	4	155	35,632	1,650	37,281
1860	108	3	111	28,857	4,253	33,111
1861	103	3	106	27,452	4,194	31,646
1862	96	7	103	25,693	5,284	30,917
1863	91	6	97	24,533	5,714	30,247

**Comparative Statement of the Mineral and Metallurgic Produce of Belgium during the following years; in metrical tons of 1,000 kilogrammes, each weighing 36 lbs. less than an English ton.**

Produce	1851	1853	1855	1857	1859	1861
Coal . . . . . (tons)	6,233,517	7,172,687	8,109,530	8,383,002	9,160,702	9,610,895
Iron ore, washed . . . . . (francs)	49,709,181	62,192,019	103,855,729	100,470,583	101,006,201	107,127,292
Pyrites . . . . . (francs)	364,484	569,277	836,174	631,083	895,031	899,176
Blende . . . . . (francs)	1,171,187	6,296,905	9,429,617	6,842,041	8,745,656	7,748,953
Galamine . . . . . (francs)	6,432	7,643	21,617	14,620	51,982	42,513
Calamine . . . . . (francs)	72,935	119,837	179,219	165,940	881,072	1,353,109
Galena, lead ore . . . . . (francs)	14,183	18,810	10,903	10,486	13,751	17,284
Total value of minerals . . . . . (francs)	57,787,475	75,828,550	117,871,459	112,967,781	118,067,958	120,695,181
Tax on mines . . . . . (francs)	250,999	228,512	512,550	685,722	946,863	429,581
Iron, cast and wrought . . . . . (francs)	309,775	379,351	465,283	507,130	573,947	591,871
Steel . . . . . (francs)	31,350,006	55,987,826	77,585,518	86,412,003	17,319,947	81,053,967
Lead . . . . . (francs)	—	—	47	1,900	1,871	5,172
Copper . . . . . (francs)	—	—	65,000	1,300,000	—	810,000
Zinc . . . . . (francs)	1,691	2,516	2,555	4,736	—	4,153
Alum . . . . . (francs)	638,037	1,163,586	1,507,583	1,696,785	2,280,056	1,801,927
Glass . . . . . (francs)	223	284	284	1,716	1,255	1,172
Total mineralogical produce . . . . . (francs)	1,187,091	1,060	2,740,850	2,886,000	3,790,800	2,671,580
Mineral and mineralogical value . . . . . (francs)	59,974,475	76,892,066	120,384,009	115,753,503	121,868,758	123,366,762

APPLES. The fruit of the *Pyrus malus*, or apple-tree. It is very extensively cultivated in most temperate climates.

An immense variety and quantity of excellent

apples are raised in England, partly for the table and partly for manufacturing into cider. Those employed for the latter purpose are comparatively harsh and austere. The principal cider counties

Account of the

Principal and

Animals: Oxen and Bullocks, Cows and calves, Horses, Sheep and lambs, Pigs, swine, bayonets, and hogs, for tanneries or dyers, Butter, Candles, tallow, Cheeses, raw or kiln-dried, Corn: Wheat, Other kinds of corn, Cotton, Raw, Manufactures: Cotton yarn, and cotton yarn, Ribes, Embroidery and needlework, Flax, Dressed, Rough or undressed, Tow and cordage of, Fruit & apples, raw, Glass, Window, Flint, cut and uncut, Hides, not tanned, Hops, Tanned, tawed, curries, Iron: Bars, unwrought, Iron and steel, wrought or made, Lace, of all kinds, Lead, pig or sheet, Leather manufactures, viz. gloves, Oil seed, Paper and pasteboard, Pork, fresh, Potatoes, Saddlery and garna, Silk, raw, Waste, knubs, and husks, Silk manufactures: Stuffs and ribbons, Unenumerated, Spelter or zinc, Refined, and candy, Wool, sheep and lambs, Woolen rags, torn up, to be used in manufactures, Yarn, worsted, not dyed, and not embroidered, All other articles, Total

# ANTWERP

*Amount of Belgian Customs and Duties, 1858-63.*

	1858	1859	1860	1861	1862	1863
Import duties	frances 15,529,972	frances 14,961,394	frances 15,761,791	frances 15,330,308	frances 15,780,952	frances 15,310,212
Export duties	63,047	57,471	43,041	15,591	9,571	36,308
Traffic duties	3,188	10	836,099	1,010,905	857,450	876,358
Navigation dues	750,112	—	—	—	—	—
Total	16,389,001	15,676,077	16,538,938	16,881,481	16,617,729	15,919,966

*Account of the Declared Values of the Principal Articles the Produce and Manufacture of the United Kingdom exported to Belgium in each of the 3 Years ending with 1866.*

Principal and other Articles	Quantities			Declared Real Value		
	1864	1865	1866	1864	1865	1866
Alkali, soda	—	—	—	£ 35,211	£ 48,969	£ 61,155
Apparel, tops, and haberdashery	—	—	—	59,897	53,779	42,974
Coutchour, manufactures of	83,587	97,063	113,210	16,205	16,974	16,515
Coats, cloaks, and cain	—	—	—	12,617	12,617	32,793
Popper, wrought and unwrought	23,082	21,810	66,111	68,192	14,100	29,013
Cotton yarn	13,943	18,717	16,932	101,301	87,018	76,122
Cottons, entered by the yard	—	—	—	197,123	231,590	229,013
Drugs and chemical products	—	—	—	—	183,585	286,711
Multi systems	—	—	—	—	23,509	68,432
Hardware and cutlery, unenumerated	14,224	10,988	8,253	21,031	21,943	23,605
Hops	7,228	8,895	9,872	31,415	30,899	20,775
Horses	—	—	—	5,721	54,158	47,786
Iron, wrought and unwrought	1,807	2,649	3,063	5,437	39,248	9,589
Leather, wrought and unwrought	11,780	34,680	45,283	130,853	39,979	44,670
Linen, entered by the yard	—	—	—	77,029	227,487	312,521
Machinery steam engines	316,672	1,350,019	1,037,952	84,195	61,186	61,531
all other sorts	—	—	—	20,739	125,672	109,628
Naphtha, paraffin oil, petroleum, &c.	—	—	—	4,167	31,692	19,062
(oil seed)	—	—	—	—	10,068	3,646
Painters' colours (not otherwise described)	281,093	468,511	263,316	140,699	50,150	59,175
Silk, yarn	197,542	316,556	264,904	31,121	150,298	154,173
— thrown	—	—	—	45,758	49,458	30,922
— manufactures	35,581	25,412	21,841	11,724	15,098	14,380
Wool, sheep and lambs	7,172	8,705	10,435	7,896	7,731	11,828
Wool fleeces and rag wool	42,183	40,071	37,082	52,895	51,538	26,063
Woolen and worsted yarn	669,001	2,034,938	684,442	66,340	63,694	41,067
Woolens entered by the yard (including those formerly entered by the piece)	15,941	17,766	13,806	63,458	216,441	61,996
Yarn, worsted, not dyed, and not fit for embroidery	527,087	481,460	376,578	91,205	62,368	49,998
All other articles	4,954,711	4,785,413	4,951,563	549,577	316,299	312,601
Total	—	—	—	10,819	9,482	8,353
	—	—	—	387,175	485,027	483,947
	—	—	—	2,301,291	2,935,835	2,861,063

*Account of the Quantities and Computed Values of the Principal Articles imported from Belgium into the United Kingdom in each of the 3 years ending with 1866.*

Principal and Other Articles	Quantities			Computed real Value		
	1861	1865	1866	1864	1865	1866
Animals: Oxen and Bulls	3,679	11,161	5,792	£ 62,801	£ 215,496	£ 71,202
Cows and calves	4,605	4,328	9,617	34,192	25,561	51,205
Horses	173	189	91	4,514	4,490	4,035
Arms: swords, bayonets, caissons, muskets, &c.	7,431	167,284	220,860	14,251	406,773	709,583
Butter	135,686	208,108	203,301	117,372	182,411	208,338
Candles, stearine	81,575	70,610	78,667	47,735	71,027	58,538
Chicory, raw or kiln-dried	28,135	17,088	86,364	470,167	453,719	511,135
Cura: Wheat	321,074	87,673	99,433	115,579	61,510	456,712
Other kinds of corn and grain	69,851	110,511	50,068	30,068	38,694	87,782
Cotton, raw	34,939	40,636	361,438	4,459	3,731	40,080
Manufactures	1,989	922	728	31,496	38,694	39,901
Cotton yarn, and cotton yarn waste	—	—	—	19,917	35,002	136,375
Flax	817,197	406,291	418,366	84,684	9,227	3,061
Embroidery and needlework	417,067	171,855	151,733	83,643	46,253	73,599
Flax, linned	—	—	—	6,699	39,092	47,517
Hough or undressed	—	—	—	26,691	8,891	5,834
Tow and cordilla of	5,536	17,754	1,809	69,699	56,172	18,662
Fruit: apples, raw	113,280	144,073	108,823	47,949	64,521	65,411
Glass, Window	35,248	44,779	35,558	26,691	3,891	19,995
Plate	296,231	180,261	231,276	81,989	569,862	435,202
Hides, cut and uncut	228,559	180,261	231,276	97,129	105,820	80,553
Not tanned	9,333	228,551	236,416	54,079	105,820	75,357
Tanned, tawed, curled or dressed	21,910	9,466	15,733	182,688	48,641	207,054
Iron: bars, unwrought	6,634	19,937	31,091	43,664	44,307	65,411
Iron and steel, wrought or manufactured	60,176	59,900	88,360	42,753	67,228	81,938
Lane, of all kinds	14,369	21,689	46,159	15,591	41,212	55,592
Lead, pig or sheet	4,615	1,990	23,323	4,462	5,017	5,384
Leather manufactures, viz. gloves	—	—	—	66,198	100,425	150,773
(oil seed)	1,683	2,247	1,721	30,097	17,841	17,616
Oil seed cake	411,948	—	675	74,250	328,039	85,625
Paper and pasteboard	484	393,048	466,068	34,060	84,219	78,202
Pork, fresh	6,128	488	412	4,528	4,776	15,228
Potatoes	128,541	11,060	9,187	20,011	42,500	33,431
Poultry and game	21,238	151,786	166,367	31,081	21,017	17,998
Seed, clover	5,208	20,975	12,328	29,443	36,312	39,576
Silk, raw	5,300	10,881	1,739	91,327	340,515	334,682
Waste, knubs, and barks	28,517	31,068	779	68,687	4,783	40,774
Thrown	2,977	1,571	19,193	77,268	70,653	474
Silk manufactures: Stuffs and ribbons	426	5,375	118	17,777	104,916	37,080
Unenumerated	1,553	2,309	118	4,144	4,851	61,436
Spelter or zinc	498,510	484,096	486,940	4,362	4,769	6,027
Sugar, Unrefined	—	—	—	2,396	1,333	8,009
Refined, and candy	5,519	7,580	8,056	1,218,719	1,129,831	1,229,880
Wool, raw, sheep and lambs	81,815	153,393	184,187	27,835	56,906	58,534
Woolen rags, torn up, to be used as wool	32,164	46,178	66,577	80,089	182,463	205,339
Woolen manufactures	894,165	1,456,499	1,097,165	81,473	128,423	212,322
Yarn, worsted, not dyed, and not fit for embroidery	4,430,048	3,142,414	3,840,592	61,971	68,138	100,713
embroidery	—	—	—	85,741	126,749	75,598
all other articles	—	—	—	97,262	72,087	68,791
Total	2,922,392	3,113,705	4,756,247	196,978	120,124	110,715
	—	—	—	635,039	701,074	1,065,665
	—	—	—	854,181	728,212	771,693
	—	—	—	6,410,904	7,324,855	7,506,267

## APPRAISER

are Hereford, Monmouth, Gloucester, Worcester, Somerset, and Devon. Mr. Marshall estimated the produce of the first four at 30,000 hogsheds a year, of which Worcester is supposed to supply 10,000; but it is now probably much greater. Half a hog-head of cider may be expected, in ordinarily favourable seasons, from each tree in an orchard in full bearing. The number of trees on an acre varies from 10 to 40, so that the quantity of cider must vary in the same proportion, that is, from 5 to 20 hogsheds. The produce is, however, very fluctuating; and a good crop seldom occurs above once in three years. (*London's Encyc. of Agriculture, &c.*)

Besides the immense consumption of native apples, we import, for the table, large supplies of French and other foreign apples. In 1842, the French and other foreign apples, in an ad valorem duty, which had previously been an ad valorem one of 5 per cent., was fixed at 6d. per bushel on raw, and 2s. per bushel on dried apples; and in 1853 the duties were further reduced to 3d. per bushel on raw, and 1s. per bushel on dried apples. This duty is now repealed. During 1865, 732 entries for consumption amounted to 515,732 bushels. The apples produced in the vicinity of New York are universally admitted to be the finest of any; but unless selected and packed with care, they are very apt to spoil before reaching England. The exports of apples from the United States land, during the year ended June 30, 1864, amounted to 183,697 barrels, valued at 487,140 dollars. Of these, 59,606 barrels besides 3,164 bushels of dried fruit were shipped for the United Kingdom. (*Papers laid before Congress.*)

By the 13 & 14 Vict. c. 97, APPRAISER. By the 13 & 14 Vict. c. 97, every person except a licensed auctioneer, who for hire exercises the occupation of an appraiser to value property, repairs and labour, must take out an annual 40s. license, under a penalty of 50l. for non-compliance.

Appraisers omitting to write and set down in figures every valuation made by them, within 14 full amount on paper duly stamped, and within 14 days deliver the same to their employers, are subject to a penalty of 50l. No person may pay for or receive an appraisal unless the same be written on stamped paper under penalty of a fine of 20l. One stamp only is required for the whole appraisalment. The amount received in 1865-6 for appraisers' licenses granted in the United Kingdom was 7,502l.

APPRENTICE. A person of either sex, bound by indenture to serve some particular individuals, or company of individuals, for a specified time, in or of some art, science, or trade, is called an apprentice.

According to the common law of England, everyone has a right to employ himself at pleasure in every lawful trade. But this sound principle was almost entirely subverted by a statute, passed in the fifth year of the reign of Queen Elizabeth, commonly called the Statute of Apprenticeship. It enacted that no person should, for the future, exercise any trade, craft, or mystery, at that time exercised in England and Wales, unless he had previously served to it an apprenticeship of seven years at least; so that what had before been a bye-law of a few corporations, became the general and statute law of the kingdom. Luckily, however, the courts of law were always singularly disinclined to give effect to the provisions of this statute; and the rules which they established for its interpretation served materially to mitigate its injurious operation. But though its impolicy had been long apparent, it was continued till 1814, when it was repealed by the 54 Geo. III. c. 26. This Act did not interfere with any

## APPRENTICE

of the existing rights, privileges, or bye-laws of the different corporations; but wherever these do not interpose, the formation of apprenticeships, and their duration, are left to be adjusted by the parties themselves.

Merchant ships of 80 tons and upwards were formerly obliged to carry a certain number of apprentices in proportion to their tonnage (7 & 8 Vict. c. 112). But this obligation was suppressed in 1849, by the 12 & 13 Vict. c. 29. And as the obligation to have a certain proportion of the crew British subjects has also been put an end to (16 & 17 Vict. c. 131 s. 31), the manning of ships is now quite free.

The Merchant Shipping Act of 1851 regulates, by the following sections, apprenticeships to the Sea Service.

Apprenticeships to the Sea Service. Sec. 141.—All shipping masters appointed under this Act shall, if applied to for the purpose, give to any board of guardians, overseers, or other persons desirous of apprenticing boys to the sea service, and to masters and owners of ships requiring apprentices, such assistance as is in their power for facilitating the making of such apprenticeships, and may receive from persons availing themselves of such assistance such fees as may be determined in that behalf by the Board of Trade, with the concurrence, so far as relates to pauper apprentices in England, of the Poor Law Board in England, and so far as relates to pauper apprentices in Ireland, of the Poor Law Commissioners in Ireland.

Sec. 142. In the case of every boy bound apprentice to the sea service by any guardians or overseers of the poor, or other persons having the authority of guardians of the poor, the indentures shall be executed by the boy and the person to whom he is bound in the presence of and shall be attested by two justices of the peace, who shall ascertain that the boy has consented to be bound, and has attained the age of twelve years, and is of sufficient health and strength, and that the master to whom the boy is to be bound is a proper person for the purpose.

Sec. 144. Subject to the provisions hereinbefore contained, all apprenticeships to the sea service made by any guardians or overseers of the poor, or persons having the authority of guardians of the poor, shall, if made in Great Britain, be made in the same manner and be subject to the same laws and regulations as other apprenticeships made by the same persons, and if made in Ireland shall be subject to the following rules; (that is to say,)

1. In every union the guardians of the poor, or other persons duly appointed to carry into execution the Acts for the relief of the destitute poor, and having the authority of guardians of the poor, may put out and bind as an apprentice to the sea service any boy who or whose parent or parents is or are receiving relief in such union, and who has attained the age of twelve years, and is of sufficient health and strength, and who consents to be so bound:
2. If the cost of relieving any such boy is chargeable to an electoral division of a union, then (except in cases in which paid officers act in place of guardians) he shall not be bound as aforesaid unless the consent in writing of the guardians of such electoral division or of a majority of the guardians (if more than one) be first obtained, such consent to be, when possible, indorsed upon the indentures:
3. The expense incurred in the binding and outfit of any such apprentice shall be charged to the union or electoral division (as the case

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may be) to which the boy or his parent or parents is or are chargeable at the time of his being apprenticed :

- All indentures made in any union may be sued upon by the guardians of the union or persons having the authority of guardians therein for the time being, by their name of office, and actions brought by them upon such indentures shall not abate by reason of death or change in the persons holding the office; but no such action shall be commenced without the consent of the Irish Poor Law Commissioners :
- The amount of the costs incurred in any such action, and not recovered from the defendant therein, may be charged upon the union or electoral division (as the case may be) to which the boy or his parent or parents was or were chargeable at the time of his being apprenticed :

AQUA FORTIS. [*Acidus (Nitric Acid).*]

AQUAMARINE. [*Aquamarine*]

AQUA VITÆ (Ger. aquavit; Fr. eau de vie; Ital. aqua vite; Span. agua de vida; Russ. wodka; Lat. aqua vite). A name familiarly applied to all native distilled spirits; equivalent to the eau de vie, or brandy, of the French, the whisky of the Scotch and Irish, the geneva of the Dutch, &c. In this way it is used in the excise laws relating to the distilleries.

ARANGOES. A species of beads made of rough coraline.

They are of various forms, as barrel, bell, round, &c., and all drilled. The barrel-shaped kind cut from the best stones, are from two to three inches long, and should be chosen as clear as possible, whether red or white, having a good polish and free from flaw. The bell-shaped are from one to two inches long, being in all respects inferior. Considerable quantities were formerly imported from Bombay, for re-exportation to Africa; but since the abolition of the slave trade, the imports and exports of arangoes are comparatively trifling. (Milburn's *Orient. Com.*)

ARCHANGEL. The principal commercial city of the north of Russia, in lat. 64° 32' 8" N., long. 40° 33' E., on the right bank of the Dwina, about 35 English miles above where it falls into the White Sea. The growth of the town is steady. The harbour is at the island of Sollenbole, about a mile from the town. The bar at the mouth of the Dwina has from 13 to 14 feet water; so that ships drawing more than this depth must be partially loaded outside the bar from lighters. The Dwina being a navigable river, traversing a great extent of country, and connected by canals with the Volga on the one hand, and the Neva on the other, Archangel is a considerable *entrepôt*. It was discovered in 1554, by the famous Richard Chancellor, the companion of Sir Hugh Willoughby in his voyage of discovery; and from that period down to the foundation of Petersburg, was the only port in the Russian empire accessible to foreigners. Though it has lost its ancient importance, it still enjoys a pretty extensive commerce. The principal articles of export are wheat and oats, rye and rye-flour, tallow, flax, hemp, timber, linseed, potash, mats, tar, &c. Deals from Archangel, and Omega in the vicinity of Archangel, are considered superior to those from the Baltic. Hemp not so good as at Riga, but proportionally cheaper. Tallow is also inferior. Iron, which is sometimes exported, same as at Petersburg, sometimes cheaper and sometimes dearer. The quality of the wheat exported from Archangel is about equal to that from Petersburg. The imports, which are not very extensive, con-

sist principally of sugar, coffee, spices, salt, woollens, hardware, &c.

The following Tables exhibit the principal features of the trade of Archangel. Its most important trade is, as will be seen, with this country.

Value of Exports from Archangel.

Year	Value (£)
1859	1,007,706
1860	554,708
1861	758,002
1862	767,809
1863	556,173

Whereof to Great Britain—

Year	Value (£)
1859	1,007,706
1860	554,708
1861	758,002
1862	767,809
1863	556,173

These amounts represent the official values (based on the market value) with the addition of shipping charges.

The quantities of the principal exports in each of some years, distinguishing the quantities shipped to Great Britain, in 1863, were as follow:—

Articles	1859	1860	1861	1862	1863	Great Britain 1863
Linseed - qrs.	36,710	60,119	61,197	87,063	8,686	1,681
Oats - "	286,539	407,078	255,819	197,113	892,419	89,920
Rye - "	50,001	91,263	100,721	41,129	1,361	—
Wheat - "	10,526	1,900	5,177	4,995	—	—
Barley - "	—	1,113	4,013	6,223	—	—
Flax - tons	8,168	5,288	4,951	4,505	4,151	5,311
Flax tow - "	8,065	5,218	4,907	4,111	4,452	5,279
Train oil - "	299	745	369	496	701	397
Tallow - "	199	79	99	—	68	51
Rye Flour - "	8,622	6,158	8,967	5,581	6,010	—
Fat - brs.	83,177	73,108	103,989	115,591	156,773	129,035
Pitch - "	4,799	9,146	7,169	6,958	11,571	4,124
Mats - pieces	182,787	318,011	525,815	785,244	307,555	985,129
Deals std. hand.	3,983	7,903	7,243	13,738	10,598	8,710

Table of Shipping cleared at the Port of Archangel and including coasters.

Years	Total		Total of British		British in Indirect Trade	
	Number of Vessels	Tonnage	Number of Vessels	Tonnage	Number of Vessels	Tonnage
1859	537	102,258	202	45,611	5	1,104
1860	411	86,289	191	40,618	10	2,129
1861	527	97,297	257	45,785	20	3,186
1862	616	102,223	217	45,981	8	1,085
1863	351	68,270	187	35,289	3	939

Imports into Archangel.

Articles	1859		1860		1861		1862		1863	
	£	£	£	£	£	£	£	£	£	
Coals - "	1,248	253	822	705	108	—	—	—	—	
Coffee - "	2,187	953	3,102	3,226	2,240	—	—	—	—	
Tea - "	—	—	—	4,324	5,305	—	—	—	—	
Sugar - "	2,514	4,123	2,333	2,343	—	—	—	—	—	
Lead - "	872	12	284	111	905	—	—	—	—	
Oil - "	2,256	5,299	3,122	5,285	3,419	—	—	—	—	
Salt - "	4,268	1,280	1,677	5,219	5,100	—	—	—	—	
Logwood - "	181	319	—	—	—	—	—	—	—	
Wine - "	5,576	7,378	5,171	4,568	5,141	—	—	—	—	
Champagne - "	243	1,079	157	112	460	—	—	—	—	
Furs - "	8,033	5,731	6,372	7,230	5,371	—	—	—	—	
Fish - "	34,753	36,378	31,237	31,375	41,998	—	—	—	—	
Fruit - "	417	813	555	752	1,062	—	—	—	—	
Machinery - "	226	862	983	4,037	6,098	—	—	—	—	
Iron - "	—	—	3,161	—	—	—	—	—	—	
Tin - "	—	—	1,319	—	—	—	—	—	—	
Other goods - "	6,134	5,468	5,332	5,097	2,946	—	—	—	—	
Total	67,777	67,709	61,180	69,508	80,180	—	—	—	—	
From Great Britain	11,760	12,553	15,253	20,107	21,749	—	—	—	—	

Highest and lowest rates of Freight to Great Britain in 1863.

Articles	Highest		Lowest	
	£ s d	£ s d	£ s d	£ s d
Linseed - "	5 9	—	4 6	—
Oats - "	5 0	—	3 9	—
Flax - "	—	ton 5 7	—	45 0
Tar - "	—	barrel 6 0	—	5 0
Deals - "	—	per 100 120 0	—	85 0

Bank.—There is a branch of the Imperial Bank of Russia at Archangel. Exporters generally pay cash for produce. The money is generally obtained from the Archangel bank on bills drawn on St. Petersburg at 40 days' date. The discount charged on these bills is 1½ per cent. (equal F)

to 10½ per cent. per annum). Sums payable at inland places have to be sent by post insured for ½ per cent. Rates of Exchange, same as at St. Petersburg.

**Lighthouses.**—A lighthouse was erected in 1864 at Sviatoi Noss, lat. 68° 9' 50" N., long. 39° 47' 40" E. Fixed white light, visible 20 miles; the light is kept burning from August 1 to November 1. The lighthouse for the port of Archangel is at Moudinga, near the Berezov bar at the entrance of the principal channel of the Dwina on the W. coast of Moudinga Island, lat. 64° 55' 30" N., long. 40° 16' 0" E. Fixed white light. Archangel pilots are to be found here: they meet vessels 4 miles outside the shoals of the bar.

**Telegraphs.**—There is a telegraphic communication between Archangel and St. Petersburg and from thence to London. A message of 20 words, including address and signature, to London costs 6 roubles 83 copees, equal to about 11. sterling.

[Principally derived from Mr. Renny's excellent *Consular Reports*.]

The trade of Archangel is much influenced by the demand from the more southerly parts of Europe, and especially from England, for corn. When a brisk demand is anticipated, oats are brought in large quantities from the interior, sometimes even from a distance of 1,500 miles, in covered barks capable of holding several hundred quarters. But as there are few extensive mercantile establishments here, the supplies are scanty, except when a large demand is expected for some time previously to the season for bringing them down. (*Odley's European Commerce, and private information.*)

**Moneys, Weights, and Measures,** same as at PETERSBURG.

ARCHIL. [ORCHELLA.]

ARCA PALM [*Arca catechu*]. [BETEL LEAF; BETEL NUT.]

ARGOL, ARGAL, or TARTAR (Ger. weinstein; Dutch wynsteen; Fr. tartre; Ital. Span., and Port. tartaro; Russ. winni kamen; Lat. tartarus). A hard crust formed on the sides of the vessels in which wine has been kept; it is red or white according to the colour of the wine, and is otherwise impure. On being purified, it is termed *cream* or *crystals of tartar*. It consists principally of bitartrate of potash.

White argol is preferable to red, as containing less drossy or earthy matter. The marks of good argol of either kind are, its being thick, brittle, hard, brilliant, and little earthy. That brought from Bologna is reckoned the best, and fetches the highest price. Argol is of considerable use among dyers, as serving to dispose of the stuffs to take their colours the better. Pure argol, or cream of tartar, is extensively used in medicine. It has an acid and rather unpleasant taste. It is very brittle, and easily reduced to powder: specific gravity 1.95.

The duty on argol, of 6d. per cwt., was repealed in 1845.

The imports and exports of argol in 1866 amounted to 18,250 cwts., of the value of 57,967l. Argol is chiefly produced in France, from which country there were exported in 1863, 2,636,852 kilos, valued at 3,410,797 francs.

ARISTOLOCHIA (Fr. serpentaire; Ger. schlangenzwanzel; Ital. serpentaria; Lat. aristolochia serpentaria). The dried root of Virginia snake-root, or birthwort: it is small, light and bushy, consisting of a number of fibres matted together, sprung from one common head, of a brownish colour on the outside, and pale or yellow within. It has an aromatic smell something like that of valerian, but more agreeable; and a warm, bitterish,

pungent taste, very much resembling camphor.—(*Ency. Metrop.*)

ARMS. [FIRE-ARMS.]

ARRACK or RACK (Fr. arac; Ger. arrack, rack; Dutch arak, rak; Ital. araco; Span. arak; Port. araco; Russ. arak), a spirituous liquor manufactured at different places in the East.

Arrack is a term applied in most parts of India, and the Indian islands, to designate every sort of spirituous liquor; a circumstance which accounts for the discrepancy in the statements as to the materials used in making it, and the mode of its manufacture. The arrack of Goa and Batavia is in high estimation; that of Colombo or Ceylon has been said to be inferior to the former; but this is doubtful. Goa and Colombo arrack is invariably made from the vegetable juice *toddy*, which flows by incision from the cocoa-nut tree (*Cocos nucifera*). After the juice is fermented, it is distilled and rectified. It usually yields about an *eightth* part of pure spirit. Batavia or Java arrack is obtained by distillation from molasses and rice, with only a small admixture of toddy. When well prepared, arrack is clear and transparent; generally, however, it is slightly straw-coloured. Its flavour is peculiar; but it differs considerably, no doubt, in consequence of the various articles of which it is prepared, and the unequal care taken in its manufacture. In England, arrack is seldom used except to give flavour to punch; formerly the imports were quite inconsiderable; but they have recently been a good deal greater, though as they are mixed up in the official returns with rum from India, it is impossible to state their exact amount. In the East its consumption is immense. It is issued to the soldiers in India as part of the established rations; and it is supplied, instead of rum, to the seamen of the royal navy employed in the Indian seas. It is one of the principal products of Ceylon. It is sold in Ceylon by the legger of 150, and in Java by the legger of 160 gallons. The duty on arrack, &c. is 10s. 6d. per gallon.

Its average value in Ceylon varies from 12l. to 8l. per legger, but it fell to 6l. 10s. in 1862. The exports of arrack from Java were in 1859, 12,673 leggers, valued at about 49,000l.; the principal exports were to Holland; it is subject to an export duty of 6 per cent. unless exported in Dutch ships, when it is free.

*Pariah-arrack* is a phrase used to designate a spirit distilled in the peninsula of India, which is said to be often rendered unwholesome by an admixture of *ganga* (*Cannabis sativa*), and a species of *Datura*, in the view of increasing its intoxicating power. But it is not clear whether the term *pariah-arrack* be meant to imply that it is an inferior spirit, or an adulterated compound. This liquor is sometimes distilled from cocoa-nut toddy, and sometimes from a mixture of jaggery, water, and the barks of various trees. (Milburn's *Oriental Com.*; Mr. Marshall's valuable *Essay on the Cocoa-Nut Tree*, p. 18.)

ARROBA. A Spanish and Portuguese measure of weight and capacity. It is still in general use in Spain and Portugal and in the Central and South American Republics. The standard Spanish arroba for wine is 981 cubic inches or 3.54 gallons, and for oil 771 cubic inches or 2.78 gallons. The Spanish arroba of weight equals 25.36 lbs. avoird., and the Portuguese 32.38 lbs. The Central American and Hungary arroba equals 25.35 lbs. avoird.; that of Brazil 32.38 lbs. The weight arroba of Chili equals 25.36 lbs., and the liquid arroba 6.70 Imp. gallons.

ARROW-ROOT. The pith or starch of the root *Maranta arundinacea*. It has received its common name from its being supposed to be an

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antidote to the poisoned arrows of the Indians. The powder is prepared from roots of a year old. It is reckoned a very wholesome, nutritious food; it is often adulterated, when in the shops, with the starch or flour of potatoes. It is a native of South America; but has been long introduced into the West Indies, where it forms a pretty important article of cultivation. An excellent kind of arrow-root, if it may be so called, is now prepared in India from the root of the *Curcuma angustifolia*. The plant is abundant on the Malabar coast, where the powder is made in such quantities as to be a considerable object of trade. Some of it has been brought to England. The *Maranta arundinacea* has been carried from the West Indies to Ceylon, where it thrives extremely well, and where arrow-root of the finest quality has been manufactured from it. A very finely prepared meal of Indian corn is now largely used as a substitute for this ingredient. (Ainslie's *Mat. Indica*.)

Imports, &c., of arrow-root in 1864, were 15,440 cwt., of the value of 41,661*l*.

Large quantities of *Canna arrow-root (Canna edulis)* or 'tous les mois' are produced in Queensland and manufactured in the neighbourhood of Brisbane. Queensland also produces the true white arrow-root of a quality fully equal to the best kinds of Bermuda arrow-root. The *canna arrow-root* is of comparatively little value at present in the English market on account of the abundant supply. (*Jury Report, Exhibition 1862*.) The extensive consumption of the finely-prepared flours of maize, no doubt, tends considerably to check any great progress in the consumption of arrow-root.

**ARSENIC** (Ger. arsenik; Fr. arsenic; Ital. and Span. arsenico; Russ. mischjah; Lat. arsenicum). This metal has a bluish white colour not unlike that of steel, and a good deal of brilliancy. It has no sensible smell while cold, but when heated it emits a strong odour of garlic, which is very characteristic. It is the softest of all the metallic bodies, and so brittle that it may easily be reduced to a very fine powder by trituration in a mortar. Its specific gravity is 5.76. (Thomson's *Chemistry*.) Arsenic is chiefly obtained from Cornwall and South Wales.

Metallic arsenic is not used in the arts, and is not, therefore, extracted from the ore, except for the purposes of experiment or curiosity. The arsenic of commerce is the white oxide, or *arsenious acid* of chemists. It is a white, brittle, compact substance, of a glassy appearance; is inodorous; has an acrid taste, leaving on the tongue a sweetish impression; and is highly corrosive. In its metallic state arsenic exerts no action on the animal system; but when oxidised, it is a most virulent poison. The arsenic of the shops is sometimes adulterated with white sand, chalk, or gypsum; the fraud may be detected by heating a small portion of the suspected powder; when the arsenic is dissipated, leaving the impurities, if there be any, behind. Though the most violent of all the mineral poisons, the white oxide of arsenic, or the arsenic of the shops, is yet, when judiciously administered, of great efficacy. It is also used for various purposes in the arts. It is principally imported from Saxony and Bohemia.

White arsenic is extensively used in the preparation of various pigments, and also in the mineral gums used by paper-stainers and others. It is employed in the manufacture of glass and porcelain, a small portion making the glass transparent, a larger quantity opalescent. (Hunt's *Ure's Dictionary of Arts, &c.*)

**ARTIFICIAL FLOWERS** (Ger. künstliche blumen; Dutch, kunstbloemen; Swed. blommar

artificiella; Dan. kunst blomster; Fr. fleurs artificielles; Ital. fiori finti or contrafatti; Span. flores de mano; Chinese, chi-hwa). Artificial flowers are made from feathers, shells, papers, insects' wings, cambric, &c. Their manufacture forms an important branch of industry, particularly in France and the United Kingdom. This manufacture is of very ancient date. According to P'liny, they were used in Rome 350 years a.c., and they are said to have been known to the Chinese in the third century. In Spain and Italy they were made at a very early period from silk, cambric, and gauze, and are reported to have been introduced from the latter country into France towards the end of the 15th century, when the manufacture was carried on at Lyons, and subsequently at Paris. Such flowers however appear to have been used not for personal, but for church adornments. The real progress of the manufacture in France began in the last century. In 1738 Seguin de Mendes at Paris commenced the manufacture of artificial flowers of a natural character, and in 1770 a Swiss improved it. Since that period the trade has been constantly developed and is fast progressing. The value of the artificial flowers produced in Paris in 1847 was upwards of 11,000,000 francs, and in 1858 was estimated at 16,000,000 francs.

In the former period there were 622 manufacturers employing 6,153 hands, of whom the larger proportion were women, at an average rate of wages of 3 francs 77 cents. for the men and 1 franc 94 cents. for the women. In 1860 the number of manufacturers in Paris was altogether 1,317, and the value of their productions 28,082,013 francs. The number of hands employed was 7,831. Average rate of wages for men 3 francs 75 cents. for women 2 francs 50 cents. The annual production of artificial flowers in the French provinces is estimated at about 1,000,000 francs.

The following table exhibits the declared values of the exports of this article from France:—

	1817	1857
	fr.	
United States	433,000	1,795,000
Great Britain	336,500	1,186,000
Zollverein	115,000	286,000
Belgium	57,000	487,500
Italian States	30,000	86,500
Brazil	32,000	85,500
Other countries	237,000	619,500
Total	1,240,500	4,116,000

The manufacture of artificial flowers in Great Britain is carried on principally in the metropolises.

*Exports of Artificial Flowers from France in 1864.*

	fr.	fr.
Zollverein	755,531	85,530
Belgium	166,000	37,500
Great Britain	4,219,000	80,795
Spain	103,921	51,156
Italy	160,439	25,005
Switzerland	173,163	6,087,772
United States	-	-
Mexico	-	-
Peru	-	-
Other countries	-	-
Total	-	-

**ASAFETIDA** (Ger. tenfeldsdröck, stinkasant; Dutch, duiveldröck; Fr. assa-fetida; Sp. asafetida; Lat. asa-fetida; Arab. liltect; Pers. nngoozen). A gum resin, consisting of the inspissated juice of a large umbelliferous plant, the *Narthex asafetida*. It is produced in the southern provinces of Persia, and in the territory of Sindh, or country lying at the mouth of the Indus, flourishing abundantly in the mountainous provinces of Laar and Khorassan. It is exported from the Persian Gulf to Bombay and Calcutta, whence it is sent to Europe. It has a nauseous, somewhat bitter, biting taste, and an excessively strong, fetid, alliaceous smell: the never it is, it possesses its smell and other peculiar properties in the greater perfection. It is imported, packed in

irregular masses, in mats, cas's, and cases; the last being in general the best. It should be chosen clean, fresh, strong-scented, of a pale reddish colour, variegated with a number of fine, white tears; when broken, it should somewhat resemble marble in appearance; and, after being exposed to the air, should turn of a violet red colour. That which is soft, black, and foul, should be rejected. The packages should be carefully examined, and ought to be tight to prevent the smell from injuring any other article. The imports are at present so trivial, that they are not distinguished separately in the returns of imports and exports. Here, indeed, it is only used in the *Materia Medica*; but in France, it is used both in that way, and to some extent also as a condiment. It is worth in the London market from 12s. to 4l. per cwt.

In India the price of *asafoetida* is about 2s. per pound.

**ASH (COMMON).** The *Fraxinus excelsior* of botanists, a forest tree of which there are many varieties. It is abundant in England, and is of the greatest utility.

The ash is of very rapid growth; and, unlike most other trees, its value is rather increased than diminished by this circumstance. Like the chestnut, the wood of young trees is most esteemed. It grows on a great variety of soils, but is best where the growth has been most vigorous. It is inferior to the oak in stiffness, and is more easily split; but in toughness and elasticity it is far superior to the oak, or to any other species of timber. Hence its universal employment in all those parts of machinery which have to sustain sudden shocks, such as the circumference, teeth, and spokes of wheels, ship-blocks, &c., and in the manufacture of agricultural implements; in the latter it is employed almost exclusively. So important indeed is the use of ash in these implements, and so large has been the development of this branch of manufacturing industry, that the price of ash timber has more than doubled during the last ten or fifteen years. The want of prolonged durability is its greatest defect; and it is too flexible to be employed in building. The wood of old trees is of a dark brown colour, sometimes beautifully figured; the wood of young trees is brownish white, with a shade of green. The texture is alternately compact and porous: where the growth has been vigorous, the compact part of the several layers bears a greater proportion to the sponge, and the timber is comparatively tough, elastic, and durable. It has neither taste nor smell, and when young, is difficult to work. (*Treatise on the Principles of Carpentry*.)

**ASHES** (Ger. *veedasse*; Ger. *waidasche*; Dutch, *veedas*; Dan. *veedasse*; Ital. *feccia bruciata*; Span. *alumbre de lez*; Russ. *veidasch*; Lat. *cineres infectorii*). The residuum or earthy part of any substance after it has been burnt. In Commerce, the term is applied to the ashes of vegetable substances; from which are extracted the alkaline salts called **BARI** LA, **KELP**, **PEARL-ASH**, **POTASH**, &c.

**ASPHALTUM.** [BITUMEN.]

**ASSETS.** In Commerce, a term used to designate the stock in trade, and the entire property of all sorts, belonging to a merchant or to a trading association. It is also applied to goods or property placed, for the discharge of some particular trust or obligation, in the hands of executors, assignees, &c. [BANKRUPTCY.]

**ASSENTO.** A Spanish word signifying a contract. In commercial history, it means the contract or agreement by which the Spanish government ceded first to a company of French,

and afterwards (by the treaty of Utrecht) to a company of English merchants, the right to import, under certain conditions, a specified number of slaves into the Spanish colonies. (For full particulars with respect to this contract, see Mr. Bandinel's valuable work on the Slave Trade.)

**ASSIGNEE.** A person appointed by competent authority to do, act, or transact some business, or exercise some particular privilege or power, for or on account of some specified individual or individuals.

Assignees may be created by deed, or by law: by deed, where the lessee of a farm assigns the same to another; by law, where the law makes an assignee, without any appointment of the person entitled, as an executor is assignee in law to the testator, and administrator to an intestate. The term is most commonly applied to the official assignees appointed to manage bankrupt estates. [BANKRUPTCY.]

**ASSIZE.** [BREAD.]

**ASSURANCE.** [INSURANCE.]

**ATOCIA GRASS.** A name sometimes given to **ESPARTO FIBRE**.

**AUCKLAND.** The principal town and seat of government in the British colony of New Zealand. Population in 1861, 7,989.

The colony of New Zealand consists of three islands, called New Ulster, New Munster, and New Leinster. The islands lie between 34° and 48° S. latitude, and 166° and 179° E. longitude. They were discovered and partially explored by Tasman in 1642, and still more fully by Cook in 1777. The first settlement of New Zealand took place in 1814; the colony was constituted in 1839, and gifted with a separate constitution in 1840.

The chief exports of New Zealand are gold and gold dust, wool, and Kowrie gum. In the three years 1863-5, the value of gold and specie exported amounted to 2,529,479l., 2,081,347l., and 2,293,017l.; of wool to 830,295l., 1,070,397l., 1,141,761l. The total exports were 3,485,405l., 3,401,667l., 3,713,218l. The imports during the same years were 7,024,674l., 7,000,655l., 5,594,977l.; the chief articles being drapery, wines and spirits, and provisions. Of these quantities 2,197,473l., 2,071,229l., and 1,720,587l. represent British trade.

The tonnage of Auckland in 1865 was 13,094, the vessels registered in the port 300, and the imports and exports of the town were in the same year 1,842,416l., and 234,410l. The imports and exports of Otago, or Dunedin, are far larger; but this town is situated in the gold district.

**AUCTION.** A public sale of goods to the highest bidder. Auctions are generally notified by advertisement, and are held in some open place. The biddings may be made either by parties present, or by the auctioneer under authority given to him: the sale is usually terminated by the fall of a hammer.

The duties on property sold by auction were repealed in the year 1845.

The auction duties, which were first imposed in 1777, consisted of duties proportioned to its value, charged on certain descriptions of property when sold by auction. They amounted to 7d. per pound sterling on the value of estates, houses, annuities, shares in public companies, ships, funds, and some other articles; and to 1s. per pound on the value of household furniture, books, horses, carriages, and all other goods and chattels. The exemptions were, however, very numerous, comprising various descriptions of movable property, with all sorts of property sold by order of the court: of chancery and exchequer, or for behoof of creditors; or under distress for rent, &c.

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**AUCTIONEER** by auction. It of sale, to declare terminate the sale to the highest bidder lawfully authorized contract for him And his writing bidder in his book person for whom even though successful do not object to the biddings with respect in the 8 Vict. c. 1. Every auctioneer newable annually be charged 10l. The Kingdom in 1865- The statute then *Auction License* It shall not be necessary any goods or chattels cases hereinafter license by this Act selling any goods or distress for nonpayment amount than 20l.: 6 Geo. IV. c. 48, 6 & 7 Wm. IV. c. 77 Debits in Scotland; the Jurisdiction and the Civil Bill Court Wm. IV. c. 1 Vict. amend the Laws for by Civil Bill in Ireland the Act 7 Wm. IV. c. Act for the more effect Debits in the Sheriff Court Establishment of Civil Small Debt Causes by or under authority of parliament now in exemption as by the proper officer of court of such court to sell the auction, without taking as an auctioneer, provided process is enforced in use 6 Geo. IV. c. 81 s. License to be sufficient. Geo. IV. c. 81 as enacting or carrying on the auctioneer or selling attachments, or hereditaments, and above any license to auctioneer, take out such law to deal in or retain

Account of the Produce of the Auction Duties in each of the 3 years ending the 5th of January, 1843, distinguishing the Amount paid under separate Heads.

	Amount of Auction Duties on the Sale of												Total Produce		
	Estates, Houses, Annuities, Ships, Plate, Jewels, &c.			Household Furniture, Carriages, and all other Goods and Chattels			Sheep's Wool			Foreign Produce (First Sale thereof)					
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
England - - - - -	127,443	12	10	156,189	13	0½	21	8	6½	2,965	14	9½	286,620	9	2½
Scotland - - - - -	5,839	4	2	14,921	3	½	2	4	7½	201	4	9½	20,040	16	7½
Ireland - - - - -	2,885	4	10	10,791	11	6½	0	6	3½	—	—	—	13,577	5	8½
Year ended January 5, 1841 -	135,857	1	10	181,905	10	8½	23	19	5½	3,169	19	6½	320,238	11	6½
England - - - - -	141,080	8	4	155,956	1	2½	19	13	3	2,792	11	6	29,818	14	8½
Scotland - - - - -	5,837	12	1½	14,901	19	2½	3	2	1½	137	10	6½	20,813	4	5½
Ireland - - - - -	3,016	18	5½	10,518	8	10½	—	—	—	—	—	—	13,335	6	5½
Year ended January 5, 1842 -	149,933	18	11	181,179	9	3½	22	15	4½	2,930	2	0½	51,967	5	7½
England - - - - -	101,536	13	9	155,839	16	6	17	10	6	2,865	16	2½	26,259	16	11½
Scotland - - - - -	5,967	5	10	14,697	1	5½	1	19	7½	74	12	5½	19,811	9	5½
Ireland - - - - -	6,737	10	1½	10,641	9	5	0	5	5	11	1	3	16,863	6	2½
Year ended January 5, 1843 -	113,331	9	8½	180,661	8	7½	19	1	6½	2,951	9	9	49,664	3	5½

AUCTIONEER. A person who conducts sales by auction. It is his duty to state the conditions of sale, to declare the respective biddings, and to terminate the sale by knocking down the thing sold to the highest bidder. An auctioneer is held to be lawfully authorised by the purchaser to sign a contract for him, whether it be for lands or goods. And his writing down the name of the highest bidder in his book is sufficient to bind any other person for whom the highest bidder purchased even though such person be present, provided he do not object before entry. The following provisions with respect to auctioneers are embodied in the 8 Viet. c. 15.

Every auctioneer must take out a license (renewable annually on July 5), for which he is to be charged 10*l.* The duty collected in the United Kingdom in 1865-6 amounted to 49,080*l.*

The statute then goes on to enact—

*Auction License not necessary in certain Cases.*—

It shall not be necessary for any person selling any goods or chattels by auction in any of the cases hereinafter mentioned to take out the license by this Act required, viz. any person selling any goods or chattels by auction under a distress for nonpayment of rent or tithes to less amount than 20*l.*; or under authority of the Act 6 Geo. IV. c. 48, 'For the Recovery of Small Debts in Scotland'; or under authority of the Act 6 & 7 Wm. IV. c. 75, intitled 'An Act to extend the Jurisdiction and regulate the Proceedings of the Civil Bill Courts in Ireland,' and the Act 7 Wm. IV. c. 1 Viet. c. 43, intitled 'An Act to amend the Laws for the Recovery of Small Debts by Civil Bill in Ireland'; or under authority of the Act 7 Wm. IV. & 1 Viet. c. 41, intitled 'An Act for the more effectual Recovery of Small Debts in the Sheriff Courts and for regulating the Establishment of Circuit Courts for the Trial of Small Debt Causes by the Sheriffs in Scotland,' or under authority of any other Act or Acts of parliament now in force in which the like exemption as by the Act specified is given to the proper officer of court executing the process of such court to sell the effects seized by him by auction, without asking out or having any license as an auctioneer, provided the sum for which such process is enforced is under 20*l.*—Sec. 5.

6 Geo. IV. c. 81 s. 8 repealed, and 1 Excise License to be sufficient.—So much of the Act 6 Geo. IV. c. 81 as enacts 'that every person exercising or carrying on the trade or business of an auctioneer or selling any goods or chattels, lands, tenements, or hereditaments by auction, shall, over and above any license to him or her granted as an auctioneer, take out such license as is required by law to deal in or retail, or to vend, trade in, or

sell, any goods or commodities, for the dealing in or retailing or vending, trading in or selling of which an excise license is specially required, before he or she shall be permitted or authorised to sell such goods or commodities by auction, and if any such person shall sell any such goods or commodities as aforesaid by auction without having taken out such license as aforesaid for that purpose, he or she shall be subject and liable to the penalty in that behalf imposed upon persons dealing in or retailing, vending, trading, or selling any such goods or commodities without license, notwithstanding any license to him or her before granted as aforesaid for the purpose of exercising or carrying on the trade or business of an auctioneer, or selling any goods or chattels, lands, tenements, or hereditaments by auction, anything herein contained to the contrary notwithstanding,' together with the proviso thereto attached, and so much of any other Act or Acts of parliament by which it is required that a separate and distinct license shall be taken out by any auctioneer selling by auction gold or silver plate or patent medicines, or any other articles, are hereby repealed; and any auctioneer having at the time in force a license on which the duty under the provisions of this Act has been paid may sell by auction any such property, goods, or commodities, without taking out any other license in such respect, any other Act or Acts to the contrary thereof notwithstanding.—Sec. 6.

Clause 7 orders that every auctioneer, before he shall commence any sale, shall suspend or affix a ticket or board containing his full Christian name and surname and place of residence in large letters to some conspicuous part of the room or place where the auction is held, under a penalty of 20*l.*

Clause 8 enacts that every person acting as auctioneer shall produce his license, or make a deposit of 10*l.* on pain of 1 month's imprisonment, on the demand at the time of any sale by auction of any officer of excise, customs, or stamps and taxes.

An auctioneer who declines to disclose the name of his principal at the time of sale makes himself responsible. But if he disclose the name of his principal, he ceases to be responsible, either for the soundness of or title to the thing sold, unless he have expressly warranted it on his own responsibility.

If an auctioneer pay over the produce of a sale to his employer, after receiving notice that the goods were not the property of such employer, the real owner of the goods may recover the amount from the auctioneer.

It has long been a common practice at certain

auctions (called for that reason *mock auctions*) to employ *puffers*, or mock bidders, to raise the value of the articles sold by their apparent competition, and many questions have grown out of it. It was long ago decided, that if the owner of an estate put up to sale by auction employ puffers to bid for him, it is a fraud on the real bidder, and the highest bidder cannot be compelled to complete his contract. (6 *T. Rep.* p. 642.) But it would seem as if the mere employment of puffers under any circumstances were now held to be illegal. "The inclination of the courts at the present time is, that a sale by auction should be conducted in the most open and public manner possible; that there should be no reserve on the part of the seller, and no collusion on the part of the buyers. Pulling is illegal, according to a late case, even though there be only one puffer; and it was then decided that the recognised practice at auctions, of employing such persons to bid upon the sale of horses, could not be sustained." (Woolrych *On Commercial Law*, p. 262.)

A party bidding at any auction may retract his offer at any time before the hammer is down. Another clearly established principle is, that verbal declarations by an auctioneer are not to be suffered to control the printed conditions of sale; and these, when pasted up under the box of the auctioneer, are held to be sufficiently notified to purchasers.

Auctioneers, like all other agents, should carefully observe their instructions. Should those who employ them sustain any damage through their carelessness or inattention, they will be responsible. They must also answer for the consequences, if they sell the property intrusted to their care for less than the price set upon it by the owners, or in a way contrary to order.

An auctioneer who has duly paid the license duty is not liable, in the city of London, to the penalties for acting as a *broker* without being admitted agreeably to the 6 Anne c. 16.

The establishment of mock auctions is a common practice among swindlers in London. Persons are frequently placed at the doors of such auctions, denominated *barbers*, to invite strangers to come in; and puffers are in wait to bid up the article much beyond its value. A stranger making an offer at such an auction is almost sure to have the article knocked down to him. Plated goods are often disposed of at these auctions; but it is almost needless to add, they are of very inferior quality. Attempts have sometimes been made to suppress mock auctions, but hitherto without much success.

AUSTRALIA. [ADELAIDE; BRISBANE; COLONIES AND COLONY TRADE; MELBOURNE; SYDNEY; &c.]

AVERAGE (Fr. *avarie*; Ital. *germinamento*). For an elaborate dissertation on the origin of this term, see Arnould's *Marine Insurance*, 3rd edit. with Mr. Maclellan's note, p. 738). A term used in Commerce and Navigation to signify a contribution made by the individuals, when they happen to be more than one, to whom a ship, or the goods on board it, belong, or by whom it or they are insured; in order that no particular individual or individuals amongst them, who may have been forced to make a sacrifice for the preservation of the ship or cargo, or both, should lose more than others. 'Thus,' says Mr. Serjeant Marshall, 'where the goods of a particular merchant are thrown overboard in a storm to save the ship from sinking; or where the masts, cables, anchors, or other furniture of the ship, are cut away or destroyed for the preservation of the whole; or money or goods are given as a composition to pirates to save the rest; or an expense is incurred in reclaiming the ship, or defending a

suit in a foreign court of admiralty, and obtaining her discharge from an unjust capture or detention; in these and the like cases, where any sacrifice is deliberately and voluntarily made, or any expense fairly and *bonâ fide* incurred, to prevent a total loss, such sacrifice or expense is the proper subject of a general contribution, and ought to be rateably borne by the owners of the ship, freight, and cargo, so that the loss may fall equally on all, according to the equitable maxim of the civil law—no one ought to be enriched by another's loss: "Nemo debet locupletari aliena jactura."

Upon this fair principle is founded the doctrine of average contributions; regulations with respect to which having been embodied in the Rhodian law, were thence adopted into the Roman law; and form a prominent part of all modern systems of maritime jurisprudence. The rule of the Rhodian law is, that 'if, for the sake of lightening a ship in danger at sea, goods be thrown overboard, the loss incurred for the sake of all, shall be made good by a general contribution.'—(*Dig. lib. xiv. tit. 2, s. 1*; Schomburg, *On the Maritime Laws of Rhodes*, p. 60.)

Formerly it was a common practice to ransom British ships when captured by an enemy, the ransom being made good by a general average. But this practice having been deemed disadvantageous, it was abolished by stat. 22 Geo. III. c. 25, which declares, 'That all contracts and agreements which shall be entered into, and all bills, notes, and other securities, which shall be given by any person or persons, for ransom of any ship or vessel, merchandise, or goods, captured by the subjects of any state at war with his Majesty, or by any person committing hostilities against his Majesty's subjects, shall be absolutely void in law, and of no effect whatever; and a penalty of 500*l.* is given to the informer, for every offence against this Act.

Average is either *general* or *particular*; that is, it either affects all who have any interest in the ship and cargo, or only some of them. The contributions levied in the cases mentioned above, come under the first class. But when losses occur from ordinary wear and tear, or from the perils naturally incident to a voyage, without being *voluntarily* encountered, such as the accidental springing of masts, the loss of anchors, &c., or when any peculiar sacrifice is made for the sake of the *ship only*, or of the *cargo only*, these losses, or this sacrifice, must be borne by the parties immediately interested, and are consequently deeded by a *particular* average.

There are also some small charges called *petty* or *accustomed* averages; it is usual to charge one third of them to the ship and two thirds to the cargo.

No general average ever takes place, except it can be shown that the danger was imminent, and that the sacrifice made was *indispensable*, or *supposed to be indispensable*, by the captain and officers for the safety of the ship and cargo. The captain, on coming on shore, should immediately make his protests; and he, with some of the crew, should make oath that the goods were thrown overboard, masts or anchors cut away, money paid, or other loss sustained, for the preservation of the ship and goods, and of the lives of those on board, and for no other purpose. The average, if not settled before, should then be adjusted, and it should be paid before the cargo is landed; for the owners of the ship have a *lien* on the goods on board, not only for the freight, but also to answer all averages and contributions that may be due. But though the captain should neglect his duty in this respect, the sufferer would not be without

a remedy, but might bring an action either against him or the owners.

The laws of different states, and the opinions of the ablest jurists, vary as to whether the loss incurred in defending a ship against an enemy or pirate, and in the treatment of the wounded officers and men, should be made good by general or particular average. The Ordinance of the Hanse Towns (art. 35), the Ordinance of 1681 (liv. iii. tit. 7, s. 6), and the *Code de Commerce* (art. 400, s. 6), explicitly declare that the charges on account of medicine and for attendance upon the officers and seamen wounded in defending the ship, shall be general average. A regulation of this sort seems to be founded on reason. But other codes are silent on the subject; and though the contrary opinion had been advanced by Mr. Serjeant Marshall, and by Mr. Justice Park in the earlier editions of his work, the Court of Common Pleas has unanimously decided that in England neither the damage done to a ship, nor the ammunition expended, nor the expense of healing sailors wounded in an action with an enemy or pirate is a subject of general average. (Abbott, *On the Law of Shipping*, pt. iii. ch. viii.)

The general safety of the whole adventure must also be a motive for the sacrifice, for if a captain of a ship, on the point of capture, threw overboard a quantity of dollars, not to save the ship and cargo, but merely to prevent the dollars from getting into the enemy's hand; this is not such a jettison as would entitle the owner of the dollars to a general average contribution. (Arnould, p. 773.)

Some goods are excepted, giving no claim to contribution, as those of which there is no bill of lading; those taken on board by the captain contrary to the charter-party; and especially those carried on deck, unless there is a usage and custom for such carriage. Thus timber cast overboard is held to be entitled to average, as were also some pigs carried between Waterford and London.

Much doubt has been entertained, whether expenses incurred by a ship in an intermediate port in which she has taken refuge, should be general average or fall only on the ship. But on principle at least, it is clear, that if the retreat of the ship to port be made in order to obviate the danger of foundering, or some other great and imminent calamity, the expenses incurred in entering it, and during the time she is forced by stress of weather, or adverse winds, to continue in it, ought to belong to general average. But if the retreat of the ship to port be made in order to repair an injury occasioned by the unskillfulness of the master, or in consequence of any defect in her outfit, such, for example, as deficiencies of water, provisions, sails, &c., with which she ought to have been sufficiently supplied before setting out, the expenses should fall wholly on the owners.

When a ship (supposed to be *seaworthy*) is forced to take refuge in an intermediate port, because of a loss occasioned by a peril of the sea, as the springing of a mast, &c., then, as the accident is not ascribable to any fault of the master or owners, and the retreat to port is indispensable for the safety of the ship and cargo, it would seem that any *extraordinary expense* incurred in entering it should be made good by general average.

Supposing, however, that it could be shown that the ship was not, at her outset, *seaworthy*, or in a condition to withstand the perils of the sea; that the mast, for example, which has sprung, had been previously damaged; or supposing that the mischief had been occasioned by the incapacity of the master; the whole blame would, in

such a case, be ascribable to the owners, who besides defraying every expense, should be liable in damages to the freighters for the delay that would necessarily take place in completing the voyage, and for whatever damage might be done to the cargo.

These, however, are merely the conclusions to which, as it appears to us, those must come who look only to principles. The law with respect to the points referred to differs in different countries, and has differed in this country at different periods. 'A doubt,' says Lord Tenterden, 'was formerly entertained as to the expenses of a ship in a port in which she had taken refuge, to repair the damage occasioned by a tempest; but this has been removed by late decisions. And it has been held, that the wages and provisions of the crew during such a period must fall upon the ship alone. But if a ship should necessarily go into an intermediate port for the purpose only of repairing such a damage as is in itself a proper object of general contribution, possibly the wages, &c. during the period of such detention, may also be held to be general average, on the ground that the necessary should follow the nature of its principal.' (*Law of Shipping*, pt. iii. ch. viii.)

Perhaps the reader who reflects on the vagueness of this passage will be disposed to concur with Lord Tenterden's remark in another part of the same chapter, 'That the determinations of the English courts of justice furnish less of authority on this subject (average) than on any other branch of maritime law.'

The question, whether the *repairs* which a ship undergoes that is forced to put into an intermediate port ought to be general or particular average, has created a great diversity of opinion; but the principles that ought to regulate our decision with respect to it seem pretty obvious. Injuries voluntarily done to the ship, as cutting away masts, yards, &c., to avert some impending danger, are universally admitted to be general average. It seems, however, hardly less clear, and is, indeed, expressly laid down by all the great authorities, that injuries done to the ship by the violence of the winds or the waves should be particular average, or should fall wholly on the owners. The ship, to use the admirable illustration of this principle given in the civil law, is like the tool or instrument of a workman in his trade. If in doing his work he break his hammer, his anvil, or any other instrument, he can claim no satisfaction for this from his employer. (*Dig. lib. xiv. tit. 2, s. 2.*) The owners are bound, both by the usual conditions in all charter-parties, and at common law, to carry the cargo to its destination; and they must consequently be bound, in the event of the ship sustaining any accidental or natural damage during the voyage, either to repair that damage at their own expense, or to provide another vessel to forward the goods. In point of fact, too, such subsidiary ships have often been provided; but it has never been pretended that their hire was a subject of general average, though it is plain it has quite as good a right to be so considered as the cost of repairing the damage done to the ship by a peril of the sea. Hence when a ship puts into an intermediate port for the common safety, the charges incurred in entering the port, and *down to the earliest time that the wind and weather become favourable for leaving it*, ought to be general average; but the repair of any damage she may have sustained by wear and tear or by the mere violence of the storm, or an accidental peril, and the wages of the crew, and other expenses incurred after the weather has moderated, should fall wholly on the owners.

A recent decision in the case of a British ship that had been obliged to put into port in consequence of an injury resulting from her accidentally coming into collision with another, affirmed that so much of the repair she then underwent as was *absolutely necessary to enable her to perform her voyage* should be general average. The Judges, however, spoke rather doubtfully on the subject; and it is exceedingly difficult to discover any good grounds for the judgment. (Plummer and another v. Wildman, 3 M. & S. 482.) It seems directly opposed to all principle, as well as to the authority of the laws of Rhodes (*Dig.* 14, tit. 2), of Oleron (art. 9), of Wisby (art. 12), and to the common law with respect to freight. Lord Tenterden has expressed himself as if he were hostile to the judgment. It is, indeed, at variance with all the doctrines he lays down; and the terms in which he alludes to it, 'yet in one case,' appear to hold it forth as an exception (which it certainly is) to the course of decisions on the subject.

This rule has been adopted in the United States, but in this country (Arnould, 792) the case must either be considered as overruled or at all events not to be an authority for the rule thus deduced from it. Indeed, Lord Ellenborough himself afterwards refers to it as decided on the ground that the repairs were rendered necessary by a sacrifice of part of the ship for the general safety, and held on the case then before him (Power v. Whitmore) that the expense of repairs can only be a subject of general contribution when rendered necessary by a general average loss. This is accordingly the received rule of law in this country upon the subject.

It is now usual in this country, when a vessel puts into port on account of a damage belonging to particular average, which requires to be repaired before she can safely proceed on her voyage, to allow in general average the expense of entering the port and unloading, to charge the owners of the goods or their underwriters with the warehouse rent and expenses attending the cargo, and to throw the expense of reloading and departure on the freight.

Considerable doubts have existed in regard to the policy of making the loss of goods stowed upon the deck and thrown overboard the subject of general average. The French Ordinance of 1681, proceeding on the assumption that deck stowage is in all cases improper, has expressly excluded goods so stowed from the benefit of such average (Liv. iii, tit. 8, s. 13.) This, however, is plainly a matter in regard to which no invariable rule can be safely laid down; for though, speaking generally, stowage on the deck be improper and dangerous in most distant voyages, it may not be so, at least in certain seasons of the year, and in certain descriptions of vessels, in the coasting or cross-channel trades, or in over-sea voyages to contiguous countries. And such being the case, the preferable plan would seem to be to leave cases of the jettison of the deck cargo to be decided according to the practice of the peculiar trade in which they may happen to take place. This, too, we infer, though the point has not been judicially determined, is, in fact, the law of England at this moment. *Prima facie*, deck goods are excluded from the benefit of general average; but if it can be shown that stowage on deck is the usage of the trade in which a jettison takes place, and the custom of the parties engaged in it, the general presumption against the practice would be defeated, and the goods would be admitted to the benefit of general average. (Shee's valuable edition of Lord Tenterden's work on the *Law of Shipping*, pp. 481—489.)

A late statute, the 5 Vict. 2 sess. c. 17, makes it illegal for ships laden with timber and clearing out from any port in British North America between November 1 and May 1 to have any portion of the cargo on deck. But, with this exception, the propriety of stowing goods on the deck must be determined by the opinions of those engaged in the particular trade in which it may have occurred.

According to the law of England, when a ship is injured by coming into collision with, or *running foul* of another, if the misfortune has been accidental, and no blame can be ascribed to either party, the owners of the damaged ship have to bear the loss. In cases where a collision has taken place through the fault of one party only, he, of course, is responsible for the consequences; but where both parties are to blame, without its being possible to discriminate the precise culpability of each, the loss or damage is to be defrayed equally by both parties. And this, also, is the rule laid down by the laws of Oleron and Wisby, and the famous French Ordinance of 1681, in reference to accidental collisions. The *Code de Commerce* (art. 407), however, throws the loss resulting from accidental collisions on the suffering party, harmonising in this respect with the law of England. [COLLISION.]

The ship and freight, and everything on board, even jewels, plate, and money, except wearing apparel, contribute to general average. But the wages of seamen do not contribute; because, had they been laid under this obligation, they might have been tempted to oppose a sacrifice necessary for the general safety.

Different states have adopted different modes of valuing the articles which are to contribute to an average. In this respect the law of England has varied considerably at different periods. At present, however, the ship is valued at the price she is worth on her arrival at the port of delivery. The value of the freight is held to be the clear sum which the ship has earned after seamen's wages, pilotage, and all such other charges as come under the name of petty averages, are deducted. It is now the settled practice to value the goods lost, as well as those saved, at the price they would have fetched in ready money, at the *port of delivery*, on the ship's arrival there, freight, duties, and other charges being deducted. Each person's share of the loss will bear the same proportion to the value of his property that the whole loss bears to the aggregate value of the ship, freight, and cargo. The necessity of taking the goods lost into this account is obvious; for otherwise their owner would be the only person who would not be a loser.

When the loss of masts, cables, and other furniture of the ship, is compensated by general average, it is usual, as the new articles will, in all ordinary cases, be of greater value than those that have been lost, to deduct *one-third* from the value of the former, leaving two-thirds only to be contributed.

But the mode of adjusting an average will be better understood by the following example, extracted from Chief Justice Tenterden's valuable work on the *Law of Shipping*, pt. iii. ch. viii. :—  
 'The reader will suppose that it became necessary, in the Downs, to cut the cable of a ship destined for Hull; that the ship afterwards struck upon the Goodwin, which compelled the master to cut away his mast, and cast overboard part of the cargo, in which operation another part was injured; and that the ship being cleared from the sands, was forced to take refuge in Ramsgate harbour, to avoid the further effects of the storm.

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Amount of Losses		
Goods of A. cast overboard		£ 500
Damage of the goods of B. by the jettison		500
Freight of the goods cast overboard		100
Price of a new cable, anchor, and mast	300.	} 500
Deduct one third	100.	
Expense of bringing the ship off the sands		50
Wharfage and port duties going into the harbour and out, and commission to the agent who made the disbursements		100
Expenses there		25
Adjusting this average		1
Postage		1
<b>Total of losses</b>		<b>1,180</b>
Value of Articles to contribute.		
Goods of A. cast overboard		500
Sound value of the goods of B., deducting freight and charges		1,900
Goods of C.		500
D.		2,000
E.		5,000
Value of the ship		2,000
Clear freight, deducting wages, victuals, &c.		800
<b>Total of contributory values</b>		<b>11,800</b>

Then, 11,800 : 1,180 :: 1000 : 101.

That is, each person will lose 10 per cent. upon the value of his interest in the cargo, ship, or freight. Therefore, A. loses 500, B. 1000, C. 500, D. 2000, E. 5000, the owners 2000; in all, 11,800. Upon this calculation, the owners are to lose 2000; but they are to receive from the contribution 2000, to make good their disbursements, and 1000 more for the freight of the goods thrown overboard; or 3000, minus 2000.

They, therefore, are actually to receive	£	2000
A. is to contribute 500, but has lost 500; therefore		0
A. is to receive		450
B. is to contribute 1000, but has lost 2000; therefore		1000
Here B. is to receive		1000
<b>Total to be actually received</b>		<b>7500</b>
On the other hand, C., D., and E. have lost	{ C. 500	
nothing, and are to pay as before; viz.	{ D. 2000	
	{ E. 5000	
<b>Total to be actually paid</b>		<b>7500</b>

which is exactly equal to the total to be actually received, and must be paid by and to each person in rateable proportion.

'In the above estimate of losses, I have included the freight of the goods thrown overboard, which appears to be proper, as the freight of the goods is to be paid, and their supposed value is taken clear of freight, as well as other charges. In this country, where the practice of insurance is very general, it is usual for the broker, who has procured the policy of insurance, to draw up an adjustment of the average, which is commonly paid in the first instance by the insurers without dispute. In case of dispute, the contribution may be recovered either by a suit in equity, or by an action at law, instituted by each individual entitled to receive, against each party that ought to pay, for the amount of his share. And in the case of a general ship, where there are many consignees, it is usual for the master, before he delivers the goods, to take a bond from the different merchants for payment of their portions of the average when the same shall be adjusted.'

The subject of average does not necessarily make a part of the law of insurance; though as insurers, from the terms of most policies, are liable to indemnify the insured against those contributions which are properly denominated *general average*, its consideration very frequently occurs in questions as to partial losses. But in order to confine assurances to that which should be their only object, namely an indemnity against real and important losses arising from a peril of the sea, as well as to obviate disputes respecting losses arising from the perishable quality of the goods insured, and all trivial subjects of difference and litigation, it seems to be the general law of all

maritime states, and is expressly, indeed, provided by the famous Ordinance of 1681 (see liv. iii. tit. 6, s. 47, and the elaborate commentary of M. Valin), that the insurer shall not be liable to any demand on account of average, unless it exceed *one per cent.* An article (No. 408) to the same effect is inserted in the *Code de Commerce*; and by stipulation, this limitation is frequently extended in French policies to *three or four per cent.* A similar practice was adopted in this country in 1749. It is now constantly stipulated in all policies, that upon certain enumerated articles of a quality peculiarly perishable, the insurer shall not be liable for any partial loss whatever; that upon certain others liable to partial injuries, but less difficult to be preserved at sea, he shall only be liable for partial losses above *five per cent.*; and that as to all other goods, and also the ship and freight, he shall only be liable for partial losses above *three per cent.* This stipulation is made by a memorandum inserted at the bottom of all policies done at Lloyd's, of the following tenor: 'N.B. Corn; fish, salt, fruit, flour, and seeds are warranted free from average, unless general, or the ship be stranded; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under 5% per cent.; and all other goods free from average under 3% per cent., unless general, or the ship be stranded.'

The form of this memorandum was universally used, as well by the Royal Exchange and London Assurance Companies as by private underwriters, till 1754, when it was decided that a ship having run aground, was a stranded ship within the meaning of the memorandum; and that although she got off again, the underwriters were liable to the average or partial loss upon damaged corn. This decision induced the two companies to strike the words *or the ship be stranded* out of the memorandum; so that now they consider themselves liable to no losses which can happen to such commodities, except general averages and total losses. The old form is still retained by the private underwriters. [JETSAM; STRANDING.]

The reader is referred for the further discussion of this important subject, to the article *MARINE INSURANCE*; and to Mr. Stevens's *Essay on Average*; Abbott *On the Law of Shipping*, pt. iii. ch. viii.; Marshall *On Insurance*, book i. ch. xii. s. 7; Park *On Insurance*, ch. vii.; and Mr. Benecke *On the Principles of Indemnity in Marine Insurance*; Arnould *On Marine Insurance*; Pritchard's *Admiralty Digest*; Smith's *Mercantile Law*.

*International General Average.*—It is clear that there is a tendency for the rules of commercial law, and especially that portion which deals with shipping and marine assurance, to become identical in all civilised communities. Hence all admiralty and naval courts take into account decisions which have been given in foreign tribunals, quote cases which have been adjudicated on, and treat commercial law with greater or less exactness as part of the law of nations.

The reader is referred especially to the *Report of the Social Science Association for 1864*, containing the resolutions arrived at by representatives from Belgium, France, Holland, the Hanse Towns, Russia, and the United States.

AVOIRDUPOIS. A weight used in determining the gravity of bulky commodities.

## B

**BABOOL BARK.** The bark of the *Acacia arabica* is almost exclusively used by the natives of India for tanning purposes, being the only bark which can be obtained throughout the Peninsula in large quantities, and cheap. The price varies from  $\frac{1}{2}$  to 2 rupees per maund, about 80 lbs. avoird.

**BACON AND HAMS.** The former is made from the sides and belly of the pig, and the latter from its hind legs. The process of curing may be effected indifferently by the employment of salt or sugar, or both; but the first is by far the most commonly used. After being impregnated with salt or sugar, and allowed to remain a certain time in the solution, the bacon and hams are taken out, dried and smoked. The counties of England most celebrated for bacon and hams, are York, Hants, Berks, and Wilts. Ireland produces great quantities of both; but they are coarse, not so well cured as the English, and much lower priced. Of the Scotch counties, Dumfriess, Wigton, and Kirkcubright are celebrated for the excellence of their bacon and hams, of which they export large quantities, principally to the Liverpool and London markets. [PORK.]

**BAGGAGE.** In Commercial Navigation, the wearing apparel and other articles destined for the sole use or accommodation of the crews and passengers of ships. The following are the principal custom-house regulations with respect to baggage: Baggage and apparel accompanied by the proprietor, worn and in use (not made up for the purpose of being introduced into this country), exempted from all duty on importation.

Baggage, containing no article liable to duty, and arriving by continental steam vessels, may be examined between Gravesend and London, provided the proprietor be present, and see the packages resealed and labelled by the officer. Such baggage is landed before any other, provided the label be not removed or torn. (*Customs Order*, Aug. 3, 1853.)

At the outports those passengers having but single packages landed, will have these first examined.

Articles in baggage (not merchandise) subject to duty, will be delivered to passengers, if the duties thereon, and a small fee for passing the entry, be deposited with the person authorised to receive the same.

If unaccompanied, and examined by sight entry, baggage may be delivered on a proper indorsement being made and certified by the examining officer.

If not cleared at the expiration of six months from the date of landing, it is liable to be sold for duty and charges, the residue (if any) to be paid to the right owner on proof being adduced to the satisfaction of the Board.

One rifle or fowling-piece, and one pair of pistols accompanying the party, for private use, free per *Customs Order*, Sept. 23, 1829. Now duty free.

Trifling articles of silk, and leather gloves in small quantities, found in passengers' baggage, landed from the continent, admitted for entry for private use on the usual declaration. (*Customs Order*, August 7, 1833.) Now duty free.

One pint of drinkable spirits of whatever strength, or half a pint of cordial or Cologne water, in baggage, for private use—free. (*Treasury Order*, October 25, 1820.)

Half a pound of cigars or manufactured tobacco in the baggage of passengers delivered duty free.

Passengers from short voyages may enter 3 lbs., and those from long voyages may enter 7 lbs., of cigars. (*Customs Order*, January 14, 1837.)

Books, plate, or other articles on which drawback might have been received, free, on declaration that no drawback has been received.

Drawings and sketches made for amusement, and not for sale, by the proprietor, and accompanied by him, duty free. (*Treasury Order*, August 5, 1817.)

Foreign newspapers unbound, duty free. (*Customs Order*, April 29, 1829.)

Passengers denying having Foreign Goods in their Possession.—The following clause in the Act 16 & 17 Vict. c. 107, has reference to this subject: 'If any passenger or other person, on board any ship or boat, or who may have landed from the same, shall, upon being questioned by any officer whether he has any foreign goods upon his person, or in his possession, deny the same, and any such goods shall, after such denial, be discovered to be, or to have been, upon his person, or in his possession, such goods shall be forfeited, and such person shall forfeit treble the value of such goods.' Sec. 229.

Any Licensed Agent overcharging parties for customs duties or other disbursement, will have his license withdrawn, and be prosecuted. (*Customs Order*, Dec. 24, 1847.)

A customs officer taking any fee, perquisite, or reward for anything done or omitted to be done by him in discharge of his duty, is to be dismissed.—(16 & 17 Vict. c. 107 s. 3.)

**BAHIA or SALVADOR.** A large city (formerly a capital) of Brazil, contiguous to Cape St. Antonio, which forms the right or eastern side of the entrance of the noble bay of Todos os Santos, or All-Saints.

The map conveys a clearer and better idea of this celebrated bay than could be acquired from any description.

According to the observations of M. Roussin, the lighthouse on the Cape is in lat.  $13^{\circ} 0' 30''$  S., long.  $38^{\circ} 30'$  W. The opposite side of the entrance to the Bay is formed by the island of Taporica, distant from Cape St. Antonio about  $2\frac{1}{2}$  leagues. But a bank along the shore of the island narrows the passage for large ships to about two-thirds this distance. Another bank runs S.S.W. from Cape St. Antonio about  $\frac{1}{4}$  league. Within, the bay expands into a capacious basin, having several islands and harbours, the depth of water varying from 8 and 10 to 40 fathoms, affording ample accommodation and secure anchorage for the largest fleets.

There is another entrance to the bay, on the west side of the island of Taporica; but it is narrow, intricate, and at its mouth has not more than 6 feet water. Several rivers have their embouchure in the bay, which generally occasions a current to set





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**BAHIA**

from the north end of the island by Cape St. Antonio; when the rivers are flooded, this current is sometimes very strong. The lighthouse at the extremity of the Cape has no great elevation, and cannot be seen at a distance of more than 3 or 3½ leagues. The usual place of anchorage is abreast of the city north and south of Fort do Mar. The city is partly built on the beach, but prin-

**BALANCE**

cipally on pretty high ground immediately contiguous. The public buildings, particularly the churches, are numerous, and some of them magnificent; but the streets are narrow, ill paved, and filthy. Population estimated at from 125,000 to 160,000. The city is defended by several forts, but none of them are of great strength. We subjoin—

*An Account specifying the Quantities and the Destination of the Principal Articles of Native Produce shipped from Bahia in 1866.*

	Sugar	Cotton	Coffee	Cocoa	Hides	Hum	Tobacco	Passara	Rosewood
Great Britain	—	bales	—	—	—	—	—	bundles	logs
France	36,000	—	—	—	—	—	—	280,000	—
Sweden	1,200	49,200	13,700	—	—	—	—	—	2,200
Portugal	5,700	5,000	33,700	—	—	—	—	—	—
United States	5,750	—	—	—	—	—	—	—	—
Spain	3,000	—	—	—	—	—	—	—	—
Germany	—	—	2,700	—	—	—	—	—	—
Holland	—	1,600	1,800	1,200	—	—	—	—	—
Russia	—	600	—	—	—	—	—	—	—
Other countries	—	—	4,500	—	—	—	—	—	—
Total	4,800	—	9,400	600	73,000	5,271	504 rolls 40,077 mangoes 108,977 bales	45,000	3,000 1,250 1,200
	19,050	47,900	69,100	11,100				153,716 153,716	550 1,250 9,000

The diamonds exported were 1,672 oitavas, valued at 290,000*l.*, to which may be added more than double the quantity sent away clandestinely.  
\* The Bahia bag of coffee contains only 4 arrobas, 128 lbs., instead (as at Rio Janeiro) of 5 arrobas.

*Weights and Measures.*

1 quintal=4 arrobas.  
1 Canada=2 imperial gallons.  
1 arroba=32 lbs.  
1 alqueire=1/4 of a bushel.

[PERNAMBUCO.]

**BALACHONG.** An article consisting of pounded or bruised fish. It consists principally of scud and offensive to strangers. Though used as a condiment to rice, is largely consumed in all the countries to the east of Bengal, including the southern provinces of China, and the islands of the Eastern Archipelago. Its distribution gives rise to an extensive internal traffic.

**BALANCE.** In Accounts, the term used to express the difference between the debtor and creditor sides of an account.

**BALANCE.** In Commerce, the term commonly used to express the difference between the value of the exports from and imports into a country. The balance used to be said to be favourable when the value of the exports exceeded that of the imports, and unfavourable when the value of the imports exceeded that of the exports. And in this country this was long believed to be the case, and down to a late period we were annually congratulated by our finance ministers on the excess of the exports over the imports.

The attainment of a favourable balance was formerly regarded as an object of the greatest importance. The precious metals, in consequence of their being used as money, were long considered as the only real wealth that could be possessed either by individuals or nations. And as countries without mines could not obtain supplies of these metals except in exchange for exported products, it was concluded, that if the value of the commodities exported exceeded that of those imported, the balance would have to be paid by the importation of an equivalent amount of the precious metals; and conversely. A very large proportion of the restraints imposed on the freedom of commerce during the last three centuries grew out of this notion. The importance of having a favourable balance being universally admitted, every effort was made to attain it; and nothing seemed so effectual for this purpose as the devising of schemes to facilitate exportation, and to hinder the importation of almost all products, except gold and silver, that were not intended for future exportation. But the gradual though slow

The value of the above articles may be estimated at about 1,500,000*l.* Bahia has long been the principal mart for the sale of diamonds. And the late discovery of a new and highly productive diamond-field in the interior has led to a great increase in the exports of the gem, the value of which is believed to amount to from 450,000*l.* to 550,000*l.* [DIAMOND.] Tapioca and other articles are also exported. In 1866, 228 British vessels, of the burden of 192,991 tons, entered at and 207, of 125,402 tons, cleared out from Bahia. See, for some remarks on the trade with Brazil, the art. on RIO DE JANEIRO.

The imports consist principally of cottons and other manufactured goods, provisions, flour, salt, and salt fish, iron, hardware, coals, soap, wines, &c. The exports from Bahia have rather increased of late years, notwithstanding the greater obstructions thrown in the way of importing slaves, and the greater scarcity and high price of labour.

No articles are prohibited to be imported, nor are there any privileges in favour of ships belonging to any country. The coasting trade is exclusively carried on by Brazilian vessels.

There is no difference made in the duty on goods, whether imported in native or foreign vessels. Vessels putting into Bahia in distress pay no tonnage dues. Those which discharge or take in cargo pay 30 reis per ton, per day, Brazilian measurement; but should a vessel remain in port more than 50 days, this payment ceases to be enforced.

*Port Dues on Vessels.*

Brazilian hospital for each man specified in muster-rolls	reis
100 of health	5,000
English, Portuguese, and Brazilian vessels pay light house, &c.	5,720
Vessels of other nations pay lighthouse, &c.	10,240

Bahia has not been affected, according to Mr. Consul Morgan, by the total abolition of the slave traffic.

Bahia is the only port of this province where goods may be warehoused on importation, and afterwards exported. A duty is charged thereon at the rate of 4 per cent. on tariff valuation. The duty of 15 per cent. formerly levied on chronometers and other nautical instruments in use on board vessels has been recently abolished. Average Exchange, 30*l.* per 1000 reis.

growth of sounder opinions with respect to the nature and functions of money, showed the futility of a system of policy having such objects in view. It is now conceded on all hands that gold and silver are nothing but commodities; and that it is in no respect necessary to interfere either to encourage their importation or to prevent their exportation. In Great Britain they may be freely exported and imported, whether in the shape of coin or bullion. [Coin.]

The truth is, however, that the theory of the balance of trade was not erroneous merely from the false notions which its advocates entertained with respect to money, but proceeded on radically mistaken views as to the nature of commerce. The mode in which the balance was usually estimated was, indeed, completely fallacious. But had it been correctly ascertained, it would have been found, in opposition to the common opinion, that the imports into commercial countries must, speaking generally, exceed the exports; and that a balance, whether on the one side or the other, is but rarely cancelled by a bullion payment.

1. The proper business of the wholesale merchant consists in carrying the various products of the different countries of the world from the places where their value is least to those where it is greatest; or, which is the same thing, in distributing them according to the effective demand. It is clear, however, that there could be no motive to export any species of produce, unless that which it was intended to import in its stead were of greater value. When an English merchant commissions a quantity of Polish wheat, he calculates on its selling for so much more than its price in Poland, as will be sufficient to pay the expense of freight, insurance, &c., and to yield, besides, the common and ordinary rate of profit on the capital employed. If the wheat did not sell for this much, its importation would obviously be a loss to the importer. It is plain, then, that no merchant ever did or ever will export, but in the view of importing something more valuable in return. And so far from an excess of exports over imports being any criterion of an advantageous commerce, it is directly the reverse; and the truth is, notwithstanding all that has been said and written to the contrary, that unless the value of the imports exceeded that of the exports, foreign trade could not be carried on. Were this not the case—that is, were the value of the exports always greater than the value of the imports—merchants would lose on every transaction with foreigners, and the trade with them would be speedily abandoned.

In England, the rates at which all articles of export and import are officially valued were fixed so far back as 1696. But the very great alteration that has since taken place, not only in the value of money, but also in the cost of by far the greater number of the commodities of this and other countries, long ago rendered the official valuation of no use whatever, either as a means of learning the values or the quantities of the exports or imports. In so far, however, as respects the former, this defect was unintentionally remedied in 1798, when the 'convoy duty,' being an ad valorem tax laid on the exports, furnished the means of ascertaining their amount. And the importance of the information so obtained was such, that, whether articles of export have or have not been charged with duties, exporters have since been made to declare, in every case, the real value of the articles which they export.

It has been alleged, and apparently with some probability, that merchants have not infrequently been in the habit of exaggerating the value of

articles entitled to drawbacks on exportation. But the extension and improvement of the warehousing system, and the diminution of the number of drawbacks, have materially lessened whatever fraud or inaccuracy may have arisen from this source. So long, indeed, as the greater number of articles were charged with an ad valorem duty of 10s. per cent. on exportation, it may be presumed that their value was rather under than overrated. But since the repeal of that duty (5 & 6 Vict. c. 47, s. 40), their declared value is believed to come very near the truth; at least, sufficiently so for all practical purposes.

But until very recently no authentic information was obtained in regard to the value of the imports. In 1848, however, the Board of Customs having approved a plan suggested by Mr. Messenger, inspector-general of imports and exports, for ascertaining the value of the former, it was submitted by them to the Treasury. And its advantages having been fully appreciated by Mr. James Wilson, M.P., then secretary to their Lordships, it was carried into effect in 1854. It is needless to enter into any minute details with respect to the mode of computing the values of the imports. It is sufficient to state that it is effected by ascertaining the current prices of imported articles from price-currents, mercantile circulars, &c., and from these deducing the aggregate value of each. It would be idle to suppose that results derived from a process of this sort should be altogether exact; but the errors it involves are of no great moment, and for statistical purposes it may be reckoned quite correct, and most valuable.

In a former edition of this work, we ventured to say that, though we had no means of comparing the real values of the imports with those of the exports, we had no doubt that the former very considerably exceeded the latter. It could hardly, indeed, be otherwise. The value of an exported commodity is estimated at the moment of its being sent abroad, and before its cost is increased by the expense of transporting it to the place of its destination; whereas the value of the commodity imported in its stead is estimated after it has arrived at its destination, and, consequently, after its cost has been enhanced by the expense of freight, insurance, importers' profits, &c.

	1853	1854	1855	1856
Value of imports	£ 418,919,020	£ 271,552,172	£ 271,072,285	£ 295,201,553
Value of exports	£ 196,902,409	£ 212,619,614	£ 218,531,576	£ 238,803,900
Excess of imports	£ 222,016,611	£ 59,932,558	£ 52,540,709	£ 56,397,653

To measure, therefore, the advantage of commerce by the excess of the exports over the imports is a proceeding false alike in fact and principle. The value of the imports, in all but anomalous and extremely rare instances, invariably exceeds that of the exports. And it is plain that this excess, whatever it may be, forms the only fund whence the expenses and profits of the merchants can be derived. The larger, consequently, it becomes, the more will it be for their advantage.

In the United States, the value of the imports, as ascertained by the custom-house returns, has usually exceeded the value of the exports. And although our practical politicians were in the habit of considering the excess of the former as a certain proof of a disadvantageous commerce, 'it is nevertheless true,' says Mr. Pitkin, 'that the real gain of the United States has been nearly in proportion as their imports have exceeded their exports.' (*Commerce of the United States*, 2nd ed. p. 280.) The excess of American imports has in part been occasioned by the Americans generally

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exporting their own surplus produce, and consequently, receiving from foreigners not only an equivalent for their exports, but also for the cost of conveying them to the foreign market. 'In 1811,' says the author just quoted 'flour sold in America for nine dollars and a-half per barrel, and in Spain for fifteen dollars. The value of the cargo of a vessel carrying 5,000 barrels of flour would, therefore, be estimated at the period of its exportation at 47,500 dollars; but as this flour would sell, when carried to Spain, for 75,000 dollars, the American merchant would be entitled to draw on his agent in Spain for 27,500 dollars more than the flour cost in America; or than the sum for which he could have drawn, had the flour been exported in a vessel belonging to a Spanish merchant. But the transaction would not end here. The 75,000 dollars would be vested in some species of Spanish or other European goods fit for the American market; and the freight, insurance, &c., on account of the return cargo, would probably increase its value to 100,000 dollars; so that, in all, the American merchant might have imported goods worth 52,500 dollars more than the flour originally sent to Spain.' It is as impossible to deny that such a transaction as this is advantageous, as it is to deny that its advantage consists entirely in the excess of the value of the goods imported over the value of those exported. And it is equally clear that America might have had the real balance of payments in her favour, though such transactions as the above had been multiplied to any conceivable extent.

2. In the second place, when a balance is due by one country to another, it is but seldom that it is paid by remitting bullion from the debtor to the creditor country. If the sum due by the British merchants to those of Holland be greater than the sum due by the latter to them, the balance of payments will be against Britain; but this balance will not, and indeed cannot, be discharged by an exportation of bullion, unless bullion be, at the time, the cheapest exportable commodity; or, which is the same thing, unless it may be more advantageously exported than anything else. To illustrate this principle, let us suppose that the balance of debt, or the excess of the value of the bills drawn by the merchants of Amsterdam, on London over those drawn by the merchants of London on Amsterdam, amounts to 100,000*l.*: it is the business of the London merchants to find out the means and it is plain, that if they find that any less sum, as 96,000*l.*, 97,000*l.*, or 99,900*l.*, will purchase and send to Holland as much cloth, cotton, hardware, colonial produce, or any other commodity, as will sell in Amsterdam for 100,000*l.*, no gold or silver will be exported. The laws which regulate the trade in bullion are not in any degree different from those which regulate the trade in other commodities. It is exported only when its exportation is advantageous, or when it is more valuable abroad than at home. It would, in fact, be quite as reasonable to expect that water should flow from a low to a high level, as it is to expect that bullion should leave a country where its value is great, to go to, one where it is low! It is never sent abroad to destroy, but always to find its level. The balance of payments might be 10 or 100,000,000 against a particular country, without causing the exportation of a single ounce of bullion. Common sense tells us that no merchant will remit 100*l.* worth of bullion to discharge a debt in a foreign country, if it be possible to invest any smaller sum in any species of merchandise which would sell abroad for 100*l.* exclusive of expenses. The merchant

who deals in the precious metals is as much under the influence of *self-interest*, as he who deals in coffee or indigo; and what merchant would attempt to extinguish a debt, by exporting coffee which cost 100*l.*, if he could effect his object by sending abroad indigo which cost only 99*l.*?

The argument about the balance of payments is one of those that contradict and confute themselves. Had the apparent excess of exports over imports, as indicated by the British Custom-house books for the hundred years down to 1853, been always paid in bullion, as the supporters of the old theory contend is the case, there should at this moment be some 500,000,000 or 600,000,000 of bullion in the country, instead of 80,000,000 or 100,000,000, which it is supposed at most to amount to! Nor is this all. If the theory of the balance were good for anything—if it had not been a mere idle delusion—it follows, as every country in the world, with the single exception of the United States, has had its favourable balance, that they must have been paid by an annual importation of bullion from the mines corresponding to their aggregate amount. But it is certain that though it were increased in a fivefold proportion, it would be insufficient for this purpose! This reductio ad absurdum is decisive of the degree of credit that should be attached to conclusions respecting the flourishing state of the commerce of any country drawn from the excess of the exports over the imports!

Not only, therefore, is the theory with respect to the balance of trade erroneous, but the very reverse of that theory is true. In the *first* place the value of the commodities imported by every country which carries on an advantageous commerce (and no other will be prosecuted for any considerable period), invariably exceeds the value of those which she exports. Unless such were the case, there would plainly be no fund whence the merchants and others engaged in foreign trade could derive either a profit on their capital, or a return for their outlay and trouble; and in the *second* place, whether the balance of debt be for or against a country, that balance will neither be paid nor received in bullion, unless it be at the time the commodity by the exportation or importation of which the account may be most profitably settled. Whatever the partisans of the doctrine as to the balance may say about money being a preferable product, or *merchandise par excellence*, it is certain it will never appear in the list of exports and imports while there is anything else with which to carry on trade, or cancel debts, that will yield a larger profit, or occasion less expense to the debtors.

It is difficult to estimate the mischief which the absurd notions relative to the balance of trade have occasioned in almost every commercial country;—here they have been particularly injurious. It is principally to the prevalence of prejudices to which they have given rise, that the restrictions on the trade between this country and France are to be ascribed. The great or rather the only argument insisted upon by those who prevailed on the legislature, in the reign of William and Mary, to declare the trade with France a *nuisance*, was founded on the statement that the value of the imports from that kingdom considerably exceeded the value of the commodities we exported to it. The balance was regarded as a *tribute* paid by England to France, and it was sagaciously asked, what had we done, that we should be obliged to pay so much money to our natural enemy? It never occurred to those who so loudly abused the French trade, that no

merchant would import any commodity from France, unless it brought a higher price in this country than the commodity exported to pay it; and that the profit of the merchant, or the national gain, would be in exact proportion to this excess of price. The very reason assigned by these persons for prohibiting the trade affords the best attainable proof of its having been a lucrative one; nor can there be any doubt that an unrestricted freedom of intercourse between the two countries would be of the greatest service to both.

**BALE.** A pack, or certain quantity of goods or merchandise; as a *bale* of silk, cloth, &c.

*Bales* are always marked and numbered, that the merchants to whom they belong may know them, and the marks and numbers correspond to those in the bills of lading, &c. Selling under the *bale*, or under the *cords*, is a term used in France and other countries for selling goods wholesale, without sample or pattern, and unopened.

**BALKS.** Large pieces of timber.

**BALLAST** (Dutch, ballast; Fr. lest; Ger. ballast; Ital. savorra; Span. lastre; Swed. ballast). A quantity of iron, stones, sand, gravel, or any other heavy material laid in a ship's hold, in order to sink her deeper in the water, and to render her capable of carrying sail without being overset. All ships clearing outwards, having no goods on board other than the personal baggage of the passengers, are said to be in ballast.

The quantity of ballast required to fit ships of equal burden for a voyage, is often materially different; the proportion being always less or more, according to the sharpness or fitness of the ship's bottom, called, by seamen, the *floor*.

The proper ballasting of a ship deserves peculiar attention, for, although it be known that ships in general will not carry sufficient sail till they are laden so that the surface of the water nearly glances on the extreme breadth midships, more than this general knowledge is required. If the ship have a great weight of heavy ballast, as lead, iron, &c., in the bottom, the centre of gravity will be too low in the hold; this no doubt will enable her to carry a press of sail, but it will, at the same time, make her sail heavily, and roll so violently as to run the risk of being dismasted.

The object in ballasting a ship is, therefore, so to dispose of the ballast or cargo, that she may be duly poised, and maintain a proper equilibrium on the water, so as neither to be too *stiff*, nor too *crank*, qualities equally pernicious. If too stiff, she may carry much sail, but her velocity will not be proportionally increased; whilst her masts are endangered by sudden jerks and excessive labouring. If too crank, she will be unfit to carry sail without the risk of oversetting.

Stiffness in ballasting is occasioned by disposing a too great quantity of heavy ballast, as lead, iron, &c., in the bottom, which throws the centre of gravity very near the keel; and this being the centre about which the vibrations are made, the lower it is placed, the more violent is the rolling.

Crankness, on the other hand, is occasioned by having too little ballast, or by disposing the ship's lading so as to raise the centre of gravity too high: this also endangers the masts when it blows hard; for when the masts cease to be perpendicular, they strain on the shrouds in the nature of a lever, which increases as the sine of their obliquity: and it is superfluous to add, that a ship that loses her masts is in great danger of being lost.

Hence the art of ballasting consists in placing the centre of gravity to correspond with the trim and shape of the vessel, so as to be neither too high nor too low; neither too far forward nor too

far aft; and to lade the ship so deep, that the surface of the water may nearly rise to the extreme breadth midships: she will then carry a good quantity of sail, incline but little, and ply well to windward. (Falconer's *Marine Dict.*)

The mischievous consequences of not attending to the circumstances now mentioned are often experienced by ships loading barilla, brimstone, and such heavy articles on the coast of Sicily and Spain. The habit there is to cut large quantities of brushwood and faggots, and to spread them in the hold, to hinder the cargo from sinking the centre of gravity too low, and causing the ship to labour violently; but it very frequently happens that the pressure of the cargo on this sort of dunnage is so great as to squeeze it into a much smaller space than could at first have been supposed; so that ships after getting to sea are sometimes obliged to return to port to unload a part of their cargo, to prevent their foundering. In such cases firm dunnage, such as oak staves, should, if possible, be always employed. (Jackson's *Commerce of Mediterranean*, pp. 125-128.)

Ships that have cargoes of light goods on board require a quantity of ballast, increasing, of course, according to the greater lightness of the goods.

By the Thames Conservancy Act, 27 & 28 Vict. cap. 113, ss. 41-48, ballast in the Thames is vested in the Thames Commissioners, who are empowered to grant licenses to have ballast in the form and under the conditions annexed. The Act takes away all previous Acts, charters and grants, and thus causes the rights of the Trinity House to cease.

The charge made for ballast is 6d. the entire yard.

*Ballast License, eastward of London Bridge.*—We, the conservators of the river Thames, by virtue of the powers granted to us by the Act of Parliament entitled "The Thames Conservancy Act, 1864," do hereby grant our license to

of \_\_\_\_\_ to raise ballast, \_\_\_\_\_ of the burthen of \_\_\_\_\_ tons, from the bed of the river Thames, from the \_\_\_\_\_ to the \_\_\_\_\_ on payment of the sum of \_\_\_\_\_ and subject to the conditions hereafter specified.

'Given under our hand and seal this \_\_\_\_\_ (Signed) \_\_\_\_\_

'Secretary.

'41, Trinity Square, Tower Hill, E.C.'

*Conditions referred to in this License.*—That the space in the river within which dredging under this license will be allowed, extends from London Bridge to Yantlet Creek, except as hereinafter mentioned, viz. in that part of the said river situate and being between the marsh wall and low-water mark, in front of certain land or lands belonging to the War Department, on the north side of the said river, and nearly opposite the Royal Arsenal at Woolwich, and also save and except in that other part of the river situate and lying between Pageant's Wharf and Cuckold's Point thereon.

'No dredging with a bag and spoon will be allowed within 100 yards of any wharf or of the river bank, nor will any gravel, sand, or other material be allowed to be dug or procured from the foreshore within 100 feet of any wharf, or of the bank of the river.

'The dredging authorised by this license is to be carried on under the inspection of the harbour-master of the district, and the person to whom this license is granted, and the men employed by

him in the dredging, are to obey all orders given to him or them by the said harbour-master, with respect to the mooring or placing, or mode of working the barge or vessel having this license.

That the license be kept on board the vessel for which it is granted, and produced whenever required by the officers of the conservancy.

That the name of the vessel, and the name and address of the owner, be painted in white letters of at least 2½ inches in length, and of proportionate thickness (say ½-inch) on a black ground, and in such a position as to be fairly seen when the vessel is fully laden.

That all applications for licenses be made in writing, addressed to the secretary.

That this license be forfeited on the infraction or evasion of any of the above conditions.

**Rates.**—For every ton of ballast delivered in or unladen from the inward West India Dock, the further sum of 10*d.*; and for every ton of ballast delivered in or unladen from the outward West India Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the London Docks, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the inward East India Dock, the further sum of 10*d.*; and for every ton of ballast delivered in or unladen from the outward East India Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the Commercial Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the East Country Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the City Canal the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the Surrey Canal, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the Regent's Canal, the further sum of 4*d.*

Which further rates or prices shall be payable and paid over and above the respective rates first mentioned.

The ballast of all ships or vessels coming into the Thames is to be unladen into a lighter, at the charge of 3*d.* a ton. If any ballast be thrown or unladen from any ship or vessel into the Thames, the captain, master, &c., shall for every such offence forfeit 20*l.* No ballast is to be received on board otherwise than from a lighter. By the stat. 54 Geo. III. c. 149, it is enacted, that no person shall, under a penalty of 10*l.* over and above all expenses, discharge any ballast, rubbish, &c. in any of the ports, harbours, roadsteads, navigable rivers, &c. of the United Kingdom; nor take ballast from any place prohibited by the Lords of the Admiralty.

**Heaving of Ballast.**—The men employed in this laborious occupation have, for a lengthened period, been held in a sort of thralldom by what are called the 'Long shore publicans,' who have paid them according to a truck system of the very worst kind. To emancipate the labourers from this degrading subjection, and place them on a more independent footing, the Trinity House offers to heave ballast as follows, viz.:

Trinity House, London, November 11, 1853.  
Her Majesty having, as provided by s. 14 of the Act 16 & 17 Vict. c. 131, been pleased by order in council, dated October 24, 1853, to approve a scale of rates, to be established and paid to this corporation by the owners or masters of, or agents for, any ships, who may be desirous that the Trinity House should undertake to place ballast on board, or unload it from, such ships, in addition to the rates already payable under the Act 6 & 7 Vict. c. 57, for placing the ballast

alongside the same. The said scale so approved is hereby made public for the information of all persons who may be desirous to avail themselves of this regulation, viz.:

“For vessels having ports, 4*d.* for every ton of ballast placed on board or unladen;

“For vessels not having ports, 6½*d.* for every ton of ballast placed on board or unladen.”

And notice is given, that on and after the 1st day of December, 1853, this corporation will cause ballast to be placed on board of, or unladen from, all ships or vessels, the owners, masters, or agents of which may be desirous that it shall be so placed or unladen, on payment of the rates above specified, at the time of making entry and payment for the quantity of ballast required to be put on board, or unladen, as the case may be.

By order, J. HENRIET,

Secretary.

The Act 16 & 17 Vict. c. 107 s. 145 enacts that before any ship shall depart in ballast from the United Kingdom for parts beyond seas, not having any goods on board, except stores from the warehouse borne upon the victualling bill of such ship, nor any goods reported inwards for exportation in such ship, the collector or comptroller shall clear such ship in ballast, by notifying such clearance and the date thereof of the victualling bill, and deliver the same to the master of such ship as the clearance thereof; and the master of such ship shall answer to the collector or comptroller such questions touching her departure and destination as shall be demanded of him; and ships having only passengers with their baggage on board, and ships laden only with chalk or slate, shall be deemed to be in ballast; and if any such ship, whether laden or in ballast, shall depart without being so cleared, if she have any such stores on board, the master shall forfeit and pay the sum of 100*l.*

Ballast is not part of a ship's furniture.

Ship owners are bound to ballast a ship properly, but they may put merchandise on board as ballast, if it occupy no more room than ballast would have.

No passenger ship shall be (18 & 19 Vict. c. 119 s. 19) allowed to clear out or proceed to sea with any horses, cattle, gunpowder, vitriol, lucifer-matches, guano, or green hides, or any other article on board whether as cargo or ballast, which may be deemed by the emigration officer at the point of clearance likely to endanger the health or lives of passengers.

**BALSAM** (Ger. halsam; Dutch, balsam; Fr. baume; Ital. and Span. balsamo; Lat. balsamum). Balsams are vegetable juices, either liquid, or which spontaneously become concrete, consisting of a substance of a resinous nature, combined with benzoic acid, or which are capable of affording benzoic acid by being heated alone, or with water. The liquid balsams are copaiva, opobalsam, balsam of Peru, storax, and Tolu; the concrete are benzoin, dragon's blood, and red or concrete storax. (Ure.)

1. *Copaiva* (Fr. baume de copahu; Ger. kopaiva balsam; Span. copayva).—This is obtained from the *Copaifera multijuga*, and other trees growing in South America and the West India Islands. The largest quantity is furnished by the province of Para in Brazil. It is imported in small casks, containing from 1 to 1½ ewt. Genuine good copaiva or copaiba balsam has a peculiar odour, and a bitterish, hot, nauseous taste. It is clear and transparent; its consistence is that of oil; but when exposed to the action of the air it becomes solid, dry, and brittle, like resin.

Copaiva is said to be frequently adulterated

with castor oil, and turpentine. No test other than the quantity of essential oil obtainable by distillation appears to be conclusive.

2. *Opobalsam* (Fr. balsamier de la Mecque; Ital. opobalsamo; Lat. balsamum verum album, a gypticum; Egypt. balcsan).—The most precious of all the balsams, commonly called Balm of Gilead. It is the produce of a tree (*Angris Gileadensis*), indigenous to Arabia and Abyssinia, and transplanted at an early period to Judea. It is obtained by cutting the bark with an axe at the time that the juice is in the strongest circulation. The true balsam is of a pale yellowish colour, clear and transparent, about the consistence of Venice turpentine; of a strong, penetrating, agreeable, aromatic smell, and a slightly bitterish pungent taste. By age it becomes yellow, browner, and thicker; losing by degrees, like volatile oils, some of its finer and more subtle parts. It is rarely if ever brought genuine into this country; dried Canada balsam being generally substituted for it. It was in high repute among the ancients; but it is now principally used as a cosmetic by the Turkish ladies. (Drs. Ure and Thomson.)

The Canada balsam, now referred to, is merely *fine turpentine*. It is the produce of the *Pinus balsamea*, and is imported in casks, each containing about 1 cwt. It has a strong, but not a disagreeable odour, and a bitterish taste; it is transparent, whitish, and has the consistence of copaiva balsam. [TURPENTINE.]

'Safra and Beder are the only places in the Hedjaz where the balsam of Mecha, or balessan, can be procured in a pure state. The tree from which it is collected grows in the neighbouring mountains, but principally upon Djebel Sobh, and is called, by the Arabs, Be-chem. I was informed that it is from 10 to 15 feet high, with a smooth trunk, and thin bark. In the middle of summer small incisions are made in the bark; and the juice, which immediately issues, is taken off with the thumb-nail, and put into a vessel. The gum appears to be of two kinds, one of a white, and the other of a yellowish white colour; the first is the most esteemed. I saw here some of the latter sort in a small sheep-skin, which the Bedonius use in bringing it to market: it had a strong turpentine smell, and its taste was bitter. The people of Safra usually adulterate it with sesamum oil and tar. When they try its purity, they dip their finger into it and then set it on fire; if it burn without hurting or leaving a mark on the finger, they judge it to be of good quality; but if it burn the finger as soon as it is set on fire, they consider it to be adulterated. I remember to have read, in Bruce's *Travels*, an account of the mode of trying it, by letting a drop fall into a cup filled with water; the good balsam falling coagulated to the bottom, and the bad dissolving and swimming on the surface. I tried this experiment, which was unknown to the people here, and found the drop swim upon the water; I tried also their test by fire upon the finger of a Bedonin, who had to regret his temerity; I therefore regarded the balsam sold here as adulterated; it was of less density than honey. I wished to purchase some; but neither my own baggage nor any of the shops of Safra could furnish anything like a bottle to hold it; the whole skin was too dear. The Bedonius, who bring it here, usually demand 2 or 3 dollars per pound for it when quite pure; and the Safra Arabs resell it to the hadjeys of the great caravan at between 8 and 12 dollars per pound in an adulterated state. It is bought up principally by Persians.' (Burckhardt's *Travels in Arabia*, vol. ii. p. 123.)

3. *Balsam of Peru* (Fr. baume de Peru; Ger. Peruvianischer balsam; Span. balsamo de quinquina; Lat. balsamum peruvianum).—The produce of a tree (*Myrozyllon peruvianum*) growing in the warmest parts of South America.

The balsam of Peru was first mentioned by Monasdes, under the name of *balsamum*. From the tree which was named by Dr. Royle, *Myrosperrnum Perceira*, two kinds of balsam are obtained, the black balsam (balsam of Peru of commerce), gained by incisions into the stem, and the white balsam (Sonsouate or San Salvador white balsam), obtained by pressure of the fruit after removal of the outer fibrous portions.

Both of these products are procured exclusively from the balsam coast of San Salvador, between the ports of Libertad and Acajutla. The principal market for its sale is Sonsouate. The native Indian population collect and bring it to Sonsouate for sale, in gourds. It is usually sold by the pound, and is paid for in silver pilsular dollars. The average annual production of black balsam is about 25,000 lbs. According to M. Saravia, of Sonsouate, it is obtained by inserting rags in incisions in the tree. These rags, when well soaked, are boiled in water, and the balsam allowed to subside; the water is then poured off and the impure balsam packed in gourds; and M. Victor le Nonvel corroborates this account.

The tree is also an inhabitant of Peru, New Granada, Columbia, and Mexico. Black balsam of Peru is a transparent, deep reddish-brown or black liquid, about the consistence of treacle, and possesses an odour similar to that of vanilla or benzoin. It is soluble in alcohol.

There is another balsamic substance which bears the name of balsam of Peru; it is of a deep brown colour, and has an odour similar to that of Tolu; it is called by Professor Gurbourb *baume de Perou en cocon*, from being ordinarily collected in cocoon shells.

The white balsam of Peru is supposed to be the product of the oleoresinous matter contained in the pericarp and the fatty and other constituents of the seed. It is imported in globular earthen jars, containing about 20 lbs. each. It closely resembles Bordeaux turpentine, is semi-fluid and somewhat granular.

Balsamelo is another product of the same tree, procured by digesting the fruit in rum. (Pereira's *Materia Medica*, and *Private information*.)

Our imports of balsam of Peru amounted in 1863 to 25,508 lbs., four-fifths of which were imported from New Granada; but in 1866 the imports from the latter had fallen to 5,859 lbs. The total value of the imports was 6,699*l.* and the average value per lb. 5*s.* 3*d.*

4. *Storax* (Fr. storax; Ger. storaxbanm; Ital. storace; Span. azumar; Lat. styrax; Arab. asterak). The produce of a tree (*Liquidambar orientale*) growing in the south of Europe and the Levant.

The purest kind is storax in grains. Another kind is called *Styrax calamita*, so named from being brought in masses, wrapped up in the leaves of a kind of calamus. Both these kinds have the odour of vanilla, and are rarely found in the market. A third variety is light, pliable, and imported in brown or reddish-brown masses. A fourth is semi-fluid, the liquid storax of the shops. Storax is employed in medicine and perfumery, but it is very liable to adulteration. Its odour appears to be due to a volatile oil. (*United States Dispensatory*.)

5. *Tolu Balsam* of (Fr. baume de Tolu; Ger. Tolutanischer balsam; Span. balsamo de Tolu). The juice of the *Myrosperrnum toluiferum*, a tree found

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in Carthage. The wood of this tree, according to Humboldt, is of a dark red colour, and of an agreeable odour, and is much used for building.

The balsam is obtained by making incisions in the trunk, and is brought from Carthage in calabashes, earthenware jars, and glass vessels. The test of its purity is its solution in sulphuric acid, from which no sulphurous acid gas should be disengaged in the process, and which should completely dissolve it. Balsam of Tolu contains cinnamic acid. Balsam of Tolu is not, as has been believed, a variety of balsam of Peru, but is the produce of a different tree and a different region. (*United States Dispensary*.)

6. *Benzoin* or *Benjamin* (Fr. benzoin; Ger. benzoe; Span. bengui; Ital. belzaino; Lat. benzoinum; Arab. liban; Hind. luban; Jav. menian; Malay. caminyau). This is an article of much greater commercial importance than any of those balsams previously mentioned. It is obtained from a tree (*Styrax benzoin*) cultivated in Sumatra and Borneo, but particularly the former. The plants produce in the seventh year. The balsam is obtained by making incisions in the bark, when it exudes, and is scraped off. During the first 3 years the balsam is of a clear white colour, after which it becomes brown. Having borne 10 or 12 years, the tree is cut down, a very inferior article being obtained by scraping the wood. The balsams procured in these different stages are distinguished in commerce, and differ widely in value. Benzoin has a very agreeable, fragrant odour, but hardly any taste. It is imported in large masses, packed in chests and casks. It should be chosen full of clear, light-coloured, and white spots, having the appearance of white marble when broken: it is rarely, however, to be met with in so pure a state, but the nearer the approach to it the better.

Subjoined is a table of the imports, &c. of benzoin in 1863:—

From	cwt.	Value	Average value
		£	per cwt.
From Holland	287	2,373	8 5/4
Siam	73	1,541	18 7/6
India, Singapore, and Ceylon	2,880	25,039	8 14/0
Other parts	102	812	8 2/1
Total	3,342	29,615	

About 480 cwts. of this amount were exported to France in 1863.

The exports of this article from Siam are not the produce of that country, according to Sir R. Schomburgk, who states that 'it is all brought from the Laos country.' The tree is destroyed to procure the gum, the bark is clipped all over, and after the gum has all exuded and hardened, it is found between the stem and bark, which is then stripped off. The tree is called Kanyan by the Siamese. The gum, which exudes naturally, has a much stronger perfume than that procured by cutting, but from dropping on the ground it is a good deal mixed with earth and other impurities; it is not white, but of a clear brownish colour. From the manner in which it is brought down the country, it is much destroyed, being broken into dust often from the rough usage which it receives before arriving at the navigable parts of the Meinan. The common way of bringing it to the river is in small baskets strapped in pairs across bullocks' backs. It sells at Bangkok for about 30 ticals per picul. Sir Robert Schomburgk subsequently discovered in his journey to Laos that the benzoin imported into Siam was brought not from Laos, but from the Western provinces of China.

Benzoic acid is prepared chiefly from the Su-

matra kind of benzoin, the average yield from good samples being about 10 or 12 per cent. A kind of benzoin, from Penang, having a smell like storax, does not contain benzoin, but chiefly cinnamic acid, which has no commercial value.

The benzoic acid prepared from gum benzoin has an agreeable odour of the benzoin, but an inferior kind is in the market prepared from the urine of the herbivora. It has a different smell, indicating its origin. Most of the benzoin imported into London and sold at the public sales is re-exported to Russia, Greece, and Roman Catholic countries.

The Siam benzoin fetches the highest price, but the 'tear' benjamin has almost disappeared from the market. The best Siam is now generally met with in small flat pieces.

*Dragon's Blood* (Fr. sang-dragon; Lat. sanguis draconis; Arab. damulakhwatu; Hind. heraduky; Ger. drachenblut; Dan. dragoblod; Span. and Port. sangue de drago; Ital. sangui di drago). The produce of a large species of rattan palm (*Palma juncus draco rumphius; Calamus draco; Willd.*), a native of the islands of the Indian Archipelago, but principally produced in Sumatra and Borneo.

The berry of the *Calamus draco*, which is round pointed and about the size of a cherry, yields a resinous substance, the dragon's blood of commerce.

Dr. Pereira describes the following kinds:—

1. Dragon's blood in the reed, dragon's blood in sticks, occurs in dark reddish-brown sticks, of from 12 to 18 in. long, and from 1/4 in. to 1/2 in. in diameter, enveloped with the leaf of the Talipot palm and bound round with slender slips of cane. Supposed to be obtained from a species of *Calamus*, perhaps *C. draco*.

2. Dragon's blood in oval masses, in drops, occurs in reddish-brown lumps of the size and shape of an olive, enveloped with the leaf of the Talipot palm, which connects them together in a row, like beads of a necklace. This kind is rare in England.

3. Dragon's blood in powder is a reddish powder of very fine quality, imported from the East Indies. Is probably the dust of the fruit of the *C. draco*.

4. Dragon's blood in the tear occurs in irregular pieces, some as large as the fist.

5. Lump dragon's blood varies in quality from fine to ordinary, and occurs in pieces of all sizes and shapes.

6. Dragon's blood in cakes occurs in flat oblong pieces, half the size of a brick, and mostly fine in quality. (Pereira's *Materia Medica*; Guillaumin's *Diction. de Commerce*.)

The following were the imports in 1865:—Copaiba, 230,508 lbs.; Peru, 17,626 lbs.; others unenumerated, 46,000 lbs.

BALTIMORE. A large, opulent, and commercial city of the United States, in Maryland, on the north side of the Patapsco river, about 14 miles above its entrance into Chesapeake Bay, lat. 39° 17' N., long. 76° 36' W. Population in 1850, 169,054; in 1860, 212,418. It is now, 1867, estimated at 300,000. The harbour is spacious, convenient, and the water deep. The exports principally consist of wheat-flour and wheat, tobacco (of which it furnishes a larger supply than any other port in the Union, with, perhaps, the single exception of Richmond, in Virginia), Indian corn and meal; bacon, pork, rice, beef, lard, butter, cheese, and other articles of provision; with candles, soap, refined sugar, &c. The imports principally consist of cottons and woollens, sugar, coffee, tea, iron, wine, brandy, silk

goods, spices, rum, &c. The registered, enrolled, and licensed tonnage, belonging to Baltimore, June 30, 1866, amounted to 69,555 tons, of which a large portion was employed in the coasting trade. In 1857, 57 vessels of the burden of 12,410 tons were built at Baltimore, but this is above the average of late years. In 1865 only 2 were built. The total value of the articles imported into Baltimore in the year ending June 30, 1866, was 10,010,000 dollars; the total value of the exports during the same year being 11,091,693 ditto. (*Consular Reports*, 1867.) In Maryland the dollar is worth 78. 6d. currency, 1l. sterling being=1l. 13s. 4d. currency. For an account of the currency of the different states of the Union, with a table of the value of the dollar in each, see New York; and to it also the reader is referred for an account of the foreign trade of the United States. Weights and measures same as those of England.

The trade of Baltimore was severely crippled by the civil war, and is now adversely affected by the high tariffs and protective duties of the United States. This is especially the case with the trade between this port and the British West Indies, and with the export of tobacco. In 1866 it imported 180,870 bags of coffee, chiefly from Rio, while among its receipts were 33,680 bales of cotton; of which 7,499 bales were exported. The Maryland crop of wheat was small in 1866, but that of maize was the largest ever known, amounting to 4,479,633 bushels. The most important export, however, was petroleum, of which 1,982,368 gallons were sent to foreign countries in 1866. There are thirteen or fourteen refineries engaged in distilling this product. The price fluctuates enormously, varying from a dollar per gallon, at which it stood in July 1864, to 32 cents, its price in December 1866. Baltimore also exports large quantities of provisions—beef, pork, butter, lard, bacon. In 1866, 527,680 lbs. of bacon were exported. The stock of tobacco in 1866 was 73,308 hhds. The largest exports of Maryland tobacco were to Bremen, Rotterdam, and France. The imports of coal, once a large trade in this town, have been seriously checked by the enormous duties imposed on them. In some cases, as might be expected, these excessive imposts have been evaded by wholesale smuggling. (*Consular Reports*, 1867.)

There is a lighthouse on Lazaretto Point, on the N. side of Baltimore island, lat. 39° 15' 42" N., long. 76° 33' 59" W., and visible for 10 miles.

Oysters.—Baltimore is one of the principal places in the Union for the supply of oysters. In 1866 the entire produce of the fishery amounted to 7,000,000 bushels, valued at 5,300,000 dollars. The vessels engaged in this trade were no less than 1,100, some of 50 tons each, and nearly 600 other vessels were employed in bringing them to market. (*Consular Report*, 1866.)

**Commercial Regulations adopted by the Board of Trade, in June 1857: to obtain where no express agreement to the contrary exists.**

Commissions on General Business.		per cent.
On sales of foreign merchandise		5
On sales of domestic merchandise, not otherwise provided for		2½
On guarantee		2½
On selling flour and meal		12½
On selling grain received by vessels		1
On railroad or steamboat, exclusive of the expense of delivery		2
On purchase and shipment of merchandise, on costs and charges, with funds in hand		2½
On effecting marine insurance, 2½ per cent. on premium for domestic and 5 per cent. on foreign. No charge to be made for effecting insurance on property consigned or shipped.		
On collecting delayed and litigated accounts		5

	per cent.
On landing, re-shipping, or delivering goods from vessels in distress, on a value of invoice	2½
On procuring or obtaining money on Bottomry or Supplemental Bond on Vessels	2½
Landing and re-shipping on specie and bullion	1
Receiving and forwarding merchandise entered at Custom House, on invoice value 1 per cent., and on expenses incurred	2½

On consignments of merchandise withdrawn or re-shipped full commissions are to be charged, to the extent of advances or responsibilities incurred, and one-half commission on the residue of the value.

The risk of loss by robbery, fire (unless insurance be ordered), theft, popular tumult, and all other unavoidable occurrences is in all cases to be borne by the owners of the goods, provided due diligence has been exercised in the care of them.

Shipping.		per cent.
On purchase or sale of vessels		2½
On disbursements and outfit of vessels		2½
On procuring freight and passengers		2½
On collecting freight		2½
On collecting insurance losses of all kinds		2½
Charters of vessels on amount of freight, actual or estimated, to be considered as due when the charter parties are signed		2½
No charter to be considered binding till a memorandum or one of the copies of the charter has been signed.		
On giving bonds for vessels under attachment in litigated cases, on amount of liability		2½

The foregoing commissions are exclusive of auction duty, and commissions, brokerage, storage, and every other charge actually incurred.

**Freight and Freighting.**

If a vessel is freighted by the ton, and no special agreement is made respecting the proportions of which each article shall be computed, the following shall be the standard of computation, viz.:

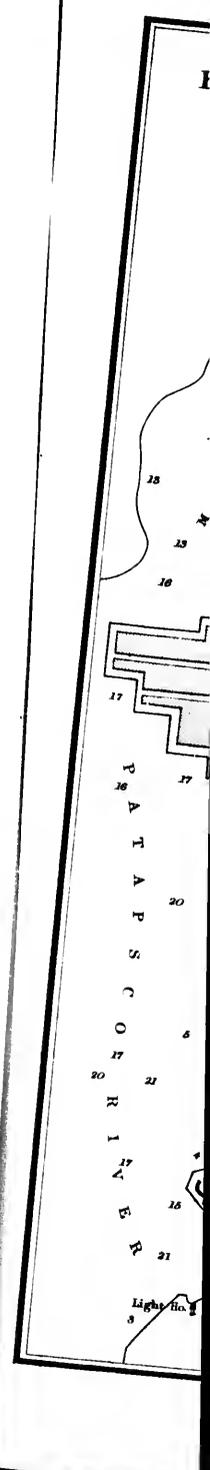
2,210 lbs.	pig and bar iron, lead, copper, coal, logwood, fustic, and other heavy dry-woods	
2,000 "	Nicaragua and Braziletto wood	
2,210 "	nett sugar and rice in casks	
1,850 "	coffee in bags	
1,500 "	in casks	
1,500 "	cocoa in bags or bulk	
1,100 "	in casks	
1,110 "	pimento in bags	
952 "	in casks	
800 "	ship bread in bags	
700 "	in casks	
1,150 "	dried hides	
900 "	w. green teas and China raw silk	
1,120 "	Bohea and other black tea	
1,500 "	Virginia tobacco in hhds.	
1,500 "	Kentucky "	
1,000 "	Maryland "	
8 lbs.	flour of 136 nett	
6 "	beef, pork, and tallow	
7 "	navel stores and pickled fish	
200 gals.	wine measure—estimating the full contents of the cask of oil, wine, brandy, &c.	
22 bush.	grain, peas, beans, &c. in casks	
40 "	in bulk	
40 "	Liverpool blown salt in bulk	
34 "	ground	
51 "	St. Ubes, Cape de Verdes, &c. in bulk	
50 "	West India salt in bulk	
20 "	sea coal in bulk	
40 cubic feet	of plank, boards, timber, bale goods, packages and boxes	

In estimating the contents in cubic feet, of various packages and goods, the following shall be the standard:

A flour barrel	5
A tree of rice	11
A hhd. of flaxseed	12
Virginia tobacco	15
Kentucky, Georgia, and Carolina	10
Maryland and Ohio	55
5 bushels of grain in bulk	5

In computing boxes of candles and soap, kegs of butter and lard, hams and bacon, and generally all similar articles, 200 lbs. nett weight shall be considered equal to a barrel of 5 cubic feet.

All goods brought to this port on freight must be delivered on a wharf, at the expense of the vessel bringing the same; a delivery, after due notice, on any good wharf at Fell's Point during business hours, is a delivery in the city and port of Baltimore. Hides and articles prohibited to be landed in the city at certain periods, may be landed where the public authorities may direct.





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Stores

Hogsheads of sugar, tobacco, mol  
 of whee, brandy, and gin  
 Hogsheads of coffee, copperas, codia  
 Pieces of sugar, rum, molasses, and  
 Pieces of rice, coffee, flaxseed, alur  
 Barrels of rum, whiskey, sugar, fish,  
 wine  
 Barrels of molasses  
 Barrels of flour and coffee, and other  
 Boxes of Cuba sugar  
 Boxes of fish, wine, oil, lemons, and o  
 Boxes of soap, candles, cheese, tin, rai  
 Bags of coffee, cocoa, pepper, and pin  
 Bales of cotton and hempen yarn, shob  
 Bales of India piece, and other similar  
 Indigo in ceroon, and other similar  
 In cases  
 Tea in chests  
 in half chests  
 in boxes  
 Kegs of butter, tobacco, nails, and raisi

BALTIMORE

In all cases when vessels are obliged (by the quarantine regulations or city authorities) to discharge their cargo in the stream, the expense of delivering the same east of Jones' Falls will be borne by the carrier only. But when requested by the consignee to be delivered west of Jones' Falls, then the expense shall be equally borne by the carrier and consignee (each one-half).

If a vessel is chartered for a voyage out and home, each shipper shall be entitled to his fair proportion of the whole homeward freight, pro rata, of the bulk or space occupied by each shipper on the outward voyage.

In all cases where a vessel is chartered or freighted for a voyage out and home, the freighter or charterer is bound to furnish sufficient cargo or ballast at the port of discharge of the outward cargo, to enable said vessel to return safely home, and the same from port to port, where the charter provides for more than one port; provided no agreement to the contrary is made by the parties.

Weights and Tares.

Sugar, coppers, alum, brimstone, shot, lead, iron, steel, hemp, dye-woods, and all other articles heretofore sold by the cwt. of 112 lbs. or ton of 2,240 lbs., shall in future be sold by the decimal hundred of 100 lbs., or ton of 2,000 lbs.

Tares shall be allowed as follows:—

Sugar, in hhd., or tcs., 12 per cent.; in brls. 10 per cent.; in boxes, 15 per cent.; do. in linen bags 3, and mats 5 per cent.; and in all other packages, the actual tare.

Coffee in hhd., or tcs., 12 per cent.; in brls. 2 per cent.; in flour brls., 20 lbs. each; in all other packages the actual tare.

Pepper in linen or single gunny bags, 3 per cent.; in other packages, the actual tare.

Pimento in linen or single gunny bags, 3 per cent.; in other packages, the actual tare.

Rice in tcs. and half tcs., 10 per cent. Copperas in hhd., or brls., actual tare.

Teas, green, whole chests 20 lbs., and in all other packages, Canton tare.

Cassia in mats, 10 per cent.; boxes and other packages, the actual tare.

Indigo in ceroon, in single hides, 11 per cent.; in all other cases, the actual tare.

Ginger 2 per cent., and cloves 9 lbs. per bale. Alum, brimstone, nutmegs, mace, almonds, figs, cheese, soap, candles, chocolate, currants, prunes, starch, and all other articles not before mentioned, the actual tare.

For a sack of ground alum salt, 216 lbs. gross shall be considered as fair average weight.

No charge shall be made for casks, barrels, boxes, or other packages whatever.

Drafts as follows: On all weights *even beam*—4 per cent. to be allowed for draft.

Storage.

	cts. per month
Hogheads of sugar, tobacco, molasses, rum, oil, and pipes of wine, brandy, and gin	25
Hogheads of coffee, molasses, codfish, and tallow	20
Tierces of rice, coffee, molasses, and half pipes	16
Barrels of rum, whiskey, sugar, fish, cheese, oil, and gr. casks	12½
Barrels of molasses	6
Barrels of flour and coffee, and other dry articles	8
Boxes of fish, wine, oil, lemons, and oranges	3
Boxes of soap, candles, cheese, tin, raisins, and drums of figs	3
Boxes of coffee, cocoa, pepper, and pimento	2
Bales of cotton and hempen yarn, about 500 lbs.	2
Bales of India pieces, and other similar goods	12½
Indigo in ceroon	10
It cases	4
Ten in chests	10
in half chests	10
in boxes	3
in kegs	2
Kegs of butter, tobacco, nails, and raisins	1
	5

BAMBOO

	cts. per month
Hides, dried	1
Hemp, per ton	50
Iron and lead, per ton	50
Crates of earthenware	50
Salt, per bushel	50

All goods stored to be subject to one month's storage if in store ten days—if less than ten days half a month's storage.

The owners of goods to be at the expense of putting them in store and delivering them.

Rates of Charges adopted by the Provision Trade, to obtain except in cases of special agreement.

On Storage per Month, viz.

Hacon or bulk meats in hhd.	15
Picked meats in hhd.	15
in tcs.	15
Hacon in tcs.	15
Lard, in tcs.	15
Lard, in kegs	15
Hulk meats, in cellar, per 1,000 lbs.	15
For receiving or delivering, per hhd.	15
per tcs.	15
per brl.	15
per keg	15
Loose meat, per 1,000 lbs.	15
For packing meat in slack casks, including cooperage	15
in tight casks	15
For weighing loose meat per 1,000 lbs.	15
For weighing meat in casks	15
For smoking shoulders or hams	15
slides -	15
jules or tongues	15
For inspecting and repacking beef & pork per brl.	15
Including all charges except storage	15
For inspecting bacon or bulk meat, per 1,000 lbs 12½ cts.	15
Scale on bacon 4 per cent.; on bulk meat, 1 per cent.	15
Tares on bulk meat, actual.	15

Pork or beef to be packed or repacked in accordance with existing city ordinances.

The tonnage dues are 30 cents a ton. Vessels to and from the British provinces pay this tax once a year. The harbour dues are 2 cents a ton for all vessels of 60 tons and upwards. There are no light-house dues. There are no public wharves. The pilots are organised, and chartered under a state law, but it is optional to use them or not. The rates are—vessels drawing 15 feet and over, inward 5 dollars per foot, outward 4 dollars; from 12 to 15 feet, inward 4 dollars, outward 3 dollars; less than 12 feet, inward 3-50 dollars, outward 2-50 dollars. If the master does not take a pilot, he is required to take out a pilot license. This license, for which he pays 6 cents per ton, permits him to pilot his own vessel, and is in force for a year. If he chooses afterwards, holding such a license, to employ a pilot, a deduction of 20 per cent. is made to the amount of 20 per cent.

Vessels drawing 22 feet can enter the port and those drawing 18 feet can come up to the wharves. (Private information.) For further particulars, see Edwards' *British Shipmasters' Guide*.

BAMBOO (Fr. bambou, bambouches; Ger. indianischer rohr; Ital. bambu; Hind. rans; Malay, bilah; Jav. Preng). A species of cane, the *Bambos arundinacea* of botanists. It grows everywhere within the tropics, and is of the greatest utility; strictly speaking it is a grass with a ligneous stem. It often rises to the height of 40 or 50 feet, and sometimes to the double those heights. Like most plants long and extensively cultivated, it diverges into many varieties. Some of these are dwarfish, while others instead of being hollow canes, are solid. The bamboo is of rapid growth, and in four or five years is fit for many uses, but does not bear fruit or grain till it be 25 years old, after which it perishes. The grain makes tolerable bread. The young, but gigantic shoots, as they spring from the earth, make a tender and good esculent vegetable. The mature bamboo is employed in an immense variety of ways, in the construction of houses, bridges, boats, agricultural implements,

&c. Some varieties grow to such a size as to be, in the largest part, nearly two feet in circumference, and single knees of these are used as pails or buckets. The Chinese fabricate their cheap and useful paper of macerated bamboo, and use it in the manufacture of ropes, which are of great strength and solidity, for the rigging of their junks. The canes used in Europe as walking sticks are not bamboos, but rattans—a totally distinct class of plants. Bamboos are never used for that purpose. (*Private information.*)

**BANCO.** A word borrowed from the Italian, and used in certain commercial towns to distinguish real or ideal bank values from currency values. It is a term rarely used except at Hamburg.

**BANDANAS.** Silk handkerchiefs, generally red spotted with white. They were formerly manufactured only in the East Indies; but they are now manufactured of the very best quality at Glasgow and other places.

**BANGKOK.** The capital of the kingdom of Siam, situated about 20 miles direct distance, but about 30 by water, from the sea on both sides the river: Meinam, but chiefly on its left or eastern bank, in lat. 13° 40' N., long. 101° 10' E. The Meinam opens in the centre nearly of the bottom of the Gulf of Siam. There is a bar at its mouth, consisting, for the most part, of an extensive mud flat. The outer edge of this flat, which is little more than 200 yards broad, is sandy and of harder materials than the inner part; which is so soft that when a ship grounds on it during the ebb, she often sinks 5 feet in the mud and clay, which supports her upright, so that she is but little inconvenienced. The highest water on the bar of the Meinam, from February to September, is about 13½ feet; and in the remaining 4 months, somewhat more than 14 feet—a difference probably produced by the accumulation of water at the head of the bay after the south-west monsoon and by the heavy floods of the rainy season. On account of the deficiency of water on the bar, vessels sent to Bangkok had better, perhaps, not exceed 200 or 250 tons burden. In all other respects, the river is extremely safe and commodious. Its mouth is no sooner approached, than it deepens gradually; and at Paknam, two miles up, there are 6 and 7 fathoms water. This depth increases as you ascend, and at Bangkok is not less than 9 fathoms. The only danger is, or rather was, a sandbank off Paknam, bare at low water; but a battery has been erected within the last few years, affording at all times a distinct beacon. The channel of the river is so equal, that a ship may range from one side to another, approaching the banks so closely that her yards may actually overhang them. The navigation is said to be equally safe all the way up to the old capital, Yuthia, 80 miles from the mouth of the river.

The city of Bangkok extends along the banks of the Meinam to the distance of about 2½ miles, but is of no great breadth, probably not exceeding 1½ mile. On the left bank there is a long street or row of floating houses: each house or shop, for they are in general both, consisting of a distinct vessel, which may be moored anywhere along the banks. Besides the principal river, which at the city is about a quarter of a mile broad, the country is intersected by a great number of tributary streams and canals, so that almost all intercourse at Bangkok is by water. The population has been variously computed at from 50,000 to 400,000; but, though probably in excess, the latter is no doubt the nearest to the mark. Half the population consists of Chinese settlers.

The common necessities of life at Bangkok are exceedingly cheap. A cwt. of rice may always be had for 2s. and very often for 1s. Other necessaries, such as salt, palm-sugar, spices, vegetables, fish, and even flesh, are proportionally cheap. The price of good pork, for example, is 2½d. per lb. A duck may be had for 7d. and a fowl for 3d. The neighbourhood of Bangkok is one of the most productive places in the world for fine fruits; here are assembled, and to be had in the greatest perfection and abundance, the orange and lichi of China, the mango of Hindostan, and the mangostein, durian, and shaddock of the Malay countries.

The area of the kingdom of Siam has been estimated at about 200,000 square miles, and its population at from nearly 3,000,000 to 6,000,000; both estimates being by the highest authorities, viz., Mr. Crawford, one of the most intelligent Englishmen that has ever visited the country, and the other by M. Pallexoix, bishop of Siam. Sir John Bowring reckons the population at between 4,000,000 and 5,000,000; but it is evident that no dependence can be safely placed on any of these estimates. From a quarter to a third part of the population are supposed to be Chinese. Sir John Bowring says: 'There is no class of settlers, who, under proper control, are so likely to be useful as the Chinese. That passion for acquiring wealth, which leads them to dare all danger and difficulty, is a most valuable recommendation. Their habits of subordination, their inbred respect for authority, their gregarious spirit, which drives them into associations of every sort, private and public, praiseworthy and pernicious, only require a thorough knowledge of their character to be turned to the best account.' (*The Kingdom and People of Siam*, i. 243.) The Chinese are, in truth, by far the best and most valuable part of the population.

**Trade.**—Being near the mouth of a great navigable river, which runs through the whole extent of the country, Bangkok is well situated for commerce, and formerly she possessed a considerable trade. This, however, gradually fell off, in consequence of the monopolies and other injudicious measures of the government. But latterly a more liberal spirit has prevailed; and since 1855, when the commercial treaty negotiated by Sir John Bowring (see *post*) came into operation, trade has been largely extended; and the capacities of the country are so very great that, were they at all developed, Bangkok could not fail to become one of the principal emporiums of the East.

The trade which is centred at Bangkok is principally carried on with China, Cochinchina, and the neighbouring countries, and with Singapore, Java, &c. But vessels direct from England and other European countries and the United States, occasionally arrive at the port. Pallexoix has given (tom. i. p. 327) a list of the articles, with their quantities and prices, that are usually shipped from Siam; but we prefer laying before the reader an account of the articles, &c., that were really imported into and exported from Bangkok in 1864-65.

A large part of the imports consist of English cotton stuffs and twist, copper, iron and nails, shipping stores, &c. The imports from China comprise coarse earthenware and porcelain, spelter, quicksilver, tea, lacksey (vermicelli), dried fruits, raw silk, crapes, satins, and other silk fabrics, nankeens, shoes, fans, umbrellas, writing paper, sacrificial paper, incense rods, and many other minor articles. Not the least valuable part of the importations are immigrants.

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Total Quantities and Values of the Principal Articles Imported, including Bullion and Specie, at the Port of Bangkok, in each of the Years 1864 and 1865.

Principal Articles	1864		1865	
	Quantities	Value	Quantities	Value
White shirtings	2,180	42,330	—	25,501
Grey "	2,007	76,716	32,106	57,106
Figured "	421	9,067	96,508	5,777
Chowls	511	27,801	—	—
Miscellaneous piece goods	787	20,179	52,613	14,954
White, yellow, and red twist	761	33,895	925	26,721
Machinery	482	16,432	—	—
Crockery	39,273	23,133	13,002	10,556
Coal	4,738	10,812	2,167	2,512
Brass and copper ware	4,504	38,656	1,508	16,377
Mat bags	4,090,933	29,687	1,631,576	10,298
Opium	361	44,759	305	21,957
Fin	3,765	16,869	1,500	6,278
China goods	61,496	81,011	—	43,313
Silk chowls	21,951	25,598	—	6,689
Grapes	19,833	29,306	5,512	34,030
Silk manufactures	39,995	59,493	23,557	12,621
Gold leaf	—	700,496	—	55,074
Mexican dollars	—	273,303	—	—
Total	—	1,167,697	—	519,795

Opium has become an extensive article of consumption. It was formerly prohibited; but, to use the words of Sir John Bowring, 'The influence of the Chinese, the wants of the treasury, the impotency of prohibitions and punishments to prevent its importation, have led to the legalisation of the drug, and the establishment of an opium farm, for which a large sum is annually paid by an opulent Chinese contractor.' (Bowring's Siam, i. 255.)

The tonnage engaged in the trade with China formerly consisted almost entirely of junks; but latterly these have been to a considerable extent superseded by the employment of square-rigged vessels built in Siam after European models.

The supplies of many of the above articles, especially of sugar, pepper, rice, &c., may be indefinitely increased. The principal sugar growing districts are situated in the immediate vicinity of the capital; and nothing is wanted but the application of skill and capital to the culture of the cane and the manufacture of the sugar to increase the produce of the latter to any amount. Pepper is mostly grown near, and is brought from Mariban, on the east side of the Gulf.

Total Quantities and Value of the Principal Articles Exported (exclusive of Bullion and Specie) at the Port of Bangkok, in each of the Years 1864 and 1865.

Principal Articles	1861		1865	
	Quantities	Value	Quantities	Value
Rice	2,199,748	205,630	36,718	21,801
Sugar	89,461	111,576	81,966	102,458
Sapan wood	97,490	21,372	90,117	39,426
Faddy	40,678	15,876	10,534	5,485
Silk	927	31,375	927	31,961
Teel-seed	26,927	13,463	32,016	22,011
Salt	148,131	10,099	224,419	25,242
Flax, salt	126,136	36,534	87,512	120,329
Mussels	4,939	6,161	10,985	17,851
Teak	9,805	15,116	—	16,115
Cardamoms	1,265	11,859	1,500	12,118
Pepper	23,752	44,810	26,281	36,136
Succiac	15,531	28,328	4,744	11,860
Total	—	1,317,922	—	529,276

M. Pallegoix states that the main obstacles to the extension of trade at Bangkok consist: 1. In the difficulty of disposing of goods within a limited period; 2. In the dilatoriness with which they are paid for; and 3. In the delay which attends the getting on board of a return cargo: and to obviate these he suggests that foreigners trading with Siam should have agents and warehouses in

the country, to whom they might consign their goods, to be sold according to the demand, and who might purchase and accumulate, as occasion served, articles of export. Those who act thus, he says, generally succeed. (Pallegoix, i. 326.)

Account of the British and Foreign Shipping cleared from the Port of Bangkok in 1864 and 1865, specifying the Value of their Cargoes.

	Cleared					
	1864			1865		
	Vessels	Tons	Value of Cargoes	Vessels	Tons	Value of Cargoes
British	118	54,771	616,813	37	10,835	90,012
Danish	51	8,010	66,391	1	168	—
Dutch	6	3,284	6,775	19	9,410	15,190
French	9	2,278	—	2	919	3,159
Hanoverian	13	3,699	—	2	571	6,384
Hanseatic	75	81,244	—	7	2,541	11,030
Norwegian and Swedish	12	3,496	22,331	—	—	—
Oldenburg	4	1,293	8,618	1	509	900
Prussian	1	226	1,925	—	—	—
American, U.S.	11	7,223	48,350	1	305	612
Siamese	101	62,348	569,500	79	30,816	402,109
Other Countries	19	2,725	1,623	—	—	—
Total	422	171,335	—	119	55,970	529,276

Port Dues and Duties.—Previously to 1855 British ships arriving at Bangkok were subject to certain port dues, but these were abolished by the treaty of that year. Duties on imports were at the same time fixed at 3 per cent. The duties on exports and trade regulations are specified in the tariffs, &c., annexed to the treaty. [TREATIES, COMMERCIAL.]

European pilots are always in attendance outside the bar. As soon as the river is entered, all difficulties cease. Vessels are obliged to anchor at Paknam, a town situated about 3 miles from the entrance on the eastern bank. They there land their guns and ammunition, and take on board a customs officer before proceeding to Bangkok.

Paklat Lang, on the west bank of the river, 5 miles above Paknam, is the entrance to a canal which saves a circuit of nearly 10 miles to boats proceeding to or from Bangkok. Ships must take the circuitous route by the river. The canal enters the river at the small village of Paklat Bon. On arrival at Bangkok, vessels can, in any state of the tide, either lie alongside the wharves of their consignees, or, if preferred, anchor in the main stream, where every facility for unloading exists in the abundance of cargo-boats always at

land at a reasonable charge. There are no port dues on European bottoms. On ships reporting at their respective consulates importers have to enter particulars of their merchandise at the Siamese custom-house, which thereon grants the customary order to the landing waiter in charge to permit the landing of the goods.

All merchandise (with the exception of specie) pays the uniform ad valorem duty of 3 per cent. Produce not directly taxed on its production or transit to Bangkok from the interior, pays various export duties.

**Monies, Weights, and Measures.**—Gold and copper are not used as money in Siam, and the currency consists only of cowrie shells and silver. The denominations are as follows:—200 bia or cowries make 1 p'hai-nung; 2 p'hai-nungs, 1 sing-p'hai; 2 sing-p'hai, 1 fuang; 2 fuangs, 1 salung; 4 salungs, 1 bat or tical; 80 ticals, 1 cattie; 100 catties, 1 picul.

The standard coin is the bat, which Europeans have called a *tical*; but there are also coins, though less frequently, of the lower denominations. These are of a rude and peculiar form. They are, in fact, nothing more than small bits of a silver bar bent, and the ends beaten together. They are impressed with two or three small stamps, not covering the whole surface of the coin. The cattie and picul are, of course, only used in speaking of large sums of money. Gold and silver are weighed by small weights, which have the same denominations as the coins. The p'hai-nung, the lowest of these, is in this case subdivided into 32 sungs, or red beans, the *Abrus precatorius* of botanists.

The bat, or tical, was assayed at the mint of Calcutta; it was found to weigh 236 grains; its standard, however, was uncertain, and the value of different specimens varied from 1 rupee 3 annas and 3 pice, to 1 rupee 3 annas and 7 pice. The value, therefore, in sterling money, is about 2s. 6d., and it is so considered.

The denominations of the smaller coins are as follows:—

2 Lots	= 1 At.	The one bat pewter coin, the latter about the size of a halfpenny, and replacing the 100 cowrie shells, which were until lately the only medium of exchange for values under the 'Fuang.'
2 At	= 1 Song P'hai.	A flat copper coin of the same size, but thicker than the above.
2 Song P'hai	= 1 Fuang.	Flat silver coins.
2 Fuangs	= 1 Salung.	
4 Salungs	= 1 Bat or Tical.	equal in weight to the Chinese.
80 Ticals	= 1 Chang or Cattie.	
20 Catties	{ = 1 Hap or Picul } { or 1000 Ticals }	

There is no gold money used in general, and the largest silver coin is the tical. The cattie and picul represent merely weights of silver, and are only used for the calculation of large sums as in India is used the term *tic*.

In respect to ordinary measures, the Siamese cattie is double the weight of the Chinese cattie, which, as is well known, is equal to 14 lb. avoirdupois. The picul, however, is of the same weight, consisting in the one case of 50 catties only, and in the other of 100. In weighing rice and salt, a large measure is used, consisting, in respect to the first of 22 piculs, and of the last of 25 piculs. Rice is also measured by the basket, of which 100 go to the large measure above mentioned.

The long measures are as follow:—12 finger breadths make 1 span; 2 spans, 1 cubit; 4 cubits, 1 fathom; 20 fathoms, 1 sen; and 100 sen, 1 yuta, or, as it is more commonly pronounced by the Siamese, yat. The fathom is the measure of most frequent use, and the Siamese have a pole of this length divided into its fractional parts,

This, as nearly as can be ascertained, is equal to about 6 feet 6 inches. The sen appears to be also used in the admeasurement of land, and to be the name of a square measure of 20 fathoms to the side.

For the treaty between Great Britain and Siam, see TREATIES, COMMERCIAL.

This article has been compiled from information procured on the spot, and communicated to us by our friend John Crawford, Esq.; from the *Description du Royaume Thai ou Siam*, 2 tomes, Paris, 1851, de M. Pallegoix; Sir John Bowring's *Account of the Kingdom and People of Siam*; information supplied by T. G. Knox, Esq., H.M. consul at Bangkok; *Consular Reports*; the *Gulf of Siam: Pilot*; and *Parliamentary Papers*.

**BANK—BANKING.** Banks are establishments intended to serve for the safe custody and issue of money; for facilitating its payment by one individual to another; and sometimes for the accommodation of the public with loans.

#### I. GENERAL PRINCIPLES IN REGARD TO PAPER MONEY AND BANKING.

#### II. BANKS OF DEPOSIT AND BANKS OF ISSUE.

#### III. BANK OF ENGLAND (ACCOUNT OF).

#### IV. PRINCIPLE AND OPERATION OF THE ACT OF 1844.

#### V. MANAGEMENT OF THE BANK OF ENGLAND.

#### VI. CIRCULATION, ETC. OF THE BANK OF ENGLAND, AND OF THE ENGLISH PROVINCIAL BANKS.

#### VII. BANKS (SCOTCH).

#### VIII. BANKS (IRISH).

#### IX. BANKS OF VENICE, AMSTERDAM, ETC.

#### X. BANKS OF FRANCE, BELGIUM, AUSTRIA.

#### XI. BANKING IN UNITED STATES.

#### XII. BANKS FOR SAVINGS.

#### SEC. I. GENERAL PRINCIPLES IN REGARD TO PAPER MONEY AND BANKING.

**Substitution of Notes for Coins.**—Notwithstanding the precious metals are in many respects admirably fitted to serve as media of exchange, they have two very serious drawbacks, viz., their cost, and the difficulty and expense of carrying them from place to place. If no bank notes circulated in the United Kingdom, it might be fairly assumed that from 35,000,000 to 40,000,000 more sovereigns would be required for the public accommodation than at present, including in those now employed the reserves held by the bankers; and the expense of such a currency, taking it at 37,500,000l. and the rate of profit at 6 per cent., with an allowance of 1 per cent. for wear and tear and loss of coins, would be at least 2,625,000l. a-year. But the inconvenience attending the use of a currency consisting wholly of gold would be a much greater drawback on its employment than its cost. The weight of 1,000 sovereigns exceeds 21 lbs. troy; so that were there nothing but coins in circulation, the conveyance of large sums from place to place to discharge accounts would be a very laborious process, and even small sums could not be conveyed without considerable difficulty. Hence it is that most commercial and civilised nations have fabricated a portion of their money of less costly and heavy materials, and resorted to various devices for economising the use of coin. Of the substitutes for the latter hitherto suggested, paper is in all respects the most eligible. When governments are sufficiently powerful and intelligent to enforce the observance of contracts, individuals possessed of written promises from others that they will pay certain sums at specified periods

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begin to assign them to those to whom they are indebted; and when those by whom such obligations are subscribed are persons of whose solvency no doubt can be entertained, they are readily accepted in payment of the debts due by one individual to another. But when the circulation of obligations or bills in this way has continued for a while, individuals begin to perceive that they may derive a profit by issuing them in such a form as to fit them for being readily used as a substitute for money in the ordinary transactions of life. Hence the origin of bank notes or paper money. An individual in whose wealth and discretion the public have confidence being applied to for a loan, say of 5,000*l.*, grants the applicant his bill or note payable on demand for that sum on his receiving adequate security for its repayment with interest. Now, as this note passes, in consequence of the confidence placed in the issuer, currently from hand to hand as cash, it is quite as useful to the borrower as if he had obtained an equivalent amount of gold; and supposing that the rate of interest is 4 per cent., it will yield, so long as it continues to circulate, a revenue of 200*l.* a year to the issuer. A sense of the advantages that might, in this way, be derived from the circulation of bills or notes led to the formation of banks for their regular issue. Those who issue such notes, coin as it were their credit. They derive the same revenue from the loan of their written promises to pay certain sums that they would derive from the loan of the sums themselves; and while they thus increase their own income, they at the same time contribute to increase the wealth of the society. Besides being incomparably cheaper, bank notes are also incomparably more commodious than a metallic currency. A bank note for 1,000*l.* or 100,000*l.* may be carried about with as much facility as a single sovereign. It is of importance, too, to observe, that its loss or destruction, whether by fire, shipwreck, or otherwise, would be of no greater importance, in a public point of view, than the loss or destruction of as much paper. No doubt it might be a serious calamity to the holder; but to whatever extent it injured him, it would proportionally benefit the issuer, whereas the loss of coin is an injury to the holder without being of service to anyone else; it is, in fact, so much abstracted from the wealth of the community.

*Regulations in regard to the Issue of Notes.*—To obviate the endless inconveniences that would arise from the circulation of coins of every weight and degree of purity, were there no restrictions on their issue, all governments have forbidden the circulation of coins not of a certain specified or standard weight and fineness. And the recurrence of similar inconveniences from the issue of notes for varying sums, and payable under varying conditions, has led, in most countries in which paper money is made use of, to the enacting of regulations forbidding the issue of notes below a certain amount, and laying down rules for their payment. In England at this moment no note payable to bearer on demand can be issued for less than 5*l.*, and they must all be paid the moment they are presented. In Scotland and Ireland the minimum value of bank notes is fixed at 1*l.*, the regulations as to payment being the same as in England. In order to preserve the monopoly of the London circulation to the Bank of England, no notes payable to bearer on demand are allowed to be issued by individuals or associations, other than the Bank of England, within 65 miles of St. Paul's. But beyond these limits they may be issued by certain banks, under the provisions of the Act 7 & 8 Vict. c. 32 &c.

*Distinction between Bills of Exchange and*

*Paper-Money.*—Under the phrase paper-money or paper-currency, we do not include bills of exchange, or bills issued by bankers, merchants, and others, and payable some time after date. Such bills perform, in some respects, the same functions as money; and have, in consequence, been frequently regarded in the same light as bank notes. But this is quite improper; for though there are many points in which a bill of exchange and a bank note closely resemble each other, there are others in which there is a distinct and material difference between them. A note bears to be payable on demand; it is not indorsed by a holder on his paying it away; the party receiving has no claim on the party from whom he received it, in the event of the failure of the issuers. Practically speaking, this is the fact; but a person paying away a bank note is liable to be called upon for repayment, should the bank fail before it was in the power of the party to whom it was paid, using ordinary diligence, to present it. The responsibility seldom exceeds a couple of hours, and can hardly in any case exceed a couple of days. In practice it is never adverted to; and everyone is thus encouraged, reckoning on the facility of passing it to another, to accept bank paper, 'even though he should doubt the ultimate solvency of the issuer.' (Thornton *On Paper Credit*, p. 172.) Bills, on the contrary, are almost all drawn payable at some distant period; and those into whose hands they come, if they be not in want of money, prefer retaining them in their possession, in order to get the interest that accrues upon them. But the principal distinction between notes and bills is, that every individual, in passing a bill to another, has to indorse it, and by doing so makes himself responsible for its payment. 'A bill circulates,' says Mr. Thornton, 'in consequence chiefly of the confidence placed by each receiver of it in the last indorser his own correspondent in trade; whereas the circulation of a bank note is owing rather to the circumstance of the name of the issuer being so well known as to give it an universal credit.' (*Ibid.* p. 40.) Nothing, then, can be more inaccurate than to represent bills and notes in the same point of view. If A pay to B 100*l.* in satisfaction of a debt, there is an end of the transaction; but if A pay to B a bill of exchange for 100*l.*, the transaction is not completed; and in the event of the bill not being paid by the person on whom it is drawn, B will have recourse upon A for its value. It is clear, therefore, that a great deal more consideration is always required, and may be fairly presumed to be given, before anyone accepts a bill of exchange in payment, than before he accepts a bank note. The note is payable on the instant, without deduction—the bill not until some future period; the note may be passed to another without incurring any risk or responsibility, whereas every fresh issuer of the bill makes himself responsible for its value. Notes form the currency of all classes, not only of those who are, but also of those who are not engaged in business, as women, children, labourers, &c., who in most instances are without the power to refuse them, and without the means of forming any correct conclusion as to the solvency of the issuers. Bills, on the other hand, pass only, with very few exceptions, among persons engaged in business, who are fully aware of the risk they run in taking them. There is plainly, therefore, a wide and obvious distinction between the two species of currency; and it cannot be fairly argued, that because Government interferes to regulate the issue of the one, it should also regulate the issue of the other. To

use the words of Lord Mansfield, 'Bank notes are not, like bills of exchange, mere securities or documents for debts, nor are so esteemed, but are treated as money in the ordinary course and transactions of business, by the general consent of mankind; and on payment of them, whenever a receipt is required, the receipts are always given as for money, not as for securities or notes.' (*Chitty On Bills*, 8th ed. p. 555.)

*Necessity of insuring the Conversion of Bank Notes into Coin.*—The taking of measures to insure the convertibility of bank notes into coin is a matter which cannot safely be left to the discretion or judgment of individuals, but which must be settled by Government. No bank notes should be permitted to circulate, about the equivalency of which to the coins they profess to represent there can be the smallest room for doubt. It is alleged, indeed, that in this, as in most other things, we may safely trust to the prudence and sagacity of those who deal with banks; and that, if left to themselves, the public will very rarely be deceived. But the widest experience shows that little, if any, dependence can be placed on this doctrine. The public is very apt to be misled, in the first instance, in giving confidence to or taking the paper of individuals or associations; and though that were not the case, the condition of an individual or company may change from bad or expensive management, improvident speculation, unavoidable losses, and fifty other things of which the public know nothing, or nothing certain. The fact that any particular banker who issues paper enjoys the public confidence, is, at best, a presumption merely, and no proof that he really deserves it. The public may believe him to be rich and discreet; but this is mere hypothesis; the circumstances which excite confidence at the outset, and which preserve it, are often very deceptive; and in the vast majority of instances the public has no certain knowledge, nor the means of obtaining any, as to the real state of the case. But it is unnecessary to argue this point speculatively. There have, unfortunately, been innumerable instances in which it has turned out that bankers who have long been in the highest credit, and whose notes had been unhesitatingly accepted by the public, have been found to be, on the occurrence of anything to excite suspicion, quite unable to meet their engagements.

The issue of notes is of all businesses that which seems to hold out the greatest prospect of success to the schemes of those who attempt to get rich by preying on the public. The cost of engraving and issuing is nothing compared with the sums for which they are issued; and provided they be got into anything like extensive circulation, they become at once considerably productive. They are not issued, except, as previously explained, on the deposit of bills or other securities, yielding a considerable rate of interest; so that if an individual, or set of individuals, with little or no capital, should contrive by fair appearances, promises, and similar devices, to insinuate himself or themselves into the public confidence, and succeed in getting 20,000*l.*, 50,000*l.*, or 100,000*l.* into circulation, he or they would secure a good income in the meantime; and on the bubble bursting, and the imposture being detected, they would be no worse off than when they set up their bank. On the contrary, the presumption is, that they would be a great deal better off; and that they would take care to provide, at the cost of the credulous and deceived public, a reserve stock for their future maintenance. Hence, seeing that the facilities for

committing fraud are so very great, the propriety or rather necessity of providing against them.

It is sometimes, no doubt, contended that the grand principle of the freedom of industry should be universally respected; that it can in no case be departed from with impunity; and that it is not only injurious, but unjust, to lay any restrictions upon the business of banking. But we are not to be led astray by a cuckoo-ery of this description. The business of banking—that is of keeping and dealing in money—is one thing, while the manufacture and issue of notes, intended to be substituted for and to serve as money, is another and a totally different thing. And though everybody may perhaps be allowed to undertake the former, it by no means follows that the same license is to be extended to those who make and issue notes. It is to be recollected that in matters of this sort, neither freedom nor restriction is, abstractly considered, just or unjust, good or bad, expedient or inexpedient. It is by their respective influence upon society that they are to be judged; and though a free and liberal course of policy be in general most for the public advantage, there are very many cases in which it is necessary to impose restrictions. It is admitted on all hands that governments are bound to suppress or regulate every business or pursuit which is likely otherwise to become publicly injurious. And does anyone doubt that the issue of notes payable on demand is in the foremost class of these businesses? The experience of all ages and nations is conclusive as to this point. It has been everywhere regulated, in the most democratical as well as in the most despotic states, in England and Russia, Holland and France, the United States and Austria. The reasonableness of the practice accords with its uniformity. *Le droit d'émettre des billets est très-avantageux; mais aussi il est si dangereux que l'Etat doit ou s'en réserver l'exercice, ou le régler de manière à en prévenir les abus.* (Report on the Extension of the Privilege of the Bank of France in 1840.)

It may perhaps be said that bank notes are essentially private paper; that the accepting of them in payment is optional; and that as they may be rejected by everyone who either suspects or dislikes them, there is no room or ground for interfering with their issue! But vague generalities of this sort are entitled to very little attention. Everybody knows that, whatever notes may be in law, they are, in most parts of the country, practically and in fact legal tender. The bulk of the people are without power to refuse them. The currency of many extensive districts consists in great part of country notes, and such small farmers or tradesmen as should decline taking them would be exposed to the greatest inconveniences. Everyone makes use of, or is a dealer in, money. It is not employed by men of business only, but by persons living on fixed incomes, women, labourers, minors, and in short by every class of individuals; very many of whom being necessarily, from their situation in life, quite unable to form any estimate of the solidity of the different banks whose paper may be in circulation, are uniformly severe sufferers by their failure. And as the notes which come into their hands make a part of the currency or money of the country, it is evidently quite as much the duty of Government, in the view of preventing these losses and the ruin they occasion, to take such steps as may be required to make bank notes truly and substantially what they profess to be, as that it should take measures to prevent

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Banks afford great facilities to the public in the negotiation of bills of exchange, or in the making of payments at distant places. Many of the banking companies established in different districts have a direct intercourse with each other, and they have all correspondents in London. Hence an individual residing in any part of the country, who may wish to make a payment in any other part, however distant, may effect his object by applying to the bank nearest to him. Thus, suppose A of Penzance has a payment to make to B of Inverness: to transmit the money by letter would be hazardous; and if there were fractional parts of a pound in the sum, it would hardly be practicable: how then will A manage? He will pay the sum to a banker in Penzance, and his creditor in Inverness will receive it from a banker there. The transaction is extremely simple: the Penzance banker orders his correspondent in London to pay to the correspondent of the Inverness banker the sum in question on account of A, and the Inverness banker, being advised in course of post of what has been done, pays B. A small commission charged by the Penzance banker, and the postages, constitute the whole expense. There is no risk whatever, and the whole affair is transacted in the most commodious and cheapest manner.

Recently, however, the facilities given to the transmission of money by means of post-office orders have materially interfered with this branch of banking business, especially in the transmission of small sums, and are a great convenience to the public. [POST OFFICE.]

**Legal Description of Bank Notes.**—Bank notes are merely a species of promissory notes. They are subscribed either by the parties on whose account they are issued, or by some one in their employment, whose signature is binding upon them. A Bank of England note for 5*l.* is as follows:—

**Bank of England.**

*I promise to pay the Bearer on Demand*

*the Sum of Five Pounds.*

1858 Dec<sup>r</sup> 14 London 14 Dec<sup>r</sup> 1858.

*For the Gov<sup>t</sup> and Comps of the*

**£Five. BANK OF ENGLAND.**  
A. B.

No particular form of words is necessary in a bank note. The essential requisites are, that it should be for a definite sum (in England and Wales not less than 5*l.*, and in Scotland and Ireland not less than 1*l.*), that it should be payable to bearer on demand, and that it should be properly stamped. Promissory notes, though issued by bankers, if not payable to bearer on demand, do not come under the denomination of bank notes; they are not, like the latter, taken as cash in all ordinary transactions, nor are they, like them, assignable by mere delivery. By the provisions of 27 & 28 Vict. c. 78, the signature of bank notes may be impressed by machinery. The Act was passed in order to remove any doubt as to the validity of such notes, &c.

The circulation of notes for less than 5*l.* was restrained by law (stat. 15 Geo. III. c. 51) from 1766 to 1797. In 1808, it was enacted by stat. 48 Geo. III. c. 88, that all bank notes, promissory notes, or other negotiable instruments for less than 20*s.* should be absolutely void: a penalty of from 20*s.* to 5*l.*, at the discretion of the justices,

being imposed on their issuers. It was enacted by the 7 Geo. IV. c. 6, that the issue of all bank notes or promissory notes for less than 5*l.*, by the Bank of England, or by any licensed English bankers, and stamped February 5, 1826, or previously (after which period such notes were not stamped), should terminate on April 5, 1829.

The stamp duties on bank notes or promissory notes payable on demand are—

	£	s.	d.	and not exceeding	£	s.	d.	£	s.	d.
Not exceeding	1	0	0	2	0	0	0	0	0	0
Exceeding	1	0	0	2	0	0	0	0	0	0
"	2	0	0	5	0	0	0	0	1	3
"	5	0	0	10	0	0	0	0	1	9
"	10	0	0	20	0	0	0	0	2	0
"	20	0	0	50	0	0	0	0	3	0
"	50	0	0	100	0	0	0	0	5	0
"	100	0	0	100	0	0	0	0	8	6

Which notes may be reissued after payment, as often as shall be thought fit, provided they be issued by a banker or person who has taken out a license, renewable annually, and costing 30*l.*, to issue notes payable to bearer on demand. Any banker or other person issuing such reissuable notes, without being duly licensed, shall forfeit 100*l.* for every offence. (55 Geo. III. c. 184 s. 27.)

These conditions do not apply to the Bank of England. The stamp duties on the notes of that establishment were formerly compounded for at the rate of 3,500*l.* per million of those in circulation; but the Act 7 & 8 Vict. c. 32, has wholly exempted them from all charge on account of stamp duties.

Notes or bills not payable to bearer on demand are not reissuable, under a penalty of 50*l.* For the stamp duties affecting them, see EXCHANGE.

By the 9 Geo. IV. c. 23, English bankers not in the city of London, or within three miles thereof, are authorised to issue promissory notes, and to draw and issue bills of exchange, on unstamped paper, for any sum of 5*l.* or upwards, expressed to be payable to the bearer on demand, or to order at any period not exceeding 7 days after sight (*bills* may also be drawn at any period not exceeding 21 days after date), upon obtaining licenses, costing 30*l.*, to that effect; provided such bills of exchange be drawn upon bankers in London and Westminster, or Southwark; or provided such bills be drawn by any banker or bankers at the place where he or they shall be licensed to issue unstamped notes and bills, upon himself or themselves, or his or their copartner or copartners, payable at any other place where such banker or bankers shall be licensed to issue such notes and bills. Bankers having such licenses are to give security, by bond, that they will keep a true account of all promissory notes and bills so issued, and account for the duties on them at the rate of 3*s.* 6*d.* for every 100*l.*, and also for the fractional parts of 100*l.* of the average value of such notes and bills in circulation. Persons postulating unstamped notes or bills shall, for every such offence, forfeit 100*l.*

**Legal Effect of the Payment of Bank Notes.**—Notes of the Bank of England were not, previously to the Act 3 & 4 Wm. IV. c. 98, like bills of exchange, mere securities or documents of debt, but were treated as money or cash in the ordinary course or transactions of business: the receipts given upon their payment being always given as for money. Now, however, they are legal tender, everywhere except at the Bank, for all sums above 5*l.* All notes payable to bearer are assignable by delivery. The holder of a bank note is *primâ facie* entitled to its prompt payment, and cannot be affected by the previous fraud of any former holder in obtaining it, unless evidence be given to show that he was privy to such fraud. Such privacy may, however, be inferred from the circumstances of the case. To use the words of Lord

Tenterden, 'If a person take a bill, note, or any other kind of security, under circumstances which ought to excite suspicion in the mind of any reasonable man acquainted with the ordinary affairs of life, and which ought to put him on his guard to make the necessary enquiries, and he do not, then he loses the right of maintaining possession of the instrument against the lawful owner.' (Guildhall, October 25, 1826.)

Country bank notes are usually received as cash. But though taken as such, if they be presented in due time and not paid, they do not amount to a payment, and the deliverer of the notes is still liable to the holder. It is not easy to determine what is a due or reasonable time, inasmuch as it must depend in a great measure on the circumstances of each particular case. On the whole, the safest rule seems to be to present all notes or drafts payable on demand, if received in the place where they are payable, on the day on which they are received, or as soon after as possible. When they have to be transmitted by post for payment, no unnecessary delay should be allowed to intervene. (Clitty's *Commercial Law*, vol. iii, p. 590.) [CHECK.]

Among the schemes devised to secure the convertibility of notes into coin, the following are, perhaps, the most prominent, viz.—

1. *Measures suggested to insure the conversion of Notes into Coin. Inadequacy of these Measures.*—To confine the issue of notes to joint-stock banks, or associations with large numbers of partners, each of which should be indefinitely liable for the debts of the association. At the time when this description of banks was established by the 7 Geo. IV. c. 46, it was supposed that they would prove to be of the greatest advantage, and afford that complete security to the holders of their notes, and those who entrusted them with money, that is so desirable. But everybody knows that these anticipations have been entirely disappointed, and that the history of the joint-stock banks founded under the above statute discloses some of the most flagrant instances to be met with of recklessness, imposture and fraud. And this, after all, is only what might have been expected. The shares in many joint-stock banks are small, few being above 100*l.*, the greater number not exceeding 50*l.*, whilst many are only 25*l.*, and some not more than 10*l.*, if so much. Generally, too, it is understood, or rather it is distinctly set forth in the conditions of partnership, that not more than ten, twenty, or fifty per cent. of these shares is to be called for; so that an individual with a few pounds to spare may become a shareholder in a bank. And owing to a practice or rather a flagrant abuse, introduced into the management of various banks, of making large advances or discounts on the credit of the stock held by shareholders, not a few individuals in doubtful or even desperate circumstances take shares in them, in the view of obtaining loans, and bolstering up their credit! The great danger arising from such banks is obvious, and when one of them stops payment, the claims on it, if ultimately made good, can be so only at the cost, and perhaps ruin, of such of its proprietors as have abstained from the abusive practices resorted to by others.

At the same time, however, it is quite plain that a joint-stock bank, provided it possess adequate capital, and is discreetly managed, may afford ample security to its shareholders and the public. And it is further plain, in the event of its shareholders being a numerous body, comprising, as is sometimes the case, hundreds of individuals, many of whom have large fortunes, that its creditors, though exposed to immediate

injury, may in the end have little or nothing to fear, even from gross mismanagement. But it is very difficult to discriminate between one variety of joint-stock banks and another. A bank may have a considerable body of proprietors; but, though the contrary opinion may prevail, few of them may be wealthy, and many mere men of straw, so that the security afforded by such a bank may be worth little or nothing. Neither is there any foundation for the notion, that because a bank has fifty or a hundred partners, it will be either richer or better managed than if it had only five or ten. In truth, the presumption seems to be quite the other way. The petty subscriptions of many may amount in the aggregate to a considerable sum, which, however, may be greatly inferior to the fortunes of a few wealthy individuals. And when the latter engage in banking, or any other sort of business, they must, if they would protect themselves from ruin, pay unremitting attention to their concerns, and act in a discreet and cautious manner. But the partners and managers of a great joint-stock company act under no such direct and pressing responsibility. 'I think,' said the highest authority on such subjects, 'that joint-stock banks are deficient in everything requisite for the conduct of banking business, except extended responsibility; the banking business requires peculiar persons attentive to all its details, constantly, daily, and hourly watchful of every transaction, much more than mercantile or trading businesses. It also requires immediate, prompt decisions upon circumstances when they arise—in many cases a decision that does not admit of delay for consultation; it also requires a discretion to be exercised with reference to the special circumstances of each case. Joint-stock banks, being, of course obliged to act through agents, and not by a principal, and therefore under the restraint of general rules, cannot be guided by so nice a reference to degrees of difference in the character or responsibility of parties; nor can they undertake to regulate the assistance to be granted to concerns under temporary embarrassment by so accurate a reference to the circumstances, favourable or unfavourable, of each case.' (*Evidence of Lord Overstone, before Committee on Bank Charter, in 1840.*)

In fact, more than nine-tenths of the partners in joint-stock banks are wholly ignorant of banking business, and have nothing better to trust to than the supposed honesty and intelligence of the directors; and, even if they were acquainted with the business, the result would be nearly the same, as it would not be possible for anyone, by a cursory inspection of the books of a bank (if such were permitted), to form an accurate estimate of its condition, or of the mode in which it transacted business. And hence the directors in these establishments are practically all but absolute. If they be carefully selected, and be worthy of the confidence placed in them, all goes on smoothly; and this also is the case when they are most unworthy, till they have involved the concern in inextricable difficulties! The history of the Norwich Bank, of the Northern and Central Bank, the Marylebone Bank, the Manchester Bank, the London and Eastern Bank, the Royal British Bank, the Borough Bank of Liverpool, the Western Bank of Glasgow, and a host of others, sufficiently attests the truth of what has now been stated. The responsibility of the directors to the shareholders has not been found, in any of these instances, to have been any check whatever over their frauds and improvidence. The whole paid-up capital of the Western Bank, amounting to 1,500,000*l.*, had been wasted in the most improvi-

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We may observe, by the way, that the mischief occasioned by an establishment of this sort, when perverted from its proper objects and mismanaged, is not to be estimated by the ruin it entails on its partners, and probably also on its customers. It becomes, in fact, a public nuisance, and entails privations on many who might be supposed to be beyond the sphere of its influence. Within the ten years ending with 1812 it was estimated that about 1,500,000*l.* of banking capital was wholly dissipated in Manchester and its immediate vicinity. And as nine-tenths of this enormous loss was occasioned by advances made to manufacturers who had little or no capital of their own, it is not easy to imagine what a violent stimulus it must have given to reckless speculation, and how very injurious it must have been to parties trading on their own capital.

It is clear, therefore, that the institution of joint-stock banks affords no security that their affairs will be properly administered, and their notes uniformly paid on their being presented.

2. To insure the convertibility of bank notes into coin, it has been proposed that they should not be issued except upon security being previously given for their payment. That, for example, an individual or company intending to issue 100,000*l.*, 200,000*l.*, or other sum of notes, should be obliged previously to deposit in the hands of a functionary appointed for the purpose, approved securities over lands, houses, stocks, or other available property for an equal amount. And it is plain that this would be in many respects an efficient measure. Under a system of this sort, adventurers without capital, and sharpers anxious to become indebted to the public, would find that the issue of notes was not a business by which they could expect to profit, and that it must be exclusively reserved for parties possessed of adequate capital.

But though a plan of this sort would effect to a considerable extent the objects in view, it has, notwithstanding, two cardinal defects, viz.—

In the first place, though it were fitted to secure the ultimate payment of notes, it would not secure their immediate payment, which is essential to their advantageous employment as money. The stoppage of a bank which had deposited securities would have to be officially ascertained before any steps could be taken for their sale; and after this had been done, some considerable time would have to elapse before they could be disposed of, and their produce made available for the liquidation of the notes. Most securities, too, are of fluctuating and uncertain value, and might not, even under the most favourable circumstances, realise the sum for which they were pledged. And in the event of the occurrence of a panic, or disturbed state of credit, it might be impossible immediately to convert the securities into cash, or possible only at a heavy loss. This plan is, therefore, very far from giving that effectual security for the convertibility of notes into coin, which, on the first view of the matter, it appears to afford. Latterly, it has been extensively acted upon in most parts of the United States; and there, when a bank stops payment, its notes are always sold at a discount, which, of course, varies according to the peculiar circumstances affecting each case. (See *post.*)

But supposing that this plan were effectual,

which it is not, to insure the immediate convertibility of notes into coin, it is defective from its not preventing their over-issue. A paper currency is not in a sound or wholesome state, unless

1. Each particular note or parcel of such currency be paid immediately on demand; and, and value exactly as a metallic currency would do were the paper currency withdrawn and coins substituted in its stead. The last condition is quite as indispensable to the existence of a well-established currency as the former; and it is one that cannot be realised otherwise than by confining the supply of paper to a single source.

The issues of paper money should always be determined by the exchange, or rather by the influx and efflux of bullion, increasing when the latter is flowing into a country, and decreasing when it is being exported. And when the issue of paper is in the hands of a single body, a regard to its interests will make it regulate its amount with reference to this principle. But when the power to issue notes is vested in different bodies, some of which may be little, if at all, affected by variations of the exchange, this is no longer the case. And instances have repeatedly occurred, as will afterwards be seen, of the country banks having increased their issues when the exchange was unfavourable and the currency redundant. Hence the plan of exacting securities is doubly defective, inasmuch as it neither insures the immediate conversion of notes into coin, nor prevents their over-issue.

3. The only other plan for insuring the conversion of notes into coin, or rather for keeping them on a level therewith, to which it is at present necessary to allude—consists in providing for the publicity of the affairs of the banks by which they are issued. The issues of banks, under this system, are usually made to bear some fixed proportion to their capital; the whole, or some considerable share, of which is to be paid up before the bank begins business; and monthly, quarterly, half-yearly, or annual returns are thereupon to be published, exhibiting the state of the bank, and enabling, as it is said, the public to judge whether it be safe to deal with it. But it is almost needless to say that such regulations are no protection against fraudulent dealings; and that, in reality, they are good for little, unless it be to deceive and mislead the public. It is impossible, if the managers of a bank or other association wish to make a deceptive or unintelligible return, to hinder them. And even when they wish to make a really accurate return, they must frequently make one that is false, from their inability to estimate their bonds, bills, and other assets at their just value. But it is useless to insist on what is so very obvious. The 'cooking of returns,' as it has been called, is an art that is well understood and extensively practised. Long after the capital of the British Bank had been wholly lost, and it had been precipitated into the abyss of bankruptcy, its directors did not hesitate to put forth statements, in which it was represented to be in a prosperous condition, and a division of profits recommended! And this, unhappily, is not a solitary instance. It is only one example, and that not the worst, of a very large class of cases. But such as it is, it is more than sufficient to show that it would be childish to place any confidence in the returns referred to.

*Act of 1857 against fraudulent Returns by Bankers.*—It may, however, be supposed that the late Act, the 20 & 21 Vict. c. 54 (1857), for the punishment of frauds committed by trustees,

bankers, and others, will put an end to the practices hitherto complained of. But though it were much to be wished that such should be the case, and though, no doubt, it will have considerable influence, it will not suffice to repress the evil. Besides making bankers and others who embezzle, appropriate, or make away with property entrusted to their care, guilty of a misdemeanour, the statute goes on to enact, 'That if any director, manager, or public officer of any body corporate, or public company, shall make, circulate, or publish, or concur in making, circulating, or publishing, any written statement or account which he shall know to be false in any material particular, with intent to deceive or defraud any member, shareholder, or creditor of such body corporate or public company, or with intent to induce any person to become a shareholder or partner therein, or to intrust or advance any money or property to such body corporate, or public company, or to enter into any security for the benefit thereof, he shall be guilty of a misdemeanour.' (Sec. 8.)

And it is further enacted, 'That every person found guilty of a misdemeanour under this Act shall be liable, at the discretion of the court, to be kept in penal servitude for the term of three years, or to suffer such other punishment, by imprisonment, for not more than two years, with or without hard labour, or by fine, as the court shall award.' (Sec. 10.)

It is difficult to see how, under a law of this sort, such flagrantly false statements as those put forth by the Royal British and other banks, after they were in a state of utter bankruptcy, should not subject their authors to the full penalties of the statute. But villany is fertile in resources; and no severity of punishment has ever been found to be effectual for the suppression of crime. Though it may be fairly presumed that the 'cooking of returns' will be less frequent, and less glaring, in time to come than formerly, it would be idle to expect that it should ever be wholly put down. And, as already seen, even when the directors of a bank are so disposed, it will frequently be out of their power to lay before the public a really true statement of their affairs. It is plain, then, that this so-called publicity affords nothing approaching to that undoubted and unquestionable guarantee which should be required from all parties and associations empowered to issue notes.

But the difficulties in the way of insuring the conversion of the latter into coins, though great, are not insuperable. A plan originally suggested by Lord Overstone, and adopted and carried into effect by Sir Robert Peel, has been found to be quite effectual to secure this grand object. And it has the additional and important recommendation, of having done this without subjecting the public to any sensible inconvenience.

But before entering into an exposition of the plan referred to, it will be necessary to premise some details with regard to the constitution and action of the existing banks.

## SEC. II. BANKS OF DEPOSIT AND BANKS OF ISSUE.

*Principles on which they are established.*—Banks are commonly divided into *banks of deposit* and *banks of issue*: i. e. banks that take care of other people's money, and banks that issue money of their own. But there are few banks of issue that are not at the same time banks of deposit; and the latter are further divisible into two great classes: viz. those who do and those who do not issue the money of their customers. The banking companies established

in this country belong to the first class; while the old Bank of Amsterdam did, and the existing Bank of Hamburg does, belong to the second class.

*Advantages of Bankers.*—Instead of keeping money in their own houses, where it would be exposed to various accidents, and to the attacks of thieves and robbers, most people wisely commit it to the care of a banker, and avail themselves of his services in receiving and making payments on their account. They send to their banker such sums of money as they may happen to receive, and all bills and drafts payable to them; and he becomes responsible for their amount, for the regular presentation of the bills for acceptance and payment, and for their proper noting, if not accepted or paid. It is also the practice for parties who have an account at a banker's to make all considerable payments by cheques payable by him. As the discharge of these functions involves considerable risk and expense, it is usual for bankers either to charge a percentage for their trouble, or to stipulate that the parties dealing with them shall keep an average balance of cash in their hands corresponding to the amount of business transacted in their behalf. In this way business is carried on with safety, ease, and despatch; and at much less expense than it would be if individuals kept their own money, and made their own payments.

Of the sums paid into banks, some are intended to meet the cheques and orders drawn against them in the ordinary course of business; while others are sent rather for safe custody, to be retained, till opportunities be found for their investment. The former are generally placed under what are called *drawing*, and the latter under *deposit* accounts; but there is no difference between the two, except that the sums in deposit accounts are usually permitted to lie for longer periods without being operated upon or called up. Such portions of the one or the other as the bankers do not retain in their coffers to meet the usual demands of their customers, they employ in the discount of bills, or in making advances of one sort or other, generally at short dates, to those who require them, and in whom they think they may confide.

This last is one of the most important functions performed by banks of deposit. They become, as it were, receptacles or reservoirs into which the surplus or unemployed capital of the surrounding districts is collected, and from which it is again distributed to those who want it. And it may be proper to observe, that the bankers do not always, nor perhaps even most commonly, confine their advances to those who can give security for their repayment. On the contrary, they are often more influenced in making loans by their knowledge of the conduct, the intelligence, and the pursuits of the parties, than by anything else. And it frequently happens that industrious, frugal, and enterprising young men, who have no guarantee to offer save their character, obtain advances that would be denied to wealthier, but otherwise less trustworthy parties.

On this, as on most other points, the late evidence of Lord Overstone is highly instructive.

Q. But, generally speaking, persons who have no capital, have very little opportunity of raising money, have they? *Ans.* That certainly is not so. The whole principle of banking is to afford capital—to transfer it from the inactive accumulator to the active and energetic person who wants the capital. The banker is the go-between, who receives deposits on the one side, and on the other applies those deposits, intrusting

them, in the form of capital, to the hands of active, energetic persons, who, he thinks, will make a good use of it.

*Q.* Who have no security to give? *Ans.* Who have in many instances no security to give, except their character, and skill, and talent, of which the banker forms his judgment.

*Q.* To persons of character who have no other security to give? *Ans.* To persons of character who, in some cases, have no security to give; but who, in all cases, have no security to give equal to the amount advanced to them, except that best form of security, their character, their energy, and their prudence. (*Minutes of Evidence*, p. 348.)

But without insisting on these considerations, which, however, are not a little important, it is manifest that those who have capital to lend, and those who wish to borrow, are equally indebted to the agency of the bankers, who, while they enable these great classes mutually to assist each other, contribute to increase the public wealth by facilitating the flow of capital into the most productive channels.

*Credit, Definition of.*—But, however great, this advantage is not to be exaggerated. Though banks afford valuable assistance in the collection and distribution of capital, it must not be supposed, as is often done, that they have any direct influence over its formation. That is the joint effect of industry and economy—the former in producing convenient and desirable articles, and the latter in saving and preserving them for future use. Credit is neither more nor less than the transfer of money or other valuable produce from one set of individuals called lenders, to another set called borrowers—a transfer which is greatly facilitated by the establishment of banks. And as there can be no reasonable doubt that those who borrow have, in the majority of instances, better means of employing capital with advantage than those by whom it is lent, its transference from the one to the other will, in so far as this presumption is realised, be publicly advantageous. But this is the entire extent of the beneficial influence of what is called *credit*; and when it happens, as is too often the case, to divert capital into the pockets of knaves and gamblers it is disadvantageous. No doubt we frequently hear of great undertakings being carried on by means of credit; but such statements are entirely false and misleading. They will, indeed, be uniformly found, when analysed, to mean only that the undertakings are carried on by means of borrowed capital. Credit is impotent to effect anything whatever. It is, in fact, a mere name for the trust reposed by a lender in a borrower. To call it capital is as much an abuse of language as it would be to call weight colour, or colour weight. It may transfer money or produce from A to B, or from C to D, but that is all that it either does or can do. When credit is said to be high, nothing is really meant save that those who have money or capital to lend have great confidence in the borrowers, and conversely when credit is said to be low.

*Banks sometimes encourage Gambling and Over-trading.*—Banks, when not conducted by men of probity, skill, and caution, are very apt to excite and inflame a spirit of speculation and gambling. They do this by furnishing speculators with loans and discounts, by means of which they are not enabled merely, but tempted, to engage in hazardous enterprises. And for a time, or while the process is going on, everything wears an air of prosperity; and those old-fashioned houses, as they are called, that carry on a legitimate business on capital of their own are frequently undersold

and driven from the market by the competition of adventurers trading on the funds of others, ready to encounter any risk, and living in the greatest splendour. But at length the thing is overdone, the bubble bursts, the worthless machinery of fictitious bills, rediscounts, and so forth, is exposed, and the tragi-comedy is wound up by the offer of a composition of some 1s. or 2s. per pound. Bankers and money dealers who employ the money entrusted to their care in so reckless a manner, are fitter for Newgate than for the situations they so unworthily fill. It would be a great stretch of charity to suppose that advances of the kind now alluded to can be wholly the result of imprudence. Bankers have peculiar means at their disposal by which to become acquainted with the character, position, and capabilities of those who apply to them for advances. And it is their duty to avail themselves of these means to distinguish between the careful and the improvident or reckless trader—between the man who may and the man who may not be trusted. It is difficult to believe, provided they make the necessary enquiries, that they should be often or greatly deceived in their judgment of individuals; and, provided they act with due caution, they will never so far commit themselves, even with the most respectable firms, as to endanger their own establishment in the event of the failure of the latter. Bankers may risk their private fortunes, if they have any, as they please, but they are not entitled to risk the money of their constituents by making advances to equivocal parties, and especially to those who are notoriously overtrading. It is impossible, perhaps, to bring an abuse of this sort within the meshes of the penal law, but it cannot be too strongly condemned in the opinion of the public. There is nothing about which people should be so cautious as the employment of bankers; and high character, experience, and reputation for prudent management, ought always to have the preference over fair promises and prospectuses, even when the latter are backed by offers of high interest.

*Interest on Deposits.*—The private bankers of London have not been, until recently, in the habit of allowing interest on deposits, though in special cases it was sometimes done. But in Scotland, and also in many parts of England, it has been long the practice to pay an interest on deposits of from one to two per cent. less than the market rate at the time. And the joint-stock banks set on foot in the metropolis since 1826, having introduced the practice of giving interest on deposits, provided a certain notice (generally from three to eight days) be given before they are withdrawn, very large sums have been deposited in these establishments. Most private banks have been compelled, in order to maintain their position, to adopt in a greater or less degree the same system. There can, indeed, be little doubt that it will, in no very lengthened period, become universal, and that the amount of deposits will be progressively and largely augmented.

By bringing, as it were, the advantages of savings' banks, without any of their limitations, within reach of all classes, of the middle and upper as well as of the lower, this system is, in many respects, highly advantageous. It may, indeed, be doubted whether any means could be devised more likely to generate and diffuse a spirit of economy. Unhappily, however, its advantages are alloyed by the formidable disadvantage of its involving a great amount of insecurity and hazard.

*Dangers incident to the Deposit System.*—Banks that give interest on deposits must employ

the balance at their disposal so as to realise that interest, plus a profit to themselves. Investment is not optional with them, it is indispensable; and they cannot, in seeking investments, look to security only. Profit must be in their estimation as great, or even a greater consideration. But profit and risk are inseparable, and are always directly proportioned to each other; and hence it is, that in periods of discredit, or when a revulsion occurs, suspicions may be expected to arise in regard to the solidity of deposit banks, especially of those that pay high rates of interest on the sums committed to their custody. These suspicions may frequently, no doubt, be very ill-founded; but, if they be entertained, the result will be nearly the same. This was exemplified by what took place in 1866, when these banks were seriously affected by the deposit system.

It is difficult to know how to ward off such contingencies; but it nevertheless seems to be indispensable that something should be done in that view, otherwise we may be said to be always exposed to the most tremendous risks. It may not be practicable to form an accurate estimate of the amount now held as deposits by bankers and money dealers in Great Britain only; but if we take the entire sum at about three hundred millions, we shall probably be within and not beyond the mark. And of this vast sum more than half is payable *at call*, and more than three-fourths within ten days. But everybody knows that such payments are practically impossible. And hence it is plain, that in the event, which may any day occur, of a bank with a large amount of deposits getting into difficulties, or of any circumstance occurring that should occasion a distrust of the system and a general panic, the whole fabric would fall to pieces, and we should have a universal smash.

This appears to be as unsatisfactory a state of things as can well be imagined. But *de republica nil desperandum*. Though formidable, the evil is not insuperable; and the dangers referred to are so great and imminent, that no time should be lost in adopting measures by which they may be either obviated or mitigated. Explosions of the credit system are, in the commercial and financial, what explosions of gunpowder are in the physical world. And it would seem to be quite as necessary to endeavour to lessen the frequency and violence of the former as of the latter. Hence we think it would be good policy to enact, that all sums *bearing interest*, in the hands of bankers, discount-brokers, and money-dealers generally, should not be legally demandable without a month or six weeks' notice. A regulation of this sort would not interfere with anything that is valuable in the existing system, while it would confer on it some portion of that solidity of which it is at present so miserably deficient. It would protect all classes against the effects of sudden and unreasonable fears and panics. It would give time to the borrowers to collect their resources; and to the depositors calmly to enquire into the character and situation of those to whom they had entrusted their money. This may not be enough; but some such measure as this appears to be indispensable for the security and protection of the public.

*Notes deposited in Banks not the Property of the Depositors.*—It has sometimes been contended that the notes and moneys deposited in banks by private parties continue to be their property, and are as really a portion of their money as the notes or sovereigns which they retain in their tills or their pockets. The place where it is kept is different; but, except in this respect, the money which they have lodged in and that which they

have out of banks, is said to be, to all intents and purposes, identical. But though specious, this statement is entirely fallacious. The money which depositors lodge in banks forms a part of the money of the country; but after its lodgment in them it ceases to belong to, or to make a part of, the property or money of the depositors. They have consigned it to banking establishments, and acquired credits in its stead; i.e. they have acquired the *right* to draw upon and receive equal sums of money from these establishments. But everybody knows that the right to a thing is not the thing itself, but something altogether different. A banker who owes a million or other sum to depositors might regard himself as being in a sufficiently secure state, if, according to circumstances, he had a third, a fourth, or a fifth part of that sum in notes and gold in his till to answer the demands of the depositors, while he employed the reserve in advances to others. Hence it is plain that bank credit and money have nothing in common. Those who confound things that are so very different can have no clear apprehension of either the one or the other.

It is on the distinction between money and deposits or credits, that the business of banking really depends. It is a business by which a small amount of money is made to supply a large amount of credit, the profits of the bankers arising from the use of the money so economised. The Bank of England, for example, often holds more than twenty millions of public and private deposits, while she is considered to be in a perfectly safe and sound position if she have in the till of her banking department five millions, or even less, in notes and coins.

It is hardly necessary, after these statements, to observe that the profit made by bankers in employing part of the money committed to their custody is extrinsic to, and independent of, any profits which they may realise on capital of their own. 'Such banks,' to use the words of Mr. Ricardo, 'would never be established if they obtained no other profits than those derived from the employment of their own capital. Their real advantage commences only when they begin to employ the capital of others.' (*Economical and Secure Currency*, p. 87.)

*Necessity of Capital to the Security of Banks.*—But we are not thence to conclude that it is indifferent whether such banks have or have not independent capitals of their own. That would be the greatest of errors. Unless it have a command of capital proportioned in some degree to the extent of its business, those who deposit their money in a bank have but slender security for its payment. For if bankers make improvident or injudicious advances, if the securities in their possession be discredited, or difficulties of any kind arise in the conduct of their business, those who have no capital, or but little of their own, may be obliged to stop payment, when more opulent firms may be but little affected by the like circumstances. Much, no doubt, must always depend on the character and knowledge of the parties; but no amount of skill or caution can ever fully compensate for the want of adequate capital. It is the sheet-anchor of security, the only real and substantial guarantee to which the ordinary creditors of a bank have to look. When such capital has been accumulated by the bank, it shows that its affairs have been well managed, and raises a strong presumption in its favour; and when it has devolved on the partners by inheritance, or been bequeathed to them in legacies, the fair inference would seem to be, that they will not (unless they be mere fools, unworthy of any kind of confidence)

rashly compromise its security by engaging in questionable proceedings.

*Limited Liability, Disadvantages of.*—By a late Act, the 20 & 21 Vict. c. 49, banks may be constituted with limited liability. But this is a vicious principle, lessening the natural responsibility under which every man ought to act, and tempting parties to engage in all manner of desperate adventures. In banking, such a principle must be especially mischievous; for it is a business that requires great caution and prudence—the very virtues with which the principle of limited liability is most at variance. It may, indeed, be said that the numerous instances of mismanagement and embezzlement that now prevail, show that even the principle of indefinite liability is not enough to make joint-stock banks be conducted prudently and honestly. But, however defective, still it is the only principle on which any stress can be safely laid, and the instances referred to, bear, after all, but a small proportion to those of an opposite description. The great majority of banks are discreetly and faithfully managed. And if knavery and folly be sometimes found to prevail where every partner is deeply interested in their prevention, and is liable to the last farthing he possesses for the consequences, the fair presumption is, that they would be much more prevalent were the parties liable only for the amount of their shares in the bank. To suppose the contrary would be a contradiction; it would be equivalent to supposing that a man is to be as much interested in the safety of 10l. or 100l., as of 1,000l. or 10,000l., or of his entire fortune, however great it may be.

Whatever else may be the effect of the late disclosures of mismanagement, fraud, and robbery, on the part of the directors and secretaries of joint-stock banks, it can hardly fail to make the partners in those associations more alive to the dangers of their situation, and to convince them, that if they would provide for their own safety, they must be more cautious than hitherto in regard to the persons they employ to fill these situations, and less disposed to take their statements for granted. Such, however, is the carelessness of most people, even in regard to those matters which most nearly concern them, that these anticipations, though reasonable, may not be fully realised. But, in the case of banks with limited liability, they must be sanguine indeed who look for any improvement. The partners in these associations have no sufficient interest in their prosperity to make them take any unusual trouble about the way in which they are conducted, and they neither fear ruin, nor even any considerable inconvenience, from their failure. The chances, consequently, are ten to one that their managers will be left without let or hindrance to pursue their own schemes; and, when such is the case, what but abuse can be expected to be the result?

But it is argued, whatever may be the influence of unlimited liability on the partners of the banks in which it is established, that the depositors in banks with limited liability will be on their guard, and will not trust them with their money, unless they were well assured of their solidity. But, in truth and reality, they never can have any assurance of the sort on which it would be safe to rely. A bank with limited liability might have, or pretend to have, a large capital. And supposing it really had such a capital in the current year, that may not be the case in the next, or in any subsequent year. And yet as the public can know nothing certain of the bank's losses, its credit may not be impaired, and deposits may be pressed upon it after it is really

insolvent. In such cases the public is helpless; and if the indefinite responsibility of the partner in banks be not enough to make them look to their proper management, it would be worse than idle to depend in any degree on the fears or interests of the depositors. This is not a matter about which there needs be any speculation. The experience of the United States is decisive of the question. In the Union, the banks are all, or nearly all, established under a system of limited liability, and, notwithstanding their insecurity, and their perpetually recurring insolvency, they always hold large sums in deposit. Promises, professions, the bait of high interest, and the confidence placed by everyone in his superior sagacity and good fortune, fill the coffers even of the establishments least worthy of credit. And such, no doubt, would be the case in England, were a like system established amongst us. But what, under such circumstances, would be the situation even of a well-managed bank, were any suspicions to be entertained of its credit? The rush would be tremendous; for everybody would reasonably conclude, that if he did not succeed by pressing forward with 'hot haste' in getting payment of his deposit, the chances were ten to one he would get little or nothing. He has no proprietary body to which to look for payment of his claims; and if the doors were once shut against him, he could hardly expect more than some miserable dividend at some distant term.

During the crisis of 1857, when the Western and City Bank of Glasgow stopped payment, there was comparatively little agitation, the holders of their notes and of deposit receipts being well assured that, whatever inconvenience they might be subjected to in the meantime, in the end they would be fully paid. But had the liability of the partners been limited, such would not have been the case, and the panic would have been so great that it is not believed that a single bank would have weathered the storm.

*Introduction of Banking into London.*—The business of banking was not introduced into London till the seventeenth century. It was at first conducted by the goldsmiths, who lent the money lodged in their hands for security to Government and individuals. In the course of time, the business came to be conducted by houses who confined themselves to it only, and nearly in the mode in which we now find it. From 1708, as already stated, down to 1826, with the exception of the Bank of England, no company with more than six partners could be established, either in London or anywhere else in England and Wales, for conducting banking business; and a very large portion of that business is still conducted in the metropolis by firms with a small number of partners, or by what are called *private banks*.

*Clearing House.*—By far the largest proportion of the bank bills in circulation in the country, and of the foreign bills drawn upon Great Britain, are made payable in London, the grand focus in which all the pecuniary transactions of the empire are ultimately adjusted. And in order to facilitate this adjustment, and to economise the use of money, the principal bankers of the metropolis established, in 1773, the *clearing house*. This is a house to which each banker who deals with it is in the habit of daily sending a clerk, who carries with him the various bills and cheques in the possession of his house that are drawn upon other bankers; the practice formerly being to exchange them for the bills and cheques in the possession of those others that were drawn upon his constituents, and to pay the balance on



*Notice of Banking.*—The trade or business of a banker has probably existed in all civilised countries in all ages. The bankers of Greece (*ραναεστ-ται*) and Rome (*argentarii, mensarii, numularii*) exercised nearly the same functions as those of the present day, except that they do not appear to have issued notes. They received money on deposit, to be paid on demands made by cheques or orders, or at some stipulated period, sometimes paying interest for it, and sometimes not. Their profits arose from their lending the balance at their disposal at higher rates of interest than they allowed the depositors. They were also extensively employed in valuing and exchanging foreign moneys for those of Athens, Corinth, Rome, &c., and in negotiating bills of exchange. In general they were highly esteemed, and great confidence was placed in their integrity. The rate of interest charged by the bankers was sometimes very high, but that was not a consequence, as has been alleged, of their rapacity, but of the defective state of the law, which, as it gave every facility to debtors disposed to evade payment of their debts, obliged the bankers to guarantee themselves by charging a proportionally high rate of interest. (Boeckh's *Political Economy of Athens*, i. 168, &c.; *Voyage d'Anacharse*, ch. iv. *passim*; Smith's *Dictionary of Greek and Roman Antiquities*, s. v. 'Argentarii,' &c.) In modern times the business of banking and exchange was for a while almost entirely engrossed by the Jews and Lombards of Italy.

### SEC. III.—BANK OF ENGLAND, ACCOUNT OF.

*Establishment and History of the Bank of England.*—The Bank of England, which has long been the principal bank of deposit and circulation, in this country and in Europe, was founded in 1694. Its principal projector, Mr. William Paterson, an enterprising and intelligent Scotch gentleman, was afterwards engaged in the ill-fated colony at Darien. Government being at the time much distressed for want of money, partly from the defects and abuses in the system of taxation, and partly from the difficulty of borrowing, because of the supposed instability of the revolutionary establishment, the Bank grew out of a loan of 1,200,000*l.* for the public service. The subscribers advanced as interest, and 4,000*l.* a year as the expense of management, in all 100,000*l.* a year, were incorporated into a society denominated the Governor and Company of the Bank of England. The charter is dated July 27, 1694. It declares, amongst other things, that they shall be capable, in law, to purchase, enjoy, and retain to them and their successors, any moneys, lands, tenements, and possessions whatsoever; and to purchase and acquire all sorts of goods and chattels whatsoever, wherein they are not restrained by Act of Parliament; and also to redeem, and dispose of the same.

That the management and government of the corporation be committed to the governor and twenty-four directors, who shall be elected between March 25 and April 25 each year, from among the members of the company duly qualified.

That no dividend shall at any time be made by the said governor and company, save only out of the interest, profit, or produce arising by or out of the said capital stock or fund, or by such dealing as is allowed by Act of Parliament.

That they must be natural-born subjects of England, or naturalised subjects; they shall have in their own name, and for their own use, severally, viz. the governor at least 4,000*l.*, the deputy-governor

3,000*l.*, and each director 2,000*l.* of the capital stock of the said corporation.

That thirteen or more of the said governors and directors (of which the governor or deputy-governor must be always one) shall constitute a court of directors, for the management of the affairs of the company, and for the appointment of all agents and servants which may be necessary, paying them such salaries as they may consider reasonable.

Every elector must have in his own name and for his own use 500*l.* or more capital stock, and can only give one vote. He must, if required by any member present, take the oath of stock; or the declaration of stock, in case he be one of the people called Quakers.

Four general courts to be held in every year: in the months of September, December, April, and July. A general court may be summoned, at any time, upon the requisition of nine proprietors, duly qualified as electors.

The majority of electors in general courts have the power to make and constitute by-laws and ordinances for the government of the corporation, provided that such by-laws and ordinances be not repugnant to the laws of the kingdom, and be confirmed and approved, according to the statutes in such case made and provided.

The corporation is prohibited from engaging in any sort of commercial undertaking other than dealing in bills of exchange, and in gold and silver. It is authorised to advance money upon the security of goods or merchandise pledged to it; and to sell by public auction such goods as are not redeemed within a specified time.

It was also enacted in the same year in which the Bank was established, by statute 6 Wm. & Mary c. 20, that the Bank 'shall not deal in any goods, wares, or merchandise (except bullion), or purchase any lands or revenues belonging to the crown, or advance or lend to their Majesties, their heirs or successors, any sum or sums of money, by way of loan or anticipation, or any part or parts, branch or branches, fund or funds of the revenue, now granted or belonging, or hereafter to be granted to their Majesties, their heirs and successors, other than such fund or funds, part or parts, branch or branches of the said revenue only, on which a credit of loan is or shall be granted by Parliament.' And in 1697 it was enacted, that the common capital and principal stock, and also the real fund of the governor and company, or any profit or produce to be made thereof, or arising thereby, shall be exempted from any rates, taxes, assessments, or impositions whatsoever, during the continuance of the Bank; and that all the profit, benefit, and advantage, from time to time arising out of the management of the said corporation, shall be applied to the uses of all the members of the said corporation of the Governor and Company of the Bank of England, rateably and in proportion to each member's part, share, and interest in the common capital and principal stock of the said governor and company hereby established.

It was further enacted, in 1697, that the forgery of the company's seal, or of any sealed bill or bank note, should be felony without benefit of clergy, and that the making of any alteration or erasure in any bill or note should also be felony.

In 1696, during the great recoinage, the Bank was involved in considerable difficulties, and was even compelled to suspend payment of her notes, which were at a heavy discount. Owing, however, to the judicious conduct of the directors, and the assistance of Government, the Bank got over the crisis. But it was at the same time judged

expedient, in order to place her in a situation the better to withstand any adverse circumstances that might afterwards occur, to increase her capital from 1,200,000*l.* to 2,201,171*l.* In 1708 the directors undertook to pay off and cancel 1,500,000*l.* of Exchequer bills they had circulated two years before, at 4½ per cent., with the interest on them, amounting in all to 1,775,028*l.*; which increased the permanent debt due by the public to the Bank, including 400,000*l.*, then advanced in consideration of the renewal of the charter, to 3,375,028*l.*, for which they were allowed 6 per cent. The Bank capital was then also doubled, or increased to 4,402,343*l.* But the year 1708 is chiefly memorable, in the history of the Bank, for the Act that was then passed, which declared, that during the continuance of the corporation of the Bank of England, "it should not be lawful for any body politic, erected or to be erected, other than the said Governor and Company of the Bank of England, or for any persons whatsoever, united or to be united in covenants or partnership, exceeding the number of six persons, in that part of Great Bri-

tain called England, to borrow, owe, or take up any sum or sums of money on their bills or notes payable on demand, or in any less time than six months from the borrowing thereof." This proviso, which has had so powerful an operation on banking in England, is said to have been elicited by the Mine-adventure Company having commenced banking business, and begun to issue notes.

It has been pretty generally imagined, from the private banking companies in the metropolis not issuing notes, that they were legally incapacitated from doing so. But the clause in the Act of 1708, which has been the only restriction on the issue of notes, applied generally to all England, and had no peculiar reference to London. The fact that banks with 6 or fewer partners have not issued notes in the metropolis, as well as in the provinces, is, therefore, ascribable either to their being aware that their notes would obtain no considerable circulation concurrently with those of a great association like the Bank of England, or from their believing that their issue would not be profitable.

We subjoin—

*An Account of the successive Renewals of the Charter, of the Conditions under which these Renewals were made, and of the Variations in the Amount and Interest of the Permanent Debt due by Government to the Bank, exclusive of the Dead Weight.*

Date of Renewal	Conditions under which Renewals were made, and Permanent Debt contracted	Permanent Debt
		£ s. d.
1694.	Charter granted under the Act 5 & 6 Wm. III. c. 20, redeemable upon the expiration of 12 months' notice after August 1, 1705, upon payment by the public to the Bank of the demands therein specified. Under this Act the Bank advanced to the public 1,200,000 <i>l.</i> , in consideration of their receiving an annuity of 100,000 <i>l.</i> a year, viz. 3 per cent. interest, and 4,000 <i>l.</i> for management.	1,200,000 0 0
1697.	Charter continued by the 8 & 9 Wm. III. c. 20, till 12 months' notice after August 1, 1710, on payment, &c.	
1708.	Under this Act the Bank took up and added to their stock 1,601,171 <i>l.</i> Exchequer bills and tallies. Charter continued by 7 Anne, c. 7, till 12 months' notice after August 1, 1734, on payment, &c. Under this Act the Bank advanced 400,000 <i>l.</i> to Government, without interest; and delivered up to be cancelled 1,775,028 <i>l.</i> 17s. 10d. Exchequer bills, in consideration of their receiving an annuity of 100,000 <i>l.</i> 13s., being at the rate of 6 per cent.	2,175,027 17 10
1713.	Charter continued by 12 Anne, stat. 1, c. 11, till 12 months' notice after August 1, 1742, on payment, &c. In 1716, by the 5 Geo. I. c. 8, Bank advanced to Government, at 5 per cent. And by the same Act, the interest on the Exchequer bills cancelled in 1708 was reduced from 6 to 5 per cent. In 1721, by 8 Geo. I. c. 21, the South Sea Company were authorised to sell 200,000 <i>l.</i> Government annuities, and corporations purchasing the same at 36 years' purchase were authorised to add the amount to their capital stock. The Bank purchased the whole of these annuities at 29 years' purchase 5 per cent. interest was payable on this sum to Midsummer, 1727, and thereafter, 4 per cent. At different times between 1727 and 1738, both inclusive, the Bank received from the public, on account of permanent debt, 5,375,027 <i>l.</i> 17s. 10d., and advanced to it on account of ditto 5,000,000 <i>l.</i> ; difference	2,000,000 0 0
	Debt due by the public in 1738	9,100,000 0 0
1742.	Charter continued by 15 Geo. II. c. 13, till 12 months' notice after August 1, 1761, on payment, &c. Under this Act the Bank advanced 1,600,000 <i>l.</i> without interest, which being added to the original advance of 1,200,000 <i>l.</i> , and the 100,000 <i>l.</i> advanced in 1710, bearing interest at 6 per cent., reduced the interest on the whole to 5 per cent. In 1745, under authority of 19 Geo. II. c. 6, the Bank delivered up to be cancelled 986,000 <i>l.</i> of Exchequer bills, in consideration of an annuity of 35,172 <i>l.</i> , being at the rate of 3 per cent.	1,600,000 0 0
	In 1749, the 23 Geo. II. c. 6, reduced the interest on the 1 per cent. annuities held by the Bank to 3½ per cent. for 7 years from December 25, 1750, and thereafter to 3 per cent.	986,800 0 0
1761.	Charter continued by 6 Geo. III. c. 25, till 12 months' notice after August 1, 1786, on payment, &c. Under this Act the Bank paid into the Exchequer 110,000 <i>l.</i> free of all charge.	
1781.	Charter continued by 21 Geo. III. c. 60, till 12 months' notice after August 1, 1812, on payment, &c.	
1800.	Under this Act the Bank advanced 5,000,000 <i>l.</i> for the public service for 5 years at 5 per cent. Charter continued by 40 Geo. III. c. 28, till 12 months' notice after August 1, 1835, on payment, &c. Under this Act the Bank advanced to Government 3,000,000 <i>l.</i> for 6 years without interest; but in pursuance of the recommendation of the committee of 1807, the advance was continued without interest till 6 months after the signature of a definitive treaty of peace. In 1816, the Bank, under authority of the Act 56 Geo. III. c. 96, advanced at 3 per cent. to be repaid on or before August 1, 1825	3,000,000 0 0
1825.	Charter continued by 5 & 4 Wm. IV. c. 98, till 12 months' notice after August 1, 1855, with a proviso that it may be dissolved on 12 months' notice after August 1, 1815, on payment, &c. This Act directs that in future the Bank shall deduct 120,000 <i>l.</i> a year from their charge on account of the management of the public debt, and that a fourth part of the debt due by the public to the Bank, or 5,671,700 <i>l.</i> , be paid off. Permanent advance by the Bank to the public, bearing interest at 3 per cent., independent of the advances on account of dead weight, &c.	11,686,800 0 0
1811.	Charter continued by 7 & 8 Vict. c. 34, till 12 months after August 1, 1855, on payment, &c. This Act, an abstract of which is given in a subsequent part of this article, exempts the notes of the Bank from all charge on account of stamp duty, and directs that in future the Bank shall deduct 150,000 <i>l.</i> a year from the charge on account of the management of the public debt. It also separates the banking from the issuing department of the establishment, and enacts other important changes.	5,671,700 0 0
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The charter of the Bank of England, when first granted, was to continue for eleven years certain, or till a year's notice after August 1, 1705. The charter was further prolonged in 1697. In 1708, the Bank having advanced 400,000*l.* for the public service, without interest, the exclusive privileges of the corporation were prolonged till 1733. And in consequence of various arrangements made at different times, the exclusive privileges of the Bank have been continued by successive renewals, till a year's notice after August 1, 1855. (See table prefixed.)

(For further details as to this subject, see the Appendix No. 1 of the Report of 1832 on the Renewal of the Bank Charter, and the Acts of Parliament referred to in it; see also Postlethwait's *History of the Revenue*, pp. 301—310; and Fairman *On the Funds*, 7th ed. pp. 85—88, &c.)

The capital of the Bank on which dividends are paid has never exactly coincided with, though till of late it seldom differed very materially from, the permanent advance by the Bank to the public. We have already seen that it amounted, in 1708, to 4,402,343*l.* Between that year and 1727 it was

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increased to near 9,000,000. In 1746 it amounted to 10,780,000. From this period it underwent no change till 1782, when it was increased 8 per cent., or to 11,642,400. It continued stationary at this sum down to 1816, when it was raised to 14,553,000, by an addition of 25 per cent. from the profits of the Bank, under the provisions of the Act 56 Geo. III. c. 96. The Act for the renewal of the charter, in 1833, 3 & 4 Wm. IV. c. 98, directed that the sum of 3,671,700*l.* of the debt due to the Bank should be repaid by the public, giving the directors power, if they thought fit, to deduct it from the Bank capital. But this was not done; the sum being reinvested in a Government annuity, terminable in 1860.

The Bank of England has been frequently affected by panics amongst the holders of its notes. In 1745 the alarm occasioned by the advance of the Highlanders under the Pretender as far as Derby led to a run upon the Bank; and in order to gain time to concert measures for averting the run, the directors adopted the device of paying in shillings and sixpences. But they derived a more effectual relief from the retreat of the Highlanders; and from a resolution agreed to at a meeting of the principal merchants and traders of the City, and very numerously signed, declaring the willingness of the subscribers to receive Bank notes in payment of any sum that might be due to them, and pledging themselves to use their utmost endeavours to make all their payments in the same medium.

During the tremendous riots in June, 1780, the Bank incurred considerable danger. Had the mob attacked the establishment at the commencement of the riots, the consequences might have proved fatal. Luckily, however, they delayed their attack till time had been afforded for providing a force sufficient to insure its safety. Since that period a considerable military force is nightly placed in the interior of the Bank, as a protection in any emergency that may occur.

In the latter part of 1792 and beginning of 1793 there was, in consequence of a previous over-issue on their part, a general run on most of the private banks; and about a *third part* of these establishments were forced to stop payments. This led to a considerable demand for coin from the Bank.

The year 1797 is, however, the most important epoch in the recent history of the Bank. Owing partly to events connected with the war in which we were then engaged; to loans to the Emperor of Germany; to bills drawn on the treasury at home by the British agents abroad; and partly, and chiefly, perhaps, to the advances most unwillingly made by the Bank to Government, which prevented the directors from having a sufficient control over their issues, the exchanges became unfavourable in 1795, and in that and the following year large sums in specie were drawn from the Bank. In the latter end of 1796 and beginning of 1797 considerable apprehensions were entertained of invasion, and rumours were propagated of descents having been actually made on the coast. In consequence of the fears that were thus excited, runs were made on the provincial banks in different parts of the country; and some of them having failed, the panic became general, and extended itself to London. Demands for cash poured in upon the Bank from all quarters; and on Saturday, Feb. 25, 1797, she had only 1,272,000*l.* of cash and bullion in her coffers, with every prospect of a violent run taking place on the following Monday. In this emergency an order in council was issued on Sunday the 26th, prohibiting the directors from paying their notes in cash until the sense of Parliament had been taken

on the subject. And after Parliament met, and the measure had been much discussed, it was agreed to continue the restriction till six months after the signature of a definitive treaty of peace.

As soon as the order in council prohibiting payments in cash appeared, a meeting of the principal bankers, merchants, traders, &c. of the metropolis was held at the Mansion House, when a resolution was agreed to and very numerously signed, pledging, as had been done in 1745, those present to accept, and to use every means in their power to cause Bank notes to be accepted as cash in all transactions. This resolution tended to allay the apprehensions that the restriction had excited.

Parliament being sitting at the time, a committee was immediately appointed to examine into the affairs of the Bank; and their report put to rest whatever doubts might have been entertained with respect to the solvency of the establishment, by showing that at the moment when the order in council appeared the Bank was possessed of property to the amount of 15,513,690*l.*, after all claims upon her had been deducted.

Much difference of opinion has existed with respect to the policy of the restriction in 1797; but, considering the peculiar circumstances under which it took place, its expediency seems abundantly obvious. The run did not originate in any over-issue of Bank paper, but grew entirely out of political causes. So long as the alarms of invasion continued, it was clear that no Bank paper immediately convertible into gold would remain in circulation. And as the Bank, though possessed of ample funds, was without the means of instantly retiring her notes, she might, but for the interference of Government, have been obliged to stop payment; an event which, had it occurred, must have produced consequences in the last degree fatal to the public interests.

It had been generally supposed, previously to the passing of the Restriction Act, that Bank notes would not circulate unless they were immediately convertible into cash; but the event showed conformably to principles that have since been fully explained, that this was not really the case. Though the notes of the Bank of England were not at the passing of the Restriction Act publicly declared to be legal tender, they were rendered so in practice, by being received as cash in all transactions on account of Government and of the vast majority of individuals. For the first three years of the restriction, their issues were so moderate that they not only kept on a par with gold, but actually bore a small premium. In the latter part of 1800, however, their quantity was so much increased that they fell to a discount of 8 per cent. as compared with gold, but they soon after rose nearly to par; and it was not until 1808 that the decline of their value excited any considerable attention. Early in 1810 they were at a discount of about 13½ per cent.; and this extraordinary fall having attracted the attention of the legislature, the House of Commons appointed a committee to enquire into the circumstances by which it had been occasioned. The committee examined several witnesses; and in their report, which was drawn up with considerable ability, they justly ascribed the fall to the over-issue of Bank paper, and recommended that the Bank should be obliged to resume cash payments within two years. This recommendation was not, however, acted upon; and the value of Bank paper continued to decline, as compared with gold, till 1814.

At the period when the restriction on cash payments took place in 1797, it is supposed that there

were about 280 country banks in existence; but so rapidly were these establishments multiplied, that they amounted to above 900 in 1813. The price of corn, influenced partly by the depreciation of the currency, and the facility with which discounts were obtained, but far more by dejected harvests, and the unprecedented difficulties which the war threw in the way of importation, had risen to an extraordinary height during the five years ending with 1813. But the harvest of that year being unusually productive, and the intercourse with the Continent being then also renewed, prices, influenced by both circumstances, sustained a very heavy fall in the latter part of 1813, and the beginning of 1814. And this fall having ruined a considerable number of farmers, and produced a general want of confidence, such a destruction of provincial paper took place as has rarely been paralleled. In 1814, 1815, and 1816, no fewer than 240 country banks stopped payment; and eighty-nine commissions of bankruptcy were issued against these establishments, being at the rate of one commission against every ten and a half of the total number of banks existing in 1813.

The great reduction that had been thus suddenly and violently brought about in the quantity of country bank paper, by extending the field for the circulation of Bank of England paper, raised its value in 1817 nearly to a par with gold. The return to cash payments being thus facilitated, it was fixed, in 1819, by the Act 59 Geo. III. c. 78, commonly called Sir Robert Peel's Act, that they should take place in 1823. But to prevent any future over-issue, and at the same time to render the measures as little burdensome as possible, it was enacted, in pursuance of a plan suggested by the late Mr. Ricardo, that the Bank should be obliged, during the interval from the passing of the Act till the return to specie payments, to pay her notes, if required, in bars of standard bullion of not less than sixty ounces weight. This plan was not, however, acted upon during the period allowed by law; for, a large amount of gold having been accumulated at the Bank, the directors preferred recommending specie payments on the 1st of May, 1821. (See Table I., p. 116, for an account of the price of bullion, the depreciation of paper, &c. from 1800 to 1821.)

A great diversity of opinion has been entertained with respect to the policy of the return to the old standard in 1819. By one party it has been represented as a wise and politic measure; they contend that Sir Robert Peel's Act not only put an end to those fluctuations in the value of money which had previously been productive of great mischief, and gave effect to the solemn engagements into which the public had entered with the national creditor, but that it did this without adding anything material to the national burdens. But another, and also a very numerous party, take a totally different view of this measure: they contend that the public was not really bound to return to cash payments at the old standard at the termination of the war; that the return has very greatly enhanced the value of the currency; and that this enhancement, by adding proportionally to the fixed burdens laid on the industrious classes, has been most injurious to their interests.

It will, however, be found in this, as in most cases of the sort, that the statements of both parties are exaggerated; and that if, on the one hand, the measure has not been so advantageous as its eulogists represent, neither, on the other, has it been nearly so injurious as its enemies would have us believe.

In discussing this question, it is material to observe that the value of paper, which had been

in 1815 and 1816 about 163 per cent. below that of gold, rose in 1817 and 1818, from the causes already mentioned, without any interference whatever on the part of Government, to within little more than 23 per cent. of the value of gold; and that in 1819 the depreciation only amounted to 43 per cent. (See Table I., p. 116.) It is, therefore, quite ludicrous to ascribe to the Act of 1819, as is often done, the whole rise that has taken place in the value of the currency since the peace, seeing that the currency had been for three years previously to its enactment from 123 to 143 per cent. above its value in 1815, and from 21 to 23 per cent. above its value in 1814. The main object which the promoters of the Act of 1819 had in view was to sustain the value of the currency at the point to which it had recovered itself without legislative interference. This, however, could not be done without recurring to specie payments; and the difference of 43 per cent. that obtained in 1819 between the value of gold and paper, was not deemed sufficiently considerable to warrant a departure from the old standard, and from the acts engaging to restore it.

But it is alleged that those who suppose that the Act of 1819 added only 43 per cent. to the value of the currency mistake altogether the effect of the measure. It is admitted, indeed, that paper was then only 43 per cent. less valuable than gold; but by reverting to specie payments, we made an unexpected purchase of thirty millions of gold; and it is affirmed that this novel and large demand, concurring simultaneously with the contraction of paper in several of the Continental states, and with a falling off in the supply of bullion from the mines, had the effect of adding very greatly to the value of gold itself, and consequently to that of the currency. It is very difficult, or rather, perhaps, impossible, to determine the precise degree of credit that should be attached to this statement; but while we incline to think that it is well founded to a certain extent, we see no grounds for believing that it is so to anything like the extent that has been stated. The gold imported into Great Britain, to enable the Bank to resume specie payments, was not taken from any particular country or district, but was drawn from the market of the world; and considering the vast extent of the supply whence it was derived, it is against all reason to suppose that its value could be materially influenced by our purchases. We doubt, too, whether the contraction of the paper currency of some of the Continental states, and the substitution of specie in its stead, was not more than balanced by the cessation of the demand for specie for the military chests of the different armies, by the stoppage of the practice of hoarding, and the greater security consequent on the return of peace. And with respect to the falling off in the supplies from the mines, it is not a circumstance, supposing it to have had a considerable influence, that Parliament could take into account. It could neither determine the extent to which bullion had been raised, nor at what point the rise would stop, nor how soon it might again begin to decline. The diminution in the supply of bullion had then continued for too short a period, and its influence on the value of gold was much too uncertain, to make it a ground for interfering in any degree with the standard. And notwithstanding the falling off in the productiveness of the American mines still continues, the diminution thence arising has been since more than compensated by the extraordinary increase that has taken place of late years in the produce of the Russian mines and washings.

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The decline in the price of most articles that has taken place since the peace has been often referred to as a conclusive proof of the great enhancement in the value of bullion. But the inference is by no means so certain as has been represented. The prices of commodities are as much affected by changes in the cost of their production, as by changes in the quantity of money aloft. Now, there is not one of the great articles of commerce the cost of which has not been considerably reduced, or which has not been supplied from new and more productive sources, within the last few years. The growth of corn, for example, has been vastly extended in France, Prussia, and generally throughout the Continent, by the splitting of large estates, and the complete subversion of the feudal system; and the reduction of its price in this country has been wholly owing to the astonishing improvements made in agriculture, and to the increase of imports from Ireland. The fall in the price of wool is satisfactorily accounted for by the introduction and rapid multiplication of Merino sheep in Germany, where they seem to succeed even better than in Spain, and by the large and rapidly growing imports from Australia, where little more than 50 years ago there was not a single sheep! And a very large portion, if not the whole, of the fall in the price of colonial products, is admitted, on all hands, to be owing to the destruction of the monopoly system, and the vast extension of cultivation in Cuba, Brazil, Java, Louisiana, &c. Although, therefore, we do not deny that the falling off in the supply of bullion from the mines must, at first, have had some influence over prices, we hold it to be the greatest imaginable error to ascribe to it the entire fall that took place after the peace. Were its effect rated at from 5 to 10 per cent., we believe it would be very considerably overstated. [PRECIOUS METALS.]

On the whole, therefore, we are disposed to approve of the conduct of those who framed the Act of 1819. That it added somewhat to the burdens of the industrious classes, and has been in so far hostile to the public interests, it seems impossible to doubt; but it has not been so in anything like the degree which its enemies represent. The period, too, when it was passed is now so distant, that the existing engagements amongst individuals have almost all been formed with reference to the altered value of the currency; so that whatever injury it may have occasioned in the first instance must be nearly gone by. To modify or change the standard at this late period, would not be to repair injustice, but to commit it afresh. At the end of the war the circumstances were considerably different. The standard had been really abandoned for the previous 18 years; and perhaps we may now say, that it would have been better, all things considered, had the mint price of bullion been raised in 1815 to the market price. But having surmounted all the difficulties attendant upon the restoration of the old standard, and maintained it since 1821, it would be in the last degree impolitic to subject it to new alterations. Should the country become, at any future period, unable to make good its engagements, it will better consult its honour and its interest by fairly compounding with its creditors, than by endeavouring to slip from its engagements by resorting to the underhand and dishonest expedient of enfeebling the standard.

The price of corn, which had been very much depressed in 1821 and 1822, rallied in 1823; and this circumstance contributed, along with others peculiar to that period, to promote an extraordinary rage for speculation. The issues of the

country banks being in consequence far too much extended, the currency became redundant in the autumn of 1824; and the exchanges having been depressed, a drain for gold began to operate upon the Bank of England. But the directors of that Bank having entered, in the early part of that year, into an engagement with Government to pay off such holders of 4 per cent. stock as might dissent from its conversion into a 3½ per cent. stock, they were obliged to advance a considerable sum on this account after the depression of the exchange. This tended to counteract the effect of the drain on the Bank for gold; and, in consequence, the London currency was not very materially diminished till September, 1825. When, however, the continued demand of the public on the Bank for gold had rendered money scarce in the metropolis, the pressure speedily extended to the country. Such of the provincial banks—and they were a numerous class—as had been originally established without sufficient capital, or had conducted their business upon erroneous principles, began to give way the moment they experienced an increased difficulty of obtaining pecuniary accommodations in London. The alarm, once excited, soon became general; and confidence and credit were, for awhile, almost wholly suspended. In the short space of six weeks, above seventy banking establishments were destroyed, notwithstanding the very large advances made to them by the Bank of England; and the run upon the Bank for cash to supply the exigencies of the country banks was so heavy, that she was well nigh drained of all the coin in her coffers, and obliged to issue about a million of 1*l.* and 2*l.* notes.

To guard against a recurrence of the wide-spread mischief produced by this and the previous bankruptcies of the country banks, it was resolved, in 1826, with consent of the Bank of England, to make a change in the law of 1708, limiting the number of partners in banking establishments to six only. And it was accordingly enacted, that thenceforth any number of partners might form themselves into associations to carry on the business of banking, including the issue of notes, any where not within *sixty-five miles* of London. The directors of the Bank of England came, at the same time, to the resolution of establishing branches in some of the principal towns; and these have since been established in Gloucester, Manchester, Birmingham, Leeds, Liverpool, Bristol, Exeter, Newcastle-upon-Tyne, Hull, Norwich, &c.

The branch banks have been useful, but we have already seen that the benefits which it was supposed would result from the formation of joint-stock banks have been in great measure disappointed. At best, the formation of joint-stock banks was but a feeble palliative of inveterate disorders. It was quite illusory to expect to make any real improvement upon the system of country banking in England, by the mere introduction of a plan for *allowing* banking establishments with large capitals to be set on foot. There had always been, and were at the moment, a great number of such establishments in England. What we really wanted was the adoption of a system that should suppress all local issues, or exclude the possibility of notes being discredited, by making sure that notes when issued should be paid.

Besides attempting to lessen the frequency of bankruptcy among the country banks by repealing the law limiting the number of partners, it was further resolved, in 1826, to prohibit the issue of 1*l.* notes. The policy and effects of this measure

gave rise to much dispute. It seems clear that it went far to shut up one of the most convenient channels by which the inferior class of country bankers contrived to get their notes into circulation, and must in so far have done good. But there were many other channels still open to them; and to imagine that this measure was to place the provincial currency on that solid basis on which it should be placed was quite visionary. There were no notes under 5*l.* in circulation in 1792; and yet fully *one third* part of the country banks then in existence became bankrupt! No doubt can, however, be entertained, that the representations of the extreme injury occasioned by the withdrawal of 1*l.* notes were greatly exaggerated. At the same time it is obvious that the means of the bankers to make advances, as well as the profit derived from making them, must both have been diminished by the suppression of the small notes; and it would be foolish to deny that this circumstance must have occasioned some loss and inconvenience to individuals; though, as respects the public, the measure was highly advantageous.

The extraordinary extent to which the forgery of the 1*l.* notes of the Bank of England was carried affords of itself a sufficient vindication of the policy of their suppression. But the comparatively limited circulation of the country banks, and perhaps we may add the greater attention paid to the manner in which their notes were engraved, hindered their forgery from becoming injuriously prevalent.

The defects inherent in the old system were again fully developed in 1836 and 1837. It is needless now to enter upon any investigation of the circumstances which led to the overtrading of these years; but it was carried to a great extent both here and in the United States. In nothing, however, was this more strikingly evinced, than in the rapid increase of joint-stock banks; their number, which in 1834-35 had amounted in England and Wales to 55, having risen in 1835-36 to no fewer than 100! Many of these were banks of issue, and in consequence of the large additions that were thus suddenly made to the number of notes afloat, and still more to the number of bills, cheques, and other substitutes for money, the currency became redundant and the exchange depressed; and the deficient harvests of 1838 and 1839, conspiring with this redundancy, occasioned a further fall in the exchange, and a severe drain upon the Bank of England for gold. But while the latter was narrowing her issues by supplying the exporters of bullion with gold in exchange for notes, the country banks went on increasing their issues! What the former did by contracting on the one hand, the latter more than undid by letting out on the other. The vacuum created by the withdrawal of Bank of England paper was immediately filled up, and made to overflow, by the issue of a more than equal amount of provincial paper; so that had it not been for the rise in the rate of interest, and the other repressive measures adopted by the Bank, the probability is that she might have gone on paying away bullion for notes, till she was drained of her last sixpence; without in any degree affecting the exchange; and as it was, the bullion in her coffers in August 1839 was reduced to 2,120,000*l.*, so that we narrowly escaped a tremendous crisis.

#### SEC. IV.—PRINCIPLE AND OPERATION OF THE ACT OF 1844.

This perilous experience having again forcibly attracted the public attention to the state of the

banking system, Sir Robert Peel was induced to attempt its improvement. And the measures which he introduced and carried through Parliament in 1844 and 1845, for the improvement of our banking system, were so skilfully contrived as to provoke little opposition, at the same time that they effected most important and highly beneficial changes.

The measures in question consisted of the Act 7 & 8 Vict. c. 32, which refers to the Bank of England, and the English country banks; and the Act 8 & 9 Vict., of which c. 37, 38 refer to the banks of Ireland and Scotland respectively. These statutes were intended to obviate the chances of over-issue and of sudden fluctuations in the quantity and value of money, by limiting the power to issue notes payable on demand, and by making the amount of such notes in circulation vary with the amount of bullion in the possession of the issuers. In dealing with the Bank of England, Sir Robert Peel adopted the proposal previously made by Lord Overstone, for effecting a complete separation between the issuing and banking departments of that establishment, and giving the directors full liberty to manage the latter at discretion, while they should have no power whatever over the other.

*Principle on which Act of 1844 was founded.*—The notes of the Bank of England in circulation for some years previously to 1844 rarely amounted to 20,000,000*l.*, or sunk so low as 16,000,000*l.* And such being the case, Sir Robert Peel was justified in assuming that the circulation of the Bank could not, in any ordinary condition of society, or under any mere commercial vicissitudes, be reduced below 14,000,000*l.* And the Act of 1844 allows the Bank to issue this amount upon securities, of which the 11,015,100*l.* she has lent to the public is the most important item. Inasmuch, however, as the issues of the provincial banks were at the same time limited in their amount, and confined to certain existing banks, it was further provided, in the event of any of these banks ceasing to issue notes, that the Bank of England might be empowered, by order in council, to issue, upon securities, two-thirds, and no more, of the notes which such banks had been authorised to issue. Under this condition, the total secured issue of the Bank has (1858) been increased from 14,000,000*l.* to 14,475,000*l.* *But for every other note which the issue department may at any time issue over and above the maximum amount (14,475,000*l.*) issued on securities, an equal amount of coin or bullion must be paid into its coffers.* And hence, under this system, the notes of the Bank of England are rendered really and truly equivalent to gold, while their immediate conversion into that metal no longer depends, as it previously did, on the good faith, the skill, or the prudence of the directors. And these important results have been attained without imposing any burden of which anyone has any right to complain. Our currency rests on the fundamental principle, that all debts above forty shillings shall be paid in gold. But individuals and associations, including the banking or commercial department of the Bank, have the option, if they prefer it, to exchange gold for bank notes, and to make use of the latter in their dealings with the public. Hence, if A. or B. goes to the issuers of paper, and gets 100 or 500 notes from them in exchange for an equivalent amount of gold, it is his own convenience he has exclusively in view. He was at full liberty to use gold, but he preferred exchanging it for notes because he could employ the latter more advantageously. This is the way in which paper is issued under the Act of 1844; and such being the case it is

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It has been alleged that this system is injurious by shackling the bank in the use of her credit. But it must be clear on the least reflection that it does nothing of the sort. It merely prevents her from issuing substitutes for money which do not represent money. It does not absorb or lock up a single sixpence worth of her capital; nor does it interfere in any manner of way with her employment either of it, or of her credit. The gold in the issue department of the Bank was not purchased by her, and does not belong to her. She is its keeper, but not its owner. It belongs to the public, or to the holders of bank notes, who deposited it in the Bank in exchange for notes, with and under the express stipulation, that on paying the latter into the Bank, they should receive back their gold. Any interference with these deposits would be an interference with property held in pledge for others; that is, it would be an act precisely of the same kind with that which deservedly subjected Strahan, Paul, and Co. to transportation for fourteen years. The authority of Mr. Sheffield Neave, formerly governor of the Bank, may be quoted in corroboration of this statement: 'The issue-department is out of our hands altogether. We are mere trustees under the Act of Parliament, to see that those securities are placed there and kept up to that amount; and in no case can any creditor of the Bank touch that which is reserved for a note-holder. We are in that respect merely ministrative; we are trustees to hold that amount in the issue-department, and our banking department has a totally separate function, which has no relation whatever to the issue-department.' (*Min. of Evidence*, 1857, p. 99.)

But though she may not lay violent hands on the property of the public, the Bank, it is obvious, has at this moment the same absolute command over her entire capital and credit, that she would have were the Act of 1844 non-existent. In her banking capacity she is free from all restraint, and is in precisely the same situation as other banking or mercantile establishments. She may lend or not lend as she pleases, and may lay down such conditions as she pleases in regard to the interest and the terms of her loans and discounts. In short, she may do whatever she likes with her own. But further she is not permitted to go. She may not substitute shadows for realities. She cannot, whether to assist others, or to relieve herself from embarrassment, issue a single note except upon a deposit of bullion. But this rule does not operate on herself only. It applies to all individuals and associations. And to relax it in any degree would be—disguise it as you will—to authorise an issue of fictitious or spurious paper, and consequently to vitiate the currency and to abuse credit in the way that is sure to be in the end the most disastrous.

It is further objected to the Act of 1844, that it 'limits the currency;' that it makes no provision for the increasing demands of the public; and confined us in 1858, when the exports would probably exceed 120,000,000*l.*, to the same amount of money as in 1844, when the exports did not exceed 58,500,000*l.* But though this statement has been made by parties who ought to have known better, the reader can hardly require to be told that it is completely destitute of foundation. The 14,000,000*l.* issued on securities, is the only thing that is limited in the Act; everything else varies with the varying condition and circumstances of the country, including the means by which the use of money may be economised. In the week ending

August 29, 1857, the issue department of the Bank had issued notes to the amount of 25,323,965*l.*, being no fewer than 11,323,965*l.* over and above the amount authorised to be issued on securities. And if the country had really required a larger supply of money, that is, if more coins, or paper equivalent to coins, could have been absorbed into the circulation without rendering the currency redundant, and depressing the exchange, the additional quantity would have been forthwith supplied. For under such circumstances, merchants, bankers, and money-dealers would have realised a certain and immediate profit by carrying bullion to the Mint or the Bank, that they might obtain coins, or notes, or both, with which to increase the currency. It is one of the chief merits of the Act of 1844, that, under its agency, the supply of money is not to any extent or in any degree regulated or influenced by the proceedings of the Bank or the Government. They have nothing to do in the matter, unless it be to coin the bullion which individuals or firms carry to the Mint for that purpose, and to exchange, when called upon, notes for coins, and coins for notes. The supply of money, like that of all non-monopolised articles, is wholly dependent upon, and is determined by, the free action of the public. It would, indeed, be quite as true to say, that the Act of 1844 limits the amount of corn, of cloth, or of iron produced in the country, as that it limits the amount of money. It maintains the value of the notes issued by the Bank on a level with the coins for which they are substitutes; but beyond that its effect is *nil*. It has nothing whatever to do with the greater or less amount of the currency. That depends entirely on the estimate formed by the public of its excess or deficiency, an estimate which, when wrong, is sure to be corrected by the exchange.

We may add, that no inference can ever be safely drawn from the number of notes or coins, or both, afloat in a country, as to whether its currency be, or be not, in excess. That is to be learned by the state of the exchange, or by the influx and efflux of bullion. If the imports of bullion exceed the exports, it shows that the currency is in some degree deficient, while if the exports exceed the imports, it shows that the currency is in excess, and that no additions can be made to it without further depressing the exchange and increasing the drain of bullion. When the imports and exports of bullion are about equal, then of course the currency is at about its proper level. These are the only criteria by which anything can ever be correctly inferred in regard to the deficiency or excess of currency. Its absolute amount affords hardly even a basis for conjecture. When there is little speculation or excitement, an issue of 25,000,000*l.* or 27,000,000*l.* bank-notes may be in excess! while, at another time, and with a different state of trade and speculation, an issue of 35,000,000*l.* or 37,000,000*l.* of notes may not be enough. Except in periods of internal commotion, or when we are disturbed by alarms of invasion, the state of the exchange is the only, as it is the infallible, test of the sufficiency and insufficiency of the currency.

We have seen that bills of exchange, about which so much is said, though they serve some of the purposes of money, are not money. But whether the amount of them in circulation be great or small, and whether they be drawn at long or short dates, though highly important in other respects, has no reference to, or bearing upon, this question. When from any cause, whether from an excess in the amount of bills or notes afloat, the currency becomes redundant, the exchange is depressed, and notes are sent to the issue depart-

ment of the Bank to be exchanged for gold, which is forthwith exported. And it is by the immediate action of the adverse exchange upon notes, and the consequent influence of the contraction of the latter upon bills, that the amount of the currency is lessened, its value raised, and the exchange brought to par. At such periods there is usually more or less of mercantile pressure, and a greater demand for discounts and pecuniary accommodation. This leads to a rise in the rate of interest; but no change in this rate has any influence over the currency, except in so far as its rise may diminish, and its fall may increase, the demands upon the Bank for loans. A system of this sort effectually prevents any great excess of bills from ever getting into the market; and thus checks, in limine, what would otherwise be the most copious source of wild speculation, overtrading, and bankruptcy.

It may be said, perhaps—for there is no end of apologies for whatever is vicious—that if the issue of notes were in the hands of Government, the entire profit accruing thereon would belong to the public. But supposing such to be the case, the difference between that profit, and that which is or may be realised under the present system, would either be nothing at all, or so inconsiderable as to be wholly unworthy of attention. It will be afterwards seen that at this moment the public receives by far the greater part of the profit made by the Bank on the fixed issue of 14,000,000*l.*, and if it be deemed expedient, that part may be still further increased, or turned into the lion's share. Assuming, therefore, for a moment, that the power to issue notes is vested in Government commissioners, it is not pretended that these notes are to be legal tender. Nothing so monstrous as that could be thought of, or at all events, durst be proposed. The notes issued by the commissioners, like those issued by the Bank, must be paid on demand. But to do this, a stock of bullion must be provided; and unless the plan now followed were adopted, and all issues above the amount of 14,000,000*l.*, or thereby, were made upon deposits of bullion, the public would not have that perfect security which is given them by the present system, and which is worth more than ten times all the profits arising out of the fixed issue. Even under the old system, or that which existed previously to 1844, the rule of the Bank was to keep a stock of bullion on hand equal to a third part of her issues. But this rule was not, and in truth could not be, acted upon. It is plain, however, had it been *bonâ fide* carried out, that the profits on the issue of notes would not have been materially, if at all, different from what they are at this moment. Nothing, therefore, can be more completely futile than the talk about the large profits that would accrue to the public by vesting the power to issue notes in commissioners appointed by Government. With the same security as at present for the conversion of the notes into coin, nothing would be gained by such appointment; and if, as would most likely be the case, it lessened the security referred to, and added to the chances of over-issue and mismanagement, the injury to the public hence resulting might be enormous. We therefore, are disposed to believe, that of the various proposals in regard to the currency, that which proposes to vest the issue of notes in the hands of Government commissioners is one of the most objectionable. The chances are ten to one that they would act as directed by the Government of the day; and this, at all events, would be popularly assumed to be the case. Supposing, however, that they did nothing of the sort, but were perfectly independent, still it is obvious that whatever they did more or less than

is done at present, would be mischievous. And such being the case, it is not easy to see what advantage would be gained by their appointment; while it would have the serious disadvantage of making Government directly responsible, in the public estimation, for whatever inconvenience might at any time be supposed to result from the limitation of the currency.

The objections to the Act of 1844 are so various and so opposite that they are not easily collected. Sometimes we are told that it is inconsistent with itself and incomplete, and that it deals stringently with the Bank of England, while it hardly interferes with the country banks. But this is an unfair representation. In dealing with the country banks the Act may not have gone quite so far as it was desirable it should have gone, or as Sir Robert Peel wished it to go; but it notwithstanding effected, even in that respect, a very great improvement, and really left but little to be wished for.

To prevent future over-issues of country paper it was enacted, that from and after the passing of the Act, no new bank for the issue of notes should be established in any part of the United Kingdom. And it was further enacted, that the *maximum* issue of notes by the existing country banks should, in future, be limited to the average amount which they had respectively in circulation during the twelve weeks preceeding the 27th April, 1844; and various penalties are imposed on those whose issues exceed that fixed amount. This condition applies only to banks in England and Wales. The issues of those in Scotland and Ireland are limited to the average amount of those in circulation during the twelve months ending the 1st of May, 1845. (See *post.*) It was then, also, ordered that the names of the partners, in joint-stock and other banks, should be periodically published.

These are most important regulations. No doubt it would have been better had provincial issues been entirely suppressed, and Bank of England notes made the only legal substitute for coins. But in matters of legislation what is practicable is of quite as much importance as what is absolutely just and proper. Sir Robert Peel knew what he could carry through Parliament. Had he attempted more, he would not only have failed of his object, but would, most likely, have endangered the success of the other and far more important portion of his measure which related to the Bank of England.

Under the operation of the Act of 1844 the extinction of the country issues is being gradually effected, partly by some of the issuing banks finding it to be for their advantage to use notes of the Bank of England instead of their own, and partly by the wind-up-of of some concerns and the bankruptcy of others. But, owing to the limitation of the issues, comparatively little inconvenience has resulted to the public from the latter circumstance.

On the whole, therefore, there does not appear to be much ground on which to object to the existing arrangements in regard to the country banks. Though not theoretically perfect, their practical deficiencies are unimportant. To attempt to obviate them might imperil other and more important arrangements. And we incline to think that the notion that such would be the case has had not a little to do in making them be pressed on the attention of the public.

*Suspensions of 1847 and 1857.*—But it is said, 'that even the best system cannot always be carried to an extreme. The Act of 1844 has had to be suspended in 1847, and again in 1857; and

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We beg, however, to express our dissent from this doctrine. It would be easy to show that the embarrassment of the banking department of the Bank in 1847 which led to the suspension of the Act, was mainly a consequence of the injudicious proceedings of the directors; and it is to be hoped that the experience they acquired on that occasion may not be forgotten. But in whatever way the crisis may have originated, there can be no question that the suspension of 1847 was a measure of doubtful policy. The exchanges had already become favourable, and it was the prevalent opinion in very well-informed quarters, that the panic which had begun to show itself would speedily have disappeared without the intervention of Government. It should never be forgotten that, apart from internal panics, the time when the Act is said to be working harshly and oppressively is the very time when it is most for the public advantage that it should be honestly carried out.

The revulsion in 1857 was occasioned by the stoppage of the American banks. The real value of the exports from this country to the United States amounted in 1856 to 21,476,000*l.*, of which a large portion was unpaid when the banks stopped payments; and a further and very large sum was due to us on account of dividends on state, railway and canal stocks, and so forth, held by parties in England. The sudden cessation of so large an amount of payments could not fail to occasion a good deal of distress among the merchants and others dealing with America. And it was among this class, or those intimately connected with it, that the greatest overtrading and abuse of credit had taken place. Some firms in Glasgow, which had been notoriously overtrading for a number of years, were the first to give way. And their failure being on a very large scale, the banks by which they had been principally supported became the objects of suspicion. And from suspicion to distrust there is but a step. Notwithstanding the numbers and wealth of the shareholders responsible for the banks in question, they were subjected to a run on the part of the inferior class of note-holders and depositors, and their resources being either anticipated or locked up, they were obliged to suspend payments. And had they only failed, none could have regretted the result. On the contrary, it would have been nothing more than they deserved, for they had for a lengthened period grossly abused the ample resources at their command, and resorted to the most questionable means to bolster up the speculators with whom they had become identified. But the mischief is, that the disastrous effects of such proceedings cannot be confined to the guilty parties. A fire originating in a pig-sty may destroy a palace. The suspension of the offending banks, by generating uneasy feelings and suspicions in the public mind, led to a run on some of the other banks. And to provide for their own safety these establishments immediately began to sell securities, and to adopt other means, by which to obtain supplies of gold. Large amounts of it were in consequence carried to Scotland. And, in addition to the demand for gold, that for discounts, notwithstanding the high rate of ten per cent. charged by the Bank, continued undiminished, so that the reserve in her possession was reduced on November 11 to 1,462,133*l.*; and it was the general belief, that this inadequate reserve would be forthwith either much reduced or wholly swallowed up. To avert the possibility of such an event occurring, the directors were

authorised, on November 12, to issue notes without being bound by the conditions of the Act of 1844.

This, though a brief, is, we believe, a sufficiently accurate account of the circumstances that led to the suspension of the Act in 1857. The weight to be attached to them will be differently estimated by different individuals. The suspension is believed by some to have been, at least, premature, and others think that probably it might have been avoided. It is alleged that the panic in Scotland had begun to subside previously to the measure being adopted; and it was all but certain that when it had subsided, a considerable portion of the gold that had been sent to Scotland would speedily find its way back to London, and some considerable risk and inconvenience should have been encountered rather than that measures should have been adopted, the effect of which will be to protect speculators and money dealers without capital, and wanting alike in character and conduct, from the consequences of their unjustifiable proceedings. But, at the same time, we admit that the immediate exposure and punishment of these parties, however desirable, was not to be purchased at the risk of a general revulsion. And as the information laid before ministers made them believe that such a calamity was imminent unless the statute of 1844 was suspended, they were bound to act upon that conviction, and to provide 'ne quid detrimenti respublica capiat.'

But whatever may be thought of these conclusions, it is at all events certain that the Act of 1844 had nothing whatever to do with the late revulsion. It did not occasion the American stoppage, and under its operation the foreign drain for gold had been entirely stopped; and though it could not prevent the abuses in banking, and the system of rediscounting and overtrading in which so many banks and firms have been engaged, it contributed in no ordinary degree, by preventing the issue of spurious paper, to confine them within comparatively narrow limits and to lessen the violence of the crisis.

The Act of 1844 is a rule to be enforced in all but extraordinary and unforeseen emergencies, the urgency of which cannot be appreciated beforehand, but must be determined at the moment. But when these occur, it may, like the Habeas Corpus Act, be properly suspended. It is mainly calculated to regulate our currency by the exchanges, or through our commercial intercourse with other countries; but it is not applicable, nor is any system of which the convertibility of paper into coin makes a part applicable, to a state of internal discredit or panic. Had it existed in 1797, it must have been suspended; and its suspensions in 1847 and 1857 are only to be justified by the state of our domestic affairs making an adherence to principle inexpedient and impracticable. But, whenever the circumstances referred to, that is, when the panic and distrust that occasioned the suspension of the Act subsided, it is clear it should be, and it has been, revived in its pristine vigour. The Habeas Corpus Act is not the less efficient at this moment that it has been repeatedly suspended in periods of danger and difficulty.

We subjoin a full

ABSTRACT OF THE ACT 7 & 8 VICT. C. 32, FOR REGULATING THE ISSUE OF BANK NOTES, AND FOR GIVING TO THE BANK OF ENGLAND CERTAIN PRIVILEGES FOR A LIMITED PERIOD, 19 JULY, 1844.

*Bank to establish a separate Department for the Issue of Notes.*—Whereas it is expedient to regulate the issue of bills or notes payable on demand:

and whereas the Act 3 & 4 Wm. IV. c. 98 gave to the corporation of the governor and company of the Bank of England certain privileges for a limited period, under certain conditions; and it is expedient that the privileges of exclusive banking therein mentioned should be continued to the said governor and company of the Bank of England, with such alterations as are herein contained, upon certain conditions: be it therefore enacted, that from and after the 31st day of August, 1844, the issue of promissory notes of the governor and company of the Bank of England, payable on demand, shall be separated and thenceforth kept wholly distinct from the general banking business of the said governor and company; and the business of and relating to such issue shall be thenceforth conducted and carried on by the said governor and company in a separate department, to be called 'The Issue Department of the Bank of England,' subject to the rules and regulations hereinafter contained; and it shall be lawful for the court of directors of the said governor and company, if they shall think fit, to appoint a committee or committees of directors for the conduct and management of such issue department of the Bank of England, and from time to time to remove the members, and define, alter, and regulate the constitution and powers of such committee, as they shall think fit, subject to any bye-laws, rules, or regulations which may be made for that purpose: provided nevertheless, that the said issue department shall always be kept separate and distinct from the banking department of the said governor and company. (Sec. 1.)

*Management of the Issue by Bank of England.*—Upon August 31, 1844, there shall be transferred, appropriated, and set apart by the said governor and company to the issue department of the Bank of England securities to the value of 11,000,000*l.*, whereof the debt due by the public to the said governor and company shall be and be deemed a part; and there shall also at the same time be transferred, appropriated, and set apart by the said governor and company to the said issue department so much of the gold coin and gold and silver bullion then held by the Bank of England as shall not be required by the banking department thereof; and thereupon there shall be delivered out of the said issue department into the said banking department of the Bank of England such an amount of Bank of England notes as, together with the Bank of England notes then in circulation, shall be equal to the aggregate amount of the securities, coin, and bullion so transferred to the said issue department of the Bank of England; and the whole amount of Bank of England notes then in circulation, including those delivered to the banking department of the Bank of England as aforesaid, shall be deemed to be issued on the credit of such securities, coin, and bullion so appropriated and set apart to the said issue department; and from thenceforth it shall not be lawful for the said governor and company to increase the amount of securities for the time being in the said issue department save as herein-after is mentioned; but it shall be lawful for the said governor and company to diminish the amount of such securities, and again to increase the same to any sum not exceeding in the whole the sum of 11,000,000*l.*, and so from time to time as they shall see occasion; and from and after such transfer and appropriation to the said issue department as aforesaid, it shall not be lawful for the said governor and company to issue Bank of England notes, either into the banking department of the Bank of England or to any persons or person whatsoever, save in exchange for other Bank of England notes, or for gold coin

or for gold or silver bullion received or purchased for the said issue department under the provisions of this Act, or in exchange for securities acquired and taken in the said issue department under the provisions herein contained: provided always, that it shall be lawful for the said governor and company in their banking department to issue all such Bank of England notes as they shall at any time receive from the said issue department or otherwise, in the same manner in all respects as such issue would be lawful to any other person or persons. (Sec. 2.)

*Proportion of Silver Bullion to be retained in the Issue Department.*—Whereas it is necessary to limit the amount of silver bullion on which it shall be lawful for the issue department of the Bank of England to issue Bank of England notes; be it therefore enacted, that it shall not be lawful for the Bank of England to retain in the issue department of the said Bank at any one time an amount of silver bullion exceeding one-fourth part of the gold coin and bullion at such time held by the Bank of England in the issue department. (Sec. 3.)

*All Persons may demand of the Issue Department Notes for Gold Bullion.*—From and after the 31st day of August, 1844, all persons shall be entitled to demand from the issue department, Bank of England notes in exchange for gold bullion, at the rate of 3*l.* 17*s.* 9*d.* per ounce of standard gold: provided always, that the said governor and company shall in all cases be entitled to require such gold bullion to be melted and assayed by persons approved of by the said governor and company at the expense of the parties tendering such gold bullion. (Sec. 4.)

*Power to increase Securities in the Issue Department, and issue additional Notes.*—If any banker who on the 6th day of May, 1844, was issuing his own bank notes shall cease to issue his own bank notes, it shall be lawful for H.M. in council at any time after the cessation of such issue, upon the application of the said governor and company, to authorise and empower the said governor and company to increase the amount of securities in the said issue department beyond the total sum or value of 11,000,000*l.*, and thereupon to issue additional Bank of England notes to an amount not exceeding such increased amount of securities specified in such order in council, and so from time to time: provided always, that such increased amount of securities specified in such order in council shall in no case exceed the proportion of two-thirds the amount of bank notes which the banker so ceasing to issue may have been authorised to issue under the provisions of this Act; and every such order in council shall be published in the next succeeding *London Gazette*. (Sec. 5.)

*Account to be rendered by the Bank of England.*—An account of the amount of Bank of England notes issued by the issue department of the Bank of England, and of gold coin and of gold and silver bullion respectively, and of securities in the said issue department, and also an account of the capital stock, and the deposits, and of the money and securities belonging to the said governor and company in the banking department of the Bank of England, on some day in every week to be fixed by the commissioners of stamps and taxes, shall be transmitted by the said governor and company weekly to the said commissioners in the form prescribed in the schedule hereto annexed marked (A), and shall be published by the said commissioners in the next succeeding *London Gazette* in which the same may be conveniently inserted. (Sec. 6.)

Bank upon the day of party of and dis duty, o upon or to bear theucefo exempt Bank'soe want after the ment or a made by the provis year of William I the charg deemed de said gover the privile exemption this Act, sh privileges a no longer, o the sums no and compan the public 180,000*l.*, any ment, or in a withstanding tion shall in rights of the m paid for the m rate and accor 48 Geo. III. c the advancing Conditions, a p in the Bank Unclaimed Di Prizes, and for made for the M (Sec. 8.)

*Bank to allow Circulation.*—In before containe issue departm any time be inc of 14,000,000*l.*, in which the san such increase sha company shall, in of 180,000*l.*, make to the public, eq derived in the sa current year from deducting the am by the additional which expenses s and every compos the said governor consideration of t hereafter of the banker; and such to the public by t shall, in every y entitled to receive amount by law pay company for the c unredeemed public the said annual sum to be deducted there

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*Bank of England exempted from Stamp Duty upon their Notes.*—From and after the said 31st day of August, 1844, the said governor and company of the Bank of England shall be released and discharged from the payment of any stamp duty, or composition in respect of stamp duty, upon or in respect of their promissory notes payable to bearer on demand; and all such notes shall thenceforth be and continue free and wholly exempt from all liability to any stamp duty whatsoever. (Sec. 7.)

*Bank to allow 180,000*l.* per Annum.*—From and after the said 31st day of August, 1844, the payment or deduction of the annual sum of 120,000*l.*, made by the said governor and company under the provisions of the said Act passed in the fourth year of the reign of his late Majesty King William IV., out of the sums payable to them for the charges of management of the public unredeemed debt, shall cease, and in lieu thereof the said governor and company, in consideration of the privileges of exclusive banking, and the exemption from stamp duties, given to them by this Act, shall, during the continuance of such privileges and such exemption respectively, but no longer, deduct and allow to the public, from the sums now payable by law to the said governor and company for the charges of management of the public unredeemed debt, the annual sum of 180,000*l.*, anything in any Act or Acts of Parliament, or in any agreement, to the contrary notwithstanding; provided always, that such deduction shall in no respect prejudice or affect the rights of the said governor and company to be paid for the management of the public debt at the rate and according to the terms provided in the Act 48 Geo. III. c. 4, intitled 'An Act to authorise the advancing for the Public Service, upon certain Conditions, a proportion of the Balance remaining in the Bank of England, for the payment of Unclaimed Dividends, Annuities, and Lottery Prizes, and for regulating the Allowances to be made for the Management of the National Debt.' (Sec. 8.)

*Bank to allow the Public the Profits of increased Circulation.*—In case, under the provisions hereinbefore contained, the securities held in the said issue department of the Bank of England shall at any time be increased beyond the total amount of 14,000,000*l.*, then and in each and every year in which the same shall happen, and so long as such increase shall continue, the said governor and company shall, in addition to the said annual sum of 180,000*l.*, make a further payment or allowance to the public, equal in amount to the net profit derived in the said issue department during the current year from such additional securities, after deducting the amount of the expenses occasioned by the additional issue during the same period, which expenses shall include the amount of any and every composition or payment to be made by the said governor and company to any banker in consideration of the discontinuance at any time hereafter of the issue of bank notes by such banker; and such further payment or allowance to the public by the said governor and company shall, in every year while the public shall be entitled to receive the same, be deducted from the amount by law payable to the said governor and company for the charges of management of the unredeemed public debt, in the same manner as the said annual sum of 180,000*l.* is hereby directed to be deducted therefrom. (Sec. 9.)

*No new Bank of Issue.*—From and after the passing of this Act no person other than a banker who on the 6th day of May, 1844, was lawfully issuing his own bank notes shall make

or issue bank notes in any part of the U. K. (Sec. 10.)

*Restriction against Issue of Bank Notes.*—From and after the passing of this Act it shall not be lawful for any banker to draw, accept, make, or issue, in England or Wales, any bill of exchange or promissory note or engagement for the payment of money payable to bearer on demand, or to borrow, owe, or take up, in England or Wales, any sums or sum of money on the bills or notes of such banker payable to bearer on demand, save and except that it shall be lawful for any banker who was on the 6th day of May, 1844, carrying on the business of a banker in England or Wales, and was then lawfully issuing, in England or Wales, his own bank notes, under the authority of a license to that effect, to continue to issue such notes to the extent and under the conditions herein-after mentioned, but not further or otherwise, and the right of any company or partnership to continue to issue such notes shall not be in any manner prejudiced or affected by any change which may hereafter take place in the personal composition of such company or partnership, either by the transfer of any shares or share therein, or by the admission of any new partner or member thereto, or by the retirement of any present partner or member therefrom; provided always, that it shall not be lawful for any company or partnership now consisting of only six or less than six persons to issue bank notes at any time after the number of partners therein shall exceed six in the whole. (Sec. 11.)

*Bankers ceasing to issue Notes may not resume.*—If any banker in any part of the U. K. who after the passing of this Act shall be entitled to issue bank notes shall become bankrupt, or shall cease to carry on the business of a banker, or shall discontinue the issue of bank notes, either by agreement with the governor and company of the Bank of England or otherwise, it shall not be lawful for such banker at any time thereafter to issue any such notes. (Sec. 12.)

*Existing Banks of Issue to continue under certain Limitations.*—Every banker claiming under this Act to continue to issue bank notes in England or Wales shall, within one month next after the passing of this Act, give notice in writing to the commissioners of stamps and taxes at their head office in London of such claim, and of the place and name and firm at and under which such banker has issued such notes during the twelve weeks next preceding the 27th day of April last; and the upon the said commissioners shall ascertain if such banker was, on the 6th day of May, 1844, carrying on the business of a banker, and lawfully issuing his own bank notes in England or Wales, and if it shall so appear, then the said commissioners shall proceed to ascertain the average amount of the bank notes of such banker which were in circulation during the said period of twelve weeks preceding the 27th day of April last, according to the returns made by such banker in pursuance of the Act 4 & 5 Vict. c. 50, intitled 'An Act to make further Provision relative to the Returns to be made by Banks of the Amount of their Notes in Circulation; and the said commissioners or any two of them shall certify under their hands to such banker the said average amount, when so ascertained as aforesaid; and it shall be lawful for every such banker to continue to issue his own bank notes after the passing of this Act; provided nevertheless, that such banker shall not at any time after the 10th day of October, 1844, have in circulation upon the average of a period of four weeks, to be ascertained as hereinafter mentioned, a greater

amount of notes than the amount so certified, (Sec. 13.)

*Provision for united Banks.*—If it shall be made to appear to the commissioners of stamps and taxes that any two or more banks have, by written contract or agreement (which contract or agreement shall be produced to the said commissioners), become united within the twelve weeks next preceding such 27th day of April as aforesaid, it shall be lawful for the said commissioners to ascertain the average amount of the notes of each such bank in the manner herein-before directed, and to certify the average amount of the notes of the two or more banks so united as the amount which the united bank shall thereafter be authorised to issue subject to the regulations of this Act. (Sec. 14.)

*Duplicate Certificate to be published in the Gazette.*—The commissioners of stamps and taxes shall, at the time of certifying to any banker such particulars as they are herein-before required to certify, also publish a duplicate of their certificate thereof in the next succeeding *London Gazette* in which the same may be conveniently inserted; and the *Gazette* in which such publication shall be made shall be conclusive evidence in all courts whatsoever of the amount of bank notes which the banker named in such certificate or duplicate is by law authorised to issue and to have in circulation as aforesaid. (Sec. 15.)

*If Banks become united, Commissioners to certify the Amount of Bank Notes which each Bank was authorised to issue.*—In case it shall be made to appear to the commissioners of stamps and taxes, at any time hereafter, that any two or more banks, each such bank consisting of not more than six persons, have, by written contract or agreement (which contract or agreement shall be produced to the said commissioners), become united subsequently to the passing of this Act, it shall be lawful to the said commissioners upon the application of such united bank, to certify, in manner herein-before mentioned, the aggregate of the amounts of bank notes which such separate banks were previously authorised to issue, and so from time to time; and every such certificate shall be published in manner herein-before directed; and from and after such publication the amount therein stated shall be and be deemed to be the limit of the amount of bank notes which such united bank may have in circulation: provided always, that it shall not be lawful for any such united bank to issue bank notes at any time after the number of partners therein shall exceed six in the whole. (Sec. 16.)

*Penalty on Banks issuing in excess.*—If the monthly average circulation of bank notes of any banker, taken in the manner herein-after directed, shall at any time exceed the amount which such banker is authorised to issue and to have in circulation: under the provisions of this Act, such banker shall in every such case forfeit a sum equal to the amount by which the average monthly circulation, taken as aforesaid, shall have exceeded the amount which such banker was authorised to issue, and to have in circulation as aforesaid. (Sec. 17.)

*Issuing Banks to render accounts.*—Every banker in England and Wales who, after the 10th day of October, 1844, shall issue bank notes, shall on some one day in every week after the 15th day of October, 1844 (such day to be fixed by the commissioners of stamps and taxes), transmit to the said commissioners an account of the amount of the bank notes of such banker in circulation on every day during the week ending on the next preceding Saturday, and also an account of the

average amount of the bank notes of such banker in circulation during the same week; and on completing the first period of four weeks, and so on, completing each successive period of four weeks, every such banker shall annex to such account the average amount of bank notes of such banker in circulation during the said four weeks, and also the amount of bank notes which such banker is authorised to issue under the provisions of this Act; and every such account shall be verified by the signature of such banker or his chief cashier, or, in the case of a company or partnership, by the signature of a managing director or partner or chief cashier of such company or partnership, and shall be made in the form to this Act annexed marked (B); and so much of the said return as states the weekly average amount of the notes of such bank shall be published by the said commissioners in the next succeeding *London Gazette* in which the same may be conveniently inserted; and if any such banker shall neglect or refuse to render any such account in the form and at the time required by this Act, or shall at any time render a false account, such banker shall forfeit the sum of 100*l.* for every such offence. (Sec. 18.)

*Mode of ascertaining the average Amount of Bank Notes of each Banker.*—For the purpose of ascertaining the monthly average amount of bank notes of each banker in circulation, the aggregate of the amount of bank notes of each such banker in circulation on every day of business during the first complete period of four weeks next after the 10th day of October, 1844, such period ending on a Saturday, shall be divided by the number of days of business in such four weeks, and the average so ascertained shall be deemed to be the average of bank notes of each such banker in circulation during such period of four weeks, and so in each successive period of four weeks, and such average is not to exceed the amount certified by the commissioners of stamps and taxes as aforesaid. (Sec. 19.)

*Commissioners empowered to cause the Books of Bankers to be inspected.*—Whereas, in order to insure the rendering of true and faithful accounts of the amount of bank notes in circulation, as directed by this Act, it is necessary that the commissioners of stamps and taxes should be empowered to cause the books of bankers issuing such notes to be inspected, as herein-after mentioned: be it therefore enacted, that all and every the book and books of any banker who shall issue bank notes under the provisions of this Act, in which shall be kept, contained, or entered any account, minute, or memorandum of or relating to the bank notes issued or to be issued by such banker, or of or relating to the amount of such notes in circulation from time to time, or any account, minute, or memorandum the sight or inspection whereof may tend to secure the rendering of true accounts of the average amount of such notes in circulation, as directed by this Act, or to test the truth of any such account, shall be open for the inspection and examination, at all reasonable times, of any officer of stamp duties authorised in that behalf by writing, signed by the commissioners of stamps and taxes or any two of them; and every such officer shall be at liberty to take copies of or extracts from any such book or account as aforesaid: and if any banker or other person keeping any such book, or having the custody or possession thereof, or power to produce the same, shall, upon demand made by any such officer, showing (if required) his authority in that behalf, refuse to produce any such book to such officer for his inspection and examination, or to permit him to

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inspect and examine the same, or to take copies thereof or extracts therefrom, or of or from any such account, minute or memorandum as aforesaid, kept, contained, or entered therein, every such banker or other person so offending shall for every such offence forfeit the sum of 100*l.*: provided always, that the said commissioners shall not exercise the powers aforesaid without the consent of the Lords of the Treasury. (Sec. 20.)

*Stamp Office.*—Every banker in England and Wales who is now carrying on or shall hereafter carry on business as such, shall, on the 1st day of January in each year, or within 15 days thereafter, make a return to the commissioners of stamps and taxes at their head office in London of his name, residence, and occupation, or, in the case of a company or partnership, of the name, residence, and occupation of every person composing or being a member of such company or partnership, and also the name of the firm under which such banker, company, or partnership carry on the business of banking, and of every place where such business is carried on; and if any such banker, company, or partnership shall omit or refuse to make such return within 15 days after the said 1st day of January, or shall wilfully make other than a true return of the persons as herein required, every banker, company, or partnership so offending shall forfeit and pay the sum of 50*l.*; and the said commissioners of stamps and taxes shall, on or before the 1st day of March in every year, publish in some newspaper circulating within each town or county respectively, a copy of the return so made by every banker, company, or partnership carrying on the business of bankers within such town or county respectively, as the case may be. (Sec. 21.)

*Bankers to take out a separate License for every Place at which they issue Notes or Bills.*—Every banker who shall be liable by law to take out a license from the commissioners of stamps and taxes to authorise the issuing of notes or bills, shall take out a separate and distinct license for every town or place at which he shall, by himself or his agent, issue any notes or bills requiring such license to authorise the issuing thereof, anything in any former Act contained to the contrary thereof notwithstanding: provided always, that no banker who on or before the 6th day of May, 1844, had taken out four such licenses, which on the said last-mentioned day were respectively in force, for the issuing of any such notes or bills at more than four separate towns or places, shall at any time hereafter be required to take out or to have in force at one and the same time more than four such licenses to authorise the issuing of such notes or bills at all or any of the same towns or places specified in such licenses in force on the said 6th day of May, 1844, in which towns or places respectively, such bankers had, on or before the said last-mentioned day, issued such notes or bills in pursuance of such licenses or any of them respectively. (Sec. 22.)

*Compensation to certain Bankers named in the Schedule.*—Whereas the several bankers named in the schedule hereto annexed marked (C) have ceased to issue their own bank notes under certain agreements with the governor and company of the Bank of England; and it is expedient that such agreements should cease and determine on the 31st day of December next, and that such bankers should receive by way of compensation such composition as hereafter mentioned; and a list of such bankers, and a statement of the maximum sums in respect of which each such banker is to receive compensation, hath been delivered to the

commissioners of stamps and taxes, signed by the chief cashier of the Bank of England: be it therefore enacted, that the several agreements subsisting between the said governor and company and the several bankers mentioned in the schedule hereto relating to the issue of Bank of England notes shall cease and determine on the 31st day of December next; and from and after that day the said governor and company shall pay and allow to the several bankers named in the schedule hereto marked (C), so long as such banker shall be willing to receive the same, a composition at and after the rate of 1*l.* per cent. per annum on the average amount of the Bank of England notes issued by such bankers respectively and actually remaining in circulation, to be ascertained as follows: (that is to say) on some day in the month of April, 1845, to be determined by the said governor and company, an account shall be taken of the Bank of England notes delivered to such bankers respectively by the said governor and company within three months next preceding, and of such of the said Bank of England notes as shall have been returned to the Bank of England, and the balance shall be deemed to be the amount of the Bank of England notes issued by such bankers respectively and kept in circulation; and three calendar months; and the average of the balances ascertained on taking four such accounts of England notes issued by such bankers respectively and kept in circulation during the year 1845, and on which amount such bankers are respectively to receive the aforesaid composition of 1 per cent. for the year 1845; and similar accounts shall be taken in each succeeding year; but in each year such accounts shall be taken in different months from those in which the accounts of the last preceding year were taken, and on different days of the month, such months and days to be determined by the said governor and company; and the amount of the composition payable as aforesaid shall be paid by the said governor and company out of their own funds; and in case any difference shall arise between any of such bankers and the governor and company of the Bank of England in respect of the composition payable as aforesaid, the same shall be determined by the Chancellor of the Exchequer for the time being, or by some person to be named by him, and the decision of the Chancellor of the Exchequer, or his nominee, shall be final and conclusive: provided always, that it shall be lawful for any banker named in the schedule hereto of such composition as aforesaid, but no such banker shall by such discontinuance as aforesaid thereby acquire any right or title to issue bank notes. (Sec. 23.)

*Bank of England to be allowed to compound with Issuing Banks.*—It shall be lawful for the said governor and company to agree with every banker who under the provisions of this Act shall be entitled to issue bank notes, to allow to such banker a composition at the rate of 1 per cent. per annum on the amount of Bank of England notes which shall be issued and kept in circulation by such banker, as a consideration for his relinquishment of the privilege of issuing his own bank notes; and all the provisions herein contained for ascertaining and determining the amount of composition payable to the several bankers named in the schedule hereto marked (C) shall apply to all such other bankers with whom the said governor and company are hereby authorised to agree as aforesaid: provided that the amount of composi-

tion payable to such bankers as last aforesaid shall in every case in which an increase of securities in the issue department shall have been authorised by any order in council be deducted out of the amount payable by the said governor and company to the public under the provisions herein contained: provided always, that the total sum payable to any banker under the provisions herein contained by way of composition as aforesaid, in any one year, shall not exceed, in case of the bankers mentioned in the schedule hereto marked (C), 1 per cent, on the several sums set against the names of such bankers respectively in the list and statement delivered to the commissioners of stamps as aforesaid, and in the case of other bankers shall not exceed 1 per cent, on the amount of bank notes which such bankers respectively would otherwise be entitled to issue under the provisions herein contained, (Sec. 24.)

*Compositions to cease on 1st August, 1856.*—All the compositions payable to the several bankers mentioned in the schedule hereto marked (C), and such other bankers as shall agree with the said governor and company to discontinue the issue of their own bank notes as aforesaid, shall, if not previously determined by the act of such banker as herein-before provided, cease and determine on the 1st day of August, 1856, or on any earlier day on which Parliament may prohibit the issue of bank notes. (Sec. 25.)

*Banks within Sixty-five miles of London may accept, &c. Bills.*—From and after the passing of this Act it shall be lawful for any society or company or any persons in partnership, though exceeding six in number, carrying on the business of banking in London, or within 65 miles thereof, to draw, accept, or endorse bills of exchange, not being payable to bearer on demand, anything in the herein-before recited Act passed in the fourth year of the reign of his said Majesty King William IV., or in any other Act, to the contrary notwithstanding. (Sec. 26.)

*Bank to enjoy Privileges, subject to Redemption.*—The said governor and company of the Bank of England shall have and enjoy such exclusive privilege of banking as is given by this Act, upon such terms and conditions, and subject to the termination thereof at such time and in such manner as is by this Act provided and specified; and all and every the powers and authorities, franchises, privileges, and advantages given or recognised by the said recited Act, 3 & 4 Wm. IV. c. 98, as belonging to or enjoyed by the said governor and company of the Bank of England, or by any subsequent Act or Acts of Parliament, shall be and the same are hereby declared to be in full force, and continued by this Act, except so far as the same are altered by this Act; subject, nevertheless, to redemption upon the terms and conditions following: viz. at any time upon 12 months' notice to be given after the 1st day of August, 1855, and upon repayment by Parliament to the said governor and company or their successors of the sum of 11,015,100*l.*, being the debt now due from the public to the said governor and company, without any deduction, discount, or abatement whatsoever, and upon payment to the said governor and company and their successors of all arrears of the sum of 100,000*l.* per annum, in the last-mentioned Act mentioned, together with the interest or annuities payable upon the said debt or in respect thereof, and also upon repayment of all the principal and interest which shall be owing unto the said governor and company and their successors upon all such tallies, exchequer orders,

exchequer bills, or parliamentary funds which the said governor and company or their successors shall have remaining in their hands or be entitled to at the time of such notice to be given as last aforesaid, then and in such case, and not till then, the said exclusive privileges of banking granted by this Act shall cease and determine at the expiration of such notice of 12 months: and any vote or resolution of the House of Commons, signified under the hand of the Speaker of the said House in writing, and delivered at the public office of the said governor and company, shall be deemed and adjudged to be a sufficient notice. (Sec. 27.)

*Return of the Bank Notes issued from April 11, 1860, to February 7, 1866, on the first Wednesday of each month: distinguishing Notes held by the Public, and the Bank, and the Securities on which the Issue was paid.*

Week ending	Notes held by the Public	Notes held by the Bank	Total Issue	Bullion
<b>1860</b>				
April 11	25,467,000	4,922,000	28,389,000	13,911,000
May 2	22,227,000	6,367,000	28,594,000	14,119,000
June 6	21,208,000	8,388,000	29,596,000	15,181,000
July 7	21,065,000	8,265,000	29,330,000	15,077,000
August 1	22,069,000	7,427,000	29,496,000	15,021,000
September 5	21,440,000	8,181,000	29,621,000	15,339,000
October 3	21,083,000	8,000,000	29,083,000	15,155,000
November 7	21,206,000	6,429,000	27,635,000	13,160,000
December 5	20,307,000	7,198,000	27,505,000	12,950,000
<b>1861</b>				
January 2	20,511,000	5,990,000	26,501,000	11,936,000
February 6	19,679,000	5,609,000	25,288,000	11,013,000
March 6	19,895,000	6,334,000	26,229,000	11,192,000
April 3	19,428,000	6,341,000	25,769,000	11,255,000
May 1	20,307,000	6,208,000	26,515,000	12,010,000
June 5	19,965,000	5,600,000	25,565,000	11,079,000
July 5	20,063,000	5,531,000	25,594,000	11,224,000
August 7	20,347,000	5,275,000	25,622,000	11,451,000
September 4	20,229,000	6,711,000	26,940,000	12,225,000
October 2	21,088,000	6,222,000	27,310,000	12,561,000
November 6	20,773,000	7,281,000	28,054,000	13,208,000
December 4	20,010,000	8,288,000	28,298,000	13,288,000
<b>1862</b>				
January 1	20,165,000	9,627,000	29,792,000	15,142,000
February 5	20,235,000	9,370,000	29,605,000	15,115,000
March 5	20,531,000	8,942,000	29,473,000	14,825,000
April 2	20,225,000	9,787,000	30,012,000	15,022,000
May 2	20,468,000	10,011,000	30,479,000	15,405,000
June 4	20,851,000	8,445,000	29,296,000	14,616,000
July 2	21,605,000	8,473,000	30,078,000	15,109,000
August 6	22,287,000	9,198,000	31,485,000	17,355,000
September 3	21,509,000	10,153,000	31,662,000	17,012,000
October 1	21,535,000	9,366,000	30,901,000	16,249,000
November 5	21,100,000	8,411,000	29,511,000	14,761,000
December 3	19,754,000	8,990,000	28,744,000	14,094,000
<b>1863</b>				
January 7	20,228,000	8,298,000	28,526,000	13,786,000
February 4	20,073,000	7,594,000	27,667,000	12,815,000
March 4	20,600,000	8,367,000	28,967,000	13,607,000
April 1	20,368,000	8,570,000	28,938,000	11,288,000
May 6	20,774,000	9,577,000	30,351,000	14,291,000
June 3	20,468,000	7,246,000	27,714,000	12,661,000
July 1	21,140,000	7,734,000	28,874,000	14,221,000
August 5	21,675,000	7,901,000	29,576,000	14,926,000
September 2	21,191,000	8,195,000	29,386,000	14,773,000
October 7	21,768,000	7,052,000	28,820,000	13,470,000
November 1	22,041,000	5,801,000	27,842,000	13,265,000
December 2	21,622,000	6,022,000	27,644,000	12,531,000
<b>1864</b>				
January 6	20,718,000	7,116,000	28,164,000	15,511,000
February 3	20,556,000	6,729,000	27,285,000	12,626,000
March 2	20,215,000	7,471,000	27,686,000	13,264,000
April 6	21,005,000	6,581,000	27,586,000	13,927,000
May 4	21,188,000	4,914,000	26,102,000	11,775,000
June 1	21,885,000	4,517,000	26,402,000	12,286,000
July 6	21,581,000	6,518,000	28,099,000	15,219,000
August 5	21,929,000	6,577,000	28,506,000	14,176,000
September 7	20,810,000	7,147,000	27,957,000	13,286,000
October 5	21,555,000	5,571,000	27,126,000	12,277,000
November 2	21,014,000	6,177,000	27,191,000	12,571,000
December 7	19,642,000	6,029,000	25,671,000	13,091,000
<b>1865</b>				
January 4	20,515,000	7,354,000	27,869,000	15,519,000
February 1	20,539,000	7,852,000	28,391,000	15,751,000
March 1	19,357,000	8,738,000	28,095,000	13,011,000
April 5	20,303,000	8,149,000	28,452,000	14,009,000
May 3	21,695,000	6,505,000	28,200,000	15,856,000
June 7	21,311,000	8,577,000	29,888,000	14,891,000
July 4	22,021,000	7,534,000	29,555,000	14,809,000
August 2	22,616,000	5,608,000	28,224,000	15,001,000
September 6	21,702,000	6,570,000	28,272,000	15,432,000
October 4	22,728,000	5,307,000	28,035,000	14,809,000
November 1	21,847,000	7,515,000	29,362,000	15,432,000
December 6	20,755,000	5,801,000	26,556,000	15,685,000
<b>1866</b>				
January 3	21,777,000	6,253,000	28,030,000	12,860,000
February 7	21,016,000	5,607,000	26,623,000	12,273,000

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applications are made to her, in ordinary periods, for discounts. But, at the same time, every one who has any reasonable security to offer, knows where they may always be had; while the rate of interest charged by the Bank necessarily forms a *maximum* rate which no other establishment can exceed. When, however, any circumstances occur to occasion a pressure in the money market, or a difficulty of obtaining accommodation in the usual channels, the market rate of interest generally rises to the rate fixed by the Bank, how high soever that may be, and on such occasions the private bankers, and the public generally, resort to the Bank for aid. She then becomes, as it were, a *bank of support*; and has, as such, on various occasions, rendered good service to public credit, and to the commercial interests of the country.

But, at the same time, it must be admitted that the interference of the Bank in assisting the commercial interest is a matter that requires the greatest consideration, and that it can only be safely undertaken in rare instances and under very peculiar circumstances. We repeat again, that however a drain for gold may originate, the fact of its existence shows conclusively that gold is more valuable abroad than here, and consequently that the currency is redundant and ought to be diminished. Under such circumstances, it is the imperative duty of the directors, if they would prevent the total exhaustion of their banking reserve, not to fill up the vacuum caused by the exchange of notes for bullion, by the issue of fresh notes. It is at such periods, no doubt, that the applications for assistance are the most urgent; but it is impossible to yield to them, and at the same time to enforce that systematical and continuous reduction of the issues which is indispensable for the safety of the banking department of the Bank. She can no longer assist herself, as on former occasions, by making fresh issues of paper. And in truth that resource was of no real advantage to her, but the reverse. It tempted her to disregard those great principles and warnings which never can be neglected with impunity. The great commercial crises that took place in 1793, in 1815-16, in 1825, and in 1836-39, were all increased in violence and destructiveness by the Bank declining to narrow her issues immediately on the exchange becoming unfavourable, and deferring her repressive action till too late a period.

*Methods by which the Bank may reduce her Issues.*—When the Bank sets about reducing her issues, she may effect her object in various ways, viz., by rejecting a portion of the bills sent to her for discount, by raising the rate of interest at which she discounts or makes advances, by shortening the dates or *échéance* of the bills which she negotiates, and by selling bullion and securities. Of these means, some may be more or less expedient at one time, and some at another. On the whole, however, the first mode, or the rejection of bills, seems to be, in all respects, the most objectionable. The Bank will not, of course, discount any bill in regard to the payment of which there can be any reasonable doubt. And when the solidity of the bills offered for discount cannot be objected to, it becomes an invidious, if not an unjust proceeding, to discount some and reject others. Under such circumstances, the true plan is to raise the rate of interest, for while such rise operates equally and universally, it makes rich parties, or those who can avail themselves of other means of accommodation, withhold their demands, and thus effect its object in the fairest and easiest way, and without sacrificing individuals.

Inasmuch, however, as any sudden rise in the

rate of discount, especially if it be considerable, is always productive of more or less inconvenience to the mercantile world, it may be proper, when the exchange becomes unfavourable, to endeavour to restore it to par by shortening the dates of bills, and, if circumstances will permit, by selling bullion and securities. But, at all events, the redundancy of the currency must be got rid of, and the exchange redressed; and if the other means at the disposal of the Bank be inadequate to effect this object, a rise in the rate of interest should be at once resorted to, and carried to the necessary extent.

It may be observed, with respect to the sale of securities, that they may be wholly or partly paid by drafts against deposits held by the Bank. But, if so, it is clear that, at all events, her debts, or the obligation under which she lies to pay notes or gold to depositors when demanded, will be in so far reduced.

The fact that the applications for discount at the Bank are usually most numerous when the rate of discount is highest, has caused some doubts to be entertained in regard to the efficacy of a rise in that rate to raise the value of the currency, and restore an unfavourable exchange to par.

But the additional demand for discounts, on the occasions referred to, is most commonly a consequence of the increased difficulty of obtaining them in other quarters; and when the rate of discount becomes unusually high, apprehensions of a revulsion begin to be entertained, and bankers and others carry bills to the Bank, not that they may get gold to send abroad, but that they may provide for their own security, by getting a supply of notes or gold, or both, to keep in reserve. And it is further to be observed, that the rise in the rate of interest, whether it be, as it usually is, the result of capital becoming scarcer or more productive, or of a temporary increase in the demand for money, uniformly operates to hinder the exportation of the latter. That such is the case is evinced by what took place in 1825, and in 1836-37. And on a more recent occasion, notwithstanding the large sums lent by the Bank on bills and advances of one sort or other, the 10 per cent. rate of interest charged by her was sufficient to stop the efflux of bullion to the Continent and the United States; and, but for the abuse of credit by some private establishments, the restoration of the exchange to par would have been effected without any internal revulsion.

*Mischievous Effects of discounting Bills at long Dates.*—The Bank of England rarely discounts bills that have more than two, or at most three, months to run, and it were well were this rule generally observed by other establishments. The discounting of bills at long dates is a powerful stimulus to unsafe speculations. When individuals obtain loans which they are not to be called upon to pay for six, twelve, or, perhaps, eighteen months, they are tempted to adventure in speculations which are not expected to be wound up till some proportionally distant period; and as these not unfrequently fail, the consequence is that, when the bills become due, there is commonly little or no provision made for their payment. In such cases the discounters, to avert an imminent loss, sometimes consent to renew the bills. But, while a proceeding of this sort is rarely productive of ultimate advantage to either party, the fact of its having taken place makes other adventurers reckon that in the event of their speculations proving to be less successful than they anticipated, their bills will be treated in the same manner, and thus aggravates and extends the evil.

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In other respects, too, the discount of bills at long dates, or their renewal, or the making of permanent loans, is altogether inconsistent with sound banking principles, for it prevents the bankers from having that command over their resources which is advantageous at all times, and indispensable in periods of difficulty or distress.

**Distinction between real and accommodation Bills.**—In the discounting of bills, a great deal of stress is usually laid, or pretended to be laid, on the distinction between those that arise out of real transactions and those that are fictitious, or that are intended for accommodation purposes. The former are said to be legitimate, while the latter are stigmatised as illegitimate. But Mr. Thornton (*On the Paper Credit of Great Britain*, ch. ii.) has shown that the difference between these two classes of bills is neither so well marked nor so wide as most persons suppose. A notion seems to be generally entertained that all real bills are drawn against produce of one sort or other, which, or its value, is supposed to form a fund for their payment. Such, however, is not always, nor even most commonly, the case. A, for example, sells to B certain produce, for which he draws a bill at sixty days' date. But prices are rising, trade is brisk, or a spirit of speculation is afloat, and in a week or two (sometimes much less) B sells the produce at an advance to C, who thereafter sells it to D, and so on. Hence it may, and in fact frequently does, happen, that bills amounting to four, five, or even ten times the value of a quantity of merchandise, have grown out of its successive sales, before the first bill of the series has become due. And not only this, but bills are themselves very frequently rediscounted; and in this case the credit of the last indorser is generally the only thing looked to; and there is not, perhaps, one case in ten in which any enquiries are made in regard to the origin and history of the bills, though they are often of the most questionable description.

On the whole, therefore, it would seem that the real or presumed solidity of the parties signing a bill, and responsible for its payment, is the only safe criterion by which to judge whether it should or should not be discounted. But the fact of a merchant or other trader offering accommodation bills for discount ought unquestionably to excite a suspicion that he is trading beyond his capital. Enquiries of the most searching description should forthwith be instituted; and unless satisfactory explanations are given, his paper should be rejected. On the same principle, the offering of bills for rediscount ought to awaken suspicions of the bankers and others who resort to so questionable a mode of carrying on business. But, except in so far as a feeling of distrust may be thus very properly excited, there does not appear to be anything in an accommodation bill *per se* to hinder it from coming within the pale of negotiability. It is a mode of obtaining a loan from a bank; and when the character of the bill is known to the banker, or is openly declared, it does not appear to be an objectionable mode.

Besides bills avowedly intended for accommodation purposes, another and a different variety of such bills is drawn by parties at a distance from each other, often men of straw, and made to appear as if they were bottomed on real transactions. And we are sorry to say, that bills of this sort are always current, and often to a large extent. Of course no person of respectability can be knowingly connected with such bills, which are almost always put in motion either to bolster

up some bankrupt concern, or to cheat and defraud the public. But despite the mischief of which they are productive, it appears to be pretty generally supposed that the currency of these bills is an evil which cannot be prevented. There can, however, be no real doubt that it may, at all events, be very greatly diminished; and this desirable result would be effected were it enacted that all bills should henceforth bear upon their face what they really are—that those that are intended for accommodation purposes shall have at their head the words *Accommodation Bill*; and that those only shall bear to be for 'value received' that have grown out of bona fide transfers of property. An enactment of this sort could not be felt as a grievance by any one unless he had a fraudulent purpose in view. And were the impressing of a false character on a bill made a criminal offence punishable by three years' imprisonment, or some such penalty, there is every probability that a formidable check would be given to the issue of spurious bills, and to the manifold abuses to which the practice gives rise.

Bill-discounters who have got fictitious paper on their hands, and attempt, as has been done, to get rid of it by concealing its character, or representing it in a favourable light, make themselves parties to the fraud. Such conduct is so very flagitious, that when it can be fairly brought home to the parties, it should subject them to the severest penalties.

**Rates of Discount charged by Bank.**—The rates of discount charged by the Bank fluctuate with the variations in the demand for money, and in the rate of interest. The rates of discount since 1856 have been as follow:—

Rates of Discount.

	Per cent.								
1856		Dec.	2½	Aug.	5	1864		Oct.	5
Jan.	6	Aver.	3½	Aug.	4	Jan.	8	Oct.	6
May	5½			Sept.	4	Feb.	7	Oct.	6
June	4½	1859		Nov.	5	Feb.	6	Nov.	6
Oct.	6	April	3½	Nov.	5½	April	7	Dec.	7
Nov.	7	May	3	Aver.	5½	May	8	Aver.	7½
Dec.	6	June	3			May	9		
Aver.	5½	July	3	1862		May	8	1866	
		Aver.	3	Jan.	9½	May	7	Jan.	8
1857				May	5	June	6	Feb.	7
April	6½	1870		July	5½	July	7	March	6
June	6	Jan.	3	July	5	Aug.	8	May	7
July	5½	Feb.	4	Oct.	5	Sept.	9	May	8
Oct.	4	April	6	Aver.	5½	Nov.	8	May	8
Oct.	7	May	4½			Nov.	7	May	9
Nov.	8	May	4	1865		Dec.	6	Aug.	8
Nov.	9	Nov.	4	Jan.	4	Aver.	7½	Aug.	8
Nov.	10	Nov.	4½	Jan.	5			Aug.	7
Dec.	8	Dec.	6	Feb.	4	1865		Sept.	5
Aver.	7	Dec.	6	April	7½	Jan.	5½	Aug.	7
		Aver.	4½	April	5	Jan.	5	Nov.	4½
1858				May	3½	March	14	Dec.	3½
Jan.	7½	1861		May	4	March	4	Aver.	7½
Jan.	5	Jan.	7	Nov.	5	May	4		
Jan.	5	Feb.	8	Nov.	6	June	5	1867	
Feb.	5½	March	7	Dec.	7	June	3	Feb.	5
March	5	April	6	Dec.	8	July	3½	May	2½
April	3	April	6	Dec.	7	Aug.	4	July	2
July	3	May	6	Aug.	4½	Socd.	14	July	2

The dividends on Bank stock, from the establishment of the company to 1867, have been as follow:—

Years	Dividend	Years	Dividend
1691	8 per cent.	1788	7 per cent.
1697	9 "	1807	10 "
1708½	Varied from 9 to	1825	10 "
1729½	2½ per cent.	1839	7 "
1730	6 "	1852	8 7½ "
1739	3½ "	1855	8 "
1751	6 "	1856	9½ "
1758	5½ "	1859	8½ "
1717	5 "	1865	8½ "
1755	4½ "	1861	9½ "
1761	5 "	1865	11½ "
1767	5½ "	1866	10½ "
1781	6 "	1867	10 "

*Bank does not allow Interest on Deposits.*—The Bank of England does not allow, either at the head office in London or at her branches, any interest on deposits; and in doing so she acts wisely. Notwithstanding the non-payment of interest, she has often very large amounts of deposits on her hands, and were she to pay interest, the probability is that they would be very greatly increased, and might, in periods of difficulty, seriously compromise her safety. At present the Bank may either retain deposits or invest them in those securities from which they may be most easily withdrawn. But if she allowed interest, the case would be different, and she would be obliged to look quite as much or more to the profits to be made by investments as to the facility of repossessing herself of funds. We beg, in corroboration of what has now been stated, to draw the reader's attention to the following extract from the evidence of Mr. Weggleson, late Governor of the Bank, before the Committee of 1857:—

'We,' said he, 'at the Bank of England, have always considered that the proper functions of a banker were to keep the spare cash of his customer, such cash as his customer required for his daily expenditure, for the sudden demands of his business, and any accidental accumulation which might happen before the customer had occasion to invest it. That is contrasted with the system pursued by the joint-stock banks. The joint-stock bank invites a large deposit by offering a certain rate of interest for the deposit; in point of fact, the joint-stock bank becomes the investor of the money instead of the customer. The customer of a joint-stock bank does not himself invest his own money, but he employs the joint-stock bank to do it, taking the guarantee of the joint-stock bank, and taking, possibly, a lower rate of interest. Now that system, if applied to the Bank of England, would be, I think, very prejudicial to the public interests. It would, in the first place, force upon the Bank of England to invest its reserves much more closely than it does now. If it had to pay interest upon its deposits, it could only do so by investing them in some securities that would pay a higher rate of interest than that which it pays. Its deposits are also of that particular character which would render it still more inexpedient that they should be closely invested. They consist, in the first place, of Government deposits, which rise from a low rate at one period of a quarter up to 5,000,000*l.* or 6,000,000*l.* higher at another period of a quarter, and again collapse to a very low rate at another period. Again, the private deposits consist, to a certain extent, of the deposits of the bankers and the joint-stock banks of London. Those deposits are the amounts which those bankers require to work their own business. Consequently, they are not deposits which should be very closely invested by the Bank of England. In times when there is a great accumulation of deposits in the Bank of England, it is because the public are not able at those times to find investments to their mind to employ those deposits; and, consequently, it is not at all likely that the Bank of England, if that is the case with the public generally, will be able to find investments which the public themselves have not been able to do. All these reasons combined would lead me to think that to force a system upon the Bank of England by which it should be obliged to employ its deposits very closely—much more closely than it does at present—would be not only prejudicial and unsafe as regards the Bank of

England, but would be prejudicial to the public interest.' (Q. 159.)

The truth is, that the whole subject of deposits is beset with difficulties. The extent to which it has been already carried has deeply endangered the stability of the banking system, and we have seen that it is indispensable it should be subjected to regulation.

Previously to 1786 the Bank received an allowance for trouble in paying the dividends, superintending the transfer of the stock &c. of the national debt of 562*l.* 10*s.* a million on its amount. In 1786 this allowance was reduced to 450*l.* a million, the Bank being, at the same time, entitled to a considerable allowance for her trouble in receiving contributions on loans, lotteries &c. This, though long regarded as a very improvident arrangement on the part of the public, was acquiesced in till 1808, when the allowance on account of management was reduced to 340*l.* per million on 600,000,000*l.* of the public debt, and to 300*l.* per million on all that it exceeded that sum, exclusive of some separate allowances for annuities &c. The impression, however, was still entertained that the allowances for management should be further reduced, and this has been effected in the interim.

Exclusive of her functions as public banker, and manager of the public debt, the Bank of England is connected with Government through the circulation. We have seen that she is entitled to issue upwards of 14,000,000*l.* upon securities, that is, on the credit of the funds she has lent to Government. But for these she receives about 3 per cent. interest, and such being the case, the public is clearly entitled to a portion, if not to the whole amount, of the profits realised by the Bank on the issue of these 14,000,000*l.* It is difficult to say how much this may amount to. The issue department of the Bank seldom reissues notes, but for the most part destroys them as soon as they are returned to it. This practice is said to be necessary to enable the Bank to obviate fraud, by keeping a proper account of the numbers of the notes aloft. An opinion is, however, pretty generally entertained that this might be effected by a less expensive process than that which is now resorted to. And, certainly, it seems to be a very wasteful proceeding, that a quantity of newly manufactured notes issued by the Bank in the forenoon, and returned to her in the afternoon, should not be reissued, but consigned to the flames. The Scotch banks are justly censurable for keeping their notes too long aloft, but this is running with a vengeance into the opposite extreme.

But, as it is, the cost of maintaining an issue of 14,000,000*l.* is estimated by the Bank at about 113,000*l.* a year; and taking the gross profits of the issue at 3 per cent., or 420,000*l.*, the nett profits may be estimated at 307,000*l.* a year; and of this sum the Bank pays to Government 180,000*l.*, viz. 60,000*l.* in lieu of the old charge for stamp duty, abolished in 1814, and a further sum of 120,000*l.*, leaving the Bank 127,000*l.* for her share of the profits. And so long as the cost of the issues remains at about its present amount, we do not know that there is much to object to in this arrangement. Probably, however, were the allowance to Government further increased by some 50,000*l.* or 60,000*l.*, the Bank might find means, without injury to the public, of reissuing her notes, or of otherwise reducing the cost of their circulation. During the year ended March 31, 1856, the payments made to the Bank for managing the national debt and annuities amounted to 95,870*l.*

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It should be observed that the responsibility and expense incurred by the Bank, in managing the public debt, are very great. The temptation to the commission of fraud, in transferring stock from one individual to another, and in the payment of the dividends, is well known; and notwithstanding the skillfully devised system of checks adopted by the Bank for its prevention, she has frequently sustained very great losses by forgery and otherwise. In 1803 the Bank lost, through a fraud committed by one of her principal cashiers, Mr. Aslett, no less than 310,000*l.*; and the forgeries of Fauntleroy, the banker, cost her a still larger sum! At an average of the ten years ending with 1831, the Bank lost, through forgeries on the public funds, 40,204*l.* a-year. (*Report on Bank Charter*, App. p. 165.)

Besides the transactions alluded to, the Bank entered, on March 20, 1823, into an engagement with Government with respect to the public pensions and annuities, or, as they have been more commonly termed, the *dead weight*. At the end of the war, the naval and military pensions, superannuated allowances &c. amounted to above 5,000,000*l.* a-year. They would, of course, have been gradually lessened, and ultimately extinguished, by the death of the parties. But it was resolved in 1822 to attempt to spread the burden equally over the whole period of *forty-five* years, during which it was calculated the annuities would continue to decrease. To effect this purpose, it was supposed that, upon Government offering to pay 2,800,000*l.* a-year for forty-five years, capitalists would be found who would undertake to pay the entire annuities, according to a graduated scale previously determined upon, making the first year a payment of 1,900,000*l.*, and gradually decreasing the payments until the forty-fifth and last year, when they were to amount to only 300,000*l.* This supposition was not, however, realised. No capitalists were found willing to enter into such distant engagements. But in 1823 the Bank agreed, on condition of receiving an annuity of 885,740*l.* for *forty-four* years, commencing on April 5, 1823, to pay, on account of the pensions &c. at different specified periods, between the years 1823 and 1828, both inclusive, the sum of 13,989,419*l.* (*A Geo. IV. c. 22.*)

Formerly the business transacted at the Bank was so much encumbered with forms and conditions, that the generality of merchants and ordinary people rarely thought of employing her to keep their money or make their payments. But in this respect an entire change has been effected. Cheques, the minimum amount of which was formerly 10*l.*, may now be drawn of any amount, great or small; and all sorts of banking business is conducted with facility and despatch, and, we may add, with perfect security.

The Bank opens banking accounts, or, as they are called, 'drawing accounts,' for the safe custody, and the receipt and payment of cash, not only with merchants and traders, but with all persons who choose to keep their money at a banker's and to draw cheques against it. The Bank also takes charge of their customers' bills of exchange, exchequer bills, and other securities, and does all that is needful either in the collection of bills of exchange, the exchange of exchequer bills, or the receipt of dividends, and so forth, free of any charge. Plate-chests, and deed and security boxes, may be deposited, free of expense, by customers, for safe custody. The Bank looks to the average balance of cash on each account to compensate for the trouble and expense of keeping it, and in this respect the requirements

of the Bank are certainly not greater than those of ordinary bankers. No particular sum is required to be lodged on opening an account; it is only necessary that the party should be known as respectable, and in a condition to require a banking account. A commission is now (1868) charged if the account be not considered remunerative. But the Bank receives and holds sums of money for safe custody for parties who have no current accounts.

The following are the regulations under which accounts are conducted:—1. All letters should be addressed to the chief cashier.

2. It is desirable that drafts should be drawn upon cheques furnished by the Bank.

3. Cheques upon City bankers, eastward of King Street, Cheapside,

paid in by 12 o'clock may be drawn for after 1.

Do, " 2 o'clock " " after 3.

4. Cheques paid in after 2, and before 3 o'clock, and cheques upon all other London bankers paid in before 12 o'clock, may be drawn for on the following morning.

5. Cheques paid in after 3 o'clock are sent out at 9 the following morning, and may be drawn for as soon as received.

6. Cheques on country bankers paid in before 11 o'clock (on Saturdays 10 o'clock) will be collected through the country clearing, and go to account 2 days after date of paying in.

7. Dividend warrants are received at the drawing office until 4 o'clock in the afternoon for all persons having accounts at the Bank.

8. It is requested that notice be given at the drawing office of bills accepted payable at the Bank, with the date of their maturity.

9. Persons keeping a drawing account with the Bank (although not having a discount account) may tender bills for discount through the drawing office. Application for discounts, or for advances on stock, &c., must be made before 2 o'clock.

10. Bills of exchange and notes not paid when due will be noted.

11. The Bank will make purchases or sales of British or foreign securities upon an order in writing addressed to the chief cashier; and dividends on stock may be received under powers of attorney granted to the cashiers of the Bank.

12. Exchequer bills, bonds, railway debentures &c. may be deposited, and the interest, when payable, will be received and placed to account.

13. Credits paid in to account are received without the Bank book, and are afterwards entered therein without the party claiming them.

14. Notes of country bankers, payable in London, are sent out the same day for payment if paid in before 3 o'clock.

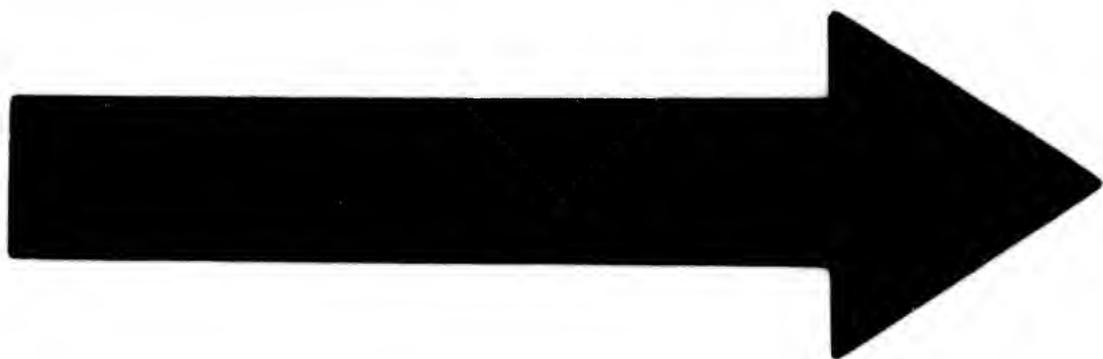
15. The pass-books should be left at the drawing office, at least once a month, to be written up.

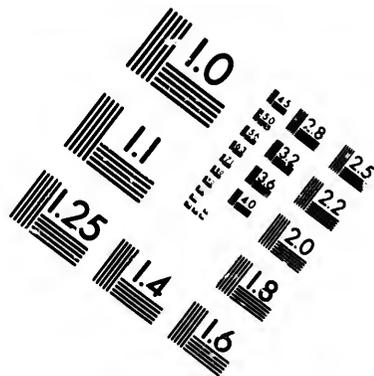
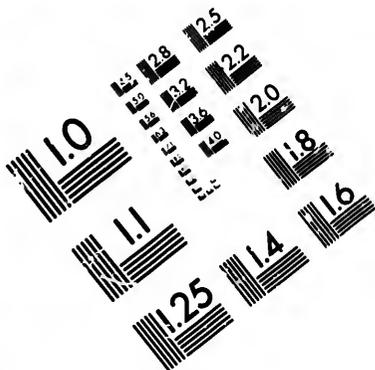
16. Where post-bills are required, or a payment is to be made to any office of the Bank by cheque on the Bank of England, the cheque must be presented to the office on which it is drawn, and exchanged for an order on the post-bill office, or on the office where the payment is to be made.

17. Cash-boxes taken in, contents unknown, for such parties as keep accounts at the Bank.

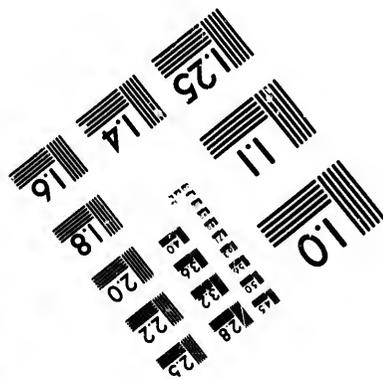
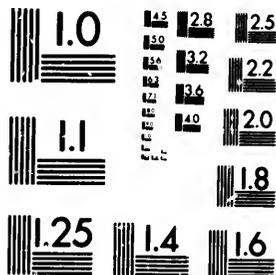
18. A person having a drawing account may have a discount account; but no person can have the latter without having also the former. When a discount account is opened, the signatures of the parties are entered in a book, and powers of attorney are granted empowering the persons named in them to act for their principals. Bills of exchange having more than 95 days to run are not eligible for discount.

N.B.—All changes in the residence of persons keeping cash at the Bank are requested to be made





**IMAGE EVALUATION  
TEST TARGET (MT-3)**



**Photographic  
Sciences  
Corporation**

23 WEST MAIN STREET  
WEBSTER, N.Y. 14580  
(716) 872-4503

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No. III.—Account of the Circulation, Deposits, Securities, Bullion, and Surplus (exclusive of Capital) of the Assets over the Liabilities of the Bank of England on the 31st August (or as near thereto as the Accounts can be made up) in each of the following Years.

Dates	Circulation	Deposits	Securities	Bullion	Rest or Surplus of Assets over Liabilities	Dates	Circulation	Deposits	Securities	Bullion	Rest or Surplus of Assets over Liabilities
1757	10,865,000	6,115,000	14,810,000	5,574,000	2,821,000	1811	20,295,000	5,818,000	15,764,000	11,150,000	5,597,000
1791	30,287,000	5,936,000	12,116,000	6,770,000	2,994,000	1822	17,165,000	6,399,000	17,291,000	10,099,000	5,321,000
1793	10,962,000	8,155,000	16,399,000	5,136,000	3,409,000	1823	19,251,000	7,827,000	17,107,000	12,678,000	5,067,000
1798	9,417,000	6,536,000	17,065,000	7,165,000	3,243,000	1824	20,152,000	5,690,000	20,905,000	11,787,000	2,880,000
1799	11,111,000	7,765,000	18,261,000	4,099,000	3,471,000	1825	19,599,000	6,210,000	25,186,000	5,534,000	2,931,000
1798	12,181,000	8,561,000	17,569,000	6,516,000	3,111,000	1826	21,251,000	7,200,000	25,984,000	6,751,000	2,671,000
1799	15,581,000	7,432,000	17,911,000	7,991,000	2,829,000	1827	22,181,000	8,032,000	27,192,000	10,161,000	2,265,000
1800	15,047,000	8,555,000	22,138,000	5,160,000	3,907,000	1828	21,558,000	10,201,000	25,096,000	10,259,000	2,816,000
1801	14,566,000	8,131,000	22,210,000	4,553,000	3,475,000	1829	19,517,000	9,035,000	24,662,000	6,796,000	2,875,000
1802	15,008,000	9,739,000	22,115,000	3,892,000	4,169,000	1830	21,165,000	11,623,000	24,666,000	11,159,000	2,651,000
1803	15,983,000	9,817,000	26,919,000	3,595,000	4,711,000	1831	18,539,000	10,069,000	25,905,000	6,110,000	2,737,000
1804	17,151,000	9,716,000	25,927,000	2,879,000	4,856,000	1832	18,520,000	10,278,000	25,129,000	7,511,000	2,536,000
1805	16,588,000	11,018,000	27,775,000	7,624,000	4,169,000	1833	17,982,000	11,927,000	25,215,000	10,871,000	2,222,000
1806	21,027,000	9,636,000	29,375,000	6,215,000	5,024,000	1834	19,195,000	13,300,000	27,252,000	7,500,000	2,540,000
1807	19,075,000	11,780,000	29,057,000	6,181,000	4,974,000	1835	18,985,000	13,725,000	28,175,000	6,255,000	2,618,000
1808	18,111,000	13,013,000	29,149,000	5,916,000	5,436,000	1836	18,018,000	14,520,000	27,697,000	4,289,000	2,289,000
1809	19,571,000	12,227,000	35,135,000	6,524,000	3,266,000	1837	18,887,000	15,389,000	26,557,000	6,148,000	2,975,000
1810	21,791,000	15,611,000	33,971,000	5,192,000	5,754,000	1838	19,488,000	18,922,000	24,611,000	9,510,000	2,711,000
1811	25,087,000	11,076,000	37,083,000	3,243,000	5,261,000	1839	17,982,000	16,388,000	24,229,000	11,111,000	3,091,000
1812	25,027,000	11,819,000	38,176,000	3,099,000	6,109,000	1840	17,170,000	16,291,000	22,975,000	12,027,000	2,450,000
1813	24,828,000	11,161,000	40,106,000	2,712,000	6,851,000	1841	17,570,000	16,975,000	22,695,000	14,822,000	3,079,000
1814	25,768,000	14,891,000	48,316,000	2,098,000	7,225,000	1842	17,932,000	18,690,000	22,159,000	12,723,000	2,866,000
1815	27,219,000	12,696,000	44,854,000	3,109,000	8,519,000	1843	19,310,000	11,307,000	21,632,000	12,295,000	3,280,000
1816	26,759,000	11,836,000	37,280,000	7,965,000	6,227,000	1844	21,485,000	12,138,000	21,877,000	15,215,000	3,561,000
1817	25,511,000	10,884,000	32,606,000	11,668,000	4,616,000	1845	22,069,000	14,102,000	21,507,000	16,592,000	3,300,000
1818	26,292,000	7,922,000	32,371,000	6,363,000	4,604,000	1846	21,590,000	13,322,000	25,161,000	16,788,000	5,410,000
1819	25,235,000	6,504,000	31,711,000	5,995,000	3,729,000	1847	18,828,000	11,117,000	28,007,000	9,161,000	5,929,000
1820	21,299,000	4,421,000	33,816,000	8,211,000	5,357,000						

No. IV.—Account of the Average Aggregate Amount of Promissory Notes Payable to Bearer on Demand, in circulation in England and Wales, Scotland and Ireland, at the undermentioned Periods.

Month ended	England and Wales				Scotland		Ireland		Total for United Kingdom
	Bank of England	Country Banks			Chartered, Private and Joint Stock Banks	Bank of Ireland	Private and Joint Stock Banks		
		Private Banks	Joint Stock Banks	Total					
March 4 - 1843	£ 20,310,000	£ 4,785,000	£ 2,811,000	£ 7,629,000	£ 2,558,000	£ 5,196,000	£ 2,097,000	£ 35,841,000	
June 4 - - - -	18,111,000	4,605,000	2,805,000	5,567,000	2,869,000	5,105,000	1,771,000	33,188,000	
Sept. 16 - - - -	18,132,000	4,298,000	2,828,000	5,298,000	2,732,000	4,975,000	1,909,000	32,654,000	
Dec. 10 - - - -	18,791,000	4,553,000	3,161,000	7,694,000	3,166,000	5,902,000	2,576,000	35,331,000	
March 2 - 1844	21,471,000	4,992,000	3,327,000	8,419,000	2,684,000	5,609,000	2,428,000	38,612,000	
June 2 - - - -	21,065,000	4,738,000	3,168,000	7,971,000	2,588,000	5,188,000	2,191,000	37,229,000	
Sept. 11 - - - -	21,286,000	4,338,000	3,168,000	7,496,000	2,910,000	5,359,000	2,052,000	37,535,000	
Dec. 7 - - - -	20,986,000	4,442,000	3,086,000	7,529,000	3,186,000	5,900,000	2,915,000	38,917,000	
March 1 - 1845	21,080,000	4,411,000	3,089,000	7,501,000	2,984,000	5,591,000	3,170,000	38,689,000	
June 1 - - - -	21,227,000	4,298,000	3,151,000	7,500,000	3,185,000	5,400,000	2,756,000	38,519,000	
Sept. 15 - - - -	21,033,000	4,258,000	3,112,000	7,500,000	3,311,000	5,712,000	2,517,000	39,032,000	
Dec. 6 - - - -	22,015,000	4,569,000	3,221,000	7,791,000	3,804,000	6,101,000	3,511,000	41,327,000	
March 28 - 1846	20,316,000	1,515,000	3,176,000	7,692,000	5,018,000	4,257,000	3,187,000	38,509,000	
June 20 - - - -	25,555,000	4,496,000	3,428,000	7,284,000	5,508,000	4,419,000	2,829,000	38,418,000	
Sept. 12 - - - -	21,192,000	4,407,000	3,411,000	7,519,000	5,116,000	5,925,000	2,661,000	38,116,000	
Dec. 5 - - - -	21,935,000	4,590,000	3,190,000	7,786,000	5,996,000	4,373,000	3,161,000	40,676,000	
March 27 - 1847	20,087,000	4,541,000	3,217,000	7,289,000	3,560,000	3,857,000	2,846,000	37,911,000	
June 19 - - - -	19,018,000	4,385,000	3,088,000	7,175,000	5,617,000	5,327,000	2,173,000	36,664,000	
Sept. 11 - - - -	18,519,000	4,179,000	2,951,000	7,135,000	5,497,000	5,029,000	2,021,000	34,997,000	
Dec. 1 - - - -	20,461,000	5,291,000	2,776,000	6,267,000	5,732,000	5,173,000	2,417,000	35,184,000	
March 25 - 1848	18,610,000	3,601,000	2,572,000	6,175,000	2,951,000	2,900,000	2,116,000	32,872,000	
June 17 - - - -	18,687,000	3,628,000	2,599,000	6,247,000	3,437,000	3,865,000	1,797,000	33,009,000	
Sept. 9 - - - -	18,511,000	3,590,000	2,522,000	6,202,000	3,500,000	3,500,000	1,665,000	32,776,000	
Dec. 2 - - - -	18,702,000	3,505,000	2,727,000	6,430,000	3,570,000	2,831,000	2,111,000	33,672,000	
March 24 - 1849	18,986,000	3,167,000	2,590,000	6,057,000	2,935,000	2,938,000	1,805,000	32,580,000	
June 16 - - - -	19,312,000	3,540,000	2,661,000	6,201,000	3,000,000	2,481,000	1,661,000	33,911,000	
Sept. 8 - - - -	19,390,000	3,332,000	2,452,000	6,159,000	3,055,000	2,399,000	1,305,000	32,170,000	
Dec. 1 - - - -	19,244,000	3,676,000	2,705,000	6,379,000	3,500,000	2,656,000	2,017,000	33,728,000	
March 23 - 1850	19,036,000	3,516,000	2,686,000	6,205,000	2,993,000	2,601,000	1,888,000	35,625,000	
June 15 - - - -	19,091,000	3,592,000	2,615,000	6,278,000	3,171,000	2,590,000	1,711,000	35,112,000	
Sept. 7 - - - -	20,219,000	3,112,000	2,611,000	6,925,000	3,173,000	2,138,000	1,715,000	34,500,000	
Dec. 25 - - - -	19,757,000	3,490,000	2,685,000	6,136,000	3,315,000	2,617,000	2,209,000	34,095,000	
March 22 - 1851	19,908,000	3,386,000	2,635,000	6,072,000	3,053,000	2,457,000	2,016,000	33,651,000	
June 14 - - - -	20,151,000	3,315,000	2,803,000	6,319,000	3,171,000	2,169,000	1,805,000	34,226,000	
Sept. 6 - - - -	21,018,000	3,219,000	2,569,000	7,079,000	3,145,000	2,252,000	1,719,000	35,902,000	
Dec. 27 - - - -	19,899,000	3,370,000	2,678,000	6,019,000	3,356,000	2,470,000	2,256,000	34,632,000	
March 20 - 1852	21,341,000	3,397,000	2,735,000	6,131,000	3,081,000	2,198,000	2,135,000	35,116,000	
June 12 - - - -	22,222,000	3,504,000	2,830,000	6,355,000	3,280,000	2,510,000	2,016,000	37,186,000	
Sept. 4 - - - -	21,157,000	3,106,000	2,764,000	6,171,000	3,534,000	2,503,000	2,602,000	38,170,000	
Dec. 25 - - - -	25,989,000	3,617,000	2,914,000	6,561,000	3,764,000	2,857,000	2,827,000	39,904,000	
March 19 - 1853	25,206,000	3,571,000	2,995,000	6,655,000	3,415,000	2,801,000	2,715,000	38,835,000	
June 11 - - - -	24,270,000	3,758,000	3,011,000	6,729,000	4,026,000	2,771,000	2,591,000	40,661,000	
Sept. 3 - - - -	24,296,000	3,648,000	3,084,000	6,632,000	3,738,000	2,695,000	2,537,000	39,888,000	
Dec. 21 - - - -	24,112,000	3,835,000	3,056,000	6,989,000	4,112,000	3,095,000	3,357,000	39,507,000	

No. IV.—Account of the Average Aggregate Amount of Promissory Notes &c.—continued.

Month ended	England and Wales				Scotland		Ireland		Total for United Kingdom
	Country Banks				Chartered, Provincial and Joint Stock Banks	Bank of Ireland	Private and Joint Stock Banks		
	Bank of England	Private Banks	Joint Stock Banks	Total				£	
1854	£	£	£	£	£	£	£	£	
March 18	22,726,000	3,811,000	2,576,000	6,888,000	3,811,000	3,217,000	3,495,000	20,817,000	
June 10	21,512,000	3,760,000	2,592,000	6,780,000	3,799,000	3,422,000	3,097,000	18,871,000	
Sept. 7	21,000,000	3,850,000	2,555,000	6,355,000	3,800,000	3,200,000	3,078,000	18,833,000	
Dec. 23	20,298,000	3,818,000	2,572,000	6,821,000	3,566,000	3,200,000	3,160,000	18,755,000	
1855									
March 17	19,910,000	3,711,000	2,509,000	6,266,000	3,811,000	3,251,000	3,276,000	18,154,000	
June 9	20,660,000	3,550,000	2,502,000	6,292,000	3,727,000	3,199,000	3,211,000	18,191,000	
Sept. 1	21,227,000	3,500,000	2,500,000	6,260,000	3,596,000	3,276,000	3,276,000	18,295,000	
Dec. 22	20,570,000	3,582,000	2,508,000	6,290,000	3,400,000	3,210,000	3,210,000	18,295,000	
1856									
March 15	19,293,000	3,509,000	2,497,000	6,505,000	3,810,000	3,275,000	3,299,000	18,146,000	
June 7	20,278,000	3,581,000	2,566,000	6,889,000	3,720,000	3,299,000	3,115,000	18,091,000	
Sept. 27	20,850,000	3,500,000	2,511,000	6,276,000	3,697,000	3,210,000	3,276,000	18,070,000	
Dec. 20	19,808,000	3,596,000	2,511,000	6,211,000	3,599,000	3,299,000	3,277,000	18,000,000	
1857									
March 11	19,266,000	3,575,000	2,517,000	6,678,000	3,898,000	3,501,000	3,611,000	18,046,000	
June 6	19,714,000	3,571,000	2,508,000	6,810,000	3,888,000	3,493,000	3,411,000	18,330,000	
Sept. 26	18,870,000	3,500,000	2,500,000	6,270,000	3,800,000	3,276,000	3,276,000	18,000,000	
Dec. 19	21,798,000	3,500,000	2,502,000	5,805,000	3,599,000	3,275,000	3,275,000	18,000,000	
1858									
March 13	20,567,000	3,507,000	2,529,000	5,519,000	3,577,000	3,260,000	3,211,000	18,047,000	
June 5	21,291,000	3,511,000	2,530,000	6,191,000	3,411,000	3,210,000	3,210,000	18,047,000	
Sept. 25	20,802,000	3,525,000	2,503,000	6,011,000	3,582,000	3,210,000	3,285,000	18,047,000	
Dec. 18	20,910,000	3,527,000	2,517,000	6,291,000	3,570,000	3,210,000	3,210,000	18,047,000	
1859									
March 12	21,293,000	3,520,000	2,528,000	6,277,000	3,591,000	3,400,000	3,297,000	18,073,000	
June 4	22,140,000	3,475,000	2,511,000	6,448,000	3,480,000	3,210,000	3,210,000	18,073,000	
Sept. 21	22,150,000	3,581,000	2,500,000	6,180,000	3,499,000	3,210,000	3,210,000	18,073,000	
Dec. 17	21,856,000	3,480,000	2,511,000	6,198,000	3,590,000	3,210,000	3,210,000	18,073,000	
1860									
March 10	21,498,000	3,520,000	2,516,000	6,270,000	3,601,000	3,150,000	3,210,000	18,157,000	
June 2	22,214,000	3,475,000	2,508,000	6,210,000	3,520,000	3,210,000	3,210,000	18,157,000	
Sept. 27	21,706,000	3,500,000	2,515,000	6,250,000	3,496,000	3,210,000	3,210,000	18,157,000	
Dec. 15	20,812,000	3,538,000	2,511,000	6,150,000	3,658,000	3,210,000	3,210,000	18,157,000	
1861									
March 9	20,109,000	3,505,000	2,527,000	6,027,000	3,526,000	3,210,000	3,287,000	18,001,000	
June 1	20,100,000	3,506,000	2,511,000	6,118,000	3,520,000	3,210,000	3,210,000	18,177,000	
Sept. 11	20,625,000	3,510,000	2,515,000	5,980,000	3,470,000	3,210,000	3,210,000	18,091,000	
Dec. 13	20,570,000	3,521,000	2,528,000	6,250,000	3,455,000	3,210,000	3,210,000	18,160,000	
1862									
March 8	20,991,000	3,510,000	2,530,000	6,021,000	3,509,000	3,210,000	3,210,000	18,177,000	
May 21	21,511,000	3,578,000	2,566,000	6,480,000	3,609,000	3,210,000	3,210,000	18,177,000	
Sept. 10	21,270,000	3,500,000	2,515,000	6,270,000	3,593,000	3,210,000	3,210,000	18,177,000	
Dec. 13	20,601,000	3,525,000	2,527,000	6,090,000	3,522,000	3,210,000	3,210,000	18,162,000	
1863									
March 7	20,100,000	3,508,000	2,521,000	5,999,000	3,578,000	3,166,000	3,288,000	18,289,000	
May 20	21,200,000	3,510,000	2,511,000	6,110,000	3,470,000	3,210,000	3,210,000	18,300,000	
Sept. 19	21,270,000	3,510,000	2,515,000	6,200,000	3,491,000	3,210,000	3,210,000	18,300,000	
Dec. 12	21,500,000	3,520,000	2,519,000	6,170,000	3,620,000	3,210,000	3,210,000	18,301,000	
1864									
March 5	20,605,000	3,510,000	2,522,000	5,968,000	3,596,000	3,150,000	3,150,000	18,130,000	
May 18	21,440,000	3,500,000	2,500,000	6,210,000	3,500,000	3,210,000	3,210,000	18,130,000	
Sept. 17	21,166,000	3,500,000	2,510,000	6,150,000	3,470,000	3,210,000	3,210,000	18,130,000	
Dec. 10	20,520,000	3,508,000	2,510,000	5,810,000	3,620,000	3,210,000	3,210,000	18,130,000	
1865									
March 4	20,407,000	3,510,000	2,528,000	5,995,000	3,600,000	3,155,000	3,210,000	18,371,000	
May 17	21,170,000	3,500,000	2,520,000	6,210,000	3,500,000	3,210,000	3,210,000	18,371,000	
Sept. 16	21,150,000	3,508,000	2,510,000	6,200,000	3,490,000	3,210,000	3,210,000	18,371,000	
Dec. 9	21,281,000	3,507,000	2,500,000	6,260,000	3,495,000	3,210,000	3,210,000	18,371,000	
1866									
March 3	21,185,000	3,517,000	2,508,675	5,730,665	3,911,549	3,154,295	3,298,192	18,984,223	
May 26	21,697,000	3,506,066	2,509,032	5,435,098	3,608,283	3,257,475	3,293,813	19,055,662	
Sept. 15	21,573,000	3,500,000	2,471,538	5,366,167	3,601,786	3,291,500	3,291,676	18,799,662	
Dec. 8	23,401,000	2,766,878	2,531,127	5,401,005	3,975,168	3,618,175	3,903,825	19,314,041	
1867									
March 2	23,057,000	2,685,596	2,509,964	4,978,530	4,356,160	3,569,000	3,563,904	18,532,524	
May 25	23,557,000	2,722,114	2,506,679	5,069,121	4,822,211	3,218,000	3,211,873	18,228,108	
Sept. 14	24,582,000	2,510,102	2,505,169	4,175,661	4,311,149	3,217,275	3,293,570	18,623,018	
Dec. 7	24,417,000	2,814,611	2,532,111	5,500,666	5,010,204	3,215,000	3,292,901	18,106,120	

No. V.—Quarterly Averages of the Weekly Liabilities and Assets of the Bank of England.

Quarter ended	Liabilities		Assets	
	Notes in Circulation	Deposits	Total	Reserves
1852	£	£	£	£
March 20	21,267,000	18,175,000	39,442,000	21,728,000
June 12	22,100,000	18,710,000	40,810,000	21,710,000
September 4	23,980,000	18,677,000	42,657,000	21,878,000
December 1	21,295,000	19,161,000	40,456,000	20,562,000
1853				
March 19	22,067,000	19,657,000	41,724,000	22,761,000
June 11	21,236,000	18,796,000	40,032,000	22,411,000
September 3	21,610,000	16,319,000	37,929,000	20,522,000
December 21	23,569,000	18,623,000	42,192,000	22,102,000
1854				
March 18	22,785,000	16,627,000	39,412,000	22,906,000
June 10	22,518,000	14,051,000	36,569,000	26,501,000
September 9	21,191,000	14,118,000	35,309,000	25,179,000
December 30	21,063,000	14,578,000	35,641,000	25,228,000
1855				
March 31	20,405,000	15,098,000	35,503,000	25,577,000
June 30	20,885,000	17,617,000	38,502,000	26,095,000
September 29	21,579,000	18,071,000	39,650,000	27,003,000
December 29	20,130,000	16,576,000	36,706,000	25,620,000

The Act individuals carrying on to Scotland several bank of partners, in that part Bank of projected in London, and Parliament name of the of Scotland, Scotch, or 1 of 1,000, &c. The Act etc all public privilege of The objects and its mod and have be of the Bank shareholders The capit in 1714, and Parliament,



productive, both directly and as an example to other banking establishments, of much public utility and advantage.

It may be worth mentioning, that the Act of Wm. III., establishing the Bank of Scotland, declared that all foreigners who became partners in the bank should, by doing so, become to all intents and purposes naturalised Scotchmen. After being for a long time forgotten, this clause was taken advantage of in 1818, when several aliens acquired property in the bank in order to secure the benefit of naturalisation. But, after being suspended, the privilege was finally cancelled in 1822.

We subjoin an official abstract of the constitution and objects of the Bank of Scotland, printed for the use of the proprietors. The terms and mode of transacting business are, of course, sometimes altered, according to circumstances.

I. The Bank of Scotland is a public national establishment, erected and regulated by the legislature alone; and expressly as a public bank in this kingdom; for the benefit of the nation, and for the advancement of agriculture, commerce, and manufactures; and for other objects of public policy. (Wm. III. Parl. 1, s. 5; 14 Geo. III. c. 32; 24 Geo. III. c. 8; 32 Geo. III. c. 25; 34 Geo. III. c. 19; 44 Geo. III. c. 23.)

II. The statutory capital is at present 1,500,000*l.* sterling. It is raised by voluntary subscription; and has been subscribed for, 1,000,000*l.* has been called for, and paid in. (41 Geo. III. c. 23.)

III. Subscribers, not under obligations to the bank, may, at pleasure, transfer their right. If under obligation to the bank, the obligation must be previously liquidated; or the proceeds of the sale, at a price to the satisfaction of the directors, must be applied towards such liquidation. Transfers are made by a short assignment and acceptance thereof, both in a register appointed for that purpose. The expense, beside the Government stamp, is 1*l.*s. (Wm. III. Parl. 1, s. 5.)

IV. Bank of Scotland stock may be acquired, in any portions, by any person, community, or other lawful party whatsoever; without selection, exclusion, or limitation of numbers. (Wm. III. Parl. 1, s. 5; 44 Geo. III. c. 23.)

V. Bank of Scotland stock may be conveyed by will, and if specially mentioned, without expense of confirmation. It cannot be arrested; the holder's right may be adjudged. Dividends may be arrested. (Wm. III. Parl. 1, s. 5.)

VI. The Bank of Scotland is a public corporation by Act of Parliament. The bank's transactions are distinct from those of the stockholders; and theirs from those of the bank. (Wm. III. Parl. 1, s. 5.)

VII. The establishment is expressly debarred from any other business than that of banking. (Wm. III. Parl. 1, s. 5.)

VIII. The management is vested, by statute, in a governor, deputy governor, twelve ordinary, and twelve extraordinary, directors. They are chosen annually, on the last Tuesday of March, by the stockholders having 250*l.* of stock or upwards. Those above 250*l.* have a vote for every 250*l.* to 5,000*l.*, or 20 votes. No person can have more than 20 votes. The governor must hold, at least, 2,000*l.* of stock; the deputy governor 1,500*l.*; and each director 750*l.* They swear to be equal to all persons; and cannot hold any inferior office in the bank. (Wm. III. Parl. 1, s. 5; 14 Geo. III. c. 32; 44 Geo. III. c. 23.)

IX. The executive part is conducted by a treasurer, secretary and other public officers, all sworn. Those having the official charge of cash find due security. (Wm. III. Parl. 1, s. 5.)

X. The board of directors sits for the general administration of the bank, at the bank's public

head office in Edinburgh. The local business of that district is also conducted at that office. For the local business in the other parts of the kingdom, the bank has its regular public offices in the principal towns. At each of these offices there is the bank agent or cashier, who gives due security, and conducts the bank's business for that district in the manner after mentioned. (Wm. III. Parl. 1, s. 5.)

XI. The bank takes in money at all its public offices, on deposit receipts or on current deposit accounts. At the head-office drafts on the branches, and at the branches drafts on the other branches and on the head-office are granted. Both at the head-office and branches drafts are granted on the London, Dublin, and English and Irish provincial correspondents of the bank. All receipts and drafts are on the bank's engraved forms, and bear to be granted 'for the Bank of Scotland,' or 'for the Governor and Company of the Bank of Scotland.' At the head-office official documents are signed by the treasurer, and at the branches by the agents, and all are countersigned.

Remittances can be made to the principal colonial and continental towns; and bills, payable in the colonies and in foreign countries, can be negotiated through the bank. (*Resolution of Court, 1793, as since modified.*)

N.B.—The bank has always allowed interest on deposits, at a rate varying according to circumstances.

XII. Bills on London, Edinburgh, or any town in the United Kingdom, are discounted at all the bank's public offices. The bank's agents judge, in ordinary cases, of the bills presented; so that parties meet with no delay. The bank does not re-issue the bills which it has discounted. (*Resolution of Court, Feb. 23, 1789, and subsequent Modifications.*)

XIII. Government stock and other public funds may be purchased or sold, and dividends thereon may be received, through the bank.

XIV. The bank gives credit on cash accounts at any of its offices, on bond, with security. The security may be personal co-obligants, or such other security as may be specially agreed on. Applications for cash accounts are given in to the office where the cash account is wanted, and must specify the credit desired, and the security proposed; and the individual partners, where co-partneries are proposed. Cash accounts are granted by the directors only; and are not recalled unless by their special authority. It is understood that these credits are not used as dead loans, to produce interest only. In the fair course of business, the advantage of the bank is consulted by an active circulation of its notes, and by frequent repayments to it in a way least affecting that circulation. (*Resolution of Court, Nov. 6, 1729, and Feb. 23, 1789.*)

XV. The bank's dividend has been for some time 8 per cent. per annum on its paid-up capital of 1,000,000*l.* sterling. The dividends are paid regularly twice a year, without expense. They may be drawn either at the bank's head-office, or at any of its other offices, as most agreeable to the stock-holder.

The above may suffice as a general outline of the mode in which the business of banking is conducted in Scotland.

The *Royal Bank of Scotland* was established in 1727. Its original capital of 151,000*l.* has been increased to 2,000,000*l.*

The *British Linen Company* was incorporated in 1746, for the purpose, as its name implies, of undertaking the manufacture of linen. But the views in which it originated were speedily abandoned; and it became a banking company only. Its capital amounts to 1,000,000*l.*

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1727	Bank of Scotland
1746	Bank of North America
1810	Bank of Montreal
1825	Bank of the United States
1830	Bank of the City of New York
1825	Bank of the State of New York
1838	Bank of the City of New York
1839	Bank of the City of New York
1838	Bank of the City of New York
1831	Bank of the City of New York

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None of the other banking companies established in Scotland are chartered associations with limited responsibility, the parties being liable, to the whole extent of their fortunes, for the debts of the firms. Some of them, such as the Edinburgh and Glasgow Bank, the National Bank, the Commercial Bank &c. have very numerous bodies of partners. Their affairs are uniformly conducted by a board of directors, annually chosen by the shareholders.

The Bank of Scotland began, as already stated, to issue 1*l.* notes so early as 1701; and their issue has since been continued without interruption. In Scotland, to use the statement given in the Report of the Committee of the House of Commons of 1826, on the Promissory Notes of Scotland and Ireland, 'the issue of promissory notes payable to the bearer on demand, for a sum of not less than

20*s.*, has been at all times permitted by law; nor has any Act been passed limiting the period for which such issue shall continue legal in that country.'

**Deposits.**—All the Scotch banks receive deposits of so low a value as 10*l.*, and sometimes lower, and allow interest upon them.

The interest allowed by the banks upon deposits varies from time to time, according to the variations in the current rate of interest. And it has been estimated, by the best authorities, that the aggregate amount of the sums deposited with the Scotch Banks is little, if anything, under 50,000,000*l.*

We borrow from Oliver and Boyd's excellent Almanac for 1868 the following table, exhibiting the capital and other particulars of the Banks of Issue in Scotland, with the price of their shares, as publicly quoted in the third week of December 1867:

Instituted	Name	Partners	Shr.	Paid up capital	Dividend		Share paid	Price
					Rate	Payable		
1695	Bank of Scotland *	960	66	£ 1,000,000	12 <i>l.</i>	April & Oct.	100	£ 240 0 0
1727	Royal Bank *	85	83	2,000,000	8	Jan. & July	100	167 10 0
1746	British Linen Company *	870	52	1,000,000	11	June & Dec.	100	245 10 0
1810	Commercial Bank *	897	81	1,000,000	12 <i>s.</i> 2	Jan. & July	100	246 0 0
1825	National Bank of Scotland *	1,510	71	1,000,000	10 <i>s.</i> 2	Jan. & July	100	235 0 0
1830	Union Bank of Scotland *	1,011	100	1,000,000	10	June & Dec.	100	138 0 0
1825	Aberdeen Town and County Bank	515	32	182,000	10	Mar. & Sep.	7	13 17 6
1836	North of Scotland Banking Company	1,211	36	280,000	10	May & Nov.	5 <i>l.</i>	7 15 0
1838	Clydesdale Banking Company *	1,267	69	900,000	10	Feb. & Aug.	100	191 10 0
1839	City of Glasgow Bank *	1,000	99	870,000	8	Feb. & Aug.	103	113 15 0
1838	Caledonian Banking Company *	725	17	125,000	10	August	4 <i>l.</i>	5 1 6
1831	Central Bank of Scotland *	418	9	100,000	12 <i>l.</i>	September	40	111 0 0

\* The capital of the banks marked with an asterisk is not in shares, but in stock transferable to any amount.  
 † Ex dividend.  
 ‡ Dividend and loans.

A witness, connected for many years with different banks in Scotland, being examined by the Commons' Committee of 1826, stated that more than half the deposits in the banks with which he had been connected were in sums from 10*l.* to 200*l.* Being asked what class of the community it is that makes the small deposits, he gave the following answer; from which it appears that the mode of conducting this branch of the banking business in Scotland has long given to that country most part of the benefits derivable from the establishment of savings banks.

**Q.** What class of the community is it that makes the smallest deposits?

**Ans.** They are generally the labouring classes in towns like Glasgow; in country places like Perth and Aberdeen, it is from servants and fishermen, and that class of the community who save small sums from their earnings, till they come to be a bank deposit. There is now a facility for their placing money in the Provident Banks, which receive money till the deposit amounts to 10*l.* When it comes to 10*l.* it is equal to the minimum of a bank deposit. The system of banking in Scotland is an extension of the Provident Bank system. Half-yearly or yearly these depositors come to the bank, and add the savings of their labour, with the interest that has accrued upon the deposits from the previous half-year or year, to the principal; and in this way it goes on, without being at all reduced, accumulating (at compound interest) till the depositor is able either to buy or build a house, when it comes to be 100*l.*, or 200*l.*, or 300*l.*, or till he is able to commence business as a master in the line in which he has hitherto been a servant. A great part of the depositors of the bank are of that description, and a great part of the most thriving of our farmers and manufacturers have arisen from such beginnings.

**Cash Accounts.**—The loans or advances made by the Scotch banks are either in the shape of discounts, or upon cash-credits, or, as they are more commonly termed, *cash accounts*.

A *cash-credit* is a credit given to an individual by a banking company for a limited sum, seldom

under 100*l.* or 200*l.*, upon his own security, and that of two or three individuals approved by the bank, who become sureties for its payment. The individual who has obtained such a credit is enabled to draw the whole sum, or any part of it, when he pleases, replacing it, or portions of it, according as he finds it convenient; interest being charged upon such a part only as he draws out. If a man borrows 5,000*l.* from a private hand, besides that it is not always to be found when required, he pays interest for it whether he be using it or not. His bank credit costs him nothing, except during the moment it is of service to him, and this circumstance is of equal advantage as if he had borrowed money at a much lower rate of interest. (Hume's *Essay on the Balance of Trade*.) This, then, is plainly one of the most commodious forms in which advances can be made.

Cash-credits are not, however, intended to be a *dead loan*, though they not unfrequently become such; a main object of the banks in granting them is to get their notes circulated, and they do not grant them except to persons in business, or to those who are frequently drawing out and paying in money.

The system of cash-credits has been very well described in the Report of the Lords' Committee of 1826 on Scotch and Irish Banking. 'There is also,' say their lordships, 'one part of their system which is stated by all the witnesses (and, in the opinion of the committee, very justly stated) to have had the best effects upon the people of Scotland, and particularly upon the middling and poorer classes of society, in producing and encouraging habits of frugality and industry. The practice referred to is that of cash-credits. Any person who applies to a bank for a cash-credit is called upon to produce two or more competent sureties, who are jointly bound; and, after a full enquiry into the character of the applicant, the nature of his business, and the sufficiency of his securities, he is allowed to open a credit, and to draw upon the bank, for the whole of its amount, or for such part as his daily transactions may require. To the credit of the account he pays in such sums as he may not have occasion to use,

and interest is charged or credited upon the daily balance, as the case may be. From the facility which these cash-credits give to all the small transactions of the country, and from the opportunities which they afford to persons who begin business with little or no capital but their character, to employ profitably the minutest products of their industry, it cannot be doubted that the most important advantages are derived to the whole community. The advantage to the banks who give these cash-credits arises from the call which they continually produce for the issue of their paper, and from the opportunity which they afford for the profitable employment of part of their deposits. The banks are indeed so sensible that, in order to make this part of the business advantageous and secure, it is necessary that their cash-credits should (as they express it) be frequently operated upon, that they refuse to continue them unless this implied condition be fulfilled. The total amount of the cash-credits is stated by one witness to be 5,000,000*l.*, of which the average amount advanced by the banks may be one-third.

The expense of a bond for a cash-credit of 500*l.* is 12*s.* 6*d.* stamp duty, and a charge of from 5*s.* to 10*s.* 6*d.* per cent. for preparing it.

*Stability of the Scotch Banks.*—There have been, until lately, comparatively few failures among the Scotch banks. In 1793 and 1825, when so many of the English banks were swept off, there was not a single establishment in Scotland that gave way. This superior solidity appears to have been owing to various causes, partly to the banks having, for the most part, large bodies of partners, who, being conjointly and individually bound for the debts of the companies to which they belong, go far to render their ultimate security all but unquestionable; and partly to the facility afforded by the law of Scotland, of attaching a debtor's property, whether it consist of land or moveables, and making it available for the payment of his debts.

But, on the whole, we are inclined to think that the long familiarity of the inhabitants with banks and paper money, and the less risk that has attended the business of banking in Scotland, have been the principal causes of the greater stability of the Scotch banks. Latterly, however, owing to the rapid growth of Glasgow, Dundee, and other commercial towns, the risk attending banking in Scotland has materially increased. And while hazard has been augmenting on the one hand, there appears, on the other, to have been a still more rapid decrease of that cautious policy that was supposed to be a characteristic of Scotch bankers. In the crisis of 1857 two of the principal Scotch banks, the head-quarters of which were in Glasgow, were compelled to stop payments. They had very large capitals, the Western Bank 1,500,000*l.*, and the City of Glasgow Bank 1,000,000*l.*, with a great many branches, large amounts of deposits, and very numerous and wealthy proprietary bodies. Had their management displayed anything like ordinary skill and prudence, they might have gone triumphantly through a far more serious trial. But the management of the Western Bank was characterised by the most marvellous folly and recklessness; that of the City of Glasgow Bank, though in many respects blameworthy, has been, as compared with that of the Western Bank, prudent and skilful. It has recommenced business; and it is to be hoped that its managers will profit by the lesson they have received. Having advanced immense sums to a few firms that never were entitled to any considerable credit, the Western Bank was so crippled that, for a lengthened period before its stoppage, the directors were

reduced to the miserable expedient of sending up the bills they had discounted in Glasgow to be re-discounted in London; and when this resource failed them, and the other banks declined to come forward to their assistance, they had nothing for it but to shut their doors. On the stoppage taking place the affairs of the bank were found to be in a much worse state than any one could have anticipated. The losses are estimated at above 3,000,000*l.*, so that, besides the sacrifice of their paid-up capital of 1,500,000*l.*, the shareholders have had to advance a further sum of more than that amount to meet the demands upon them. No such gigantic failure ever occurred in Scotland. The holders of notes and deposit-receipts will be paid in full. But of the 1,200 or 1,300 individuals who held shares in the bank, a large proportion have been nearly, and many entirely, ruined. It is difficult, indeed, to imagine the distress and misery of which this catastrophe has been productive.

The ruin in which the bank has been involved did not come suddenly upon it. On the contrary, it was accumulating for years. And yet the directors took no steps, or none that were efficient, to arrest the progress of the evil; nor did they apprise their confiding constituents of the perilous condition into which the bank had got. Concealment was practised to the very last moment, till the concern was irretrievably sunk in the abyss of bankruptcy. It is much to be wished that directors who have so acted were really responsible for their conduct. No charge of corruption is brought against them; but their inattention to, and neglect of, the important interests committed to their charge, has been wholly inexcusable. They were bound, on undertaking the office of directors, to bestow unremitting care and diligence upon the performance of the duties which it imposed on them. They might neglect their own business; but they could not, without a flagrant breach of trust, neglect the duties they had undertaken to discharge on account of others. This, however, is precisely what they have done. They appear to have selected the most reckless and incompetent managers, and then to have given them *carte blanche*. Whatever such conduct may be in law, it is morally and politically in the highest degree culpable. Hundreds have been sent to the antipodes and the treadmill for offences that were comparatively innocuous. No doubt, the grand source of mismanagement in banks and other associations is to be found in the apathy of the shareholders, in the blind and often undeserved confidence they place in those who are, no matter how, at the head of their concerns. If those who may be ruined by the proceedings of their own officers and servants will not look after them, it were idle to attempt to throw such a duty upon others.

In a public point of view, the stoppage of the Glasgow banks was productive of the very worst results. By creating a panic, and occasioning a heavy internal demand for gold, it may indeed be said to have been the main cause of the suspension of the Act of 1844.

#### SEC. VIII.—BANKING IN IRELAND.

*Banking in Ireland.*—‘In no country, perhaps,’ says Sir Henry Parnell, ‘has the issuing of paper-money been carried to such an injurious excess as in Ireland. A national bank was established in 1783, with similar privileges to those of the Bank of England, in respect to the restriction of more than six partners in a bank; and the injury that Ireland has sustained from the repeated failure of banks may be mainly attributed to this defective

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regulation. Had the trade of banking been left as free in Ireland as in Scotland, the want of paper-money that would have arisen with the progress of trade would in all probability have been supplied by joint-stock companies, supported with large capitals, and governed by wise and effectual rules.

In 1797, when the Bank of England suspended its payments, the same privilege was extended to Ireland; and after this period the issues of the Bank of Ireland were rapidly increased. In 1797 the amount of the notes of the Bank of Ireland in circulation was 621,917*l.*; in 1801, 2,266,417*l.*; and in 1814, 2,986,999*l.*

These increased issues led to corresponding increased issues by the private banks, of which the number was fifty in 1804. The consequence of this increase of paper was its great depreciation; the price of bullion and guineas arose to 10 per cent. above the Mint price; and the exchange with London became as high as 18 per cent., the par being 8*l.* This unfavourable exchange was afterwards corrected, not by any reduction in the issues of the Bank of Ireland, but by the depreciation of the British currency in the year 1810, when the exchange between London and Dublin settled again at about par. [EXCHANGE.]

The loss that Ireland has sustained by the failure of banks may be described in a few words. It appears by the Report of the Committee on Irish Exchanges in 1804, that there were, at that time, in Ireland fifty registered banks. Since that year a great many more have been established, but the whole have failed, one after the other, involving the country from time to time in immense distress, with the following exceptions: First, a few that withdrew from business; secondly, four banks in Dublin; thirdly, three at Belfast; and, lastly, one at Mallow. These eight banks, with the new Provincial Bank and the Bank of Ireland, are the only banks now (1827) existing in Ireland.

In 1821, in consequence of eleven banks having failed nearly at the same time, in the preceding year, in the south of Ireland, Government succeeded in making an arrangement with the Bank of Ireland, by which joint-stock companies were allowed to be established at a distance of fifty miles (Irish) from Dublin, and the bank was permitted to increase its capital from 2,500,000*l.* to 3,000,000*l.* sterling. The Act 1 & 2 Geo. IV. c. 72 was founded on this agreement. But ministers having omitted to repeal in this Act various restrictions on the trade of banking that had been imposed by 33 Geo. II. c. 14, no new company was formed. In 1824 a party of merchants of Belfast, wishing to establish a joint-stock com-

pany, petitioned Parliament for the repeal of this Act of Geo. II.; and an Act was accordingly passed in that session, repealing some of its most objectionable restrictions. (5 Geo. IV. c. 73.)

In consequence of this Act, the Northern Bank of Belfast was converted into a joint-stock company, with a (nominal) capital of 500,000*l.*, and commenced business on the 1st of January, 1825. But the restrictions of 33 Geo. II., and certain provisions contained in the Acts 1 & 2 Geo. III. and 5 Geo. IV., obstructed its progress, and they found it necessary to apply to Government to remove them; and a bill was accordingly introduced, which would have repealed all the obnoxious clauses of the 33 Geo. II., had it not been so altered in the committee as to leave several of them in force. In 1825 the Provincial Bank of Ireland commenced business with a (nominal) capital of 2,000,000*l.*; and the Bank of Ireland has of late established branches in all the principal towns. (*Observations on Paper-Money &c.* by Sir Henry Parnell, p. 171.)

Since Sir Henry Parnell published the pamphlet from which we have taken the foregoing extract, several joint-stock banking companies have been founded in Ireland. The Provincial Bank, to which Sir Henry alludes, has a paid-up capital of 510,000*l.*, and has been well and profitably managed. But others have been less fortunate. The Agricultural and Commercial Bank of Ireland, established in 1834, with 2,170 partners, a paid-up capital of 352,790*l.*, and many branches, stopped payment during the pressure in November 1836, and by doing so involved many persons in great distress. It appears to have been extremely ill-managed. The auditors appointed to examine into its affairs reported that 'Its book-keeping has been found to be so faulty, that we are convinced no accurate balance-sheet could at any time have been constructed.' And they significantly added, 'the personal accounts at the head office require a diligent and searching revision.'

The Tipperary Joint-Stock Bank, which was established in 1839, and stopped payments in 1855, appears to have been little, if at all, better than a mere swindling engine. Luckily it did not issue notes; and the sphere of its operations was not very extensive. But, so far as its influence went, nothing could be worse, being ruinous alike to the majority of its partners and the public.

The existing Irish joint-stock banks, amounting to eight, have been all established between 1821 and 1864. We borrow principally from Thom's *Irish Almanac*, the most valuable publication of its class, the following details with respect to the Irish banks in 1867:—

Account of the Joint-Stock Banks existing in Ireland in 1867; their Branches, fixed Issues &c.

	Initiated	No. of Shares	Per Share	Amount	Capital paid up	Reserve	Fixed Issue: 8 & 9 Vict., c. 57	Dividend per cent. 1866
		£	£	£	£	£	£	£
Bank of Ireland - - - -	1783	Stock 110	2,769,250	2,769,250	1,068,135	5,738,128	11½	
*Hibernian Joint Stock Bank - - - -	1821	10,000	100	2,000,000	250,000	79,283	3	
Provincial Bank of Ireland - - - -	1825	21,000	100	2,000,000	540,000	256,565	927,667	20
Northern Banking Company - - - -	1825	4,891	92	451,480	150,000	151,912	215,410	25½
Belfast Banking Company - - - -	1827	10,000	100	1,000,000	225,000	265,000	281,611	50
National Bank - - - -	1835	50,000	50	2,500,000	1,500,000	597,017	852,209	15½
Ulster Banking Company - - - -	1836	73,362	10	733,620	185,165	115,865	311,079	22
*Royal Bank - - - -	1836	50,000	50	1,500,000	300,000	215,000	—	20
*Union Bank of Ireland (limited) - - - -	1852	10,000	100	1,000,000	220,000	5,106	—	—
*Manchester Bank (limited) - - - -	1864	40,000	10	400,000	110,000	25,000	—	6
Total - - - -	—	—	—	15,591,330	6,277,635	4,727,781	6,354,494	—

\* These are not banks of issue.

The following are the latest parliamentary enactments in connection with Irish banking.

By 9 Geo. IV. c. 24 all public notaries practising in Ireland were constrained to keep open their

offices till nine p.m. By 27 & 28 Vict. c. 7 the notary is not constrained to keep his office open after six p.m., and every note or bill, payment of which is not presented upon this hour, is held to be dishonoured.

By 27 & 28 Vict. c. 20 so much of 8 & 9 Vict. c. 37 as prohibits the negotiation of bills of exchange and promissory notes below 5*l.* is repealed for the space of two years.

By c. 86 the Treasury may compound with bankers in Ireland for the stamp duty on bank post bills for a period of three years.

By 28 & 29 Vict. c. 16 the interest payable to the governor and company of the Bank of Ireland in respect of 2,630,769*l.* 4*s.* 8*d.*, due to them by the public, is fixed at 3 per cent. The payment in respect of the management of the public debt is 450*l.* per million, if the debt be under 30,000,000*l.*; 300*l.* per million, when between 30,000,000*l.* and 40,000,000*l.*; and if above 40,000,000*l.*, then 150*l.* per million for each additional million.

#### SEC. IX.—BANKS OF VENICE, AMSTERDAM &c.

It would far exceed our limits to enter into any detailed statements with respect to the banks and banking systems of foreign countries; we shall therefore confine ourselves to a brief notice of such banks as have been most celebrated, or are at present of the greatest importance.

*Bank of Venice.*—The Bank of Venice was the most ancient bank in Europe. Historians inform us that the republic being hard pressed for money, was obliged, upon three different occasions, in 1156, 1480, and 1510, to levy forced contributions upon the citizens, giving them in return perpetual annuities at certain rates per cent. The annuities on the forced loan of 1480 were to be suspended during periods of war. The annuities due under the forced loan of 1516 were, however, finally extinguished in the sixteenth century. And the offices for the payment of the annuities due under the other two loans having been consolidated, eventually became the Bank of Venice. (Cleirac, *Du Négoce, de la Banque &c.*—Bordeaux, 1656, pp. 112—117, a scarce and valuable volume.) This might be effected as follows: The interest on the loan to Government being paid punctually, every claim registered in the books of the office would be considered as a productive capital; and these claims, or the right of receiving the annuity accruing thereon, must soon have been transferred, by demise or cession, from one person to another. This practice would naturally suggest to holders of stock the simple and easy method of discharging their mutual debts by transfers on the office books, and as soon as they became sensible of the advantages to be derived from this method of accounting, bank-money was invented.

The Bank of Venice was essentially a deposit bank. Though established without a capital, its bills bore at all times an agio or premium above the current money of the republic. The invasion of the French, in 1797, occasioned the ruin of this establishment.

*Bank of Amsterdam.*—The Bank of Amsterdam was founded in 1609, on strictly commercial principles and views, and not to afford any assistance, or to commix with the finances of the state. Amsterdam was then the great entrepôt of the commerce of the world, and, of course, the coins of all Europe passed current in it. Many of them, however, were so worn and defaced as to reduce their general average value to about 9 per cent. less than their Mint value; and, in consequence, the new coins were immediately melted down and exported. The currency of the city was thus exposed

to great fluctuations; and it was chiefly to remedy this inconvenience, and to fix the value or par of the current money of the country, that the merchants of Amsterdam established a 'bank,' on the model of that of Venice. Its first capital was formed of Spanish ducats or ducatoons, a silver coin which Spain had struck in the war with Holland, and with which the tide of commerce had enriched the country it was formed to overthrow. The bank afterwards accepted the coins of all countries, worn or new, at their intrinsic value, and made its own bank-money payable in standard coin of the country, of full weight, deducting a 'brassage' for the expense of coinage, and giving a credit on its books, or 'bank-money,' for the deposits.

The Bank of Amsterdam professed not to lend out any part of the specie entrusted to its keeping, but to retain in its coffers all that was inscribed on its books. In 1672, when Louis XIV. penetrated to Utrecht, almost every one who had an account with the bank demanded his deposit, and these were paid off so readily that no suspicion could exist as to the fidelity of the administration. Many of the coins then brought forth bore marks of the conflagration which happened at the Hôtel de Ville, soon after the establishment of the bank. This good faith was maintained till about the middle of last century, when the managers secretly lent part of their bullion to the East India Company and Government. The usual 'oaths of office' were taken by the magistracy of a religious community that all was safe; and the good people of Holland believed, as an article of their creed, that every florin which circulated as bank-money had its metallic constituent in the treasury of the bank, sealed up and secured by oaths, honesty, and good policy. This blind confidence was dissipated in December 1790, by a declaration that the bank would retain 10 per cent. of all deposits, and would return none of a less amount than 2,500 florins.

Even this was submitted to and forgiven. But four years afterwards, on the invasion of the French, the bank was obliged to declare that it had advanced to the states of Holland and West Friesland, and the East India Company, more than 10,500,000 florins, which sum they were, of course, unable to make up to their depositors, to whom, however they assigned their claims on the states and the company. Bank-money, which previously bore an agio of 5 per cent., immediately fell to 16 per cent. below current money.

This epoch marked the fall of an institution which had long enjoyed an unlimited credit, and had rendered the greatest services. The amount of treasure in the vaults of the bank, in 1775, was estimated by Mr. Hoop at 33,000,000 florins. (Storch, *Cours d'Economie Politique*, tom. iv. p. 102.)

*Bank of Hamburg.*—The Bank of Hamburg was established in 1619, on the model of that of Amsterdam. It is purely a deposit bank for the transfer of sums from the account of one individual to that of another. It receives no deposits in coin, but only in bullion of a certain degree of fineness. Down to 1815 it charged itself with the bullion at the rate of 412 schillings the mark, and issued it at the rate of 414 schillings, being a charge of four-ninths, or nearly one-half per cent., for its retention; but since that date it receives and issues bullion at the same rate, charging one per mille for its expenses. It advances money on jewels to three-fourths of their value. The city is answerable for all pledges deposited with the bank; they may be sold by auction if they re-

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#### SEC. X.—THE BANK OF FRANCE,

which is second only in magnitude and importance to the Bank of England, was originally founded in 1800, but was not placed on a solid and well-defined basis till 1806. Her capital, which was originally fixed at 45,000,000 fr., was raised in the last mentioned year to 90,000,000 fr., divided into 90,000 shares, or *actions*, of 1,000 fr. each. Of these shares, 67,900 have passed into the hands of the public; the remaining 22,100, having been purchased up by the bank out of her surplus profits, were subsequently cancelled. Hence her capital amounted, down to 1818, to 67,900,000 fr. (27,16,600*l.*), with a reserve fund, first of 10,000,000 fr., and more recently of 12,980,750 fr. Since 1806 the bank has enjoyed the privilege of being the only institution in Paris entitled to issue notes payable on demand; and, as will be afterwards seen, she is now the only authorised issuer of such paper in France. Her charter and exclusive privileges have been prolonged and varied by laws passed at different periods; according to existing arrangements they are not terminable till 1897.

The bank has established, at different periods between 1817 and 1856, offices or branches (*succursales*) in different parts of the country. They are managed nearly in the same way as the parent establishment; but their operations have been on a comparatively small scale. These are exclusive of the departmental banks, united, as will be immediately seen, to the bank in 1848.

Notwithstanding the skill and caution with which her affairs have generally been conducted, the Revolution of 1848 brought the bank into a situation of extreme danger. She had to make large advances to the provisional Government and the city of Paris. And these circumstances, combined with the distrust that was universally prevalent, occasioned so severe a drain upon her for gold, that, to prevent the total exhaustion of her coffers, she was authorised, by a decree of March 16, 1848, to suspend cash payments, her notes being at the same time made legal tender. But to prevent the abuse that might otherwise have taken place under the suspension, the maximum amount of her issues was fixed at 350 millions. She was then also authorised to reduce the value of her notes from 500 fr. to 200 and 100 fr.

Previously to 1848, joint-stock banks, on the model of that of Paris, and issuing notes, had been established in Lyons, Marseilles, Bordeaux, Rouen, and other large cities. And it was then determined that these banks should be incorporated with the Bank of France, and made branches of the latter. This was effected by decrees issued on April 27 and May 2, 1848, by which the shareholders of the banks referred to (nine in number) were allowed, for every 1,000 fr. nominal value of their shares, a share of 1,000 fr. nominal value of the stock of the Bank of France. And, in consequence of this measure, 23,351 new shares, representing a capital of 23,351,000 fr., were added to the stock of the Bank of France, making the latter consist of 91,250,000 fr., divided into 91,250 shares. In 1851 the bank resumed, and has since continued, specie payments.

The suppression of the local issues of the departmental banks was, no doubt, a judicious measure, and was indispensable, indeed, to secure the equal value of the paper circulation in dif-

ferent parts of the country. This, however, might have been effected by the mere stoppage of the issues of the departmental banks, without consolidating them with the Bank of France. The latter measure is one of which the policy is very questionable; and there are, as already seen, good grounds for thinking that the banking business of the departments would have been more likely to be well conducted by local associations than by branches of the Bank of France.

Owing to the peculiar circumstances of the last few years, occasioned partly by the war with Russia, but more by the rage for speculation and the drain for silver to the East, the Bank of France has been exposed to considerable difficulties. And in the view of strengthening her position, and also, it may be presumed, of providing a loan for Government, a law has been recently passed (June 9, 1857), by which the capital of the bank has been doubled. Previously to this law, her capital amounted, as already seen, to 91,250 shares of 1,000 fr. each; whereas it now consists of 182,500 shares of 1,000 fr. each. The new shares were assigned to the existing proprietors at the rate of 1,100 fr. per share, producing a sum total of 100,370,000 fr., of which 100,000,000 fr. have been lent to Government at 3 per cent. Hence the measure, though it has added to the credit and security of the bank, has not made any addition to the means directly at her disposal.

Down to the passing of this law, the bank could not raise the rate of interest on loans and discounts above 6 per cent. But this impolitic restriction is now removed, and the bank may charge any rate of interest which she reckons expedient, except upon advances to Government, the maximum interest on which is limited to 3 per cent. The bank has been farther authorised to issue notes of the value of 50 fr., to make advances on railway shares &c. and the charter has been extended to 1897.

The bank is obliged to open a *compte courant* for anyone who requires it, and performs services, for those who have such accounts, similar to those performed for their customers by the banks in London. She does not charge any commission on current accounts, so that her only remuneration arises from the use of the money placed in her hands by the individuals whose payments she makes. It is probable, therefore, as has been alleged, that this part of her business is but little profitable. The bank also discounts bills with three signatures, at variable dates, but not having more than three months or ninety days to run. In 1855 the aggregate amount of these discounts in Paris and the departments amounted to the very large sum of 3,262,000,000 fr., the interest being 5 per cent. till October 18, and afterwards 5 per cent. Besides discounting bills, the bank makes advances on stocks and pledges of various kinds, and undertakes the care of valuable articles, such as plate, jewels, title-deeds &c. at a charge of one-eighth per cent. on the value of the deposit, for every period of six months and under. Nothing can show more clearly the petty retail character of the trade of Paris, and generally of France, than the smallness of the value of the bills discounted by the bank. Thus of 963,000 bills discounted in 1847, the average amount was only 55*l.* 4*s.*, and of these no fewer than 126,000 were for less than 200 fr. (8*l.*), and 470,000 for less than 1,000 frs. (20*l.*), each. (Tooke and Newmarch *On Prices*, vi. 51.)

The administration of the bank is vested in a council of twenty-one members, viz. a governor and two sub-governors, nominated by the Emperor; and fifteen directors and three censors,

nominated by the shareholders. The bank has a large surplus capital or *rest*. In 1853 and 1856 she divided no less than 200 fr. and 272 fr. profits on each share; but these have much exceeded the dividends in any previous year. In 1818 the dividends only amounted to 75 fr. per share. In

July 1856 the 1,000 fr. share of bank-stock was worth 4,075 fr.; in July 1857 it had sunk to 2,880 fr. Her intimate connection with the Government is decidedly the most objectionable feature in the constitution of the Bank of France.

The following is an Account of the Bank of France for the Five Years ending 1865, stated in English money at 25 francs = 1l.

I.—LIABILITIES (PASSIF).

Dates	Bills to Bearer (Circulation)		Bills to Order (Bank Post Bills)			Current Accounts (Deposits)				Other Liabilities	
	Branch	Total	Paris	Récep-tés	Total	Treasury	Paris	Branch	Total	Liabilities	Total
1861	£	£	£	£	£	£	£	£	£	£	£
April	—	—	28,000,000	210,000	360,000	3,200,000	4,160,000	1,200,000	8,960,000	9,350,000	17,740,000
Dec.	—	—	28,050,000	180,000	190,000	4,110,000	4,670,000	1,050,000	10,150,000	10,320,000	19,140,000
1862	—	—	33,570,000	370,000	310,000	4,960,000	6,210,000	1,320,000	12,490,000	9,250,000	55,900,000
April	—	—	31,250,000	180,000	220,000	1,220,000	5,390,000	1,270,000	11,980,000	9,360,000	52,420,000
Dec.	—	—	31,000,000	300,000	160,000	3,920,000	6,030,000	1,270,000	10,260,000	9,250,000	50,970,000
1863	—	—	30,200,000	180,000	120,000	3,100,000	5,120,000	1,010,000	8,560,000	10,170,000	49,550,000
April	—	—	30,390,000	180,000	60,000	2,000,000	4,550,000	780,000	7,350,000	9,910,000	47,860,000
Dec.	—	—	29,690,000	—	—	2,890,000	5,360,000	960,000	9,210,000	10,110,000	49,270,000
1865	—	—	31,620,000	—	—	210,000	3,580,000	6,390,000	1,220,000	11,190,000	55,510,000
Jan. 5	—	—	32,490,000	—	—	270,000	3,400,000	4,690,000	1,120,000	9,180,000	51,110,000
Feb. 2	—	—	30,850,000	—	—	220,000	3,450,000	5,200,000	1,290,000	9,580,000	50,530,000
March 2	—	—	31,130,000	—	—	270,000	3,790,000	5,510,000	1,130,000	10,450,000	51,220,000
April 6	—	—	32,180,000	—	—	290,000	3,180,000	5,610,000	1,290,000	10,370,000	52,960,000
May 4	—	—	32,390,000	—	—	300,000	3,530,000	6,620,000	1,220,000	11,370,000	53,410,000
June 1	—	—	31,360,000	—	—	310,000	3,630,000	7,520,000	1,300,000	11,200,000	50,260,000
July 6	—	—	35,930,000	—	—	310,000	5,790,000	7,170,000	1,580,000	14,540,000	59,300,000
Aug. 3	—	—	33,290,000	—	—	350,000	6,200,000	7,560,000	1,110,000	14,900,000	59,360,000
Sept. 7	—	—	35,320,000	—	—	350,000	5,620,000	7,320,000	1,370,000	11,560,000	59,660,000
Oct. 5	—	—	35,280,000	—	—	340,000	5,300,000	6,150,000	1,510,000	12,790,000	58,390,000
Nov. 3	—	—	34,800,000	—	—	300,000	1,010,000	6,170,000	970,000	11,150,000	57,600,000
Dec. 7	—	—	—	—	—	—	—	—	—	—	—

II.—ASSETS (ACTIF).

Dates	Coin and Bullion			Portfolio (Discounts)			Ad-vances on In-gots Total	Ad-vances on Public Stocks Total	Ad-vances on Shares Total	Other Assets	Total Assets
	Paris	Branch	Total	Paris	Branch	Total					
1861	£	£	£	£	£	£	£	£	£	£	£
April	2,960,000	12,160,000	15,120,000	8,900,000	9,240,000	18,220,000	1,720,000	1,000,000	2,000,000	3,620,000	47,860,000
Dec.	3,750,000	9,180,000	12,930,000	11,250,000	13,350,000	24,580,000	700,000	980,000	1,800,000	3,780,000	49,360,000
1862	—	—	—	—	—	—	—	—	—	—	—
April	5,450,000	11,180,000	16,630,000	12,490,000	10,000,000	22,550,000	450,000	5,700,000	9,560,000	8,120,000	55,800,000
Dec.	4,450,000	8,550,000	12,760,000	12,150,000	10,750,000	24,790,000	210,000	5,050,000	9,730,000	9,100,000	52,100,000
1863	—	—	—	—	—	—	—	—	—	—	—
April	4,510,000	10,520,000	15,000,000	10,840,000	9,350,000	20,190,000	370,000	5,310,000	5,960,000	8,890,000	51,080,000
Dec.	4,450,000	6,210,000	8,520,000	13,660,000	11,830,000	24,510,000	520,000	2,050,000	3,110,000	9,160,000	48,530,000
1864	—	—	—	—	—	—	—	—	—	—	—
April	5,050,000	5,710,000	8,760,000	14,290,000	11,450,000	25,740,000	580,000	1,660,000	2,750,000	9,210,000	47,000,000
Dec.	—	—	15,100,000	10,980,000	11,390,000	23,570,000	960,000	930,000	1,770,000	9,930,000	49,260,000
1865	—	—	—	—	—	—	—	—	—	—	—
Jan.	—	—	13,200,000	14,580,000	13,220,000	27,600,000	810,000	950,000	1,800,000	9,410,000	55,500,000
Feb.	—	—	17,730,000	12,900,000	13,450,000	26,050,000	720,000	960,000	1,850,000	9,120,000	51,110,000
Mar.	—	—	15,250,000	10,760,000	12,020,000	22,780,000	690,000	880,000	1,710,000	9,190,000	50,530,000
April	—	—	18,100,000	10,020,000	10,750,000	20,810,000	880,000	940,000	1,910,000	9,190,000	51,920,000
May	—	—	18,060,000	10,650,000	11,000,000	21,650,000	1,200,000	960,000	1,910,000	9,170,000	52,530,000
June	—	—	19,650,000	8,900,000	10,530,000	19,180,000	1,890,000	970,000	1,960,000	9,310,000	53,810,000
July	—	—	20,850,000	11,580,000	12,290,000	25,870,000	2,230,000	1,010,000	2,190,000	9,210,000	60,190,000
Aug.	—	—	19,370,000	12,130,000	15,000,000	25,150,000	2,910,000	1,040,000	2,120,000	9,300,000	59,480,000
Sept.	—	—	20,110,000	11,560,000	11,850,000	25,110,000	2,660,000	960,000	2,080,000	9,320,000	58,700,000
Oct.	—	—	18,870,000	13,510,000	15,800,000	26,510,000	2,180,000	920,000	2,140,000	9,300,000	59,680,000
Nov.	—	—	16,740,000	13,350,000	15,200,000	25,260,000	1,140,000	800,000	1,700,000	9,000,000	58,750,000
Dec.	—	—	17,550,000	12,850,000	14,610,000	25,510,000	1,930,000	820,000	1,960,000	9,230,000	56,070,000

Fluctuations in the Value of the Shares of the Bank of France since the Year 1801, par 1,000 francs.

Years	Highest	Lowest	Years	Highest	Lowest
1801	1,450	1,170	1837-41	3,800	2,320
1802-6	1,375	1,010	1842-46	3,795	3,000
1807-11	1,430	1,185	1847-51	4,400	9,000
1812-16	1,260	470	1852-56	4,200	2,545
1817-21	1,605	1,115	1857-61	4,000	2,500
1822-26	2,425	1,415	1862	3,900	2,200
1827-31	2,050	1,380	1863	3,500	3,275
1831-36	2,355	1,595	1864	3,595	3,260

Amount of Dividend paid per Share of the Bank of France, 1836-61.

Years	Frs.	Years	Frs.	Years	Frs.	Years	Frs.
1836	112	1844	107	1851	105	1858	111
1837	126	1845	135	1852	118	1859	115
1838	114	1846	159	1853	154	1860	110
1839	144	1847	177	1854	191	1861	117
1840	139	1848	75	1855	200	1862	158
1841	126	1849	106	1856	272	1863	265
1842	136	1850	101	1857	217	1864	200
1843	122	—	—	—	—	—	—

During a period of 29 years the Bank thus

paid dividends 10 years 10 cent., 1 year in 1856.

Note Cir

Years
1805
1810
1815
1820
1824
1831
1835
1840

SEC

Prussia, founded at of Hamburg was reorgan more exte accordance of notes h (the thaler) this issue The capital portion with in silver, the rest in loan from twenty an issue of the extent of from 2 to 3 discounts an there cannot mation on for that the promenting their in the bank a The shareholder of 3 per cent deduction of or rest, which capital, one n portioned to t to the treasur number of citi Stettin, Magg Posen, Stolpe, Düsseldorf, Co the-Order, Stra and thus form tions through The private was founded a of noble prop thalers. After carried to 1,3 this bank em of merchandise securities, cur interest. Its o condition t There is a circ of mortgage n for 105,000,0 different perio nobles of variou interest at 3 per Austria.—Th 1815, with the and particularl paper money, tl all but nominal was 110,250,00

paid dividends of, 1 year (1818) 7 per cent., 18 years 10 to 15 per cent., 8 years 15 to 20 per cent., 1 year (1857) 24 per cent., and 27 per cent. in 1856.

*Note Circulation of the Bank of France, 1805-64.*

Years.	Fr.	Years.	Fr.
1805	7,000,000	1843	269,000,000
1810	100,000,000	1848	273,000,000
1815	41,000,000	1851	297,000,000
1820	155,000,000	1855	640,000,000
1821	225,000,000	1860	790,000,000
1851	217,000,000	1862	801,000,000
1855	224,000,000	1864	780,000,000
1860	225,000,000		

SEC. XI.—BANKING IN GERMANY.

*Prussia.*—The Bank Royal of Prussia was founded at Berlin in 1765, upon the model of that of Hamburg. So it existed until 1846, when it was reorganised under a new charter, by which more extension was given to its operations. In accordance with this new constitution, the issue of notes has been carried to 15,000,000 thalers (the thaler equal to 2s. 10 $\frac{3}{4}$ d. sterling). In 1850 this issue was raised to 21,000,000 of thalers. The capital of the bank is always to be, in proportion with the notes in circulation, two-sixths in silver, three-sixths in bills discounted, and the rest in loans on securities. The bank notes are from twenty-five to fifty thalers each; but in 1856, an issue of notes of ten thalers was permitted to the extent of about 400,000, sterling. It pays from 2 to 3 per cent. on deposits. In 1856 the discounts amounted to 238,000,000 thalers. But there cannot be a doubt, although accurate information on foreign banking is not easily attainable, that the progress of commerce is rapidly augmenting their use. The share of the Government in the bank amounts, at most, to 500,000 thalers. The shareholders are entitled to an annual interest of 3 $\frac{1}{2}$  per cent. upon the capital, and, after a further deduction of 1 per cent. set apart for the reserve or rest, which is not to exceed 30 per cent. of the capital, one moiety of the surplus profits is apportioned to them in addition, and the other goes to the treasury. The bank has branches in a great number of cities, as Breslau, Königsberg, Danzig, Stettin, Magdeburg, Münster, Cologne, Memel, Posen, Stolpe, Elberfeld, Trèves, Aix-la-Chapelle, Düsseldorf, Coblenz, Minden, Erfurt, Frankfurt-on-the-Oder, Stralsund, Köslin, Liegnitz, and Oppeln, and thus forms a vast network of financial operations through all the kingdom.

The private bank of the noblesse of Pomerania was founded at Stettin, in 1824, by an association of noble proprietors, with a capital of 1,000,000 thalers. After the crisis of 1830 this capital was carried to 1,531,500 thalers. The operations of this bank embrace discount, loans upon lodgments of merchandise, loans upon public and private securities, current accounts, and deposits with interest. Its issue is limited to 1,000,000 thalers, on condition that it retains one third in specie. There is a circulation of about 90,000,000 of thalers of mortgage notes in Prussia (these are, in fact, for 105,000,000). They have been issued, at different periods, by associations of proprietary nobles of various parts of the kingdom, and carry interest at 3 $\frac{1}{2}$  per cent.

*Austria.*—The Bank of Vienna was founded in 1815, with the purpose of restoring the finances, and particularly for the conversion of the state paper money, the value of which was by this time all but nominal. At the end of 1864 the capital was 11,250,000 florins, the reserve 11,267,900

florins, the note circulation 375,828,020 florins, mortgages in circulation (Pfandbriefe in Umlauf) 41,553,370 florins. The specie held by the bank amounted to 117,363,718 florins. Its privileges are extended to December 31, 1876. The loan to the state in consideration of these privileges is 80,000,000 florins without security.

The Bank of Vienna is the sole state bank of Austria. Its functions are chiefly those of issuing paper, discounting commercial bills, and of developing certain kinds of public works. It has the sole right of issuing notes. It appears that the chief danger which the bank runs is that consequent upon advances to Government, which are made, as might be expected, profusely in times of pressure. These advances are accompanied with a largely increased issue of paper. The bank allows no interest on deposits. The rate of discount is never above 5 or below 4 per cent.

The bank had, in 1865, nineteen branches, the chief of these being the establishments at Prague, Pesth, and Brünn. The business, however, done at the branches is comparatively trivial.

*Bavaria.*—The Royal Bank of Nuremberg, which has branches at Anspach (at which place it was first founded), Bayreuth, Bamberg, Hof, Ludwigshafen, Batisbon and Wurtzburg, is an ancient establishment, the supervision of which is in the hands of finance ministers. The funds of the bank are derived from state grants, advances made by the officials of the bank reserve funds, and deposits from the law courts. The net profits are divided into two portions: of these one is divided between the state and the officials of the bank; the other moiety forms a reserve. It publishes no accounts. Its business is that of exchange, discount, loan and deposit: loans being granted on sufficient security, and deposits bearing interest of from 2 to 3 per cent.

The loan and exchange Bank of Bavaria, which was founded in Munich in 1831, and authorised by royal decree in 1835, began operations in 1835. Its charter is for 99 years from July 1, 1831. It had three branches in 1863. Its function is to lend on goods up to half their value; to discount bills of exchange of ninety days, and containing not less than three names, or Bavarian securities at six months' date; to lend on specie *à* *vo* to ninety percent.; to contract fire and life insurances. The issue is limited to 8,000,000 florins, 2,000,000 being based on specie. The annual dividend on the stock of the bank appears to be large.

*Leipsic.*—This bank was founded by royal decree in 1839, to endure for forty years, with a capital of 1,500,000 thalers, a sum which has been subsequently increased. It receives deposits without interest, discounts three months' bills with three names, and performs similar operations. Its issues of 20, 50, and 100 thalers must be supported by two-thirds their amount in specie or ingots. The profits are divided: 3 per cent. is first paid on the capital, and of the surplus 25 per cent. is added to the reserve, until it reaches 3,000,000 thalers, 5 for the management, 70 for the shareholders.

*Württemberg.*—There are four banks at Stuttgart, one belonging to the king. Another, possessing a capital of 9,000,000 florins, pays 5 per cent. and whatever surplus may exist, issues notes, two-thirds of which may be guaranteed on commercial bills, one-third in specie.

*Belgium.*—The National Bank of Belgium is modelled on that of the Bank of France. Its capital consists of 25,000 shares, each of 1,000 francs: it issues paper payable on sight and to bearer to the amount of 20, 50, 100, 500, and 1,000 francs; but without permission from Government cannot increase its issues beyond three times its

metallie reserve. This bank has paid large and increasing dividends to holders of its stock.

The Bank of Belgium has a capital of 30,000,000 francs in 1,000 franc shares. It was authorised by royal decree in 1835 for the period of forty years.

There are also banks at Ghent, Liège, Seraing, Tongres, Namur, Verviers, besides loan and discount establishments and institutions of *crédit foncier* and *mobilier*. One of the last kind has been in existence since 1822, was authorised by the king of Holland, was modified by the Belgian monarchy after the war of independence, and has been eminently successful. There are, in short, few European countries in which banking has not so fully developed as in Belgium.

**Denmark.**—There is a bank at Copenhagen (with branches at Flensburg and Rendsburg), which was created in 1818, with a capital of 13,461,600 rixdollars. The capital was provided by a special tax, the contributors to which, provided their quota was not short of 100 rixdollars (about 10*l.* 5*s.*), became *pro rata* shareholders. The bank issues notes, the amount of which in 1864 was 20,000,000 rixdollars.

**Greece.**—The National Bank of Greece, situate at Athens, with branches at Patras and Syra, has a capital of 5,000,000 drachmas, divided into 5,000 shares. It discounts bills at a maximum rate of 8 per cent., lends on deposit of gold or silver at a maximum of 10 per cent., and makes advances on accounts current and deposits. It issues notes of 25, 100, and 500 drachmas, of which one-third must be supported by specie, and bills of not less than 100, or more than 1,000, drachmas. After providing that 7 per cent. should be paid as interest on the shares, the surplus is divided as follows: four-twentieths to the reserve fund, until this fund amounts to one-fifth of the capital; one-twentieth to the directors and officials; fifteen twentieths to the proprietors of shares. The bank had, in 1863, 2,128,000 drachmas as a reserve, and had paid, from its commencement in 1812 to this date, a rate varying between 7½ and 12 per cent. on the capital.

**Italy.**—The National Bank of Italy has its chief office at Turin with branches at Florence, Naples, Milan, and Genoa. Its capital amounts to 100,000,000 francs in 100,000 shares on each of which 700 francs is paid. Its foundation took place in 1863, by the union of the National Bank of Turin with that of Tuscany. There are also a bank at Naples and at Rome, the former with a capital of 1,000,000 ducats, the latter of 2,000,000 Roman scudi. The issues of the Papal Bank are as low as a single scudo. Establishments of *crédit foncier* and *mobilier* have also been founded in Italy.

**Portugal.**—The National Bank of Portugal—chief office at Lisbon with branch at Oporto—has a capital of 8,000 contos of reis, divided into 80,000 shares. It was established by royal decree, by a fusion of the old Bank of Lisbon and the *Companhia Contianza Nacional*. It issues notes, the lowest at 1,200 reis, makes advances on bills and deposits of merchandise &c., on immovable property, and on accounts current. Bills having two names, and for ninety days, are discounted at 5 per cent. and loans are negotiated at the same rate on public and private securities.

**Spain.**—The Bank of Spain has its chief office at Madrid, with branches at Valencia and Alicante. The governor and deputy-governor are nominated by the state. Its capital is 120,000,000 reals vellen, in 60,000 shares. Interest fixed at 6 per cent. The bank was founded by the crown in 1819, in place of the Bank of S. Ferdinand, which had itself been incorporated with that of Isabella II. An earlier institution was the bank of S.

Conles, founded by a Frenchman, in 1782, one Cabanus.

The bank issues notes up to a moiety of its capital, under the guarantee of a third of the issue in specie, the lowest note being of 500 reals vellen. It discounts ninety days' bills with three signatures, and makes advances on deposits to four-fifths their value. The dividend on the shares has been as high as 26 per cent. There are other banks in Spain, besides institutions of credit.

**Sweden and Norway.**—The Bank of Sweden has its chief office at Stockholm, with branches at Gothenburg, Malmö and Wisby. Its capital is 13,000,000 bank thalers. It was founded in 1637. It issues notes. The Royal Loan Bank of Norway has a capital of 3,000,000 thalers specie. Its chief offices are at Drontheim, but it has several branches. It issues paper to double the amount of its reserve in bullion.

**Switzerland.**—There are numerous banks in this republic, each state in the confederation being possessed of a bank.

**Turkey.**—The transactions of this community are managed by the Imperial Ottoman Bank, which is empowered to issue notes. The capital of the bank is 67,000,000 francs.

**Wallachia and Moldavia.**—These principalities have a bank at Jassy, the capital of which is 10,000,000 thalers in 50,000 shares. It issues a paper currency, which must be supported by one-third its amount in specie.

**Bank of the Netherlands.**—The original capital was fixed at 5,000,000 florins, with a power of doubling this, if expedient; but two years elapsed before the whole was subscribed for. Of this capital the State held 1,000,000 florins.

In 1815 the capital was raised to 10,000,000 florins; and as the rest then amounted to 250,000 florins, in order to place the new shares on the same footing with the old, 1,050 florins were paid up on each share. The whole were immediately placed, as will be seen by the balance of March 31, 1820.

In 1838 the charter was renewed for another period of 25 years by royal decree, and the capital increased to 15,000,000 florins, the State receiving and exercising the right of holding 500,000 florins of the increase of capital. The sum to be paid up on each of the new shares was fixed at 115 florins, thus bringing the capital and rest up to 17,500,000 florins, at which figure it remained with trifling change up to the expiration of the renewed charter. It appears by the statement made by the Minister of Finance, in laying before the States-General a bill for the renewal of the charter of the Bank, that the last-named 500 shares belonging to the State were sold in 1840 at a premium of 163,809 florins 35 cents; and the original 1,000 shares likewise held by the State were realised in 1841, fetching the sum of 1,610,000 florins.

By the new charter of 1838, several restrictions existing under the former one were removed, while on the other hand the Bank lost some of its privileges.

Up to the year 1852 a strict injunction of secrecy was imposed and observed; in the last-mentioned year this injunction was removed, and the publication of some details of the operations of the Bank rendered imperative, and of others permissive. The same decree empowered it also to make loans on all foreign Government stocks without distinction.

Lastly the charter was again renewed by Act of the Legislature in 1863. The 1,000 shares reserved to the Government by the new charter were sold at the price of 1,940 florins per share.

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Sec. X

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Under and value States ha try; and of bat ruy Bec. en differ: t ard it is s Treasury of that these and 1819, and severe, occurred.

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Years
1850 -
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Now obse increase took are told is q paying notes most men o that a revuls within the U exception, ste

In 1838 s managed, an payment in ther crash too which, as has dollars in 183 and to 58,563 that in this la ing the bank destroyed. A peciation wh of all kinds, a enormous. A really trifling, has stated, con society from elements of men speculation wi to retain ill-g

The evils of aggravated by n. st banks lin the hands of re the humbler v severely by the Since 1838

It is alleged that the Bank of the Netherlands has a considerably greater supply of bullion in proportion to its circulation than any other bank.

#### SEC. XII.—BANKING IN THE UNITED STATES.

It has been the uniform practice of the different States of the Union to allow banks to be established for the issue of notes, payable in specie on demand. In cases where the liability of shareholders in banks was to be limited to the amount of their shares, they had, previously to 1838, to be established by Acts of the local legislatures. But, in general, these were easily obtained; and down to a comparatively late period, it may be said that banking was quite free; and that, practically, all individuals or associations might issue notes, provided they abided by the rules laid down for their guidance, and engaged to pay them when presented.

Under this system, the changes in the amount and value of the paper currency of the United States have been greater than in any other country; and it has produced an unprecedented amount of bankruptcy and ruin.

Between 1811 and 1820, about 195 banks, in different parts of the Union, became bankrupt; and it is said, in a report by the Secretary of the Treasury of the United States, dated May 12, 1820, that these failures, which mostly happened in 1814 and 1819, produced a state of distress so general and severe, that few examples of the like had then occurred.

But had as this instance was, it was nothing to that which took place subsequently to 1834. The accounts of the aggregate issues of the banks differ a little; but the following statement is believed to be very nearly accurate, viz. :—

Years	Notes
1830 - - - - -	66,638,980 dollars.
1831 - - - - -	91,839,570 "
1832 - - - - -	103,629,435 "
1836 - - - - -	110,310,633 "
1837 - - - - -	119,185,890 "

Now observe, that this sudden and enormous increase took place under the obligation, which we are told is quite enough to prevent all abuse, of paying notes on demand. The result was, what most men of sense must have anticipated, viz. that a revaluation took place, and that every bank within the Union, without, it is believed, a single exception, stopped payment in 1837.

In 1838 each of the banks as had been best managed, and had the largest capitals, resumed payment in specie. But in 1839 and 1840 a farther crash took place. And the bank-notes afloat, which, as has been seen, amounted to 149,185,830 dollars in 1837, sunk to 85,734,000 dollars in 1842, and to 58,563,000 dollars in 1843. It is supposed that in this latter crash nearly 180 banks, including the Bank of the United States, were totally destroyed. And the loss occasioned, by the depreciation which it caused in the value of stocks of all kinds, and of all sorts of property, was quite enormous. And yet, vast as that loss was, it was really trifling, as a writer in the *American Almanac* has stated, compared with the injury resulting to society from the upheaving it occasioned of the elements of social order, and the utter demoralisation of men by the irresistible temptation to speculation which it afforded, ending in swindling to retain ill-gotten riches.

The evils of the American system have been aggravated by the looseness of the notes which most banks have issued. This brings them into the hands of retail traders, labourers, and others in the humbler walks of life, who always suffer severely by the failure of a bank.

Since 1838 and 1842, various measures have

been taken in nearly all the States, but principally in New York, to restrain the free action of the banks, and to prevent a repetition of the calamities referred to.

In New York, for example, the banks have been divided into two great classes—the incorporated and the free banks. The former, which are incorporated by a State law, have to conform to certain regulations, and have to contribute a half per cent. annually upon their capital to a security fund, which is devoted to the payment of the notes of defaulting banks. But this is a most objectionable plan; for, in the first place, it does not prevent bankruptcies; and in the second place, it compels the well-managed banks to contribute to a fund which goes to pay the debts of those that are mismanaged. It has consequently declined in favour, and is now rarely acted upon.

In the other, or free banking system, all individuals or associations who choose to deposit securities (minimum amount 100,000 dollars) for their payment, are allowed to issue an equal amount of note. And this is certainly by far the more efficient as well as the most popular of the two plans. But it is objectionable, because, 1st. A longer or shorter, but always a considerable, period necessarily elapses after a bank stops before its notes can be retired; and, 2nd. Because the securities lodged for the notes are necessarily at all times of uncertain and fluctuating value; while, in periods of panic or general distrust, they become all but inconvertible. The Sub-secretary of the Treasury of the United States has animadverted as follows on this plan, in a letter dated Nov. 27, 1854:

“The policy of many of the State governments has of late years consisted in encouraging the issue of small notes, by sanctioning the establishment of what are popularly called “free banks,” with deposits of stocks and mortgages for the “ultimate” security of their issues. This “ultimate” security is, it may be admitted, better than no security at all. The mischief is, that it is least available when most wanted. The very causes which prevent the banks from redeeming their issues promptly, cause a fall in the value of the stocks and mortgages on “the ultimate security” of which their notes have been issued. The “ultimate security” may avail something to the broker who buys them at a discount, and can hold them for months or years; but the labouring man who has notes of these “State security banks” in his possession, finds, when they stop payment, that “the ultimate security” for their redemption does not prevent his losing twenty-five cents, fifty cents, or even seventy-five cents in the dollar.

“In a circulating medium we want something more than “ultimate security.” We want also “immediate” security; we want security that is good to-day, and will be good to-morrow, and the next day, and for ever thereafter. This security is found in gold and silver, and in these only.”

The above statements are taken from a paper read by Lord Overstone to the late Committee on Banks.

It appears from the Report of the Superintendent of Banking for the State of New York for 1856, that the securities he then held in trust amounted to 39,359,071 dols., which were almost wholly lodged by banking associations and individual bankers.

During the year the securities held in trust for the under-mentioned banks that had become insolvent in 1855 were disposed of. But the sums realised by their sale did not in any case suffice to pay the notes at par, while a period varying from two to four years would have to elapse before the affairs of the insolvent banks will be finally settled.

Names of Banks that Failed	Notes Redeemed	Rate of Redemption	Time for Redemption
Eight Avenue Bank	All	91 cents	May 21, 1861
Farmers' Bank, Oneonta	All	85 cents	Nov. 12, 1859
James' Bank	All	91 cents	June 17, 1858
Merchants' and Mechanics' Bank, Oswego	All	77 cents	Sept. 28, 1860
N. W. Rochelle, Bank of	Stock Notes	Par	June 17, 1858
New Rochelle, Bank of	Stock and Estate Notes	81 cents	June 17, 1858

This statement sets the defective nature of the security system, as administered in New York, in the clearest point of view. It might, no doubt, be improved by increasing the proportion of securities to notes. But owing to the variety of securities that are taken (viz. all manner of bonds and mortgages, state, canal, and railway stocks &c. &c.), and the uncertainty of their value, a great deal of risk is always incurred in accepting them, and they can never form a proper foundation on which to issue notes.

But, however desirable, it would, we fear, be visionary to expect that local issues should be suppressed in America, or that her paper currency should be placed on a really sound foundation. But it may, nevertheless, be easily and greatly improved. And, perhaps, this would be best ef-

fectured by suppressing low notes, or those for less than twenty dollars, and increasing the proportion of securities to issues. The rules on which so much stress is laid, in most parts of America, for making the issues of banks depend on the magnitude of their capitals, or the amount of specie in their vaults, are really of no use whatever. They may be and have been eluded and defeated in a thousand ways, and serve only to make the public look for protection to what is altogether impotent and worthless for any good purpose.

The following table, from *Hunt's Commercial Magazine* for March 1857, gives an account of the number and condition of the banks of the United States, as officially reported, in certain years from 1834 to 1856.

Table of the Secretary of the Treasury, showing the Number of Banks and Branches, with their Capitals, Discounts, Specie, Circulation, and Deposits, in the Union, in the following Years, from 1834 to 1856. The last line gives the position of the Banks near January 1, 1856.

Years	Banks	Capital	Discounts	Specie	Circulation	Deposits
1834	506	200,000,000	324,119,000	26,612,000	91,810,000	75,007,000
1836	715	251,875,000	457,506,000	40,002,000	140,501,000	115,101,000
1837	758	270,724,000	525,116,000	37,915,000	149,185,000	127,307,000
1843	691	228,862,000	251,515,000	35,516,000	58,561,000	56,163,000
1848	751	204,853,000	311,477,000	46,370,000	128,500,000	105,326,000
1854	879	227,908,000	415,257,000	48,571,000	155,165,000	128,058,000
1854	1,208	301,376,000	557,398,000	59,110,000	204,689,000	184,183,000
1855	1,307	332,177,000	576,145,000	59,915,000	186,932,000	190,390,000
1856	1,398	313,874,000	634,183,000	59,511,000	197,747,000	212,706,000

Statement showing the Condition of the Banks of the United States in 1855, 1856, 1857, and 1858.

	1855	1856	1857	1858
Number of banks	1,163	1,255	1,285	1,284
Number of branches	141	113	133	178
Total	1,307	1,398	1,416	1,422
Capital paid in	\$332,177,000	\$313,874,000	\$370,855,000	\$391,625,000
ASSETS				
Loans and discounts	\$376,115,000	\$631,183,000	\$681,457,000	\$583,165,000
Stocks	32,727,000	49,475,000	59,275,000	60,305,000
Real estate	24,074,000	20,866,000	36,123,000	38,756,000
Other investments	8,735,000	8,825,000	5,900,000	6,076,000
Due by other banks	55,730,000	62,000,000	65,000,000	68,000,000
Notes of other banks	23,130,000	24,775,000	28,191,000	22,117,000
Specie funds	21,956,000	19,958,000	25,082,000	15,380,000
Specie	\$3,945,000	\$9,314,000	\$9,350,000	\$7,113,000
LIABILITIES				
Circulation	186,932,000	195,748,000	214,779,000	155,208,000
Deposits	190,400,000	212,706,000	230,351,000	185,939,000
Due to other banks	45,157,000	52,290,000	57,814,000	51,170,000
Other liabilities	15,600,000	12,928,000	13,920,000	13,167,000
Aggregate of immediate liabilities	422,500,000	461,174,000	509,805,000	392,510,000
Aggregate of immediate assets	158,019,000	166,975,000	171,405,000	170,224,000
Gold and silver in the United States treasury depositories	27,181,000	22,706,000	20,066,000	10,221,000
Total specie in banks and treasury depositories	81,153,000	82,020,000	78,416,000	84,642,000

In 1857 another crash took place, and all the banks in the Union, from the Gulf of Mexico to the frontiers of Canada, again stopped payments.

This new crash affords, had that been necessary, a fresh and striking illustration of the truth of the principles we have endeavoured to establish in the course of this treatise; and it may be expected to awaken, if that be possible, the American people to a proper sense of the enormous abuses connected

with their banking system; and the necessity of placing it on an entirely new foundation.

The above account shows that there had been a rapid increase of discounts since 1851, and that increase was especially great in 1856, and went on augmenting down to August (1857). On the 8th of that month, the discounts and advances by the New York banks amounted to 122,077,252 dollars, the deposits in their possession being at the same time 94,436,417 dollars. This was the maximum of

See later table under UNITED STATES.

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both. On August 24, the Ohio Life and Trust Company, which carried on an extensive banking business in New York, stopped payments; and by so doing gave a severe shock to credit and confidence, which the suspension of two or three more banks turned into a panic. Notes being in a certain degree secured, the run upon the banks was principally for deposits. And to meet it they so reduced their discounts and advances, that on October 17 they amounted to only 97,245,826 dollars. This sudden and violent contraction necessarily occasioned the suspension of many of those mercantile houses that had depended on the banks for discounts. And it did this without stopping the drain for deposits, which had sunk on October 17 to 52,891,623 dollars, being a decrease of 41,546,784 dollars, in about two months. The universal stoppage of the banks was a consequence of these proceedings.

There seems to be no doubt that improvident advances on the part of the banks, and overtrading, were the main causes of the crisis. And it is important to observe that it is stated in the *Banker's Magazine* for November 1857 (p. 430), and other works of authority published in New York, that the improvidence referred to was, in part at least, occasioned by the too high interest allowed at New York on deposits on current accounts, or at call. This made the opulent bankers and capitalists in the Western States keep large balances at New York; and it tempted, and in some degree obliged, the bankers and money-dealers in the latter to make advances on questionable security, for the sake of the high interest payable on them. A system of this sort may be truly said to force capital into the hands of the least deserving, and to be a prolific source of wild speculation and overtrading. And whenever any serious check is given in any quarter of the Union to the process of inflation, the consequences are sure to be in the last degree disastrous; for, the greater number of the banks being very ill supplied with specie, they can resist no serious demand upon them either for payment of notes or deposits; and when one or a few stop, a panic is generated, which involves even the best managed banks in the common ruin.

A tendency to panics is, in fact, one of the peculiarities of the American system. Owing to the liability of the partners in banks being limited, the depositors in them, and the holders of notes not issued upon securities, having nothing to trust to, make all imaginable haste, when their suspicions are awakened, to save themselves by withdrawing their deposits, and cashing their notes. And hence the rapidity with which panics spread throughout the Union; and, we may add, that the slowness with which they are disseminated in this country arises from the contrary circumstances, from the confidence placed by the public in the unlimited obligation of the partners to make good all demands.

In the city of New York, the action of the foreign exchanges compels the banks to have always on hand a very considerable amount of specie. But the reader will hardly believe with what a small stock of coin the banks in the country parts of that state, and generally throughout the Union, contrive to carry on their business. In illustration of this statement, we may mention, that in June 1857 the fifty-six banks in the city of New York are reported in the official returns to have had 8,000,000 dols. notes in circulation, with an aggregate amount of no less than 12,000,000 dols. specie in their coffers. But at the same time that the city banks were

in this situation the circulation of the 255 country banks then existing in the state is returned at 24,000,000 dols., and their specie at only 1,200,000 dols., being only one-twentieth part of their notes afloat. And as these returns give only average results, it follows that, while some of the banks would have more, others would have proportionally less specie than this medium rate.

A notion, indeed, would appear to be gaining ground among the banks, in some parts of the States, that when they have given security for their issues, they have done quite enough, and that they may dispense with the troublesome obligation to pay them on demand. It appears, for example, that in the moral and religious state of Massachusetts there were, on July 7, 1856, no fewer than 135 banks (excluding those in Boston), which had 6,601,130 dols. of deposits, and notes in circulation amounting to 13,106,068 dols., while their specie on hand amounted to only 1,092,463 dols., or about one-thirteenth part of the circulation. And in other parts of the Union the stock of bullion was still more scanty. Thus, in Illinois, on July 6, 1857, the State Bank, with notes afloat to the amount of 725,000 dols., had, to meet all demands, 61,000 dols. in specie in her coffers; while the Grayville Bank, with a circulation of 471,556 dols., was provided with a supply of 18,951 dols. in specie; and the Raleigh Bank, with a circulation amounting to 248,000 dols., had a specie fund of no less than 1,000 dols.! It may be supposed, perhaps, that this would be the minimum amount of specie, but no. For some banks (such as the Bank of the Commonwealth, with notes afloat to the extent of 84,915 dols.) were honest enough to admit that they had a considerable circulation without being encumbered with a single dollar!

It is evident that a banking system of this sort has no better foundation than a house of cards. It is sure to fall to pieces at the first touch. The grand object of by far the greater number of the bankers is to get their notes into circulation; and as these are often issued for very small sums, cost nothing, and at the same time yield some eight, ten, or twelve per cent., or more, of interest, we need not wonder at the eagerness with which they pursue this object, or at their success, or the abuses to which it leads. The discount of bills at distant dates, and their renewal, make part of the system.

The security system followed in New York, even were it generally adopted, affords no guarantee against these evils. Instead of preventing, it really tends to encourage, over-issue, and it is impotent to insure a proper supply of bullion. All that it contemplates is the ultimate payment of the notes; but it does not prevent the bankruptcy of those by whom they are issued, and we have seen that it does not accomplish even that ultimate payment which it has exclusively in view. The whole system is rotten to the core; and unhappily, too, is deeply injurious to all those with whom the Americans have any dealings, as well as to themselves.

We are glad to be able to corroborate our views of these matters by the high authority of a former President of the United States. Mr. Buchanan, in his Message to Congress, delivered on December 8, 1857, makes the following conclusive statement: 'The first duty which banks owe to the public is to keep in their vaults a sufficient amount of gold and silver to insure the convertibility of their notes into coin at all times and under all circumstances. No bank ought ever to be chartered without such restrictions

on its business as to secure this result. All other restrictions are comparatively vain. This is the only true touchstone—the only efficient regulator of a paper currency—the only one which can guard the public against over-issues and bank suspensions. As a collateral and eventual security it is doubtless wise, and in all cases ought to be required, that banks shall hold an amount of United States or state securities equal to their notes in circulation, and pledged for their redemption. This, however, furnishes no adequate security against over-issues. On the contrary, it may be perverted to inflate the currency; indeed, it is possible by this means to convert all the debts of the United States and state governments into bank notes, without reference to the specie required to redeem them. However valuable these securities may be in themselves, they cannot be converted into gold and silver at the moment of pressure, as our experience teaches, in sufficient time to prevent bank suspensions and the depreciation of bank-notes.

It is truly stated by Mr. Buchanan, in the Message now referred to, 'that it is easy to account for our financial history for the last forty years. It has been a history of extravagant expansions in the business of the country, followed by ruinous contractions. At successive intervals the best and most enterprising men have been tempted to their ruin by excessive bank loans of mere paper credit, exciting them to extravagant importations of foreign goods, wild speculations, and ruinous and demoralising stock gambling. When the crisis arrives, as arrive it must, the banks can extend no relief to the people. In a vain struggle to redeem their liabilities in specie, they are compelled to contract their loans and their issues; and at last, in the hour of distress, when their assistance is most needed, they and their debtors together sink into insolvency.'

We have already seen that the real value of our exports to the United States in 1856 amounted to 21,476,000. But we have been too much in the habit of estimating our commercial prosperity by the magnitude of the exports, which is a most fallacious criterion. We have heard it stated by well-informed parties, and we believe the statement to be true, that but for the extreme inflation of the banking and credit system of the United States, the imports from England in 1858 would not have exceeded 15,000,000, or 16,000,000; and that those from France and other countries would have been reduced in something like the same proportion. And, had such been the case, production here would not have been unnaturally stimulated, and a fair profit would have been obtained from our exports, whereas they will now entail a large and most serious loss.

Besides the bankruptcy and ruin that periodically arise from such a system, it is at all times productive of the greatest inconvenience and trouble. Where there are so many separate and independent banks (about 1,400), the sphere of the influence and circulation of each is necessarily circumscribed; and when notes get to any considerable distance from the place where they are issued, especially when they get into a different state, they circulate with difficulty, and generally at a discount. But this is not the only evil by which their circulation is attended. Banks are every now and then suspending payments, or getting into discredit. And lists are regularly published of such defaulting or suspected banks, and of the rates of discount at which their notes are current, without which no traveller can leave

his house, and no shopkeeper can venture to transact any business. It is truly astonishing, seeing the extreme inconvenience resulting from such a state of things, that it should be tolerated even for a week. If the general Government be not sufficiently strong to suppress local issues, and to substitute in their stead a national paper issued on deposits of bullion, the public may, if they choose, rid themselves of the evil by refusing to accept payment otherwise than in coin. The banking interest is, however, so very powerful, and embraces so great a number of individuals, that we doubt whether, even with the co-operation of the general Government, the time has yet arrived for anything effectual being done for the amendment of the system. But the longer it exists, the more intolerable will it become; and in the end, no doubt, it will be suppressed. It forms, at present, the most gigantic abuse by which an intelligent people ever permitted themselves to be disgraced and oppressed.

Congress passed an Act, dated February 25, 1863, by which the privilege possessed by the several states was virtually superseded. The title of this Act is, 'An Act to provide a National Currency, secured by a pledge of United States Stocks, and to provide for the Circulation and Redemption thereof.'

The Act provides a new officer, called the *comptroller of the currency*, who is nominated by the secretary of the treasury for 5 years, subject to the approval of the president and senate. This officer is bound to make an annual financial report. The immediate object of the department is the circulation and redemption of the legal tender greenbacks; the indirect effect is the extinction of the States banks, and the establishment in their stead of national banks. Banks known by the name of national banks may now be founded by not less than five persons, who are bound to lodge duly legalised certificates with the public officer, specifying the name of the company, its place of business, the amount of its capital, which must not be less than 50,000 dollars in towns under 10,000 inhabitants, and in towns above that number, than 100,000; the names and residences of the shareholders, with the number of shares subscribed for by each, 30 per cent. of which must at least be paid up; and lastly the date at which the operations of the bank are to commence.

The comptroller, when he is satisfied that these conditions have been fulfilled, gives the proper authority to the company, under which they commence their operations. The company is bound to forward a certain amount of United States bonds to the treasury, in exchange for which they receive 'currency circulating notes in blank' registered and countersigned to 90 per cent. of the bonds deposited. The aggregate amount of these notes shall not exceed 350,000,000 dollars, 150,000,000 of which are circulated by the bank, the rest by the secretary of the treasury. The notes are 5, 10, 20, 100, 500, and 1000 dollars. The banks, in lieu of taxes on their circulation, pay 1 per cent. on the notes issued to them at the returns of July 1 and Jan. 1, 2 per cent. being recoverable in default.

The notes are receivable at par for taxes, excise, land sales, and all public debts, except customs and dividends on United States stock. Banks which fail to meet their obligations after protest made by creditors before a notary, are suspended by the comptroller, and the guarantee bonds forfeited. These are sold by public auction at New York, after thirty days' notice, and the creditors reimbursed.

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nine directors, all citizens of the United States, resident more than a year, and each possessed of 1 per cent. of the capital, or, in case it exceed 200,000 dollars, of 10 per cent. A bank must always possess to the amount of one-fourth of its circulation deposits in lawful money. The bank must not pledge its own stock in order to procure specie or notes.

Banks are required to make a detailed statement of their affairs at the beginning of each quarter, and a statement of their average circulation, deposits, lawful money, and balances available for the redemption of their circulating notes, at the beginning of each month. It is urged by the comptroller that this quarterly return is insufficient, and that it would be desirable that a full exhibit of the affairs of each bank should be required on the first Monday of each month. The first national bank was organised on June 20, 1863.

On Jan. 1, 1863, there were 507 Eastern banks, 491 in the Middle states, 147 in the South-east, 114 in the South-west, 207 in the North-western states—1,466. For nine years precedent and 1851, there were the following:—

Jan. 1.		Jan. 1.	
1851	- - 879	1858	- - 1,422
1854	- - 1,298	1859	- - 1,476
1855	- - 1,507	1860	- - 1,302
1856	- - 1,596	1861	- - 1,601
1857	- - 1,410	1862	- - 1,196

On Jan. 1, 1863, the capital was 405,000,000, the circulation 238,000,000, the deposits 598,000,000, the specie 101,000,000, of dollars.

In October, 1867, the number of national banks was 1,639, with a capital of 424,394,861 dols., having bonds on deposit, 340,675,000. The circulation of legal tender paper was 299,103,996.

Between June 20, 1863, and Oct. 1, 1867, only ten of these banks have failed, with liabilities to the public of 4,560,000 dols. The liquidation of these banks has led to the loss of only 1,000,000 dols. (Mr. Holland's *Report*, Dec. 1867.)

#### SEC. XIII.—BANKS FOR SAVINGS.

Banks established for the receipt of small sums deposited by the poorer class of persons, and for their accumulation at compound interest. They are managed by individuals who are supposed to derive no benefit from the deposits. All moneys paid into any savings bank established according to the provisions of the Acts 9 Geo. IV. c. 92, and 7 & 8 Vict. c. 83, are ordered to be paid into the Banks of England and Ireland, and vested in Bank annuities or Exchequer bills. The last-mentioned statute reduced the interest payable to the trustees of banks to 3l. 5s., and that payable to depositors to 3l. 0s. 10d. per cent. per annum; the difference of 4s. 2d. per cent. being intended to form a fund to defray the cost of management &c. No depositor can contribute more than 30l. exclusive of compound interest, to a savings bank in any one year; and the total deposits to be received from any individual are not to exceed 150l.; and whenever the deposits, and compound interest accruing upon them, standing in the name of any one individual, shall amount to 200l., no interest shall be payable upon such deposit so long as it shall amount to 200l. The commissioners for the reduction of the national debt have the disposal of the sums vested in the public funds on account of savings banks.

This system began in 1817; and on the 20th of November, 1857, there was due to depositors, including interest accruing on deposits, 35,255,722l. It farther appears that from the 6th of August, 1817, down to the 20th of November, 1857, the

public paid on account of interest and charges on the sums due to savings banks and friendly societies under the Act referred to, 28,852,013l. 8s. 5d., and that the dividends received during the same period on the stock and other public securities in which the commissioners for the reduction of the national debt invested the said sums, amounted to 26,077,961l. 19s. 2d., leaving a balance of 2,774,051l. 9s. 3d., which consequently may be said to be the sum which the system has cost the public. (*Parl. Paper*, No. 441, sess. 1858.) The reduction of the interest on deposits in 1844 from 2½d. to 2d. per diem contributed in some degree to diminish the loss to the public. But it is mainly owing to the circumstance that the contributions to savings banks, and consequently the investments on their account, are greatest when the country is prosperous and the funds high; and that the deposits are principally drawn out under the opposite circumstances, or when confidence is shaken and the funds are low. But, after all, the loss to the public is not very considerable; and it does not seem too great a price to pay for the maintenance of so advantageous a system.

That this is a true statement may be easily shown. In the metropolis, and many other parts of England, public banks do not receive small deposits, and until recently they did not pay any interest on them. And even in Scotland, where the public banks allow interest upon deposits, they do not generally receive less than 5l. or 10l. But few poor persons are able to save even this much, except by a lengthened course of economy. The truth, therefore, is, that until savings banks were established, the poorer classes were everywhere without the means of securely and profitably investing these small sums they are not unfrequently in a condition to save, and were consequently led, from the difficulty of disposing of them, to neglect opportunities for making savings, or, if they did make them, were tempted, by the offer of high interest, to lend them to persons of doubtful characters and desperate fortunes, by whom they were for the most part squandered. Under such circumstances, it is plain that nothing could be more important, in the view of diffusing habits of forethought and economy amongst the labouring classes, than the establishment of savings banks, where the smallest sums are accumulated at compound interest, and are paid, with their accumulations, the moment they are demanded by the depositors. The system has not yet received its full development. The want of perfect security operates as a serious drawback to its extension; but the magnitude of the deposits already received sets its powerful and salutary operation in a very striking point of view.

Savings banks are now regulated by the Act of 1863, 23 & 24 Vict. c. 87, and the various sections of the previous Acts which that statute left un repealed. These are 3 & 4 Wm. IV. c. 14 ss. 21, 22, 25, 28, 29, 30, 31, 32, 33, 34 & 35, and 17 & 18 Vict. c. 20, sec. 2 only of which is repealed.

*Purchase of Government Annuities by Depositors in Savings Banks.*—The Act 2 & 3 Wm. IV. c. 14, under the provisions of which depositors in savings banks were allowed to purchase Government annuities, was subsequently amended by the 7 & 8 Vict. c. 83, which Acts were afterwards consolidated and amended by the 16 & 17 Vict. c. 45; and the facilities for the purchase of such annuities were extended by the 27 & 28 Vict. c. 43. That these measures were benevolently intended, and that they may be productive of advantage to many individuals, cannot be doubted;

but we look upon all attempts, and particularly those made by Government, to get individuals to exchange capital for annuities, as radically objectionable, and as being subversive of principles which ought to be strengthened rather than weakened. [FUNDS; INTEREST AND ANNUITIES.]

Sec. 6 of the 27 & 28 Vict. c. 43 requires the construction of fresh tables of the annuities and insurances contemplated by the Act; and s. 14 empowers the Postmaster-General to authorise his officers to receive the moneys payable under the Act and under the 16 & 17 Vict. c. 45.

Persons desiring to purchase annuities or to effect insurances should apply for a proposal form at one of the post offices opened for the purpose. Instructions as to the mode of filling up the form are printed on it.

This serious defect and the constant defalcation of the trustees of savings banks led to the introduction into Parliament of a measure to remedy the evil by the establishment of Government savings banks, pledging the security of the state to depositors, and the Act of 1861, 24 Vict. c. 14, known as the Post Office Savings Bank Act, was passed with this object.

GENERAL POST OFFICE SAVINGS BANK.

The 24 & 25 Vict. c. 14 extends the facilities for the deposit of small savings, by making the General Post Office available for the purpose, and affording the direct security of the state to every

BANKRUPT AND BANKRUPTCY

depositor for the repayment of all money deposited, together with the interest due thereon.

Before the post office savings banks were established, 638 savings banks (in which number penny banks are, of course, not included) were open in the United Kingdom for the receipt of small savings. Of these, 355 were open but once in each week, 54 were open but once in each fortnight, several were open but once a month, and only 20 were open daily. Since the establishment of the 3,064 post office banks, all of which are open daily, the duration and the frequency of the term for business have been increased at many of the old savings banks. On the other hand, the trustees of many of the old savings banks have either closed or signified their intention to close the institutions under their control, in the belief that the post office banks afford the public a sufficient amount of accommodation.

The following statement gives the proportion of savings bank depositors to the whole population of the kingdom at each of four decennial periods, and shows that the rate of increase in the number of such depositors has, throughout the last 30 years, been greater than the rate of increase of population:—

On Nov. 29	1852, there were for	About
	every 100 persons	1½ savings bank depositors.
"	1812	" " 3½ " "
"	1852	" " 4½ " "
"	1862	" " 5½ " "

The following Table is appended in Illustration of the Condition of the Post Office Savings Banks on March 31, 1864.

Countries	Number of Depositors' Accounts to March 31 1864			Deposits		Withdrawals		Amount of Balances remaining at Credit of Depositors' Accounts
	Opened	Closed	Remaining Open	Number	Amount	Number	Amount	
England - - -	405,560	76,914	327,516	1,556,202	5,339,250 10 9	315,595	1,652,071 6 3	3,700,176 4 6
Wales - - -	11,713	3,162	11,551	65,420	174,323 5 10	8,961	55,295 12 6	121,029 13 4
England and Wales -	418,273	79,376	338,867	1,621,622	5,513,573 16 7	324,556	1,707,366 18 9	3,821,205 17 10
Islands - - -	923	193	726	3,797	10,829 3 4	579	3,500 17 0	7,598 6 4
Scotland - - -	23,588	4,705	18,683	91,846	468,173 11 6	16,126	60,312 1 10	107,231 12 8
Ireland - - -	18,015	4,276	13,659	78,569	249,946 3 1	16,312	89,109 15 0	160,736 4 4
Total - - -	461,505	88,550	372,955	1,795,171	5,955,714 17 9	357,176	1,856,282 16 7	4,097,432 1 2

Out of the 7,000,000L paid into the post office savings banks since their establishment in 1861, only 1,100,000L has been transferred from the older savings banks; thus it is obvious that the post office banks have created an almost entirely new business.

SEAMEN'S SAVINGS BANK.

With a view of inducing provident habits in the seamen and their families, and of providing for the safe custody and increase of their savings, the legislature has passed an Act empowering the Board of Trade to establish savings banks at suitable places within the United Kingdom for the benefit of seamen belonging to the mercantile marine, as well as their wives and families, the management and control of these banks being vested in the Board of Trade. Under the provisions of the Merchant Shipping and Seamen's Savings Bank Acts a department has been established in London at the Board of Trade as the Central Savings Bank, where all accounts of the depositors are kept. The shipping masters at the several ports are to act as its agents to receive and to pay deposits.

The Regimental Savings Banks are conducted under the War-Office, and those for the seamen of the Royal Navy under the Admiralty.

**BANKRUPT AND BANKRUPTCY.** In the general sense of the term, bankrupt is equivalent to insolvent, and is applied to designate any individual unable to pay his debts. Formerly in the law of England bankrupts formed that particular class of insolvents who were engaged in trade, or who 'sought their living by buying and selling,' and who were declared, upon the oath of one or more of their creditors, to have committed what the law had defined to be an act of bankruptcy. But the distinction between traders and non-traders was in most respects abolished by the Act of 1861, the 24 & 25 Vict. c. 134. At present, however, we shall merely lay before the reader a few observations with respect to the principles and leading provisions embraced in the law as to bankruptcy and insolvency; referring to the article **INSOLVENCY AND BANKRUPTCY** for some further observations on the subject.

All classes of individuals, even those who have least to do with industrious undertakings, are exposed to vicissitudes and misfortunes, the occurrence of which may render them incapable of making good the engagements into which they have entered, and render them bankrupt or insolvent. But though bankruptcy be most frequently, perhaps, produced by uncontrolled

causes, it is living by extravagance, the state of some frequent faith. But the individual as a very in enterprises, which being able to the money him, or the hands in an expenditure incoherent system of expect to rupty. on a system tracing that, in tr they had c in payment of duty when they are able speculate bankrupted way invol should be as the circ are often a difficult to any genera hence it is rupty have countries a not, perhaps against which be made.

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There is historians of debtor ever this barbaro republic is f some of wh that were o given to ere, subjecting t law, howev of Rome 427 the Twelve t then enacte cease to be a that the lat seize upon t auction in s subsequent s

causes, it is frequently also produced by persons living beyond their means, and by their repugnance to make those retracements which the state of their affairs imperatively demands; and sometimes and, we regret to have to add, not unfrequently, bankruptcy originates in fraud or bad faith. But, however it may be occasioned, whether by the misfortunes, the folly, or the fraud of the individual, it ought, *primâ facie*, to be viewed as a very grave moral offence. No man is justified in entering into engagements, or making promises, which he has not a reasonable prospect of being able to fulfil; nor is he justified in applying the money or loans that may have been made to him, or the property that may have come into his hands in the course of his business, to maintain an expenditure that decidedly exceeds his ordinary income or profits. Those who persevere in a system of this sort cannot, if they think at all, expect to arrive at any goal other than bankruptcy. They must know that they are carrying on a system of deception; that they are contracting debts which they can never pay; and that, in truth, they are as really swindlers as if they had offered fictitious bills or dock-warrants in payment of their bonds. And hence the difficulty of dealing with this subject. Misfortunes, when they really occur, or the failure of reasonable speculations, are easily dealt with; but all bankruptcies not at once accounted for in that way involve serious grounds of suspicion, and should be thoroughly sifted. Inasmuch, however, as the circumstances which end in bankruptcy are often of a very complicated character, and difficult to disentangle, it is not easy to lay down any general rules for dealing with them. And hence it is that the laws with respect to bankruptcy have differed very widely in different countries and periods of society, and that it is not, perhaps, possible to suggest any system against which pretty plausible objections may not be made.

The execrable atrocity of the early Roman laws with respect to bankruptcy is well known. According to the usual interpretation of the law of the Twelve Tables, which Cicero has so much eulogised (*De Orat.* lib. i.), the creditors of an insolvent debtor might, after some preliminary formalities, cut his body to pieces, each of them taking a share proportioned to the amount of his debt; and those who did not choose to resort to this horrible extremity were authorised to subject the debtor to chains, stripes, and hard labour; or to sell him, his wife, and children, to perpetual slavery *trans Tiberim!* This law, and the law giving fathers the power of inflicting capital punishments on their children, strikingly illustrate the ferocious and sanguinary character of the early Romans.

There is reason to think, from the silence of historians on the subject, that no unfortunate debtor ever actually felt the utmost severity of this barbarous regulation; but the history of the republic is full of accounts of popular commotions, some of which led to very important changes, that were occasioned by the exercise of the power given to creditors of enslaving their debtors, and subjecting them to corporal punishments. The law, however, continued in this state till the year of Rome 427, 120 years after the promulgation of the Twelve Tables, when it was repealed. It was then enacted that the persons of debtors should cease to be at the disposal of their creditors, and that the latter should merely be authorised to seize upon the debtor's goods, and sell them by auction in satisfaction of their claims. In the subsequent stages of Roman jurisprudence farther

changes were made, which seem generally to have leaned to the side of the debtor; and it was ultimately ruled that an individual who had become insolvent without having committed any fraud should, upon making a *cessio bonorum*, or a surrender of his entire property to his creditors, be entitled to an exemption from all personal penalties. (Terasson, *Histoire de la Jurisprudence Romaine*, p. 117.)

The law of England distinguished, down to a late period (1861), between the insolvency of persons engaged in trade and that of others, the former being treated with comparative indulgence. But despite the elaborate reasonings of Blackstone in its favour (*Comment.* book ii. ch. xxxi.), there were no really good grounds for this preference. Vast numbers of traders found their way into the Gazette without being the victims either of accidental losses or unavoidable contingencies. All that was most revolting in the worst cases of insolvency was equalled or surpassed by many of the cases in bankruptcy. Recklessness, improvidence, and the obtaining of loans or advances under false pretences, are as common in one class of society as another; and though this were not the case, the classes excluded from the benefit of the Bankruptcy Acts had to encounter as many risks as the others. There are few trades so hazardous as that of a farmer, and yet if he became insolvent he was not entitled to the same privileges he would have enjoyed had he been the keeper of an inn, or a commission agent! The injustice of this distinction is obvious; but, without dwelling upon it, it is clear that discharges, which were not given to insolvents, should be granted indiscriminately to all honest debtors. Being relieved from all concern as to his previous incumbrances, an insolvent who has obtained a discharge is prompted to exert himself vigorously in future, at the same time that his friends are not deterred from coming forward to his assistance. But no one, however favourably disposed, could venture to aid an insolvent who continued liable to his previous debts with a loan; and he was discouraged, even if he had means, from attempting to earn anything more than a bare livelihood; so that, while creditors did not, in one case out of a hundred, gain the smallest sum by this constant liability of the insolvent, his energies and usefulness were forever paralysed. We, therefore, are glad that the distinction between bankruptcy and insolvency has been practically abolished. Every case of a failure to meet one's engagements should be tried on its own merits. Improvidence, extravagance, and bad faith are equally objectionable in the case of traders and non-traders, and should be dealt with in precisely the same way.

The law of Bankruptcy is administered by a Court which sits in London, and by district courts in Manchester, Birmingham, and other large towns. The County Court Judges have also the powers of Commissioners of Bankruptcy, and may act as such.

The Acts which constitute what are called a bankruptcy are specified in clauses 70-85 of the Act 25 & 26 Vict. c. 134. They all involve either an inability or a disinclination to pay one's just debts. They consist principally of allowing oneself to be imprisoned for a debt, a trader for fourteen days, and a non-trader for two months; going or escaping abroad with intent to defraud creditors; filing a declaration of inability to meet one's engagements; suffering execution to be levied by seizure and sale of goods; traders executing a conveyance of their property to trustees for the benefit of the creditors &c.

An adjudication of bankruptcy takes place upon

the debtor or a creditor to the extent of 50l. presenting a petition to the court, which, on proof of the statement, adjudges the debtor a bankrupt. An official assignee is then appointed by the court to ascertain and take care of the debtor's property. The creditors also appoint an assignee, and the proceedings then take place which are specified in the Act, clauses 86-225, for realising and rateably dividing the property of the bankrupt among the creditors, or for otherwise winding up and terminating the bankruptcy.

Upon the bankrupt passing his last examination under the statute, the court appoints a meeting for considering whether a discharge should be granted to him, and the conditions under which it should be granted. Formerly discharges or certificates were of three kinds, but these distinctions are now abolished. The court is authorised, according to the estimate which it forms of the conduct of the bankrupt, to suspend his discharge, with or without protection from arrest, for such term as they may think fit, stating in the discharge the reasons for such suspension, and whether he has been imprisoned under the provisions of the Act. It is left to the creditors to determine whether any, and if any, what allowance shall be made to a bankrupt out of his estate.

And it is further enacted, that any bankrupt who has carried on trade by means of fictitious capital, or who could not have had, at the time when any of his debts were contracted, any reasonable or probable ground of expectation of being able to pay the same, or that, if a trader, he has, with intent to conceal the true state of his affairs, wilfully omitted to keep proper books of account, or, whether trader or not, that his insolvency is attributable to rash and hazardous speculation, or unjustifiable extravagance in living, or that he has put any of his creditors to unnecessary expense by frivolous or vexatious defence to any action or suit to recover any debt or money due from him, the court may either refuse an order of discharge, or may suspend the same from taking effect for such time as the court may think fit, or may grant an order of discharge subject to any condition or conditions touching any salary, pay, emoluments, profits, wages, earnings, or income, which may afterwards become due to the bankrupt, and touching after-acquired property of the bankrupt, or may sentence the bankrupt to be imprisoned for any period of time not exceeding one year from the date of such sentence.

But, despite these and other penalties embodied in the Act, we are strongly impressed with a conviction that bankruptcy is treated in this country with too much indulgence. The offences specified in the Act are mostly of a very grave character, and some of them deserve to be very severely treated. But it so happens that it is often very difficult to establish by the evidence of witnesses some of the least justifiable and most common causes of bankruptcy, such as extravagant living, which is its great source, improvident speculation, and so forth. And we doubt whether any such evidence should be required. Bankruptcy, or the failure of individuals to fulfil their engagements, is, and should be considered a very serious offence. But, like other offences, it is of various degrees of magnitude, and may arise from very different causes. There is a wide difference between bankrupts who pay their creditors 10s., 15s., or 18s. per pound, and those who pay them only 1s. or 2s. per ditto, and it is not reasonable that they should be treated in the same way. Innumerable accidents and disappointments may occur to hinder a man from meeting his engagements; but if he have lived within his income and properly proportioned

his speculations to the extent of his capital, it is difficult to see how he should be unable to pay a dividend of less than 10s. or 12s. per pound on his debts. And supposing this to be a correct view, it might be safely enacted that all bankruptcies in which the estates realised less than 10s. per pound of dividend should *ipso facto* be held to be fraudulent, or caused by improper proceedings on the part of the bankrupts; and that they should be dealt with accordingly, unless they succeeded in satisfactorily establishing the propriety of their conduct. In cases where the dividend exceeded 10s., it might, as at present, be left to the creditors to arraign the proceedings of the bankrupts in opposing their discharge.

We do not well see how a system of this sort could be justly objected to. Those who make improvident speculations, or who pursue a line of conduct which involves them deeper and deeper in debt and difficulties, cannot fail to know that they must necessarily become bankrupts; and, if they only injured themselves, few would regret the hardships which they might suffer. But they are sure to injure others—the savings on which the industrious and frugal had to depend being often squandered by the most unworthy parties, and on the most unworthy objects. Bankruptcy, when not occasioned by uncontrollable or unlooked-for causes, is, in truth, a great crime. Individuals who systematically contract debts which they have no reasonable prospect of being able to pay—who, to obtain loans, misrepresent the true state of their affairs, and pervert them, when obtained, to spendthrift or dishonest purposes—are one of the worst varieties of swindlers. And the vast extent to which bankruptcy is carried, the extravagance and bad faith of many bankrupts, and the frequent non-existence and inconsiderable amount of the dividends, show the extent and malignancy of the disease, and the propriety of taking measures for its abatement.

The policy of imprisoning for debt, when nothing unfair or improper is involved in its contraction, is not a little questionable. Notwithstanding the deference due to the authorities who have vindicated this practice, we confess we are unable to discover anything very cogent in the reasonings advanced in its favour. Provided a person in insolvent circumstances intimate his situation to his creditors, and offer to make a voluntary surrender of his property to them, he has, supposing he has acted honestly, done all that should be required of him, and ought not to undergo any imprisonment. If, indeed, he have deceived his creditors by false representations, or have grossly misconducted himself, or have endeavoured to convey away any part of his property, then, undoubtedly, he should be subjected to the pains and penalties attached to swindling; but when such practices are not alleged, or cannot be proved, sound policy, we apprehend, would dictate that creditors should have no power over the persons of their debtors, and that they should be entitled only to their effects. The maxim *carcer non solvit* is not more trite than true. It is said that the fear of imprisonment operates as a check to prevent persons from getting into debt, and so no doubt it does. But then it must, on the other hand, be borne in mind, that the power to imprison tempts individuals to trust to its influence to enforce payment of their claims, and makes them less cautious in their enquiries as to the condition and circumstances of those to whom they give credit. The carelessness of tradesmen, and their extreme earnestness to obtain custom, are, more than anything else, the great causes of insolvency,

and the power and encourage an individual which he is speculation. done so, be all. If he wished should not ha with him only tions are, on voluntary; an a debtor who l representations only to blame. It is pretty a prisonment in

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The Acts of Pa is administered i explained by 20 by 23 & 24 Vict Bankruptcy in Bankruptcy in rupty is general before the Act of traders and non the same judges and insolvency. The following returns, give th between April 11, the rates of comp

Number of Compo sition paid be 11, 1866.

Number of Deeds	Rate per Pound
2	4
1	0 2
1	0 2
1	0 6
1	0 6
1	0 8 1/2
2	0 9
142	1 0
6	1 3
2	1 4
31	1 6
1	1 8
117	2 0
1	2 1
2	2 3
1	2 6
297	2 8
3	2 10
1	2 8
86	3 0
1	3 4
11	3 6
17	3 6

and the power of imprisoning merely tends to foster and encourage these habits. If a tradesman trust an individual with a loan of money or goods, which he is unable to pay, he has made a bad speculation. But why should he, because he has done so, be allowed to arrest the debtor's person? If he wished to have perfect security, he either should not have dealt with him at all, or dealt with him only for ready money. Such transactions are, on the part of tradesmen, perfectly voluntary; and if they place undue confidence in a debtor who has not misled them by erroneous representations of his affairs, they have themselves only to blame.

It is pretty evident, too, that the efficiency of imprisonment in deterring individuals from running

into debt has been greatly overrated. Insolvents who are honest must have suffered from misfortune or been disappointed in the hopes they entertained of being able, in one way or other, to discharge their debts. The fear of imprisonment did not greatly influence such persons; for when they contracted debts, they had no doubt of their ability to pay them. And though the imprisonment of bonâ fide insolvents be abolished, it could give no encouragement to the practices of those who endeavour to raise money by false representations; for these are to be regarded as swindlers, and ought as such to be subjected to adequate punishment. [CONTINUED.]

The following return sets these statements in the clearest point of view:—

Return for the Year ending October 11, 1863, of Judicial and Financial Matters transacted under (Parl. Paper, No. 31, Sess. 1864) the Bankruptcy Act of 1861.

	Lon. District Court	Country District Courts	County Courts	Total
Number of adjudications of bankruptcy	2,919	1,572	3,819	8,470
On petition of a creditor	216	315	83	614
On petition of the debtor	2,702	1,257	3,735	6,143
By registrars at the prisons	—	215	426	667
On petitions in form of pauper's	490	13	277	780
On judgment debtor summonses	5	—	—	5
Number of adjudications where the debts of the bankrupts exceeded 300l.	1,683	1,557	184	3,524
Number where the debts did not exceed 300l.	1,266	15	3,665	4,916
Discharges granted	2,347	1,399	3,115	6,791
suspended	114	—	112	226
refused	3	3	111	120
Total amount of gross produce realised from the several bankrupts' estates	£ 185,185 14 3	£ 458,491 17 5	£ 51,990 17 11 1/2	£ 694,598 0 7 1/2
Total amount realised by creditors's assignees	£ 121,085 3 3	£ 287,625 8 2	£ 11,560 12 5 1/2	£ 420,271 3 10 1/2
Total amount realised by official assignees	£ 61,100 11 0	£ 170,728 9 3	£ 45,650 5 6 1/2	£ 277,479 5 9 1/2
Number of cases in which a dividend was made—	116	541	339	996
there was no dividend	2,762	1,132	1,712	5,606
dividend was under 1s. 6d.	53	299	137	489
2 6 and under 5 0	34	139	111	284
5 0 " 7 5	16	81	41	136
7 5 " 10 0	3	20	16	41
10 0 " 15 0	7	19	19	43
15 0 " 20 0	3	6	4	13
20 0 " —	—	9	11	20

The Acts of Parliament under which bankruptcy is administered in Scotland are 19 & 20 Vict. c. 29, explained by 20 & 21 Vict. c. 19, and amended by 23 & 24 Vict. c. 19. (Mr. Murdoch's Law of Bankruptcy and Insolvency.)

Bankruptcy in Ireland.—The Irish law of Bankruptcy is generally identical with that of England before the Act of 1861. The distinction between traders and non-traders is still retained, though the same judges adjudicate in cases of bankruptcy and insolvency.

The following tables, extracted from official returns, give the number of deeds registered between April 11, 1865, and April 11, 1866, with the rates of composition paid:—

Number of Composition Deeds and Rates of Composition paid between April 11, 1865, and April 11, 1866.

Number of Deeds	Rate per Pound	Number of Deeds	Rate per Pound	Number of Deeds	Rate per Pound
2	2 6	2	2 6	29	2 6
0	3 0	1	3 0	11	3 0
15	0 6	112	4 11	225	10 0
1	0 8 1/2	1	4 11	2	10 0
1	0 8 1/2	1	4 2	19	11 0
142	0 9	10	4 3	1	11 6
16	1 3	1	4 6	23	12 0
4	1 3	1	4 9	26	12 5
51	1 4 6	528	5 0	5	13 0
1	1 6	1	5 1	5	13 4
117	2 0	4	5 6	9	14 0
1	2 3	60	5 9	34	15 0
97	2 6	7	6 0	2	16 0
397	2 8	9	6 6	1	16 6
1	2 11	91	7 0	1	17 6
86	3 0	37	7 6	3	18 0
1	3 1	105	8 0	3	19 0
11	3 6	41	8 6	1	19 6
17	3 6	11	8 9	126	20 0
				2,380	

Number of Deeds registered between April 11, 1865, and April 11, 1866.

Date	Deeds of Assignment		Composition Deeds		Deeds of Inspectors'hip	
	Number	Gross Amount of Unsecured Debts	Number	Gross Amount of Unsecured Debts	Number	Gross Amount of Unsecured Debts
From April 11, 1865 to Oct. 11, 1865	1,207	£ 3,861,390	1,129	£ 3,386,211	40	£ 3,611,161
From Oct. 11, 1865 to April 11, 1866	1,219	£ 3,213,714	1,191	£ 2,125,679	37	£ 678,829

Bankruptcy is considered in France as simple and fraudulent, bankruptcy being distinguished from insolvency.

The French law of bankruptcy in its characteristic particulars has been admitted into many European countries, and appears to make progress. That of the United States agrees generally with the English law of 1849, which, as we have seen, is stricter than the present law of England.

BARCALAO or BACALAO. The Spanish name for cud.

BARCELONA. The capital of Catalonia, and the principal town of Spain, on the Mediterranean, lat. 41° 22' 58" N., long. 2° 8' 11" E. It is a strongly-fortified, well-built city. The population, which has rapidly increased, amounted, in 1857, to 242,015. Barcelona is eminently distinguished in the history of the middle ages for the zeal, skill, and success with which her citizens prosecuted commercial adventures at a very early period. She would seem also to be entitled to the honour of having compiled and promulgated the

famous code of maritime law known by the name of the *Consolato del Mare*; and the earliest authentic notices of the practice of marine insurance and of the negotiation of bills of exchange are to be found in her annals. For proofs of this, see ISSUJANSEF, MARITIME LAW, &c. The *Memorias Historicas sobre la Marina, Comercio &c. de Barcelona*, by Capmany, in 4 vols. 4to. is one of the most valuable and authentic works on the commerce, arts, and commercial and maritime legislation of the middle ages. The first volume is the most interesting, at least to the general reader; the others consisting principally of extracts from the archives of the city. There is a brief but pretty good account of the early trade of Barcelona, drawn principally from Capmany, in the work of Depping, *Histoire du Commerce entre le Levant et l'Europe depuis les Croisades &c.* tom. i. ch. v. Catalonia has continued, amidst all the vicissitudes it has undergone, to be the most industrious of the Spanish provinces. Many very extensive manufactures, especially of silk and cotton, have been established in Barcelona, and within the last 10 or 12 years an extraordinary degree of enterprise has been infused into all classes of the population. In 1865 the town had no fewer than 7 banking companies, 10 maritime insurance companies, 5 railway companies, 4 steam navigation companies, 3 canal companies, 3 gas companies &c. The Bank of Barcelona, which was founded in 1844, has a capital of 80 millions of reals, of which 20 millions have been paid up. It has been well managed; and its success has led to the formation of other banking and discount companies. Another company recently formed deserves special mention, being for the establishment of an electric telegraph to connect Barcelona with France and Europe generally on the one side, and with Madrid through Tarragona on the other. It is true that some of the many companies formed of late years have been wound up; but others continue in a flourishing state. The railways which centre in the city, and are being extended into the interior, will be of infinite advantage to its industry and trade.

The Harbour, which is naturally bad, is formed by a mole or jetty, which has recently been a good deal enlarged, running out to a considerable distance in a southerly direction, and having a lighthouse and some batteries near its extremity. The depth of water within the mole is from 18 to 20 feet; but there is a bar between the mole and Monjouch, which has frequently not more than 10 feet water; and which would, it is believed, entirely shut up the harbour, were it not occasionally lowered by means of dredging machines. Vessels in the harbour moor at a short distance from the mole: where, though exposed to the southerly gales, they are so well protected that no accident of any consequence has taken place since the dreadful storm of 1821. Large ships must anchor outside the mole, and in winter are much incommoded by winds. Vessels entering the harbour are under no obligation to take a pilot on board; but they are always in attendance, and it is generally deemed safest to have their assistance in passing the bar.

The port of Barcelona is being considerably increased by the carrying out of a sea-wall from the shore under Fort Monjouch and by another prolonging the old extremity of the mole so as to approach at some distance, leaving a good entry. Much of this work has been effected already, and which will enable vessels to ride safely within the port, but the works are far from terminated; when concluded, the port will be capacious and safe, though as for its depth much dredging will be re-

quired to keep it clean and useful. The depth of water is not above 20 feet.

The principal articles of import are raw cotton; sugar, coffee, cocoa, and other colonial products, principally from Cuba and Porto Rico; salted fish, hides, and horns; iron and hardware; machinery, coal &c. have lately been imported in large quantities, principally from England. Most species of manufactured goods are prohibited; but it is needless to add that they are notwithstanding largely introduced into this as into most other parts of Spain. The trade with the colonies, France, and the coasting trade is active and increasing. Catalonia being the grand seat of the Spanish cotton trade, the imports of raw cotton are very considerable. In proof of this, it may suffice to mention that in the year ending June 30, 1858, no fewer than 80,043 bales (36,805,962 lbs.), worth 4,516,244 dolrs., were shipped from the United States for Spain on the Mediterranean, that is, for Barcelona; at the same time that additional supplies were obtained from Brazil and other parts. 50,000 to 100,000 persons, mostly in Catalonia, are said to be dependent on the manufacture. The raw cotton is principally imported in Spanish ships. The direct imports from England, ex. coal, are not very considerable, and the exports to her still less.

The chief exports are wrought silks, cotton stuffs, soap, fire-arms, paper, hats, laces, ribands, steel &c. The principal articles of native produce that Catalonia has to export are most conveniently shipped at Villanova, Tarragona, and Salon. They consist of wine, brandy, nuts, almonds, cork bark, wool, fruits &c. A good deal of brandy is sent to Cadiz and Cette: most part of the former finds its way into the wine vaults of Xeres; and the latter, being conveyed by the Canal of Languedoc to the Garonne, is used in the preparation of the wines of Bordeaux. From 25,000 to 30,000 bags of nuts are annually sent from Tarragona to England. Tarragona also exports about 12,000 bags of almonds.

In the years 1861-2-3, the tonnage which cleared from Barcelona was 195,607 with cargoes; 74,393 in ballast; 177,712 with cargoes; 63,716 in ballast; 307,905 with cargoes; 71,813 in ballast; while that which entered was 240,923 with cargoes; 5,666 in ballast; 237,615 with cargoes; 5,795 in ballast; 344,555 with cargoes; 4,793 in ballast respectively. The imports and exports and merchandise cleared coastwise were in value as follow:—

	1861	1862	1863
Imports - - -	reales 265,309,789	reales 342,969,187	reales 405,872,631
Exports - - -	146,065,104	149,111,380	139,205,919
Coasting trade, entered	435,295,012	367,961,968	334,799,000
cleared - - -	471,931,761	369,612,814	359,286,153
Total - - -	1,141,701,206	1,339,758,239	1,432,909,223
	214,111,012	215,597,582	214,578,692

The trade of Barcelona is by far the largest of any Spanish port, and a spur has been given to it by the opening of the railway which now connects it with Madrid, and the most important towns of Spain, and with the rest of Europe.

*Custom-house and Warehousing Regulations* same as at ALICANT.

Port charges have been reduced, and are now nearly identical for Spanish, British vessels, and most of the Foreign, being uniformly exacted on Tonnage.

*Port dues now paid by British vessels.*—Anchorage at 1 real (2½d.) per ton, Spanish measure; lighthouses, 1 real per ton; navigation dues, one-eighth of a real per Spanish hundredweight; of cargo taken in or discharged.





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*Extra dues paid for support of works carried out to improve the port.*—Anchorage,  $\frac{1}{2}$  real per ton; lighthouses,  $\frac{1}{2}$  real per ton; navigation,  $\frac{1}{2}$  real per Spanish cwt.; and health dues,  $\frac{1}{2}$  real per ton on arrivals from European ports, and 1 real on those from America.

*Commission* is at the rate of 2 $\frac{1}{2}$  per cent. on goods shipped, and 2 per cent. on those received on consignment. Goods are sometimes sold for ready money, and sometimes on credit for 3 or 4 months.

*Taxes.*—At the Custom-house, real taxes only are allowed; and the net weights must be rigorously manifested. A surplus of 3 per cent. is, however, allowed to cover any inexactness in the net portion between foreign and Spanish weights; but if the weight of any parcel should turn out to be 3 per cent. greater than is marked in the manifest, the surplus is seized, at the same time that the importer loses the benefit of the 3 per cent. allowed by law, and becomes liable to the penalties of smuggling. The taxes usually allowed by merchants are, on Havannah sugar 13 per cent.; on coffee 2 per cent., exclusive of the barrel, bag &c. in which it is contained; on cocoa and pepper 2 per cent.; Pernambuco cotton 4 lbs. per bale; other cotton 1 lb. per cwt.

*Money.*—Accounts are kept in *libras* of 20 *suelos*, 240 *dineros*, or 480 *mallas*. The *libra* is likewise divided into *reales de plata Catalan*, of 3 *suelos* each; and into *reales arditos* of 2 *suelos* each. Hence, 67 of the former, or 10 of the latter, = 1 *libra Catalan*.

The *libra Catalan* is = 2s. 4d. sterling nearly.

The *peso duro*, or hard dollar, is valued at 37 $\frac{1}{2}$  *suelos Catalan*, eight such dollars making 15 *libras*.

*Weights and Measures.*—There are endless discrepancies amongst the weights and measures in the different Spanish provinces, and there is a very great discrepancy in the accounts of the authors who have written upon them. The following statements are taken from Nelkenbröcher:—

The quintal is divided into 4 *arrobas*, or 104 lbs. of 12 oz. to the pound. The pound = 6,174 English grains = 4 kilog. = 8325 $\frac{1}{6}$  av. of Holland. 100 lbs. of Barcelona = 88·215 lbs. avoirdupois.

The yard, named *cana*, is divided into 8 *palmos*, of 4 *quartos*, and is = 21 inches very nearly. Hence, 100 *canas* = 53·499 metres = 77·5 yards of Amsterdam = 58·514 English yards.

The *quartera*, or measure for grain, is divided into 12 *cortanes* and 48 *picolins*. 100 *quarteras* = 23·536, or 25 $\frac{1}{2}$  Winchester quarters.

The *carga*, or measure for liquids, is divided into 12 *cortanes* or *arrobas*, 24 *cortarinas*, and 72 *mitadellas*. It is = 32·7 English wine gallons. 4 *cargas* = 1 *pipe*. The pipe of Majorca oil contains 107 *cortanes*.

(We have derived these details from various sources; but principally from a report obligingly given us for this work by Mr. Baker, and from Inglis's *Spain* in 1830, vol. ii. pp. 384-387, 362.)

**BARILLA** (Dutch, *soda*; Fr. *soude*, *barille*; Ger. *soda*, *barilla*; Ital. *barriglia*; Port. *solda*, *barrilha*; Russ. *socianka*; Span. *barilla*; Arab. *kali*). Carbonate of soda [ALKALIES] is found native in Hungary, Egypt, and many other countries. It is largely used by bleachers, manufacturers of hard soaps, glass-makers &c. The barilla of commerce consists of the ashes of several marine and other plants growing on the sea-shore. The best, or Alicant barilla, is prepared from the *Salsola soda*, which is very extensively cultivated for this purpose in the *huerta* of Murcia, and other places on the eastern shores of Spain. (Townsend's

*Travels in Spain*, vol. iii. p. 195.) The plants are gathered in September, dried and burned in furnaces heated so as to bring the ashes into a state of imperfect fusion, when they concrete into hard, dry, cellular masses of a greyish blue colour. Sicily and Teneriffe produce good barilla, but inferior to that of Alicant and Carthagena. Kelp, which is a less pure alkali, is formed by the incineration of the common sea-weed. [KELP.]

The Saracens established in Spain seem to have been the first who introduced the manufacture of barilla into Europe. They called the plants employed in its preparation *kali*; and this, with the Arabic article *al* prefixed, has given rise to the modern chemical term alkali. Prime quality in barilla is to be distinguished by its strong smell when wetted, and by its whitish colour. Particular attention should be paid to have as little small or dust as possible.

The manufacture of artificial *soda* (*soude*; *factive*), now very extensively carried on, occasioned an extraordinary decline in the imports of barilla, the quantity entered for home consumption in 1831, amounting to 237,712 cwt., having been reduced in 1841 to 47,380 cwt. Considerable quantities are imported from Teneriffe, Alicant in Spain, Sicily, the United States, and Russia. Thus, of 1449 tons imported in 1857, 819 came from the Canary Islands, 158 from Italy (Sicily), 122 from the United States, and 103 from Russia. The duty on barilla, after being reduced in 1842 from 40s. 10s. a ton, was wholly repealed in 1845. But this judicious measure has not had so much influence over the consumption of the article as was expected.

**BARK.** The outer rind of trees. There is an immense variety of barks known in commerce as cinnamon, Peruvian bark, oak bark, quercitron &c. The term *bark* is, however, generally employed to express either Peruvian bark, or oak bark and quercitron, and it is these only we here notice.

Peruvian bark (Fr. *quinquina*; Ger. *kronchina*; Dutch, *china-bast*; Span. *quina*, *quenquina*; Lat. *quenquina*, *Cortex Peruvianus*). There are several sorts of this bark known in commerce. The first sort is the *pale bark* of the shops. It is the original *cinchona* of Peru, and is the produce of different varieties of the *Chinchona officinalis* of Linnæus. The sorts called *Condaminca*, *Bonplandiana* and *Crispa* or *Crespilla* are now naturalised in India and flourishing on the higher ranges of the Neilgherries, and the *C. Succirubra* and *C. Calisaya*; and are also largely propagated in the Government plantations, with every prospect of successful results in India, Ceylon, and the West Indies. This sort is usually imported in chests covered with skins, each containing about 200 lbs. well packed, but generally mixed with a quantity of dust and other heterogeneous matter. It consists of pieces 8 or 10 inches long, some of them being scarcely one-tenth of an inch thick, singly and doubly quilled or rolled inwards, the quills generally being in size from a swan's quill to an inch and a half. It is internally of a pallid fawn or cinnamon hue, but approximates, on being moistened, to the colour of a pale orange. When in substance it has scarcely any odour, but during the decoction the odour is sensible and agreeably aromatic. The taste is bitter, but not unpleasant, acidulous and austere.

The second sort, or *red bark*, is obtained from the *C. Succirubra* growing on the Andes, chiefly in Ecuador in the forests of Chimborazo, where the true *red bark* is known as the '*Cascarilla roja*,' and its production appears at present to be confined to the district lying between 1° and 2°

S. lat. and 30' and 40' W. long. of Guilo. It is, however, supposed to have within a recent period existed in all the valleys of the Andes which debouch in the Guyanulian plain, but in most of these districts it has been completely exhausted. The red bark is imported in chests containing from 100 to 150 lbs. each. It consists of various sized pieces, most of them flat, but some partially quilled or rolled. The internal part is woody, and of a rust red colour; it has a weak peculiar odour, and its taste is much less bitter, but more austere and nauseous than that of the other barks.

We would refer for a description of the mode of collecting the bark to a report by Mr. Spruce to the Under-Secretary of State for India (*Parl. Papers, Return E. India Cinchona Plant*, 1863, No. 118, p. 65 et seq.) with reference to his expedition to the red bark tree districts, Limon, the situation to which Mr. Spruce's observations refer, is at the junction of a stream of that name with the river Chasuan.

The entire quantity of the red bark collected in 1859 did not reach 50 quintals, and it was sold for 43 dols. the quintal. In 1860 no red bark at all was got out, so that the trade in it is well nigh extinct.

The third sort of yellow bark of the shops is obtained from the *Cinchona Calisaya*, growing in Bolivia and the Peruvian province of S. Carabaya. It is imported in serons, containing 6 arrobas of about 150 lbs. each, and consists of pieces 8 or 10 inches long, some quilled but greater part flat. The interior is of a yellow colour passing to orange. It has nearly the same odour in decoction as the pale; the taste is more bitter and less austere, and it excites no astringent feeling when chewed. The *C. Calisaya* is used in the manufacture of sulphate of quinine and is consequently of great commercial value. The forests of New Granada yield several sorts of bark used in quinine manufactures. The most valuable of these are the *C. pitaya* and the *C. lancifolia*, which have recently been imported into Europe in great quantities. According to Dr. Macpherson's account of the medico-botanical history of cinchona, it was first introduced into Europe in 1540, and it is stated that the value of Peruvian bark as a medicine was first made known in connection with the cure of the Countess of Chinchon, whence the name Cinchona or more properly Chinccona.

The quantity exported from Payta (the port of Loxa) in 1860 was 1,400 quintals of pale bark at 30 dols. the quintal. The quantity exported from Arica in 1859 was 1,926 quintals, valued at 17,341, and from January to November 1860 it was 3,888 quintals valued at 35,000. From Islay in 1863 the quantity exported was 3,615 quintals, valued at 100 dols. per quintal, or 361,500 dols. The bark from Islay is yellow bark.

The exhaustion of the Bolivian bark tree forests led the Government of Bolivia to establish in 1859 a 'bank of bark'; but as this institution was granted a monopoly of the export of bark, the result was, as stated by Dr. Forbes Royle, rather to enhance the price than to continue the preservation of the supply.

The increasing cost of the article and the danger arising from the reckless system of destruction of the bark-trees pursued by the owners of the Bolivian forests, added to the great cost of the supply of the article for the British service in India (stated by Mr. Markham to have been 53,000*l.* in the years 1857-8), induced the British Government to endeavour to introduce the cultivation of the Cinchona in the hill districts of British India. Dr. Forbes Royle had recommended its introduction in 1835,

in his work on Himalayan Botany, suggesting that it might be cultivated on the slopes of the Neilgherries, and he again recommended that endeavours should be made with the same object in 1847, and his recommendations were strongly supported by Dr. Falconer, superintendent of the Hon. East India Company's Botanic Gardens in 1852. At length, in 1859, Mr. Clements Markham was instructed by Lord Stanley, then Secretary of State for India, to proceed to Peru with a view to procure seeds and plants of the Cinchona and to convey them to India, to which country, in conjunction with Mr. Spruce, a botanist, and Mr. Cross, a practical gardener, he succeeded, after innumerable difficulties owing principally to the jealousy of the Peruvian Government, in conveying upwards of 400 plants of the *C. Calisaya*, where they were planted at the nursery at Ootacamund. These plants were, however, reported as all dead at the end of 1860, but Mr. Cross succeeded in arriving in April 1861, with 463 plants of the *C. succirubra* and six plants, brought from England, of the *C. Calisaya*, *C. canicifolia*, and *C. Paludiana*. From this stock the present Cinchona plantations in India have been established with results so successful, that the number of plants growing on the Neilgherries in February 1863 was as follows:—

Number and Distribution of Cinchona Plants on the Neilgherries, on February 23, 1863.

Botanical Names	Commercial Names	No. of Plants	Value per Pound of Dry bark in the London Market
1. <i>C. succirubra</i>	Red bark	48,989	6 to 8 3/4
2. <i>C. Calisaya</i>	Yellow bark	1,180	10 1/2 to 7 0
3. <i>C. Uruzinga</i>	Original Loxa bark	927	10 1/2 to 7 0
4. <i>C. Condaminea</i>	Select crown bark	51,012	10 1/2 to 6 0
5. <i>C. Cerepita</i>	Fine crown bark	825	10 1/2 to 6 0
6. <i>C. lancifolia</i>	Pitaya bark	11	8 1/2 to 10
7. <i>C. nitida</i>	Genuine grey bark	8,514	8 1/2 to 9
8. <i>C. species without name</i>	Fine grey bark	2,595	8 1/2 to 10
9. <i>C. micrantha</i>	Grey bark	8,346	8 1/2 to 9
10. <i>C. Peruviana</i>	Finest grey bark	2,817	8 1/2 to 10
11. <i>C. Paludiana</i>	Unknown	425	Wordless
Total number of plants		153,739	

The Dutch Government attempted to introduce the Cinchona into their East Indian possessions in 1852, and Mr. Hasskarl succeeded in 1854 in introducing it into Java, where the plants are now thriving. The principal plantations are situated on the Kending and Malabar range of mountains in the southern portion of the island.

The quantity of Peruvian bark imported into Great Britain in 1866 was 13,797 cwt., valued at 109,477*l.*

The above has been compiled chiefly from information furnished by J. E. Howard, Esq., the author of the *Nueva Quinologia de Paron*, and from *Parl. Paper* 118, 1863, East India Cinchona. See also Dr. Weddell's *Quinologia*.

The encarrilleros or peelers usually destroy the tree by stripping off its bark as it stands; whereas were they to cut it close to the ground, young shoots would spring up, which would in their turn become fit for peeling in from six to twenty years. This reckless destruction, coupled with the enormous demand for quinine in Europe, has occasioned so great a scarcity, that the authorities in Upper Peru contemplate placing an interdiction on the exportation of bark for a series of years. It is asserted that 800 to 900 trees are cut down in order to furnish 11,000 pounds of bark, and that 25 to 50 ounces, 1/2 to 3 per cent., are

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the two extremes of quinine from 100 pounds. The sum expended by the Indian Government in the purchase of this valuable medicine is stated to exceed five lacs of rupees annually. Madras consumes, on an average, 2,090 lbs. of bark and 451 of quinine. Great Britain imports annually about 400,000 lbs. of bark, and retains towards 120,000 lbs. for home consumption.

The following represents the imports &c. of Peruvian bark in the year 1863:—

	Quantity	Value	Per Cwt.
	cwt.	£	£ s. d.
From St. Thomas	1,100	7,757	5 10 10
United States: North Atlantic Ports			
New Granada	768	4,292	5 11 9
Pera	6,519	36,431	5 11 4
Chili	12,600	69,118	5 9 4
Other Parts	415	2,175	5 11 3
	1,787	9,850	5 10 3
Total	23,559	129,915	

The re-exports of bark from Great Britain to foreign countries in 1865 amounted to 14,975 cwt., of which 5,517 cwt. went to Holland and 3,307 cwt. to France. Sulphate of quinine is manufactured in great quantities at Stuttgart in Württemberg, and in France, from which sources the continent of Europe is largely supplied.

The superior cheapness of the German and French quinine is probably in some degree owing to the lower cost of the alcohol used in its production.

**Quercitron Bark.**—We are indebted for the discovery and application of the useful properties of quercitron to Dr. Bancroft, who obtained a patent for his invention in 1775; but the American war breaking out soon after, deprived him of its advantages. In consideration of this circumstance, Parliament passed, in 1785, an Act (25 Geo. III. c. 38) securing to him the privileges conveyed by his patent for fourteen years. At the expiration of the latter period the House of Commons agreed to extend his privilege for an additional seven years, but the House of Lords rejected the bill. Like too many discoverers, Dr. Bancroft profited but little by his invention, though it has been of great use to the arts and manufactures of the country. (Bancroft *On Permanent Colours*, vol. ii. p. 112; *Report of the Committee of the House of Commons on Patents*, Appendix, page 175.)

**BARLEY** (Fr. orge; Ger. gerstengraupen; Dutch, ryg; Ital. orzo; Span. cebada; Russ. fatchmea; Lat. hordeum; Arab. dhourra; Hind. jaw). A species of bread-corn (*Hordeum*, Linn.), of which there are several varieties. It is extensively cultivated in most European countries, and in most of the temperate districts of Asia and Africa. It may also be raised between the tropics; but not at a lower elevation than from 3,000 to 4,000 feet, and then it is not worth cultivating. Large quantities of barley have been, for a lengthened period, raised in Great Britain. Recently, however, its cultivation has been supposed, though probably on no good grounds, to be declining. In 1765 Mr. Charles Smith estimated the number of barley consumers in England and Wales at 739,000; and as a large proportion of the population of Wales, Westmoreland, and Cumberland continue to subsist chiefly on barley bread, we are inclined to think that this estimate may not, at present, be very wide of the mark. But the principal demand for barley in Great Britain is for conversion into malt, to be used in the manufacture of ale, porter, and British spirits; and though its consumption in this way has not certainly increased proportionally to the increase of wealth and population, still there does not seem

to be any ground for supposing that it has diminished. Barley is also extensively used in fattening black cattle, hogs, and poultry. It now generally follows turnips, and is a very important crop in the rotation best adapted to light soils. The principal barley countries of England are Norfolk, Suffolk, Cambridge, Bedford, Herts, Leicester, Nottingham, the upper parts of Hereford, Warwick, and Salop. The produce varies, according to soil, preparation, season &c. from about 20 to 60 or 70 bushels an acre. The most usual crop is from 28 to 36 or 38 bushels. The Winchester bushel of good English barley generally weighs about 50 lbs., but the best Norfolk barley sometimes weighs 53 or 54 lbs. Its produce in flour is about 12 lbs. to 14 lbs. grain. Barley is a tender plant, and easily hurt in any stage of its growth. It is more hazardous than wheat, and is, generally speaking, raised at a greater expense, so that its cultivation should not be attempted except when the soil and climate are favourable for its growth.

The question whether malted or unmalted barley is the fittest food for cattle, has in this country practical interest. For purposes of revenue, a considerable duty is levied on malt. It is asserted that this duty checks the cultivation of barley on light soils, and that even when barley is grown, its most useful purpose, that of stimulating the flow of milk in cows, and of promoting the rapid growth of fat stock, is prohibited by the operation of an excise duty. The Act 27 & 28 Vict. c. 9 has indeed so far relaxed the excise system as to permit, under proper regulations and supervision, the malting of barley for the use of stock, the chief precaution taken in order to prevent the abuse of the privilege being the admixture of a certain amount of linseed meal with the malt. This, it appears, renders the malt permanently unfit for the manufacture of beer or spirit.

In the 11th Inland Revenue Report (1867), p. xxiii., it is stated 'The farmers, however, appear to be finding out by experience what science long ago indicated as the truth—that malt contains no feeding properties not possessed by barley, and that the cost of malting is worse than thrown away, because the barley during the process loses a portion of its nutritious constituents, its value as an article of food being proportionately diminished.' Number of samples examined for cattle-feeding purposes in 1866-7, only 95 as against 462 in the preceding year. The customs' duty on foreign barley, pearled, is 4*d.* per cwt.

(For details as to the prices of barley, the quantities imported and exported &c. see **CORN LAWS AND CORN TRADE**; and for further details as to its consumption and culture, see *Smith's Tracts on the Corn Trade*, 2nd edition, p. 182; *Brown On Rural Affairs*, vol. ii. p. 42; *Loudon's Encyclopedia of Agriculture*; and *Report of the Relative Values of Malted or Unmalted Barley as Food for Stock*, presented to Parliament in 1866.)

**BARRATRY.** In Navigation, barratry is, in its most extensive sense, any fraudulent or unlawful act committed by the master or mariners of a ship, contrary to their duty to their owners, and to the prejudice of the latter. It appears to be derived from the Italian word *barratrare*, to cheat. It may be committed by running away with a ship, wilfully carrying her out of the course prescribed by the owners, delaying or deserting the voyage, deserting convoy without leave, sinking or deserting the ship, embezzling the cargo, smuggling, or any other offence whereby the ship or cargo may be subjected to arrest, detention, loss, or forfeiture.

It is the practice in most countries to insure against barratry. Most foreign jurists hold that it comprehends every fault which the master and crew can commit, whether it arise from fraud, negligence, unskillfulness, or mere imprudence. But in this country it is ruled that no act of the master or crew shall be deemed barratry unless it proceed from a *criminal or fraudulent* motive.

Barratry can only be committed by the master and mariners by some act contrary to their duty in the relation in which they stand to the owners of the ship. It is, therefore, an offence against them, and consequently an owner himself cannot commit barratry. He may, by his fraudulent conduct, make himself liable to the owner of the goods on board, but not for barratry. Neither can barratry be committed against the owner *with his consent*: for though he may be liable for any loss or damage occasioned by the misconduct of the master to which he consents, yet this is not barratry. Nothing is more clear than that a man can never set up as a crime an act done by his own direction or consent. (Marshall *On Insurance*, book i. ch. xii. s. 6.)

When, therefore, the owner of a ship is also the master, no act of barratry can be committed; for no man can commit a fraud against himself.

It is a maxim in law, that fraud shall not be presumed, but must be clearly proved; and it is a rule in questions of insurance, that he who charges barratry must substantiate it by conclusive evidence.

It is not necessary, to render an act barratrous, that it should be committed with a criminal intent as respects the owners, in order to injure them, or to benefit the captain or crew. It may even be committed with a view to promote the owner's interests; for an *illegal act* done without the authority or privity of the owners, and which proves detrimental to them, is barratry, whatever be the motives in which it originated. Lord Ellenborough, in an able judgment, has laid it down as clear law, 'that a breach of duty by the master in respect of his owners, with a fraudulent or criminal intent, or *ex maleficio*, is barratry; that it makes no difference whether this act of the master be induced by motives of advantage to himself, malice to the owner, or a *disregard of those laws which it was his duty to obey*; and that it is not for him to judge or suppose, in cases not intrusted to his discretion, that he is not breaking the trust reposed in him, when he endeavours to advance the interests of his owners by means which the law forbids, and which his owners also must be taken to have forbidden.'

The circumstance of the owners of ships being permitted to insure against the barratry of the master and mariners can hardly fail, it may be not uncharitably presumed, of rendering them less scrupulous in their enquiries with respect to their character than they would otherwise be. Perhaps, therefore, it might be expedient to prohibit such insurances, or to lay some restrictions upon them. They were, indeed, expressly forbidden by the Ordinance of Rotterdam; and Lord Mansfield, whose authority on all points connected with the law of insurance is so deservedly high, seems to have thought that it would be well to exclude barratry entirely from policies, and to cease 'making the underwriter become the insurer of the conduct of the captain whom he does not appoint, and cannot dismiss, to the owners who can do either.' But though it were expedient to prevent the owners from making an insurance of this sort, nothing can be more reasonable than that third parties, who freight a ship, or put goods on board, should be

allowed to insure against such a copious source of loss. In the maritime policies effected in France, the barratry of the master of the ship will, under certain circumstances, vitiate the claim to compensation, especially when the captain has been appointed by the claimant. (For a further discussion of this subject, see *MARINE INSURANCE*; and Marshall *On Insurance*, book i. ch. xii. s. 6, and Park *On Insurance*, ch. v.)

By 24 & 25 Vict. c. 100 s. 13 it is enacted that if any person set fire to any ship or part thereof, or any goods or chattels therein, or shall cast away any ship with intent to commit murder, he shall be guilty of felony, and liable, at the discretion of the court, to be kept to penal servitude for life, or for any term not less than three years, or to be imprisoned for any term not exceeding two years, with or without hard labour, and with or without solitary confinement.

**BARREL.** A cask or vessel for holding liquids, particularly ale and beer. Formerly the barrel of beer in London contained only 32 ale gallons = 32 imperial gallons; but it was enacted by 43 Geo. III. c. 69 that 36 gallons of beer should be taken to be a barrel; and by the 6 Geo. IV. c. 58 it is enacted that whenever any gallon measure is mentioned in any excise law, it shall always be deemed and taken to be a standard imperial gallon. At present, therefore, the barrel contains 36 imperial gallons. It may be worth while observing that the barrel or cask is an exclusive product of European ingenuity; and that no such article is known to any nation of Asia, Africa, or America, who have not derived it from Europeans.

**BARWOOD.** A red dye-wood brought from Africa, particularly from Angola, and the river Gaboon. The dark red which is commonly seen upon British Bandana handkerchiefs is for the most part produced by the colouring matter of barwood, saddened by sulphate of iron. (Bancroft *On Colours*.) The imports of barwood, in 1865, amounted to 2,347 tons. It is estimated, in the official accounts, as being worth about 3*l.* per ton.

**BARYTA, SULPHATE OF.** This substance is found native in many parts of the United Kingdom, and is known under the name of *heavy spar*.

Considerable importance attaches to this substance from the use which has latterly been made of it in the arts, as a body for paint. The native sulphate being crystallised, and therefore more or less translucent, is not available for this purpose, and when mixed with white lead, as is frequently done, must be looked on as an adulteration. That, however, which is prepared by artificial means is more opaque, though still far inferior in body and solidity to white lead. It has certain advantages, however. It is not affected as lead is by the vapour of sulphurated hydrogen, and therefore does not blacken on exposure to the air, and its use is unattended with those deleterious effects which ensue from the constant manipulation of lead salts. Sulphate of baryta is used as a water-colour by artists, under the name of *permanent white* or *blank fix*. It is also said to be largely used in the manufacture of paper-hangings.

A very great impetus has been given to the use of barytes by the paper collar trade. When the collars were covered with white lead there was reason to fear that health might be endangered by the pores absorbing this deleterious substance. A durable enamel prepared from barytes has consequently been substituted, and with so much success, that upwards of twenty tons are daily

used in the city alone. (J. 1866.)

**BASKETS** panier; Spanish; Basket principally of osier, birch & splinters of wood of other articles of dry goods, and of quality and produced at and imported undevously to 185 year the duty peaked. Very baskets are imported.

**BAST.** MAT [HATS; MARK BATAVIA.

capital of the Indies, and the Oriental islands visible 13 miles long, 106° 47' 4 the island, on or rather road, several small un the boisterous sufficient shelter from 300 to 500 from shore. A s which is naviga tons, a couple of branch off from i affording great o was formerly so Daendels to S government to S in this, he set ab farther inland, a whither the Gov ately removed, chants now live i old city, only w a portion of the town is at present and the descend several of its str demolished. Mo Capellen, whose long be gratefull of the superior a place of trade, ex their decay, by re healthiness; to a several of the stre and cleaned othe tions &c.; and th suras has been, th as any other town according to an a consisted of 2,80 25,000 Chinese, 1,6 all 118,300 persons the population has sent be estimated independently of t always a considera cial merchants a French, and Germ the most import sions in the East, a colonies in the wor an area of 52,000 s on Dec. 31, 1862, o

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used in the collar manufactories of New York city alone. (*Journal of the Society of Arts*, Oct. 26, 1866.)

BASKETS (Fr. corbeilles; Ger. körbe; Ital. panier; Span. canastas, canastos; Russ. korstin). Baskets are made, as everyone knows, principally of the interwoven twigs of willows, osier, birch &c. but frequently also of rushes, splinters of wood, straw, and an immense number of other articles. They are used to hold all sorts of dry goods, and are constructed of every variety of quality and shape. Besides the vast quantities produced at home, some of the finer kinds were imported under an ad valorem duty, which, previously to 1854, was 10 per cent. In the above year the duty was reduced to 4d. It is now repealed. Very large quantities of rods for making baskets are imported.

BAST. Material for straw hats or bonnets. [HATS; MATTING.]

BATAVIA. A city of the Island of Java, the capital of the Dutch possessions in the East Indies, and the principal trading port of the Oriental Islands; lat. of lighthouse on the west pier, visible 13 miles off in clear weather, 6° 5' 4" S., long. 106° 47' 40" E., on the north-west coast of the island, on an extensive bay. The harbour, or rather road, lies between the main land and several small uninhabited islands, which, during the hoisterous or north-western monsoon, afford sufficient shelter, and good anchorage. Ships of from 300 to 500 tons anchor at about 1½ mile from shore. A small river runs through the town, which is navigable for vessels of from 20 to 40 tons, a couple of miles inland; a number of canals branch off from it into different parts of the town, affording great conveniences for trade. Batavia was formerly so very insalubrious, that General Daendels was anxious to transfer the seat of government to Sourabaya; but being thwarted in this, he set about building a new town, a little farther inland, on the heights of Weltevreden, whither the Government offices were immediately removed. Most part of the principal merchants now live in the new town, repairing to the old city, only when business requires it, during a portion of the day. In consequence, the old town is at present principally occupied by Chinese, and the descendants of the ancient colonists, several of its streets having been deserted and demolished. More recently, however, the Baron Capellen, whose enlightened administration will long be gratefully remembered in Java, sensible of the superior advantages of the old town as a place of trade, exerted himself to prevent its further decay, by removing the causes of its unhealthiness; to accomplish which, he widened several of the streets, filled up some of the canals, and cleaned others, demolished useless fortifications &c.: and the effect of these judicious measures has been, that Batavia is now as healthy as any other town of the island. The population, according to an accurate census taken in 1832, consisted of 2,800 Europeans, 80,000 natives, 25,000 Chinese, 1,000 Arabs, and 9,500 slaves; in all 118,300 persons, exclusive of the garrison. As the population has increased since, it may at present be estimated at from 140,000 to 150,000, independently of the military, of which there are always a considerable number. Among the principal merchants are Dutch, English, Americans, French, and Germans. The island of Java forms the most important portion of the Dutch possessions in the East, and is, in fact, one of the finest colonies in the world. It contains, inc. Madura, an area of 52,000 square miles, with a population on Dec. 31, 1862, of 13,380,770.

Account of the Quantities and Values of the Principal Articles, the Produce of the Eastern Archipelago, exported from Java and Madura in 1863.

Principal Articles and Countries to which exported	Quantities	Value
Arrack - - Total - - - - - leggers	6,751	gulden 910,211
To Holland - - - - - "	4,690	366,067
Moluccas - - - - - "	525	25,799
Great Britain - - - - - "	436	29,654
Coffee - - Total - - - - - picols	200,692	7,354,886
To Holland - - - - - "	163,962	5,351,178
France - - - - - "	19,802	831,326
Copper and copper wares - Total value	—	457,571
To Singapore - - - - - "	—	181,165
Borneo - - - - - "	—	29,916
Celebes - - - - - "	—	57,990
Fancy Wares - Total - - - - - "	—	756,724
To South-West Coast - - - - - "	—	368,255
Palembang and Banka - - - - - "	—	180,261
Borneo - - - - - "	—	81,482
Hides, cow and buffalo - - - - - "	—	824,698
To Holland - - - - - "	211,985	786,401
India rubber - - Total - - - - - picols	7, 61	630,007
To Holland - - - - - "	6, 182	522,921
Indigo - - - Total - - - - - pond	410,959	1,845,925
To Holland - - - - - "	408,003	1,831,816
Iron wares - - Total - - - - - value	—	119,129
To Singapore - - - - - "	—	28,447
North-West Coast - - - - - "	—	27,512
Bali - - - - - "	—	9,299
Borneo - - - - - "	—	9,861
Moluccas - - - - - "	—	9,184
Linen and cotton manufactures - Total - - - - - "	—	1,880,765
To South-West Coast - - - - - "	—	668,213
Borneo - - - - - "	—	551,375
Palembang and Banka - - - - - "	—	331,912
Singapore - - - - - "	—	110,261
Oil cake - - Total - - - - - "	—	107,626
To China - - - - - "	—	85,922
Holland - - - - - "	—	10,000
Provisions - - Total - - - - - "	—	411,526
To South-West Coast - - - - - "	—	95,166
Borneo - - - - - "	—	87,560
Rio - - - - - "	—	305,114
Palembang and Banka - - - - - "	—	51,063
Rattans - - Total - - - - - picols	76,632	746,220
To Holland - - - - - "	51,292	496,133
Singapore - - - - - "	8,718	79,574
Rice - - - Total - - - - - "	931,298	6,038,386
To Holland - - - - - "	274,066	1,904,546
Palembang and Banka - - - - - "	166,583	1,042,818
Borneo - - - - - "	84,394	652,000
China - - - - - "	108,879	391,980
Sugar, loaf - - Total - - - - - "	1,137,525	15,785,284
To Holland - - - - - "	1,000,020	13,755,512
Sugar, brown - - - - - "	37,683	254,541
To North America - - - - - "	16,947	121,658
Australia - - - - - "	3,815	35,074
Holland - - - - - "	7,921	49,809
Tea - - Total - - - - - value	—	127,991
To Holland - - - - - "	—	97,013
Tin - - - Total - - - - - picols	6,228	417,298
To Holland - - - - - "	5,018	247,215
Japan - - - - - "	5,103	161,477
Tobacco (Java) - Total - - - - - "	155,531	2,181,016
To Holland - - - - - "	138,995	1,979,311
Cigars (all kinds) - Total - - - - - value	—	52,615
To South-West Coast - - - - - "	—	9,421
Borneo - - - - - "	—	6,782
Rio - - - - - "	—	5,800
Moluccas - - - - - "	—	3,612
Wine, &c. - - Total - - - - - "	—	212,814
To Borneo - - - - - "	—	89,365
South-West Coast - - - - - "	—	47,212
Palembang and Banka - - - - - "	—	35,377
Specie - - Total - - - - - "	—	8,032,043
To Singapore - - - - - "	—	5,597,507
China - - - - - "	—	723,311
Bali - - - - - "	—	377,518
South-West Coast - - - - - "	—	309,548

The area of the islands of Java and Madura was, in the year 1861, 51,336 English square miles, and the population 13,019,108.



*Bank of Batavia.*—A bank, for the issue of notes and other banking business, was established at Batavia in 1827, with branches at Samarang and Sourabaya; the history of which is not uninteresting. The capital of the bank, consisting of 2,000,000 florins, divided into 4,000 shares, was subscribed with difficulty; and the most unfavourable anticipations were entertained of the success of the establishment. No sooner, however, had the bank been set on foot, than she began to enjoy a large share of prosperity. The rapid increase of cultivation and commerce in Java led to a corresponding demand for capital, and to the payment of a very high rate of interest on loans; and as the loans made by the bank consisted of bank notes, which cost next to nothing, the profits became quite enormous; so much so that they amounted in 1837 to 33 per cent., the price of the 500 florin share of bank stock being then also 1,550 florins. But this prosperity was as brief as it was signal.—The offer of an exorbitant interest had tempted, in not a few cases, the bank to make advances on doubtful security;

and in Java, as elsewhere, issues of paper payable on demand necessarily stop the moment the circulation has been fully saturated with notes; and this result having been attained in 1838, and the notes issued by the bank being henceforth returned on her for payment, she speedily became involved in the greatest difficulties; many of those who depended on her advances for support were no longer able to meet their engagements; and the whole island was subjected to a severe pecuniary and commercial crisis: in fact, but for the intervention of the Government, in 1840, when bank notes were made *legal tender* for a limited period, she must have stopped payments! This intervention gave her time to recover from the difficulties into which she had been precipitated; and after sustaining a very heavy loss, she resumed specie payments. At present the maximum amount of notes which the bank may issue is fixed from time to time by the governor-general. In 1846 she was prohibited from making any dividends till the losses her capital had sustained during the crisis were made good.

*Tariff of Customs Duties to be levied in Java and Madura &c. 1866-1872.*

A. Merchandise of certified Dutch origin or manufactured in the Netherlands. B. Imported from or manufactured elsewhere.

Articles	Rate	Duties			
		During 1866, 1867, and 1868		During 1869 and following years	
		A	B	A	B
Arms, fire, likewise parts of fire-arms*	value	6 per ct.	—	6 per ct.	—
Beer, in bulk	100 litres	2 fls. 4 fls.	—	2 fls. 3 fls.	—
in glass	—	2 25 fls. 4 50 fls.	—	2 25 fls. 3 50 fls.	—
Bone-black	—	free	—	free	—
Books, geographical and hydrographical maps, engravings, prints, music, bound or not †	—	free	—	free	—
Candles, with spermaceti, stearine, and composition	100 n. pd.	20 fls.	—	20 fls.	—
Carriages, and parts of carriages ‡	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Cattle, alive	—	free	—	free	—
Clocks, watches, and pendules	value	10 per ct.	—	10 per ct.	—
Clothes, woven or knit	value	10 per ct.	—	10 per ct.	—
Coals and coke	—	free	—	free	—
Cocoanuts and coconut oil	—	free	—	free	—
Copper, rough and dressed, including sheets and leaves for sheathing ships, multi-metal, bolts and nails	—	free	—	free	—
Copper manufacture, painted and lacquered or not, plated and bronze ware, and copper wire	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Copper in plates for copper coin, or copper coin §	—	prohibited	—	prohibited	—
Earthenware, pottery, and china	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Flint and bricks	—	free	—	free	—
Flour and meal	—	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Furniture	—	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Fustage, new and empty	—	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Gambier ¶	100 n. pd.	20 fls.	—	20 fls.	—
Glass and glasswork, of all sorts	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Gold and silver, in bars or pieces, gold dust and coin	—	free	—	free	—
work, lace and wire	—	free	—	free	—
Gunpowder ¶	value	6 per ct.	—	6 per ct.	—
Horses, asses, and mules	—	free	—	free	—
co	—	free	—	free	—
Instruments, mathematical, physical, chirographical, optical, and musical	—	free	—	free	—
Iron, in bars, pieces, rods, or sheets; railway bars, scarf nails for railways, tubes for water conductors; iron gas tubes, founded or cast, axes and wheels; iron prows or loading boats; frames for iron buildings or warehouses, bolts and nails, iron wire, ships' anchors, chains, capstans	—	free	—	free	—
Ironworks, founded or forged, but otherwise enumerated	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Jewels, pearls, and all other precious stones, set or unset	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Lead, rough and flattened, manufactured, and not otherwise enumerated	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Leathers and leatherwork	—	—	—	—	—
Machinery, steam, for the use of agriculture, mining, and manufactures. Likewise parts of machinery, provided that this can be acknowledged by the functionaries	value	free	5 per ct.	free	4 per ct.
Manufactures, of cotton, not made up, white or bleached, dyed or printed, linen, woollen, hemp, flax, and tow; ribbon and band, lace, and all other sorts, not particularly enumerated	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Manure	—	free	—	free	—
Meat of all sorts, salted or preserved in any other way, not otherwise enumerated	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Mercury ††	value	6 per ct.	—	6 per ct.	—
Mineral water, natural or artificial	100 bottles in stone or glass.	6 fls.	—	6 fls.	—
Opium: Patna and Bencares ††	per chest of 62 n. pd. or less: ‡‡	550 fls.	—	550 fls.	—
Malwa	—	250 fls.	—	250 fls.	—
Levant and Persia	—	200 fls.	—	200 fls.	—
Painter's colours, ground with oil or mnt, and linseed oil	value	6 per ct.	10 per ct.	6 per ct.	10 per ct.

\* Save existing or future prohibitory stipulations. The prohibition does not include the arms for sportsmen, which must be imported separately and acknowledged as such by the custom functionaries.  
 † Prints and engravings, in frame, as Furniture.  
 ‡ Railway carriages and parts of them are free of duty.  
 § The prohibitory stipulation is not applicable to plates for copper coin, and copper coin which is imported on account and for the use of the Government.  
 ¶ The custom duty shall only be paid on imports into Java and Madura. Elsewhere gambier is free of duty.  
 † Save the existing or future prohibitory stipulations. The prohibition does not include fowling gunpowder (*crepe*), imported in boxes containing 1 n. pd. or less, and with permission of the local authorities.  
 ‡ Change sales and wheels imported to pay the same duty as carriages.  
 †† When necessary, the governor general will specify the other articles to be classed under Mercury.  
 ‡‡ Save the existing or future prohibitory stipulations.  
 ††† When imported in chests containing a larger quantity, the duty will be comparatively increased.

Tariff of Customs Duties—continued.

A. Merchandise of certified Dutch origin or manufactured in the Netherlands.

B. Imported from or manufactured elsewhere.

Articles	Rate	Duties			
		During 1866, 1867, and 1868		During 1869 and following years	
		A	B	A	B
Paper of all sorts. Paper hangings, music, coloured, card, pasteboard, and registers white or lined	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Perfumeries	value	10 per ct.	—	10 per ct.	—
Pictures	—	free	—	free	—
Pitch	—	free	—	free	—
Playing cards	—	10 per ct.	—	10 per ct.	—
Resin	—	free	—	free	—
Rice, cleaned or uncleaned	—	—	—	—	—
Rope and cordage of all sorts	value	free	5 per ct.	free	4 per ct.
Salt/oth	value	free	5 per ct.	free	4 per ct.
Salt	—	—	prohibited	—	prohibited
Silk, manufactured and ribbons	value	—	6 per ct.	—	6 per ct.
Spirits: Geneva, gin, in bulk	100 litres	—	20 fls.	—	20 fls.
— in boxes, keisters	—	—	23 fls.	—	23 fls.
— brandy of all sorts, Cognac, rum, arrack, in bulk	—	—	27 fls.	—	27 fls.
— ditto — in glass	—	—	30 fls.	—	30 fls.
— liquors, sweetened of all sorts	—	—	40 fls.	—	40 fls.
Steel, rod, plate, sheet, railway bars, scarf nails for railways	—	—	free	—	free
— manufactured, not otherwise enumerated	—	—	10 per ct.	—	10 per ct.
Syrup from fruits	100 bottles	—	20 fls.	—	16 per ct.
— mixed with spirits	—	—	As liquors.	—	As liquors.
Tar	—	—	free	—	free
Timber of wood, sawn or not, ship and building timber, including poles and masts, oars and spars	—	—	free	—	free
Timber of wood, dressed and prepared for use	value	—	6 per ct.	—	6 per ct.
Tobacco, in leaves, stemmed or unstripped, all manufactured sorts not otherwise enumerated.	100 n. pd.	—	—	—	—
Tobacco, Manila and Havana	—	—	30 fls.	—	30 fls.
— small	—	—	40 fls.	—	40 fls.
— cigars, Manila and Havana	—	—	200 fls.	—	200 fls.
— all other sorts	—	—	50 fls.	—	50 fls.
Victuals, not otherwise enumerated	value	—	10 per ct.	—	10 per ct.
Vinegar, all sorts, in bulk	100 res	—	2 fls. 4 fls.	—	2 fls. 3 fls.
— in glass	—	—	2-50 fls. 5 fls.	—	2-50 fls. 4 fls.
Wine, in bulk	100 litres	—	8 fls. 10-50 fls.	—	10-50 fls. 9 fls.
— in glass	—	—	—	—	—
— Champagne and other foaming wines	100 bottles	—	21 fls.	—	21 fls.
Writing and drawing necessities	value	—	6 per ct.	—	10 per ct.
Yarns, cotton or woolen	value	—	10 per ct.	—	10 per ct.
— other sorts	—	—	6 per ct.	—	6 per ct.
Zinc, rough and flattened, plates and sheets for sheathing ships, nails and bolts	—	—	free	—	free
— work, painted, lacquered, or not	value	—	10 per ct.	—	10 per ct.
All other articles, not particularly enumerated, or not included in those mentioned above	value	—	6 per ct.	—	6 per ct.

\* The prohibition is not applicable when salt is imported on account of or for the use of the Government, and in those possessions outside Java and Madras which are or shall be exempted by the governor general.  
 † Exclusively manufactured of silk. Mixed stuffs as Manufacturers of cotton.  
 ‡ Passage and cooper's work excepted.  
 § Paper excepted.

**General Remarks on Java.**—The previous statements show that the produce and trade of Java have increased during the last 30 years with a rapidity unknown in any other colony, Cuba, perhaps, excepted. And if the resources and capabilities of this noble island be fully developed, it is quite impossible to say how much farther her trade may be extended. It would far exceed our limits, and, even were this not the case, it would involve us in discussions nowise suitable for this work, were we to enter into any detailed examination of the means by which the extension of culture in Java has been brought about. We may, however, shortly mention that the produce for exportation is principally raised on account of Government, partly by contributions in kind from the cultivators, these being, in fact, the rent of the land which the latter occupy, Government being here, as in Hindostan, the only, or, at all events, the paramount proprietor; and partly by a system of *corvée* or compulsory labour established on one-fifth part of the lands applicable to the culture of rice, of which Government has resumed the possession. And, provided these contributions and *corvées* be not carried to excess, we incline to think that they are at once the least onerous mode in which the natives can be made to pay their taxes, and the most profitable for the Government. It is, we apprehend, idle to suppose that industry, if left to itself, will ever become flourishing in a country like Java, where the wants of the inhabitants are so few and so easily satisfied, and where the climate indisposes to exertion. No doubt the system of compulsory labour may be easily abused and converted into

an instrument of the most grinding oppression; but so long as it is managed with discretion and good sense, we are disposed to believe, from all we can learn, that it is preferable to every other system hitherto devised for developing the resources of tropical countries. (Temminck, *Possessions Néerlandaises dans l'Inde Archipelagique*, i. 237 &c.)

Very great public improvements have also been already effected, and are still in progress, in the island. Among others, an excellent high road has been constructed through its whole length, from Bantam on its W. to Sourabaya on its E. coast, whence cross roads lead to all the principal stations. A number of forts have also been constructed in commanding situations in the interior, the principal of which at Surackarta, near the centre of the island, is a regular and strong citadel. It is said to be intended to transfer the seat of government thither from Batavia. These forts have been erected principally to keep the natives in check, and to prevent those outbreaks that have done so much to retard the prosperity of the island. Several important establishments have also been recently founded along the S. coast, which had previously been all but neglected. (Argout *Sur Java, Singapura* &c.)

Rice used to be the staple product of Java; but it is now far surpassed by coffee and sugar, the culture of both of which has been astonishingly increased. In proof of this we may mention that the exports of coffee, which in 1860 amounted to 268,740 piculs, had increased in 1864 to 1,017,596 do. or to 60,571 tons; while the exports of sugar,

which in 1860 increased in tons. More than in Batavia. Indigo has been the other principal article. Banca, tobacco. The importation of iron, with iron, has been the Levant, and other articles. Particular attention of the Government to land his passengers to a boat from the landing, is first and afterwards office.—3. A master of a vessel of the ship's master of a vessel with the master, which are duties which his authority.—5. No after sunset, unless No goods can

Rates of Duty

Manufactures:	Total
Woolen: From Holland	
All other countries	
Linen and cotton	
From Holland	
All other countries	
Indian cotton and	
Cotton and woollens	
Cape of Good Hope	
Furniture	
Provisions from Europe	
Gambier	
From Dutch East	
From Foreign	
Wine and other liquors	
Copper, iron, steel, and	
Miscellaneous	
Total	

Account of the

Principal and other	Total
Apparel and haberdashery	
Beer and ale	
Coals, cinders, and culm	
Copper, wrought and unwrought	
Cotton yarn	
Cottons, entered by the natives	
Earthenware and porcelain	
Glass manufactures	
Hardware and cutlery unenumerated	
Iron, wrought and unwrought	
Lead and shot	
Linen, entered by the natives	
Machinery: Steam engines	
All other soaps	
Tin plates	
Woolens, entered by the natives (including those imported)	
Woolens entered by the natives	
Woolens entered at value	
All other articles	
Total	

which in 1830 amounted to 108,640 piculs, had increased in 1854 to 1,793,510 piculs or 106,756 tons. More than half the trade of the island centres in Batavia.

Indigo has also become an important product. The other principal articles of export are tin from Banca, tobacco, tea, and birds' nests.

The imports comprise cottons, woollens, and other manufactured goods; wines and spirits, with iron, hardware, and machinery; opium from the Levant and from Bengal; and a great variety of other articles.

**Port Regulations.**—The following is the substance of the port regulations of Batavia: 1. The commander of a ship arriving in the roads is not to land himself, or permit any of his crew or passengers to land, until his vessel be visited by a boat from the guard ship.—2. The master, on landing, is first to wait on the master attendant, and afterwards report himself at the police office.—3. A manifest of the whole cargo must be delivered at the Custom-house within 24 hours of the ship's arriving in the roads.—4. The master of a vessel must lodge the ship's papers with the master attendant when he first lands, which are duly delivered up to him when he receives his port clearance from the same authority.—5. No goods can be shipped or landed after sunset, under a penalty of 500 florins.—6. No goods can be shipped on Sunday without a

special permission from the water fiscal, which, however, is never refused on application.—7. No muskets or ammunition can be imported; but the prohibition does not extend to bowling pieces exceeding 100 florins value.

**Money.**—Accounts are kept, at Batavia, in the florin or guilder, divided into centimes, or 100 parts, represented by a copper coinage or doits. The florin is a new coin made expressly for India, but of the same value as the florin current in the Netherlands. It is usually estimated at the rate of 12 to the pound sterling, but the correct par is 11 florins 58 cent. per pound. Doubloons, and the coins of continental India, are receivable at the Custom-house at a fixed tariff; the Spanish dollar, for example, at the rate of 100 for 260 florins.

**Weights.**—The Chinese weights are invariably used in commercial transactions at Batavia, and throughout Java and the other Dutch possessions in India. These are the picul and the cattie, which is its hundredth part. The picul is commonly estimated at 125 Dutch, or 133½ lbs. avoirdupois, but at Batavia it has been long ascertained and considered to be equal to 136 lbs. avoirdupois. (Hogendorp, *Coup d'Œil sur l'île de Java*, c. viii. &c.) By far the best work on Java, and generally on the Dutch possessions in the East, is that of Temminck, referred to above, in 3 tomes, Leide, 1846-49.

*Rates of Duty levied, and Amount of Duty received, on the various Articles imported into the Islands of Java and Madura, in the Years 1861-1863.*

Articles	Rates of Duty	Amount of Duty Received		
		1861	1862	1863
	per cent.	guilder	guilder	guilder
<b>Manufactures:</b>				
Woollen:				
From Holland with certificate	12½	5,801	4,212	2,530
All other countries of Europe and America	25	85,137	85,917	95,888
<b>Linen and cotton goods:</b>				
From Holland with certificate	12½	1,066,829	1,109,720	816,692
All other countries of Europe and America	25	2,949,238	2,351,514	2,140,710
Indian cotton and woollen: Archipelago	12 and 21	8,730	6,124	8,901
Cotton and woollen: From countries eastward of the Cape of Good Hope	25	15,141	15,409	15,380
Furniture	12 and 24	39,813	45,345	40,392
Provisions from Europe and America	12 and 24	259,932	229,109	246,351
Gambier:				
From Dutch East Indies	12 fl. per picul	837,759	860,593	778,501
From Foreign	18			
Wine and other beverages	(tariff)			
Copper, iron, steel, and wares thereof	6, 12, and 24	1,702,567	1,695,002	1,638,698
Miscellaneous	6, 10, 12, and 24			
<b>Total</b>	<b>Guil den</b>	<b>7,033,800</b>	<b>6,583,675</b>	<b>5,780,569</b>
		586,567	631,973	481,881

*Account of the Quantities and Declared Values of the Principal Articles of British Produce and Manufacture exported to Java in 1862-1866.*

Principal and other Articles	Quantities					Declared Real Value				
	1862	1863	1864	1865	1866	1862	1863	1864	1865	1866
Apparel and haberdashery	value	—	—	—	—	£	£	£	£	£
Beer and ale	barrels	222	340	742	912	5,368	2,494	3,609	4,759	2,964
Coals, cinders, and culm	tons	41,819	29,473	22,230	23,015	1,149	1,851	4,011	4,721	2,441
Copper, wrought and unwrought	cwts.	2,897	4,191	3,170	2,233	13,276	10,398	15,706	15,886	9,061
Cotton yarn	lbs.	53,112	64,373	419,165	481,788	791,186	38,852	66,156	49,119	50,996
Cottons, entered by the yard at value	value	26,322,463	16,145,927	20,706,210	30,941,969	62,290,326	466,180	411,589	856,614	702,961
Earthenware and porcelain	value	—	—	—	—	9,113	11,844	11,621	8,240	26,481
Glass manufactures	value	—	—	—	—	31,406	26,458	24,984	22,531	16,949
Hardware and cutlery, unenumerated	cwts.	3,275	2,780	1,721	2,387	2,699	15,506	10,514	8,548	8,582
Iron, wrought and unwrought	tons	2,588	3,051	2,734	2,636	3,892	23,706	26,489	23,079	23,685
Lead and shot	value	37	55	93	29	4	645	1,172	2,065	618
Linen, entered by the yard	yards	93,007	205,649	202,301	404,744	426,686	5,525	5,525	5,541	17,803
Machinery: Steam engines	value	—	—	—	—	21,664	2,680	3,664	4,911	14,745
All other sorts	value	—	—	—	—	27,235	8,802	21,558	12,647	8,306
Snap	value	11,448	10,033	10,517	19,814	15,473	11,459	10,697	9,608	9,417
Tin plates	value	—	—	—	—	1,381	1,756	3,747	105	—
Woolens, entered by the yard (including those formed entered by the piece)	yards	176,841	280,812	182,598	147,833	221,471	15,555	15,082	15,925	11,019
Woolens entered at value	value	—	—	—	—	1,128	568	440	319	290
All other articles	value	—	—	—	—	39,506	18,741	25,911	18,288	21,680
<b>Total</b>						<b>776,411</b>	<b>650,434</b>	<b>796,830</b>	<b>927,753</b>	<b>1,735,558</b>

Rates of Duty levied on the several Articles exported from the Islands of Java and Madura, in the Years 1861-1863.

Articles	Rates of Duty						
		To Dutch Ports				To Foreign Ports	
		In Holland		In the East Indies		In Dutch Vessels	In Foreign Vessels
	In Dutch Vessels	In Foreign Vessels	In Dutch Vessels	In Foreign Vessels			
Coffee	Ad valorem	6 per cent.	12 per cent.	12 per cent.	12 per cent.	12 per cent.	
Pepper	Per picul	1 guilder	2 guilder	2 guilder	2 guilder	2 guilder	
Sugar	Ad valorem	Free	6 per cent.	6 per cent.	6 per cent.	6 per cent.	
Arack	Per loger	10 cents	10 cents	10 cents	10 cents	10 cents	
Rice	Picul	30 guilder	40 guilder	20 guilder	40 guilder	20 guilder	
Horses	Each	2 cents	40 cents	10 cents	10 cents	10 cents	
Indigo	Per lb.	5-30 guilder	7 guilder	7 guilder	7 guilder	7 guilder	
Japan camphor	Picul	10 "	20 "	20 "	20 "	20 "	
Spices	"	9-50 "	19 "	19 "	19 "	19 "	
Nutmegs	"	1-50 "	3 "	1-50 "	3 "	1-50 "	
Tin	"	2 "	4 "	4 "	4 "	4 "	
Hides' most (edible)	Ad valorem	6 per cent.	12 per cent.	6 per cent.	6 per cent.	12 per cent.	
Other articles	"	"	"	"	"	"	

Account of the Quantities and Computed Values of the Principal Articles imported from Java into the United Kingdom in 1862-1866.

Principal and other Articles	Quantities					Computed Real Value				
	1862	1863	1864	1865	1866	1862	1863	1864	1865	1866
Canes; rattans, not ground	number	564,038	360,052	232,316	—	57,651	—	—	—	—
Cassia	cwts.	175	497	—	—	639	831	605	—	98
Coffee	"	1,472	311	522	—	1,206	3,571	—	—	334
Hides, not tanned	"	892	57	175	—	—	49	10	8	—
Nutmegs	lbs.	—	1,450	1,079	—	3,039	122	531	—	—
Pepper	"	141,611	53,695	137,467	—	—	46	67	—	—
Rice, not in the husk	cwts.	14,836	8,464	15,686	—	2,561	783	2,076	—	—
Sugar, unrefined	"	53,758	6,751	—	—	12,903	7,144	12,371	—	7,016
All other articles	value	—	—	—	—	69,416	8,591	—	226	71
Total		—	—	—	—	95,356	22,417	16,749	226	8,152

**BATTEN.** A name in common use for a scantling of wood 2½ inches thick and 7 wide. If above 7 inches wide, it is called *deal*.

**BAZAAR.** A term used in the East to designate a market, or building in which various articles of merchandise are exposed for sale. Bazaars are now met with in most large cities of Europe. There are several in London, of which the one in Soho Square is the most considerable. The largest of Eastern bazaars is said to be that of Tauris in Armenia, which is reputed to contain 15,000 shops, in which every kind of merchandise is exposed for sale. The bazaar of Ispahan encloses a square, which would, it is said, hold an army of near 40,000 men. That of Constantinople was built by Mahomet II. Sometimes these bazaars are devoted to the sale of special commodities, as drugs; and generally, when they are large, particular streets and districts are occupied by traders of one kind only.

**BDELLIUM.** This gum resin is of two kinds, known as Indian and African, the former produced by a tree found in India and Madagascar, and called *Amirys commiphora*. The latter is said to be the produce of *Hendelotia africana*, a native of Senegal. It is found either in small and somewhat globular pieces, of a reddish colour, semitransparent and brittle, with a wax-like fracture; or in large irregular lumps of a dark brownish-red colour, less transparent, somewhat tenacious, and adhering to the teeth when chewed. Its medical properties are somewhat analogous to those of myrrh, but it is seldom used in modern pharmacy. (Wood and Bache, *United States Dispensatory*.)

**BEACONS.** In Commerce and Navigation, public marks or signals to give warning of rocks, shoals &c. No man is entitled to erect a light-house, beacon &c. without being empowered by law. The Trinity House corporation are authorised to set up beacons in whatever places they

shall think fit; and any person who shall wilfully remove or run down any buoy, beacon &c. belonging to the Trinity House, or to any other corporation, individual or individuals, having authority to establish it, shall, besides being liable to the expense of replacing the same, forfeit a sum of not less than 10l. nor more than 50l. for every such offence. (6 Geo. IV. c. 125 s. 91.) [BUOYS.]

**BEADS** (Fr. *rosaires*; Ger. *rosenkränze*; Dutch, *paternosters*; Ital. *corone*; Span. *coronas*). Small globules or balls used as necklaces, and made of different materials; as pearl, steel, amber, garnet, coral, diamonds &c. But those of crystal or glass, generally called *bugles*, are by far the most extensively produced, and form, indeed, how inconsiderable soever they may appear, an important commercial article. Roman Catholics use them in rehearsing their *Paternosters* and *Ave Marias*; and besides their consumption for these and other purposes in Europe, they are largely exported to Africa, the West Indies, India &c. They are produced to a greater or less extent in most parts of the Continent, but principally in Venice, which is, and has long been, the grand seat of their manufacture. In 1865 we imported the enormous quantity of 3,365,221 lbs. beads, of which no fewer than 3,054,763 lbs. were brought from Venice; the residue mostly came to us from Bohemia, through the Hanse Towns. In 1866 we imported 3,438,587 lbs. We re-export them in very large quantities to the places referred to above. Beads are, also, made in China, and sent to India and elsewhere.

The non-manufacture of beads in this country used to be ascribed to the influence of the glass duties; but the repeal of the latter has had little or no effect on their production. The truth is, that the colours of the Venetian beads, and their finish, are decidedly superior to those of the beads produced here and in most other places. Beads have fallen greatly in price of late years.

Those made fanciful sortions are ex BEANS Russ. *boobin* known vegetable both is of much in as it has got loams and cl lowish bean, Shangtung, Manchuria, Ningpo, and employed in for cooking at the same or Dolichos soja China, Chinese Bean of S. I. Ignatia, a nut the size and sh twenty seeds. tity of two alkal sess the poison They are not found in the U Bean, Tonka, or Commarona An oblong pod able, aromatic c but it is also en BEAVER. BEECH (Fag met with every one species, tho from the differer siderable quantit ern parts of Buch ing, as it soon ro as piles in plac is manufactured which its great render it superior also extensively BEEF. The fresh or salted families, at least of salt beef in Oe for their consum but in consequ of markets where obtained, the pr and the quantity compared with fr Large supplies o pared at Cork, an to the East and large supplies we the navy. The trade, and in sho vious. The English ha sumers of beef; a used in London, a than anywhere e portation of fresh beef from a foreig charged with a du year the duties c ss. 43d. per cwt., repealed. In 1866 beef amounted to visions.] BEER. [ALE. BEET. Certain the sea, and whi

Those made in France are mostly of the finer and fanciful sorts, on which gilding and other decorations are expended. (*Private information.*)

**BEANS** (Fr. fèves; Ger. bohnen; Ital. fave; Russ. boubii; Span. nabu; Lat. fabae). A well-known vegetable of the pulse species, largely cultivated both in gardens and fields. Its cultivation is of much importance in rural economy, inasmuch as it has gone far to supersede fallows on strong loams and clays. There is a round white or yellowish bean, grown principally in the north at Shangtung and Chih-le, and in the south of Manchuria, and largely exported to Shanghai, Ningpo, and other Chinese ports. They are chiefly employed in the manufacture of oil, used both for cooking and lighting. Soy is prepared from the same or a closely allied kind of bean, the *Dolichos soja*. (Lockhart, *Medical Missionary in China, Chinese Repository*, &c.)

**Bean of S. Ignatius.**—The fruit of the *Strychnos Ignatia*, a native of the Philippine Islands, is of the size and shape of a pear, and encloses about twenty seeds. These seeds contain a notable quantity of two alkaloids, strychnia and brucia, and possess the poisonous properties of these substances. They are not used in British pharmacy, but are found in the *United States Dispensary*.

**Bean, Tonka.**—The seed of the *Dipterix odorata*, or *Commersonia odorata*, a tree growing in Guiana. An oblong pod contains a single seed, of an agreeable, aromatic odour, chiefly used to flavour snuff, but it is also employed in perfumery.

**BEAVER.** [SKINS.]

**BEECH** (*Fagus sylvatica*). A forest-tree to be met with everywhere in England. There is only one species, the difference in the wood proceeding from the difference of soil and situation. A considerable quantity of beech is grown in the southern parts of Bucks. It is not much used in building, as it soon rots in damp places; but it is used as piles in places where it is constantly wet. It is manufactured into a great variety of tools, for which its great hardness and uniform texture render it superior to all other sorts of wood; it is also extensively used in making furniture.

**BEEF.** The flesh of kine. It is used either fresh or salted. Formerly it was usual for most families, at least in the country, to provide a stock of salt beef in October or November, which served for their consumption until the ensuing summer; but in consequence of the universal establishment of markets where fresh beef may be at all times obtained, the practice is now nearly relinquished, and the quantity of salted beef made use of as compared with fresh beef is quite inconsiderable. Large supplies of salted beef are, however, prepared at Cork, and other places, for exportation to the East and West Indies. During the war large supplies were also required for victualling the navy. The vessels engaged in the coasting trade, and in short voyages, use only fresh provisions.

The English have at all times been great consumers of beef; and at this moment more beef is used in London, as compared with the population, than anywhere else. Previously to 1842 the importation of fresh beef was prohibited; and salt beef from a foreign country was at the same time charged with a duty of 12s. per cwt. But in that year the duties on both sorts were reduced to 8s. 4½d. per cwt., and in 1846 they were wholly repealed. In 1866 the imports of salted and fresh beef amounted to 232,948 cwt. [CATTLE; PROVISIONS.]

**BEER.** [ALE AND BEER.]

**BEET.** Certain plants, originally grown near the sea, and which belong to the natural order

*Chenopodiaceae*, have long ago been employed for domestic and agricultural purposes, under the names of beet and mangold. They are characterised by containing a large quantity of sugar, and the cultivation of the beet and the extraction of this sugar form an important and increasing industry in central Europe.

This cultivation was the consequence of the exclusion of colonial produce from France during the continental war, and notwithstanding the great increase in the growth of cane sugar, that of the beet has grown and is growing rapidly. The French agriculturists reckon five varieties of beet, *grosse rouge*, *petite rouge*, *jaune*, *blanche*, and *veinée de rouge*. The richest in sugar are the yellow and red, but the percentage varies with the soil and the season. A beet crop is an excellent rotation to grain.

As the beet root sugar is chemically identical with that from the cane, it can be fermented and become a wash for spirits. The distillation of spirit from beet was hardly known in France before 1810, when it is said that only 30 hectolitres were manufactured. After the oidium attacked the grape, the produce of beet-root distillation increased enormously, and it has probably by this time reached 400,000 hectolitres (8,800,000 gallons).

For the statistics &c. of the beet root sugar produce of France &c. see SUGAR.

**BELL-METAL** (Fr. métal de fonte ou de cloches; Ger. glockengut; Dutch, klokspys; Span. campanil; Russ. koloklnaja mjed). A composition of tin and copper, usually consisting of 3 parts of copper and 1 of tin. Its colour is greyish-white; it is very hard, sonorous, and elastic. Less tin is used for church bells than for clock bells; and in very small bells a little zinc is added to the alloy. (Thomson's *Chemistry*.)

**BEN** (Fr. ben; Ger. salbuisse; Dutch, bebennoten; Swed. bennotter; Span. anis unguentarias; Ital. noce di been, ghiande unguentaria). The nut of a kind of tree known to botanists as *Gulandina bonduc*, originally brought from tropical Asia, but now cultivated successfully in central Europe. The seed is a cone, containing a number of triangular seeds, about the size of a hazel nut, these seeds holding a white and sweet kernel, which gives on expression a large quantity of oil. This oil is particularly free from mucilaginous admixture, and therefore does not solidify. Hence it is exceedingly useful for watchmakers, and other mechanics who need a lubricating oil which does not readily congeal. It is also free from any disposition to grow rancid, and it thus forms a convenient vehicle for perfumes. Ben oil is now a rare article of commerce, and is sometimes confounded with oil of sesame.

**BENZOLIN.** [BALSAM.]

**BERGEN.** The first commercial city of Norway, situated at the bottom of a deep bay, in lat. 60° 24' N., long. 5° 20' E. Pop. in 1860, 26,540. It has a light on Nordnaes Point, visible 4 miles off in clear weather. The bay is enclosed on all sides by rugged rocks and islands; the water is deep; but, owing to the number and intricacy of the passages, the access to the town is attended at all times with a good deal of difficulty, and should never be attempted without a pilot. Cod-fish, salted or dried, is the principal article of export: when dried, it is called stock-fish, and goes chiefly to Italy and Holland. The fishery is the principal employment; and considerable quantities of fish and other products are also brought hither for exportation from the more northerly parts of the kingdom. At an average, from 25,000,000 to 30,000,000 lbs. salted and dried fish are annually

exported. Herrings, whale oil, skins, bones, tar, lobsters &c. are also largely exported. Consul-General Crowe, in his Report of Feb. 1848, states that fishing for sharks along the western coast of Norway has become profitable. The exports of timber from Bergen are inconsiderable, and none has lately gone to England. Norway timber is not so large as that brought from Prussian ports, nor so free from knots; but, being of slower growth, it is more compact and less liable to rot. The planks are either red or white fir or pine; the red wood is produced from the Scotch fir; the white wood, which is inferior in price and estimation, is the produce of the spruce fir: each tree yields three pieces of timber of 11 or 12 feet in length; and is 70 or 80 years of age before it arrives at perfection. The planks or deals of Bergen are, however, a good deal inferior to those of Christiania. The imports into Bergen principally consist of grain from the Baltic; and salt, hardware, coffee, sugar &c. from England.

For *Money, Weights, and Measures*, see CHRISTIANIA; where there are further details as to the trade and navigation of Norway.

**BERRIES** (*Bacca*). The fruits or seeds of many different species of plants. The berries quoted in London Price Currents are bay, juniper, Turkey, and Persian.

1. *Bay Berries* (Fr. baies de laurier; Ger. Lorbeer; Ital. bacchi di lauro; Span. bayas). The fruit of the *Laurus nobilis*. This tree is a native of the south of Europe, but is cultivated in this country, and is not uncommon in our gardens. The berry is of an oval shape, fleshy, and of a dark purple colour, almost black; it has a sweet fragrant odour, and an aromatic astringent taste. Bay berries, and the oil obtained by boiling them in water, are imported from Italy and Spain.

2. *Juniper Berries* (Fr. genévrier; Dutch, sevenboom; Ital. ginpro; Span. cnebro). The fruit of the common juniper (*Juniperus communis*). They are round, of a black purple colour, and require two years to ripen. They have a moderately strong, not disagreeable, but peculiar smell, and a warm, pungent, sweetish taste, which, if they be long chewed, or previously well bruised, is followed by a considerable bitterness. They are found in this country; but most of those made use of here are imported from Holland, Germany, and Italy. They should be chosen fresh, not much shrivelled, and free from mouldiness, which they are apt to contract in keeping. On distillation with water, they yield a volatile essential oil, very subtle and pungent, and in smell greatly resembling the berries. The peculiar flavour and diuretic qualities of Geneva depend principally on the presence of this oil. Much English gin is said to be flavoured with oil of turpentine. (Lewis's *Mat. Med.*; Thomson's *Dispensatory*.)

The duty on juniper berries, previously to 1832, was 11s. 1d. per cwt., being more than 100 per cent. on the price in bond. The oppressiveness of this duty seems to have been the principal reason why turpentine, which in point of flavour and all other respects is so inferior, was largely used in preference to juniper berries in the preparation of gin. This oppressive duty was reduced, in 1832, to 2s., again, in 1842, to 1s. 6d., and was finally repealed in 1845. This wise and liberal measure has materially improved the beverage of a large proportion of the people. In 1865, 2,842 cwt. of juniper berries were retained for consumption.

3. *Turkey Yellow Berries*. The unripe fruit of the *Rhamnus infectiorius* of Linnæus. They are used as a dye drug, in preparing a lively but very fugitive yellow, for topical application in calico-printing. Considerable quantities of them are

exported from Salonica, to which they are brought from Thessaly and Albania. An inferior sort is produced in France. (Bancroft *On Colours*.) The duty on Turkey berries was abolished in 1845. The imports in 1865 amounted to 5,184 cwt., and the exports to 1,116 do. Price in the London market, September 1865, *5l. 7s. 6d. to 5l. 14s. 2d.* per cwt.

4. *Persian Yellow Berries* are said by the merchants to be of the same species as the Turkey yellow berries. The colours which they yield are more lively and lasting. They are high priced, fetching from 80s. to 110s. per cwt.

**BERYL** (called by the jewellers *Aquamarine*). This stone was suspected by Pliny to be a variety of the emerald; a conjecture which modern mineralogists have completely confirmed. The term *emerald* is applied to that particular variety which presents its own peculiar colour, or *emerald green*; while that of beryl is given indiscriminately to all the other varieties; as the sea green, pale blue, golden yellow, and colourless. The beryl is found in very many parts of the world—in the United Kingdom, France, Bavaria, Siberia, Sweden, Saxony, Elba, Brazil, Massachusetts, Hindostan.

The commercial value of the beryl or aquamarine is trifling; it is used principally in Birmingham, for imitation jewellery, and as ornaments for metal work. (Emanuel *On Diamonds*.)

**BETEL-LEAF** (Hind. pan; Malay, sireh; Javanese, suro). The leaf alluded to in art. **BETEL-NUT**. It is the produce of a species of pepper vine (*Piper Betle*), and somewhat resembles the ivy-leaf. In their fresh state, betel leaves form an important article of Eastern traffic, being every where used in the preparation of betel. The *Piper Betle* is a scandent plant, and poles are placed in the ground, round which it twines itself. In consequence of the great consumption of its leaves, it is extensively cultivated throughout tropical Asia. It grows in the greatest perfection in rich soils close to the Equator; and is raised with more difficulty the farther we recede from it. (*Ency. Britannica*, new ed., art. 'Betel'; Crawford's *Indian Archipelago*, vol. 1. p. 408.)

**BETEL-NUT** or **ARECA** (Sansc. and Hind. supri; Malay, pinang; Javanese, jambi). The fruit of the *Areca catechu*, a slender and graceful palm, rising to the height of about 30 or 40 feet; it produces fruit at the age of five or six years, and continues bearing till its twenty-fifth or thirtieth year. The fruit, which is the only part of the palm that is made use of, is eaten both in its unripe and in its mature state. When ripe, it is of the size of a small egg, and of an orange colour; the exterior part consists of a soft, spongy, fibrous matter, enclosing a nucleus resembling a nutmeg in shape, internal structure, and colour, but usually larger, and always harder. A single tree produces, according to its situation, age, culture &c., from 200 to 800 nuts. They are objects of great importance in the East, forming the principal ingredient of a compound in universal use as a masticatory in all central and tropical Asia. The other ingredients are the leaf of the **BETEL-PEPPER**, in which the areca nut is wrapped; a little **CHUNAM**; and generally, but not always, a little *catechu* or *terra japonica* [**CATECHU**]. The whole compound is called *betel*, and is used to an extent of which it is difficult for a European to form a just idea. All individuals, without exception of age or sex, begin at an early period to accustom themselves to betel. They are unceasingly masticating it, and derive a gratification from its use that strangers can neither understand nor explain. It reddens the saliva, gives a bright hue to the lips, and, in course of time, renders

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the teeth quite black. It is said to dispel nausea, excite appetite, and strengthen the stomach. Besides being used as an article of luxury, it is a kind of ceremonial which regulates the intercourse of the more polished classes of the East. When any person of consideration visits another, after the first salutations, betel is presented: to omit it on the one part would be considered neglect, and its rejection would be judged an affront on the other. No one of inferior rank addresses a dignified individual without the previous precaution of chewing betel; two persons seldom meet without exchanging it; and it is always offered on the ceremonious interviews of public missionaries. The areca nut is, in consequence, an article of very extensive trade. The countries which yield it most largely for exportation are Malabar, Ceylon, and Sumatra. Of the extent of this trade some notion may be formed from the fact that the imports of areca into Calcutta in 1841-42 amounted to 53,633 Ind. maunds, or 1,966 tons, and those into Canton, in 1837, by British ships only, amounted to 25,978 piculs, or 1,502 tons, notwithstanding Bengal and Southern China are countries in which areca is largely produced. (Art. 'Betel,' *Encyc. Brit.* new ed.; Bell's *Review of the External Commerce of Bengal*; Crawford's *Indian Archipelago*, vol. i. p. 102, vol. iii. p. 414; *Chinese Calendar and Register*.)

BEZOAR (Arab. faduj; Hind. zeher-morah; Pers. padzehr kanié). A concretion found in the stomach of an animal of the goat kind: it has a smooth, glossy surface, and is of a dark green or olive colour. The word *bezor*, however, has lately been extended to all the concretions found in animals; such as the *hog bezor*, found in the stomach of the wild boar in India; the *bovine bezor*, found in the gull-bladder of the ox, common in Nepal; and the *camel bezor*, found in the gull-bladder of the camel: this last is much prized as a yellow paint by the Hindoos. The finest bezor is brought to India from Borneo and the sea-ports of the Persian Gulf; the Persian article is particularly sought after, and is said to be procured from animals of the goat kind, *Capra Gazella*. Many extraordinary virtues were formerly ascribed to this substance, but without any sufficient reason. (Ainslie's *Materia Indica*.)

BHANG or CHURRUS (the latter name used in tracts north of the Punjab to denote a resinous exudation derived from the hemp, *Cannabis sativa*). The dried hemp plant which has flowered and from which the resin has not been removed is called Gunjah, and is used for smoking. It has also valuable medicinal properties as an antispasmodic and anodyne. The larger leaves and capsules are called bháng, Tubjee, and Sidtha.

The resin called Churrus is worth about 8s. 4d. per lb.; a still finer kind, collected by hand in Nepal, and called moncea, is worth from 10s. to 12s. per lb. The ordinary churrus is collected by a singular process. Men clad in leathern dresses run through the hemp fields, brushing through the plants with all possible violence; the soft resin adheres to the leather, and is subsequently scraped off and kneaded into balls. Sometimes the leathern attire is dispensed with, and the resin is collected on the skin of naked coolies. (*Exhibition Catalogue for India*, pp. 42, 81.)

BIAZ. A cotton material resembling linen, manufactured in Central Asia to a considerable extent, both for native use and for exportation to Russia. There are three sorts: the best, or Bokharian; the medium, or Khivan; and an inferior variety manufactured in Tashkend. The Bokharian biaz is brought to the bazaars and purchased by dealers for export to Russia. It is sold

in pieces from 12½ to 16½ yards in length and 10½ inches in breadth. The best description sells at about 1s. 6d. and the lowest at 10½d. per piece. A camel's load consists of 400 pieces, each piece weighing about 1½ lb. The Tashkend biaz, although inferior in quality and measure to that of Bokhara, is of but very little less value, the price of a piece of 14 yards being at Tashkend 10½d. to 1s. 3d. The price of the Khivan biaz is from 16s. 3d. to 17s. 1½d. per 10 pieces. The quantity imported into Russia between 1840 and 1850 was, according to Mr. Lumley, about 1,600,000 pieces, valued at 114,150l. A blue biaz, *teudel* or *bugak*, dyed with indigo, is also exported from Bokhara, Khiva, and Tashkend to Russia. For further information on this subject see Mr. Lumley's valuable Report on Central Asia, with Reports of Secretaries of Legation presented to Parliament in 1862.

BILBAO. The capital of Biscay, one of the three Basque Provinces, a seaport town of Spain, on the river Nervion, about 8½ English miles from Portugalete. Population in 1864, 25,000.

Port.—The Bay of Bilbao lies between Panto Galea on its east, and Panto Lazuro on its western side, distant apart about 3 miles. It stretches S.E. to within ¾ mile of Portugalete, a small town at the mouth of the Nervion, lat. 43° 15' 47" N., long. 2° 45' W.

The water in the bay varies from 5 to 10 and 14 fathoms. There is a bar at the mouth of the river. High water at full and change at 3 1/2 p.m. The depth of water at high tide on the bar may be said to have a maximum of 16 to a minimum of 12 feet. Instances, however, are frequent of 18 and 19 feet: about 15 feet at high water may generally be depended on.

The channel is constantly changing, and heavy seas on the bar are of continual occurrence. The head pilot is in attendance, weather permitting, taking soundings, and directing incoming or outgoing vessels; but when he is unable to go out, signals are made by red flags at Portugalete and Santuree, either to direct the passage of the ships or to forbid their attempting to cross the bar. Vessels never, except in the finest weather, or to avoid running on an impracticable bar and lee shore, anchor in the bay. Pilots go off from Portugalete and Santuree on the west, and Algorta on the east side of the bay, and sometimes board from Santafia. The lighthouse is at Panto Galen. (For bearings, see SAILING DIRECTIONS.) Vessels proceed to Olaveaga, 2 miles below the town of Bilbao, to discharge, to which point ships of any draught that can cross the bar can safely proceed and discharge afloat. Only steamers of light draught, and ships drawing not more than 9 feet, can get up to Bilbao, and even then they lie aground at low water. Vessels also discharge coal cargoes and load iron ore at San Nicolas, about 2 miles above Portugalete. Goods are conveyed in lighters from Olaveaga to Bilbao; but the railway will be continued to Olaveaga, and probably to Portugalete, and thus put an end to the heavy expense and inconvenience of the present system of discharging and loading. A proposed port outside the bar, stretching from Santuree to Algorta, would obviate that formidable obstacle.

The following are the port dues and expenses:—

	Rs. v. ct.
Advice to head pilot of draught of water	23 0
Head pilot	56 75
Pilotage, per Spanish foot	10 0
Boat from sea to Olaveaga (every vessel above 50 tons is bound to take a boat)	150 0
Detection at Quarantine, to pilot	12 50
Extra boats, to tow in or out each	30 0
Pair of bullocks to tow up the river, per kilometre	2 16



But in the case of ships homeward bound from the West Indies, which send their boats to fetch the cargo from the shore, the exception in the bill of lading is usually expressed as follows: 'The act of God, the queen's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, *save risk of boats, so far as ships are liable thereto*, excepted.' Other exceptions may be and are sometimes introduced; but the above is the general form.

**Transfer of Bills of Lading.**—Bills of lading are transferable either by blank or special indorsement, like bills of exchange. And whatever may be the character of the person to whom the goods are consigned, whether he be a buyer, or merely the factor, agent, or broker of the consignee, the bona fide holder of a bill of lading indorsed by the consignee is entitled to the goods, and may claim them from the master, if he can prove that he has purchased the bill for a *good consideration*: but unless he can do this, he is not entitled to the goods. (Holt, *Law of Shipping*, 2nd ed. p. 363.)

Formerly, a factor, though he might sell, could not *pledge* the goods of his principal. But the hardship and inconvenience arising from this rule were such, that it was set aside by the Act 6 Geo. IV. c. 94. The second section of this Act declares that any person in possession of a bill of lading shall be deemed the true owner of the goods specified in it, so as to make a sale or pledge by him of such goods or bill of lading valid, unless the person to whom the goods are sold or pledged has notice that the seller or pledger is not the actual and bona fide owner of the goods. [FACTOR.]

**Delivery under Bill of Lading.**—It being usual to sign and deliver three bills of lading, it is possible that there may be conflicting demands upon the captain by the different holders. Nothing, however, is, in such a case, required of him, except that he act with good faith, and to the best of his judgment; and that he make delivery of the goods to the person who first demands them of him, upon presentment of the bill of lading, *provided the circumstances be not such as to justify a suspicion of his having unfairly got possession of it*. If he act differently, he is answerable, according to the peculiarities of the case, to the person injured by his negligence; the bill of lading being not only the instructions of the merchant to him, as his carrier or servant, but his own especial agreement to deliver according to its conditions.

Where several bills of lading of a different import have been signed, no regard is to be paid to the time when they were first signed by the master; but the person who first gets legal possession of one of them from the owner or shipper has a right to the consignment; and where such bills of lading, though different upon the face of them, are constructively the same, and the master has acted bona fide, a delivery according to such legal title will discharge him from all. (Holt, pp. 375, 377.)

By 23 Vict. c. 22 s. 21 &c. a bill of lading becomes the entry or shipping bill of goods exported. The charges under this Act are repealed by 26 Vict. c. 22; see also 18 & 19 Vict. c. 111 on the same subject.

Great inconveniences arise, should any irregularity occur in a bill of lading; for the regulations of several countries, as in particular Spain, Portugal, and several of the South American governments, are exceedingly strict. In the ports of these countries, a mistake in these documents leads frequently to the infliction of severe penalties.

**BILL OF SALE.** A formal instrument by which an individual conveys away the right and interest he has in the goods or chattels named

therein. The property of ships is transferred by bill of sale, of which there are two descriptions, viz. (1) the *grand* bill of sale, which conveys the property of the ship from the builder to the owner or first purchaser; and (2) the *ordinary* bill of sale, by which any subsequent transfer is made. No stamp duty is payable on these documents, nor is it necessary that they should be under seal. (Maule and Pollock *On the Law of Shipping*, p. 43.) [REGISTRY.]

**BILL OF SIGHT.** When a merchant is ignorant of the real quantities or qualities of any goods consigned to him, so that he is unable to make a perfect entry thereof, he or his agent must subscribe a declaration to that effect before the collector or comptroller, who is authorised, on receiving such declaration, to allow the importer to enter the goods by **BILL OF SIGHT**. (See the form, **IMPORTATION AND EXPORTATION**.) They may then be provisionally landed; and perfect entry of the same must be made within 3 days, by indorsing on the bill of sight such particulars as are required in making perfect entry of goods, whether for payment of duty, warehousing, or delivery free of duty. (16 & 17 Vict. c. 107 ss. 61, 62.)

Goods entered by bill of sight for delivery on payment of duty are not to be delivered till perfect entry thereof has been made, and the duty paid, unless the importer deposit a sum of money sufficient to cover the duty payable thereon. (Sec. 63.)

In default of perfect entry within 3 days, goods entered by bill of sight are to be taken to the Queen's warehouse; and if the importer do not, within 1 month, make perfect entry, and pay the duties thereon, or on such parts as can be entered for home use, together with charges of moving and warehouse rent, such goods shall be sold for payment of the duties. (Sec. 64.) [IMPORTATION AND EXPORTATION.]

**BILL OF STORE.** A license granted by the Custom-house to re-import British goods into the United Kingdom.

The Act 16 & 17 Vict. c. 107 has the following clause in regard to the entry of goods by bill of store:—

All British goods re-imported into the United Kingdom shall be entered as foreign, and shall be liable to the same duties, rules, regulations, and restrictions as such goods, if foreign, would be liable to on the first importation thereof, unless the same shall be re-imported within 10 years after the exportation thereof, and it shall be proved to the satisfaction of the Commissioners of Customs that the property in such goods has continued and still remains in the person by whom or on whose account the same have been exported, in which case the same may be entered as British goods, by bill of store, containing such particulars and in such form and manner as the said Commissioners may direct: Provided always, that the following goods shall, on re-importation, be deemed and taken to be foreign goods, viz. corn, grain, meal, flour, and hops, and also all goods for which any drawback of excise shall have been received on exportation, unless by special permission of the Commissioners of Customs, and on re-payment of such drawback, and also all goods for which a bill of store cannot be issued in manner directed by the said Commissioners, except remnants of British goods, with permission of the Commissioners of Customs. (Sec. 65.)

The following is a regulation of the Board of Customs, dated November 9, 1861, by which the importation of returned British goods is greatly facilitated:—

That the limit of time within which goods may be returned and admitted as British be

abolished in all cases except where a Bill of Store is required, and that the declaration of continued proprietorship be in all cases dispensed with.

That returned British goods of the same description as foreign goods on which duty is chargeable upon importation, or which were entitled to drawback on exportation, be deemed to be foreign unless a Bill of Store be obtained in accordance with the other provisions of the above section, corn, grain, meal, flour, and hops being in all cases deemed to be foreign.

That returned British goods bearing marks or brands of British manufacturers be deemed to be foreign goods with British marks or brands, and as such liable to forfeiture, unless declaration be made by the persons whose marks or brands they bear, that the goods are of British manufacture, or unless a Bill of Store be obtained.

That returned British goods not bearing marks or brands, not entitled to drawback on exportation, and not of a description which, if foreign, would be chargeable with duty, be admitted upon their being entered as British goods with the usual declaration to the truth of the particulars contained in the entry, as required on all import entries.

**BILL (VICTUALLING).** Formerly a victualling bill was a list of all stores for shipment, but now it shows only stores shipped from the bonded warehouse or for drawback on board vessels proceeding on over-sea voyages. This document serves also as a certificate of clearance when there is nothing but stores on board the ship (16 & 17 Vict. c. 107 s. 145), and this law also enacts that if after clearing outwards a vessel be found to possess any such stores which are not endorsed on the victualling bill, such stores shall be forfeited. (See 146.)

**BILLINGSGATE.** A market for fish, contiguous to the Custom-house in London. It is held every lawful day, and was established in 1609 by stat. 10 & 11 Wm. III. c. 24. Every person buying fish in Billingsgate market may sell the same in any other market-place or places within the city of London or elsewhere, by retail, with this condition, that none but fishmongers be permitted to sell in fixed shops or houses. No person or persons shall purchase at Billingsgate any quantity of fish, to be divided by lots or in shares amongst any fishmongers or other persons, in order to be afterwards put to sale by retail or otherwise; nor shall any fishmonger engross, or buy in the said market, any quantity of fish, but what shall be for his own sale or use, under the penalty of 20*l*. No person is to have in his possession, or expose to sale, any spawn of fish, or fish unsizeable, or out of season. (36 Geo. III. c. 118.) The minimum size of the lobsters to be sold at Billingsgate is fixed by statute. [LOBSTER.]

Previously to 1812 no fish of foreign taking or curing, or in foreign vessels, could be imported into the United Kingdom, except turbot and lobsters, stock-fish, live eels, anchovies, sturgeon, botargo, and caviare. But the importation of all sorts of fish was then permitted on payment of duties, which were finally repealed in 1853. At present, therefore, the trade in fish is quite free.

For some further remarks with respect to this subject, see *FISH*.

**BIRCH** (Fr. boulean; Dutch, berke; Ger. birke; Ital. betulla; Lat. betula; Pol. brzoza; Russ. bereza; Span. abedul, betulla). A forest-tree met with everywhere in the north of Europe. It is applied to various purposes. In Lapland, Norway, and Sweden, the long twigs of the birch are woven into mats and twisted into ropes; the outer bark forms an almost incorruptible covering for houses;

and the inner bark is used, in periods of scarcity, as a substitute for bread. Russia leather is prepared by means of the empyreumatic oil of the birch. It is an excellent wood for the turner, being light, compact, and easily worked. Its durability is not very great. It is sometimes used in the manufacture of herring barrels.

**BIRDLIME** (Ger. vogelheim; Fr. glu; Ital. pania; Span. liga; Russ. pitschei klei). It is found in the inner bark of certain plants, as the mistletoe (*Viscum album*) and the holly (*Ilex aquifolium*). It is prepared by boiling the bark several hours in water, separating it from the liquid, in which it is insoluble, and setting it aside till it becomes viscous. Birdlime is greenish, tenacious, glutinous, of a bitter taste, and a smell similar to linseed oil. If exposed to the air in thin layers, it becomes dry brown, and may be powdered, but regains its viscidility when treated with water. A substance similar to birdlime, and called specially *glu* by French chemists, exudes spontaneously from the bark of certain plants. When this substance is purified, it is without odour or taste, is very adhesive, is fusible by heat and inflammable, is quite insoluble in water, and nearly so in alcohol, but is freely dissolved by ether and turpentine oils. It has been called *viscin*. The use of birdlime is familiar, but it has little commercial importance.

**BIRDS' NESTS** (Ger. Indianische vogelnester; Dutch, Indiaansche vogelnestjes; Fr. nids de Tunkiu; Ital. nidi di Tunchino; Span. nidos de la China; Javanese, susu; Malay, sarungburung; Chinese, yiu-wo). The nests of a species of small swallow peculiar to the Indian islands (*Hirundo esculenta*), very much esteemed in China. In shape these nests resemble those of other swallows. They are formed of a viscid substance; and in external appearance, as well as consistence, are not unlike fibrous, ill-coagulated isinglass. Esculent nests are principally found in Java, in caverns that are most frequently, though not always, situated on the sea-coast. Many conflicting statements have been made as to the substance of nests; some contending that they are formed of sea-foum or other marine products, and others that they are elaborated from the food of the bird &c. But these are points as to which nothing satisfactory is known.

It is asserted that at the time of pairing the swallow secretes a glutinous substance from its bill, and that this mucus flowing from the bill in filaments forms the material of the nest. This substance, for which the name *cablose* has been suggested, is hardly soluble in cold, and slowly in boiling water, but readily in alkaline solutions, whether cold or hot. Iodine tinges it an orange yellow.

Singapore is the chief mart for birds' nests, to which they are brought from Borneo, Java, Rio Minto, Sumbawa, Sumatra, and Celebes. The price of the same quality varies enormously; at Manilla a picul (133 lbs.) will fetch 2,000 piastres, while in Canton the same quantity may be worth nearly 4,000 piastres.

Birds' nests are served at the close of great entertainments, in the proportion of a nest and a half to each guest.

We borrow from Mr. Crawford's valuable work on the *Eastern Archipelago* (vol. iii. pp. 432—437) the following authentic and curious details as to the traffic in this singular production: 'The best nests are those obtained in deep damp caves, and such as are taken before the birds have laid their eggs. The coarsest are those obtained after the young are fledged. The finest nests are the whitest, that is, those taken before the nest has

been rendered young birds. If regularly offered to the quantity by the caves a year or two difficult of access by the office. The caves in Java of the collection Karang-bolan south coast only to be applied of many hundred rattan, over rocks. When the perilous of be performed recesses of the be instantly nothing below its way into the

'The only undergo is that exposure to the in small boxes, assorted for the according to the first or best, second that are regular parts, 533 parts of the third.

'The common are, for the first dollars the picul second, 2,800 Sp the third, 1,600 prices it is sufficient are no more than They are consumed the best part is the then, under the fully stimulating their most valuable perfectly harmless, much resemble habits, have no the latter acquire in it. Among the parallel to it, unstimulation in which luxury, remarkable for any qualities.

Mr. Crawford birds' nests export 212,400 lbs., which observes, 'of this try which produces wants of a single exclusive property forms a valuable revenue of the course not equal, and the circumstances in which the nest mote and sequester lawless, a proper subject to the perjury and it not unfrequently is the prohibited by one person such situations,

been rendered impure by the food and *faces* of the young birds. They are taken twice a-year, and if regularly collected, and no unusual injury be offered to the caverns, will produce very equally, the quantity being very little, if at all improved by the caves being left altogether unmolested for a year or two. Some of the caverns are extremely difficult of access, and the nests can only be collected by persons accustomed from their youth to the office. The most remarkable and productive caves in Java, of which I superintended a moiety of the collection for several years, are those of *Karany-bolang*, in the province of *Baglen*, on the south coast of the island. Here the caves are only to be approached by a perpendicular descent of many hundred feet, by ladders of bamboo and rattan, over a sea rolling violently against the rocks. When the mouth of the cavern is attained, the perilous office of taking the nests must often be performed by torch-light, by penetrating into recesses of the rock where the slightest trip would be instantly fatal to the adventurers, who see nothing below them but the turbulent surf making its way into the chasms of the rock.

The only preparation which the birds' nests undergo is that of simple drying, without direct exposure to the sun, after which they are packed in small boxes, usually of half a picul. They are assorted for the Chinese market into three kinds, according to their qualities, distinguished into *first or best, second, and third* qualities. Caverns that are regularly managed will afford, in 100 parts, 53·3 parts of those of the first quality, 35 parts of those of the second, 11·7 parts of those of the third.

The common prices for birds' nests at Canton are, for the first sort, no less than 3,500 Spanish dollars the picul, or 5*l.* 18*s.* 1½*d.* per lb.; for the second, 2,800 Spanish dollars per picul; and for the third, 1,600 Spanish dollars. From these prices it is sufficiently evident that the birds' nests are no more than an article of expensive luxury. They are consumed only by the great; and indeed the best part is sent to the capital for the consumption of the court. The sensual Chinese use them, under the imagination that they are powerfully stimulating and tonic; but it is probable that their most valuable quality is their being perfectly harmless. The people of Japan, who so much resemble the Chinese in many of their habits, have no taste for the edible nests; and how the latter acquired a taste for this foreign commodity is no less singular than their persevering in it. Among the Western nations there is nothing parallel to it, unless we except the whimsical estimation in which the Romans held some articles of luxury, remarkable for their scarcity rather than for any qualities ascribed to them.

Mr. Crawford estimates the whole quantity of birds' nests exported from the Archipelago at 212,400 lbs., worth 281,290*l.* The value, he observes, of this immense property to the country which produces it, rests upon the capricious wants of a single people. It is claimed as the exclusive property of the sovereign, and everywhere forms a valuable branch of his income, or of the revenue of the state. This value, however, is of course not equal, and depends upon the situation and the circumstances connected with the caverns in which the nests are found. Being often in remote and sequestered situations, in a country so lawless, a property so valuable and exposed is subject to the perpetual depredation of freebooters, and it not infrequently happens that an attack upon it is the principal object of the warfare committed by one petty state against another. In such situations, the expense of affording them

protection is so heavy, that they are necessarily of little value. In situations where the caverns are difficult of access to strangers, and where there reigns enough of order and tranquillity to secure them from internal depredation, and to admit of the nests being obtained without other expense than the simple labour of collecting them, the value of the property is very great. The caverns of *Karany-bolang*, in Java, are of this description. These annually afford 6,810 lbs. of nests, which are worth, at the Batavia prices of 3,000, 2,500, and 1,200 Spanish dollars the picul, for the respective kinds, nearly 139,000 Spanish dollars; and the whole expense of collecting, curing, and packing, amounts to no more than 11 per cent. on this amount. The price of birds' nests is of course a monopoly price, the quantity produced being by nature limited, and incapable of augmentation. The value of the labour expended in bringing birds' nests to market is but a trifling portion of their price, which consists of the highest sum that the luxurious Chinese will afford to pay for them, and which is a tax paid by that nation to the inhabitants of the Indian islands. There is, perhaps, no production upon which human industry is exerted, of which the cost of production bears so small a proportion to the market price. (See also the valuable work of Count Hogenorp, *Coup d'Œil sur l'Île de Java*, p. 291.)

The present importation of all kinds can only be guessed at: 500 piculs were entered at Shanghai and Canton in 1860, but the entire import can hardly be less than 700 or 800 piculs annually. (Williams' *Chinese Commercial Guide*, 6th ed.)

**BISMUTH** (Ger. wismuth; Dutch, bismuth, bergsteen, blinkendin; Fr. bismuth; Ital. bismutte; Span. bismuto, piedra inga; Russ. wismut; Lat. bismuthum). A metal of a reddish white colour, and almost destitute of taste and smell. It is softer than copper; its specific gravity is 9·822. When hammered cautiously, its density is considerably increased; it breaks, however, when struck smartly by a hammer, and, consequently, is not malleable, neither can it be drawn out into wire; it melts at the temperature of 476°. The chief source of bismuth is Saxony, but it is found in Swabia, the Pyrenees, Sweden, and Cornwall. (Thomson's *Chemistry*.)

Bismuth is used in the composition of pewter, in the fabrication of printers' types, and in various other metallic mixtures. With an equal weight of lead, it forms a brilliant white alloy, much harder than lead, and more malleable than bismuth, though not ductile; and if the proportion of lead be increased, it is rendered still more malleable. Eight parts of bismuth, 5 of lead, and 3 of tin, constitute the fusible metal, sometimes called Newton's, from its discoverer, which melts at the heat of boiling water, and may be fused over a candle in a piece of stiff paper without burning the paper. It has been suggested that this alloy of bismuth might be used advantageously in order to prevent steam explosions. Pewterers' solder is formed of 1 part of bismuth, with 5 of lead, and 3 of tin. It forms the basis of a sympathetic ink. (Ure.)

**BITUMEN** (Ger. judenpech; Fr. bitume; Dutch, jodenlym; Ital. asfalto; Span. asfalto; Port. asphalto; Russ. asfalt; Lat. asphaltum bitumen judaicum). This term includes a considerable range of inflammable mineral substances, burning with the flame in the open air. They differ in consistency, from a thin fluid to a solid; but the solids are for the most part liquefiable at a moderate heat. They are—1. *Naphtha*; a fine, white, thin, fragrant, colourless oil, which issues out of white, yellow, or black clays in Persia and Media. This

is highly inflammable. Near the village of Amiano, in the state of Parma, there exists a spring which yields this substance in a sufficient quantity to illuminate the city of Genoa, for which purpose it is employed. With certain vegetable oils, naphtha is said to form a good varnish.—2. *Petroleum* is much thicker than naphtha, resembling in consistence common tar. It has a strong disagreeable odour, and a blackish or reddish brown colour. During combustion it emits a thick black smoke, and leaves a little residue in the form of black coal. It is more abundant than the first-mentioned variety, from which it does not seem to differ, except in being more inspissated. It is found in various countries, and is especially abundant in the Birman empire, where it is met with above Prome, within about 2 miles of the Irrawadi. The gross annual produce of the wells in this place has been estimated at about 80,000,000 lbs., worth on the spot about 1s. 8d. per cwt.; and the supply might, if a market could be found, be indefinitely increased. It is used as a lamp oil, and, when mingled with earth or ashes, as fuel and in the lining of boats. (*Geographical Dictionary*, i. 453.) In the United States it is found abundantly in Kentucky, Ohio, and New York, where it is known by the name of *Seneca* or *Genesee* oil. It is also obtained from wells in the island of Zante. Herodotus tells us that he had seen these wells (lib. iv. c. 195); and the description he has given of them, and of the mode of obtaining the petroleum, corresponds, in all respects, with the accounts of the best modern travellers. The average annual produce of the Zante springs is about 100 barrels. (Chandler's *Travels in Greece*, 4to. ed. p. 301; Holland's *Travels in Greece*, 4to. ed. p. 18.) Petroleum is particularly abundant in Persia. 'When taken from the pit, it is a thick liquid resembling pitch. The bottoms of most vessels which navigate the Euphrates and Tigris are covered with it, and it is also used in lamps, instead of oil, by the natives. The most productive fountains are those of Kerkook, Mendali, and Badku. The wells in the neighbourhood of the latter seem to be quite inexhaustible, being no sooner emptied than they again begin to fill. Some of them have been found to yield from 1,000 to 1,500 lbs. a day!' (Kinnier's *Persian Empire*, pp. 39, 359.)—3. *Maltha*, or *Sea-wax*, is a solid whitish substance, not unlike tallow. It melts when heated, and in cooling assumes the consistence of white cerate. This is, most probably, the *bitumen candidum* of Pliny (*Hist. Nat.* lib. xxxv. c. 15). It is not used as pitch; but it affords a better light than petroleum, and emits a less disagreeable smell. It is found on the surface of the Baikal Lake in Siberia, at the foot of the mountains of Bucktiari in Persia, and in some other places.—4. *Elastic Bitumen* yields easily to pressure; it is flexible and elastic. It emits a strong bituminous odour, and is about the weight of water. On exposure to the air it hardens, and loses its elasticity. It takes up the traces of crayons in the same manner as caoutchouc, or India-rubber, whence it has obtained the name of *mineral caoutchouc*. It has hitherto been found only in the lead mines of Derbyshire.—5. *Compact Bitumen*, or *Asphaltum*, is of a shining black colour, solid, and brittle, with a conchoidal fracture. Its specific gravity varies from 1 to 1.6. Like the former varieties, it burns freely, and leaves but little residuum. It is found in India, on the shores of the Dead Sea, in France, in Switzerland, and in large deposits in sandstone in Albania; but nowhere so largely as in the island of Trinidad, where it forms a lake 3 miles in circumference, and of a thickness unknown. A

gentle heat renders it ductile, and, when mixed with grease or common pitch, it is used for paying the bottoms of ships, and is said to protect them from the teredo of the West Indian seas. The ancients employed bitumen in the construction of their buildings. The bricks of which the walls of Babylon were built were, it is said (Herodotus, lib. i. s. 179), cemented with hot bitumen, which gave them unusual solidity. [PETROLEUM.]

**BLACKING** (Ger. schuhschwärze, wiesse; Fr. noir (de cordonnier), cirage; Ital. nero da ugnere le scarpe; Span. negro de zapatos). A factitious article, prepared in various ways, used in the blacking of boots and shoes. The principal ingredients in its manufacture are oil, vinegar, bone-earth, molasses, and sulphuric acid. It is in very extensive demand. Some of the establishments for its manufacture, especially those in the metropolis, are on a very large scale; and it is in such only that it can be cheaply and advantageously produced. One of the principal, or rather we may say the principal outlay in establishing a blacking business, consists in advertising. Indeed, any individual or set of individuals, provided they supply a reasonably good article, may by continuous advertising and puffing attain to the highest eminence in the 'blacking line.' Exclusive of that used at home, blacking is a considerable article of export.

**BLACK-LEAD, PLUMBAGO, GRAPHITE,** or **WAD** (Dutch, potlood; Fr. noir; Ger. plumb noir, plomb de mine, potlot; Ger. potthlo, reissbley; Ital. miniera di piombo, piombaggine, corezolo; Lat. plumbago; Span. piedra mineral de piombo). A mineral of a dark steel grey colour, and a metallic lustre; it is soft, has a greasy feel, and leaves a dark-coloured line when drawn along paper.

This mineral is found only in a state of purity in Borrodale in Cumberland, the mines in which have been wrought since the days of Elizabeth. The lead is not found in veins, but in detached pieces, or in what are called *sops* or *bellies*, so that the supply is very irregular, the miners being frequently employed for a lengthened period in seeking at random for the lead. Its quality also differs very widely. The best is that which is lightest, and the trace of which on paper is easily and completely removed by the application of India-rubber. The mine is only opened at intervals, and is at present (1868) closed. The supply has been extremely scanty, and mostly also very inferior. When the mine is open, the trade is supplied at sales held on the first Monday of each month, in *Essex Street, Strand*, London.

At a sale of black-lead held at *Essex Street, Strand* (according to a writer in the *Builder*, Sept. 1, 1866), picked plumbago brought 20s. the lb., the article having been picked through at former sales. After this, there was a considerable stock sold at much lower prices, more like 20l. the ton than anything else, while the pure Borrodale lead would now fetch 30s. the lb., or more than 3,000l. the ton.

The mine ceased to be worked three or four years ago. The company who took it passed through the Bankruptcy Court. The Keswick makers not unfrequently purchase pure lead found in the locality which has been washed down from the mountains into the rivers and low lands, so that pure Borrodale lead pencils may still be purchased at Keswick, but comparatively few people go to the price, viz. 6s. the dozen.

In one year (1803) the produce of the Borrodale mine was 500 casks, each of 1½ cwt., the produce being worth 30s. the lb. So valuable was the product, every cart-load being worth from 3,000l.

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to 4,000l, that the produce was sent under military escort to Kendal. In order to prevent deceptions on the mine, an Act, 25 Geo. II. c. 10, made robbery from a black-lead mine felony.

The sources of black-lead are numerous. It is found in Ceylon, and according to Sir E. Tennent 2,000 tons are annually exported from the southern part of the island. It is also procured from Siberia, Austria, Prussia, in North America near Lake Superior, in Scotland, and from Schwarzenbach in Bohemia, whence about 70,000 lbs. per annum are obtained. It has also been discovered in beds of great thickness on the banks of the Yenisei about 300 English miles east of the town of Toorookhansk, and again in South Siberia near the Chinese frontier. The chief sources, however, of commercial graphite are Passau, in Bavaria; India, both in the Himalayas and Ceylon; and Spain. It is also a product of some iron works. In 1865, 4,836 tons were imported, chiefly from Ceylon.

**BLACK-LEAD PENCILS** (Dutch, potlootpen-nen; Fr. crayons noirs; Ger. bleystifte; Ital. lapis nero; Port. lapis negro; Russ. karanaschit; Span. lapiz negro). Pencils formed of black lead, encircled with cedar.

There is hardly, perhaps, anything in which the temptation to substitute a spurious for a genuine article is greater, or in which, consequently, the purchaser is more liable to be deceived, than black-lead pencils. This is occasioned by the vast difference between the cost of genuine Cumberland lead, and of the other articles that are or may be substituted for it. Pencils are usually described as follows:—

First quality, or drawing pencils.

Second ditto, or prepared pencils.

Third ditto, or composition pencils.

1. Pencils of the first quality are, when genuine, made of pure Cumberland lead, which costs at present (1868) 30s. per lb. or 168l. per cwt. From 18 to 20 dozen such pencils are produced from a pound of this lead.

These pencils are usually made by sawing the lead into the pieces inserted in the cedar. Sometimes, however, the lead is in parts gritty and defective, so that a pencil of this kind may, in fact, be very inferior. To obviate this defect, some makers prepare the lead, to free it from the grit or earthy particles; and, provided no antimony or other alloy be mixed up with the prepared lead, the pencils produced from it are most to be depended on.

2. Pencils of the second quality are manufactured out of the sawings or dust of pure lead, with the dust of the small pieces picked up by poor people from the rubbish thrown out of the mine, mixed or alloyed with a greater or less quantity of antimony. The goodness of this pencil depends, of course, on the proportion in which the pure lead exceeds the antimony. But as the cost of the former may be taken at 100l. per cwt. and that of the latter at only 26s., there is an all but irresistible temptation to increase the proportion of the latter beyond the bounds. This sort of composition produces about 15 or 16 dozen pencils to the lb.; their price varying according to the purity of the lead.

3. The third quality of pencil is made by using Mexican or Spanish lead dust, costing 45s. or 50s. per cwt., with antimony costing about 26s. per cwt. It produces about 14 or 15 dozen pencils to the lb., which may be sold at from 2s. 6d. to 12s. per gross, according to the cost of the articles employed and the care taken in mixing them. This sort of pencil may take a firm point, and make a fine stroke, but its trace will not obliterate on

being rubbed with India-rubber. The easy and complete obliteration of the strokes is, in fact, the best and perhaps only test of a pencil being of pure Cumberland lead. (*Private information.*)

**BLEACHING POWDERS.** These are the chlorides of the alkalis and alkaline earths. The cheapest and most generally used is the chloride of lime.

This product is manufactured in various parts of the country. The *Industrial Resources of the Tyne, Wear, and Tees* estimates the amount produced in that region at 11,280 tons per annum. The use of the powder is not confined to the bleaching of manufactured goods, for, according to the work referred to, the demand has greatly increased in consequence of the extensive use of the Spanish esparto grass in the manufacture of paper. The use of the chlorides, especially that of lime, as a disinfectant is well known.

The price of chloride of lime, which amounted to about 28l. a ton before chemical discovery had cheapened the process, has now been reduced to a third of that amount.

**BLOCKADE.** [*CONTRABAND; NEUTRALITY.*]

**BLUBBER** (Ger. thran, fischtran; Dutch, thraan; Ital. olio di pesce; Span. grassa, aceite de pescalo; Russ. salo worwannoe, worwan; Lat. oleum piscinum). The fat of whales and other large sea-animals, of which train oil is made. The blubber is the *adeps* of the animal: it lies under the skin, and over the muscular flesh: it is about 6 inches in thickness, but about the under lip it is 2 or 3 feet thick. The whole quantity yielded by one of these animals ordinarily amounts to 40 or 50, but sometimes to 80 or more cwt. Formerly train oil was manufactured from the blubber in the seas round Spitzbergen, and other places where whales were caught; but the practice is now to bring the blubber home in casks, and to prepare the oil afterwards.

It is enacted by the 6 Geo. IV. c. 107 s. 44 that before any blubber, train oil, spermaceti oil, head matter, or whale fins, shall be entered as being entirely the produce of sea animals caught by the crews of ships fitted out in the United Kingdom, or the islands of Jersey, Guernsey, Sark, and Man, the master of the ship importing such goods shall make oath, and the importer also shall make oath to the best of his knowledge and belief, that the same are the produce of fish or creatures living in the sea, taken and caught wholly by the crew of such ship, or by the crew of some other ship (naming it) fitted out in the United Kingdom, or in one of the islands of Guernsey, Jersey, Alderney, Sark, or Man (naming which).

Before blubber, train oil &c. can be entered as from a British possession, a certificate must be obtained from the custom-house officer at such British possession, or in default of such officer being there, from two principal inhabitants, notifying that oath had been made before him or them that such blubber &c. was the produce of fish or creatures living in the sea, and had been taken by British subjects usually residing in some part of his Majesty's dominions; and the importer is to make oath, to the best of his knowledge and belief, to the same effect.

The gauging of casks of oil and blubber is dispensed with since 1825. They are to be passed at the rate of 126 gallons the pipe, and 63 gallons the hogshend.

**BOART.** A technical term, used by diamond merchants to designate granular or imperfectly crystallised diamonds. This substance is either crushed into powder or used for engraving on hard stones. Boart is worth from 22s. to 30s. per carat. (*Emanuel On Diamonds &c.*)

**BOATS.** Open vessels, commonly wrought by oars, and of an endless variety of shapes, according to the purposes to which they are to be applied.

*Boats of Vessels to bear Name of Vessel, Port, and Master.*—The owner of every ship belonging wholly or in part to any of her Majesty's subjects shall paint or cause to be painted upon the outside of the stern of every boat belonging to such ship the name of such ship and the port or place to which she belongs, and the master's name within-side the transom, in white or yellow Roman letters, not less than 2 inches in length, on a black ground, on pain of the forfeiture of every such boat not so marked, wherever the same shall be found. (16 & 17 Vict. c. 107 s. 203.)

*Boat not belonging to Ships to have Name of Owner and Port thereon.*—The owner of every boat not belonging to any ship shall paint or cause to be painted upon the stern of such boat, in white or yellow Roman letters, of 2 inches in length, on a black ground, the name of the owner of the boat and the port or place to which she belongs, on pain of the forfeiture of such boat not so marked, wherever the same shall be found. (Sec. 204.)

**BOHEA.** A species of tea. [TEA.]

**BOLE.** A friable earthy substance, a species of the soapstone family. Specific gravity 1.4 to 2. It is found in the island of Lemnos, whence it is sometimes called Lemnian earth; and in Armenia, Italy, France, Silesia, various parts of South America &c. Armenian and French holes were at one time not uncommon in this country, being used in the materia medica; but they are now entirely or almost entirely discarded. In India, however, Armenian bole still continues to be in extensive demand. It is brought to Bombay from the Persian Gulf. It is soft, feels greasy to the touch, adheres strongly to the tongue, and is very friable: it is generally of a yellowish brown colour; though sometimes it is seen of a fine flesh red, which is the variety held in the highest estimation. Armenian bole consists chiefly of alumina and silica, coloured by oxide of iron. The chief use of Armenian bole is that of the manufacture of tooth powder. Some savage nations, such as the Ottomques, described by M. Humboldt, are in the habit of allaying the pains of hunger by eating boles, which however are occasionally nutritious, because masses of infusoria fossilised, but still containing animal matter, are found in the substance. The Javanese, when they wish to become thin, eat cakes, called *tanaampo*, made of bole. (Lewis, *Mat. Medica*; Thomson's *Chemistry*; Ainslie's *Mat. Indica*.)

**BOMBAY.** A seaport on the western coast of British India, one of the greatest emporiums in the East; lat. 18° 56' N., long. 72° 57' E. It stands on the south-eastern extremity of a small island of the same name, separated from the main land by an arm of the sea, forming with the contiguous islands of Colaba, Salsette, Butcher's Island, and Caranjah, one of the best harbours in India. Bombay Island was ceded by the Portuguese to the English in 1661. In 1668 it was transferred by the Crown to the East India Company, by letters patent, in free and common socage, on payment of an annual rent of 10*l.*, and in 1859 it was placed with the rest of India under the direct government of the Crown. The fort stands on the south-east extremity of the island, on a narrow neck of land, immediately over the harbour. The fortifications are extensive, and on the sea side very strong.

The population of Bombay Island, on its cession in 1661, did not exceed 15,000. In 1864 it amounted, including all its suburbs, to 816,562 inhabitants,

of whom 530,450 were males and 286,112 females, being in the ratio of 185.4 males to 100 females. The following table shows the casto or race. (*Bombay Almanac* 1865.)

Bhoodhis or Jain	-	8,021	Parsees	-	49,901
Brahmin	-	30,601	Jews	-	3,872
Langst	-	1,398	Native Christians	-	19,903
Bhatea	-	21,771	Eurasians	-	1,891
Hindoo	-	523,974	European	-	8,115
Mussalmen	-	145,880	Chinese	-	358
Negro African	-	2,074	Total	-	816,562

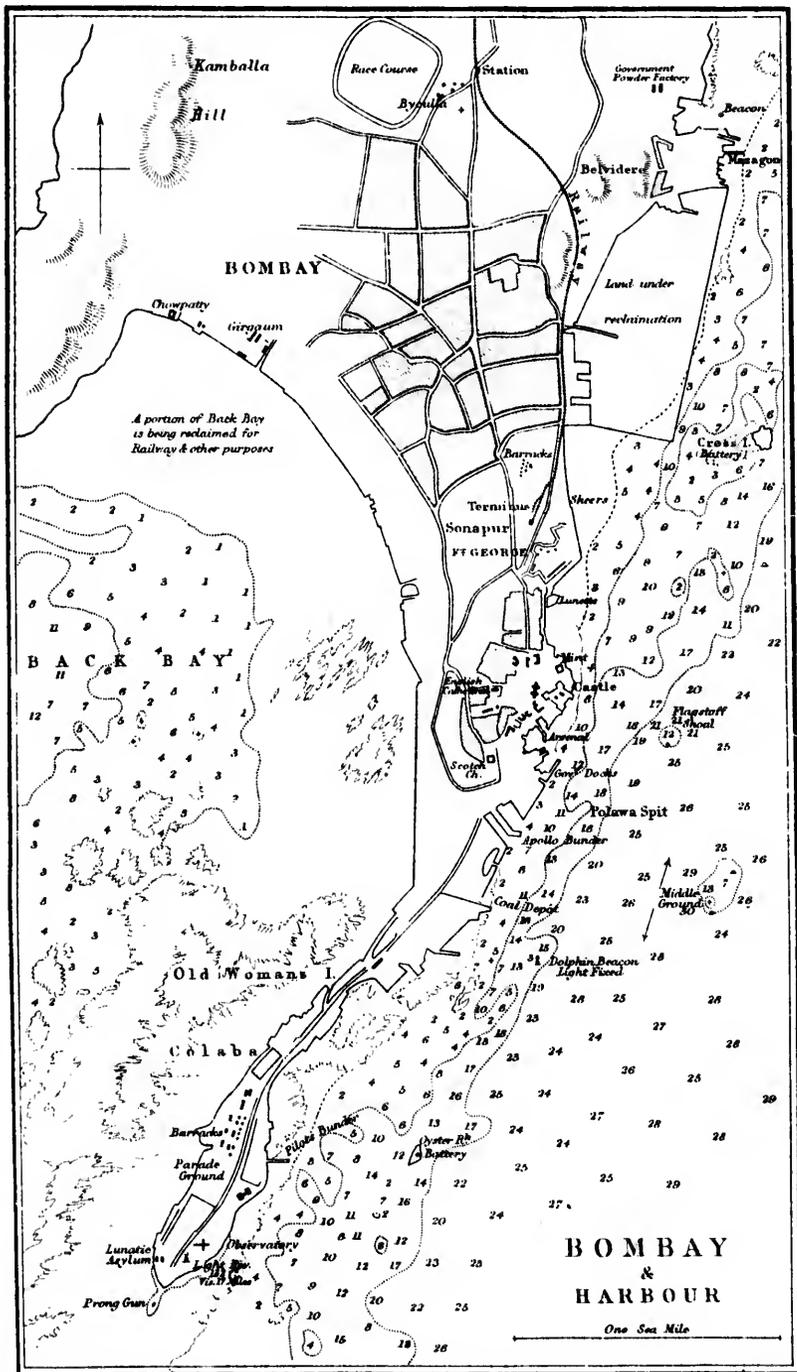
The total area of the Bombay Presidency under the administration of British rule, excluding native States, amounts to 142,043 square miles, with a total population of 13,039,106, of which the European portion, according to a census taken in 1861, was 27,317. The gross revenues of the Presidency show a progressive increase.

In 1845-44	-	-	-	-	£3,807,564
1853-51	-	-	-	-	4,000,807
1863-61	-	-	-	-	5,215,717

**Bombay Harbour** is one of the safest and most commodious in India. It is bounded on the west and north by the island of Colaba or Old Woman's Island, Bombay Island, and the island of Salsette. The first two are separated only by a narrow creek fordable at low water, and Bombay Island was joined to Salsette by a causeway constructed in 1805. On the east side of the harbour, between it and the main land, is Butcher's Island, distant about 4 miles from Bombay; and immediately behind Butcher's Island is the famous island of Elephanta. About 3 miles south from Butcher's Island is the island of Caranjah, on the western side of which, next the harbour, is an extensive shoal. S.W. from Caranjah, distant about 5 miles, is Tull Point; between which and Colaba, or Old Woman's Island, is the entrance to the harbour. A lighthouse was erected in 1844 on the southern extremity of Colaba Island, elevated about 120 feet above high-water, which in clear weather may be seen at the distance of 17 or 18 miles. The point on which the lighthouse stands is surrounded on all sides by an extensive reef of rocks divided into prongs; of these, the most dangerous is the prong stretching S.W. about 3 miles from the lighthouse, and forming the northern boundary of the entrance into the harbour. It is proposed to erect a new lighthouse a mile and a half farther out on the reef. The reef stretching W.N.W. from Tull Point about 3½ miles forms the southern boundary of the entrance; the breadth of the channel between them being about 3 miles, with a depth of from 7 to 8 fathoms. A new light was erected in 1867 on Kennary Island, 161 feet above the level of the sea. These lighthouses will contribute much to the safety of the navigation into and out of the harbour of Bombay. In going into the harbour, it is necessary to clear a sunken rock, lying almost due east from the lighthouse, at about 1½ mile distant; and also a bank, called the Middle Ground, lying nearly opposite to and about 1½ mile from the southern extremity of the town. (Nicholson and Watson's *Plan of Bombay Harbour*.)

**Docks.**—Bombay is the only port of consequence in British India in which the rise and fall of the tide are so considerable as to admit of the formation of extensive wet docks. At ordinary spring tides the rise is about 14 feet, but occasionally as high as 17. The capacious docks constructed by the East India Company are their property, and are for the most part under the direction of Parsees, who, excepting the Chinese, are the most industrious and intelligent people of the East. Merchant vessels of the largest class, or from 1,300 to 1,400 tons burden, for the cotton trade to China, have been built in these docks. Frigates





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- Hire of gangway ladders -
- Boring holes in copper -

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**PORT RULES**

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and line-of-battle ships have also been occasionally constructed in them, sometimes under the exclusive direction of Parsee artificers. The timber having to be brought from a great distance, ships built at Bombay are very costly; but being, contrary to the practice in other parts of India, entirely constructed of teak, they are the most durable vessels in the world, requiring little repair, and often running 50 or 60 years. Being for the most part built by natives, without any very strict application of the rules of art, they are commonly, though not always, heavy sailers.

The Bombay port establishment, under Act I. of 1859, consists of the shipping master, a deputy, an accountant, a master attendant and conservator of the port, with 2 assistants, and 17 pilots.

*Rates of Dock Charges for Repairs to Ships and Steam Vessels.*

	Large Dock Rs.	Small Dock Rs.
Opening the gates - - -	400	300
Daily dock hire - - -	40	25
Superintendance - - -	10 per diem	-
11re of shores - - -	20 per spring	15 per spring
11re of gangway ladder - - -	2	2
Boring holes in copper sheets - - -	3 per 100	3 per 100

Any artificers or foremen employed from the dockyard to be charged at dockyard rates.

Pilotage and labour—hauling in and out—will be charged extra.

Commission on work, and materials used in ship-building or repairing, and on machinery, brazier's or plumber's work, and on all contractor's bills and on all ship's supplies brought into the dockyard 10 per cent.

All stores brought into the dockyard for the repairs of vessels must be weighed or measured, and the full value declared to the dockyard clerk; and a copy of the contract for repairs must be furnished to him before the vessel leaves the dock.

Timber cut for shores, and dock blocks cut, will be charged for extra.

**PORT RULES, DUES, AND PILOTAGE FEES.**

*Port Rules.*—Clause 1.—1. No vessel, if above 200 tons, entering Bombay harbour, shall run up amongst the shipping until she shall have received permission from the master attendant or other duly authorized person, but must anchor within and to the eastward of the inner floating light; and no such vessel anchored within the limits of the port of Bombay shall move from one place to another within the port, between sunset and sunrise, without the special permission of the master attendant.

2. A vessel working out of harbour, if not clear of it at sunset, must anchor. In the S. W. Monsoon both anchors and cables are to be kept clear should they be required, and the sheet cable to be bent to the anchor.

3. All vessels above 200 tons, entering or leaving the harbour whilst a pilot may be on board, are to fly their national flag from the time of his boarding to the time of leaving, from the time of sunrise to sunset, or before and after, as long as the flags may be visible; and also every ship will show his number on entering the port.

Clause 2.—All vessels above 200 tons, within the port of Bombay, shall be bound to take up such berth as may be appointed for them by the master attendant, the harbour master, or their assistants, and shall change their berths or remove when required by such authority.

The berths of coasting craft and small vessels to be determined under the provisions of section 59 of Act I. of 1852, by the customs authorities with the consent and approval of the master attendant.

Clause 3.—All vessels in the port of Bombay shall have their tlying jib-booms rigged on, and shall when ordered by the master attendant rig in their jib and driver booms, and strike their masts or yards; and any signals made from the dockyard sheer flagstaff directing the striking of masts or yards, or the rigging in of booms, shall be considered to be orders, and obeyed as such.

Clause 4.—Cargo boats, full or empty, shall not be allowed to swing astern of any vessel without permission, nor shall anchors be coek-billed, or spare spars allowed to hang alongside or astern of any vessel.

Clause 5.—Vessels taking in or discharging ballast or any particular kind of cargo, within the port of Bombay, shall be bound to take up such berth as the master attendant or the harbour master may direct.

Clause 6.—Free passages to be kept to all piers, jetties, landing-places, wharves, docks, and moorings; and all boats and vessels shall be bound to move when required to clear such passages.

Clause 7.—All vessels within the port of Bombay will moor and unmoor according to the orders of the master attendant or the harbour master, and shall keep a clear hawse.

Clause 8.—1. On making a written application to the master attendant, a vessel may be moved from any mooring or anchorage within the harbour to any other mooring or anchorage approved by the master attendant, on paying the rates specified in Act XXXI. of 1857.

2. Transporting vessels below the Middle Ground, 20 rupees for vessels not exceeding 300 tons, and for all ships above that tonnage 30 rupees.

All vessels within the port of Bombay shall be moored or warped from place to place as required by the master attendant or harbour master; and no vessel shall cast off a warp that has been made fast to her to assist a vessel mooring, without being required so to do by the pilot or officer in charge of the vessel mooring.

Clause 9.—No vessel shall use any of the Government chain moorings, whether fixed or swinging, without permission of the master attendant or the harbour master.

Clause 10.—All vessels occupying Government moorings, fixed or swinging, shall be liable to pay for the same according to the following scale, but no more:—

*For Fixed Moorings.*

	From Nov. 1 to May 30.		From June 1 to Oct. 31.	
	Rs.	per diem.	Rs.	per diem.
Vessels up to 199 tons - - -	-	1	-	3
From 200 to 399 " - - -	2	"	4	"
300 - 399 " - - -	3	"	5	"
399 - 499 " - - -	4	"	6	"
499 - 599 " - - -	5	"	7	"
599 - 699 " - - -	6	"	8	"
699 - 999 " - - -	8	"	10	"
1,000 and upwards - - -	8	"	10	"
Swinging Moorings - - -	3	"	4	"

Clause 11.—No boats to ply as cargo boats except under license, as provided for by section 86 of Act I. of 1852.

Clause 12.—1. No boats lying within 50 yards of the dockyard stairs or wharves, or within 50 yards of the wharf in the basin formed within the breakwater in the vicinity of the custom house bunder, or Government docks, will be allowed to have fire on board.

2. No vessel shall boil pitch on board, but must do so in a boat alongside or astern.

3. All vessels taking in cotton are not on any account to have any lights in the hold or orlop whilst the hatches are opened, and during the stowage of the cotton; the fires are to be put out,

and all spirits, oil, paints, and spirits of turpentine are to be stowed in a place of security.

4. All vessels that may require to be steamed must be moved below the Middle Ground, clear of the shipping.

Clause 13.—No private vessels are to hoist signal lights at nights or to fire any great guns, or muskets, at the hour of sunrise or sunset, or at any other time, without permission excepting in cases when assistance is needed.

The provisions of sections 12, 28, 37, and 40 of the said Act, No. XXII. of 1855, are hereby specially extended to the port of Bombay.

**Port Dues.**—Port dues are levied under the provisions of Acts XXII. of 1855 and XXXI. of 1857, at the rate of 2 annas for every ton of burden, and ships entering the port with ballast 1 anna per ton.

Fees are levied at the rates below indicated for the following services :

Transporting.		
	Fair season	Monsoon
Vessels not exceeding 500 tons	40 rupees	65 rupees

And 10 rupees additional for every additional 100 tons. This only applies to vessels transporting from their moorings to Government docks and vice versa, or to Mazagon and back to harbour.

**Transporting to the Middle Ground.**

Tons			Rs.
Vessels not exceeding 500	-	-	60
Between 500 and 1,000	-	-	80
1,000 and 1,500	-	-	100
1,500 and 2,000	-	-	120

Vessels proceeding to sea, and anchoring by desire at the Middle Ground for less than twenty-four hours, half the above rate.

Hooking - - - 16 rupees | Measuring - - - 50 rupees

**Pilotage in and out of Bombay Harbour.**—For vessels from 100 tons to 2,000 tons during fair season and S.W. monsoon. The S.W. monsoon commences from June 1 and ends September 30.—

Ships from	Tons	Fair season		Monsoon	
		Rs.	Rs.	Rs.	Rs.
100 to 500	-	50	75	50	75
500 - 400	-	55	80	55	80
400 - 500	-	50	85	50	85
500 - 600	-	55	90	55	90
600 - 700	-	70	95	70	95
700 - 800	-	75	100	75	100
800 - 900	-	80	105	80	105
900 - 1,000	-	85	110	85	110
1,000 - 1,100	-	90	115	90	115
1,100 - 1,200	-	95	120	95	120
1,200 - 1,300	-	100	125	100	125
1,300 - 1,400	-	105	130	105	130
1,400 - 1,500	-	110	135	110	135
1,500 - 1,600	-	115	140	115	140
1,600 - 1,700	-	120	145	120	145
1,700 - 1,800	-	125	150	125	150
1,800 - 1,900	-	130	155	130	155
1,900 - 2,000	-	135	160	135	160

If a pilot proceeds on board a ship (when requested) to take her to sea, and his services are for that day dispensed with by reason of the ship not being ready—a fee of rs. 20 is charged by the master attendant for the attendance of the pilot.

**Pilotage in and out of the Port of Kurrachee.**—From and after the last day of January 1865, pilot fees for pilot services as shown in the following scale will be charged on all sailing vessels over 100 tons burden that may enter or leave the port of Kurrachee. The monsoon season comprises the months of June, July, and August.

Ships from	Tons	Fair season		Monsoon	
		Rs.	Rs.	Rs.	Rs.
100 to 500	-	50	75	50	75
500 - 400	-	55	80	55	80
400 - 500	-	60	85	60	85
500 - 600	-	65	90	65	90
600 - 700	-	70	95	70	95
700 - 800	-	75	100	75	100
800 - 900	-	80	105	80	105
900 - 1,000	-	85	110	85	110
1,000 - 1,100	-	90	115	90	115
1,100 - 1,200	-	95	120	95	120
1,200 - 1,300	-	100	125	100	125

Ships from	Tons	Fair season		Monsoon	
		Rs.	Rs.	Rs.	Rs.
1,300 - 1,400	-	105	130	105	130
1,400 - 1,500	-	110	135	110	135
1,500 - 1,600	-	115	140	115	140
1,600 - 1,700	-	120	145	120	145
1,700 - 1,800	-	125	150	125	150
1,800 - 1,900	-	130	155	130	155
1,900 - 2,000	-	135	160	135	160

Inward pilotage only will be charged on Steamers.

On all sea-going vessels of 100 tons and upwards, the same being necessitated to receive a pilot on board when moving within port limits, 2 annas for each ton of burden.

Coasting craft and vessels under 100 tons burden, which vessels are not required to take a pilot when moving within port limits, 4 annas for each ton of burden. (Extract *Bombay Almanac*, 1865.)

**Money.**—Accounts are kept in rupees; each rupee being divided into 4 quarters, and each quarter into 100 reas. The rupee is also divided into 16 annas, or 50 pice. An urdee is 2 reas; a doreea, 6 reas; a doognee, or single pice, 4 reas; a fudlea, or double pice, 8 reas; a panchlea is 5 rupees; and a gold mohur, 15 rupees. Of these, the annas and reas only are imaginary moneys. The coins of Bombay are the mohur, or gold rupee, the silver or Government rupee, and their divisions; also the double and single pice, the urdee, and doreea, which are copper coins with a mixture of tin or lead. The following is the assay and sterling value of the present gold and silver coinage of Bombay:—

	Gross wt.	Pure metal.	Sterling value
Gold mohur	110	100	22s 2d
Government rupee (silver)	180	165	1-11

if silver be taken at 5s. 2d. per oz., and 2s. 0½d. if silver be taken at 5s. 6d. per oz.

The Government rupee has been coined only since November 1, 1862; but it is almost identical in respect of value with the rupees previously in circulation. [CALCUTTA.]

The charge of coinage in the Bombay Mint is 2½ per cent. for gold, and 3 per cent. for silver, including the charges for refining. The machinery for this mint was sent out from England a few years ago, and is complete, but very costly.

**Weights and Measures.**—The unit of weight in Bombay, as in other parts of India, is, by the law of 1833, the tola of 180 grains Troy, the other weights being derived from it as follows:—

8 rattees	=	1 masha	=	15	trov grains
12 mashes	=	1 tola	=	180	trov grains
80 tolas (or sicca weight)	=	1 seer	=	2½ lb. Troy	
40 seer = 1 man (or bazaar maund)	=	100 lb. Troy			

The following table shows the commercial weights of the several Presidencies of India, Travancore, China, and England, compared with the new Indian maund introduced into Bengal in 1833, and adopted in the tariff valuation under the Bombay Presidency since 1840.

	lbs.	ozs.	grs.	maunds.
The Bombay maund of 40 seers	=	29	100	2-238775
42	=	29-400		2-29883
44	=	31-533		2-301081
The Surat maund of 40	=	32-256		2-316323
41	=	32-900		2-329123
42	=	32-900		2-329123
43	=	40-366		2-338436
44	=	41-066		2-350310
The Bengal factory maund	=	74-666		1-102010
hazaar do.	=	82-133		1-001855
The Madras maund	=	25		2-001224
The Bombay candy of 20 maunds	=	58		2-581555
21	=	58		2-581555
22	=	61-68		2-616811
23	=	74-666		2-746104
The Surat candy of 20	=	78		2-587777
21	=	82-133		2-991481
22	=	80		2-003388
The Madras candy of 20	=	61		2-777777
The English candy of 20	=	133-333		2-620370
The English cwt.	=	112		2-331111
The English ton of 20 cwt.	=	2210		27-222220

**Grain Measure.**

	lbs.	ozs.	grs.
2 hippees = 1 seer	=	0	11 3/4
4 seers = 1 pally	=	2	12 1/2
= 1 paraha	=	1	8 1/2
8 parahas = 1 candy	=	136	12 1/2

**WEI**  
**Bazaar weight**  
**the local weight**

4 dhan or yava	=	1 rak
8 ratties	=	1 or
4 masha	=	1 tan
72 (tan, or)	=	1 ser
30 par.	=	1 ser
40 sera	=	1 ma
30 masha	=	1 ka

The khandi for avoir, or 7 cwt. The 'pakka s

At Punvel the British I 2-938775 Bom

and the Bombay The Bombay and the man 12

At Poona the standard tolas, or troy = 9583 B. I.

43 tanks	=	1
4 chhatanks	=	1
4 pava	=	1
5 sera	=	1
8 puseet	=	1
3 man or 120 sera	=	1
63 pallas (20 mana)	=	1

Kacheha muns in the district. In the Khed,

talukas, the ser and Indapur, 7½ tolas.

At Ahmednagr Indian or imperia

At Ahmednagr In Satara the s from 92-75 tolas a

pur; in Satara cit In Sindh the E clared by proclama only legal standa

8 mana = 1 khandi = 66 At Surat the s variously stated fr man from 87½ to being probably the from which—

1 Surat ser.	=	15	trov grains
1 Brit. Ind.	=	130	trov grains
1 Bomb. ser.	=	2½ lb.	Troy

The Khandi for In Khandeish & authorised.

At Baroach &c. At Havon

At Almond " Jamhus " Wagra " Hansot

**Native**

4 dhan =	1
8 rati =	1
12 masha =	1

A dhan is 0-4687 grammes.

**Gold**

2 gunj =	1
4 wal =	1
12 masha =	1

Mashas, rati, dhr evaluation of assay

**WEIGHTS AND MEASURES.**

**Bazaar weight.**—In Bombay the following are the local weights in use:—

4 dhan or yav	= 1 rakhta	= 2-1267	gr. tr.	= 0-1182	tolas.
8 rakhta	= 1 masha	= 8-5069	" "	= 0-9152	" "
4 masha	= 1 tank	= 4-4889	dr. av.	= 0-7809	" "
72 tank, or	= 1 ser	= 11-1-5	av.	= 87-2-9	" "
30 pala	= 1 man	= 28	lb.	= 10-8-3	" "
40 sera	= 1 khandi	= 609	lb.	= 6-8056	lm. m.

The khandi for cotton is 28 máns or 784 lbs. avoird. or 7 cwt.

The 'pakka ser' is 1½ lbs. avoird. or 72-59 tolas. At Panvel the ser weighs 72-83 tolas.

The British Indian or imperial ser and man are 2-9387755 Bombay sera and máns respectively; and the Bombay man is 0-3402778 imp. máns.

The Bombay ser weighs 317-51485 grammes, and the man 12-700594 kilogrammes.

At Poona the ser is 80 ankushi rupees or 76-66 standard tolas, or 1-9714 lbs. avoird. or 2-33664 lbs. troy = 9588 B. I. sera.

44 tanks	= 1 chhatank	= 1-9714 oz. av.	= 0-958 lm. ch.
4 chhatanks	= 1 pan-ser	= 7-8856	" "
8 pana	= 1 ser	= 1-9714 lb.	= 0-9584 ser.
5 sera	= 1 passer	= 9-837	" "
8 passer	= 1 man	= 78-836	" "
3 man or 120 sera	= 1 pala	= 23-617	" "
63 pala (20 máns)	= 1 khandi	= 1577-12	" "

Kacheha máns of 12½ and 14 sera are also used in the district.

In the Khed, Poorundhur, and Bhimathadi talukas, the ser weighs 76 tolas; in Shiwner and Indapur, 76½; in Pabal 77; and in Mawal 75 tolas.

At Ahmednuggur and Sholapore the British Indian or imperial weights are in use.

At Ahmednuggur the Pala is 21 máns.  
,, Nihapore, 1 Manki = 1 Dharas = 12 sera.

In Satara the ser varies in different localities from 92-75 tolas at Koley to 115 tolas at Mamdapur; in Satara city it is 93-25 tolas.

In Sindh the British Indian weights were declared by proclamation August 1, 1853, to be the only legal standard.

8 máns = 1 khandi = 638-27 lbs. av. = 25-510204 Bombay máns.

At Surat the Surat ser of 35 Surat tolas is variously stated from 36-4583 to 37 tolas, and the man from 37½ to 38 lbs. avoirdupois, the former being probably the more accurate determination, from which—

1 Surat ser.	= 155729	Brit. Ind. sera.
1 "	= 1339286	Bomb. sera.
1 Brit. Ind. ser.	= 2-1942857	Surat sera.
1 Bomb. ser.	= 2-746967	" "

The Khandi for cotton is 21 máns, or 7 cwt. 34 lbs.

In Khandeish &c. the British Indian system is authorised.

At Baroach &c.

At Baroach the ser is	40 tolas.
At Ahmed "	38-5 "
At Ambusar and Ankiesar	38 "
At Wagra	37½ "
At Hansot	38-8125 "

**Native Jewellers' Weight.**

1 dhan	= 15-32 gr. troy.
4 dhan = 1 rati	= 17-8 "
8 rati = 1 masha	= 15 "
12 masha = 1 tola	= 1-90 "

A dhan is 0-46875 gr. troy or 0-0303745 French grammes.

**Goldsmiths' Weight.**

2 gunj = 1 wal	= 5-8288 gr. troy.
4 wal = 1 masha	= 15-3129 "
12 masha = 1 tola	= 1-83-7536 "

Mashas, rati, dhans are employed in the native evaluation of assay of the precious metals: thus

'10 mashas fine' signifies 10-12ths pure, or the same as '10 oz. touch.'

**Measures of Length.**—The gaz or unit of lineal measure not only differs in different provinces of India, but also, like the ser, in the same province for different purposes. The English yard, however, is rapidly becoming the only standard unit, especially where English education has obtained a firm footing.

3 jau	= 1 angul	= 3	ln. or 19-05 mm.
4 angul	= 1 muthi	= 3	" 7-2 "
12 angul	= 1 big' hath or bilaut	= 9	" 28-6 "
2 big' hath or 24 angr.	= 1 hath or culit	= 18	" 457-19 "
2 hath	= 1 gaz or yard	= 3	R. 91-38 "
4 hath	= 1 danda or ham	= 4	yd. 1-8287 met.
8000 danda	= 1 kos or kros	= 10-0	sta. 3657-5 "
4 kros	= 1 yojan	= 9-1-11	m. 11650 "

In Bombay the half hath is called Vént; and the measuring rod or kathfi for land, according to Jervis, is 9-3644 feet. In Gujarat 5 hath make 1 Vasó or Kathfi. In Western India almost every village has its own Kathfi.

The Kos of the Ayin-akbari was about 2-58 miles, or 4,540 yards, or 4,150 metres.

The Bengal Kos contains only 1,000 danda or dhanu. In surveying, 80 hath = 1 Rassi.

In the N.W.P.—Delhi, Lúdhianah, Ferozepore, and part of Berar: 33 inches = 1 Iláhi gaz, 3 li. gaz = 1 bans or gantéh, and 20 bans = 1 Jarib. In Benares and Ghazee-pore the gaz used by Mr. Duncan in the settlement of 1795 was 33-6 inches. The true Iláhi gaz probably measured 32-6 to 32-8 inches; in Bareilly, Bulanshahr, Agra &c. it is reckoned at 32-5 inches.

In Orissa the padika or rod is 10-4355 feet; in Tirhút the lagi is 9½ feet; and in Jynteah the clastidari hath is 18-87 inches, and 16 háths make 1 null.

In Bombay, for cloth—

2 angul = 1 tasd	= 1-1-8 inch.
24 tasu	= 1 gaz = 27 "

In Púna the gaz is 34½ inches, but English cloth is sold by the yard.

In Bengal—

3 angul or argil = 1 girth	= 2½ inch.
8 girth	= 1 hath = 18 "
3 hath	= 1 gaz = 36 "

**Measures of Surface.**—In Bengal the following are used:—

2 square háths = 1 gandeh	= 2½ sq. ft.
20 gandeh = 1 chhatank	= 5 sq. yds.
16 chhatank = 1 katha	= 80 "
20 katha	= 1 bighá = 1600 "

The Bengal bighá is  $\frac{40}{221}$  or 0-3305785 of an acre.

The Benares and Ghazee-pore bighá contains 3,600 square Benares gaz, or 3,136 sq. yards, or 647934 acre.

In Bombay, Poona &c.—

31 1-36 square háths = 1 kathfi.
20 kathiyu = 1 pand, or vasd.
20 pand = 1 bighá.
6 bighá = 1 ruksh.
120 bighá = 1 chahúr.

If the Bombay kathfi of 5½ háths be exactly 9-3644 feet as stated by Jervis, this bigh will contain 8897-422 sq. yards = 0-805253 acre; but in other places it varies with the kathfi, which is the only real measure ever used in the central and southern parts of the Bombay Presidency. In some places the survey chain of 33 feet has taken its place, and—

16 ans or links = 1 gunta or chahú.
40 guntas = 1 acre.

In Gujarat—

30 khunt = 1 padat.  
 30 padat = 1 padat.  
 30 padat = 1 vishwahi.  
 30 vishwahi = 1 vado.  
 30 vado = 1 vingho, bighá or dári.

In the North-West provinces,—Delhi, Patna, Shahabad, Sarun, Bhagalpore, and Monghyr, the bighá of 3,600 square Ikhi gáz=3,025 sq. yards or 0'625 acre prevails, and is divided as follows:—

30 sawani or nanwabi=1 sawani = 24'5025 sq. in.  
 30 sawani or nanwabi=1 kachwanai = 5'40312 sq. ft.  
 30 kachwanai = 1 biswanai = 7'36125 sq. yds.  
 30 biswanai = 1 bhá = 151' " "  
 30 bhá = 1 bighá = 3925 " "

1 acre=1'6 Delhi bighá. The Orissa bighá is 1 acre or 4810 sq. yds. The Tibhut bighá is 400 sq. ligá=1245 sq. yds.=.372934 acre.

In Madras—

21 grounds = 1 máni or ground= 2400 sq. ft.  
 1 káni=1'322311 acres = 6400 sq. yd.  
 1 acre = 0'75625 káni.

**Liquid and Dry Measures.**—India, properly speaking, does not possess dry or liquid measures. Where these are employed they represent the ser or the máni weight. The value of any vessel of capacity rests solely on the weight contained in it. In South and West India an equal mixture of the principal grains is taken, and a vessel formed to hold a given weight of it.

In Bengal the following are used for grain;—the conversion into English measure being derived from the capacity of a vessel holding a máni of water or 1 $\frac{1}{35}$  bushel:—

6 chhatánka = 1 kánki = 11'107 c. in. = 0'5143 pts.  
 15 chhatánka = 1 ser = 57'037 " = 1'6337 " "  
 4 kánki = 1 rék = 71'3 " = 2'0571 " "  
 4 rék or 5 ser=1 pýsali, or drón = 285'186c. in. = 8'2286 gal.  
 8 máni = 1 máni = 2281'49 " = 8'2286 gal.  
 20 pýsali = 1 máni = 5703'72 " = 20'114 " "

It may be remarked that the máni of 8 $\frac{2}{3}$  gallons very nearly would form a very convenient dry measure; it would be a little larger than the English bushel, and ought to be a cylinder 8 inches deep and 19'055 inches diameter, or 8 $\frac{1}{2}$  inches deep and 18'487 inches diameter.

At Bombay—

56 tanks = 1 tpari = 9'706 c. in. = 5'3'5 oz. av.  
 2 tpari = 1 ser = 19'402 " = 111 " "  
 4 sera = 1 pýsali or ad = 77'6367 " = 2'4'5 lbs.  
 16 pýsali = 1 ball = 1242'18 " = 44'4'5 " "  
 8 pharas or 1 khandi = 9937' " = 358'2'5 " "  
 25 fara = 1 runda = 17'9715 c. ft. = 14 gals.  
 17 $\frac{1}{2}$  pýsali = 1 fara of rice = 1339'23 c. in.=6'01 gal.  
 17 $\frac{1}{2}$  pýsali = 1 fara of other = 1358'66 " = 6 $\frac{1}{2}$  " "  
 64 pýsali = 1 fara of lime or chunam = 659'91 " = 2'98 " "

These faras are not regulated on any authoritative basis.

	Arrivals				Departures			
	1855-54		1853-54		1853-54		1855-54	
	ships	tons	ships	tons	ships	tons	ships	tons
British colours	268	173,935	543	433,360	365	167,471	487	400,849
French "	19	6,024	49	15,244	18	5,618	25	12,435
American "	7	4,762	27	19,640	5	3,819	21	14,140
Other "	15	1,192	46	17,744	12	2,915	42	14,070
Total	313	191,014	622	490,238	500	179,823	575	441,294
Steamers	-	not given	117	81,054	-	not given	155	85,062
Native craft	5,567	309,973	6,600	317,791	4,631	177,474	4,708	208,182
Total	-	-	6,717	498,848	-	-	4,851	295,244
Grand total	-	-	5,880	400,987	7,339	789,136	4,931	357,297
	-	-					5,486	736,538

In 1843 there belonged to Bombay, and mostly to native merchants, 58 ships of the aggregate burden of 31,378 tons, of which 6 only were under 200 tons. They were for the most part navigated by natives or lascars, the master and superior officers only, and that not always, being English-

For salt in Bombay—

1 adhvall = 4'11745 pints.  
 103 adhvall = 1 pharo or faroo = 5'7979 gals.  
 100 phara = 1 ana = 7'2'474 bush.  
 16 ana = 1 ras = 141'918 grs.

The faro for salt contains 1607'61 cubic inches; and there is a ser for liquids of 60 tolas, or about 42'78 cubic inches, that is, 1'2343 pint.

At Poona and Ilawell Taluka—

8 chýstin = 1 ser = 38'52 stand. tolas.  
 2 sera = 1 adholi = 1'916 " sera.  
 4 sera = 1 pýsali = 3'8212 " "  
 12 pýsali or 48 sera=1 runda = 15'983 " "  
 24 máni, or 120 sera=1 palla = 5'4'87 " máni.  
 3 palla = 1 khandi = 27'59 " "

According to Sykes, a ser in the Deccan contains 2'44934 lbs. avoird. of Jerwall rice, or 1'0417 quart. The Adholi is the largest measure in common use.

The measures are all heaped; and equal quantities of five sorts of grain give the equivalent weight in tolas.

In Ilawell Taluka (the adholi=212 tolas.  
 Khed, Malwal, and Indapore " = 218 " "  
 Poorundhur " = 222 " "  
 Ilhimathadi " = 224 " "  
 Shiwner " = 233 " "  
 Pabai " = 239 " "

At Hyderabad, &c. (Sindh)—

4 chaotia = 1 psol = 1'743 imp. sera.  
 4 patole (375'77 tolas) 1 toya = 18'7881 " "  
 4 toyas = 1 kasa = 75'0216 " "  
 5 kassas = 1 mundi = 375'912 " "  
 12 mundias, 60 kassas 1 shirwar = 1127'304 " "

The values of these measures vary at different places; the Toya at Nuggur is 528 tolas, at Mitthi 518, and at Islamkot 464, on the frontier about 344, and at Shikarpore 295 tolas weight of water.

In Kurrachee everything is sold by weight.

At Madras—

8 alacka = 1 padli 93'75 c. in. = 5'0308 in.  
 8 padli = 1 markat 750 " = 10'3616 " "  
 5 markats=1 parah 3750 " = 17'2650 " "

The Garisha or Garco for grain is 12 $\frac{1}{2}$  máni or 320 lbs. avoird. = 3 $\frac{3}{8}$  British India máni.

**Shipping.**—Vessels of various nationalities trade in and out of the port of Bombay, but the far greater portion are under British colours, showing an average of upwards of 800 tons. The native craft is larger than in any other part of India, trading generally from port to port, and even as far as the Arabian and Persian Gulfs. The following table shows the arrivals and departures at the port of Bombay to and from all foreign places:—

Square rigged  
 10 ton  
 do. under  
 Canoes or Numbos

Commerce & ably situated in munications th as the rivers v afford the sam Western as on the inland tra along the roads, bullocks and c duties and the eating with the have, however, trade of the pe proved the Pres

The external carried on with Arabian and Per in British and o a very large com minor ports in th bay for the purp parts of the ur chiefly carried o and Canara coast

The principal Kingdom consist (raw), chiefly co liquor, manufact

parel, books and From France, wi jewellery, musica China, raw silk a candy, tea, glassw bian and Persian fruits, grain, pree Mauritius sugar.

The export trad consists of raw e spices from Africa skins, opium, coffe coffee, seeds, and opium. To M and Persian Gulfs candy, tobacco, te

Value of Princi Presidency of India.

Articles
Apparel
Cattle, horses &c.
Coal
Cotton (twisted yarn)
Fruits (goods)
Fruits
Jewellery and pre-
cloos stones
Machinery
Malt liquor
Manufactured
Metals (manufactured)
stured
Railway materials
Silk, raw
goods
Sugar and sugar candy
Tea
Wines and spirits
Miscellaneous
Gross Imports
Bullion or treasure
Total Import Trade

men. Besides these there were then numerous native craft, varying from 2 to 175 tons each, amounting in all to about 50,000 tons. In 1863 it was ascertained (*Bombay Almanac*) that the vessels registered as belonging to Bombay were—

The discrepancy ports is to be acco fions of cotton fr were in response to cessation of the For some time t

	Number of vessels.	Aggregate tonnage.	Aggregate of crews.
Square rigged	243	77,552	7,211
Boats above 10 tons	5,153	—	—
do. under	4,823	—	—
Canoes of Bumlocks	1,814	—	—

*Commerce &c.*—Bombay is much less favourably situated in respect to natural internal communications than Calcutta and Madras, inasmuch as the rivers with one or two exceptions do not afford the same facilities for navigation on the Western as on the Eastern coast of India; all the inland trade has hitherto been carried on along the roads, which are available only for pack-bullocks and camels. The abolition of transit duties and the introduction of railways communicating with the principal markets in the interior have, however, considerably tended to increase the trade of the port of Bombay and otherwise improved the Presidency generally.

The external trade of Bombay is principally carried on with Great Britain, France, ports in Arabian and Persian Gulfs, China, and Mauritius, in British and other European vessels, as well as a very large coasting trade in native vessels from minor ports in the Presidency to the port of Bombay for the purpose of exporting produce to other parts of the universe. The coasting trade is chiefly carried on between Calcutta, the Malabar and Canara coast, Cutch and Kattywar.

The principal articles of import from the United Kingdom consist of coal, cotton goods, metals (raw), chiefly copper and iron, machinery, malt liquor, manufactured metals, woollen stuffs, apparel, books and stationery, wines and spirits &c. From France, wines and spirits, furniture, books, jewellery, musical instruments, clocks &c. From China, raw silk and silk goods, sugar and sugar-candy, tea, glassware, tobacco &c. From the Arabian and Persian Gulfs, horses, cotton-wool, gums, fruits, grain, precious stones, wool &c., and from Mauritius sugar.

The export trade to the United Kingdom chiefly consists of raw cotton, cashmere shawls, seeds, spices from Africa, silk and silk goods, hides and skins, opium, coffee, grain, ivory, gums. To France, coffee, seeds, and shawls. To China, cotton goods and opium. To Mauritius grain, and to the Arabian and Persian Gulfs cotton goods, sugar and sugar-candy, tobacco, tea, grain &c.

*Value of Principal Articles Imported into the Presidency of Bombay from all parts out of India.*

Articles	1850-51	1855-54	1860-61	1863-64
Apparel	58,451	61,534	89,772	142,766
Cattle, horses &c.	41,800	21,043	59,100	7,480
Coal	80,621	80,621	145,442	171,457
Cotton (raw and twist)	221,169	308,386	297,117	618,535
Cotton (goods)	728,551	1,735,229	3,441,764	5,686,371
Fruits	71,569	78,855	102,577	164,470
Jewellery and precious stones	175,517	172,628	159,662	287,806
Machinery	5,004	15,867	148,613	174,257
Malt liquor	49,574	60,329	244,316	374,993
Manufactured Metals	102,494	75,117	155,894	215,355
Manufactured Iron	707,429	180,889	1,157,154	1,488,948
Railway materials	24,111	838,219	—	576,647
Silk, raw	240,043	299,801	405,598	385,968
Silk, goods	77,918	60,314	145,515	255,241
Sugar and sugar candy	438,431	183,021	216,353	445,184
Tea	37,866	30,334	68,677	101,094
Wines and spirits	141,378	116,727	165,618	340,329
Miscellaneous	1,455,944	1,076,731	1,625,322	2,206,547
Gross Imports	4,545,764	4,392,812	9,418,210	14,270,950
Bullion or treasure	2,362,215	2,308,479	5,967,209	16,136,439
Total Import Trade	6,907,979	6,701,291	15,385,419	30,407,389

The discrepancy between the imports and exports is to be accounted for by the vast exportations of cotton from Bombay. These exportations were in response to the void created by the sudden cessation of the supplies of American cotton. For some time the trade of Bombay was ex-

cessively active, speculation was rife, fortunes were rapidly accumulated. Land in the neighbourhood of the port rose to a fabulous price. As might be expected, the reopening of the Southern ports of the American Union reversed some of these circumstances, and the necessary consequences of over speculation ensued, but Bombay has been permanently benefited by the extraordinary commercial activity of the years 1862-5.

*Value of Principal Articles Exported (including Imports re-exported) from the Presidency of Bombay to all parts out of India.*

Articles	1850-51	1855-54	1860-61	1863-64
Coffee	57,854	65,291	74,651	153,756
Cotton (raw)	2,913,021	2,469,760	6,972,726	49,115,121
Cotton (goods, twist, and yarn)	386,075	518,557	635,217	923,415
Grain	39,476	61,559	132,043	117,119
Indigo	15,621	46,960	49,990	59,553
Opium	2,501,060	2,718,135	6,609,599	5,518,128
Saltpetre	2,514	11,976	65,265	63,582
Seeds	28,211	128,659	901,221	688,271
Shawls, Cashmere	154,156	148,206	311,411	205,293
Silk (raw)	15,433	25,765	75,417	6,863
Silk (goods)	29,657	15,799	31,390	17,073
Spices	49,511	69,115	26,197	100,792
Sugar	109,011	100,673	85,606	71,835
Tea	15,955	18,619	41,518	46,959
Tobacco	5,251	5,061	15,221	18,951
Wool	68,283	203,128	478,134	905,017
Miscellaneous (gross exports)	409,211	555,400	642,623	716,589
Bullion or treasure	6,599,615	7,129,811	17,150,543	38,085,759
Total Export Trade	169,819	929,726	4,143,538	484,966
Total Export Trade	6,769,434	8,128,542	17,564,881	38,568,725

*Proportion of Imports into Bombay from the United Kingdom, and Exports from Bombay to the United Kingdom, at different periods from 1850 to 1864.*

Years	Imports	Exports
1850-51	2,866,009	2,407,857
1855-54	3,518,494	2,658,183
1860	6,120,385	21,908,616
1863	9,284,051	30,284,011
1864	9,604,658	37,609,009
1865	6,895,409	22,369,133
1866	6,716,407	19,586,511

*Statement of the Value of the External Trade of Bombay exclusive of Interport Trade with other Ports in the same Presidency, and of Remittances of Specie on Government account, for each of the 6 Years ending with 1866-7.*

Years	Imports	Exports	Il. Exports	Total Trade
1861-2	21,856,579	18,849,050	2,410,899	43,116,540
1862-3	29,618,709	27,175,883	2,565,320	59,159,914
1863-4	36,540,507	37,940,017	5,487,078	79,967,535
1864-5	34,471,064	40,917,118	4,405,709	79,793,891
1865-6	35,368,516	35,511,787	4,613,016	75,693,319
1866-7	22,230,504	19,570,047	4,940,181	46,740,731

*Banks.*—These consist of the Chartered Mercantile Bank of India, and the Chartered Bank of India, and branches of the Oriental Bank of London, the Agra Bank &c. Including agencies of English houses, there are about 13 in all, the capital amounting in the aggregate to about 16,000,000. But it would appear from the *Bombay Calendar and Directory* for 1868, that there were, besides these, 56 Banking and Financial Associations connected with Bombay then in course of liquidation.

*Insurance.*—Companies for the insurance of lives, shipping, and against fire, have been established in Bombay; and several of the London and Calcutta Insurance Companies have agents here.

*Marine Insurance Companies.*—There are 39 marine insurance offices, chiefly agencies, at Bombay. The fire and life insurance business is conducted almost exclusively by agents for companies in England, there being only one life company, namely, the Bombay Laidable, having a quin-

quennial existence, as the first appears to have been established in 1829 and terminated December 31, 1833; and the seventh Laudable Society terminated on December 31, 1863.

**Customs Duties: Import and Export.**—By the Indian Customs Duties Act of March 1867, one uniform tariff for imports and exports was fixed for all ports in British India. [CALCUTTA.]

**Tonnage Scale at Bombay.**

Articles	to the ton	Articles	to the ton
Aloes, in kegs	16 cwt.	Hides and skins, loose	12 cwt.
Alum, in bags	20 "	In small bundles	"
Annatto, in cases	50 feet	Horns, buffalo and cow,	"
Apparel	"	loose	16 "
Arrowroot, in cases	"	Horns, deer, loose	"
Asafoetida	"	tips of any kind	16 "
Barilla	20 cwt.	Indigo, in cases	50 feet
Bees' wax, in cases	50 feet	Jack wood	"
Beet nut, in bags	16 cwt.	Lac dye, in shells or	"
Blackwood, in straight	"	cases	"
square oak	50 feet	Linen, in bags	15 cwt.
Black wood, otherwise	20 cwt.	Mace, in cases	50 feet
Books	50 feet	Mother-o'-pearl, in cases	"
Horas, in cases	20 cwt.	in bags	20 cwt.
in bags	20 cwt.	Munjeet or madder root,	"
Hullion	per cent.	in cases or bales	50 feet
Camphor, in cases	50 feet	Munjeet or madder root,	"
Canes, rattans, in	"	in bundles or bags	12 cwt.
bundles	16 cwt.	Musk, in cases	50 feet
Cardamoms, in bundles	50 feet	Nyrobalans, in bags	16 cwt.
Cashu lignis, fistils,	"	Nutmegs, in cases	50 feet
and buds	"	Nux vomica, in cases	50 cwt.
Chassam	16 cwt.	in bags	50 cwt.
China root, in cases	50 feet	Oil of any kind, in casks	(210 imp.
Cinamon, in bales	10 cwt.	Oil seeds, teal, rape,	gallons)
in cases	50 feet	mustard, castor, and	"
Cloves, in cases	"	Rhorassan	17 cwt.
in bags or frails	10 cwt.	Opium	per chest
Coals	"	Paddy, in bags	20 "
Cocca, in bags	12 "	Pepper, in bags	"
Coccolal indies, in bags	16 "	Pimento	14 "
Collee, in cases	50 feet	Plumbago, in bags	20 "
in bags or frails	16 cwt.	Rattans, in bundles	16 "
Coir, in bales	50 feet	ground	"
in bundles or loose	6 cwt.	Red wood	"
ropes, in coils	8 "	Rhubarb, in cases	50 feet
Colocyath, in cases	50 feet	Rice, in bags	20 cwt.
Columbe root, in bags	50 feet	Saffron, in cases	50 feet
Copra, in tubs	12 "	in screwed bales	"
Coral, rough (not spec-	"	Sago, in bags	10 cwt.
ified) in bags	20 "	Salammoniac, in cases	"
Cotto, in bales	20 "	Saltpeetre	18 cwt.
Cowrie, in cases	20 cwt.	Sandal and sapan wood	16 "
in bags	12 "	Sealing wax, in cases	50 feet
Cubeb, in bags	12 "	Senna, in bags	6 cwt.
Cumin seed, in cases	50 feet	in bales	50 feet
Cutch, or terra japonica,	"	Shells, rough, in bags	20 cwt.
in bags or baskets	"	Silk, in bales	10 cwt.
screwed	16 cwt.	in cases	50 feet
Dates, wet	20 "	Soap, in cases	20 cwt.
dry	16 "	Sugar, in bags	20 cwt.
Dragon's blood, in cases	50 feet	Talc	"
Ebony, square and	"	Tallow	50 feet
straight	"	Tamarinds	15 cwt.
Elephants' teeth in cases	"	Tea, in chests	50 feet
in bundles	18 cwt.	Timber, teak, square	"
Furniture	50 feet	planks and poon	"
Gallnuts	12 "	Timber, teak, round,	"
Galls, in bags	16 cwt.	one-fifth off	"
in cases	50 feet	Tobacco, in bales	50 feet
Ginger, dry, in cases	"	Torose shells, in chests	"
in bags	12 cwt.	Turmeric, in bags	15 cwt.
Gram	20 "	Tutenague	20 "
Ground nuts, shell'd	16 "	Uncut wood	14 "
Gums of all kinds, in	"	Whangees (vide Cane)	16 "
cases	50 feet	Wheat	20 "
Gum ammonium, in bags	16 cwt.	Wines and spirits, in	"
Harall, in cases	50 feet	casks	50 feet
Hemp, in screwed bales	"	Wines and spirits, in	"
loose or in bundles	7 cwt.	Wood, in screwed bales	"
Hides and skins, in	"	Zedoary	20 cwt.
screwed bales	50 feet		

\* \* \* The standard ton at Bombay for measurement of goods shall be taken at 50 cubic feet.

The freight on oil is paid on the full gauge of the cask, ascertained at the port of discharge.

When freight is payable on weight, the same is to be on the net weight delivered.

**Rules and regulations for the measurement by callipers upon shipments to Great Britain of cotton, wool, hemp, and other screwed and pressed bales, at the port of Bombay.**—1. That callipers shall from time to time be submitted to the Secretary of the Chamber of Commerce, and if found correct, shall be branded with a stamp bearing the name of the chamber, to indicate the same.

2. That if, from use or otherwise, any callipers should get out of order and be objected to, the party objecting shall send the callipers to the chamber for examination; and should the objection

be valid, the chamber's stamp shall be defaced by the secretary; if, however, the objection is found to be groundless, the secretary shall give a note to that effect, and the party objecting shall be bound by his decision.

3. That any callipers found incorrect, and on which the stamp has been defaced, may be re-stamped after adjustment.

4. That no measurements shall be held good except such as are taken by callipers bearing the chamber's stamp.

5. That cotton, hemp, wool, and other screwed bales shall be measured as follows, namely—the greatest length to be first ascertained, and then the bale to be set on either end, as the shipmaster may wish, and cross measurements to be taken at top over the lashings, excepting the knots, and as near the centre of the bale as possible. That an average of 100 bales be struck by ascertaining the actual measurement of any 10 bales, and proportionately, the shipper selecting and measuring one half, and the shipmaster the other half; should, however, any dispute or difficulty arise in the selection of bales, either party to have the option of measuring the whole quantity.

6. That all produce subject to measurement be measured within the day on which it has been ordered to be screwed, provided the order has been given by the shipmaster or agents of the vessel; and that from June 1 to October 15 the same be measured at the Screws; during the remainder of the year, if required, on the Bunds, weather permitting. No cotton, wool, or other goods to be measured until a Custom-house pass has been obtained for the same.

7. That in the event of the shipmaster not attending to measure at each hour as may have been appointed by his agent or agents of the ship do empower a person attending on his behalf, whose sanction to a measurement shall be binding upon the shipmaster.

**Money.**—Silver is the legally constituted medium of exchange in all money transactions throughout the British-Indian possessions. Gold coin was intended to be a legal tender, at a fixed value of 16 rupees for the gold mohur of Calcutta, and 15 rupees for the gold rupee of Madras and Bombay; but it is not demandable in payment, and is left to find its current value in the market.

The value of a rupee is generally assumed as equal to 2s. sterling. At the Calcutta mint price of silver it is worth 2s. 0'035d.; at the commercial price of exchange 1s. 11'51d.; and at the London mint price of silver it is worth 1s. 11'04d.

The rupee weighs 180 grains troy, or 1 tola, and consists of 11 parts of silver and 1 of alloy. The gold rupee is of the same weight and standard. The copper coins are the half anna, weighing 200 grains; the quarter anna or paisa, 100 grains; the half paisa, 50 grains; and the pie, 33½ grains.

In Bombay, accounts are still often kept in rupees, quarters, and rases, 2½ rases making one anna.

	Value Sterling.
	£ s. d.
1 pie	0 0 1/8
5 pie = 1 paisa or 1/4 anna	0 0 5/8
12 pie = 1 anna	0 0 1 1/4
16 annas = 1 rupee	0 1 0
15 rupees = 1 gold rupee	1 10 0
16 rupees = 1 gold mohur	1 12 0
100,000 rupees = 1 lakh	10,000 0 0
100 lakhs = 1 crore	1,000,000 0 0

**BOMBAZINE** (Fr. alépine). A kind of mixed stuff of silk and wool, originally manufactured at Milan, and thence sent into France and other countries. The chief seat of its foreign manufacture is Amiens. In this country it has gone

greatly out of fabrics, but its export trade is

**BONES.** In other animals hauls for k but of late year nice in agric latter they are duced to powder for turpin the seed, though bronca, and used varies from 40 bushels large be considerably gone the process used, in this con in Lincolnshire their extensive been one of the ment, and of the it has attained, largely used, no the adjacent of England, and of its influence and turmps, an of butcher's meat extraordinary. In this manure a tension of furrow of steam naviga ments that have 1820, and the vast are principally to

In 1827 Mr. H. of the bones an about 100,000; t amounts to more t value of duty of 1841, 2,933l. 5s. 3 of the imports mu of which it is abn paratively small p than in agricultur from the Nether America. It is a on bones imported

Folio of Ledger	
1	Cash 1 amou
1	Eschequer
7	Hills receiv
4	Three and a
6	Disburseme
6	Silly Annet
7	Adventure I
7	James W
7	Thomas W
7	William Sp

Folio of Ledger	
5	To hills pay
8	To Insuranc
9	To Morris P
4	To James P
7	To Simon F
7	To James A
2	To George a

Balance, bel  
Let the transactio order for goods from house in Jamaica se

greatly out of fashion, being superseded by alpaca fabrics, but it is said that there is a considerable export trade in the fabric to South America.

**BONES.** In the Arts, the bones of cattle and other animals are extensively used in forming handles for knives, and various other purposes; but of late years they have been of most importance in agriculture. When employed in the latter they are, in most instances, ground or reduced to powder, and are commonly used as manure for turnips, being in general drilled in with the seed, though sometimes also they are sown broadcast and with other crops. The quantity used varies from about 25 bushels of dust to about 40 bushels large an acre. Their effect is said to be considerably increased when they have undergone the process of fermentation. They were first used, in this country on a large scale, as a manure in Lincolnshire; and there can be no doubt that their extensive employment in that county has been one of the chief causes of its rapid improvement, and of the high state of cultivation to which it has attained. Bone-dust is now, however, very largely used, not only in Lincolnshire, York, and the adjacent counties, but in most other parts of England, and almost everywhere in Scotland; and its influence in increasing the crops of corn and turnips, and consequently also the supplies of butcher's meat and farm manure, has been quite extraordinary. In fact, it is to the employment of this manure and guano, combined with the extension of furrow drainage and the introduction of steam navigation, that the wonderful improvements that have been made in agriculture since 1820, and the vast increase of agricultural produce, are principally to be ascribed.

In 1827 Mr. Huskisson estimated the real value of the bones annually imported for manure at about 100,000*l.*; but at present (1868) it probably amounts to more than quadruple that sum. The ad valorem duty of 1 per cent. on bones produced, in 1841, 2,933*l.* 5*s.* 3*d.* nett, showing that the value of the imports must then have exceeded 293,000*l.*, of which it is abundantly certain that but a comparatively small portion was employed otherwise than in agriculture. They are principally brought from the Netherlands, Germany, and South America. It is a curious fact, that while the duty on bones imported into Scotland in 1841 amounted

to 749*l.* 4*s.* 4*d.*, the duty on those imported into Ireland amounted to only 2*l.* 10*s.* 1*d.*. After being reduced in 1842 to 6*d.* a ton, the duty on bones was finally repealed in 1845. In 1866 the imports of bones (exclusive of whale fins) into the United Kingdom amounted to 80,306 tons, valued at 409,590*l.*

Burnt bones or animal charcoal possess remarkable powers of absorbing noxious gases, and of bleaching water which is stained by organic matter. Hence they are used largely as the material for filters, and in particular for refining sugar. The same substance is employed to form the cupel of the gold and silver refiner, the scoria of the alloy sinking into the substance of the cupel, and the button of pure metal remaining on the surface of the crucible.

The most powerful kinds of animal charcoal are obtained from the ignition of substances possessing a large amount of animal matter, as dried blood, hair &c. Thus, white bone black has a power in decolorising syrup and indigo which may be represented by 1, a charcoal formed from blood ignited with carbonate of potassa has the powers of 20 and 50 on these substances respectively.

**BOOK-KEEPING.** The art of keeping the accounts and books of a merchant. Book-keeping by double entry means that mode or system in which every entry is double, that is, has both a debtor and a creditor. It is also called the Italian method, because it was first practised in Venice, Genoa, and other towns in Italy, where trade was conducted on an extensive scale at a much earlier date than in England, France, or other parts of Europe. This method, however familiar to merchants and book-keepers, seems intricate to almost all who have not practised it; nor is the dryness and difficulty of the task much lessened by the printed works on the subject, which, having been compiled more by teachers than by practical merchants, contain a number of obsolete rules and unnecessary details. The most effectual mode of giving clearness and interest to our remarks will be, first, to state a few mercantile transactions, and then to explain the nature of the accounts and entries which result from them.

The Journal of a mercantile house ought to open, at the beginning of each year, with an enumeration of their assets and debts, as follows:—

Folio of Ledger		SUNDRIES De. to STOCK.		For the following, being the assets of the house.		
1	Cash amount at the banker's this day (Jan. 1)	-	-	2,350	0	0
1	Exchequer bills; amount in hand	-	-	5,310	0	0
7	Bills receivable; in hand, as per bill book	-	-	7,500	15	0
1	Three and a half per Cent. Stock, 6,000 <i>l.</i> , valued at 90 <i>l.</i> per 100 <i>l.</i> stock	-	-	5,400	0	0
8	Debenture account; drafts &c. receivable at the custom-house	-	-	515	0	0
6	Ship <i>Andros</i> ; our three-eighths of that vessel	-	-	3,000	0	0
7	Adventure to Irish linen; amount in hand, computed at cost price	-	-	2,167	0	0
7	James Halsey & Co., Liverpool; due by them	-	-	1,350	10	0
7	Thomas Watson & Co., Dublin; ditto	-	-	5,330	12	0
7	William Spence & Co., Plymouth; ditto	-	-	970	0	10
				£32,391	17	10

Folio of Ledger		STOCK De. to SUNDRIES.		For the debts of the house, as follows:—		
6	To bills payable; amount of acceptances at this date	-	-	2,350	10	0
3	To Insurance; amount of premiums due to underwriters	-	-	3,800	15	0
9	To Morris Pittman, Trinidad; balance due to him	-	-	1,370	5	0
4	To James Forbes, Jamaica; do.	-	-	750	5	0
7	To Simon Fraser, London; do.	-	-	360	15	0
2	To James Allan & Co., Kingston, Jamaica; do.	-	-	1,150	10	0
8	To George and William Fos, Falouthu; do.	-	-	320	15	0
				8,755	15	0
	Balance, being the present capital of the house	-	-	25,638	2	10
				£32,391	17	10

Let the transaction to be first explained be an order for goods from a correspondent abroad. A house in Jamaica sends instructions to the house at home to buy and ship a quantity of manufactured articles, suited to the Jamaica market, as follows:—

Order from James Allan & Co. of Kingston, Jamaica, to Henry Barclay & Co. of London.

J. A. & Co. Linn: 1 case Strella Onaburgs, 14 bales, 6d. per yard.  
 Best tow Strelitz do., 9 bales, 4d. or 4 1/2.  
 Best white Platillas, 1 case.  
 Linn: 1 case assorted, 3-4ths width, Or, 1s., 1s. 3d. 10 pieces each, cut up in 22-yard lengths.  
 Woollens: 5 bales Fenistones, 3-4ths wide, best indigo blue, 1s. a yard.  
 Cottons: 50 pieces stout calico, 2 1/2 yards each, 3-4ths wide, 4d. a yard.  
 50 do. do. do. 2-8ths, superior, 5d. a yard.  
 100 do. stout calico shirting, 7-8ths wide, superior, 6d. a yard.  
 Hats: 4 dozen gentlemen's superfine black, 20s. each.  
 2 do. do. do. 20s. each.  
 1 do. youths' do. black, 15s. each.  
 20 do. felt hats, for negroes, 2s. per dozen.  
 Shoes: 10 dozen prime calf-skin shoes, full size, 65s. per dozen.  
 10 do. youths' do. 54s. per dozen.  
 5 do. gentlemen's dress do. 72s. per dozen.

This order the London merchant divides among six, seven, or more wholesale dealers, according to their respective lines of business. Each dealer, or tradesman, as he is commonly called, provides his portion of the order in the course of the fortnight,

three weeks, or month, allowed him by the merchant; and when the goods are packed and ready to ship, he sends in his account, or bill of parcels thus:—

London, 20th February, 1843.

Messrs. HENRY BARCLAY & Co.

Bought of SIMON FRAZER.

J. A. & Co. No. 5.		£	s.	d.
	10 pieces best tow Strelitz Onaburgs, 146 yards each, at 4d. per yard	24	6	8
	Inside wrapper, 16 yards, at 3d.	0	4	0
	Cord, bale, and press packing	0	10	0
	Then follow, stated in like manner, the particular of 8 bales, No. 9 to 16, both inclusive, amounting to	25	0	8
		212	4	2
		£237	4	10

London, 20th February, 1843.

Messrs. HENRY BARCLAY & Co.

Bought of J. BORRADALE & Co.

J. A. & Co. No. 39.		£	s.	d.	£	s.	d.
	Case, 1 dozen and 2 youths' hats and bands, at 15s. each	10	10	0			
	Case (small)	0	4	0			
40	Case, 9 dozen felt hats for negroes, at 22s. per dozen	9	18	0	10	14	0
	Case (large)	0	16	0			
41	Do. the same				10	14	0
					10	14	0
					£32	2	0

The merchant, having received the whole of the bills of parcels, fixed on a vessel and agreed for the freight, proceeds to make an entry at the

Custom-house, and to ship the goods. That done, the next step is to prepare the Invoice, or general account of the shipment, as follows:—

Invoice of Goods shipped by Henry Barclay & Co. in the Rawlins, J. Thomson, from London to Kingston in Jamaica, on account and risk of Messrs. James Allan & Co. of Kingston.

J. A. & Co. No. 1.		£	s.	d.	£	s.	d.
2.	Punchon strong calf skin shoes, per J. Johnson's bill of parcels	93	7	0			
3.	Do. ditto ditto per ditto	94	16	4			
4, 5, 6.	French calf-skin shoes, per ditto	23	9	0			
	3 trunks ditto per ditto	67	3	7			
7.	Case linen tick assorted, per J. Wilson's bill of parcels				278	15	11
8 to 16.	9 bales best tow Onaburgs, 10 pieces each, per Simon Frazer's bill of parcels				42	0	0
17.	1 case white Platillas, per Molling & Co.'s bill of parcels				236	5	0
18 to 24.	7 cases the same, per ditto				41	0	8
25 to 28.	14 bales lint Onaburgs, per J. Mackenzie's bill of parcels				257	4	8
29.	1 case youths' hats and bands, per J. Borradale & Co.'s bill of parcels				367	10	0
40, 4, 1.	2 cases felt hats, ditto per ditto				10	14	0
					21	8	0
					1,384	18	3
	Entry; duty on part of 1/2 per cent.; bond and debenture				4	8	0
	Cartage, wharfage, and shipping charges				7	9	6
	Freight and primeage 30s. 7s. 1/2 bills of lading 3s. 6d.				38	10	6
	Insurance on 1,500l. at 40s. per 100l.	£30	0	0			
	Policy duty				3	18	9
	Commission, 5 per cent. on 1,335l.				66	15	0
	Ditto 1/2 per cent. on 1,500l. insured				7	10	0
					158	11	9
					£1,415	10	0

At 6 months' credit; due September 6. London, March 6, 1843. Errors excepted. HENRY BARCLAY & Co.

This invoice, being sent out by the vessel to Messrs. Allan & Co., conveys to them a number of particulars in a short space; viz. the mark, the numbers, the value, and the contents of each package. In former times it was the practice to make an invoice very long, inserting in it a literal copy of each bill of parcels, but it has now become usual to make each tradesman deliver a duplicate of his account, to be sent abroad with the goods; in which case the invoice may be, like the above, little more than a summary of the bills of parcels. This method has two advantages: it saves time

at the counting-house of the exporter, and it affords to his correspondent an assurance that no more is charged to him than has been actually paid for the articles.

An invoice ought to be made out with the utmost care, for it is a document of great importance in several respects: first, between the exporting merchant and his correspondent abroad; and next, when in the hands of the latter, it may and generally does form a voucher for calculating the import duty, as well as for the sales effected to retailers or other dealers.

The sur generally 2 per cent insurers in It is thus r

Folio of Ledger	
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The price mercantile prices a vari

Invoice of Master, and risk.

J. T. 1 to 6.	
6 bales	
The stores	
Custom	
Freight	
Comm.	
Insuranc	
Public	
Commis	

London, October

The following herrings, shipped London, in the to Barbados, b John Henderson, him at Bridget

J. H. 60 barrels at Brid at 21s.

This invoice is been that the fixed price, all c Account of S

ACCOUNT	
Insurance on 175l. at Policy	
Freight of 79 cwt. 25	
Primage, pierage, and Duty on 79 cwt. 45 lb	
Entry	
Dock dues	
Land waters and entry	
Warehouse rent, 19	
Sampling	
Insurance from fire	
Interest on freight and	
Brokerage, 1 per cent.	
Commission, 2 per cent.	
1 per cent. on 175l. im	
Nett proceeds, due M	

London, April 2, 18

The sum insured by the exporting merchant generally exceeds the amount of the invoice by 2 per cent., because the recovery of a loss from insurers involves a charge of fully that amount. It is thus necessary to cover not only the price of the goods, and the charges of shipping, insurance, and freight, but such further sum as may enable the shipper, in case of loss, to carry to the credit of his correspondent the amount of the invoice, clear of any deduction.

Journal Entries resulting from the foregoing Invoice.

Folio of Ledger		JAMES ALLAN & Co. DR. to SUNDRIES.		£ s. d.		
		For goods shipped to them in the <i>Ranitia</i> , Thomson, for Jamaica.				
1	To James Johnson; amount of shoes, per his bills of parcels -	-	-	278	15 11	
1	To John Wilson; linen tick per ditto -	-	-	42	0 0	
1	To Simon Fraser; tow Onaburgs per ditto -	-	-	236	5 0	
1	To John Mackenzie; ditto Onaburgs per ditto -	-	-	567	10 0	
2	To James Borradaile & Co.; hats per ditto -	-	-	32	2 0	
2	To Molling & Co.; for Pistillas per ditto -	-	-	528	5 4	
3	To Freight Account; freight, prime, and bills of lading -	-	-	38	10 6	
3	To Insurance; premium and policy -	-	-	35	18 9	
3	To Charges; entry outward, duty, and shipping charges -	-	-	11	17 6	
3	To Profit and Loss; for commission -	-	-	72	5 0	
				£1,443	10 0	

The preceding invoice, being for account of a mercantile house, who sell again to dealers, comprises a variety of articles; as a further specimen, we subjoin two short invoices, for account of sugar planters, and confined to articles consumed on their estates.

Invoice of Plantation Stores shipped by Henry Barclay & Co. in the Adventure, J. Williamson Master, for Kingston, Jamaica, by order of Mr. James Thomson, Planter, and for his account and risk.

J.T.		£ s. d.	
1 to 6.	6 bales lint Onaburgs, per bill of parcels from James Anderson - - - - -	£240	0 0
Then follow, in like manner, the mark, number, and contents of various other packages of plantation stores (bags, shoes, nails &c.), composing the shipment; amounting in all to - - - - -		2,352	10 0
Charges.			
	Custom-house entry, and shipping charges - - - - -	2	12 6
	Freight, prime, and bills of lading - - - - -	18	7 6
	Commission on £2,741. at 2½ per cent. - - - - -	59	7 0
	Insurance on 2,550l. at 2½ per cent. - - - - -	31	0 0
	Policy duty - - - - -	6	10 0
	Commission, ½ per cent. - - - - -	12	15 0
		£2,903	2 0
Errors excepted.			
London, October 2, 1842.		HENRY BARCLAY & Co.	

The following is an invoice of 60 barrels of herrings, shipped by Henry Barclay & Co. of London, in the *Barclay*, James Ferrier, bound to Barbadoes, by order and for account and risk of John Henderson, Esq., planter, and consigned to him at Bridgetown, Barbadoes.

J.H.		£ s. d.	
1 to 6.	60 barrels prime white herrings, deliverable at Bridgetown, Barbadoes, free of charge, at 2½s. per barrel - - - - -	£63	0 0

This invoice is very short, the agreement having been at the herrings should be delivered at a fixed price, all charges included.

Account of Sales.—We come now to a trans-

action of a different kind; to the sale of goods imported from abroad. A merchant in England receives from a correspondent, whether in India, the West Indies, or North America, notice of a shipment of sugar, coffee, rice, or other produce, about to be made to England, with instructions to effect insurance on the computed value. This is the first step in the transaction; on the arrival of the vessel the goods are entered, landed, and warehoused; and a broker is instructed to report on the state and prospects of the market. On a sale taking place, an account is made out and forwarded to the correspondent abroad, as follows:—

ACCOUNT SALES of 7 hhds. Sugar, by the <i>Ceres</i> , from Trinidad, for Account of MORRIS FITZMAN, Esq. of Trinidad.				£ s. d.	
Insurance on 175l. at 60s. per 100l. - - - - -	£5	0 0	M.P. 7 hhds. weighing - - - 87 3 21 1 to 7. Deduct draft - - - 0 0 14	£	s. d.
Policy - - - - -	0	10 6			
Freight of 79 cwt. 25 lbs. at 6s. per cwt. - - - - -	5	15 6	Deduct tare - - - 87 3 7 9 3 7	}	234 0 0
Prime, pierage, and trade - - - - -	23	15 4			
Duty on 79 cwt. 25 lbs. at 27s. per cwt. - - - - -	0	9 7	Nett 78 0 0 at 60s. per cwt.	}	231 0 0
Entry - - - - -	106	19 0			
Dock dues - - - - -	0	6 0	/		
Landwasters and entry - - - - -	2	12 10			
Warehouse rent, 19 weeks - - - - -	0	16 0			
Sampling - - - - -	1	15 2			
Insurance from fire - - - - -	0	3 6			
Interest on freight and duty - - - - -	0	6 0			
Brokerage, 1 per cent. - - - - -	1	12 3			
Commission, 2 per cent. - - - - -	2	6 9			
¼ per cent. on 175l. insured - - - - -	4	15 4			
	0	17 6			
Nett proceeds, due May 2, 1842 - - - - -	152	8 9			
	81	11 3			
		£231	0 0		
Errors excepted.				HENRY BARCLAY & Co.	
London, April 2, 1843.					



Dr.		CASH.	PAID.		Cr.
1842		£ s. d.	1842		£ s. d.
Mar. 1	To balance at the bankers'	2,550 0 0	Mar. 2	By bills payable, paid No. 261 to James Hindling - - - - -	115 10 0
3	To ship <i>Amelia</i> , received of James Jacobs, for freight - - - - -	175 5 0	4	By George and William Fox, paid their balance of account - - - - -	523 15 0
6	To bills receivable, received payment of No. 251 on J. Henderson - - - - -	200 0 0	6	By John Smith & Sons, paid J. Jack- son for their account - - - - -	98 0 0
9	To James Bailey & Co., received pay- ment of their draft at sight on J. Bainbridge - - - - -	152 10 0	7	By bills payable, paid No. 269 to J. Stewart - - - - -	300 0 0
15	To William Spence & Co., received balance of their account - - - - -	970 0 10	18	By interest paid, discount on Harrison & Co., 2 months - - - - -	6 1 10
—	To Debitum account, received draw- back on tobacco shipped by the <i>Flower</i> - - - - -	15 8 0	By J. Johnson, paid his bill of parcels - - - - -	278 15 11	
18	To bills receivable, discounted at the bankers', Harrison & Co., due 15-18 March - - - - -	730 10 0	By John Wilson do. - - - - -	42 0 0	
—	To profit and loss, received 5 per cent. discount, on paying with ready money the accounts per contra, not due till 6 months hence, from James Johnson - - - £13 19 0 John Wilson - - - 2 2 0 Simon Frazer - - - 11 16 0 John Mackenzie - - - 18 7 6 James Borradaile & Co. - - - 0 16 0 Molling & Co. - - - 16 8 2		By John Mackenzie do. - - - - -	367 10 0	
		63 8 9	By James Borradaile & Co. do. - - - - -	32 2 0	
		£1,857 0 7	By Molting & Co. do. - - - - -	328 5 4	
			31	By charges paid, postage, and petty disbursements this month, per petty cash book - - - - -	15 2 6
			—	By balance, carried to next month - - - - -	2,696 13 0
					£1,857 0 7

These transactions, when put into the Journal form, stand thus:—

Folio of Ledger	March 1842.	£ s. d.
	<b>CASH Da. to SUNDRIES</b> Received this month.	
6	To Ship <i>Amelia</i> .	
6	3d. Freight from James Jacobs - - - - -	175 5 0
	To Bills Receivable.	
	6th. Received payment of J. Anderson, due this day - - - - - £200 0 0	
	18th. Discounted Harrison & Co. due 9th of May - - - - - 730 10 0	
		950 10 0
7	To James Bailey & Co.	
7	9th. Received their draft on Bainbridge, due - - - - -	152 10 0
	To William Spence & Co.	
	15th. Received balance of their account - - - - -	970 0 10
8	To Debitum Account.	
	15th. Drawback on tobacco by the <i>Flower</i> - - - - -	15 8 0
3	To Profit and Loss.	
	18th. Received discount on sundry accounts, per cash book - - - - -	63 8 9
		£2,507 0 7

Folio of Ledger	SUNDRIES Da. to CASH.	£ s. d.	£ s. d.
	<b>Paid this month as follows:</b>		
6	Bills Payable.		
	3d. Paid No. 261 - - - - -	145 10 0	
	7th. Do. 269 - - - - -	192 15 0	338 5 0
4	Customs Inward.		
	25th. Paid duty on sugar, per <i>Ceres</i> , 79 cwt. 25 lbs. at 27s. per cwt. - - - - -	106 19 0	
	Entry - - - - -	0 6 0	107 5 0
8	Simon Frazer.		
	18th. Paid his bill of parcels - - - - -	236 5 0	
1			
	26th. Paid J. Jackson for his account - - - - -	98 0 0	334 5 0
8	Interest Account.		
	18th. Paid discount on Harrison & Co. - - - - -	6 1 10	
1	James Johnson.		
	18th. Paid his bill of parcels - - - - -	278 15 11	
1	John Wilson.		
	18th. Paid his bill of parcels - - - - -	42 0 0	
1	John Mackenzie.		
	18th. Paid his bill of parcels - - - - -	367 10 0	
2	James Borradaile & Co.		
	18th. Paid their bill of parcels - - - - -	32 2 0	
2	Molling & Co.		
	18th. Paid their balance of account - - - - -	328 5 4	
8	George and William Fox.		
	21th. Paid their balance of account - - - - -	220 15 0	
3	Charges.		
	31st. Paid postage, and petty disbursements this month - - - - -	15 2 6	
		£2,170 7 2	

The above shows, that for all sums received, the account of cash is made debtor, and the parties paying the same are made creditors; while for all sums paid, the cash is credited, and the parties receiving them are made debtors.

We are next to state the mode of entering bill transactions.

*Bills receivable.*—We have seen by the Balance sheet that several correspondents are

indebted to the house. The debts of correspondents abroad may be reduced by remitting either bills, specie, or merchandise for sale; from correspondents in England, bills are almost the only mode of remitting. When bills come to hand, the rule is to enter each in the bill book, with a minute statement of the date, term, sum, and other particulars thus:—

No.	Received	From whom	Drawn by	Date	Term	Drawn on	To order of	Due	Sum	How disp. of
630	8 March	Bailey & Co.	W. Adams	11th inst, 1 March	2 months	T. Jones, Dublin	A. Williams	1-4 May	350	Rainier & Co.
631	10 March	Watson & Co.	J. Jacobs	3 March	1 month	J. Adams, London	G. Wilson	3-6 April	185	Smith & Co.
632	12 March	Spence & Co.	T. Johnson	Falmouth, 3 March	2 months	T. Allan, Liverpool	D. Jones	5-8 May	1260	Creswell & Co.

The Journal Entries for these bills are as follow :—

Folio of Ledger	BILLS RECEIVABLE Dr. to SUNDRIES.		£	s.	d.
	For the following remitted this month.				
7	To James Hailey & Co.				
	No. 630, on T. Jones, Dublin, due 4th of May - - - - -		350	0	0
7	To T. Watson & Co.				
	No. 631, on J. Adams, London, due 6th of April - - - - -		135	0	0
7	To William Spence & Co.				
	No. 632, on T. Allan, Liverpool, due 5th of May - - - - -		260	0	0
			£745	0	0

*Bills Payable.*—The entries under this head are, of course, wholly different from the preceding, account of sums owing by it to correspondents. Each acceptance is entered in the book of bills being for acceptances of the house given on

No.	Drawn by	Place and Date	To order of	On account of	Term	When accep.	Due.	Sum
151	J. Allan & Co.	Jamaica, 15 January	J. Jones	J. Allan & Co.	90 days' aight	12 March	10—13 June	£ 175 10 0
152	G. & W. Fox	Falmouth, 7 March	J. Thomson	G. & W. Fox	15 days' date	14 March	22—25 March	75 15 0
153	J. Clark	Hull, 5 March	G. Harclay	J. Smith & Sons	1 month's date	16 March	5—8 March	132 10 0

The Journal entries for these bills are as follows :—

Folio of Ledger	SUNDRIES Dns. to BILLS PAYABLE.		£	s.	d.
	For the following bills accepted.				
2	James Allan & Co. No. 151, their draft, due 13th of June - - - - -		175	10	0
8	G. & W. Fox. No. 152, their draft, due 25th of March - - - - -		75	15	0
1	Simon Frazer. J. Clark's draft on his account, due 8th of March - - - - -		132	10	0
			£382	15	0
Mar 1842.					
	CASH Dns. to THOMAS KEMBLE & CO.		£	s.	d.
1	27th. Received from them proceeds of sugar per Ceres - - - - -		234	0	0
	Less their brokerage - - - - -		2	5	9
			231	15	3
4	30th. Received coffee per Viltoria - - - - -		576	5	6
	Less brokerage - - - - -		6	16	7
			669	8	11
			£901	2	2

The preceding entries, few as they are compared to the monthly transactions of a house of business, are sufficient to show the nature of a Journal as well as of the subsidiary books (for cash, bills, invoices, and account sales) from which it is composed. The Journal, being a complete record of the business of the house, is very varied and comprehensive in its nature, and may be termed an index to every book of consequence in the counting-house. But while in the cash book every payment or receipt is entered on the day it takes place, and in the bill books every bill is registered on the day it comes to hand, or is accepted, the Journal entries, being completed only at the end of the month, admit of being combined to a considerable extent, so as to exhibit a number of transactions in collective sums. Thus

all the acceptances of the house paid in the course of the month appear in the Journal entry of Bills Payable Dr. to Cash: they are arranged in this entry as they fall due, after which the whole are added into one sum, which sum alone needs be carried to the Ledger. In like manner, all bills receivable, whether discounted, or kept by the house till they fall due, are collected under the head of Bills Receivable Dr. to Cash, summed up together, and carried to the Ledger in one line; a point of great importance, as we shall see presently, in facilitating the balance of the Ledger.

We proceed to give a specimen of the Ledger: the whole of the Journal entries in the preceding pages, when posted into the Ledger, will stand thus :—

Dr.		Stock.				Cr.					
1842		£	s.	d.	1831		£	s.	d.		
Jan. 1	1	To sundries - - - - -	8,753	15	0	Jan. 1	1	By sundries - - - - -	32,391	17	10
Dr.		CASH.				Cr.					
Jan. 1	1	To stock - - - - -	2,590	0	0	Mar. 31		By sundries - - - - -	2,170	7	7
Mar. 3	4	To sundries - - - - -	2,307	0	7						
May 30	15	To T. Kemble & Co. - - - - -	904	2	2						
Dr.		EXCHEQUER BILLS.				Cr.					
Jan. 1	1	To stock - - - - -	5,310	0	0						
Dr.		THREE AND A HALF PER CENT. STOCK.				Cr.					
Jan. 1	1	To stock - - - - -	5,400	0	0						
Dr.		JAMES JOHNSON, London.				Cr.					
Mar. 1	4	To cash - - - - -	275	15	11	Mar. 5	9	By J. Allan & Co. - - - - -	275	15	11
Dr.		JOHN WILSON, London.				Cr.					
Mar. 1	4	To cash - - - - -	42	0	0	Mar. 6	9	By J. Allan & Co. - - - - -	42	0	0

Dr.			
Mar. 26	31		
Dr.			
Mar. 8			
Dr.			
Mar. 1			
Dr.			
Mar. 1			
Dr.			
Mar. 6	31	9	11
Dr.			
April 2			11
Dr.			
Dr.			
Dr.			
Mar. 3			4
Dr.			
Dr.			
April 2			4
Dr.			
April 3			13
Dr.			
Dr.			
Dr.			
Jan. 1		1	
Mar. 5		5	
Dr.			
Mar. 7		4	
Dr.			
Jan. 1		1	
Dr.			
Jan. 1		1	
Dr.			
Jan. 1		1	

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Dr.		SIMON FRAZER, London.				Cr.	
Mar. 26	4	To cash - - - -	£ 331 5 0	Jan. 1	2	By stock - - - -	£ 961 15 0
31	5	To bills payable - - - -	132 10 0	Jan. 8	9	By J. Allan & Co. - - - -	236 5 0
Dr.		JOHN MACKENZIE, London.				Cr.	
Mar. 8	4	To cash - - - -	367 10 0	Mar. 6	9	By J. Allan & Co. - - - -	367 10 0
Drs.		JAMES BORRADAILE & Co. London.				Crs.	
Mar. 1	4	To cash - - - -	32 2 0	Mar. 6	9	By J. Allan & Co. - - - -	32 2 0
Drs.		MOLLING & Co. London.				Crs.	
Mar. 1	4	To cash - - - -	328 5 4	Mar. 9		By J. Allan & Co. - - - -	328 5 4
Drs.		J. ALLAN & Co. Kingston, Jamaica.				Crs.	
Mar. 6	9	To sundries - - - -	1,443 10 0	Jan. 1	2	By stock - - - -	1,150 10 0
31	11	To bills payable - - - -	175 10 0				
Dr.		SUGAR BY THE CERES.				Cr.	
April 2	11	To sundries - - - -	234 0 0	April 2	11	By T. Kemble & Co. - - - -	234 0 0
Dr.		FREIGHT ACCOUNT.				Cr.	
				Mar. 6	9	By J. Allan & Co. - - - -	38 10 6
				April 2	11	By sugar per Ceres - - - -	21 11 11
				May 3	13	By coffee per Vittoria - - - -	41 2 6
Dr.		INSURANCE ACCOUNT.				Cr.	
				Jan. 1	2	By stock - - - -	1,890 15 0
				Mar. 6	9	By J. Allan & Co. - - - -	35 18 9
				April 2	11	By sugar per Ceres - - - -	5 16 6
				May 3	13	By coffee per Vittoria - - - -	19 6 9
Dr.		CHARGES.				Cr.	
Mar. 3	4	To cash - - - -	15 2 6	Mar. 6	9	By J. Allan & Co. - - - -	11 17 6
				April 2	11	By sugar per Ceres - - - -	5 13 6
				May 3	13	By coffee per Vittoria - - - -	13 18 7
Dr.		PROFIT AND LOSS.				Cr.	
				Mar. 6	9	By J. Allan & Co. - - - -	74 5 0
				Mar. 8	4	By cash - - - -	63 8 9
				April 2	11	By sugar per Ceres - - - -	7 3 1
				May 3	13	By coffee per Vittoria - - - -	20 8 1
Dr.		CUSTOMS INWARD.				Cr.	
April 2	4	To cash - - - -	107 5 0	April 2	11	By sugar per Ceres - - - -	107 5 0
Dr.		COFFEE PER VITTORIA.				Cr.	
April 3	13	To sundries - - - -	676 5 6	April 3	11	By T. Kemble & Co. - - - -	676 5 6
Dr.		MORRIS PITTMAN, Trinidad.				Cr.	
				Jan. 1	2	By stock - - - -	1,370 5 0
				April 2	11	By sugar per Ceres - - - -	81 11 3
Dr.		JAMES FORBES, Demerara.				Cr.	
				Jan. 1	2	By stock - - - -	730 5 0
				May 3	13	By coffee per Vittoria - - - -	571 13 1
Drs.		THOMAS KEMBLE & Co. London.				Crs.	
April 3	11	To sundries - - - -	910 5 6	April 7	13	By sugar per Ceres - - - -	2 6 9
				30	13	By coffee per Vittoria - - - -	6 16 7
				May 30	15	By cash - - - -	901 2 2
							910 5 6
Dr.		BILLS RECEIVABLE.				Cr.	
Jan. 1	1	To stock - - - -	7,300 15 0	Mar. 1	4	By cash - - - -	930 10 0
Mar. 3	5	To sundries - - - -	745 0 0				
Dr.		BILLS PAYABLE.				Cr.	
Mar. 7	4	To cash - - - -	338 5 0	Jan. 1	2	By stock - - - -	2,359 10 0
				Mar. 3	5	By sundries - - - -	381 15 0
Dr.		SHIP AMELIA.				Cr.	
Jan. 1	1	To stock - - - -	3,000 0 0	Mar. 1	4	By cash - - - -	175 3 0
Dr.		ADVENTURE IN IRISH LINEN.				Cr.	
Jan. 1	1	To stock - - - -	2,467 0 0				
Drs.		JAMES BAILEY & Co. Liverpool.				Crs.	
Jan. 1	1	To stock - - - -	1,350 10 0	Mar. 3	4	By cash - - - -	152 10 0
				Mar. 9	5	By bills receivable - - - -	350 0 0



commonly over a number of folio pages. It is advisable, therefore, to divide each page into portions of ten lines each, adding such portions separately. This lessens the risk of error, as it is evidently easier to add five or six such portions in succession, than to do at once a whole folio containing fifty or sixty sums.

Another important point towards agreeing a balance, is to limit carefully the number of Ledger entries; in other words, to comprise as much as possible in those aggregate sums in the Journal which are posted in the Ledger. Thus, in the case of the monthly entries for bills, whether receivable or payable, while the inner column of the Journal contains the amount of each specific bill, the final column—that which is carried to the Ledger—should, and generally does, comprise a number of bills in one sum. Entries in the cash book, which generally form so large a proportion of the transactions of the month, are carried by some book-keepers directly from the cash book into the Ledger, without an intermediate arrangement in the Journal form. In some lines of business this plan may answer; but as a general rule it is better to take the trouble of journalising the cash, thereby comprising in 30 or 40 Ledger entries the transactions of the month, which, when posted separately, would exceed 100. The time required for re-writing or rather re-casting them will, in most cases, be amply made good by exhibiting the cash in a proper form, and by facilitating the balance of the Ledger at the close of the year.

We have said the close of the year, because, in nine mercantile houses out of ten, that is the

period for striking a balance. In some branches of trade, however, the case is otherwise. Thus, among West India merchants, April 30 is the time of balancing, because at that season the sales of the preceding crop are, in general, completed, and those of the current year not yet begun.

Arrears in book-keeping ought to be most carefully avoided—calculated as they are to engender mistakes, and to produce loss from delay in adjusting accounts. The practice of balancing the ledger every 6 months, and of transmitting as often accounts current to the correspondents and connections of merchants, will, it is to be hoped, become general. It is, however, hardly practicable in cases where, as too often happens in the lesser mercantile establishments, the book-keeper is charged with a share of the active management. Exemption from interruption, and removal from the bustle of current business, are main requisites to accuracy and despatch in accounts. In examining, or, as it is called, collating the books, the book-keeper requires not only a retired apartment, but the assistance of a clerk for the purpose of calling them over. A similar arrangement for another purpose—we mean for composing the Journal, the book-keeper dictating from the subsidiary books to a clerk whose writing forms the draught or rough copy of the Journal—has as yet been seldom adopted; although, when properly applied, it is highly conducive both to accuracy and expedition.

A Ledger must, of course, have an index; but it is very brief, containing merely the titles of the accounts and a reference to the page, as follows:—

Allen & Co., James	:	:	:	:	Folio
Amelia, ship	:	:	:	:	6

Bailey & Co., James	:	:	:	:	Folio
Bills payable	:	:	:	:	7

*The Subsidiary Books.*—In former times, when business in this country was conducted by most persons on a very limited scale, the accounts of a number of merchants, or rather of those dealers whom we should now think it a compliment to call merchants, were often kept on a plan somewhat like that at present followed by our shop-keepers. The merchant or his chief clerk kept a daily record of transactions, whether sales, purchases, receipts, or payments, in a diary, which was called a Waste-book, from the rude manner in which the entries or rather notices in it were written, being inserted, one by one, soon after the transactions in question took place. From this diary the Journal and Ledger were posted; and book-keeping by double entry being in those days understood by few, one person frequently kept the books of several merchants, passing one or two days in the week at the house of each, and reducing these rough materials into the form of regular entries. In process of time, as transactions multiplied and mercantile business took a wider range, separate books were more generally required for particular departments, such as a bill book for all bills of exchange, and a cash book for all ready money transactions. This had long been the case in the large mercantile towns of Italy and Holland; and above a century ago it became a general practice in London and Bristol, which were then the only places of extensive business in England. But in English, as in foreign counting-houses, the bill book and even the cash book were long considered as little more than memoranda of details; not as books of authority, or as fit documents for Journal entries; for that purpose the diary only was used. In time, however, the mode of keeping these subsidiary books improved, and merchants became aware that, when cash or bill

transactions were properly entered in them, the Journal might be posted from them as well as from the diary.

Similar observations are applicable to the other subsidiary books, viz. an invoice book for goods shipped, and an account of sales book for goods received and sold. When from the gradual improvement in the management of counting-houses these books were kept in a manner to supply all that was wanted for Journal entries, the use of the diary was dispensed with for such entries also. And at last it was found, that in all well-regulated counting-houses the books kept for separate departments of the business were sufficient for the composition of the Journal, with the exception of a few transactions out of the regular course, which might be easily noticed in a supplementary book called a Petty Journal, or a book for occasional entries. The consequence was, that the diary or waste book, formerly the groundwork of the Journal and Ledger, became excluded from every well-regulated counting-house. This has long been the case, and the name of waste book would have been forgotten, were it not found in the printed treatises on book-keeping which have appeared from time to time, and have been generally composed by teachers in schools or academies, who, unacquainted with the actual practice of merchants, were content to copy and reprint what they found laid down in old systems of book-keeping.

- The subsidiary books required in a counting-house are, the Cash book;
- Book of Acceptances of the house, or Bills Payable;
- Book of Bills receivable, or bills on other merchants which are or have been in possession of the house;

Bought book, or book for bills of parcels;  
Invoice book, or register of goods sold or exported;

Account of Sales book;  
Insurance Policy book; containing copies of all policies of insurance;

Petty Journal, or book for such occasional entries as do not belong to any of the preceding.

Such are the authorities from which it is now customary, in every well-regulated house, to compose the Journal. Their number indicates a repartition or subdivision, to a considerable extent, of counting-house work, and nowhere is such repartition productive of greater advantage. How much better is it to enter all bills receivable in one book, all bills payable in another, and all cash transactions in a third, than in any way to blend these very distinct entries! The effect of this subdivision is to simplify the Journal entries in a manner highly conducive to accuracy and despatch; and to present such means of checking or examining them, that many transactions may be stated, and an account extended over a number of folios, without a single error.

The use of most of the subsidiary books is sufficiently pointed out by their names; but it may be well to add a few remarks on the *Bought Book*, or receptacle for the accounts of goods purchased. A bill of parcels is the name given to the account of goods supplied by a manufacturer, tradesman, or dealer, to a merchant. Such accounts soon become numerous, and it is evidently of consequence to adopt the best method of keeping them. In former times it was the practice to fold them up in a uniform size, and after writing on the back the names of the respective furnishers, to put them away in bundles. But wherever the purchases of a merchant are extensive, and the bills of parcels numerous, the better mode, after arranging them alphabetically, is to paste them in a large book, generally a folio, made of blue or sugar-loaf paper: this book to have its pages numbered, and to have an alphabetical index. Any single bill of parcels may thus be referred to with the same ease as we turn to an account in a ledger; and one of these folios may be made to hold a very great quantity of bills of parcels; as many as would form a number of large bundles when tied up on the plan of former times.

*Book of Bills Payable.*—The notice, or, as it is termed, advice of bills payable after sight, generally comes to hand before the bills themselves. As the time of the arrival of the latter is uncertain, the better plan is not to enter them from the advice among the other bills payable, but to appropriate a space of 10 or 12 pages at the beginning or end of the book of bills payable, and to insert there the substance of the advice received.

There are a few books in every counting-house which do not form part of the vouchers or materials for the Journal; viz. the Account Current book, containing duplicates of the accounts furnished by the house to their different correspondents and connections;

The Letter book, containing copies of all letters written to the correspondents or connections of the house;

The Petty Cash book, or account of petty disbursements, the sum of which is entered once a month in the cash book;

The Order book, containing copies of all orders received;

The Debenture book, or register of drawbacks payable by the Custom-house.

It was formerly a practice in some houses for the book-keeper to go over the letter book at the end of each month, that he might take note of

any entries not supplied by the subsidiary books. This, however, is now unnecessary; these books, when carefully kept, containing, in one shape or other, every transaction of the house.

*The Principle of Double Entry.*—From these explanations of the practice of book-keeping, we must call the attention of our readers to a topic of more intricacy—the origin of the present system, and the manner in which it was adopted. To record the transactions of a merchant in a Journal or day book was an obvious arrangement, and to keep a Ledger or systematic register of the contents of the Journal was a natural result of his business, particularly when conducted on credit. Such, in a rude form, are the books of our shopkeepers, who enter their sales and purchases in a day book, and in their Ledger carry the former to the Dr. of their customers, the latter to the Cr. of the wholesale dealers who supply them with goods. By making at the end of the year a list of the sums due to him by his customers, and of those due by him to wholesale dealers, a shopkeeper may, after adding to the former the value of his stock on hand, make out an approximate statement of his debts and assets. Now, that which in this manner is done indirectly and imperfectly, it is the object of double entry to do with method and certainty. The shopkeeper makes out a list of debtors on one side and of creditors on the other, but he cannot make them balance, because his entries have been single; that is, they have had no counterpart. On making a purchase of cottons from Messrs. McConnell of Manchester, or of woollens from Messrs. Gott of Leeds, he merely enters the amount to their credit, but he makes no one Dr. to them, because the goods are not sold; and to introduce an imaginary account would be too great a refinement for a plain practical man. But a person accustomed to double entry would, without any effort of thought, make 'Printed Calicoes' Dr. to Messrs. McConnell, and 'Kerseymeres' Dr. to Messrs. Gott, for the respective amounts; after which, as the sales proceeded, he would make the buyers Drs. to these accounts for the amount of their purchases.

We thus perceive that the intricacy in the application of double entry was not with the personal so much as with the nominal accounts. Let us refer to the country where book-keeping was first studied, and take as an example the case of Doria, a merchant in Genoa, shipping, in a former age, silk, of the value of 200*l.*, bought from Flori, in Piedmont, to Henderson and Co., silk manufacturers, in England, on the terms of charging, not an additional price, but a commission of 5 per cent. with interest until reimbursed his advance. In entering the transaction, Doria's book-keeper would, as a matter of course, make Hendersons debtors to Flori 200*l.* for the cost of the silk; but he might not so readily find a creditor for the 10*l.* commission, or the 7*l.* interest eventually due on the advance. The custom in this primitive era of book-keeping probably was, to introduce the firm of the house into their books, making Hendersons debtors to Doria for the 10*l.* and 7*l.*; but as the practice of book-keeping improved, it was found preferable to avoid inserting, on any occasion, the firm of the house, and to substitute nominal accounts, such as, commission, interest, bills payable, bills receivable. These, attention and practice rendered in time familiar to the book-keeper, who learned to open his Journal at the beginning of a year by making the parties who owed balances to the house debtors, not to the firm by name, but to Stock; and those to whom the house was indebted, creditors by Stock. As the transactions

1812		
June 30	To balance	
July 2	To your dr	
July 9	due Aug.	
July 9	To invoice	
	Amelia, du	
Oct. 10	To cash pa	
	your acco	
	To insura	
	shipped by	
	Notes, 1, 10	
	per cent.	
	Per	
Dec. 31	Postage and	
	during the	
	To commis	
	on 202 <i>l.</i>	
	20 <i>l.</i> rec'd	
	count	
	To balance	
	half year,	
	by 75, 1 <i>l.</i>	
London, December 31		

We have here a made or responsible in question, and

of the year money was the house, account bill payable; so assumed its imperceptible. What appeared to the test of accuracy debtor side of the creditor as a matter through this length, may a general accalices, the on hand may the account i references to wise be req dealer could he took stock Ledger balan taking, howe servants, beco of calculation, in trade, whe facturer, doub of his accounts enquiry as to th acquisition of hi ca This advanta without any gro the books of de nine parts in a single entry: fo double entry in end of the mon to exhibit the m actions, Nominal Acc us to notice onl chandise. The side all the en gains obtained the debtor side o ther by bad del

of the year proceeded, he made those to whom money was paid debtors, not to the firm of the house, but to Cash; and those for whose account bills were accepted debtors to Bills payable; so that book-keeping by double entry assumed its present form gradually and almost imperceptibly.

What are the advantages of this method compared to that of single entry? First, it supplies a test of accuracy, inasmuch as, the entries on the debtor side of the Ledger being equal to those on the creditor side, their respective totals ought, as a matter of course, to balance. After going through this proof, personal accounts, of whatever length, may be settled with confidence; while in a general account, such as mercantile or printed calicoes, the value sold and the value remaining on hand may be ascertained by merely balancing the account in the Ledger, without the repeated references to the sales book that would otherwise be required. Without double entry, a dealer could hardly estimate his property unless he took stock; but with it an extraction of the Ledger balances fulfills that object, and stock-taking, however proper as a test of the honesty of servants, becomes quite unnecessary as a means of calculation. In short, in regard to any person in trade, whether merchant, dealer, or manufacturer, double entry forms the connecting link of his accounts, and affords a ready solution of any enquiry as to the appropriation, increase, or diminution of his capital.

This advantage may fortunately be obtained without any great sacrifice of time or labour. Of the books of dealers, manufacturers, and retailers, nine parts in ten may continue to be kept by single entry; for the addition of a few pages of double entry in the form of a summary, at the end of the month or quarter, will be sufficient to exhibit the result of a great extent of transactions.

**Nominal Accounts.**—Of these our limits permit us to notice only two; Profit and Loss, and Merchandise. The former contains on the creditor side all the entries of commissions earned, and gains obtained on particular adventures; while the debtor side exhibits the losses incurred, whether by bad debts or by unsuccessful purchases.

Every house keeping regular books must have a profit and loss account, but a merchandise account is altogether optional. Those who have such a head in their Ledger are accustomed to make it Dr. to the dealers or furnishers from whom they make purchases, and to credit it in return by the correspondents or connections to whom they make sales. In many houses, however, there is no such intermediate account; the parties to whom the goods are sent being made Drs. at once to the furnishers of the goods, as in the case of the shipment to Jamaica stated in our preceding pages.

A merchant, before estimating his profits, ought to charge interest on each head of investment. His clear profit cannot be ascertained without it; and the practice of charging it is a lesson to him to hold no property that does not afford, at least, interest on his advances.

Mercantile books and accounts must be kept in the money of the country in which the partners reside. A house in Rotterdam composed of English partners necessarily keep their accounts in Dutch money, although their transactions may be chiefly with England. Further, books, it is obvious, can be kept in only one kind of money; and when a merchant in England receives from a distant country accounts which cannot at the time be entered in sterling for want of a fixed exchange, these accounts should be noted in a separate book, until the exchange being ascertained, they can be entered in the Journal in sterling.

A book-keeper will do well to avoid all such puzzling distinctions as 'J. Johnson, my account with him;' and 'J. Johnson, his account proper;' on the plain ground that every account in the Ledger ought to be the general account of the person whose name it bears.

**Errors excepted.**—This expression is merely a proviso, that if any mistakes be discovered in the account in question, they shall be open to correction.

**Accounts Current.**—An account current generally contains all the transactions of the house with one of its correspondents during a given time, generally 6 or 12 months. The following is an example:—

MESSRS. JAMES ALLAN & Co. Jamaica, in Account Current with HENRY BARCLAY & Co. London.										
Drs.			Days to 31 Dec	Interest	Crs.			Days to 31 Dec	Interest	
1812		£ s. d.			1812		£ s. d.			
June 30	To balance of last account	867 10 0	184	1,595	Aug. 10	By proceeds of 20 tierces coffee, per <i>Louisa</i> , due Sept. 10	410 0 0	112	460	
July 2	To your draft to J. Smith, due Aug. 15	128 0 0	140	179		By your remittance on J. Austin, due Oct. 10	350 0 0	82	287	
July 9	To invoice of goods per <i>Amelia</i> , due Oct. 9	752 0 0	83	621	Sept. 15	By proceeds of 17 hhds. sugar, per <i>Hercules</i> , due Oct. 15	275 0 0	77	173	
Oct. 10	To cash paid J. Harvey on your account	75 10 0	82	62	Sept. 30	By cash received from J. Johnson on your account	260 0 0	102	265	
	To insurance on produce shipped by you in the <i>Anna Nokes</i> , 1,400 <i>l.</i> , at 2 guineas per cent.	£29 8 0			Dec. 31	Balance of interest carried to Dr.	- - -	-	1,276	
	Policy	3 10 0				Balance of account carried to your Dr. in new account	621 8 7			
Dec. 31	Postage and petty charges during the half year	32 18 0								
	To commission, 1 per cent. on 205 <i>l.</i> paid. Ditto on 26 <i>l.</i> received on your account	1 15 0								
	To balance of inter. at this half year, 1,276 divided by 75, is	4 6 0								
		17 9 7								
		£ 1,879 8 7		2,160			£ 1,879 8 7		2,460	
				Errors excepted.						
London, December 31, 1812.					HENRY BARCLAY & Co.					

We have here on the Dr. side all the payments made or responsibilities incurred for the correspondents in question, and on the Cr. side the different receipts on their account. The interest for the half year, the commission on receipts and payments, the postage and petty charges, being then

added, the account may be closed and the balance carried to next year. Copies of accounts current ought to be sent off as soon as possible after the day to which they are brought down; and with that view they ought to be written out from the Ledger before the close of the year or half year, particularly as the entries for interest and commission can be made only after they are written out. The whole ought then to be copied into the account current book.

But in some counting-houses the account current book, instead of being copied from the Ledger and Journal, is posted, like the latter, from the bill book, the cash book, the invoice book, and the account of sales book. It is then considered a check on the Journal and Ledger; and from the comparative ease with which it is posted, may be completed and made use of before the latter are fully brought up. This is certainly an advantage in houses where, from pressure on the book-keeper, the Journal and Ledger are in arrear, but such ought never to be the case for any length of time; while as to the former point—that of forming a check on the Journal and Ledger—the fact is, that these books, from the mode in which they are kept, are much more likely to be correct than the account current book.

*Printed Works on Book-keeping.*—To the publications of old date by teachers have succeeded, in the present age, several treatises on book-keeping by accountants. Some of these are of very limited use, being directed more to recommend a favourite practice of the author in some particular branch of book-keeping than to convey a comprehensive view of the system. The only works on the subject entitled to that character are two; one, *A Complete System of Book-keeping*, London 1799, by the late Benjamin Booth; the other, *The Science of Book-keeping exemplified*, by Mr. Jones, an accountant in London, printed in 1831. Booth was a man of ability, who had experience both as a merchant and a book-keeper, having passed one part of his life in London, the other in New York. The reader of his work finds a great deal of information in short compass, without being perplexed either by superfluous detail or by fanciful theory. The form of Mr. Booth's Journal and Ledger is similar to what we have given in the preceding pages, and to the practice of our merchants for more than a century; it was by much the best work on book-keeping, until Mr. Jones devised several improvements calculated to lessen the risk of error in both Journal and Ledger. One of these improvements is the use of two columns for figures in each page of the Journal, one for the Drs., the other for the Crs.; by inserting each sum twice, the book-keeper obtains the means of proving the Journal additions page by page. The posting from the Journal to the Ledger is also simplified and rendered less subject to error by the use of these columns. In regard to the great task of balancing the Ledger, Mr. Jones's plan is to do it quarter by quarter, making use of a separate book, called a balance book, in which are inserted the totals on each side of the Ledger accounts at the end of 3 months. By these means the agreement of the general balance is made a matter of certainty after completing the additions. Other parts of Mr. Jones's book, viz. his *formulae* for books on the single entry plan, and for the accounts of bankers, contain suggestions of evident utility. His volume consists of two parts: the printed part (120 pp.) containing the treatise, with directions; and the lithographed part (140 pp.) giving copious examples in two sets of books, one kept by single, the other by

double entry. If, on a reimpression, the author were to divide the work, and to sell the single entry part separately from the double entry, the price of each might be moderate, and a great service would be rendered to the mercantile public.

**BOOKS** (Ger. *bücher*; Dutel. *boeken*; Dan. *bøger*; Swed. *böcker*; Fr. *livres*; Ital. *libri*; Span. *libros*; Port. *livros*; Russ. *knigi*; Pol. *ksiąski*, *księgi*; Lat. *libri*). Written or printed treatises on any branch of science, art, or literature, composed with the view of instructing, amusing, or persuading the reader.

*Copyright* is the right which the authors of books or treatises claim to the exclusive privilege of printing, publishing, and selling them.

Books are sometimes blank, as account books; but these enjoy no peculiar privileges, and do not come within the scope of our enquiries.

Books are divided into *classes*, according to the mode in which the sheets of the paper on which they are printed or written are folded: viz. *folio*, when the sheet is folded into two leaves; *quarto*, when folded into four; *octavo*, when folded into eight; *duodecimo*, when the sheet is folded into twelve, &c. In making these classifications, no attention is paid to the size of the sheet.

1. *Progress and present State of the Law as to the Copyright of Books.*—It has been doubted whether, in antiquity, an author had any exclusive right to a work, or whether, having once published it, he could restrain others from copying it, and selling copies. We incline to think that he could. The public sale of copies of works is often referred to in the classics; and in such a way as warrants the inference that they were productive to the author, which could not have been the case had every one been permitted to copy them at pleasure. Terence, in one of his plays (*Prul. in Eunuch. l. 20*), says, 'Fabulam, quam nunc acturi sumus, postquam ædiles emerunt;' but why should the magistrates have bought it, had it been free to every one to copy it? Martial, in one of his epigrams, says—

Sunt quidam, qui me dicunt non esse poetam:  
Sed qui me vendit, bibliopola, puat.

Lib. xiv. Ep. 191.

This evidently conveys the idea that he had assigned the right to sell his book to a single person who profited by it. Passages to the same effect may be found in Horace (*De Arte Poetica*, line 345), Juvenal (*Sat. 7*, line 83) &c.

It would have been singular, indeed, had it been otherwise. Of all the species of property a man can possess, the fruits of his mental labours seem to be most peculiarly his own. And though it may, we think, be shown that many serious inconveniences would result from giving the same absolute and interminable property over ideas that is given over material objects, these inconveniences could hardly have been perceived in antiquity.

It will also be observed, that in antiquity a copyright was of much less value than in modern times. Books could then only be multiplied by copying them with the pen; and if any one chose privately to copy a work, or to buy it of another, it must have been very difficult to hinder him: but when printing had been introduced, the greater cheapness of books not only extended the demand for them in far greater proportion, and consequently rendered copyrights more valuable, but it also afforded the means of preventing their piracy. Printing is not a device by which a few copies of a book can be obtained at a cheap rate. It is productive of cheapness only when it is employed upon a large scale, or when a considerable impression is to be thrown off. And hence, after its

invention, printed books were sold in the market; the price was moderate, and the offer was punished.

For a considerable time, the public respect to copyright was not very early adoption of the law, and the power of the legislature soon perceived the field; and the of its energies all works not During the time was effectually (13 & 14 Ch. . proclamations printing of any as well as with the Licensing Act, it became really summary method of their invasion of their rights at a bookseller could at common law, *damages*, property; it being the sale of one. Under these circumstances, made to Parliament property, by grant method of prevention. In consequence, passed, securing to exclusive right of certain, from the tinent 14 years, the expiration of books protected by of the authors or the pirated copies same. Such book Stationers' Hall of this Act. It had been enis to this period, for of Oxford and C most books entere Act of Anne made of all works entit delivered to the fo Library, now trans the Libraries of Libraries of the Library of Sion C Faculty of Advoc copies. The Act of Anne as to copyright. did not affect them they or their assign common law against after the period expired. The pub sisted these preten was either no right the productions of such right to have the statute of Anne of opinion in the Lord Mansfield, M most eminent Ju claims of the auth decided, upon an a

invention, piracy could hardly be committed in secret: the pirated book had to be brought to market; the fraud was thus sure to be detected, and the offending party might be prosecuted and punished.

For a considerable time after the invention of printing, no questions seem to have occurred with respect to copyrights. This was occasioned by the early adoption of the licensing system. Governments soon perceived the vast importance of the powerful engine that had been brought into the field; and they endeavoured to avail themselves of its energies by interdicting the publication of all works not previously licensed by authority. During the continuation of this system, piracy was effectually prevented. The Licensing Act (13 & 14 Ch. II, c. 2) and the previous Acts and proclamations to the same effect, prohibited the printing of any book without consent of the owner, as well as without a license. In 1694 the Licensing Act finally expired, and the press then became really free. Instead, however, of the summary methods for obtaining redress for any invasion of their property enjoyed by them under the Licensing Acts, authors were now left to defend their rights at *common law*; and as no author or bookseller could procure any redress for a piracy at common law, except in so far as he could *prove damage*, property in books was virtually annihilated; it being in most cases impossible to prove the sale of one printed copy out of a hundred. Under these circumstances, applications were made to Parliament for an Act to protect literary property, by granting some speedy and effectual method of preventing the sale of spurious copies. In consequence, the statute 8 Anne c. 19 was passed, securing to authors and their assignees the exclusive right of printing their books for 14 years certain, from the day of publication, with a contingent 14 years, provided the author were alive at the expiration of the first term. Persons printing books protected by this Act, without the consent of the authors or their assignees, were to forfeit the pirated copies, and *1d.* for every sheet of the same. Such books as were not entered at Stationers' Hall were excluded from the benefit of this Act.

It had been customary, for some time previous to this period, for the libraries of the Universities of Oxford and Cambridge, &c. to get a copy of most books entered at Stationers' Hall; and the Act of Anne made it imperative that single copies of all works entitled to its protection should be delivered to the following libraries: viz. the Royal Library, now transferred to the British Museum; the Libraries of Oxford and Cambridge; the Libraries of the four Scotch Universities; the Library of Stion College, London, and that of the Faculty of Advocates in Edinburgh; in all, *nine* copies.

The Act of Anne did not put to rest the questions as to copyright. The authors contended that it did not affect their natural ownership; and that they or their assigns were entitled to proceed at *common law* against those who pirated their works after the period mentioned in the statute had expired. The publishers of spurious editions resisted these pretensions, and contended that there was either no right of property at common law in the productions of the mind; or that, supposing such right to have existed, it was superseded by the statute of Anne. There was some difference of opinion in the courts as to these points; but Lord Mansfield, Mr. Justice Blackstone, and the most eminent Judges, were favourable to the claims of the authors. However, it was finally decided, upon an appeal to the House of Lords in

1774, that an action could not be maintained for pirating a copyright after the term specified in the statute. (Goldson *On the Law of Patents and Copyrights*, p. 205.)

The Act of Queen Anne referred only to Great Britain; but in 1801 its provisions were extended to Ireland; the penalty, exclusive of forfeiture, on printing or importing books without consent of the proprietor, was also increased from *1d.* to *3d.* a sheet. In return for this concession, two additional copies of all works entered at Stationers' Hall were to be delivered; one to Trinity College, Dublin, and one to the King's Inns, Dublin.

Everyone must be satisfied that 14 years' exclusive possession is far too short a period to indemnify the author of a work, the composition of which has required any considerable amount of labour and research; though 28 years is perhaps, all things considered, not a very improper period. But the grand defect of the statute of Anne consisted in its making the right to the exclusive possession for 28 years contingent on the fact of a person having lived a day more or less than 14 years after the publication of his work. This was making the enjoyment of an important right dependent on a mere accidental circumstance over which man has no control. Could anything be more oppressive and unjust than to hinder an author from bequeathing that property to his widow and children, that would have belonged to himself had he been alive? Nothing, indeed, as it appears to us, can be more obvious than the justice of extending all copyrights to the same period, whether the authors be dead or not.

But though the extreme hardship, not to say injustice, of the Act of Queen Anne had been repeatedly pointed out, its provisions were continued down to 1814, when the Copyright Act, 54 Geo. III. c. 156, was passed. This Act extended the duration of all copyrights, whether the authors were dead or alive, to 28 years certain; with the further provision, that if the author should be alive at the end of that period, he should enjoy the copyright during the residue of his life.

But though the Act of 1814 conferred a most important advantage on authors and publishers, it did not satisfy their pretensions, and repeated attempts were subsequently made to have copyrights declared perpetual, or, at all events, to have their term considerably extended. In consequence, after a great deal of discussion, the existing Copyright Act, 5 & 6 Vict. c. 45, was passed in 1842. This statute extends the duration of all copyrights, whether the authors be dead or alive, to *forty-two* years certain: providing, further, that if the author be alive at the expiration of this period of 42 years from the publication of his work, he shall enjoy the copyright to his death, and that his heirs or assigns shall enjoy it for 7 years after that event. We subjoin an abstract of this statute.

Clause 1 repeals former Acts, viz. 8 Anne c. 19, 41 Geo. III. c. 107, and 54 Geo. III. c. 156.

Clause 2 refers to the interpretation of this Act.

*Enturance of Term of Copyright in any Book hereafter to be published.*—The copyright in every book which shall hereafter be published in the lifetime of its author shall endure for the natural life of such author, and for the further term of 7 years from the time of his death, and shall be the property of such author and his assigns: provided always, that if the said term of 7 years shall expire before the end of 42 years from the first publication of such book, the copyright shall in that case endure for such period of 42 years; and that the copyright in every book which shall be published after the death of its author shall endure



'Thus, therefore, a transcript of nearly all the sentiments and language of a book is a glaring piracy. To copy part of a book, either by taking a few pages *verbatim*, when the sentiments are not new, or by imitation of the principal ideas, although the treatises in other respects are different, is also considered to be illegal.

'Although it was held by Ellenborough C.J. that a variance in *form* and *manner* is a variance in *substance*, and that any material alteration which is a *melioration* cannot be considered as a piracy; yet a piracy is committed, whether the author attempt an original work, or call his book an abridgment, if the principal parts of a book are servilely copied or unfairly varied.

'But if the main design be not copied, the circumstance that part of the composition of one author is found in another is not of itself piracy sufficient to support an action. A man may fairly adopt part of the work of another; he may so make use of another's labours for the promotion of science, and the benefit of the public: but having done so, the question will be, Was the matter so taken used fairly with that view, and without what may be termed the *animus furandi*?

'In judging of a quotation, whether it is fair and candid, or whether the person who quotes has been swayed by the *animus furandi*, the quantity taken, and the *manner* in which it is adopted, of course must be considered.

'If the work complained of be in *substance* a copy, then it is not necessary to show the intention to pirate; for the greater part of the matter of the book having been purloined, the intention is apparent, and other proof is superfluous. A piracy has undoubtedly been committed.

'But if only a *small portion* of the work is quoted, then it becomes necessary to show that it was done *animus furandi*, with the intention of depriving the author of his just reward, by giving his work to the public in a cheaper form. And then the *mode* of doing it becomes a subject of enquiry; for it is not sufficient to constitute a piracy, that part of one author's book is found in that of another, unless it be nearly the whole, or so much as will show (being a question of fact for the jury) that it was done with a bad intent, and that the matter which accompanies it has been *colourably* introduced.' (Pp. 215—217.)

'If a work be of such a libellous or mischievous nature as to affect the *public morals*, and that the author cannot maintain an action at law upon it, a court of equity will not interpose with an injunction to protect that which cannot be called property. Even if there be a doubt as to its evil tendency, the Lord Chancellor will not interfere.' (Godson, p. 212.)

11. *Expediency of limiting Copyrights to a reasonable Term.*—It is argued by many that copyrights should be made perpetual; that, were this done, men of talent and learning would devote themselves much more readily than at present to the composition of works requiring great labour; inasmuch as the copyright of such works, were it perpetual, would be an adequate provision for a family. But we doubt much whether these anticipations would be realised. Most books or manuscripts are purchased by the booksellers, or published upon the presumption that there will immediately be a considerable demand for them; and we apprehend that when copyrights are secured for 42 years certain, very little more would be given for them were they made perpetual. When an annuity, or the rent or profit arising out of any fixed and tangible property, with respect to which there can be no risk, is sold, if the number of years for which it is

to continue be considerable, the price which it is worth, and which it fetches, does not differ materially from what it would bring were it perpetual. But the copyright of an unpublished work is, of all descriptions of property in which to speculate, the most hazardous, and the chances of reaping contingent advantages from it, at the distance of 42 years, would be worth very little indeed.

Those who write books, and those who publish them, calculate on their obtaining a ready and extensive sale, and on their being indemnified in a few years. Very few authors, and still fewer booksellers, are disposed to look forward to so distant a period even as 28 years for remuneration. They are, with very few exceptions, sanguine enough to suppose that a much shorter term will enable them to reap a full harvest of fame and profit from the publication; and we doubt much whether there be one case in a hundred in which an author would obtain a larger sum for a perpetual copyright than for one that is to continue for the period stipulated in the late Act.

But while the making of copyrights perpetual would not, as it appears to us, be of any material advantage to the authors, there are good grounds for thinking that it would be disadvantageous to the public. Suppose an individual computes a table of logarithms to five or seven places; if his computations be correct, no improvement can be made upon them to the extent at least to which they go. But is he or his assigns to be entitled, in all time to come, to prevent other individuals from publishing similar tables, on the ground of an invasion of private property? Such a pretension could not be admitted without leading to the most mischievous consequences; and yet there is no real ground (though the courts have attempted to make one) on which the claim in question and others of the same description could be resisted, were copyrights made perpetual, and placed in all respects on the same footing as other property. We, therefore, are clearly of opinion that good policy suggests the limitation of the exclusive right of printing and publishing literary works to some such reasonable period as may secure to authors the greater part of the profit to be derived from their works; and that this period being expired, they should become public property.

Perhaps the period of 28 years has been advantageously extended to 42; but we are satisfied that more injury than benefit would result to literature by extending it beyond this term. In France, copyrights continue for 20 years after the death of the author. In most of the German states they are perpetual; this, however, until very recently, hardly indemnified the authors for the ease with which spurious copies might be obtained from other states. But by a resolution of the late German Diet, a copyright secured in one state is good in all.

III. *International Copyrights.*—The establishment of an international copyright system, that should enable the authors of one country to secure the copyright of their works in other countries, has, of late, excited a good deal of attention. We doubt, however, whether the advantages that would result from such a system, were it established, would be so great as many seem to suppose. No doubt it would be advantageous for the authors of popular works in Great Britain and the United States, for example, to be able to secure a copyright in both countries; but the real question is, would the interests of literature and of the public be promoted by such arrangement? Now we incline to think that this question must be answered in

the negative. The single market of either Great Britain or the United States is quite large enough to secure a sale for really good works sufficient to afford ample encouragement to their authors; and such being the case, it is difficult to see on what ground the republication at a cheap rate in the one country of books originally published in the other should be prevented. Indeed, such prevention would appear, by obstructing the circulation of knowledge and of amusement, to be injurious to both. It has, it is true, been alleged, that if we had a copyright system in common with America, English and American books might be published at a less price, inasmuch as the extension of the market would secure them a larger sale. But though this result *might*, we doubt much whether it really *would*, happen. We apprehend that then, as now, authors and publishers would impose such prices on their works as they supposed would realise the largest amount of profit, and that if they thought a high price more likely to do this than a low one, it would be preferred. The extensive reprinting of cheap editions of French works that has for a lengthened period been carried on at Brussels has certainly been disadvantageous to the literati of France. Still, however, the market of that kingdom seems to be sufficiently extensive to insure the unlimited production of works displaying the greatest talent, research, and industry; and it is plain that if the production of valuable works be not checked in France by their being reprinted abroad, the injury done to French men of letters redounds to the advantage of every foreigner who has occasion to look into or consult their works. Every effort should be made to prevent copyrights being invaded by pirates at home, and by the clandestine importation of books printed abroad; but farther than this we should not go. We are well convinced that it is for the advantage of the public and of literature that nations should have full liberty to republish each other's works in such forms and at such times and prices as they may think fit.

The real evil with which our literature has to contend originates in the barefaced piracy carried on at home, and not in the proceedings of foreigners. The latter may, perhaps, interfere a little with the sale of native works, by supplying the public with foreign instead of home editions; but the proceedings of the indigenous pirates are ten times more mischievous. They consist for the most part of knaves and drudges, without talent or learning of any sort, save only that of transmuting and adulterating the labours of others, and disguising their own rascality. Such persons fasten like leeches on any new work of talent, research, and industry; they forthwith announce some system, compilation, or abridgment of the same sort, every idea and statement in which is stolen; and then publish their spurious rubbish at a low price, advertise it as being decidedly the best work on the subject, and find numbers of newspaper writers ready to puff off and eulogise their disinterested and meritorious labours! It is difficult, we admit, to deal with such a nuisance, and it cannot, perhaps, be abated by legislation. But while we regret the fact, there cannot, we believe, be a question that courts and juries have for a lengthened period inclined too much to a lenient interpretation of the law as to piracy; and that literary plunderers, whose robberies are but little disguised, too often escape with impunity.

IV. *Taxes on Literature.*—These taxes, if carried beyond their proper limits, become impolitic, oppressive, and unjust; impolitic, because they tend to obstruct the growth and diffusion of

knowledge; oppressive, because they sometimes swallow up the entire reward of the labours of the most deserving persons; and unjust, because they are not proportioned to the value of the article on which they are laid, and have not infrequently to be paid out of capital.

Formerly 11 copies of all new works had to be given to different public libraries. Happily, however, this tax, which not infrequently prevented the publication of expensive works that had only a limited demand, has been reduced to 5 copies. We incline to think that it is expedient, to secure the preservation of books and to facilitate their consultation, that copies of all works should be deposited in the British Museum, and in libraries in Edinburgh and Dublin. Perhaps it would be right that the public, for whose advantage they are preserved, should pay for such copies; we should not, however, object to the authors doing this, but they should not be required to do more. To call upon them to provide copies for the libraries of rich foundations, like the Universities of Oxford and Cambridge, is a proceeding at variance with every fair principle.

The law of other countries is in this respect preferable to ours. In America, Prussia, Saxony, and Bavaria, only one copy of any work is required from the author; in France and Austria, two copies are required; and in the Netherlands, three.

V. *Book Trade of Great Britain.*—London is the great centre of the British book trade; the number of new publications that issue from its presses being far greater than all that appear in the rest of the empire. Within the course of the last 60 years, however, many very important works have been published in Edinburgh; but the latter, as well as those that appear in Oxford, Cambridge, Glasgow &c., are principally disposed of by the London trade. The booksellers of Edinburgh, and all the provincial towns, have agents in London, to whom they consign a certain number of copies of every work they publish; and to whom, also, they address their orders for copies of such new or old works as they have occasion for. The London booksellers, who act as agents for those in the country, are in the habit of regularly despatching parcels to their correspondents on the last day of each month, with the magazines and other monthly publications; but if any new work of interest appears in the interim, or orders be received from the country that cannot be conveniently deferred to the end of the month, a parcel is immediately forwarded by rail. The booksellers of Edinburgh and Dublin act as agents for those of London, and supply the Scotch and Irish country trade with the metropolitan publications.

The publishers sell the books which they publish to the retailers at certain prices. But, instead of allowing the latter to dispose of these books at prices varying according to the conditions and circumstances under which they might be sold, they endeavoured to compel them to be sold at or near uniform prices fixed by themselves. Thus, if the publishers sold a book to the trade at 9s., they fixed the price at which the latter should sell it to the public at 12s., or thereby; and they proclaimed that if any retail dealer sold it for less than 10 per cent. under this price, the publishers, who had combined for the purpose, would not supply him with another book! But we are glad to have to state that this audacious attempt to keep up the prices of books at an artificial elevation has completely broken down; and retail dealers who purchase books from publishers may now sell them at any price they please, without

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VII. *Book Tra-  
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any risk of having their supplies cut off. The credit given by the publishers to the retailers varies from seven to twelve months; a discount being allowed for prompt payment at the rate of 5 per cent. per annum.

From enquiries we have had made with much care and labour, founded on *Low's British Catalogue*, we find that at an average of the 4 years ending with 1852, 3,279 volumes of new works, and 1,101 volumes of new editions and reprints (exclusive of pamphlets and periodical publications), were annually published in Great Britain; and we have farther ascertained that the publication price of the former was 7s. 7d., and of the latter 6s. 3d. a volume. Hence, if we suppose the average impression of each work to have been 750 copies, it will be seen that the total value of the new works annually produced, if they were sold at their publication price, would be 932,455l. 12s. 6d., and that of the new editions and reprints 278,960l. 12s. 6d., making together 1,211,565l. 6s. We believe, however, that if we estimate the price at which the entire impressions of both descriptions of works actually sell at 3s. 6d. a volume, we shall not be far from the mark; and if so, the real value of the books annually produced will be 574,875l. a year. Since this date the production of books in Great Britain has been rapidly increasing, and the amount annually published cannot be less than a third more than the quantity of 1852.

It would be, in many points of view, desirable, were the librarians of the British Museum directed to keep and annually publish an account, classified according to the subject and the size of the works, of all the new British books, pamphlets, and periodical publications that come into their hands, specifying the average publication price of each class. Such a return might be made up with the greatest facility, and would afford authentic information not otherwise attainable.

The old book trade carried on in Great Britain is very extensive, and employs many dealers. The price of old books depends very much on their condition; but, independent of this circumstance, it is very fluctuating and capricious, equally good copies of the same works being frequently to be had in some shops for the half of what they can be bought for in others.

**VI. Regulations as to Importation of Foreign Works.**—To prevent foreign books and maps, the property of individuals, from being charged with duty more than once, the proprietor shall, on each importation subsequent to the original one, declare that the duties were paid when they were first imported, or that he purchased them in this country in a fair way of trade; that they are the identical books or maps he exported from this kingdom, and that they are new brought back for his private use, and not for sale. (*Treasury Order*, October 3, and *Customs Order*, October 8, 1818.)

Individuals coming from foreign parts might, down to April 1, 1843, import as baggage single copies of English works of which the copyright had not expired; but, in consequence of the facilities for smuggling that grew out of this indulgence, it has been withdrawn, and the importation of all English works printed in foreign countries, of which there is an existing copyright, is absolutely prohibited. (5 & 6 Vict. c. 47 s. 21.)

The duty on foreign works produced, in 1852, 7l. 11s. 19s. 3d. The duty was, however, reduced in 1853, and has since been abolished. [TAUFR.]

**VII. Book Trade of France.**—The activity of the French press has been very greatly increased since the commencement of the present century.

Count Daru, in his *Notions Statistiques sur la Librairie*, published in 1827, estimated the number of printed sheets, exclusive of newspapers, produced by the French press in 1816, at 66,852,883; and it appears (*art. 'Librairie, Dict. du Commerce*) that in 1836 the number of printed sheets (ex. newspapers) had increased to 118,857,000. Between the years 1812 and 1859 inclusive, the number of works published in France, exclusive of engravings, musical compositions, and newspapers, amounted to 321,950. The quality of many of the works that have recently issued from the French press is also very superior; and it may be doubted whether such works as the *Biographie Universelle*, the new and enlarged edition of the *Art de vérifier les Dates*, in 42 vols. octavo, and the 2 octavo editions of Bayle's *Dictionary*, could have been published in any other country. The greater number of new French works of merit, or which it is supposed will command a considerable sale, are immediately reprinted in the Netherlands or Switzerland, but principally in the former. To such an extent is this practice carried, that a single bookseller in Brussels has reprinted as many as 150,000 volumes of new French works in the course of a single year!

All the French booksellers are *brevetés*, that is, licensed, and sworn to abide by certain prescribed rules. This regulation is complained of by the publishers, as tending to lessen the number of retail booksellers in the country, and to prevent that competition which is so advantageous.

The discount allowed by the French publishers to the retail dealers is not regulated, as in England, by the size of the volumes, but by the subjects. The discount on the sale of books of history, criticism, and general literature, is usually about 25 per cent.; in the case of mathematical and strictly scientific works, it is seldom more than 10 or 15 per cent.; while upon romances, tales, &c. it is often as high as 30 or 60 per cent.

**VIII. German Book Trade.**—This trade is very much facilitated by the book fairs at Leipzig; the Easter fair being frequented by all the booksellers of Germany, and by those of some of the neighbouring countries, as of France, Switzerland, Denmark, Livonia &c., in order to settle their mutual accounts, and to form new connections. The German publisher sends his publications to the keeper of assortments *à condition*, that is, on commission, for a certain time, after which the latter pays for what have been sold, and may return the remainder. This is not so favourable for the publisher as the custom in the French and English book trades, where the keepers of assortments take the quantity they want at a fixed rate. In the German book trade it is the custom for almost every house, either in the country or abroad, which publishes or sells German books, to have its agent at Leipzig, who receives and distributes its publications. A, of Riga, who publishes a book calculated for the German trade, has his agent B in Leipzig, to whom he sends, free of expense, a number of copies of his publication, that he may distribute the new work to all the booksellers with whom he is connected, from Vienna to Hamburg, and from Strasburg to Königsberg, each of whom has his agent in Leipzig. Instructions are also given as to the number of copies to be sent to each. B delivers those copies in Leipzig to the agents, who send them every week, or more or less frequently, by the post or by carriers, at the expense of the receiver. C, of Strasburg, who finds that he has not received copies enough, writes for an additional number of copies to his agent D of Leipzig: D gives this order to B, who delivers

the number wanted to D to be transmitted to C. This arrangement is advantageous to the German book trade as well as to Leipzig. The dealer receives everything from Leipzig; and as a great number of packets, with books from all parts of Germany, arrive there for him every week, he can have them packed together and sent at once. The carriage is thus much less than if the packets were sent to him separately from the different places, and the whole business is simplified. The booksellers are also enabled to agree with ease on a certain discount per cent. No such intimate connection of the booksellers has yet been formed in any other country. The German booksellers rarely unite, as is the practice in England, in undertaking the publication of extensive works. (*German Conversations-Lexicon*, American edition.)

The literary deluge which commenced in Germany in 1814 still continues to increase. For the 2,000 works which were then about the annual complement, we have now perhaps 10 times as many. Magazines and Encyclopedias have increased in the same proportion, and the public has shown as great a desire to read as the learned have to write. Private libraries are diminishing, while the public ones are daily increasing.

**BOOTS AND SHOES.** The external covering for the legs and feet, too well known to require any description. (For an account of the value of the boots and shoes annually produced in Great Britain, see **LEATHER**.)

**BORAX** or **TINCAL** (Arab. burak; Pers. turkar). A compound of soda and boracic acid. It exists native, and is also prepared artificially. It is found in Europe, in Peru, and in the republic of Ecuador, in a mineral which is called tinkalzite, and which appears to be a mixed borate of soda and lime. But the principal source of native borax is the lakes of Thibet and Persia, from which it is obtained by spontaneous evaporation. The impure borax called tincal crystallises on the borders of the lakes. It is always covered with an earthy coating, greasy to the touch. This appearance is derived from a fatty matter. There is also a tincal exported from China, and it is reported that borax is found in vast quantities in California.

The purification of borax was originally a secret possessed by the Dutch and Venetians only, but is now, owing to the development of chemical science, practised in most manufacturing countries. The chief peculiarity in the refining of borax consists in separating the fatty matter by means of lime, which forms an insoluble soap, and by getting rid of saline impurities by careful crystallisation.

**Artificial Borax.**—Large quantities of borax are now manufactured by direct combination of boracic acid and soda. This acid is produced in large quantities in certain parts of the Italian volcanic field, and especially in a region in Tuscany. The soil in this district is cleft by numerous fissures, which form a vent for hot vapours, called solfioni. The process is to build a basin of masonry round several of these fissures, so as to form a lagoon; water being introduced from a neighbouring stream. The water, owing to the heat of the emitted vapour, gradually boils, and becomes impregnated with boracic acid. It is then drawn off and evaporated in leaden pans, the heat being supplied as before by the steam issuing from the earth. The produce of these works is annually increasing. In 1815 it was nearly 1,000 tons, in 1855 it was over 1,800. The boracic acid is then saturated with carbonate of soda. It may be added that the origin of this acid is exceedingly obscure. It is not found in the extruded gases, nor in the soil; but as boracic acid is volatilised

by the aid of steam, it seems that it is carried mechanically to the lagoon.

Borax has an alkaline reaction. Its chief uses are as a flux for metals; as a material to facilitate the soldering of metallic surfaces, which it seems to effect by preventing oxidation; as an ingredient in glass and porcelain; and as a medicine.

The duties on borax were repealed in 1845.

**BORDEAUX.** A large and opulent city of France, on the Garonne, about 75 miles from its mouth. Latitude 40° 50' 26" North; Longitude 0° 34' West. Population in 1865, 173,300. The commerce of Bordeaux is very extensive, but the most important article is that of wine. The Garonne, which at its confluence with the river Dordogne about 18 miles below Bordeaux changes its name and becomes the *Gironde* thence to the sea, is a noble river, with depth of water sufficient to enable large ships to come up to the city, laying open, in conjunction with the Dordogne and their tributary streams, a large extent of country. The commerce of Bordeaux has been considerably extended since the introduction of railroads. Formerly the *Grand Canal du Langueilac*, extending from Toulouse to Cette on the Mediterranean, was the principal channel for the transport of goods between Bordeaux and the south of France. But since the establishment of the 'Compagnie des Chemins de Fer du Midi,' which now farms this canal, and whose interest it is to divert from it its usual traffic in order to favour their own line, it has lost much of its importance. Wine, brandy, fruit, grain and seeds, resin, turpentine, pine timber for railroad purposes and pit-props, are the staple articles of export; but the generality of merchants confine themselves more especially to the wine trade. Most part of their other business is confined to dealing on commission, but this they conduct almost invariably on their own account. The reason they assign for this is, that the difficulties attending the purchase and subsequent care of wines so as to render them fit for exportation are so very great as to make it almost impossible to conduct the business on anything like ordinary terms, so as to satisfy their employers. Colonial produce, cotton, dye stuffs, hides, tobaccos, rice, coffee, sugar, cocoa, pepper, form the principal articles of import.

**Money.**—Money is the same in Bordeaux as in other parts of France. All accounts are kept in francs, the par of exchange being 25 francs the pound sterling.

**Weights and Measures.**—The decimal system has entirely superseded the old system.

The old measure of the *vette* has long since been abolished. Wine is sold by the tun of 4 hogsheads of 225 litres each, equal to 50 gallons; brandy and spirits by the hectolitre; oil by 100 kilogrammes.

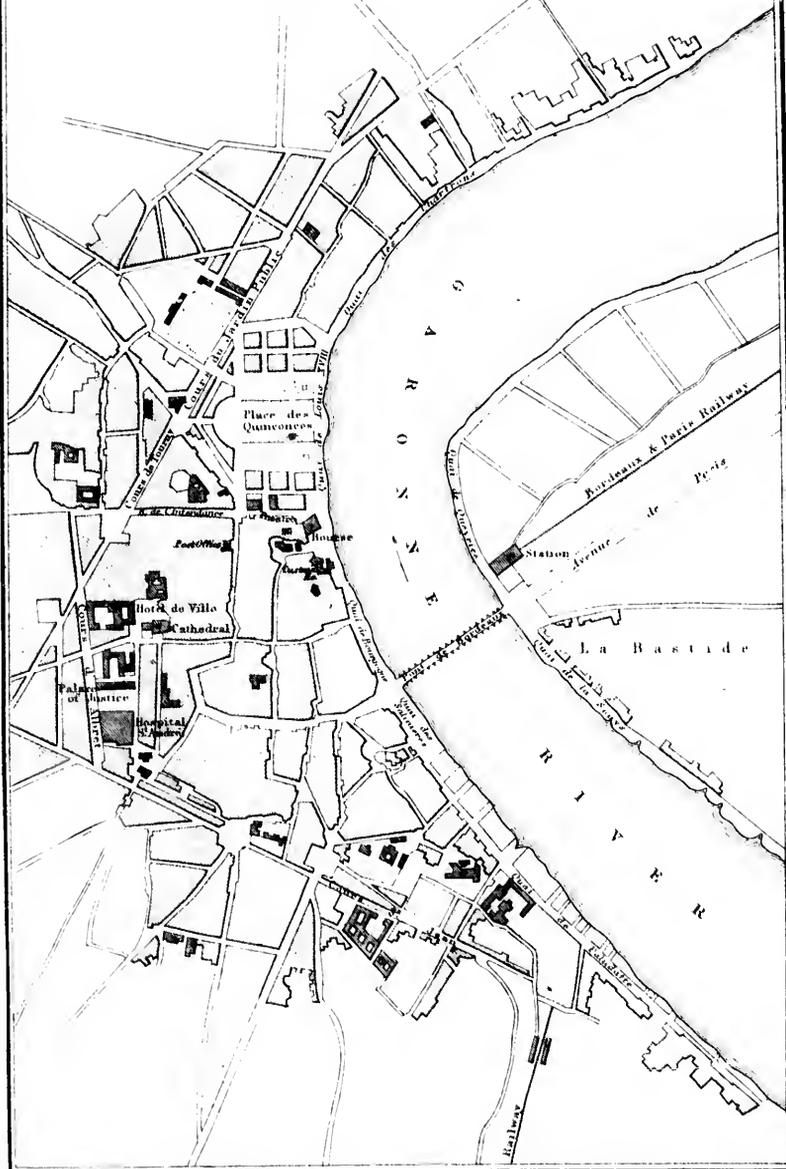
**Entrance to the River.**—Since the last publication of this Dictionary great improvements have been effected. The entrance as well as the whole course of the river up to Bordeaux have been thoroughly buoyed, and many additional lights and beacons have been added. The passes have been greatly improved by the works effected under the directions of the Government engineers; and though the navigation for vessels of high tonnage is still intricate, it has been rendered much more safe than it was formerly. (*Consular Report to the Admiralty*, August 11, 1860.)

**Port Charges.**—The following is an account of charges and harbour dues levied at Bordeaux on British shipping trading between British possessions in Europe and this port.



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*Coasting Trade.*  
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**Pro forma Shipbroker's Bill for a Vessel of 300 tons with Cargo from an English Port in Europe, and returning home in ballast.**

	fr.	cts.
To report and pilotage from sea to Bordeaux (draught of water 17 feet)	-	275 25
Luzaretto dues, 10 cents. per register ton	-	0 0
Moving vessel up and mooring her	-	10 0
Entering the vessel at Custom House and other offices, and brokerage inwards, at 50 cents. per ton (whether laden or in ballast)	150	0
Declaration and protest at the Custom House (if any), including stamps and registering and declaration at the Tribunal of Commerce (when required)	58	55
Advertisements in the papers against treating the crew, and for freight and passengers (optional)	27	0
Tonnage money and navigation dues, as per receipts, on French measurement, about 310 tons, at 1 fr. per ton.	387	0
Double decline thereon, clearance and stamps	-	10 0
Clearance at sundry offices	-	12 0
Manifest and freight list (if any)	-	125 20
Ballast taken on, from 1 fr. 10 cents. to 1 fr. 25 cents. per ton	-	150 0
Pilotage from Bordeaux to sea, in ballast (draught of water 10 feet)	-	30 0
Carriage, attendance, and brokerage, outwards, 50 cents. per ton (in ballast)	-	30 0
Mooring dues, 10 cents. per ton and per month	-	1 fr. 50 cts. per ton of goods taken in.

Quayage and use of cranes to deliver or take in goods, 1 fr. per ton, paid by the shippers.

Use of cranes to take goods out of the hold on deck, 60 cents. per ton, paid by the ship.

To moor and unmoor ship to and from the quay a drayman is employed, and is paid 15 frs. for each operation. If the ship can spare no hands to assist in mooring, labourers are employed at the rate of 5 frs. each.

British ships coming from or going elsewhere than British possessions in Europe pay foreign navigation dues, that is 3 fr. 75 c. instead of 1 fr. per ton, and the pilotage is one half more than in the former case, and the clearance at the customs is 36 fr. instead of 15 (for vessels of 300 tons).

Bordeaux is a favourable place for repairing and careening ships, and for obtaining supplies of all sorts of stores.

The following is a statement of the number and tonnage of vessels entered and cleared at the port of Bordeaux in the year 1864:—

	vessels	tons
Entered	1,498	256,565
Cleared	1,455	279,291

The relative proportions of British and French vessels were:—

	vessels entered	cleared	tons entered	tons cleared
British	507	391	121,626	119,838
French	991	1,064	134,939	159,453

(See also Detailed Report showing the Regulations &c. respecting Shipping, transmitted to the Board of Trade, Nov. 1855.)

**Coasting Trade.**—1,644 French vessels of 129,762 tons entered, and 1,745 vessels of the same nation of 116,714 tons cleared, during the year 1864.

**Banking Establishment.**—There is only one bank in Bordeaux, which formerly was in the hands of a local company, but was incorporated in 1848 in the 'Banque de France.' It is now called 'succursale de la Banque de France,' and all its operations are conducted according to the statutes and regulations of that establishment.

**Brokers.**—No one is allowed to act as a mercantile broker in France who has not attained the age of twenty-five years, and who, being a French subject or being naturalised, has not served four years in a mercantile house or with a broker.

They are nominated by the Emperor after their qualifications have been ascertained by the Chamber of Commerce.

All foreigners are obliged to employ ship brokers to transact their business at the custom-house; and although masters and owners of French vessels might sometimes dispense with their services, they never do so, finding it to be,

in all cases, most advantageous to use their intervention. All duties outward on vessels and cargoes are paid by the ship brokers, who invariably clear out all vessels, French as well as foreign.

All goods brokers must deposit in the treasury, as a guarantee, the sum of 8,000 francs if of the first category, or 4,000 francs if of the second.

The first category comprises the brokers exercising their functions in the city of Bordeaux; the second, those similarly employed in the various arrondissements.

The insurance, ship, and money and exchange brokers are subjected to the same rules and regulations as the goods brokers, but the deposit of the money brokers is 30,000 francs instead of 8,000.

At the present moment there are 28 goods brokers; 22 ship brokers; 20 money and exchange brokers; 15 wine and spirit brokers; 7 insurance brokers.

**RATES OF COMMISSION.**

*Shipbrokers.*

	per ton.	fr. cent.
On foreign going vessels:		
Arriving laden or in ballast	-	0 50
Departing in ballast	-	1 00
Laden per charter-party, or an owner's account	-	1 00
Laden on freight (not chartered)	-	1 50
On coasters:		
No regular, but very moderate charges.		
On goods shipped:		
In foreign-going ships	-	2 00
In coasters trading to and from all French ports, except those on the Mediterranean	-	1 50
In coasters trading only to ports between Bordeaux and Nantes inclusively	-	1 00

*Goods Brokers.*

On most goods, principally cotton, with the exception of cotton, sugar, and indiarubber,  $\frac{1}{2}$  per cent. paid by the purchaser.  
On indiarubber,  $\frac{1}{2}$  per cent. paid by the purchaser.  
On cotton and sugar,  $\frac{1}{4}$  per cent., that is  $\frac{1}{4}$  per cent. paid by the seller and  $\frac{1}{4}$  by the purchaser.

	per ton.	fr. cent.
On grapes, paid by the purchaser	-	0 40
per 4 cases, 1st quality	-	1 00
per 50 kilos, 2nd quality	-	0 60
per cask of 200 kilos, common	-	0 40
100 "	-	0 30
60 "	-	0 25
On walnuts, per bag	-	6 25

The following goods pay a commission of  $\frac{1}{2}$  per cent.; that is,  $\frac{1}{4}$  by the seller and  $\frac{1}{4}$  by the buyer.

Cereals.	Seeds:	Rape.	Verdigris.
Wheat.	Linseed.	Juniper berries.	Argol.
Millet.	Sesamum.	Horse green.	Next foot oil.
Barley.	Flax.	Guinea cloth.	Cotton.
Rye.	Clover.	Hops.	Raw sugar.
Flour.	Poppy.	Haisins.	

**Brandy and Spirits Brokers.**

Alcohol, per pipe 1 fr. 50 by seller and 1 fr. 50 by buyer.	per cent.	per cent.
Brandy per cask of 4 hectolitres, 1 0 by seller 1 0 by buyer.		
Cognac " " 5 " " 2 0 " " 2 0 "		
" " " 3 " " 1 50 " " 1 50 "		
" " " 2 " " 1 0 " " 1 0 "		
" per case of 12 bottles 12 $\frac{1}{2}$ " " 12 $\frac{1}{2}$ "		
" 100, $\frac{1}{2}$ per cent. the seller, and $\frac{1}{2}$ per cent. the buyer.		

**Wine Brokers.**—2 per cent. paid by the seller per tun of 4 hogsheads. When wine is sold under 150 francs the tun, the broker's commission, paid by the seller, is 3 francs per tun.

**Insurance Brokers.**— $\frac{1}{2}$  per cent. on the capital insured.

**Money and Exchange Brokers.**— $\frac{1}{2}$  per cent.

The exchange or money brokers of Bordeaux follow a kind of business pretty similar to the London private bankers. They receive, negotiate, and pay bills and orders of such houses as have accounts open with them, charging and allowing an interest on balances, which varies from  $3\frac{1}{2}$  to  $4\frac{1}{2}$  per cent., according to circumstances. They charge  $\frac{1}{2}$  per cent. for negotiating bills, and  $\frac{1}{4}$  per cent. on all the payments they make.

There are, besides, numerous capitalists who employ their spare funds in discounting bills. They prefer bills at long dates, and take from 3 to



the superior *crûs* (growths) and the *crûs bourgeois* of Médoc.

The second category includes the Vins de Graves, St. Emilion, Blaye and Bourg, Vins de Côtes, and Vins de Paysans du Médoc.

The third category, Vins de Palus and Entre deux Mers (district lying between the two rivers), Bas Médoc, and Cargo wines.

The first category is divided into five sub-classes, according to the excellence of the wines, besides the *crûs bourgeois*, all of which are the produce of the Haut Médoc.

The first class comprises the Lafite, the Latour, the Château Margaux, and the Hautbrion. The first three are the produce of the district of Haut Médoc, N.W. of Bordeaux, and the last of the district called des Graves. These wines are all of the highest excellence; their produce is very limited, and in favourable years sells at from 3,000 to 4,000 fr. per tun, which contains 210 imp. gallons, but when they have been kept in the cellar for 6 years, the price is doubled, so that even in Bordeaux a bottle of the best wine cannot be had for less than 6 or 7 fr. The Lafite is the most choice and delicate, and is characterised by its silky softness on the palate and its charming perfume, which partakes of the nature of the violet and raspberry. The Latour has a fuller body, and at the same time a considerable aroma, but wants the softness of the Lafite. The Château Margaux on the other hand is lighter, and possesses all the delicate qualities of the Lafite, except that it has not quite so high a flavour. The Hautbrion again has more spirit and body than any of the preceding, but is rough when new, and requires to be kept 6 or 7 years in wood; while the others become fit for bottling in much less time. (Henderson *On Wines*, p. 184.)

The second class comprises the growths of Mouton, Léoville, Larose, Pichon &c.

The third class comprises the growths of Langoa, La Grange, Giscours, Palmer, Kirwan &c.

The fourth class comprises the growths of St. Pierre, Château Beycheval, Duluc, Carnel &c.

The fifth class comprises the growths Canet, Batailley, Grand Puy, Lynch, D'Armailhac, Cantemerle &c.

The *crûs bourgeois*, inferior to the last named, but superior to the Vins de paysans, all of which are likewise the produce of Haut Médoc. The principal parishes in which all these wines are produced are Macan, Labarde, Cantenac, Margaux, St. Julien, Pauillac, and St. Estéphe.

The production of the five categories of *crûs classés* was estimated, in 1864, at about 5,000 tuns, the prices ranging between 5,000 francs for the first growths to 1,200 francs for the fifth growths. The *crûs bourgeois* produced 7,500 tuns, and prices varied from 700 to 1,200 francs.

The district of Blaye and Bourg produced about 30,000 tuns. Prices varied from 200 francs to 450 francs per tun.

The district of Libourne produced about 50,000 tuns, varying in price from 300 francs to 1,000 francs per tun.

The other districts produced about 157,000 tuns, varying in price from 120 francs to 400 francs per tun.

The white wines of the first quality are produced in the districts of Sauterne, Bommes, Preigneac, and Barsac. They are divided into three classes, besides the common kinds; the average quantity of the two first classes is about 950 tuns, of the third about 700 tuns. In 1864 the quantity of the two first classes was 635 tuns, but their high prices have hitherto interfered with their sale.

The quantity produced of other classes, includ-

ing the *Vins de Graves*, amounted to about 2,200 tuns, and their prices ranged from 240 francs to 500 francs per tun, with the exception of the higher kinds of *Graves*.

The production of the classed white wines has remained stationary, but that of the unclassified wines has decreased to the extent of two thirds, owing to the invasion of the oidium, which, since 1852, has forced many proprietors to pull up the greatest part of their vines.

*Annual Average Exports of Wine at the Port of Bordeaux for the Five Years 1860-1864.*

Countries to which exported	Quantities	
	Litres	Gallons
The United Kingdom	6,104,457	1,342,980
The Ionian Towns	5,071,528	1,111,756
Holland	4,643,125	1,021,947
Belgium	4,595,772	1,011,042
The German Commercial Union	2,659,903	585,178
Sweden and Norway	715,480	165,582
Hanover	689,864	151,393
Mecklenburg	586,232	129,571
Denmark	559,500	124,016
Russia	147,058	32,850
Spain	59,280	13,041
Portugal	11,027	2,426
Austria	10,557	2,346
Italy	528	74
Total exports to Europe	25,455,151	5,690,127
The United States	8,283,464	1,829,562
River Plate	7,083,700	1,569,630
British Colonies	6,539,223	1,438,629
French Colonies	5,372,264	1,181,964
Uruguay	3,842,268	842,629
Brazil	1,454,987	320,907
Peru	815,869	186,091
Mexico	825,855	181,688
Spanish Colonies	683,918	146,962
China and Cochin China	614,357	135,158
Chile	531,297	116,951
Venezuela	201,341	44,918
Oceania	172,102	37,862
Equator	130,808	28,778
New Granada	169,971	37,598
Dutch Colonies	127,455	28,019
Danish Colonies	114,744	25,243
Haiti	48,050	10,581
Guatemala	34,782	7,652
West coast of Africa	28,536	6,258
Total exports to sundry colonies	37,079,076	8,201,046
Recapitulation:		
Exports to Europe	25,455,151	5,690,127
Colonies	37,079,076	8,201,046
Sundry places	5,631	1,203
Total	62,537,858	13,892,376

The unclassified wines of Médoc were estimated at about 40,000 tuns, varying in price from 250 francs to 600 francs per tun.

The expenses attending the cultivation of the vine, including the vintage, in the district of Médoc, where, owing to the superior value of the wine, no expense is spared in producing the greatest quantity and the best quality, are estimated at about 300 francs per *journal*, equal to  $\frac{1}{3}$  hectare, or 3 roods, 6 poles English measure, besides the interest on the capital, to which must be added, in years when the wine is not immediately disposed of, the expense of keeping and loss in ullage.

The produce of a *journal* is estimated as follows:—

On the light sandy soils, 1 to 2 hogsheds; on the good average soil of Médoc, 2 to 3 hogsheds; on the strong alluvial soils, where the wines are of the commonest kinds, up to as much as 6 tuns.

The merchants generally purchase the finest *crûs* as soon as they can judge their character. The system of farming certain of them for a number of years is almost entirely exploded, as experience has shown that such an operation is a very losing concern. The wines are transported to the private establishments of the purchasers in Bordeaux, so situated as to insure an equable temperature throughout the year; and in these they ripen and undergo all the different processes of fining, racking, mixing &c. considered necessary to bring them to the requisite condition for sale.

The old custom of adapting Bordeaux wines to the taste of the English market has entirely ceased here for many years past. The taste for pure wines having generally superseded that for the heavily loaded wines of the former generation, the wine merchants of Bordeaux have ceased the operation of blending their wines with the strong, full-bodied, and high-flavoured wines of the Rhone, such as Hermitage, Côte rotie, eroze &c., and the still more heavy wines of Catalonia. In former days, the greatest portion of the wines of the Rhone were imported into Bordeaux for the above specified purpose; but at the present time, and for several years past, the purchase of them has entirely ceased, and they take another direction, that of Burgundy, or direct to England, where the operation formerly practised in Bordeaux is said still to prevail.

The wines shipped under the titles of Lafite, Latour, and Château Margaux are also freely mixed with the wines of the surrounding vineyards, which, from the nature of the soil, proximity, and mode of cultivation, cannot differ materially.

Other good wines are also said to enter largely into the composition of these celebrated crûs. Some houses pretend to keep their wines pure, but the practice of mixing is at any rate very general.

The purchase of the wines, whether from the grower or the merchant, is effected through brokers. There are a few of them who have the reputation of accuracy in dissecting the different flavours, and in tracing the results of the wine by certain measures of training and treatment.

England consumes the greatest portion of the high-classed wines, besides a large share of the lower kinds, especially since the Treaty of Commerce with France. A certain quantity is taken by the Russians and citizens of the United States; the remainder is consumed in Bordeaux or in Paris, where, owing to increase of wealth, high-priced wines are now in demand.

The wines of inferior quality and value are exported to various parts of the Continent of Europe, and wherever a demand may exist. The wines known as *Cargo Wine* are the least valuable. They are chiefly from the district of 'Entre deux Mers,' but for several years past, and more particularly since the diminution in the production of wine, many of these wines are so manufactured that it is hardly possible to know of what they are composed. The best, however, are a mixture of the common white wines, the coarse dark-coloured wines of the south, such as Narbonne, Roussillon &c., and a certain quantity of distilled water. They can be put on board at 2*l*. per hogshead and upwards, and at 5*s*. per case of 12 bottles. These kinds of wine, when properly prepared, will last sound two or three years, whether in wood or in bottle, and bear the sea-carryage well; a vast quantity being exported to North and South America, the colonies, the south coast of Africa, and India.

The practice formerly pursued by the Dutch, as described in the first edition of this Dictionary, of sending ships with supercargoes to purchase the wines, has been modified—the purchases for that country being now in some cases conducted by the purchasers personally under the guidance of a merchant of Bordeaux, to whom is intrusted the shipment of their purchases. In others, the Bordeaux merchants are employed to purchase, ship &c., without the presence of the Dutch purchaser—a commission being allowed on all these operations. Many Bordeaux merchants connected with Holland speculate on their own account, sending samples of their purchases to their customers. They seldom purchase old wines, or those of

full body, as the prevalent taste in Holland is for new and light wines.

**Brandies and Spirits of Wine.**—The quantity distilled in the Department of the Gironde has been very insignificant for several years past. Notwithstanding the increase of the cultivation of the vine, the oidium or vine disease reduced the quantity so greatly below the average as to increase the price even of the lowest qualities, from which brandy is made, to such an extent that far greater profits were derived from the sale of the wines than from the distilling of them into spirits. The manufacture of brandy may therefore be said to have been confined exclusively to the neighbouring countries of Armagnac and Marmande.

The district of Armagnac produces yearly on an average about 40,000 to 50,000 pieces, of 4 hectolitres each, and the present price is 72 francs per hectolitre.

The district of Marmande produces from 10,000 to 15,000 pieces, valued at 58 francs per hectolitre. Languedoc produces annually about 40,000 pieces, of 80 veltes each, the greater part of which comes to Bordeaux to be forwarded to the different parts of the north of France, or to foreign countries. France consumes about two-thirds of the above quantity; the remaining one-third goes to the north of Europe. The prices of brandy are from 130 fr. to 150 fr. per 50 veltes, ordinary proof; spirits of wine, from 4 fr. to 5 fr. per velte.

The greatest shipments of brandy take place to England from the port of Tonnay-Charente, on the Charente. Cognac, from which the brandy takes its name, and where there are large distilleries, is a few leagues up the river. The quantity exported is far greater than what is made at Cognac; the two leading distillers there (Martell and Hennessy) buying great quantities from the small cultivators. The greater part of the wines made about Angoulême, and thence down toward the sea, are of inferior quality, and it only for making brandy; and so little do the prices vary, that the proprietors look upon it nearly in the same light as gold. When they augment their capital by savings or profits, it is employed in keeping a larger stock of brandy, which has the further advantage of paying the interest of their capital by its improved value from age. England is said to receive upwards of 6,000 pieces annually from Charente.

A very large proportion of these brandies is sent to Bordeaux, where they are converted into common or cargo Cognac, and sent off as such to various parts of the world. The remainder finds its way pure to various parts of France, or is employed here for brandied fruits, liqueurs, and cordials.

At Bordeaux, as at Paris and Marseilles, there is a constant gambling unbusiness in the sale of spirits of wine. It is in the form of spirits of wine that nearly all the brandy consumed in France is expedited, as in this form there is a great saving in carriage. (For an official account of the exports of wine and brandy from France, see *WINE*.)

**Export of Fruits.**—The fruit exported consists of prunes, almonds, walnuts, apples &c.

The influx of the South American Spaniards, which was noted thirty years ago, has long since ceased. Many of those who at that time had settled in Bordeaux have either died or left it altogether, and their capital has gone with them. At the present time there are few existing, and the trade with the South American continent has again fallen into the hands of the French merchants. Many of these capitalists embarked in speculations

which did they had

### Annual Average of Bordeaux

Countries to

The United Kingdom  
Sweden and Norway  
Hanse Towns  
Holland -  
Belgium  
Russia -  
German Commerce  
Denmark  
Spain -  
Portugal  
Hanover

Total exports

The United States  
British Colonies  
River Plate  
French Colonies  
Mexico  
Spanish Colonies  
China and Cochinchina  
Uruguay -  
Chile -  
Peru -  
Equator -  
New Granada -  
Brazil -  
West coast of Africa  
Dutch Colonies  
Venezuela -  
Danish Colonies -  
Oceania -  
Guatemala -

Total export to

Recapitulation

Exports to Europe  
To the Colonies -  
To sundry places  
Total -

### Operation of the Trade of

great city has sighted, anti-social, and systematic. We believe it would be privations it entails, not powerfully carried. But those have not hitherto to a sounder system, in some respect, to an excellent system. Notwithstanding country like France are at a cheap price for foreigners is exacted for a third of its manufactured goods has been followed &c. And in order sugar from the been laid, not only that imported from operation of this industry of the country by forcing France the production of acquired capabilities, the growth of which duction of which country has been commerce being reciprocal, a countenance to export. —by refusing to cottons and hard Sweden, the linens Switzerland and all that was in her

which did not succeed, and much of the fortune they had brought with them was thus dissipated.

*Annual Average Exports of Brandy at the Port of Bordeaux, for the last 5 Years, 1860—1864.*

Countries to which exported	Quantities	
	Litres	Gallons
The United Kingdom	707,084	155,558
Sweden and Norway	537,083	74,158
Hanse Towns	218,919	54,764
Holland	206,593	45,450
Belgium	118,223	26,069
Russia	106,210	23,366
German Commercial Union	87,473	19,211
Denmark	73,225	7,529
Spain	18,546	4,052
Portugal	5,586	2,102
Hanover	7,681	1,690
<b>Total exports to Europe</b>	<b>1,881,575</b>	<b>415,901</b>
The United States	4,021,224	415,729
British Colonies	1,671,080	368,280
River Plate	368,871	81,152
French Colonies	221,177	48,650
Mexico	161,882	35,614
Spanish Colonies	128,016	28,183
China and Cochinchina	131,211	24,086
Uruguay	111,537	21,194
Chile	100,068	22,021
Peru	97,265	21,477
Equator	55,491	10,564
New Granada	62,990	13,898
Brazil	53,619	11,803
West coast of Africa	52,984	11,634
Dutch Colonies	46,812	10,299
Venezuela	30,293	6,818
Danish Colonies	20,509	4,168
Oceania	5,110	1,121
Guatemala	4,516	1,000
<b>Total export to sundry colonies</b>	<b>5,570,180</b>	<b>1,181,138</b>
<b>Recapitulation:</b>		
Exports to Europe	1,881,575	415,900
To all Colonies	5,570,180	1,181,138
To sundry places	13,000	2,873
<b>Total</b>	<b>7,464,755</b>	<b>1,599,911</b>

*Operation of the French Commercial System on the Trade of Bordeaux &c.*—The trade of this great city has suffered severely from the short-sighted, anti-social policy of the French Government. This policy was first broadly laid down, and systematically acted upon, by Napoleon I.; and we believe it would not be difficult to show that the privations it entailed on the people of the Continent powerfully contributed to accelerate his downfall. But those by whom he has been succeeded have not hitherto seen the expediency of returning to a sounder system; on the contrary, they have carried, in some respects at least, the 'continental system' to an extent not contemplated by Napoleon. Notwithstanding the vast importance to a country like France of supplies of iron and hardware at a cheap rate, that which is produced by foreigners is excluded, though it might be obtained for a third part of the price of that which is manufactured at home. A similar line of policy has been followed as to cotton yarn, earthenware &c. And in order to force the manufacture of sugar from the beet-root, oppressive duties have been laid, not only on foreign sugar, but even on that imported from the French colonies. The operation of this system on the commerce and industry of the country has been most mischievous. By forcing France to raise, at home, articles for the production of which she has no natural or acquired capabilities, the exportation, and consequently the growth, of those articles in the production of which she is superior to every other country has been very greatly narrowed. All commerce being bottomed on a fair principle of reciprocity, a country that refuses to import must cease to export. By excluding foreign produce—by refusing to admit the sugar of Brazil, the cottons and hardware of England, the iron of Sweden, the linens of Germany, and the cattle of Switzerland and Württemberg—France has done all that was in her power to drive the merchants

of those countries from her markets. They are not less anxious than formerly to obtain her wines, brandies, and silks; inasmuch, however, as commerce is merely an exchange of products, and as France will accept very few products belonging to others, they cannot, how anxious soever, maintain that extensive and mutually beneficial intercourse with her they would otherwise carry on; they sell little to her, and their purchases are, of course, proportionally diminished.

This, indeed, is in all cases the necessary and inevitable effect of the prohibitive system. It never fails to lessen exportation to the same extent that it lessens importation; so that, when least injurious, it merely substitutes one sort of industry for another—the production of the article that had been obtained from the foreigner, for the production of that which had been sent to him as an equivalent. [Commerce.]

France is not only extremely well situated for carrying on an extensive intercourse with foreign countries, but she is largely supplied with several productions, which, were she to adopt a liberal commercial system, would meet with a ready and advantageous sale abroad, and enable her to furnish equivalents for the largest amount of imports. The superiority enjoyed by Amboyna in the production of cloves is not more decided than that enjoyed by France in the production of wine. Her claret, burgundy, champagne, and brandy are unrivalled; and furnish, of themselves, the materials of a vast commerce. Indeed, the production of wine is, next to the ordinary business of agriculture, by far the most extensive and valuable branch of industry in France. It is stated by the landholders and merchants of the department of the Gironde, in the admirable *Pétition et Mémoire à l'Appui*, presented by them to the Chamber of Deputies in 1828, that the quantity of wine annually produced in France amounts, at an average, to about 40,000,000 hectolitres, or 1,060,000,000 gallons; that its value is not less than from 800,000,000 to 1,000,000,000 francs, or from 32,000,000*l.* to 40,000,000*l.* sterling; and that upwards of *three millions* of individuals are employed in its production. In some of the southern departments it is of paramount importance. The population of the Gironde, exclusive of Bordeaux, amounts to about 450,000 individuals, of whom no fewer than 230,000 are supposed to be directly engaged in the cultivation of the vine.

Here, then, is a branch of industry in which France has no competitor, which even now affords employment for about a tenth part of her population, and which is susceptible of indefinite extension. She has, in this single article, the means of carrying on the most extensive and lucrative commerce. 'Le gouvernement français,' says M. Chaptal, in his work *Sur l'Industrie Française*, 'doit les plus grands encouragements à la culture des vignes, soit qu'il considère ses produits relativement à la consommation intérieure, soit qu'il les envisage sous le rapport de notre commerce avec l'étranger, dont il est en effet la base essentielle.'

But instead of labouring to extend this great branch of industry, Government has consented to sacrifice it to the interests of the iron-founders, the cotton and linen manufacturers, and the planters of Martinique and Guadeloupe! We do not, indeed, imagine that they were at all aware that such would be the effect of their policy. Theirs is only one instance, among myriads that may be specified, to prove that ignorance in a ministry is quite as pernicious as bad intentions. The consideration, apparently not a very recondite one, that, notwithstanding the bounty of nature, wine was not gratuitously produced in France, and

could not, therefore, be exported except for an equivalent, would seem never to have occurred to the ministers of Louis XVIII. and Charles X. But those whose interests were at stake did not fail to apprise them of the hollowness of their system of policy. In 1822, when the project for raising the duties on sugar, iron, linens &c. was under discussion, the merchants of Bordeaux, Nantes, Marseilles, and other great commercial cities, the silk manufacturers of Lyons, and the wine-growers of the Gironde, and some other departments, presented petitions to the Chambers, in which they truly stated that it was a contradiction and an absurdity to attempt selling to the foreigner without, at the same time, buying from him; and expressed their conviction that the imposition of the proposed duties would be fatal to the commerce of France, and would consequently inflict a very serious injury on the wine-growers and silk manufacturers. These representations did not, however, meet with a very courteous reception. They were stigmatised as the work of ignorant and interested persons. The Chambers approved the policy of ministers; and in their ardour to extend and perfect it, did not hesitate deeply to injure branches of industry on which several millions of persons are dependent, in order that a few businesses, nowise suited to France, and the support of which costs her several millions a year, might be bolstered up and protected!

It is plain, had there not been some powerful countervailing cause in operation, that the exports of wine from France would have been very greatly augmented since the peace of 1815. The United States, Russia, England, Prussia, and all those countries that have at all times been the great importers of French wines, have made prodigious advances in wealth and population since 1789; and, had the commerce with them not been subjected to injurious restrictions, there is every reason to think that their imports of French wine would have been much greater now than at any former period. So far, however, from this being the case, they have declined in a most extraordinary degree. This is proved beyond all question by the following extract from a report made to the Council General of the Gironde in 1841, and published by its orders and with its sanction:—

Previously to 1790 the wine trade at Bordeaux had an immense development. The books of our most ancient houses, transmitted down religiously from father to son, and the registries of our lands, prove that in the years preceding 1787 our exports had reached more than 100,000 tons of wine, 10,000 casks of brandy, and 5,000 of vinegar. They also show that from 1,200 to 1,400 vessels from the North took large quantities of wine, in return for their national produce, which they easily disposed of amongst us. It was a most lucrative commerce, for we then sent 15,000 tons to Prussia, 18,000 to England and Ireland, 6,000 to Dantzic, 40,000 to Hamburg, Lubeck, and Bremen, 15,000 to Holland, 7,000 to Sweden, 5,000 to Denmark and Norway, and 12,000 to Russia. But at that period we had not closed our frontiers to the produce of all these nations—we received at moderate duties their woollens, linens, hemp, iron, wood, cattle, and other articles, the consumption of which was less expensive, and the quality better, than similar articles made at home, and forced on us by customs duties. At present, notwithstanding the rapid increase of commercial affairs—notwithstanding the new nations of America, the advantages of a more expeditious, certain, and economical navigation, the demands of nations increased in number and industry, and consequently more disposed to pur-

chase for consumption, our commerce is declining in a most alarming manner. Authentic documents prove that, in 1839, our exports only reached 1,339 tons to England, 2,499 to Russia, 147 to Sweden, 342 to Norway, 2,964 to Prussia, 612 to Denmark, 8,188 to the Hanse Towns, and 7,621 to the Netherlands. Since then our exports have not increased; so that instead of 100,000 tons at least taken by the north of Europe from the department of the Gironde previously to 1790, not more than 25,000 tons are taken at present. Yet the taste for wine and the necessity to use it have not been weakened amongst the various nations; but the exaggerated duties with which its introduction has been loaded only allow it to be consumed by the wealthy classes, who are everywhere the least numerous. These duties are established in retaliation of those which France lays on foreign productions. If the exportation of wine has diminished in so great a proportion, the cause must be sought in the protective system. When the variations in the exports of wine are attentively examined, and their decrease looked to since 1822, when this system attained its height, to 1810, it is impossible not to be struck with the fact that these variations are intimately connected with the system itself. The decrease in the exports of wine has followed the increased development of the protective system, and, therefore, we are forced to draw this conclusion, that it is *this system which destroys our export trade*. Yet foreign consumption is the most certain and most profitable for Bordeaux wines, and it is particularly in the markets of the north of Europe and of England that the wines of the finest quality which our department produces find purchasers. Let us, then, insist on the necessity of re-opening these markets, which have been closed by the enormous amount of duties imposed by foreigners in reprisal of those laid by us on their products.

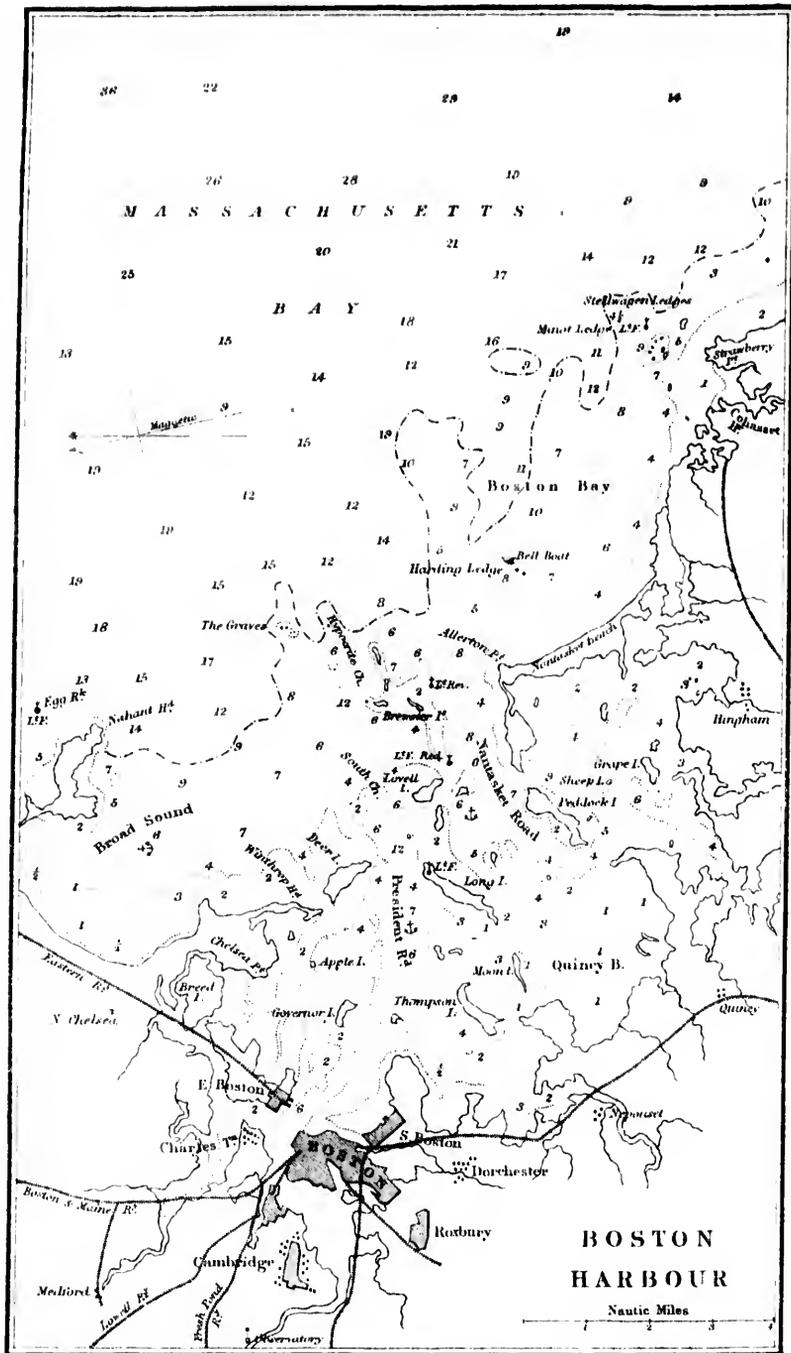
Besides the injury inflicted on the wine trade by the prohibitive system of commercial policy adopted in France, and the retaliatory measures provoked in other countries, it suffered severely from the octrois and other duties on internal consumption. But the depression, though felt everywhere, was greatest in the Gironde, which was especially dependent on its export trade. This was strikingly evinced by the large stocks of wine remaining in the hands of the growers and merchants, and by the fall in its price. This, of course, reacted on the vineyards, many of which became all but unsaleable; and in 1843 the committee of wine growers applied to Government for a loan of 2,000,000 francs to be applied to the payment of taxes due by the wine growers.

Such were the effects of the restrictive system of policy on the wine trade of France—on a branch of industry which employed *three millions* of people.

A wiser policy has, however, prevailed in France since the negotiation of the French commercial treaty and the partial development of the principles of free trade in that country.

BOSTON. A commercial city of the United States, the capital of Massachusetts, and the largest town of New England, lat. 42° 23' N., long. 71° 4' W. Population in 1860, 177,812. The city is situated on a peninsula near the bottom of a large and deep bay, being surrounded on all sides by water, except on the south, where it is joined to the mainland by the narrow isthmus called Boston Neck. But it communicates, by means of extensive wooden bridges, with Charlestown on the north side of the bay, and with Dorchester on the south. Boston Bay is of great extent, and is studded with many islands.





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**Lighthouses, Boston Bay.**—There are 4 lights; one on the Minot Ledge, the second on the north entrance of the harbour on Lighthouse Island, the third on the west end of the Spit abreast the Narrows, and the fourth on the north-east end of Long Island. The second light is revolving, the third is red.

**Shipping.**—With the exception of New York, Boston has a larger mercantile marine than any other port in the United States. According to the accounts laid before Congress January 1, 1858, the registered, enrolled, and licensed tonnage belonging to Boston on June 30, 1857, amounted to 447,996 tons, of which 42,179 tons were employed in the coasting trade. In 1856, 48 ships, of the burden of 50,394 tons, were launched in Boston and her immediate vicinity. Since the war, however, the shipping of Boston has been materially diminished.

**Shipping Charges.**—For an account of these, see *New Yorks*.

**How to enter the Port.**—In coming from the Atlantic, a ship should bring the lighthouse to bear W. by N. to W.N.W. and run direct for it. The largest ships may pass it at within less than a cable's length. If there be no pilot on board, or the master be unacquainted with the harbour, or the wind be north-westerly, which is the most unfavourable for entering, she had better steer W. by S. for Nantucket roads, where she may anchor and get a pilot.

**Mooring &c.**—Generally speaking, there is sufficient depth of water to enable the largest ships to come up to the town at all times of the tide. They usually moor alongside quays or wharfs, where they lie in perfect safety. But Mr. Consul Lonsada, in his Report of Jan. 24, 1867, says that the roadstead is fast filling up, and unless energetic measures are taken, it will be merely a question of time when large vessels will be unable to enter. There are in all about 60 wharfs; which, for the most part, are built on piles, with a superstructure of stone and earth. The two principal are 'Long Wharf,' 550 yards in length; and 'Central Wharf,' 413 yards long by 50 in breadth, having a range of lofty brick stores and warehouses along its whole length.

**Pilotage.**—No particular place is specified at which vessels must heave to for a pilot. But all vessels, with the exception of coasters under 200 tons, and American vessels laden with plaster of Paris from British America, if hailed by a pilot within about 1½ mile of the outer light, must take him on board, under a penalty of 50 dollars. If they have got within this distance before being hailed, the obligation to take a pilot on board ceases. This regulation has obviously been dictated by a wish to have the pilots constantly on the alert; it being supposed that masters not well acquainted with the bay will heave to to take one on board, though they have got within the free limits.

**Careening, Stores, &c.**—Boston is a very favourable place for careening and repairing ships. All kinds of supplies may be had of the best quality and at moderate prices.

**Immigration.**—The number of immigrants arriving at Boston is not great, seldom exceeding 1,600 or 1,800 in a year. A city ordinance directs that the masters of vessels bringing immigrants shall enter into a bond with sureties, to the amount of 200 dollars for each immigrant, that he shall not become a charge upon the state for 3 years, or pay a commutation of 5 dollars on account of each individual. But this regulation does not apply to immigrants having a reasonable amount of property. the declaration of

the foreign consuls as to this point is commonly acted upon.

**Trade of Boston &c.**—Boston has a very extensive trade with the Southern States and with foreign countries, and is also one of the principal seats of the American fisheries. She is largely indebted to her southern neighbours, and principally to New York, Maryland, and Pennsylvania, for supplies of flour and wheat, and for great quantities of barley, maize, oatmeal, oats &c. as well as for cotton, tobacco &c. Of these, the imports of flour amount, at an average, to about 1,400,000 barrels a-year; all sorts of grain to about 3,500,000 bushels; cotton 220,000 bales; sugar 80,000,000 lbs.; coffee 50,000 bags &c. Her returns are made, partly in native raw produce, as beef, pork, lard &c.; partly and principally in the produce of her manufacturing industry, in which Massachusetts is decidedly superior to every other state in the Union; and partly in the produce of her fisheries and foreign trade. At an average, Boston annually sends to the southern parts of the Union about 70,000 barrels of beef and pork; 200,000 barrels mackerel, herrings, alewives &c.; large quantities of dried and smoked fish; 5,000,000 pairs of boots and shoes; besides a very large amount of cotton and woollen manufactured goods, paper, nails, iron, furniture, cordage &c.; so as to leave a large balance in her favour. Her exports of native produce to foreign countries consist principally of the same articles she sends to the southern States; but she also exports a large amount of the foreign produce she had previously imported. The imports from abroad consist principally of cotton and woollen goods; linens and canvas; hardware, silks, sugar, tea, coffee, wines and brandy, spices, hides, indigo, dyewoods &c. The total imports from foreign countries into the state of Massachusetts in the year ending June 30, 1864, amounted to 31,365,627 dols.; while the exports of native produce, during the same year, amounted to only 15,664,033 dols., and of native and foreign produce together to 17,057,092 dols.; the balance against Massachusetts being paid off by bills upon the southern States, to which she exports much more than she imports from them. New York alone is, in fact, supposed to be at all times indebted to Boston about 5,000,000 dols. We subjoin some statements illustrative of the trade of Boston.

*Value of the Domestic Produce of Massachusetts, 1865, 1866.*

	1866 Dollars	1865 Dollars
Cotton	32,000,000	40,000,000
Flour	21,000,000	15,000,000
Corn	2,000,000	2,500,000
Oats	850,000	1,250,000
Coal	7,000,000	6,500,000
Hides	2,500,000	2,750,000
Leather	16,500,000	18,000,000
Provisions	7,000,000	8,500,000
Naval stores	650,000	600,000
Butter and cheese	4,500,000	6,000,000
Wool	25,000,000	28,000,000
Total	119,000,000	128,550,000

*Imports (Quantities).*

	1866	1865
Ashes	5,875 ccs.	4,185
Cocoa	12,980 bags.	5,711
Coffee	50,151	26,594
Cotton	225,000 bales.	162,428
Dyewoods	12,164 tons.	12,374
Iron bars	567,582 British tons.	650
Lead	192,963 lbs.	73,677
Sulphure	28,357 bags.	36,214
Wine	94,814 gallons.	85,769
Wool	31,218 bales.	21,001

**Ice.**—Boston was the original and still continues to be the principal seat of the American ice trade. This novel branch of industry began here in 1806, and has since vastly increased. For a while the exportation was confined to the southern ports of



if he cannot otherwise obtain it, borrow money on bottomry at marine interest, and pledge the ship, and the freight to be earned in the voyage, for repayment at the termination of the voyage. When this is done, the owners are never personally responsible. The remedy of the lender is against the master of the ship." (*Law of Shipping*, part ii. c. iii.)

The authority of the master to hypothecate the ship and freight in case of necessity, and in furtherance of the voyage in which he is engaged, at a foreign port, is indisputable, and his hypothecation of the freight or cargo is also justifiable, if necessary; but he must not do so when he can obtain money on better terms, e.g. on the personal credit of the owner, or when he can communicate with the owner at his residence. All England would be the residence of the owner, and, since the Union, probably Ireland. (Smith, *ibid.*)

It has been held that if this communication could have been made by telegraph, the bottomry bond is void. (Maule and Pollock.)

The rule that the remedy of the lender is against the owner of the ship, was contingent, it seems, on the laws regulating the rate of interest. It is now a question, however, since the repeal of these laws, whether the owner's personal credit may not be pledged. For the process by which the lender on a ship hypothecated in a foreign country can recover, see *Smith*. If a number of loans are effected, it is the rule, if the ship be sold, that the *last* in point of date is entitled to priority of payment, on the presumption (to be proved) that the master was compelled to contract the obligation by absolute necessity.

In bottomry and respondentia bonds, the lender receives the whole of his principal and interest or nothing; he is not answerable for general or particular average. [Mr. Serjeant Marshall doubts this; but it was so decided by the Court of King's Bench in *Joyce v. Williamson*, B. R. Mich. 21 Geo. III.] Nor will any loss by capture, if subsequently recaptured, affect his claim. In this respect our law differs from that of France (*Code de Commerce*, art. 330) and most other countries; the lenders on bottomry bonds being there subject to average, as our underwriters upon policies of insurance. No loss can void a bottomry contract, unless a total loss, proceeding from a peril of the sea, during the voyage, and within the time specified by the contract. If the loss happen through any default or act of the owners or master, to which the lender was not privy, he may still recover.

There is no restriction by the law of England as to the persons to whom money may be lent on bottomry or at respondentia, except in the single case of loans on the ships of foreigners trading to the East Indies, which are forbidden by the 7 Geo. I. stat. 1 c. 21 s. 2.

It does not, however, appear to be necessary, in order to enable the master of a ship in a foreign port to obtain money for her repair, outfit &c., that the contract pledging the vessel in security of the debt should be in the nature of a bottomry bond. Provided the person who advances the money do not choose to take upon himself the risk of the ship's return, and do not stipulate for maritime interest, there seems, says Lord Tenterden, "to be no reason why the master should not pledge both the ship and the personal credit of the owner." And in the case of money advanced in this way to refit a ship in distress at Jamaica, which was captured on the voyage home, the lender recovered. (*Law of Shipping*, part ii. c. iii.)

Bottomry contracts were well known to the ancients. At Athens the rate of interest was not

fixed by law; but the customary rate seems to have been about 12 per cent. But when money was lent for a voyage, upon the security of the ship and cargo, the interest, on account of the superior risk encountered by the lender, was in most cases much higher. By the Rhodian law, the exaction of such high interest as is usual in bottomry was declared to be illegal, unless the principal was really exposed to the dangers of the sea. (Boeckh's *Public Economy of Athens*, vol. i. p. 177, Eng. trans.) This principle was adopted by the Romans, who gave to bottomry interest the name of *nauticum fœnus*; and has been transferred from the Roman law into all modern codes.

'Formerly,' says Mr. Serjeant Marshall, 'the practice of borrowing money on bottomry and respondentia was more general in this country than it is at present. The immense capitals now engaged in every branch of commerce render such loans unnecessary; and money is now seldom borrowed in this manner but by the masters of foreign ships who put into our ports in need of pecuniary assistance to refit, to pay their men, to purchase provisions &c. Sometimes officers and others belonging to ships engaged in long voyages, who have the liberty of trading to a certain extent, with the prospect of great profit, but without capitals of their own to employ in such trade, take up money on respondentia to make their investments; but even this, as I am informed, is now not very frequently done in this country.'

The term *bottomry* has sometimes been incorrectly applied to designate a contract by the terms of which the ship is not pledged as a security, but the repayment of money, with a high premium for the risk, is made to depend upon the success of the voyage. This, however, is plainly a loan upon a particular adventure, to be made by a particular ship, and not a loan upon the ship, and, of course, the lender has only the personal security of the borrower for the due performance of the contract. And it seems that loans have sometimes been made in this manner, and probably also with a pledge of the ship itself, to an amount exceeding the value of the borrower's interest in the ship; and such a contract is still legal in this country in all cases, except the case of ships belonging to British subjects bound to or from the East Indies; as to which it is enacted (19 Geo. II. c. 37 s. 5), 'That all sums of money lent on bottomry or at respondentia upon any ship or ships belonging to his Majesty's subjects, bound to or from the East Indies, shall be lent only on the ship, or on the merchandise or effects laden, or to be laden, on board of such ship, and shall be so expressed in the condition of the bond, and the benefit of salvage shall be allowed to the lender, his agents or assigns, who alone shall have a right to make assurance on the money so lent; and no borrower of money on bottomry or at respondentia as aforesaid shall recover more on any assurance than the value of his interest on the ship, or in the merchandises and effects laden on board of such ship, exclusive of the money so borrowed; and in case it shall appear that the value of his share in the ship, or in the merchandises and effects laden on board, doth not amount to the full sum or sums he hath borrowed as aforesaid, such borrower shall be responsible to the lender for so much of the money borrowed as he hath not laid out on the ship, or merchandises laden thereon, in the proportion the money not laid out shall bear to the whole money lent, notwithstanding the ship and merchandises be totally lost.'

Lord Tenterden says that this statute was introduced for the protection of the trade of the East India Company; and its rules must be

complied with in the case of bottomry by the masters of ships trading to the East Indies.

For a further discussion of this subject, see Abbott *On the Law of Shipping*, part ii. ch. iii.; Marshall *On Insurance*, book ii.; and Park *On Insurance*, ch. xxi.

### I. Form of a Bottomry Bond.

Know all men by these presents, That I, A. B., commander and two-thirds owner of the ship *Exeter*, for myself and C. D., remaining third-owner of the said ship, am held and firmly bound unto E. F. in the penal sum of two thousand pounds sterling, for the payment of which well and truly to be made unto the said E. F., his heirs, executors, administrators, or assigns, I hereby bind myself, my heirs, executors, and administrators, firmly by these presents. *In witness* whereof I have hereunto set my hand and seal, this 14th day of December, in the year of our Lord 1796.

Whereas the above bound A. B. hath taken up and received of the said E. F. the full and just sum of one thousand pounds sterling, which sum is to run at respondentia on the block and freight of the ship *Exeter*, whereof the said A. B. is now master, from the port or road of Bombay on a voyage to the port of London, having permission to touch, stay at, and proceed to all ports and places within the limits of the voyage, at the rate of premium of twenty-five per cent. (25 per cent.) for the voyage. In consideration whereof usual risks of the seas, rivers, enemies, fires, pirates &c. are to be on account of the said E. F. And for the further security of the said E. F. the said A. B. doth by these presents mortgage and assign over to the said E. F., his heirs, executors, administrators, and assigns, the said ship *Exeter*, and her freight, together with all her tackle, apparel &c. And is hereby declared, that the said ship *Exeter* and her freight is thus assigned over for the security of the respondentia taken up by the said A. B., and shall be delivered to no other use or purpose whatever until payment of this bond is first made, with the premium that may become due thereon.

Now the condition of this obligation is such, that if the above bound A. B., his heirs, executors, or administrators, shall not do well and truly pay, or cause to be paid, unto the said E. F. or his attorneys in London legally authorised to receive the same, their executors, administrators, or assigns, the full and just sum of 1,000*l.* sterling, being the principal of this bond, together with the premium which shall become due thereon, at or before the expiration of ninety days after the safe arrival of the said ship *Exeter* at her moorings in the river Thames, or in case of the loss of the said ship *Exeter*, such an average as by custom shall have become due on the salvage, then this obligation to be void and of no effect, otherwise to remain in full force and virtue. Having signed to three bonds of the same tenor and date, the one of which being accomplished, the other two to be void and of no effect.

A. B. for self } (L. S.)  
and C. D.)

Signed, sealed, and delivered, where } G. H.  
no stamped paper is to be had, in } I. K.  
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In this bond the occasion of borrowing the money is not expressed, but the money was in reality borrowed to reit the ship, which, being on a voyage from Bengal to London, was obliged to put back to Bombay to repair. (*The Exeter, Whitford*, 1 Rob. A. R. 176.) The occasion therefore of borrowing the money gave the lender the security of the entire interest of the ship. But this bond,

although expressed to be executed by the master for himself and the other part-owner, would not bind the other part-owner personally, unless he had by a previous deed authorised the master to execute such a bond for him. (*Abbott On the Law of Shipping*, part iii. ch. i. s. 2.)

### II. Form of a Bottomry Bill.

To all men to whom these presents shall come, I, A. B. of Bengal, mariner, part-owner and master of the ship called the *Exeter*, of the burden of five hundred tons and upwards, now riding at anchor in Table Bay, at the Cape of Good Hope, send greeting:

Whereas I, the said A. B., part-owner and master of the aforesaid ship, called the *Exeter*, now in prosecution of a voyage from Bengal to the port of London, having put into Table Bay for the purpose of procuring provisions and other supplies necessary for the continuation and performance of the voyage aforesaid, and at this time necessitated to take up upon the adventure of the said ship called the *Exeter* the sum of one thousand pounds sterling moneys of Great Britain, for setting the said ship to sea, and furnishing her with provisions and necessaries for the said voyage, which sum C. D. of the Cape of Good Hope, master or attendant, hath at my request lent unto me, and supplied me with, at the rate of twelve hundred and twenty pounds sterling for the said one thousand pounds, being at the rate of one hundred and twenty-two pounds for every hundred pounds advanced as aforesaid, during the voyage of the said ship from Table Bay to London. Now know ye, that I, the said A. B., by these presents, do, for me, my executors and administrators, covenant and grant to and with the said C. D. that the said ship shall, with the first convoy which shall offer for England after the date of these presents, sail and depart for the port of London, there to finish the voyage aforesaid. And I, the said A. B., in consideration of the sum of one thousand pounds sterling to me in hand paid by the said C. D. at and before the sealing and delivery of these presents, do hereby bind myself, my heirs, executors, and administrators, my goods and chattels, and particularly the said ship, the tackle and apparel of the same, and also the freight of the said ship, which is or shall become due for the aforesaid voyage from Bengal to the port of London, to pay unto the said C. D., his executors, administrators, or assigns, the sum of twelve hundred and twenty pounds of lawful British money, within thirty days next after the safe arrival of the said ship at the port of London from the same intended voyage.

And I, the said A. B., do, for me, my executors and administrators, covenant and grant to and with the said C. D., his executors and administrators, by these presents, that I, the said A. B., at the time of sealing and delivering of these presents, am a true and lawful part-owner and master of the said ship, and have power and authority to charge and engage the said ship with her freight as aforesaid, and that the said ship, with her freight, shall, at all times after the said voyage, be liable and chargeable for the payment of the said twelve hundred and twenty pounds, according to the true intent and meaning of these presents.

And lastly, it is hereby declared and agreed by and between the said parties to these presents, that in case the said ship shall be lost, miscarry, or be cast away before her arrival at the said port of London from the said intended voyage, that then the payment of the said twelve hundred and twenty pounds shall not be demanded, or be recoverable

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by the said C. D., his executors, administrators, or assigns, but shall cease and determine, and the loss thereby be wholly borne and sustained by the said C. D., his executors and administrators, and that thenceforth every act, matter, and thing herein mentioned on the part and behalf of the said A. B. shall be void; any thing herein contained to the contrary notwithstanding.

In witness whereof the parties have interchangeably set their hands and seals to four bonds of this tenor and date, one of which being paid, the others to be null and void.

At the *Cape of Good Hope*, this 15th day of *November*, in the year of our Lord one thousand eight hundred and thirty.

Witness, { E. F.  
G. H. A. B. (l. s.)  
I. K.

**BOUNTY.** A term used in Commerce and the Arts, to signify a premium paid by Government to the producers, exporters, or importers of certain articles, or to those who employ ships in certain trades.

1. *Bounties on Production* are most commonly given in the view of encouraging the establishment of some new branch of industry; or they are intended to foster and extend a branch that is believed to be of paramount importance. In neither case, however, is their utility very obvious. In all old settled and wealthy countries, numbers of individuals are always ready to embark in every new undertaking, if it promise to be really advantageous, without any stimulus from Government; and if a branch of industry, already established, be really important and suitable for the country, it will assuredly be prosecuted to the necessary extent, without any encouragement other than the natural demand for its produce.

2. *Bounties on Exportation and Importation.*—It is enacted by the 3 & 4 Wm. IV. c. 52 that a merchant or exporter claiming a bounty or drawback on goods exported must make oath that they have been actually exported, and have not been re-landed, and are not intended to be re-landed, in any part of the United Kingdom, or in the Isle of Man (unless entered for the Isle of Man), or in the islands of Faro or Ferro; and it is further enacted, that if any goods cleared to be exported for a bounty or drawback shall not be duly exported to parts beyond the seas, or shall be re-landed in any part of the United Kingdom, or in the islands of Faro or Ferro, or shall be carried to the islands of Guernsey, Jersey, Alderney, Sark, or Man (not having been duly entered, cleared, and shipped for exportation to such islands), such goods shall be forfeited, together with the ship or ships employed in re-landing or carrying them; and any person by whom or by whose orders or means such goods shall have been cleared, re-landed, or carried, shall forfeit a sum equal to treble the value of such goods. (Secs. 87-95.)

3. *Policy of Bounties.*—It was formerly customary to grant bounties on the exportation of various articles; but the impolicy of such practice is now very generally admitted. It is universally allowed that bounties, if they be given at all, should be given only to the exporters of such commodities as could not be exported without them. But it is plain that, by granting a bounty in such cases, we really tax the public, in order to supply the foreigner with commodities at less than they cost. A. has a parcel of goods which he cannot dispose of abroad for less than 110*l.*; but they will fetch only 100*l.* in the foreign

market; and he claims and gets a bounty of 10*l.* to enable him to export them. Such is the mode in which bounties on exportation uniformly operate; and to suppose that they can be a means of enriching the public, is equivalent to supposing that a shopkeeper may be enriched by selling his goods for less than they cost!

But however injurious to the state, it has been pretty generally supposed that bounties on exportation are advantageous to those who produce and export the articles on which they are paid. But the fact is not so. A trade that cannot be carried on without the aid of a bounty must be a naturally disadvantageous one. Hence, by granting it, individuals are tempted to engage or continue in businesses which are necessarily very unseemly; and are rarely capable of being rendered lucrative; at the same time that they are prevented, by trusting to the bounty, from making those exertions they naturally would have made, had they been obliged to depend entirely on superior skill and industry for the sale of their produce. The history of all businesses carried on in this country by the aid of bounties proves that they are hardly less disadvantageous to those engaged in them than to the public.

The truth of these remarks has been acknowledged by Government. The bounty on the exportation of corn was repealed in 1815; and the bounties on the exportation of linen and several other articles ceased in 1830.

4. *Bounties on Shipping* have principally been paid to the owners of vessels engaged in the fishery, and their influence will be treated of under *FISHERY* and *WHALE FISHERY*. [DRAWBACK; TARIFF.]

**BOX-WOOD** (Ger. buchsbaumholz; Dutch, palmhout; Fr. buis; Ital. busso, bosso, bossolo). The wood of the box-tree (*Buxus sempervirens*), growing wild in several places in Great Britain. This tree was greatly admired by the ancient Romans, and has been much cultivated in modern times, on account of the facility with which it is fashioned into different forms. Box is a very valuable wood. It is of a yellowish colour, close-grained, very hard, and heavy; it cuts better than any other wood, is susceptible of a very fine polish, and is very durable. In consequence, it is much used by turners, and mathematical and musical instrument makers. It is too heavy for furniture. It is the only wood used by the engravers of wood-cuts for books; and provided due care be exercised, the number of impressions that may be taken from a box-wood cut is very great. In France, box-wood is extensively used for combs, knife-handles, and button-moulds; and sometimes, it has been used, as a substitute for hops in the manufacture of beer. The value of the box-wood sent from Spain to Paris is reported to amount to about 10,000 fr. a year. In 1815 the box-trees cut down on Box-hill, near Dorking in Surrey, produced upwards of 10,000*l.* They are now, however, become very scarce in England. Previously to 1837 the duty on box-wood was quite oppressive, being 5*l.* a ton if brought from a foreign country, and 1*l.* a ton if from a British possession; but it was then reduced to 10*s.* a ton without reference to origin. In 1841 this duty produced 554*l.*, showing that 1,108 tons had been entered for consumption. In 1842 the duty on box-wood from a British possession was reduced to 2*s.* 6*d.* a ton, and in 1845 it was repealed. Turkey box-wood sells in the London market for from 4*l.* 10*s.* to 8*l.* 15*s.* a ton.

The export of box-wood from Constantinople in 1864 amounted to about 7,000 tons, 3,000 of which were of large sizes: about 6,000 tons were sent to England, the remainder to France. In 1866 we

imported 4,166 tons, of which 4,055 were from Turkey. Considerable quantities of Circassian box-wood are shipped to Great Britain through Constantinople. The average value of Turkish box-wood was, in 1866, 6*l.* 17*s.* 3*d.* per ton, other box-wood 7*l.* The Customs duty, which produced 301*l.* in 1861, was abolished in 1866. It is subject in Turkey to an export duty of 1 per cent.

BRAN (Fr. son; Ger. kleie). The thin skins or husks of corn, particularly wheat, ground, and separated from the corn by a sieve or boulder. Bran contains a large amount of nitrogenous matter, and flour loses its nutritive power by the separation of bran. Bran is also used in dyeing.

BRANDY (Ger. brandwein; Ditch, brandewyn; Fr. eau de vie, brandevin; Ital. aquazente; Span. aguardiente; Port. aguardente; Russ. wino; Lat. vinum adustum). A spirituous and inflammable liquor, obtained by distillation from wine and the husks of grapes. It is prepared in most of the wine countries of Europe; but the superiority of French brandy is universally admitted. The latter is principally distilled at Bordeaux, Rochelle, Cognac, the Isle de Rhé, Orleans, Nantes, and in Poitou, Touraine, and Anjou. That of Cognac is in the highest estimation.

Wines of all descriptions, but chiefly those that are strong and harsh (*poissés*), are used in the manufacture of brandy. The superior vintages, and those that have most flavour, are said to make the worst brandy. It is naturally clear and colourless. The different shades of colour which it has in commerce arise partly from the casks in which it is kept, but chiefly from the burnt sugar, saunders wood, and other colouring matter intentionally added to it by the dealers. It is said that the burnt sugar gives mellowness to the flavour of the liquor, and renders it more palatable.

The art of distillation is believed to have been first discovered by the Arabians. From a passage in the *Testamentum Novissimum* of the famous Raymond Lully, who flourished in the thirteenth century, it would appear that the production of brandy and alcohol from wine was familiar to his contemporaries. (1. 2, edit. *Argent*, 1571.) But the practice does not appear to have been introduced into France till 1313. (Le Grand d'Aussi, *Vie privée de François*, t. iii. p. 64.) When first introduced, brandy or burnt wine (*vinum adustum*) appears to have been used principally as an anti-septic and restorative medicine; and the most extravagant panegyrics were bestowed on its virtues. It was described as a sovereign remedy in almost all the disorders of the human frame; it was commended for its efficacy in comforting the memory, and strengthening the reasoning powers; it was extolled, in short, as the elixir of life, and an infallible preservative of youth and beauty! (Henderson's *History of Wine*, p. 24.) Dr. Henderson says that the experience of later times has shown how little this eulogy was merited; but in this he is contradicted by Lurke, who maintains, with equal eloquence and ingenuity, that 'the *alembic* has been a vast benefit and blessing.' (*Thoughts and Details on Secrecy*, p. 41.)

*Duties on Brandy.*—In a former edition of this work we remarked on this subject as follows, viz.: 'In nothing, perhaps, has the injurious operation of oppressive duties been so strikingly exemplified as in the case of brandy. At the latter end of the 17th century, when the duty on brandy did not exceed 9*l.* a tun, the imports into England amounted to about 6,000 tuns, or 1,512,000 gallons. (*Historical and Political Remarks on the Tariff of the late Treaty*, 1786, p. 113); whereas at present, notwithstanding our vast increase in

wealth and population since the period referred to, we do not import so much brandy as we did then. Nor is this extraordinary circumstance to be ascribed to any preference on the part of the public to other beverages, but is wholly owing to the exorbitant duties with which brandy is loaded. The price of brandy in bond varies, at this moment, according to quality, from 4*s.* to 6*s.* a gallon (imperial measure), while the duty is no less than 22*s.* 10*d.* Had the imposition of such a duty taken away the taste for brandy, it would have been comparatively innocuous. But it has done no such thing. Its only effect has been to convert a trade, that might otherwise have been productive of the most advantageous results, into a most prolific source of crime and demoralisation. The temptation to smuggle, occasioned by the exorbitancy of the duty, is too overpowering to be counteracted by the utmost penalties of the law. All along the coasts of Kent and Sussex, and the districts most favourably situated for *running spirits*, almost the whole of the labouring population are every now and then withdrawn from their ordinary employments to engage in smuggling adventures. The efforts of the revenue officers to seize foreign brandy and geneva have in innumerable instances been repelled by force. Bloody and desperate contests have in consequence taken place. Many individuals who, but for this fiscal scourge, would have been industrious and virtuous, have become idle, predatory, and ferocious; they have learned to despise the law, to execute summary vengeance on its officers; and are influenced by a spirit that has been, and may be, turned to the most dangerous purposes.

Neither can it be truly said that this miserable system is upheld for the sake of revenue. On the contrary, it is easy to show that, besides the other mischievous effects it entails on the public, it occasions the loss of at least 1,000,000*l.* a-year. In 1786, Mr. Pitt, by a wise and politic measure, took 50 per cent. from the duty on brandy and geneva (the duty on the latter has been for a lengthened period the same as that on brandy); and instead of being diminished, the revenue was increased. In 1790, when the duty on brandy and geneva was 5*s.* the wine gallon, the quantity retained for home consumption was 2,225,590 gallons. During the 3 years ending with 1803, when the duty was 9*s.* 2*d.*, the quantities of brandy and geneva retained for home consumption amounted, at an average, to about 2,700,000 gallons; but during the 3 years ending with 1818, when the duty had been increased to 18*s.* 10*d.* the wine gallon, the quantities retained did not exceed 850,000 gallons, while the quantities actually entered for home consumption were much less! The consumption increased considerably between 1818 and 1822; but since the latter epoch it has remained nearly stationary; and, notwithstanding, the great increase of wealth and population in the interval, is not nearly so great now (1843) as it was half a century ago! Nothing, therefore, can be more palpably erroneous than to contend that the revenue is improved by the present system. Have we not seen the revenue derived from coffee trebled by reducing the duty from 1*s.* 7*d.* to 6*d.*? Have we not seen the revenue derived from British spirits greatly increased by reducing the duty from 5*s.* 6*d.* to 5*s.* the wine gallon? And where is the ground for supposing that the result would be different were the duties on brandy equally reduced? But the experience afforded by Mr. Pitt's measure is decisive as to this point. He quadrupled the consumption, and increased the revenue by taking a half from the duty when it was a good deal less oppressive than now? Were

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a similar reduction made at present, does any one doubt that a similar result would follow? Smuggling and adulteration would immediately cease; our trade with France would be very greatly extended; and the revenue would gain not merely by a direct increase of duty, but indirectly by a very great diminution of the expense of collection.

But the effect of the increase of the duties on brandy in Ireland has been still more extraordinary. At an average of the 3 years ending with 1802, when the duty was 7s. 3 $\frac{1}{2}$ d. the wine gallon, the average annual consumption of brandy in Ireland amounted to 208,064 gallons, producing a nett revenue of 77,714*l.* Now, mark the consequence of *trebling* the duties. The consumption during the 3 years ending with 1842, notwithstanding the population is more than doubled, only amounted, at an average, to 15,399 gallons, producing about 17,560*l.* a-year revenue! Dr. Swift has shrewdly remarked, that in the arithmetic of the customs two and two do not always make four, but sometimes only one. But here we have threefold duties, with less than  $\frac{1}{3}$  of the revenue, and less than  $\frac{1}{15}$  of the consumption.

It is surely impossible that a system like this, evincing in every part a degree of ignorant rapacity, to be paralleled only by that of the savages who to get at the fruit cut down the tree, should be permitted for a much longer period to disgrace our fiscal code. Those only who are anxious for the continuance of smuggling, with all its consequent crime and misery, can be hostile to a reduction of the duty on brandy. By fixing it at 10*s.* a gallon, neither the consumption of British spirits nor that of rum would be sensibly affected. The middle classes would, however, be able to use brandy on occasions when, perhaps, at present, they use nothing; its clandestine importation would be prevented; those engaged in smuggling would be obliged to have recourse to industrious pursuits; and the manufacture of the abominable compounds, that are now so frequently substituted in its stead, would be put an end to.

At length, in 1816, the duties on brandy were reduced by Sir Robert Peel from 22*s.* 10*d.* to 15*s.* a gallon. But though considerable, this was not equal to some of the reductions effected by the same great minister in cases in which, perhaps, they were less necessary. It was, nevertheless, of much importance; and the subjoined account shows that the increased consumption which it occasioned has prevented any diminution of revenue; for the falling off in the consumption and duties in 1857 and 1858 was wholly a consequence of the scarcity and high price of brandy, occasioned by the vine disease. In 1860 the duty on brandy was fixed at 10*s.* 5*d.* per gallon. This change equalised the duty on foreign and British spirits.

Notwithstanding the improvement in the vintage since 1858, the price of brandy is still (1868) very high. And hence the substitution of British brandy, and of other more objectionable compounds, for the genuine article.

*Regulations as to Importation &c.*—Brandy, geneva, and other foreign spirits must be imported, if in casks, in casks containing not less than 20 gallons, under penalty of forfeiture. They must be imported in ships of 50 tons burden or upwards, and are not to be exported from a bonded warehouse except in a vessel of like tonnage under pain of forfeiture.

In Parl. Paper No. 400, Sept. 1864, it is stated that in 1862 847,935 gallons of British brandy were permitted from the rectifiers' stocks, and 706,356 gallons in 1863; 61,258 being permitted in the latter year for exportation.

BRASS

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An Account of the Number of Gallons (Imperial Measure) of Foreign Brandy retained for Home Consumption in the United Kingdom, the Rates of Duty affecting the same, and the entire nett Produce of the Duty, each Year since 1814 (obtained from the Custom House).

Years	Quantities entered for Home Consumption	Nett Produce of Duty	Rates of Duty per Imperial Gallon	
			Great Britain	Ireland
	United Kingdom	United Kingdom	£ s. d.	£ s. d.
1814	imp. gal. 507,761	£ 587,674	1 2 6 $\frac{1}{2}$	0 17 3 $\frac{1}{2}$
1815	661,715	745,549	—	—
1816	665,337	746,129	—	—
1817	657,892	749,982	—	—
1818	575,815	604,473	—	—
1819	794,502	896,159	1 2 7 $\frac{1}{2}$	—
1820	818,489	961,495	—	—
1821	930,631	1,039,501	—	—
1822	1,008,915	1,138,820	—	—
1823	1,100,242	1,259,812	—	1 2 8
1824	1,225,699	1,388,411	—	—
1825	1,324,877	1,493,945	—	—
1826	1,480,614	1,664,897	1 2 6	1 2 6
1827	1,320,188	1,479,733	—	—
1828	1,335,185	1,499,823	—	—
1829	1,309,979	1,470,451	—	—
1830	1,285,067	1,415,018	—	—
1831	1,265,911	1,388,657	—	—
1832	1,601,652	1,801,490	—	—
1833	1,372,211	1,526,545	—	—
1834	1,368,539	1,501,127	—	—
1835	1,314,913	1,476,511	—	—
1836	1,257,853	1,413,774	—	—
1837	1,209,646	1,379,815	—	—
1838	1,203,475	1,355,614	—	—
1839	1,167,756	1,309,100	—	—
1840	1,108,578	1,239,527	{ before May 16 1 2 10 after May 16 1 2 10	{ 1 2 10 1 2 10
1841	1,161,506	1,329,083	—	—
1842	1,082,919	1,275,846	1 2 10	1 2 10
1843	1,038,317	1,183,474	—	—
1844	1,023,973	1,167,817	—	—
1845	1,028,274	1,208,161	—	—
1846	1,514,465	1,665,016	{ until Mar. 18 1 2 10 from Mar. 18 0 15 0	{ 1 2 10 0 15 0
1847	1,537,238	1,652,758	—	—
1848	1,649,004	1,806,745	—	—
1849	2,187,358	2,509,473	—	—
1850	2,860,809	3,395,110	—	—
1851	2,859,273	3,395,862	—	—
1852	2,924,795	3,442,688	—	—
1853	2,869,245	3,402,088	—	—
1854	2,862,189	3,396,175	—	—
1855	2,925,578	3,443,365	—	—
1856	2,955,762	3,450,884	—	—
1857	2,989,615	3,677,883	—	—
1858	2,107,298	2,299,899	—	—
1859	2,505,969	2,960,353	—	—
1860	1,461,552	721,476	{ March 6, 1860 0 8 6 July 18, 1860 0 10 5	{ 0 8 6 0 10 5
1861	1,598,270	833,312	—	—
1862	1,638,399	883,490	—	—
1863	1,914,400	8,057	—	—
1864	2,312,796	1,205,768	—	—
1865	2,664,289	1,588,733	—	—
1866	3,120,930	1,637,639	—	—

BRASS (Ger. messing; Dutch, messing, missing, geelkoper; Fr. cuivre jaune, laiton; Ital. ottone; Span. laton, azofar; Russ. selonoi mjed; Lat. orichalcum, aurichalcum). A fictitious metal, made of copper and zinc in certain proportions. It is of a beautiful yellow colour, more fusible than copper, and not so apt to tarnish. It is malleable, so ductile that it may be drawn out into wire, and is much tougher than copper. Its density is greater than the mean density of the two metals. By calculation it ought to be 7.63 nearly, whereas it is actually 8.39; so that its density is increased by about one tenth. The ancients do not seem to have known accurately the difference between copper, brass, and bronze. They considered brass as only a more valuable kind of copper, and therefore used the word *as* to denote either. They called copper *as cyprium*, afterwards *cyprum*; and this in process of time was converted into *cuprum*. Dr. Watson has proved that it was to brass they gave the name of *orichalcum*. Brass is malleable when cold, unless the proportion of zinc be excessive; but when heated it becomes brittle. It

may be readily turned upon the lathe; and, indeed, works more kindly than any other metal.

There is a vast variety in the proportions of the different species of brass used in commerce; nor is it easy to determine whether the perfection of this alloy depends on any certain proportions of the two metals. In general, the extremes of the highest and lowest proportions of zinc are from 12 to 25 parts in the 100. In some of the British manufactories, the brass made contains one third its weight of zinc. In Germany and Sweden the proportion of zinc varies from one fifth to one fourth of the copper. The ductility of brass is not injured when the proportion of zinc is highest. This metal is much used in the escapement wheels and other nicer parts of watch-making; and bars of brass, very carefully made, fetch for this purpose a high price.

The use of brass is of very considerable antiquity. Most of the ancient genuine relics are composed of various mixtures of brass with tin and other metals, and are rather to be denominated bronzes. The best proportion for brass guns is said to be 1,000 lbs. of copper, 990 lbs. of tin, and 600 lbs. of brass, in 11 or 12 cwt. of metal. The best brass guns are made of malleable metal, not of pure copper and zinc alone; but worse metals are used to make it run closer and sounder, as lead and pot-metal. (Thomson's *Chemistry*; *Encyc. Britannica*; &c.)

The economical use of brass is largely increasing. It is employed for a great variety of mechanical purposes, and in the fine arts, no metal having been found so available for these uses. It would be impossible in the compass of this article to refer to all the ends which this important metal fulfils. But the reader may be referred to the exhaustive and valuable account of the brass manufacture in Birmingham, written by Mr. Aitken, and contained in the volume entitled *The Resources, Products, and Industrial History of Birmingham and the Midland Hardware District*.

The amount of the metals used in the Birmingham brass manufactories during the year 1865 is reckoned by this writer at upwards of 38,000 tons, the value being 2,371,658*l*.

There are various kinds of brass, known as pinebeck, prince's metal, bath metal, red brass, Dutch gold, Muntz's yellow metal, and malleable brass; the difference depending on the various proportions of copper and zinc. An alloy of brass with phosphorus is said to have valuable properties.

**BRAZIL NUTS** (Ger. *pechurinnüsse*; Dutch, *brazilie* or *soelic nooten*; Swed. *macis bönor*, *picorin bönor*; Dan. *pechurim noder*, *macis bönner*; Fr. *noix péchurins*; Ital. *fava bucarini*, *noei gemelle*; Span. *becuiba*; Port. *pucharins*) or *Chestnuts of Brazil*. The fruit of the *Juvia* (*Bertholletia excelsa*), a majestic tree growing to the height of 100 or 120 feet, abounding on the banks of the Orinoco, and in the northern parts of Brazil. The nuts are triangular, having a cuneiform appearance, with sutures at each of the angles; the shell is rough and hard, and of a brownish ash colour. The kernel resembles that of an almond, but is larger, and tastes more like a common hazel nut; it contains a great deal of oil that may be obtained by expression or otherwise. These nuts do not grow separately, or in clusters, but are contained, to the number of from 15 to 50 or more, in great ligneous pericarps or outer shells, generally of the size of a child's head. Humboldt says he had most frequently found from 15 to 22 nuts in each pericarp; but De Laet, who gave the first and most accurate description of this fruit, says that the pericarp is divided into

six compartments, each of which encloses from 8 to 12 nuts. The outer shell is very hard and strong, so that it is rather difficult to get at the nuts, which are closely packed in cells inside. The natives are particularly fond of this fruit, and celebrate the harvest of the *juvia* with rejoicings; it is also very much esteemed in Europe. The nuts brought to this country and the Continent are chiefly exported from Pará, and form an article of considerable commercial importance. (Humboldt's *Pers. Nar.* vol. v. p. 538, English translation.)

The fluctuations in the export from Pará of Brazil nuts are very considerable: between 1851 and 1856 the maximum and minimum amounts were 92,000 and 19,000 *aliquies*. An *aliquie* of Brazil nuts varies in weight from 60 to 80 lbs. avoird., according to the season and goodness of the nuts. They are principally exported to the United States and to Great Britain, the larger portion to the former country. The price varies considerably, being occasionally as low as 1,740 m. reis and as high as 5,400 m. reis per *aliquie*. The imports into the United Kingdom are not specified in the returns of trade. Price in London market, October 26, 1865 and 1866, 3*l*. to 35*s*. and 42*s*. to 45*s*. per barrel.

**BRAZIL-WOOD** (Fr. *bois de Brésil*; Ger. *Brasilienholz*; Dutch, *Brasilienhout*; Ital. *Legno del Brasile*; Span. *madera del Bresil*; Port. *pao Brasil*). It has been commonly supposed that this wood derived its name from the country in which it is principally produced. But Dr. Bancroft has conclusively shown that woods yielding a red dye were called Brazil-woods long previously to the discovery of America; and that the early voyagers gave the name of Brazil to that part of that continent to which it is still applied, from their having ascertained that it abounded in such woods. (*Philosophy of Colours*, vol. ii, pp. 316—321.)

It is found in the greatest abundance, and is of the best quality, in the province of Pernambuco, where it is called *Pao da rainha*, or Queen's wood; but it is also found in many other parts of the Western hemisphere. The tree is large, crooked, and knotty; the leaves are of a beautiful red, and exhale an agreeable odour. Its botanical name is *Cesalpinia brasiletto*, but it is called by the natives *ibiritanga*. Notwithstanding its apparent bulk, the bark is so thick that a tree as large as a man's body with the bark will not be so thick as the leg when peeled. When cut into chips, it loses the pale colour it before had, and becomes red, and when chewed has a sweet taste. It is used for various purposes by cabinet-makers, and admits of a beautiful varnish, but its principal use is in dyeing red; and though the colour is liable to decay, yet, by mixing with it alum and tartar, it is easily made permanent. There is also made of it, by means of acids, a sort of liquid lake or carmine for painting in miniature.

Brazil-wood has been for many years past a royal monopoly; its exportation, except on account of Government, being prohibited under the severest penalties. Owing to the improvident manner in which it has been cut down by the Government agents, it is now rarely found within several leagues of the coast. Indeed, we are assured that many of the planters have privately cut down the trees on their estates, and used the timber as fire-wood, that they might not expose themselves to annoyance from the arbitrary and vexatious proceedings of these functionaries. The quantity of Brazil wood imported into this country is inconsiderable. Its price in the London market is about 30*l*. per ton. In 1866, 1,201 tons were imported, chiefly from Venezuela and Mexico. (Dr. Bancroft in loc.

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cit.; *Encyc. Metrop.*; *Modern Traveller*, vol. xxix. p. 87; *Malte Brun*, vol. v. p. 525, Eng. ed.; &c.)

**BRAZILETTO.** An inferior species of Brazil wood brought from Jamaica. It is one of the cheapest and least esteemed of the red dyewoods.

**BREAD** (Fr. pain; Ger. brot), the principal article in the food of most civilised nations, consists of a paste or dough formed of the flour or meal of different sorts of grain mixed with water and baked. When stale dough or yeast is added to the fresh dough, to make it swell, it is said to be *leavened*; when nothing of this sort is added, it is said to be *unleavened*.

For the process of bread-making, we refer the reader to Ure's *Dictionary of Manufactures*.

1. *Historical Sketch of Bread.*—The President de Goguet has endeavoured, with his usual sagacity and learning, to trace the successive steps by which it is probable men were led to discover the art of making bread (*Origin of Laws &c.* vol. i. pp. 95–105, Eng. trans.); but nothing positive is known on the subject. The method of grinding corn by hand-mills was practised in Egypt and Greece from a very remote epoch; but for a lengthened period the Romans had no other method of making flour than by beating roasted corn in mortars. The Macedonian war helped to make the Romans acquainted with the arts and refinements of Greece; and Pliny mentions that public bakers were then, for the first time, established in Rome. (*Hist. Nat. lib. xviii. c. 11.*) The conquests of the Romans diffused, amongst many other useful discoveries, a knowledge of the art of preparing bread, as practised in Rome, through the whole south of Europe.

The use of yeast in the raising of bread seems, however, from a passage of Pliny (*lib. xviii. c. 7.*), to have been practised by the Germans and Gauls before it was practised by the Romans; the latter, like the Greeks, having leavened their bread by intermixing the fresh dough with that which had become stale. The Roman practice seems to have superseded that which was previously in use in France and Spain; for the art of raising bread by an admixture of yeast was not practised in France in modern times till towards the end of the seventeenth century. It deserves to be mentioned, that though the bread made in this way was decidedly superior to that previously in use, it was declared, by the faculty of medicine in Paris, to be prejudicial to health; and the use of yeast was prohibited under the severest penalties! Luckily, however, the taste of the public concurring with the interest of the bakers, proved too powerful for these absurd regulations, which fell gradually into disuse; and yeast has long been, almost everywhere, used in preference to any thing else in the manufacture of bread, to the wholesomeness and excellence of which it has not a little contributed.

The species of bread in common use in a country depends partly on the taste of the inhabitants, but more on the sort of grain suitable for its soil. But the superiority of wheat to all other farinaceous plants in the manufacture of bread is so very great, that wherever it is easily and successfully cultivated, wheaten bread is used to the nearly total exclusion of most others. Where, however, the soil or climate is less favourable to its growth, rye, oats &c. are used in its stead. A very great change for the better has, in this respect, taken place in Great Britain within the last century. It is mentioned by Harrison, in his description of England (p. 168), that in the reign of Henry VIII. the gentry had wheat sufficient for their own tables, but that their household and poor neighbours were usually obliged to content themselves with rye, barley, and oats. It appears from

the household book of Sir Edward Coke, that in 1596, rye bread and oatmeal formed a considerable part of the diet of servants, even in great families, in the southern counties. Barley bread is stated, in the grant of a monopoly by Charles I. in 1626, to be the usual food of the ordinary sort of people. (Sir F. M. Eden *On the Poor*, vol. i. p. 561.) At the Revolution, the wheat produced in England and Wales was estimated by Mr. King and Dr. Davenant to amount to 1,750,000 quarters. (Davenant's *Works*, vol. ii. p. 217.) Mr. Charles Smith, the very well informed author of the *Tracts on the Corn Trade*, originally published in 1758, states that in his time wheat had become much more generally the food of the common people than it had been in 1689; but he adds (2nd ed. p. 182, London, 1766) that notwithstanding this increase, some very intelligent enquirers were of opinion that even then not more than half the people of England fed on wheat. Mr. Smith's own estimate, which is very carefully drawn up, is a little higher; for, taking the population of England and Wales, in 1760, at 6,000,000, he supposed that 3,750,000 were consumers of wheat; 739,000 of barley; 888,000 of rye; and 623,000 of oats. Mr. Smith further supposed that they individually consumed, the first class, 1 quarter of wheat; the second, 1 quarter and 3 bushels of barley; the third, 1 quarter and 1 bushel of rye; and the fourth, 2 quarters and 7 bushels of oats.

About the middle of last century hardly any wheat was used in the northern counties of England. In Cumberland, the principal families used only a small quantity about Christmas. The crust of the goose pie, with which almost every table in the county is then supplied, was, at the period referred to, almost uniformly made of barley meal. (Eden *On the Poor*, vol. i. p. 564.)

Everyone knows how inapplicable these statements are to the condition of the people of England at the present time. Wheaten bread is now universally made use of in towns and villages, and almost every where in the country. Barley is no longer used, except in the distilleries, and in brewing; oats are employed only in the feeding of horses; and the consumption of rye bread is comparatively inconsiderable. The produce of the wheat crops has been, at the very least, quadrupled since 1760. And if to this immense increase in the supply of wheat we add the still more extraordinary increase in the supply of butcher's meat [CATTLE], the fact of a very signal improvement having taken place in the condition of the population, in respect of food, will be obvious.

But great as has been the improvement in the condition of the people of England since 1760, it is but trifling compared to the improvement that has taken place, since the same period, in the condition of the people of Scotland. At the middle of last century Scotch agriculture was in the most depressed state; the tenants were destitute alike of capital and skill; green crops were almost wholly unknown; and the quantity of wheat raised was quite inconsiderable. A field of 8 acres sown with this grain, in the vicinity of Edinburgh, in 1727, was reckoned so great a curiosity that it excited the attention of the whole neighbourhood! (Robertson's *Rural Recollections*, p. 267.) But even so late as the American war, the wheat raised in the Lothians and Berwickshire did not exceed a third part of what is now grown in them; and taking the whole country at an average, it will be a moderate estimate to say that the cultivation of wheat has increased in a tenfold proportion since 1780. At



nor bake or deliver any meat, pudding, ple, tart, or victuals of any sort, on Sundays, except between the hours of nine in the morning and one in the afternoon, under penalty of 10s. for the first offence, 20s. for the second offence, and 40s. for every subsequent offence. (3 Geo. IV. c. 106 s. 16.)

Bakers in the country are prohibited from selling &c. any bread &c. or baking or delivering any meat &c. on Sundays any time after half past 1 o'clock of the afternoon of that day, or during the time of Divine service, under penalty of 5s. for the first offence, 10s. for the second, and 20s. for the third and every subsequent offence. (59 Geo. IV. c. 36 s. 12.)

There are several regulations in the Acts now in force with respect to the sale &c. of bread where an assize is set; but as the practice of setting an assize is nearly relinquished, it seems unnecessary to recapitulate them. The weight of the assize bread has already been mentioned, and the principle on which its price is fixed.

Notwithstanding the prohibition against the use of alum, it is believed to be very generally employed, particularly by the bakers of London. 'In the metropolis,' says Dr. Thomson (*Suppl. to Encyc. Brit. art. 'Baking'*), 'where the goodness of bread is estimated entirely by its whiteness, it is usual with those bakers who employ flour of an inferior quality to add as much alum as common salt to the dough; or, in other words, the quantity of salt added is diminished a half, and the deficiency supplied by an equal weight of alum. This improves the look of the bread, rendering it much whiter and firmer.'

The census returns of 1860 give 12,308 as the number of 'bakers' in the metropolitan district. The trade which they carry on is in general but limited, and it is not reckoned a very advantageous line of business.

*Bread-making in France.*—The old assize of bread was, and theoretically is still, in force in France. The Government did not, however, fix the price, but this was left to the mayor of the commune, in Paris to the préfet of the city. This privilege of the mayor was conferred on him by a law of July 1791. In pursuance of these arrangements, the bakers were made liable to a variety of regulations. In most communes their number was limited. In Paris, in 1860, they were only 1,601, and their shops were liable to inspection. It is said that, in order to keep the Parisian populace in good humour, the bakers were compelled to sell bread in scarce times at low prices, their loss being reimbursed to them from the public or communal revenue.

Table showing the Mean Annual Prices per Kilogramme in Centimes and Fractions of Wheatens Bread at Paris from the year 1801 to 1858.

Years	Prices	Years	Prices	Years	Prices	Years	Prices
	cents.		cents.		cents.		cents.
1801	32.61	1816	32.37	1831	39.69	1845	32.75
1802	34.5	1817	31.25	1832	37.6	1846	39.57
1803	28.58	1818	37.55	1833	28.95	1847	49.87
1804	37.96	1819	35.27	1834	27.41	1848	29.29
1805	29.29	1820	41.87	1835	28.29	1849	28.57
1806	29.12	1821	38.55	1836	27.92	1850	26.87
1807	30.25	1822	35.2	1837	29.52	1851	26.96
1808	29.19	1823	35.56	1838	34.53	1852	31.8
1809	24.73	1824	28.48	1839	39.95	1853	28.27
1810	29.15	1825	29.18	1840	28.83	1854	48.5
1811	35.5	1826	26.45	1841	31.4	1855	49.79
1812	30.87	1827	32.1	1842	34.17	1856	49.91
1813	39.15	1828	39.95	1843	39.62	1857	38.17
1814	28.24	1829	37.75	1844	31.8	1858	29.4
1815	28.5	1830	39.52				

The regulations affecting the baker's trade were taken away by a decree of June 22, 1863. But the decree says nothing of the assize, for this right was conferred on the mayor by law. The Minister of Agriculture, however, issued a circular, dated

August 22, 1863, suggesting to the mayor to suspend, provisionally, his privilege. If, it is said, experience is favourable to this suggestion, the law will be altered by the Legislature. [The information on this head has been supplied by M. Maurice Block.]

**BREMEN.** One of the Hansentia cities, on the Weser, about 50 miles from its mouth, lat. 53° 43' N., long. 8° 48' 3" E. The city and suburbs contain an area of 73½ square miles (British). The revenue for the three years 1862-4 was 279,404L, 241,627L, 261,910L; the expenditure 353,106L, 367,866L, 295,536L. Population in 1864, 104,091; that of Bremen town being 70,692; of Vegesack town 3,981; Bremer Haven 7,435; of the rural districts 21,983.

Its situation renders Bremen the principal emporium of Hanover, Brunswick, Hesse, and other countries traversed by the Weser.

*Entrance to Bremen.*—The entrance to the Weser lies between the Mellum and other sands on the south-western, and the Teglers Plat &c. on the north-eastern side. Its course from Bremerlehe to its mouth is nearly S.E. and N.W. It is buoyed throughout; the buoys on the right or starboard side when entering being black and marked with letters, while those on the left or larboard are white and numbered. The first or outer black buoy has a gilt key upon it, and is, therefore, called the *schlüssel* or key buoy; it lies in 10½ fathoms, bearing N.E. 5 miles from Wrangeroog light. This is an intermitting light, having replaced in 1850 the old coal-fire beacon on the island of Wrangeroog, opposite to the northern extremity of East Friesland. It is, according to the most authentic statements, in lat. 53° 47½' N., long. 7° 51' 55" E., and is elevated 63½ feet above high-water mark, being alternately visible and invisible for the space of a minute.

In place of the wooden *Bremen Beacon*, situated in 53° 42' 51" North lat. and 8° 14' 52" East long. from Greenwich, a lighthouse was erected in the Weser on the *Ilöhe Weg* in 1856. It is of brick, and surrounded with sloping masonry of stone at the base. It is octagonal.

The light is catadioptric, according to Fresnel's system of the second order; it is 107 feet above high-water at ordinary tides, and is a fixed white light. In clear weather it is visible at the distance of 15 or 16 nautical miles, within all the points of the compass from S. round E. to N. W. by W., and may therefore be seen from the Key buoy.

From the outer light-vessel the lighthouse bears S. by E. ½ E., and from the lighthouse the church of Langwarden bears S.

For the convenience of mariners entering the Weser, but by no means to induce them to neglect the use of the lead, a small white light will be shown from the lighthouse at an elevation of 38 feet above common high-water mark, which in clear weather will be visible at the distance of 7 nautical miles. This light will disappear to those who are nearing too much the black buoy (or starboard) side, near buoys H. and J. To those entering the *Deussgat* it will assume a reddish colour in a line with the red buoy, and will disappear when they reach the line of the black W. A. buoy. This smaller light will be visible between the bearings of N. by W. ½ W. round northward to E. by S.

By a law of February 12, 1866, regulations have been laid down for discharging freights in the ports of the Weser. The time allowed for discharging vessels up to 75 lasts is eight days between March 1 and October 31, twelve days between Nov. 1 and Feb. 28. For every additional

30 lasts one day more is allowed. Sundays and holidays are not reckoned.

The number of Bremen vessels on January 1, 1867, amounted to 293, of the burden of 112,497 lasts, each last of 4,000 lbs., 2,032 lbs. being equal to one English ton. The number of vessels which arrived at Bremen in 1866 was 2,870, of 373,785 lasts burden. The following are the principal institutions in Bremen:—

The Chamber of Commerce or Board of Trade at Bremen was substituted in 1849 for the ancient court of Aldermen called Collegium Seniorum. The members of the chamber are elected by and from merchants. It consists of 24 members and two syndics. It possesses certain legislative and executive functions.

The Bank has a capital of 4,000,000 Bremen thalers and a note circulation of about 2,006,000 Bremen thalers.

A Discount and Deposit Bank has been established with a capital of 20 millions thalers (100,000L). It is empowered to issue notes of the value of 5 thalers and upwards, payable on demand,

to the amount of one-third of the bullion in its coffers; and is said to have been of considerable use, by its judicious conduct, during the crisis of 1857. It has since been authorised to add 2½ million thalers to its capital.

The gold thaler equals 3s. 4d. sterling.

The public debt of Bremen is about 12,000,000 thalers, chiefly contracted for railways, docks &c.

The Norddeutsche Lloyd.—This company owns 27 steamers and a number of iron lighters. Among the steamers are 4 large Transatlantic steam-ships, which maintain a regular communication once a fortnight with the United States, and 6 steamers which run between Bremen, London, and Hull.

The Emigration Office, where emigrants may obtain, gratuitously, all reliable information and advice. The number of emigrants embarking at Bremen during the period from 1851 to 1862 amounts to 455,782, averaging 38,000 a-year. The largest number, viz. 76,875, passed through in 1854. In 1866 the emigrants were 62,254, nearly all of whom went to the United States. (See below.)

Quantities and Value of the Principal Articles Imported into, and Exported from, Bremen, in each of the Years 1863 and 1864.

Principal Articles	Imported				Exported			
	1863		1864		1863		1864	
	Quantities	Value	Quantities	Value	Quantities	Value	Quantities	Value
Bacon - lbs.	5,694,701	ria dollars 566,856	199,585	22,971	3,679,962	ria-dollars 586,483	867,317	ria-dollars 108,393
Beef - "	1,119,565	135,507	1,165,665	118,944	1,353,331	132,506	810,617	92,080
Butter - "	4,062,908	933,738	2,292,389	598,352	2,193,252	511,779	6,112,672	167,575
Cheese - "	2,806,406	319,532	1,405,171	189,120	2,372,609	397,989	936,162	137,670
Chicory - "	2,916,292	100,118	1,127,436	22,813	—	—	—	—
Cigars - mille	35,132	407,374	37,740	526,902	—	102,900	1,411,875	103,218
Cocoa - lbs.	178,173	31,532	409,006	75,728	—	—	—	—
Coffee - "	8,298,883	1,839,809	8,738,703	1,859,913	7,846,277	1,732,891	6,509,161	1,462,129
Corn: wheat - lasts	2,972,427	1,239,427	9,110	221,073	—	—	—	—
"    "    "    "    "	15,513	1,330,550	19,100	790,155	6,184	681,531	4,294	432,741
"    "    "    "    "	4,223	207,903	3,401	166,632	1,308	81,206	8,077	41,665
"    "    "    "    "	1,683	139,195	1,835	179,986	601	21,908	665	53,211
"    "    "    "    "	9,655,805	4,111,809	11,384,371	5,807,251	9,857,116	4,890,295	10,587,191	6,018,969
Currants and raisins lbs.	2,291,651	161,314	1,219,865	96,320	—	—	—	—
Grocery, lard &c.	4,094,928	489,123	2,115,395	270,999	4,677,161	565,511	4,861,546	671,673
Hann - "	1,672,918	236,778	1,246,242	196,098	1,527,645	219,811	982,700	182,720
Hides: t salt	1,298,815	164,938	1,671,385	216,815	—	—	—	—
"    "    "    "    "	2,128,907	410,573	1,841,336	342,889	—	—	—	—
Honey - "	2,453,869	201,070	2,329,709	189,796	1,976,510	176,261	1,331,540	125,877
Hops - "	1,618,711	445,082	853,369	235,573	1,468,991	416,743	893,227	205,617
Indigo - "	3,394,311	815,247	467,891	994,826	310,020	715,607	487,058	1,076,326
Mosses - "	4,430,541	122,576	6,032,938	67,227	—	—	—	—
Pepper - "	1,597,221	169,732	1,205,414	141,865	1,780,217	193,238	1,135,106	128,500
Petroleum - "	8,653,102	516,707	8,679,736	698,011	2,643,070	334,716	7,091,651	600,245
Rice - "	80,800,109	2,566,717	90,280,011	2,993,993	44,901,217	1,963,518	63,110,300	2,623,098
Salt - - - lasts	5,901	115,883	3,321	101,673	—	—	—	—
Skins, raw - lbs.	156,505	459,424	180,832	557,607	148,253	414,602	175,373	447,100
Spirits: rum - lasts	2,155	163,878	3,818	179,549	5,805	392,514	6,425	425,141
"    "    "    "    "	7,650	231,909	14,163	404,001	3,695	188,206	8,277	293,829
Sugar: raw - lbs.	23,487,418	1,385,427	12,422,142	1,014,523	15,019,708	1,090,166	2,196,161	169,013
"    "    "    "    "	2,841,804	317,738	1,738,764	289,435	8,708,366	915,681	4,606,937	275,879
Tallow - "	1,959,397	234,092	770,843	86,310	—	—	—	—
Timber - "	—	—	—	—	—	—	—	—
Oak and beech cubic ft.	917,595	380,521	605,319	240,273	—	—	—	—
fir and alder &c.	1,467,106	299,106	878,778	161,500	—	—	—	—
deals and planks - m.	1,514,010	460,383	1,701,065	415,767	—	—	—	—
"    "    "    "    "	5,837,819	314,171	3,137,346	343,270	—	—	—	—
Tobacco - lbs.	68,341,639	15,819,970	70,989,701	14,446,180	63,071,879	15,911,516	63,820,083	14,615,768
Traff oil - tons	16,828	433,727	16,081	425,305	—	—	—	—
Whalebone - lbs.	—	—	265,583	—	—	—	—	—
Whale fins - "	211,535	316,992	238,956	290,891	—	—	—	—
Wheat meal - "	11,075,848	471,481	10,358,353	414,635	—	—	—	—
Wool, raw (sheep's) - "	1,917,861	1,215,237	1,510,718	1,191,810	1,975,383	1,027,218	1,526,287	1,129,015

Vegesack, situated on the Weser, is remarkable for ship-building. Its harbour is of no importance, and only fitted for smaller vessels. There is a Railway hence to Bremen; and Bremer Haven, the harbour of Bremen, has also been connected with the city by railroad (since 1862). The harbour works are very extensive, and are being enlarged year by year to meet the requirements of the extending trade. In addition to the adjacent Geestemünde, there are three large docks of such depth that vessels drawing 23 to 24 feet can enter with facility. The harbour dues are very moderate, and not higher than those of Geestemünde.

Besides her communications by water, Bremen

is now, also, connected by railways with Hanover, Leipzig, and the whole of western and central Germany; and hence the rapidly increasing magnitude of her commerce, which has more than doubled within the last 8 or 10 years. Though inferior as a navigable river to the Elbe, the Weser has the important advantage on its side of being free from those tolls and burdens which obstruct the navigation of the former. The toll at Elsfleth, below Bremen, was suspended or abolished early in this century; and the tolls on the Upper Weser have been abolished since 1815. And we may add that the advantages which have resulted from the free navigation of the Weser have powerfully contributed to awaken attention

to the mischief and elsewhere. The charges of goods at principal German ports, grain, oak bark, seed, beef and mutton, oil, and clocks, oil, shipped here are useful commodities are much the same. The imports of quantities are colonial products, wines, raw cotton, wool, hemp &c. The overseas States is imported a great variety of back large quantities and other American goods. The account shows that the United States accounts for the value of the exports of the year ended in thalers, and that from Bremen in thalers.

Total Value of Port of Bremen Year 1864.

Countries	Value
Greenland -	—
Russia -	—
Sweden -	—
Norway -	—
Denmark -	—
Lauenburg and Sleswig -	—
Mecklenburg -	—
Hamburg -	—
Lilbeck -	—
Weser Ports of Bremen -	—
Holland -	—
Belgium -	—
United Kingdom -	—
France -	—
Austria -	—
Switzerland -	—
Spain and Portugal -	—
Haly -	—
Greece -	—
Turkey in Europe -	—
Turkey in Asia -	—
Russia in Asia -	—
Egypt -	—
British North America -	—
United States -	—
Mexico and Central America -	—
Jamaica -	—
Haiti -	—
Porto Rico -	—
St. Thomas -	—
New Grenada -	—
Venezuela -	—
Brazil -	—
Uruguay -	—
Buenos Ayres -	—
Chile -	—
Peru -	—
Ecuador -	—
Canary Islands -	—
Cape Colony -	—
West Coast of Africa -	—
British East Indies -	—
French -	—
Dutch East Indies -	—
Pondichery -	—
Manilla -	—
China -	—
Japan -	—
Australia and Sandwich -	—
Niuh's states -	—
Other countries -	—
Total -	—

\* Exclusive of the trade with Bremen in the year 1864.

to the mischievous influence of the tolls at Stade and elsewhere on the Elbe.

The charges on the buying, selling, and shipping of goods at Bremen are very moderate. The principal German exports are woollen goods, linens, grain, oak bark, glass, smalts, hams, hides, rapeseed, beef and pork, rags, wool, wine, wooden toys and cloaks, oil-cake &c. The wheat and barley shipped here are mostly inferior; but the oats are useful common feed; beans are good. The linens are much the same as those from Hamburg. The imports consist of tobacco (of which large quantities are re-exported), coffee, sugar, and other colonial products; whale oil, iron, rice, hides, wines, raw cotton, cotton stuffs and yarn, earthenware, coal, brandy, tar, tea, dyewoods, timber, hemp &c.

The oversea trade of Bremen with the United States is important. She also sends thither a great variety of German products, and brings back large quantities of cotton, tobacco, rice, and other American produce. The annexed account shows the magnitude of her trade with the United States in 1864. From the official accounts published by order of Congress, the value of the exports of the domestic produce of the Union to Bremen was estimated for the year ended June 30, 1858, at 8,617,457 thalers, and that of the imports into the Union from Bremen in the same year at 10,452,106 thalers.

Total Value of the Imports and Exports at the Port of Bremen, from various Countries, in the Year 1864.

Countries	Imports * rix-dollars	Exports * rix-dollars
Greenland	13,091	
Russia	360,687	2,405,456
Sweden	55,460	1,039,292
Norway	233,083	763,073
Denmark	3,567	493,582
Laueuburg and Sleswig Holstein	115,523	451,927
Heligoland		750,270
Hamburg	2,495,536	2,419,710
Lilbeck	58,281	129,062
Weser Ports of Bremen		
Meesfruburg	60,241	291,846
Holland	361,042	919,037
Zollverein	22,067,656	31,816,437
Belgium	189,854	321,476
United Kingdom	10,955,197	4,081,028
France	755,563	231,137
Austria	1,219,666	3,083,129
Switzerland	764,752	
Spain and Portugal	104,239	160,857
Italy	115,478	109,111
Greece	15,671	
Turkey in Europe	25,401	27,418
Turkey in Asia	83,117	83,117
Russia in Asia		64,621
Egypt		55,098
British North America	10,161	69,387
United States	9,155,912	8,062,679
Mexico and Central America	215,113	185,999
Cuba	3,984,358	535,841
Jamaica	187,172	91,060
Hayti	188,058	87,587
Puerto Rico	375,229	215,104
St. Thomas	1,060	1,260
New Grenada	4,196,765	121,667
Venezuela	420,297	480,163
Brazil	2,680,612	95,500
Uruguay		19,172
Buenos Ayres	82,570	458,812
Chile		32,774
Peru	17,861	92,568
Paraguay	15,010	41,896
Canary Islands	62,521	60,807
Cape Colony		5,303
West Coast of Africa and Mauritius	33,514	58,011
British East India	1,981,351	37,205
Brahm	1,089,129	9,230
British East India	892,222	7,975
Pondichery	1,800	
Manilla	372	
China	151,704	174,226
Japan	5,285	4,716
Australia and Sandwich Islands	361,812	387,600
Ship stores		705,059
Other countries	3,573	24,259
Total	rix-dollars 11,185,655	61,466,848 10,211,474

\* Exclusive of the trade of the Weser Ports, which was included with Bremen in the year 1864.

Arrivals and Departures of Shipping at Bremen in the Years 1860-64.

Years	Entered				Total	
	Cargoes		Ballast		Vessels	Tons of two tons
	Vessels	Tons of two tons	Vessels	Tons of two tons		
1860	2,462	97,209	460	16,919	2,922	281,138
1861	2,689	276,505	461	13,659	3,151	299,142
1862	2,539	261,905	577	18,738	3,116	290,643
1863	2,206	256,811	531	25,508	2,737	282,119
1864	2,261	248,564	543	26,513	2,804	274,577

Years	Cleared				Total	
	Cargoes		Ballast		Vessels	Tons of two tons
	Vessels	Tons of two tons	Vessels	Tons of two tons		
1860	2,556	195,997	923	109,696	3,479	303,833
1861	2,465	175,837	1,008	123,562	3,473	299,399
1862	2,322	191,502	874	91,851	3,196	283,353
1863	2,168	201,121	969	107,135	3,137	308,256
1864	1,912	196,527	872	80,872	2,784	277,199

The value of the imports of British goods in 1865 was 1,143,201, and in 1866 1,438,325. The value of the exports to England in 1865 was 1,107,491, and in 1866 was 1,154,014.

Duties.—An export duty of  $\frac{1}{4}$  per cent., ad valorem, is charged on all merchandise shipped from Bremen; and an import duty of  $\frac{1}{4}$  per cent., ad valorem, on all foreign articles entered for sale.

Goods passing through Bremen in transitu are divided into four classes; those subjected to the highest duty paying about  $\frac{1}{4}$  per cwt. gross, while those subjected to the lowest duty pay only about  $\frac{1}{4}$  per ditto. As this duty can yield but a mere trifle, it should be repealed.

The value of the imports is calculated according to the invoice price, adding thereto the freight and the rate of insurance current in Bremen; the value of the exports is estimated from the invoice price only. Should there be no invoice of imports, it is the duty of the importer to make a correct estimate of the value upon oath.

Emigration.—Bremen has become the most considerable port on the Continent for the shipment of emigrants. In proof of this we subjoin an

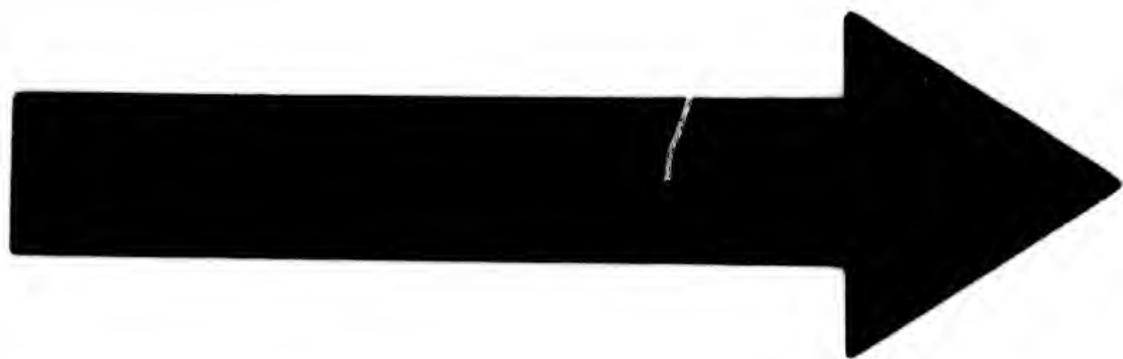
Account of the Numbers of the Emigrants sailed from Bremen during each of the 35 Years ending with 1866.

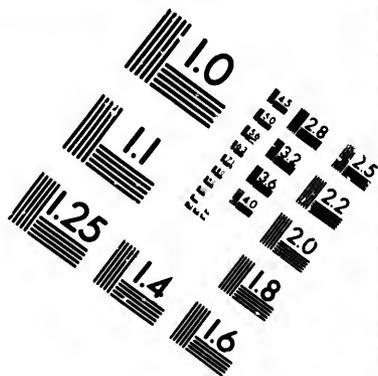
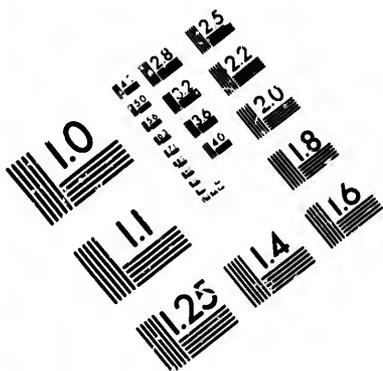
Years	Emigrants	Years	Emigrants
1832	10,341	1850	25,778
1833	8,891	1851	37,495
1834	13,006	1852	20,531
1835	6,185	1853	23,111
1836	14,137	1854	76,875
1837	1,087	1855	31,550
1838	9,312	1856	36,511
1839	12,412	1857	49,399
1840	12,806	1858	27,095
1841	9,594	1859	22,498
1842	15,619	1860	30,128
1843	9,927	1861	17,261
1844	19,857	1862	14,710
1845	51,422	1863	18,022
1846	32,572	1864	27,086
1847	35,682	1865	44,811
1848	29,917	1866	62,254
1849	28,629		

Nine-tenths and more of the emigrants are destined for the United States, and are justly regarded as among the best of the recruits sent to them from Europe. It will be seen, however, that the number, which was diminished during the American war, has again largely increased.

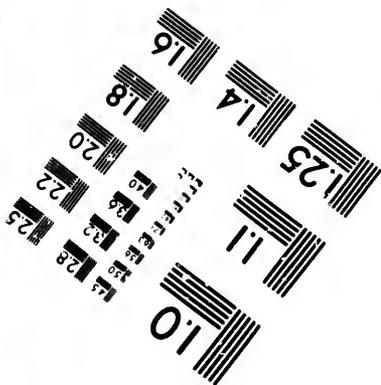
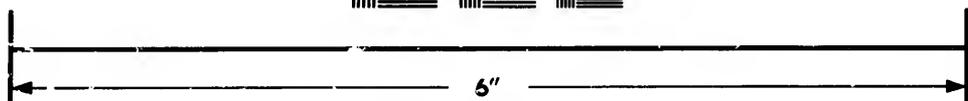
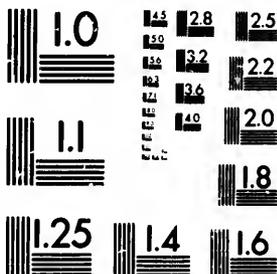
Ship-brokers are licensed officers, and give security to the amount of 2,000 rix-dollars for the faithful discharge of their duties. These are to engage freights, to sell vessels by auction, to enter vessels, and collect freights. They are not permitted to have partners, to transact any commercial business on their own account, to accept commissions or consignments, to sell or purchase bills of exchange, or to engage in any mercantile concerns.

None but appointed brokers of this class can undertake any of the duties assigned to them.





**IMAGE EVALUATION  
TEST TARGET (MT-3)**



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Sciences  
Corporation**

23 WEST MAIN STREET  
WEBSTER, N.Y. 14580  
(716) 872-4503

15 28  
8 32  
8 22  
20  
9

10



II. Vessels going to sea, for each foot Bremen measure which they draw:—

A. During the summer months, from April 16 to September 15, inclusive:—

1.	From Bremer Haven to the Bremen beacon	thal. gr.
2.	Mellorn	- 0 39
3.	fourth or cross buoy	- 1 0
4.	first buoy	- 1 12

B. In spring and autumn, from March 1 to April 15, and from September 16 to October 31:—

1.	From Bremer Haven to the Bremen beacon	thal. gr.
2.	Mellorn	- 0 58
3.	fourth or cross buoy	- 1 12
4.	first buoy	- 1 34

C. During the winter months, November, December, January, and February:—

1.	From Bremer Haven to the Bremen beacon	thal. gr.
2.	Mellorn	- 1 6
3.	fourth or cross buoy	- 1 40
4.	first buoy	- 2 0
		- 2 24

D. For piloting a vessel to the Elbe or Eyder is to be paid, without regard to her bulk:—

a. During the summer months, from April 16 to September 15:—

To the	Elbe	thal. gr.
	Eyder	- 18 0
		- 24 0

b. From September 16 to April 15:—

To the	Elbe	thal. gr.
	Eyder	- 36 0
		- 42 0

MEASURES, WEIGHTS, AND MONEY.

Measures of Length.

100 Bremen feet=94.935 English foot.  
1 Bremen ell=2 feet=633 English yards.

Superficial Measure.

1 Bremen square foot=903 English square foot.

Cubical Measure.

Bremen cubic foot=1728 cubic inch =.857 English cubic foot.

Measures of Capacity.

1 Bremen last of grain=10 scheffel.  
1 scheffel=0.225 English quarter  
1 last=10.200 E. Pih quarters.

Fluid Measures for Wine and Spirits.

1 oxhoft=6 anker=30 viertel.  
1 viertel=1.360 English imp. gallons.  
1 oxhoft=6.800 English imp. gallons.

Weight.

100 Bremen handels-pfund=110.232 English avoird. lb.

Money.

1 lb. fine gold=56 kronen=120 thalers gold.  
100 thalers gold=16.257 £ or 100 £=615.083 thalers.  
410.530 francs or 1 franc=17.536 grotes.  
79.100 U.S. note, or 1 dol.=1958 thalers.

The course of exchange of gold against silver gives in Hamburg for 1 : 15.33.  
in Berlin " 1 : 15.42.

The course of exchange is with

London	1012 k. S.	615.091 thalers 2 months	611.757 thalers.
Paris	1 fr.		17.432 grotes.
Hamburg	300 hcs.	k. S. 158.028 thalers	156.783 thalers.
Berlin	100 thal. gold.	109.917 "	110.917 "

Tares.—The usual tares are, on sugar in casks and Brazil chests, 17 per cent.; on Havannah boxes, 70 lbs.; Maryland tobacco, 90 lbs. per hog-head; ditto Virginia and Kentucky, 110 lbs. per hog-head; cotton, round bales, 4 per cent.; square ditto, 6 per cent.; tea (green), 20 lbs. per quarter chest, equal to the modern English chest; ditto (black), 22 lbs. per quarter chest. Most other articles, such as East India indigo, rice, coffee, spices &c. real tare. (Drawn up from the communications of Bremen merchants and Consular Reports.)

BRIBE. Any person giving or offering a bribe, recompense, or reward, to any officer of the customs, to induce him to neglect his duty, to forfeit 200*l.* (3 & 4 Wm. IV. c. 53 s. 38).

BRICKS AND TILES. Well-known articles used in the building and covering of houses. They are made of baked clay and sand.

Until 1833 an excise duty was charged both on bricks and tiles (the latter being then exempted

from the duty), so that their manufacture was placed under surveillance. It was ordered by 17 Geo. III. c. 42 that bricks made for sale should be 8½ inches long, 2½ inches thick, and 4 wide; on pain of forfeiting, for bricks of less dimensions when burnt, 20*s.* for every 1,000, and proportionally for a greater or less number. It was also provided that the size of the sieves or screens for sifting or screening sea-coal ashes to be mixed with brick earth in making bricks should not exceed ¼ inch between the meshes.

Bricks being the principal material used in London and in most parts of England in the building of houses, immense quantities are annually produced in that part of the United Kingdom. And notwithstanding the influence of the duty, their consumption in England nearly doubled during the 20 years ending with 1840; the number that paid duty in 1821 having been 899,178,510, whereas in 1840 it amounted to 1,677,811,134, and in 1847 to 2,193,829,491; but they subsequently fell off, the quantity brought to the charge in 1849, the last year of the duty, being only 1,462,767,154. In Scotland, where stone is mostly employed in building, their manufacture is comparatively unimportant. The duty, which produced, in 1849, a nett revenue (inc. Scotland) of 456,452*l.*, had long been felt to be extremely partial, seriously affecting some parts of the country, while it did not touch others. Its defects were set in a still more striking light by the rapidly extending use of tiles, after they had been relieved from the duty in drainage and otherwise. Influenced by these and other considerations, Government proposed and carried the repeal of the duty on bricks in 1850. Perhaps, however, the better plan would have been to have commuted it for an equivalent house-tax. BRIMSTONE. [SULPHUR.]

BRISBANE. The metropolis of the colony of Queensland. It is situated about 12 miles up the river Brisbane, and being accessible to steamers and coasters is a city of considerable commercial importance. Pop. (1861) 4,225; of the colony, 34,885. The imports from Queensland have risen from 155,673*l.* in 1862 to 341,362*l.* in 1866. The principal, nearly the sole, article is sheep and lamb's wool, of which 3,354,020 lbs. were imported thence into the United Kingdom in 1866; this material being of very good quality. A small amount of cotton, for the production of which the colony is well suited, is also exported. The exports from the United Kingdom to Queensland are cotton, linen and woollen fabrics, iron, hardware, and machinery. They have risen from 210,757*l.* in value (1862) to 561,693*l.* (1866). [COLONIES AND COLONY TRADE.]

BRISTLES (Fr. soies; Ger. borsten; Dutch, borstels; Ital. setole; Span. cerdas, setas; Pol. szezeciny; Russ. schtschetina; Lat. sete). The strong glossy hairs growing on the back of the hog and the wild boar.

These are very extensively used by brushmakers, shoemakers, saddlers &c. and form a considerable article of import.

British bristles are not to be had, the old breeds of the pig having died out, and the improved breeds being almost without hair.

Our supplies of bristles are chiefly obtained from Russia, European and Asiatic. The following is a list of the annual exports from St. Petersburg (the chief port of shipment) during the eleven years ending with 1865:—

1855	-	Poods	1861	-	Poods
1856	-	67,536	1862	-	57,635
1857	-	67,569	1863	-	64,373
1858	-	69,891	1864	-	73,065
1859	-	75,085	1865	-	71,951
1860	-	77,353	1865	-	74,995
1860	-	71,286			

100 poods = 32 cwt. Ogr. 16lb. English.

The total quantity of bristles imported into the United Kingdom in 1866 was 2,678,565 lbs., valued at 352,223l.

There are various substances used as substitutes for bristles. Amongst these may be mentioned the *agava*, or fibre of the *Agave americana*, stated by the jury of the London Exhibition of 1862 to possess qualities which in some respects render it equal if not superior to hog's bristles. The fibre of the broom corn (*Sorghum vulgare*) is also used, as also that of the Piassava or Bass, which grows in the Brazilian forests on the *Attalea funifera*.

The duty, which varied from 2s. 6d. on rough to 3s. per cwt. on sorted bristles, was repealed in 1845.

**BROKERS.** Persons employed as middlemen to transact business or negotiate bargains between different merchants or individuals. They are sometimes licensed by public authority, and sometimes not.

Brokers are divided into different classes; as bill or exchange brokers, stockbrokers, ship and insurance brokers, pawnbrokers, and brokers simply so called, or those who sell or appraise household furniture distrained for rent. Exclusive, too, of the classes now mentioned, the brokers who negotiate sales of produce between different merchants usually confine themselves to some one department or line of business; and by attending to it exclusively, they acquire a more intimate knowledge of its various details, and of the credit of those engaged in it, than could be looked for on the part of a general merchant; and are consequently able, for the most part, to buy on cheaper and to sell on dearer terms than those less familiar with the business. It is to these circumstances—to a sense of the advantages to be derived from using their intervention in the transaction of business—that the extensive employment of brokers in London and all other large commercial cities is wholly to be ascribed.

The number of brokers in London is unlimited; but by the stat. 8 & 9 Wm. III. c. 20 they are to be licensed by the lord mayor and aldermen, under such restrictions and limitations as they may think fit to enact. By the 57 Geo. III. c. 60 brokers acting without being duly admitted are made liable in a penalty of 100l. The fee on admission is fixed by the same Act at 5l.; and there is besides an annual payment of 5l.

The following are some of the regulations established by the mayor and aldermen pursuant to the Act of Wm. III.: That every person shall, upon his admission, take an oath duly and faithfully to execute and perform the office of broker between party and party, in all things pertaining to the duty of the said office, without fraud or collusion, to the best and utmost of his skill and knowledge; that he shall in all cases reveal the name of his principal; and neither deal in goods on his own account, nor barter and sell again, nor make any gain in goods beyond the usual brokerage; and that he shall regularly register all the contracts &c. into which he enters.

Brokers grant a bond under a penalty of 500l. for the faithful performance of the duties sworn to in the oath of admission.

A medal is delivered to the broker, with his name engraved thereon, which he may produce, if required, as evidence of his qualification.

Twelve persons professing the Jewish religion are permitted to act as brokers within the City under the same regulations, and receive the silver medal accordingly. This medal is transferable, and is sold generally at from 800l. to 1,500l. exclusive of the expense of transfer, which is uncertain. Upon the decease of any of the holders

of the medal without its having been transferred, the appointment falls to the lord mayor for the time being; and for it the sum of 1,500l. has not unfrequently been given. (*Montefiore's Com. Dict. art. 'Brokers.'*)

If goods in the city of London be sold by a broker, to be paid for by a bill of exchange, the vendor has a right, *within a reasonable time*, if he be not satisfied with the sufficiency of the purchaser, to annul the contract, provided he intimate his dissent as soon as he has an opportunity of enquiring into the solvency of the purchaser. In a case of this sort (*Hougon v. Davies*, 2 Camp. N. P. C. 536), Lord Ellenborough was, at first, rather inclined to think that the contract concluded by a broker must be absolute, unless his authority were limited by writing, of which the purchaser had notice. But the special jury said, that 'unless the name of the purchaser has been previously communicated to the seller, if the payment is to be by bill, the seller is always understood to reserve to himself the power of disapproving of the sufficiency of the purchaser, and annulling the contract.' Lord Ellenborough allowed that this usage was reasonable and valid; but he clearly thought that the rejection must be intimated as soon as the seller has had time to enquire into the solvency of the purchaser. The jury found in the case in question, that five days was not too long a period for making the necessary enquiries.

**Brokers, Bill.**—propose and conclude bargains between merchants and others in matters of bills and exchange. They make it their business to know the state of the exchange, and the circumstances likely to elevate or depress it. They sell bills for those *drawing* on foreign countries, and buy bills for those *remitting* to them; and from their knowledge of the mutual wants of the one class as compared with those of the other, a few of the principal brokers are able to fix the rate of exchange at a fair average, which it would not be possible to do if the merchants directly transacted with each other. Their charge, as brokerage, is 2s. per cent.

'Those,' says Mr. Windham Beaves, 'who exercise the function of bill brokers, ought to be men of honour and capable of their business; and the more so, as both the credit and fortune of those who employ them may, in some measure, be said to be in their hands; and, therefore, they should avoid babbling, and be prudent in their office, which consists in one sole point, that is, *to hear all and say nothing*; so that they ought never to speak of the negotiations transacted by means of their intervention, or relate any ill report which they may have heard against a drawer, nor offer his bills to those who have spread it.'

**Brokers, Stock.**—are employed to buy and sell stock in the public funds or in the funds of joint stock companies. Their business is regulated by certain Acts of Parliament, by which, among other things, it is enacted, that contracts in the nature of wagers, or contracts apparently framed for the sale or purchase of stock, but really intended only to enable the parties to speculate on contingent fluctuations of the market, without any stock being actually sold, shall be void, and those engaging in them subjected to a penalty of 500l. (7 Geo. II. c. 8, made perpetual by 10 Geo. II. c. 8.) And by the same Act, anyone contracting to sell stock of which he is not actually possessed, or to which he is not entitled, forfeits 500l. Brokers not keeping a book in which all contracts are regularly inserted, are liable in a penalty of 50l. for each omission; half to the King and half to those who sue for it. The charge for brokerage on all public funds, except Exchequer

bills and India bonds it is 1s. per cent. the purchase and sale can be concluded licensed broker, in

**Brokers, Ship**—employment of this class and selling of ships and adjusting the terms with the master for &c. Their charge is 1 per cent. on the gross insurance brokers, a premium, exclusive on settling with the looks to the broker tract and a proper him also the under candid disclosure affecting the risk, premiums. From the ment, ship and insurance indeed generally are honour, in whom full a ship broker is not the regulation and tions n. Rule, C. P. J.

**Brokers, Custom-h**—Customs Consolidation that no person shall agent for transacting house in the port of trace or clearance authorised by license Customs, who are to for 1,000l. for the fait and his clerks. This r apply to the clerk of persons transacting bu on his or their account.

**Brokers, Pawn.** [P] **Brokers,** simply so c appraisers and sellers a are regulated by 57 G that no such person m where the sum due do more than the followin

For levying -  
For men keeping possession  
Advertisements, if any -  
Catalogues, sale, commissio  
the most produce  
Stamp duty; lawful amount

Appraisements, wheth  
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In France the brokers

change, merchandise, c  
called *agents de change*,  
is limited to sixty. Th  
change is directed by a c  
*bre syndicale*) chosen an  
They are severally oblig  
amount of 125,000 fr. for  
They are also obligat  
stricted to a charge of fr  
are interdicted from car  
interest in, any commerc  
(*Code de Commerce*, s. 74)

In the United States,  
nor do they give bonds.  
**BROKERAGE.** The  
age, paid to brokers on  
bills, funds, goods &c. [  
**BRONZE** (Ger. stück,  
stückgoed; Ital. bronzo;

bills and India bonds, is 2s. 6d. per cent.; on these it is 1s. per cent. No transaction with respect to the purchase and sale of stock in the public funds can be concluded except by the intervention of a licensed broker, unless by the parties themselves.

**Brokers, Ship and Insurance.**—The chief employment of this class of brokers is in the buying and selling of ships, in procuring cargoes on freight and adjusting the terms of charter-parties, settling with the master for his salary and disbursements &c. Their charge as ship brokers is about 2 per cent. on the gross receipts. When they act as insurance brokers, they charge 5 per cent. on the premium, exclusive of a discount allowed them on settling with the underwriter. The merchant looks to the broker for the regularity of the contract and a proper selection of underwriters. To him also the underwriters look for a fair and candid disclosure of all material circumstances affecting the risk, and for payment of their premiums. From the importance of their employment, ship and insurance brokers ought to be, and indeed generally are, persons of respectability and honour, in whom full confidence may be reposed. A ship broker is not within the various Acts for the regulation and admission of brokers. (Gibbons v. Rule, C. P. June 27, 1827.)

**Brokers, Custom-house.**—It is enacted by the Customs Consolidation Act of 1853, ss. 15-17, that no person shall be authorised to act as an agent for transacting business at the Custom-house in the port of London, relative to the entrance or clearance of any ship &c. unless authorised by license of the Commissioners of Customs, who are to require bond with one surety for 1,000l. for the faithful conduct of such person and his clerks. This regulation does not, however, apply to the clerk or servant of any person or persons transacting business at the Custom-house on his or their account.

**Brokers, Pawn.** [PAWNBROKERS.]

**Brokers,** simply so called, in their character of appraisers and sellers of goods distrained for rent, are regulated by 57 Geo. III. c. 93, which enacts that no such person making any distress for rent where the sum due does not exceed 20l. shall take more than the following sums: viz.

For levying	4	d.
For men keeping possession, per day	3	0
Advertisements, if any	2	0
Catalogues, sales, commission &c. in the pound on the nett produce	10	0
Stamp duty, lawful amount.	1	0

Appraisements, whether by one broker or more, 6d. per pound on the value of the goods, under a penalty of treble the amount of the money unlawfully taken, with costs, to be recovered summarily before a justice of the peace.

In France the brokers who deal in money, exchange, merchandise, insurance, and stock, are called *agents de change*, and their number at Paris is limited to sixty. The company of *agents de change* is directed by a chamber of syndics (*chambre syndicale*) chosen annually by the company. They are severally obliged to give bonds to the amount of 125,000 fr. for the prevention of abuses. They are also obliged to keep books; are restricted to a charge of from  $\frac{1}{4}$  to  $\frac{1}{2}$  per cent.; and are interdicted from carrying on, or having any interest in, any commercial or banking operations. (*Code de Commerce*, s. 74 &c.) [BORDEAUX.]

In the United States, brokers are not licensed, nor do they give bonds.

**BROKERAGE.** The commission, or percentage, paid to brokers on the sale or purchase of bills, funds, goods &c. [FACTORAGE.]

**BRONZE** (Ger. *stuekgut*, *stuekmetail*; Dutch, *stuekgood*; Ital. *bronz*; Span. *metal de canoas*;

Lat. *metallum tormentorum*). 'A mixed metal, consisting chiefly of copper, with a small proportion of tin, and sometimes other metals. It is used for casting statues, cannon, bells, and other articles, in all of which the proportions of the ingredients vary.' (Hunt's *Ure*.)

**BROOMS** (Ger. *besen*; Fr. *balais*; Ital. *scope*, *granate*; Span. *escobas*; Russ. *metli*). They are principally made of birch or heath. Vast quantities are manufactured in Southwark, for the supply of the London market.

**BRUSHES** (Ger. *bürsten*; Fr. *brosses*; Ital. *setole*, *spazzole*; Span. *brozas*, *cepillos*, *escobillas*; Russ. *schtschetki*). Well-known implements, made of bristles, and manufactured of various forms. Our exports of brooms and brushes in 1866 were valued at 49,201l. [BRISTLES.]

**BUBBLES.** A familiar name applied generally to fraudulent or unsubstantial commercial projects which hold out hopes of rapid gain, for the purpose of enriching the projectors at the expense of sanguine and ignorant adventurers; and particularly used to designate those projects the funds for which are raised by the sale of shares or subscription to a transferable stock.

In consequence of the mischief produced by the gambling in transferable shares of hubble companies at the time of the South Sea project, 1719 and 1720, the stat. 6 Geo. I. c. 18, reciting that several undertakings or projects had been contrived and practised which 'manifestly tended to the common grievance, prejudice, and inconvenience of great numbers of his Majesty's subjects in their trade and commerce,' and describing, among other practices of the time, the ordinary mode of raising money by shares and subscriptions to a pretended transferable stock, enacted that the undertakings and attempts so described, and public subscriptions, assignments, and transfers for furthering them, and particularly the raising or pretending to raise transferable stocks without authority of charter or Act of Parliament, should be deemed illegal and void, and prohibited them under severe penalties. Some decisions limited the operation of, and finally the stat. 6 Geo. IV. c. 91 altogether repealed, these enactments and prohibitions. The projectors of bubbles, therefore, are now punishable only when they can be deemed guilty of frauds or conspiracies at common law; and there is no other check on the adventurers than the loss and troublesome liabilities, under the law of partnership, in which participation in these projects often involves them.

**BUCHU LEAVES.** The leaves of the *Barosma ercna* and of other species of *Barosma*, small shrubs growing at the Cape of Good Hope. They have long been used by the Hottentots for a variety of diseases, and have been made known in Europe through the English and Dutch physicians resident at the Cape. They are employed in Europe principally in diseases of the urinary organs. Prices in London market October 1866,  $3\frac{1}{2}$ l. to 6d. per lb. for broad leaves, long narrow do. 9d. to 1s. per lb.

**BUCKWHEAT** (Fr. *blé sarrasin*, *blé noir*; Ger. *buchweizen*, *heidekorn*; Ital. *grano saraceno*, *faggina*, *frina*; Span. *trigo saraceno*, *trigo negro*; Pol. *tatarca*, *gryka*, *polanica*; Russ. *gretschn*; Lat. *fagopyrum*). It is principally cultivated in order that it may be cut when young and green, and employed as fodder for cattle; when allowed to ripen, the grain is usually employed to feed pigeons and poultry.

When ripe it is of a deep yellow colour, the seeds bearing a great resemblance to beech-mast. It will grow on the poorest soils. Buckwheat has been cultivated in this country from the latter part of the sixteenth century. Its native country

is unknown, but supposed to be Asia. Beckmann has a very learned dissertation on its introduction and early culture in Europe. (*History of Inventions*, vol. i. art. 'Buckwheat.') The imports of buckwheat are comparatively inconsiderable. The duty on it and on buckwheat meal is the same as on other sorts of corn or meal. [CORN LAWS.]

Buckwheat is largely produced in the United States. In 1840 the production was 7,291,743 bushels, in 1850 8,956,912 bushels, and in 1860 17,571,818 bushels, showing a larger increase than any other grain crop. The states in which the largest quantity is grown are New York, Pennsylvania, and Ohio.

BUENOS AYRES. This city, the capital of the province of the same name, was founded in 1535, and stands on the right bank at the head of the estuary of the Rio de la Plata, on a vast plain which is here about 35 or 40 feet above the sea, and which extends westward to the Andes. The level uniformity of its outline is only broken by the spires of various churches. The streets are regular and straight, intersecting each other at distances of about 150 yards, forming squares like a chessboard. The houses have never more than two storeys, and commonly only one. The Argentine Confederation contains the tract of South America comprised within the 22nd and 42nd degrees of latitude, and the 59th and 72nd of longitude, the area being 75,000 square leagues, or 675,000 geographical miles; the regions being that which lies within the great rivers Parana and Uruguay, the Pampas, and the mountainous districts of the Southern Andes. The political divisions of the Argentine Confederation comprise fourteen provinces—those of Buenos Ayres, Santa Fé, Entre Rios, and Corrientes on the coast; those of San Luis, Mendoza, and San Juan on the west, and at the base of the Chilean Andes; those of Cordova, Rioja, and Santiago del Estero in the centre; and Tucuman, Catamarca, Salta, and Jujuy in the north.

The rivers Parana and Uruguay join to form the Plata, and drain an area of 170,000 square leagues. The Plata is 8 leagues broad at the junction of the streams Parana and Uruguay, and after a course of 35 leagues the river is emptied into the ocean between the capes of St. Maria and St. Antonio, where its breadth is 70 leagues—the widest embouchure in the world. (Martin de Moussy, *Confédération Argentine*, 1860.) But the course of the river is encumbered with sandbanks, which shift from time to time and cause great difficulties to navigation. Hence it becomes necessary to employ pilots to Buenos Ayres and Montevideo, the capital of the Uruguayan Republic. Considerable danger arises also from the prevalence of gusty winds called *pamperos*, which are said to occasionally cause a rise in the water to the extent of a fathom.

The total population of the Argentine Confederation was estimated by De Moussy at 1,210,000. Of these, 83,250 were inhabitants of Buenos Ayres, 11,905 of Rosario, the two ports of the Confederation. One-third of the inhabitants of Buenos Ayres were Europeans, chiefly English and French. Mr. Clare Ford, secretary of the British Legation, states the population of the Republic in 1866 to be 1,465,000. At present (1868), judging from its past growth, it may amount to about 1,500,000.

From San Miguel tower, 68 feet high, a little westward of the cathedral, the true bearing of the north Cerro de San Juan on the Banda Oriental coast is N. 39° 41' 34" E. There are two wharves or piers, from 220 to 330 feet in length—the first near the church of La Merced, for passengers;

the second in front of the custom-house, for merchandise—but they are not long enough, and inconvenient when the river is low from N.W. winds.

*Trade of Buenos Ayres.*—Buenos Ayres has a considerable trade. Its imports are manufactured goods, cottons, earthenware, gunpowder, hardwares and cutlery, iron, leather, linens, oil, linseed, woollens &c.; and the exports are, wool, bones, copper unwrought, grease, horsehair, hides, horns, skins of various kinds, salt meat, tallow, tobacco &c. All kinds of supplies, including coal, but excepting meat, are at a very high price. Corn, which for a considerable period was not produced in sufficient quantity for home consumption, has latterly become an occasional article of export. Most part of the jerked beef, and numbers of mules, are exported to the Havannah and Brazil, and a growing quantity of River Plate beef to Europe. Hides, tallow, and wool, especially the first, are leading articles of export. Sir W. Parish estimated the total amount of the imports into the La Plata at about 2,110,000*l.*, of which about half might be for Buenos Ayres; but the trade is now much greater. Mr. Ford, in his excellent Report to the Foreign Office of Oct. 30, 1866, gives the following Tables:—

*Comparative Statement of Goods imported into Buenos Ayres during the Years 1864–65.*

	1864		1865	
	£	d.	£	d.
1. Different tissues; principally woollen and calicoes	1,002,915	4 0	1,412,739	12 0
2. Estates; principally sugar, yerba maté, and rice	1,074,885	8 0	937,776	8 0
3. Divers fabricated articles; principally haberdashery, perfumery, and ready-made clothes	656,641	16 0	873,895	8 0
4. Drinkables; principally red wines and gin	628,236	16 0	813,172	4 0
5. Materials for industrial purposes; principally coal, iron, and wood	485,191	4 0	649,897	12 0
6. Groceries; principally tobacco, packing paper, and kerosene	275,947	0 0	345,969	12 0
7. Articles used for shipping; ironmongery and paint	217,846	12 0	315,417	4 0
8. Writing materials, paper &c.	28,467	8 0	52,235	8 0
Total	4,370,134	8 0	5,420,603	8 0

\* \* \* Increase of 24 per cent. in 1865 over 1864.

*Statement of the Quantities and Values of each of the main Articles of Argentine Native Produce exported from Buenos Ayres in 1865.*

Articles	Quantities	Values
		£
Wool	115,842,430 lbs.	2,374,251
Hides, ox and cow	1,690,763 lbs.	934,266
Grease and tallow	28,822,799 lbs.	305,152
Sheep skins	17,265,333 lbs.	214,868
Salt meat	45,699,800 lbs.	138,792
Horsehair	3,286,127 lbs.	85,799
Horse hides	151,588 lbs.	43,337
Ostrich feathers	135,730 lbs.	38,498
Bone ash	6,989 tons	13,761
Hide cuttings	1,678,300 lbs.	5,933
Bones	9,217 tons	6,215
Shin and shank bones	4,808,400 lbs.	4,475
Giter skins	52,037 lbs.	3,884
Tips of horns	1,210,000 lbs.	3,230
Deer skins	91,058 lbs.	2,187
Shunk skins (unborn animals)	109,579 lbs.	1,599
Breeding rams	4,756	1,255
Hoofts, salted tongues, animal oil, titer and other skins, tags, and soap	—	20,122
Miscellaneous	—	88,793
Total	—	4,439,355

The value of our exports to the Argentine Confederation in 1866 was 2,880,787*l.*, cottons being by much the most important article, and next to it woollens, iron &c. France supplies silks, wines (of which the imports have largely increased), jewellery, perfumery &c. The imports from the United States consist chiefly of unbleached cloths, spirits, soap, sperm candles,

dried and sund deals. Goods, brandy, cigars, crockery, corriage, canvas trade is produce, partic oil, maccaroni, goods are in handkerchiefs, are imported, ed in 1865 was yerba maté, or article of some superseded, ever chiefly obtained Chili and Peru well supplied with vegetables, the butter used these details fit Woodbine Paris 349–369; the Re chargé d'affaires, Plate, by Wittrich

Light.—At the custom-house stationary three nests, visible 6 miles.

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dried and salted provisions, tobacco, furniture, and deals. Germany sends woollen and cotton goods, brandy and gin; Holland, sugar, gin, brandy, cigars, cheese &c.; Belgium, ironmongery, crockery &c. The Baltic furnishes iron, cordage, canvas, pitch, deals &c. The Mediterranean trade is principally in Spanish and Italian produce, particularly cheap wines, brandies, olive oil, macaroni, dried fruits, and pepper. Spanish goods are in little demand, though some serges, handkerchiefs, and ribands, sewing silk, and salt, are imported. The value of Spanish wines imported in 1865 was alone upwards of 180,000. The *yerba maté*, or Paraguay tea, formerly an import article of some consequence, has been nearly superseded, even in Buenos Ayres, by genuine tea, chiefly obtained from India. The trade with Chili and Peru is insignificant. The markets are well supplied with butcher's meat and fish. Poultry, vegetables, and fruit are generally dear. All the butter used is imported. (We have derived these details from the excellent work of Sir Woodbine Parish *On Buenos Ayres*, 2nd ed. pp. 349-369; the *Report of Mr. Francis Clare Ford*, late chargé d'affaires, 1866; and *The States of the River Plate*, by Wilfrid Latham, 2nd ed. 1868.)

*Light*.—At 4½ miles N.E. by E. ½ E. from the custom-house at Buenos Ayres is a bulk or stationary guard-ship, painted black, with three masts, which shows a *fixed red light*, visible 6 miles.

*Outer Road*.—There are two anchorages in front of Buenos Ayres, formed by the city bank and that of the Camaron, an extension or tongue of the great Palmas flat. Both are anchorages exposed to the winds from S.E. to E.N.E., which often bring in a heavy ground swell; vessels frequently drag, foul each other, and sometimes go on shore. It is necessary to have good ground tacking, to be cautious not to ground on the anchors, and to give a berth to the buoys of vessels in the road to prevent grazing on their anchors. The bottom is a fine dark sand; within the 12 feet line of soundings it is generally hard, and to 15 feet hard and soft; beyond 15 it is mostly soft muddy sand. There are always a large number of vessels lying here.

There are several dangerous sunken vessels in the roads; two nearly close together, showing at low water, lie in the outer road in line with the Catalina channel, and one farther in, and are marked by beacons. The great or outer road northward of the city bank, at about 3½ miles from the shore, is from 3 to 4 miles in length in a north-west and south-east direction, and from ½ to ¾ mile in breadth, with depths of 18 to 21 feet over soft mud. At the entrance to this anchorage there is a bar or flat with only 15 feet water on it at the mean level of the river, and at times not more than 12 feet, which obliges vessels of moderate draught to anchor at 6 or 7 miles from the town in 17 feet water, with the Residencia in the southern part of the city bearing S.W. by W.

The domes of the churches and the vessels at anchor in the outer road are seen at a distance of 10 or 11 miles. The bottom on the city bank or that southward of the outer road being hard, it is necessary to keep a little to the northward. Having passed the bar, the soundings slowly increase, and the bottom becomes softer; when in 17 feet water, soft mud, steer to the westward, and anchor in about 20 feet, with the guard-ship bearing S.E. by E. ½ E., distant 2½ miles; La Residencia S. by W. ¼ W.; the Custom-house S.S.W. ½ W.; and the church of La Recoleta, north-west of the town, S.W. ¾ W. A good

berth will also be found near the sunken vessels, where the water is deepest and the position convenient for boats. It is not usual to moor in the outer roads, but to veer a long scope of cable, and be ready to drop a second anchor with south-easterly winds.

*Inner Road*.—The inner or little road off the north-east angle of the city is a space of about 1½ mile in length, in a N.N.W. and S.S.E. direction, and about 3 cables in breadth, having 12 and 13 feet water. It is formed between the city bank and the coast: the latter is bordered with a bank of rotten stone. To the northward of the inner road is the anchorage El Pozo, having about a foot more water. Vessels in the Pozo and inner road always moor N.E. and S.W., and great attention should be given to prevent grounding on the anchors, for frequently there are only 8 or 10 feet water, and vessels are often aground and unable to go to sea for 15 or 20 days. A large number of vessels are always here. But as the banks are constantly shifting, it is necessary when going into the inner road to employ a pilot, and particularly for the purpose of choosing a clear berth, and avoiding the many lost anchors in the roads.

*Winds*.—During summer, between August and March, the winds are from the eastward. In April, May, June, and July, the weather is variable. The barometer always rises with a S.E. wind, which brings clear dry weather; falls for a pampero or S.W. wind, but falls lowest with the wind from N. to W., which brings cloudy, rainy weather. It may be fine weather at sunset, and 2 hours after blowing a gale, but the barometer is sure to indicate it.

*Tides*.—It is high-water at Buenos Ayres, full and change, at about 12 h.; and the rise may be from 3 to 5 feet. The flood runs 5 hours, and the ebb 7 hours, at from 1 to 2 miles an hour. The winds from the S.E. cause the water to rise, and those from the N.W. depress it, and in some places cause a difference of 12 feet. A case has occurred when the wind from the N.W. has so depressed the water, that a person was able to walk dry to the vessels anchored in the inner road.

*Rio Riachuel*.—At about a mile southward of the town is the little river Riachuel, with 13 to 16 feet at low tides, over soft mud, which serves as a port of commerce to Buenos Ayres. This river being the deepest on the south coast, was the cause of the town being placed on the neighbouring plain. Its mouth is obstructed by banks, so that vessels drawing less than 10 feet alone can enter when the water is high from the S.E. winds, 3 feet only being on the bar at low tides. Large numbers of coasters load and unload here.

At high tides vessels of less than 8 feet draught can navigate to the Conchas, where there is an excellent port. In strong winds from the S.E. many vessels leave the roads of Buenos Ayres to seek shelter there, but it is necessary to have a good pilot, as all this western part of the La Plata is obstructed by the great flat and bank of Las Palmas, on which near the coast the depths are irregular, the channel winding, and subject to frequent changes. There are in places 13 or 14 feet water, but the deepest is in front of the shore forming Olivos Point, where there are from 12 to 17 feet.

Above Las Conchas the shore is broken by a great number of little rivers, outlets from the Parana. At 25 miles N.N.E. of Las Conchas is the mouth of the Great Parana. The latter is the only one vessels of any size can enter.

Next in importance to Buenos Ayres come the Argentine ports of Rosario, Corrientes, Uruguay, San Nicolas, and Gualaguaychú. In 1866 there were 326 miles of Argentine Railways open to traffic.

**Money.**—The currency of Buenos Ayres was formerly an irredeemable paper money, issued by a bank, under authority of special laws passed from time to time, and was by law legal tender. This paper money, having no specie basis, was afflicted in value, as compared with gold, by over issues and by politics, and has fluctuated 50 per cent. in one day; but by a new Currency Law, January 4, 1867, the Provincial Bank of the State of Buenos Ayres is authorised to pay 25 paper dols. for every patacon, and also to give 1 patacon for every 25 dols. (paper). If paper money should exceed 25 per patacon, and the bank has paid away the specie received in exchange for the amount of the present emission, the bank shall still continue to give gold at 25 p. d. per patacon as long as sufficient coin exists. Parties indebted to the bank or state may pay in gold or paper money at the rate of 25 dols. per patacon. In 1865 the revenue of the Argentine Republic amounted to 1,659,014L, and the expenditure to 1,375,233L. Official financial accounts are made up in hard dollars, one of these being about equal to 4s.

The following are the statistics of the shipping and trade of Buenos Ayres:—

**Number and Tonnage of Sailing Vessels Entered and Cleared at the Port of Buenos Ayres in each of the Years 1861-65.**

Years	With Cargoes			
	Entered		Cleared out	
	Ships	Tons	Ships	Tons
1861	707	200,259	469	124,072
1862	642	186,692	549	157,928
1863	735	215,835	632	175,741
1864	825	253,827	806	229,205
1865	906	271,239	930	255,351
Total	3,813	1,093,870	3,386	910,097

Years	In Ballast			
	Entered		Cleared out	
	Ships	Tons	Ships	Tons
1861	12	2,100	262	78,801
1862	20	6,128	139	41,553
1863	11	2,440	85	29,257
1864	6	1,491	10	4,853
1865	2	1,000	9	1,561
Total	51	12,500	505	152,117

**Number and Tonnage of Vessels, of each Nation, Entered and Cleared at the Port of Buenos Ayres in the Year 1863.**

Nationality	Entered		Cleared	
	Vessels	Tons	Vessels	Tons
Swedish and Norwegian	11	5,536	8	2,041
Danish	22	5,538	25	4,013
Dutch	66	12,737	65	12,807
Bremen	11	5,992	15	5,058
Hamburg	12	3,438	14	5,061
Hanoverian	6	3,284	11	1,999
Belgian	15	5,572	14	4,233
British	142	44,941	110	31,567
French	85	36,915	73	24,590
Italian	81	21,669	72	19,170
Spanish	117	26,703	100	21,916
North American	64	33,979	65	21,508
Argentine	25	3,643	37	5,877
Brazilian	29	7,261	25	5,442
Other countries	29	6,173	8	2,323
Total	753	216,565	645	179,023

The following is an account of the exports of wool from Buenos Ayres for fourteen years, supplied by Mr. Newton, Vice-President of the Argentine Rural Society:—

Years	Number of Bales	Increase per cent.	Arrobas, 25 lbs. each, of 32 to the bale	Number of Sheep at rate of 7 fleeces to each Arroba
1852-53	20,511	—	656,448	4,597,136
1853-54	24,458	18.7	718,600	5,229,800
1854-55	25,769	11.78	824,608	5,772,656
1855-56	32,624	26.60	1,015,368	7,507,776
1856-57	37,515	15.06	1,201,576	8,409,632
1857-58	39,252	4.52	1,256,064	8,792,448
1858-59	48,737	23.15	1,539,584	10,919,088
1859-60	42,275	Less	1,352,800	9,469,600
1860-61	69,754	45.75	2,193,488	15,604,416
1861-62	67,161	10.58	2,119,152	15,014,064
1862-63	88,790	32.19	2,809,560	19,666,740
1863-64	86,679	8.90	2,683,728	18,686,064
1864-65	130,860	35.36	4,187,520	29,532,640
1865-66	136,100	4.84	4,364,800	30,553,600

**Total Value of Imports and Exports, with the Amount of Duties Collected thereon, at the Port of Buenos Ayres in each of the Years 1861-63.**

Years	Imports		Exports		Duties			
					Import		Export	
	paper dollars	£	paper dollars	£	paper dollars	£	paper dollars	£
1861	415,120,674	3,751,671	218,559,909	1,981,450	60,128,918	348,478	16,812,187	38,023
1862	416,011,060	4,818,672	229,452,212	2,518,114	66,319,281	612,037	12,330,092	135,507
1863	593,811,101	5,061,703	351,127,614	2,879,082	85,016,001	717,526	17,506,036	147,419

**Pilotage.**—Vessels drawing 10 ft. Burgos, pay 40 Sp. dols.; 11 ft. 50 dols.; 12, 60 dols.; 13, 70 dols.; 14, 90 dols.; 15, 110 dols.; 16, 130 dols.; 17, 150 dols.; 18, 180 dols.; 19, 210 dols.; 20, 240 dols.; and 21 ft. 260 Sp. dols. N.B. 100 ft. English=109 ft. Burgos; 100 ft. French=115 ft. Burgos; 100 ft. Norwegian=112 ft. Burgos; and 100 ft. Swedish=106 ft. Burgos. Un palmo (a palm)=9½ Spanish inches.

All vessels, excepting packets, if requiring a pilot to enter the inner roads, pay 200 dols. currency. When leaving, whether taking a pilot or not, they are bound to pay the 200 dols. Any vessel that may enter the inner roads without a pilot, and wishing to be moored or to change anchorage, must pay 100 dols.

**Port Charges.**—1. National vessels sailing for ports beyond sea pay 3 dols. per ton.

2. Foreign vessels 4 dols. per ton, except those

which, in virtue of existing treaties, are assimilated to national vessels.

3. Foreign vessels pay, for visit of health officer, 25 dols. and the same amount for bill of health.

4. Foreign vessels belonging to nations having no consul, 40 dols. for do.

5. The duties to be paid one half on entrance and the other on departure.

6. National and foreign vessels, which do not leave nor receive cargoes, pay one-half of these duties.

**Customs Duties: Imports by Water.**—1. Gold and silver, coined or in bullion, books, printing-paper, plants of all kinds, fresh fruits, ice, fire-wood, charcoal, and cattle for breeding are free of duty, as also maize (Indian corn) and flour of maize imported by land.

2. The Executive Power may admit free, seeds destined for agriculture, articles exclusively des-

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tinued to religion, instruments or utensils for scientific purposes, machines for the amalgamation of metals, and the formation of new fabrics or industries, the furniture and tools of immigrants, and things exclusively destined to their establishment.

3. Unset precious stones, gold and silver worked, or manufactured with or without precious stones, every instrument or utensil with handle or ornament of the same metals, when these shall augment their value one-third, to pay 8 per cent. of their value.

4. All articles not excepted in the previous, 15 per cent.

5. The impost of wharfage for articles of direct despatch to be 5 cents for every 8 arrobas of weight, or its equivalent in bulk.

6. The leakage granted to wines, spirits, liqueurs, beer in casks, and vinegar, to be calculated thus:—at 10 per cent. for the ports situated the other side of the Line, at 6 per cent. for the ports on this side, and 3 per cent. for ports within the Capes. Loss granted to wines, spirits, liqueurs, beer, vinegar, and oil, in bottles, 5 per cent. for breakage.

*Exports by Land and Water.*—7. The following to pay 5 per cent. of their value on exportation:—Horse and cow hides of all kinds, those of mules and sheep, skins in general, jerked and salted beef, hide-cuttings, salt tongues, ostrich feathers, bones, bone-ash, horns, horn-clippings, horsehair, washed and dirty wool, animal oil, tallow, and fluid and solid grease; cattle, horses, and sheep.

8. Every other production or manufacture not expressed in the preceding Article, such as gold and silver, coined or in bullion, is free of all export duty.

*Of Deposit and Transit.*—9. The Custom-houses duly authorised shall admit to deposit every article which is introduced liable to import duty.

10. The deposit to be made at the discretion of the Government, either in Government or private stores, the fiscal not being responsible for losses or damages of merchandise in private deposits; and further, if convenient to the Government, it can oblige the removal of the goods from the private stores to those of the State.

11. In all cases the Executive regulates the deposits in private stores.

12. Merchandise may be in deposit for two years from the entry of the vessel: this time elapsed, their despatch, for consumption or transit, is obligatory, though the deposit may be renewed, after examination of the goods and paying of the warehousing and wharfage.

13. The impost of warehousing and wharfage to be paid on goods in deposit, according to a tariff to be revised yearly.

14. The impost for a month to be paid for goods in deposit for a portion of a month.

15. The fiscal is responsible for the effects deposited in his own warehouses, saving accident beyond control, or injury arising from the inherent nature of the goods or their coverings.

16. The Custom-house to allow the free transit of merchandise in deposit from one port to another.

17. The Custom-house will likewise permit, free of duty, the transshipment of all goods within forty days from the day of entry of the vessel bringing the same, or presenting a copy of the manifest, excepting those for which the copy of the manifest is not necessary, or those which the parties declare, on the entry of the vessel, have only arrived in transit for foreign ports.

*Of the manner of calculating the Duties.*—18. The duties to be arranged by overseers, accompanied by valutors, and to be calculated on imports by their value in deposit, and on exports at their market value at the time of shipment, except

those previously classified and valued, which duties shall be calculated by a tariff of valuation formed upon the same basis of prices.

19. Every six months a valuation to be made of the merchandise and produce to be included in the tariff spoken of in the preceding Article.

20. The merchandise which appears damaged at the time of despatching it shall be valued by the price it obtains in public auction, with the deduction of the corresponding duty, the account of which must be rendered within thirty days from the day of despatch.

21. In case of a difference arising between the overseer, valuator, and the interested party, respecting the valuation of any merchandise or product of the country not included in the tariff of valuation, its despatch shall be put off until the difficulty is overcome; and this not being accomplished within eight days, the Custom-house shall have the right, and may likewise be obliged, to hold the article at the valuation it may see fit to put upon it, paying for it in Treasury bills.

22. From the merchants shall be accepted bills payable at three and six months, when the amount of duty passes 50 dols.; under this sum it shall be paid in ready cash.

23. The duties of exportation shall be paid in ready cash, and at the port of loading, the goods being despatched directly for a foreign port; neither can they be embarked in transit from one point to another of the Republic without their having been despatched by paying the duties, or a security given in the form to be determined by the Executive Power.

*Additional Duties.*—24. All goods and merchandise subject to import duty to pay a duty of 2½ per cent.

25. The produce of the country subject to export duty shall pay an additional duty of 5 per cent.

26. These additional to be collected separately from the ordinary duties.

*Additional Import Duties commencing January 1, 1867.*—Additional impost of 5 per cent. on all imports, excepting such articles as are comprised in Art. 3 of the present Custom-house Law, and 2 per cent. on all exports, payable cash down; to count from 30 days after the promulgation of this law.

**BUFF** (Ger. büffel, büffelhäute; Fr. buffle, peau de buffles, et peaux passées en buffles; Ital. bufalo, cuojo di bufalo). A sort of leather prepared from the skin of the buffalo, dressed with oil, after the manner of chamois. The skin of elks, oxen, and other like animals, when prepared after the same manner as that of the buffalo, is likewise called *buff*. It is used in making sword-belts and other articles where great thickness and firmness are required.

**BUGLES.** Small glass beads of different colours. They are in considerable demand in Africa, to which they are mostly exported.

**BULLION.** Uncoined gold and silver in the mass. [GOLD; PRECIOUS METALS; SILVER.]

**BUOYS.** Pieces of wood, cork, or hollow metallic substance, moored and floating on the water. Those of wood are sometimes solid, and sometimes hollow, like a cask, and strongly hooped; they are made of various shapes and sizes; and are either private or public.

*Private Buoys* are so called from their belonging to private individuals. They are principally employed to mark the place of the ship's anchor, being fastened to it by a rope or chain, so that the men who go in the boat to weigh it may readily find out where it is.

By 1 & 2 Geo. IV. c. 75 s. 11 it is enacted that if any person or persons shall wilfully cut



into Imperial, multiply by the fraction  $\frac{2150 \cdot 42}{2218 \cdot 102}$  or  $\cdot 969447$ , or approximately deduct  $\frac{1}{30}$  and  $\frac{1}{200}$ ; and if great accuracy be required,  $\frac{1}{27000}$  and  $\frac{1}{200000}$  more. To convert prices per Winchester bushel into prices per Imperial bushel, multiply by the fraction  $\frac{2150 \cdot 42}{2156 \cdot 42}$ , or  $\cdot 10315157$ .

By 5 Geo. IV. c. 74 s. 7 the bushel shall be the standard measure of capacity for *coals, calx, lime, fish, potatoes, or fruit*, and all other goods and things commonly sold by heaped measure. The bushel shall contain 80 lbs. avoirdupois of distilled water, being made round, with a plain and even bottom, and being 19 $\frac{1}{2}$  inches from outside to outside. Secs. 7 and 8 direct the mode in which the bushel shall be used for heaped measure. [WEIGHTS AND MEASURES.]

The standard measure of capacity, by this Act, as well for liquids as for dry goods not measured by heaped measure, shall be the *gallon*, containing 10 lbs. avoirdupois weight of distilled water weighed in air at the temperature of 62° of Fahrenheit's thermometer, the barometer being at 30 inches; and such measure shall be the Imperial standard gallon (containing 277·274 cubic inches), and all measures shall be taken in parts or multiples, or certain proportions, of the said Imperial standard gallon; and the quart shall be the fourth part, and the pint shall be an eighth, of such standard gallon; and 2 such gallons shall be a peck, and 8 such gallons shall be a bushel, and 8 such bushels a quarter of corn or other dry goods not measured by heaped measure.

**BUSHIRE or ABUSHIRE.** A seaport town of Persia, in the province of Fars, on the north-east coast of the Persian Gulf, lat. 29° N., long. 50° 50' E. Population uncertain, but estimated by Major Wilson at from 15,000 to 20,000. Bushire is situated at the northern extremity of a sandy peninsula, to the north and east of which is the bay. There is a convenient anchorage for large ships due west from the town, 3 or 4 miles distant, in from 25 to 28 feet water; but ships of 300 tons burden or thereby lie in the inner roads, to the north, about 6 miles from shore; the anchorage is pretty good; but during violent north-westerly gales they are sometimes obliged to cut their cables, and bear up for Karak, a small island about 15 leagues W.N.W. of Bushire. The water immediately to the east of the town is deep, but the passage to it is obstructed by a bar, which cannot be passed by vessels drawing more than 8 or 9 feet water, except at spring tides, when there is a rise of from 8 to 10 feet. The variation in 1811 was 49 43' W. (*Chart of the Persian Gulf*, by Captain Ritchie, &c.) The climate here, as in all the other parts of the Persian Gulf, is extremely hot, particularly June, July, and August. The unhealthy season is in the fall of the year.

*Trade &c.*—Bushire has a good deal of trade, particularly with Calcutta, Bombay, and Madras. Its merchants supply almost all Persia with Indian commodities, as also with a good many of those brought from Europe. Of the imports from India, indigo, sugar, sugar candy, and spices are the most important; the steel of India is preferred in Persia to every other, and is made into excellent sabres; tin is brought from Banca; and coffee is principally supplied by Mocha and other ports on the Arabian Gulf. English cotton goods, notwithstanding the admitted inferiority of our red dyes—a colour in great esteem in Persia—have already gone far to supersede those that were formerly brought from Hindostan; and the demand for them is rapidly extending, and is susceptible of an almost indefinite increase. Besides those imported at Bushire, a good many are introduced through

Bussorah, and some through Turkey and Russia; the latter by way of the Black Sea, the former of Smyrna and Constantinople. Hitherto, indeed, a considerable part of the cottons imported through the last-mentioned channels have been supplied by Switzerland and Germany—their fabrics having been, in some respects, better fitted than ours for the Turkish and Persian markets; but they seem to have lost this advantage, as our exports of cottons to Turkey are now rapidly increasing. Woollen goods, cutlery, watches &c. sent to India from England are thence exported to Bushire. Imitation shawls, of the proper size and pattern, are said to meet with a fair sale. The exports principally consist of raw silk, Kerman wool, Kerman and Cashmere shawls, carpets, horses, silk goods, dried fruits, wine, grain, copper, turquoises, asafetida, gail-nuts, pearls, and other articles of minor importance. Turkey annually supplies Persia with a very considerable amount of bullion, most part of which is sent to India.

Of the Persian exports, raw silk is the most important. It is produced to some extent in every province; but Gheelan and Mazunderan are those which are most celebrated for its growth. In the former, about 900,000 lbs. are annually raised. Russia is a large consumer of this article. Dried fruits and dates are sent in considerable quantities to India. Horses are largely exported to India both by sea and land; they serve for mounting our Indian cavalry, and for supplying the large private demand that always obtains in Hindostan for this noble animal. Though neither so swift nor so beautiful as those of Arabia, the Persian horses are large, more powerful, and, all things considered, better for cavalry. They are capable of supporting an extraordinary amount of fatigue. Wine of Shiraz enjoys a degree of celebrity to which, judging from the few samples we have seen, it seems but ill entitled. Mr. Fraser says that it is made in so careless a manner, that, in choosing it, not more than 1 bottle in 4 or 5 can be made use of. Persian tobacco and yellow dye berries are highly esteemed; the former enters to a considerable extent into the trade to Turkey as well as to India; the berries bring a very high price in our markets, but the imports hitherto have been inconsiderable. Turquoises, asafetida, and various sorts of drugs, rose water, with other minor articles, form part of the exports. Sheep's and goats' wool is also exported. The best is that of Kerman. The down furnished by the goats of this province is almost as fine as that of the Thibet or shawl goats. Cotton is extensively produced in Persia; the Russians carry away some, but the greater part is used in the country. Grain is sent to Muscat, but not in large quantities. The pearl trade is now principally centred at Muscat. The copper exported from Bushire is principally the produce of the Persian mines, mixed, however, with some Russian copper from Georgia. Of manufactured articles, the principal are carpets of the most beautiful fabric; shawls, partly native and partly brought from Cashmere; velvets, silk goods, gold and silver brocades, and a few other articles. The trade between Persia and Russia by the Caspian Sea is not very considerable. Most part of the paper used in the former is supplied by the latter. The furs of Russia find a ready market in Persia. The Russian provinces on the Caspian derive their supplies of indigo from Persia by way of Bushire.

The entire trade between British India and the Persian Gulf amounts to about 1,500,000*l.* a-year. This, however, includes the trade to Muscat and Bussorah as well as to Bushire, and we have no means of discriminating the separate amount of each. Water at Bushire is excessively bad and dear;



rah, see the last *Conular Report*; Kinneir's *Memoir on the Persian Empire*, p. 283; Kelly's *Oriental Metrology*; Thornton's *East Indian Calculator*, p. 424. Niebuhr has given a plan of Bussorah, *Voyage en Arabie*, tome ii. p. 170. [BUSINESS.]

BUTLERAGE. [PUBSAGE.]

BUTTE. A vessel or measure for wine, containing 2 hogsheds, or 126 wls. gallons.

BUTTER (Dan. smør; Dutch, boter; Fr. beurre; Ger. butter; Ital. burro, butiro; Lat. butyrum; Pol. maslo; Port. manteiga; Russ. maslo korowe; Span. manteca; Swed. smör). A fat, unctuous, and, in temperate climates, a pretty firm substance, obtained from milk, or rather from cream, by the process of churning.

The various circumstances attending the introduction and use of butter in antiquity have been investigated by Beckmann with great learning and industry. The conclusion at which he arrives is, that butter was not used either by the Greeks or Romans in cooking or the preparation of food, nor was it brought upon their tables by way of dessert, as is everywhere customary at present. We never find it mentioned by Galen and others as a food, though they have spoken of it as applicable to other purposes. No notice is taken of it by Apicius; nor is there any thing said of it in that respect by the authors who treat of agriculture, though they have given us very particular information with respect to milk, cheese, and oil. This, as has been remarked by others, may be easily accounted for, by the ancients having accustomed themselves to the use of good oil; and in the like manner butter is very little employed at present in Italy, Spain, Portugal, and the southern parts of France. (*History of Inventions*, vol. ii. p. 413. Eng. ed.)

Beckmann has further shown that the little butter that was used by the ancients was in an oily or liquid state; and such is its usual state in all hot countries. It is rather singular that he does not allude to the consumption of butter by the Arabs, by whom it has been very extensively used from a remote period.

Arab cookery is extremely *friant*, more so than even the Italian; but no oil is used for culinary purposes, except in frying fish. Butter is their universal sauce, and of it the consumption is immense; their vegetable dishes float in butter; with it they work their *adjoue* (paste made of dates) into a proper consistency; dried corn, or bread crumbs, boiled in butter, is a common breakfast with all classes; and in the desert, the *hemmayes* are prepared for use in the same manner. Arab butter is made from the milk of sheep and goats, that of camels not being used for that purpose. The home supply is not nearly sufficient for the consumption, and butter consequently forms an important article of importation. (*Geographical Dictionary*, ed. 1811, art. 'Arabia.')

Butter is very extensively used in this and most other northern countries; that of England and Holland is reckoned the best. In London, the butters of Epping, Cambridge, and Yorkshire, once so famous, are all but entirely superseded, Aylesbury, Dorset, and Devonshire being now in the highest repute. The Aylesbury butter, which brings the highest price in the London market, comprises the best produce of the dairies of Buckinghamshire and Oxfordshire. It is generally packed in 'flats,' each containing from 18 to 30 lumps of 2 lbs. a piece, while the Dorset butter is packed in tubs.

The butter of Somersetshire and Gloucestershire is very good; it is made up in 1 lb. prints, packed in square baskets, and sent to the London market by railway. The butter of the mountains of Wales and Scotland, and the moors, commons, and heaths of England, is of excellent quality when it is pro-

perly managed; and though not equal in quantity, it often is confessedly superior to that produced by the richest meadows. Much butter, but of second and third rate qualities, is now imported from Jersey chiefly in tubs resembling wash tubs.

Considerable quantities of butter are made in Ireland, and it forms a prominent article in the exports of that country; generally, it is very inferior to that of Britain; but this is a consequence rather of the want of attention than of any inferiority in the milk. It is not much used in London. However, some of the best Irish butter brought to London, after being washed and re-packed, is sold as Dorsetshire butter.

The salt butter of Holland, when unadulterated, is superior to that of every other country; and large quantities of it are annually exported. It forms about one-third of all the foreign butter we import, the rest being brought from France, Germany, Belgium &c. Lately the supplies of Ostend butter have materially increased, the qualities ranging from the very best, which is occasionally sold for Aylesbury, to the very worst description, or imitation butter. It is generally imported in long boxes, containing about 1 cwt. each.

The production and consumption of butter in Great Britain are very great. The consumption in the metropolis may, it is believed, be averaged at about 8 lbs. a year for each individual; and supposing this estimate to be nearly accurate, and the population to amount to 3,200,000, the total annual consumption would, on this hypothesis, be 25,600,000 lbs., or 11,428 tons; but to this may be added 3,000 tons for the butter required for the victualling of ships and other purposes; making the total consumption, in round numbers, 14,428 tons, or 32,320,000 lbs., which at 1s. per lb. would be worth 1,616,000l.

The average yield of milk by a cow in England is stated by Mr. Horsfall (*Jour. Roy. Agric. Soc.* vol. xvii. p. 267, quoted from Muspratt's *Chemistry*) to be from 160 to 180 lbs. daily, and the average yield of butter 8 or 9 oz. or 1 oz. per quart, equal to about 1 lb. for every 16 quarts.

The average produce per cow of the butter dairies is estimated by Mr. Marshall at 168 lbs. a year; but owing to the improvements that have been made in the interval, the yield per cow may now be safely estimated at 180 lbs.; so that, supposing we are nearly right in the above estimates, about 180,000 cows will be required to produce an adequate supply of butter for the London market.

In 1852 the entries of butter for consumption amounted to 287,266 cwt., producing a net revenue of 143,341l. The duty of 10s. a cwt. on butter from a foreign country was reduced in 1853 to 5s. a cwt.; that on butter from a British possession was continued at 2s. 6d. per cwt. The duty was repealed in 1859.

Account of the Quantity and Value of Butter imported into the United Kingdom in 1866 from each of the undermentioned Countries.

	cwts.	£
Denmark	67,505	319,598
Hanse Towns	113,531	621,687
Holland	383,225	1,975,010
Belgium	76,667	496,712
France	432,196	2,274,493
Canada	35,442	163,385
Other parts	53,912	173,600
Total	1,165,081	5,992,455

Imports of butter have increased enormously since the abolition of the duty, as will be seen from the subjoined table:—

Year	cwts.	Year	cwts.
1855	447,266	1861	992,772
1856	513,592	1862	1,037,371
1857	441,606	1863	986,709
1858	387,565	1864	1,094,617
1859	421,663	1865	1,083,717
1860	840,112	1866	1,165,081



cheese 5s.; half for the use of the poor, and half to the informer.

And every such person shall keep a book of entry of receiving and shipping the goods, on pain of 2s. 6d. for every firkin of butter and weight of cheese.

The master of a ship refusing to take in butter or cheese before he is full laden (except it be a cheesemonger's own ship sent for his own goods) shall forfeit for every firkin of butter refused 5s., and for every weight of cheese 2s. 6d.

This Act does not extend to any warehouse in Cheshire or Lancashire.

The total product of butter in the United States in 1850 was 313,345,306 lbs., and in 1860 459,681,372 lbs. The States in which the largest amounts are produced are New York, Pennsylvania, Ohio, Illinois, Indiana, Michigan, Missouri, Iowa, Maine, Kentucky. Each of these States produced in 1860 over 10,000 lbs.

Butter made in hot countries is generally liquid. In India it is called *ghee*, and is mostly prepared from the milk of buffaloes; it is usually conveyed in dippers, or bottles made of hide, each of which contains from 10 to 40 gallons. *Ghee* is an article of considerable commercial importance in many parts of India.

**BUTTONS** (Dutch, *knoopen*; Fr. *bouton*; Ger. *knöpfe*; Ital. *bottoni*; Russ. *pogowizá*; Span. *botones*). Well-known articles, serving to fasten clothes &c. They are manufactured of an endless variety of materials and forms.

The chief seat of the button manufacture in England is Birmingham, which fifty years ago not only enjoyed the supposed advantages of a rigorous protective system, but exported largely to the Continent and the United States. At first it seems buttons were made with the needle, and various Acts of Parliament were passed in favour of the persons engaged in this industry. The gilt button trade commenced about 100 years ago. Covered buttons made by machinery were introduced at the beginning of the present century, and the flexible shank button was patented in 1825. Linen buttons for underclothing were first manufactured in 1841.

Since this time various materials have been

employed. The use of hoofs for the manufacture of 'horn buttons' commenced in France. These were followed by the vegetable ivory button, a material of which we are informed fifteen to sixteen tons a-week are consumed in Birmingham. In 1860 Mr. Manton patented a mineral button, the use of which is rapidly increasing. Metal buttons have still maintained their ground, being needed for military and other uniforms, though they are not manufactured in equal quantities to those of twenty-five years ago. Mr. Wright, of Birmingham, computes the consumption of metal in such buttons at from nine to twelve tons a-week.

Pearl buttons are manufactured from shells. The finest of these are called Macassar, and the shells are worth from 140*l.* to 160*l.* the ton. The Manilla shells are worth from 100*l.* to 120*l.*, those of Bombay and Alexandria from 70*l.* to 80*l.*, of good quality, the poorest being those from Panama, and worth from about 20*l.* to 30*l.* The manufacture of pearl buttons is declining. Glass buttons are also made.

The number of persons engaged in the Birmingham button trade is calculated by Mr. Turner at about 6,000.

The chief seats of foreign manufacture are the Rhenish provinces, Bohemia, Vienna, and Paris. The production is so considerable in the United States as to have met the enormous demand during the late war without any foreign importation. (*The Industries of Birmingham &c.*)

It might have been supposed that the manufacture of such an article as this would have been left to be carried on according to the views and interests of those concerned, individuals being allowed to select any sort of button they pleased. Such, however, has not been the case; and various statutes have been passed, pointing out the kind of buttons to be worn, and the way in which they are to be made! Most of these regulations have luckily fallen into disuse, but they still occupy a place in the statute-book, and might, we presume, be enforced.

In 1866, metal buttons to the value of 27,298*l.*, and other kinds to the value of 97,689*l.*, were imported into the United Kingdom, principally from Holland, Hamburg, and France.

C

**CABLES.** Strong ropes or chains, principally used in the anchoring or mooring of ships.

1. *Rope Cables* are, in Europe, principally manufactured of hemp; but in the East they are very frequently made of *coir*, or the fibrous part of the cocoa-nut, and in some places, particularly on the Red Sea, of the coating of the branches of the date-tree. Hemp cables are for the most part formed of three principal strands, every strand of three ropes, and every rope of three twists; the latter having more or fewer threads according to the greater or less thickness of the cable. But very large cables, or those used by the largest ships, are usually formed by a combination of smaller ropes twisted round their common axis. Cables of this sort are stronger than the others, harder, and more compact, so that they are frequently constructed in this way even when their thickness is not very great. The reduction of length by twisting may be taken at about  $\frac{1}{4}$  the length of the yarn. Large vessels have ready for service three cables, which are usually designated the *sheet* cable, the *best bower* cable, and the *small*

*bower* cable; but besides these, most ships have some spare cables. The ordinary length of a cable is from 100 to 120 fathoms.

2. *Wire Ropes* were first employed in the silver-mines of the Hartz mountains, having proved more economical than flat hempen ropes.

The use of wire ropes for mining commenced in this country about 1840. Now, however, the use of this material is gradually being adopted in shipping. In the case of steamers and iron ships wire rigging is almost invariably used, and even in wooden ships, though there has been a prejudice against its employment, it is rapidly coming into favour, and the export of it to the shipping and ship-building ports abroad is increasing. It is calculated that the produce of wire ropes in the Tyne, Wear, and Tees district was 4,500 tons in 1864, and was of the value of 170,000*l.* Wire ropes, weight for weight, are less costly than hempen fabrics. (*Industrial Resources of the Tyne, Wear, and Tees.*)

3. *Iron Cables.*—The application of strong iron chains or cables to the purposes of navigation is a

late and important discovery, for which we are indebted to Captain Samuel Brown, R.N. In 1812 the Admiralty adopted chain cables in the navy. It is singular, indeed, that this application should not have been made at a much earlier period. On rocky bottoms, or where coral is abundant, a hempen cable speedily chafes, and is often quite destroyed in a few months, or perhaps days. A striking instance of this occurred in the voyage of discovery under the orders of M. Bougainville, who lost *six* anchors in the space of nine days, and narrowly escaped shipwreck; a result, says that able seaman, which would not have happened 'si nous eussions été munis des quelques chaînes de fer. C'est une précaution que ne doivent jamais oublier tous les navigateurs destinés à de périlleux voyages.' (*Voyage autour du Monde*, p. 207, 4to ed.) The work from which this extract is taken was published in 1771; and yet it was not till nearly forty years after that any attempt was made practically to profit by so judicious a suggestion. The difficulties in the way of importing hemp from 1808 to 1814, and its consequent high price, gave the first great stimulus to the manufacture of iron cables.

Iron cables are constructed in different ways. (*Encyc. Metrop.*) Their great weight contributes to their strength, inasmuch as the impulse of the ship is checked before the cable is brought nearly to a straight line, or that the strain approaches to a maximum. Bolts and shackles are provided at every fathom or two fathoms, by striking out which the ship may, if necessary, be detached from her anchors with less difficulty than a hempen cable can be cut.

If properly made, iron cables are a great deal stronger than those of hemp; and as to durability no sort of comparison can be made. No wonder, therefore, that they should be rapidly superseding the latter, which are now almost wholly laid aside in the navy, and, to a great extent, also in the merchant service.

*Testing of Iron Cables.*—In addition to iron cables, iron chains are now frequently used in the rigging of ships; and there can be no doubt that both the one and the other are great improvements, provided they are properly made, and of the proper degree of strength. The latter, however, is a sine qua non, without which ships, their cargoes and crews, are exposed to the greatest danger. And hence we are clearly of opinion that all chain cables, chain ropes, and anchors should not be left to be tested by the maker, but that before being offered for sale they should be carefully tested in public proof-houses. We regret to have to state that there can be no possible doubt that cables, anchors, and iron chains of a very worthless description were till lately sent in large quantities into the market, and that a great deal of property and many valuable lives were consequently lost. A shameless abuse of this sort ought to be put down at all hazards: it is injurious alike to the public and the honest manufacturer, and is a disgrace to the Government by whom it is tolerated. And do what we will, it cannot be suppressed except by prohibiting the sale of all cables, chains, and anchors not subjected to a public test, and marked as approved by the examiners. We might refer, were it necessary, in proof of the statements now made, to a paper put forth by the operative chain-makers. The abuses which it discloses are of the most discreditable character, and call imperatively for redress. [ANCHORS.]

We subjoin an abstract of the Act 27 & 28 Vict. c. 27, passed to remedy the evils complained of:—

1. Any corporation, public body, or company

may erect and maintain proving establishments, apparatus, and machinery suitable for the testing of chain cables or anchors, and may raise money for that purpose.

2. The Board of Trade may grant to any corporation, public body, or company, person or persons erecting any suitable proving establishment, apparatus, and machinery, license to test chain cables and anchors under this Act, and the board may suspend or revoke any such license so granted; and the expression 'tester' in this Act applies to every corporation, public body, or company, person, or persons to whom such license shall be granted, such license not to be granted until the proving establishment, apparatus, and machinery erected have been inspected and certified as efficient by an inspector appointed under this Act.

3. The Board of Trade to appoint a fit person to act as inspector of such proving establishments, apparatus, and machinery, and may at pleasure remove such inspector from his office, who must conform to any regulations made by the Board.

4. Any license granted to be renewable annually, but not until the proving establishment, apparatus, and machinery, in respect whereof such license was granted, have been inspected and certified by the inspector within that year.

5. On the original grant, and on every annual renewal of such license, a fee not exceeding fifty pounds to be paid to the Board of Trade, and to be by them paid into the Exchequer.

6. The inspector to receive such salary and allowances as may be directed by the Board of Trade and Treasury, out of money to be provided by Parliament for the purpose.

7. Every tester shall, with all reasonable despatch, subject every chain cable or anchor that shall be brought to his proving establishment to the same tensile strain as that to which chain cables and anchors respectively of similar size, weight, or description are subjected before being used in her Majesty's naval service, and shall stamp every five fathoms in length of every such chain cable, and also every such anchor, with a stamp or die to be provided for that purpose by the tester, and approved by the Board of Trade, denoting that such chain cable or anchor has been 'proved,' and which shall bear the mark of the tester.

8. Every tester may make such charges as he thinks fit for the testing and stamping with proof mark any chain cable or anchor not exceeding the scale authorised by the Board of Trade; and such tester shall affix upon some conspicuous part of the proving establishment a table of the charges so authorised, and such table shall distinctly be painted on a board or boards, or printed in legible characters on paper affixed to such board or boards; and it shall not be lawful for such tester to make any alteration in such table or charges until such alteration be approved by the Board, and the tester shall have caused written or printed notice of the intended alteration to be affixed to such table for not less than three months.

9. Any tester may detain any chain cable or anchor so tested until such charge shall be paid; and if not paid within three months after the testing he may sell the cable or anchor by auction, and out of the purchase money deduct the expenses of sale, and all other expenses incurred by such with respect to the cable or anchor, and shall pay the surplus (if any), on demand, to the owner or to the captain or master of the vessel, or other person on whose application the cable or anchor had been tested.

10. When any tester shall have tested and

stamped any chain cable or anchor, the same was tested, tested, delivered, certificate of such

11. After first and sixty-five it or dealer in contract to sell cable whatever one hundred and chain cable or one tested and duly acts in contravention for every such violation for the sale or in Scotland by a magistrate, be liable pounds.

12. If any person ing any chain cable any tester, or with be the stamp of or of the tester whoso or counterfeited, or for the purpose or such chain cable or ing in the same be anchor duly tested of this Act, or if chain cable or anchor marked or stamped, or shall delivered be taken or used as vessel, or if any person to any person any ing to be a certificate chain cable or anchor under the provisions chain cable or anchor or document had in every person so offending a misdemeanor, or in every such misdemeanor in the discretion of any term not exceeding hard labour, and confinement.

13. No maker of, anchors, ship-owner, son of this Act, or of relieved from any res chain cable or anchor to which, but for the subject.

14. Nothing in the tracts made by the any chain cables or anchors dockyards or for the ships.

15. This Act shall one thousand eight hundred and eighty CADIZ. A large of Spain, on its south and elevated extremity or tongue of land, projecting N.W. about 4½ nautical miles on all sides, except the land, by the sea, and 1860, 71,521. It is a place, a very striking lighthouse of St. Sebastian of the city, being 36° 31' 36" N., long. 6° conspicuous object to the Atlantic. The light is of great brilliancy

stamped any chain cable or anchor, he shall, if requested by the person on whose application the same was tested, within one month after such testing, deliver, free of charge, to such person a certificate of such testing.

11. After first July one thousand eight hundred and sixty-five it shall not be lawful for any maker of or dealer in chain cables or anchors to sell or contract to sell for the use of any vessel any chain cable whatever or any anchor exceeding in weight one hundred and sixty-eight pounds, unless such chain cable or anchor shall have been previously tested and duly stamped; and if any person acts in contravention of this provision, he shall for every such offence, upon a summary conviction for the same before a justice of the peace, or in Scotland before any sheriff, justice, or magistrate, be liable to a penalty not exceeding fifty pounds.

12. If any person shall stamp or assist in stamping any chain cable or anchor with the stamp of any tester, or with a stamp or mark purporting to be the stamp of any tester, without the authority of the tester whose stamp shall have been so used or counterfeited, or with any other stamp or mark, for the purpose or with the intention of passing such chain cable or anchor, or of allowing or assisting in the same being passed as a chain cable or anchor duly tested and stamped under the powers of this Act, or if any person, knowing any such chain cable or anchor to have been so wrongfully marked or stamped as aforesaid, shall sell the same, or shall deliver the same to any person to be taken or used as part of the equipment of any vessel, or if any person shall write out and deliver to any person any certificate or document purporting to be a certificate under this Act, that any chain cable or anchor has been tested and stamped under the provisions of this Act, knowing that the chain cable or anchor referred to in such certificate or document had not been so tested or stamped, every person so offending shall be guilty of a misdemeanor, or in Scotland of an offence, and for every such misdemeanor or offence shall be liable, in the discretion of the court, to be imprisoned for any term not exceeding two years, with or without hard labour, and with or without solitary confinement.

13. No maker of, or dealer in, chain cables or anchors, ship-owner, or other person, shall by reason of this Act, or of anything done thereunder, be relieved from any responsibility in respect of any chain cable or anchor made, sold, or used by him to which, but for this Act, he would have been subject.

14. Nothing in this Act shall affect any contracts made by the Admiralty for the supply of any chain cables or anchors to any of her Majesty's dockyards or for the use of any of her Majesty's ships.

15. This Act shall continue in force to first July one thousand eight hundred and seventy-two.

**CADIZ.** A large commercial city and seaport of Spain, on its south-western coast, on the rocky and elevated extremity of a narrow, low peninsula, or tongue of land, projecting from the Isla de Leon, N.N.W. about  $\frac{1}{4}$  nautical miles. It is surrounded on all sides, except the south, where it joins the land, by the sea, and is fortified. Population, in 1860, 71,521. It is well built, and has, at a distance, a very striking appearance. The tower or lighthouse of St. Sebastian stands on the western side of the city, being, according to Tofiño, in lat.  $36^{\circ} 31' 36''$  N., long.  $6^{\circ} 18' 30''$  W. It is a most conspicuous object to vessels approaching from the Atlantic. The light, which is 160 feet high, is of great brilliancy, red and white, revolves

twice a minute, and in fair weather may be seen 24 miles off.

**Bay of Cadiz.**—The entrance to this noble basin lies between the city and the town and promontory of Rota, bearing N.W. by N., distant about  $\frac{1}{4}$  league. The bay is of very great extent, affording, in most places, good anchorage. The port is on the eastern side of the city, where a mole of considerable dimensions has been constructed; but the water is not sufficiently deep to allow large vessels to approach nearer than within about  $\frac{3}{4}$  mile, where they anchor in from 5 to 7 fathoms. The rocks called the Cochinos, the Puercas, and the Diamante, lie to the north of the city in the entrance to the bay; the first two at about  $\frac{3}{4}$  mile distant, and the Diamante at rather more than  $\frac{1}{2}$  mile from the city. Vessels may enter between the Puercas and the Diamante; but none, except those not drawing more than 15 feet water, and well acquainted with the channel, ought to attempt entering between the Cochinos and Puercas and the city. The town of St. Mary's, on the opposite side of the bay, is famous for being the depôt of the wines of Xeres. The outer bay, or that of Cadiz properly so called, is separated from the inner bay by the promontory having at its extremity the castle of Matagorda, which approaches within about  $\frac{3}{4}$  mile of the Puntales castle on the Isla de Leon. Within the inner bay is the famous arsenal of the Caraccas, the town of San Carlos, the canal of Trocadero &c. At spring tides the water in the bay rises 10 or 11 feet, but at neaps the rise does not exceed 6 feet. (For further particulars, see the excellent *Chart of the Bay of Cadiz*, by Tofiño; Malham's *Naval Gazetteer*; and Purly's *Sailing Directions for the Bay of Biscay*, &c.)

**History, Trade &c.**—Cadiz is a very ancient city, having been founded by the Phœnicians about 1,200 years before the Christian era. The temple which they erected in it in honour of Hercules was one of the most celebrated in antiquity. (Sainte Croix, *des Anciennes Colonies*, p. 14; Pomp. Mela, lib. iii. c. vi.) Its excellent port, and its situation, favourable alike for commerce and security, have made it, whether possessed by Carthaginians, Romans, Moors, or Christians, and under every vicissitude, a place of considerable commercial and political importance. It has long been the principal station of the Spanish naval force. In 1720 the commerce with Spanish America, which had previously been exclusively carried on from Seville, was transferred to Cadiz. It enjoyed this valuable monopoly till 1765, when it was partially relaxed by the trade to Cuba, St. Domingo, Porto Rico, and the other islands, being opened to all the greater ports of Spain. The benefits resulting from this relaxation were so very great, that in 1778 the trade to all parts of America was opened to ships from every considerable Spanish port, except those of Biscay, which, not being subject to the general laws of the kingdom, were not allowed to participate in this privilege. In consequence, however, of her situation, the great capital of her merchants, and their established connections, Cadiz continued, notwithstanding the abolition of the monopoly, to preserve by far the largest share of the American trade. But since the colonies achieved their independence, her commerce has been contracted within comparatively narrow limits; and though considerably increased of late years, it will not attain to anything like the extent to which it might arrive without a total change of policy on the part of the Spanish Government. Barcelona is at present the principal seat of Spanish commerce, (Robertson's *America*, b. viii. passim; Townsend's

ports 850,000. More than  $\frac{3}{4}$  of the whole comes to England. The other articles of export are quicksilver, brandy, oranges and other fruits, oil, provisions, flour, salt, wool &c. The imports consist principally of sugar and coffee from the Havannah and Porto Rico, cocoa, hemp, flax, linens, dried fish, hides, cotton wool and cotton manufactures, coal and iron, rice, spices, indigo, staves and timber &c.

The white wines of Xeres in its vicinity form by far the principal article of export from Cadiz. The quantity exported may amount to about 35,000 pipes a-year. The prices vary from 12l. to 65l. per pipe; but, as the lower qualities predominate, the price may be taken, at a medium, at about 25l., making the total value of the ex-

ports 850,000. More than  $\frac{3}{4}$  of the whole comes to England. The other articles of export are quicksilver, brandy, oranges and other fruits, oil, provisions, flour, salt, wool &c. The imports consist principally of sugar and coffee from the Havannah and Porto Rico, cocoa, hemp, flax, linens, dried fish, hides, cotton wool and cotton manufactures, coal and iron, rice, spices, indigo, staves and timber &c.

Account of the Quantities and Values of the Principal Articles Imported from Spain into the United Kingdom during each of the three Years ending with 1866.

Principal and other Articles	Quantities			Computed Real Value		
	1861	1865	1866	1861	1865	1866
Animals: oxen and bulls	no.	8,209	8,190	112,175	115,724	174,224
Copper ore	tons	3,772	2,711	40,651	43,095	45,327
unwrought and part wrought	"	1,415	1,038	124,166	137,787	115,987
Cork	"	188	67	153	6,580	2,515
Corks, ready-made	"	78,153	300,071	369,892	4,257	10,880
Corn: wheat	cwts.	125,361	125,361	524,335	893	37,714
wheatmeal and flour	"	125	3,395	233,193	75	5,765
Cotton, raw	"	14,510	831	116	187,857	7,507
Eggs	great hundred	51,105	31,398	80,655	16,645	10,910
Fruit: almonds, not bitter	cwts.	10,277	10,085	12,611	62,117	44,461
figs	"	6,104	7,991	12,158	4,572	5,738
grapes	bushels	46,827	30,307	40,774	35,672	49,415
nuts, chestnuts	"	10,001	1,198	2,812	4,376	216
small nuts	"	179,182	220,131	225,959	133,169	186,375
oranges and lemons	"	275,651	320,273	618,705	192,412	324,431
raisins	cwts.	273,635	266,445	248,287	319,355	420,862
Iron ore	tons	43,927	37,121	27,619	32,887	29,176
Lard, pig and sheet	"	25,706	27,174	31,075	473,901	399,105
Liquorice, juice and paste	cwts.	938	741	210	2,305	1,506
Madder	"	8,848	5,726	16,018	6,718	12,316
Manganese ore	tons	105,322	21,359	25,229	15,455	79,008
Oil, olive	tuns	3,131	11,919	2,927	176,572	621,446
Ore, unenumerated	value	15,529	16,785	11,910	2,516	249
Pines of iron or copper	"	4,510,550	1,261,239	2,401,315	483,086	150,376
Quicksilver	lbs.	41,339	47,339	65,839	206,659	216,251
Rags and other materials for making paper: viz. Vegetable fibre	lbs.	3,167	5,159	5,020	8,501	6,183
Silver ore	tons	869	1,128	118	39,150	57,711
Spelter	"	509	3,515	1,851	1,967	15,008
Wine	gallons	7,701,025	5,891,523	6,470,557	2,979,992	1,359,017
Wool, sheep and lambs	lbs.	712,111	115,611	125,058	58,679	6,774
All other articles	value	—	—	—	170,227	101,293
Total	—	—	—	5,879,705	4,769,277	5,553,133

Account of the Quantities and Values of the Principal Articles of British and Irish Produce Exported from the United Kingdom to Spain in each of the three Years ending with 1866.

Principal and other Articles	Quantities			Declared Real Value		
	1861	1865	1866	1864	1865	1866
Alkali, soda	cwts.	59,312	61,586	50,316	27,764	35,359
Arms and ammunition: fire arms (small)	no.	25	16	36	450	191
gunpowder	lbs.	22,400	500	60,704	469	11
Apparel and haberdashery	value	366	71	18	46,763	37,048
Bacon and hams	cwts.	—	—	—	934	219
Carriages of all sorts	no.	817	45	14	94,201	4,825
Coals, cinders, and colm	tons	534,246	465,816	511,059	280,773	251,164
Copper, wrought and unwrought	cwts.	2,152	2,180	1,612	19,482	10,349
Cotton yarn	lbs.	154,916	195,979	188,515	21,668	49,291
Cottons, entered by the yard	yards	3,419,238	2,446,942	2,235,323	131,870	82,653
at value	value	—	—	—	15,185	19,450
Drugs and chemical products	value	—	—	—	12,150	12,898
Eartlieware and porcelain	value	—	—	—	3,515	6,689
Fish: cod and ling	cwts.	35,900	31,179	24,280	54,817	32,948
Glass manufactures	value	—	—	—	4,155	2,407
Hardware and cutlery, unenumerated	cwts.	16,179	12,176	13,469	80,615	61,205
Iron, wrought and unwrought	tons	63,335	37,708	19,999	488,166	261,709
Linen yarn	lbs.	13,590,091	11,892,072	11,850,713	236,100	705,156
Linen, entered by the yard	yards	1,640,119	1,212,872	891,479	88,790	69,328
at value	value	—	—	—	1,168	3,829
Machinery: steam engines	value	—	—	—	113,007	27,708
all other sorts	value	—	—	—	197,821	75,989
Oil, seed	gals.	161,621	64,453	78,185	21,510	9,132
Paints: colours	value	—	—	—	11,510	7,104
Provisions, not otherwise described	value	—	—	—	2,405	679
Silk, thrown and yarn	lbs.	2,751	1,202	287	1,060	918
manufactures	value	—	—	—	21,943	16,068
Telegraphic wire	value	—	—	—	2,936	2,731
Tin, unwrought	cwts.	5,536	2,178	3,173	18,879	12,526
plates	value	—	—	—	38,705	37,402
Woolen and worsted yarn	lbs.	35,618	4,778	22,930	7,060	5,999
Woolens, entered by the yard (including those formerly entered by the piece)	yards	2,347,081	1,237,235	1,037,091	164,959	101,403
at value	value	—	—	—	12,771	9,258
All other articles	value	—	—	—	219,140	205,305
Total	—	—	—	5,084,778	2,177,416	2,091,824

In the years 1861-3 the shipping of Cadiz was as follows:—

	1861	1862	1863
Entered and cleared with cargoes	2,281	2,155	2,378
Tonnage of ditto	500,646	511,507	539,114
Tonnage of coasting trade, entered	180,905	218,524	224,505
Ditto cleared	135,096	16,722	159,208

In 1865, 409,497 tons of coal and coke were imported into various Spanish ports.

The wine exports of Cadiz for 1866 (taking Xeres and Port St. Mary together) are estimated by Mr. Consul Dunlop at 60,000 butts. See also Mr. Savile Lumley's note of May 4, 1867, on the *Wine Trade of Spain*, published among the Reports of Secretaries of Embassy and Legation.

The total amount in the year 1866 to Brazil, Prussia, Mr. Consul Dunlop is estimable in his Report number and national Cadiz in 1866:—

- English
- French
- Swedish and Norwegian
- Italian
- Dutch
- Russian
- Portuguese
- American
- Prussian
- Austrian

Bank of Cadiz. established with special issue notes. In but are still in circulation in discredit.

Banks.—Some Cadiz, joint-stock legitimate discount more respectable who advance on banking business.

Gold Isabella of 100 reals piece of 40 " 20 " 20 "

Silver dollar of 80 " 20 "

Accounts are kept are sometimes also in circulation, and which pass current Cadiz 'Napoleons,' rarely seen, and do

Weights and Measures is divided into 4 Ma each: 100 lbs. C The common Spanish lbs. English. They are 100 varas = 92 $\frac{1}{2}$  Er

sure for corn, is divided into 4 quarters, and 5 fanegas or arroba, the measure of 8 azumbres, and the sorts of arrobas, they are to each being equal to 4 $\frac{1}{2}$  Er to 3 $\frac{1}{2}$  do. A moya of = 30 arrobas of wine, or 127 $\frac{1}{2}$  English wine

Port and other Cede an equal benefit to the vessels of islands with Spanish navigation and port anchorage, and load in the law of April decree of December Shipping charges

Pilotage (ordinary if to Pto. de Cádiz)

For every change Besides this, from every pilot for the

Puntiles Port dues ( Captain of port, 4 real Lighthouse Anchorage

If quarantined a vessel, daily.

The total amount of salt exported from Spain in the year 1863 was 2,327,844 hectolitres, chiefly to Brazil, Prussia, Russia, Sweden, and Uruguay.

Mr. Consul Graham Dunlop gives the following table in his Report of May, 1867, showing the number and nationality of vessels which entered Cadiz in 1866:—

	Number
English	412
French	153
Swedish and Norwegian	56
Italian	51
Dutch	47
Russian	42
Portuguese	20
American	18
Prussian	8
Austrian	1

**Bank of Cadiz.**—This joint-stock bank was established with special privileges, and was permitted to issue notes. In 1864 the notes fell to a discount, but are still in circulation. The bank is therefore in discredit.

**Banks.**—Some other smaller banks exist in Cadiz, joint-stock and private; but most of the legitimate discounting is accomplished by the more respectable of the merchants of the place, who advance on wine, and do other ordinary banking business.

**Money.**

Old Isabella of 100 reals or 5 dols.	Silver 1/2 dollar of 10 reals
piece of 80 " 4 " "	peseta of 5 " "
40 " 2 " "	" 4 " "
20 " 1 " "	1/2 peseta of 2 " "
Silver dollar of 20 " 1 " "	coin of 1 " "

Accounts are kept in reals and cents. There are sometimes also doubloons and half-doubloons in circulation, and French five-franc pieces of silver which pass currently for 19 reals, called always in Cadiz 'Napoleons.' English gold and silver are rarely seen, and do not pass current.

**Weights and Measures.**—The ordinary quintal is divided into 4 *arrobas*, or 100 lbs. of 2 marcs each: 100 lbs. Castile=101½ lbs. avoirdupois. The common Spanish pound of weight is about 2 lbs. English. The yard, or *vara*=.927 English yard, or 100 varas=92½ English yards. The *cahiz*, or measure for corn, is divided into 12 *fanegas*, or 144 *celeminas*, or 576 *quartillas*; 100 *cahiz*=19.7 Winchester quarters, and 5 fanegas=1 quarter. The *cantaro*, or *arroba*, the measure for liquids, is divided into 8 *azumbres*, and 32 *quartillos*. There are two sorts of *arrobas*, the greater and the lesser; they are to each other as 32 to 25; the former being equal to 4½ English wine gallons, the latter to 3½ do. A *moyo* of wine=16 *arrobas*. The *botta*=30 *arrobas* of wine, or 88½ of oil. A *pipe*=27 *arrobas* of wine, or 34½ of oil. Hence the *botta*=127½ English wine gallons, and the *pipe* 114¾ do.

**Port and other Charges at Cadiz, fixed January 3, 1852.**—The ships of all the nations which concede an equal benefit in their respective territories to the vessels of the Spanish marine to be put on an equality in the Peninsula and adjacent islands with Spanish vessels for the exaction of navigation and port dues, i. e. of lighthouses, anchorage, and loading and unloading, established in the law of April 11, 1849, and in the royal decree of December 16, 1851.

Shipping charges &c. at Cadiz are heavy.  
 Pilotage (ordinary for every vessel) 9 dollars 50 cents.  
 if to Trocadero about 41. 50. sterling  
 Caracas about 41. sterling

For every change of anchorage 3 dols. 25 cents. Besides this, from 1 to 5 dols. are allowed to every pilot for the hire of his boat.

Puntales Port dues (every vessel passing) 75 reals  
 Captain of port, 4 reals to 8, according to tonnage and rig  
 Lighthouse dues 1 real per Spanish ton  
 Anchorage dues 1 " " "

If quarantined a vessel pays 25 reals per Spanish ton, daily.

N. B. All vessels arriving with a bill of health not countersigned by a Spanish consul or authority are quarantined, generally for 3 or 4 days.

There is also a small tax on vessels leaving, called 'consumos-dues,' which is levied according to crew and passengers. A most important branch of the import trade of Spain is the smuggling, which is now managed in the Custom-houses as well as by the contrabandistas. This is said to be an understood matter, and in the South of Spain, where free-trade doctrines are more prevalent than in Catalonia, it would be impossible to prevent smuggling, except by free-trade.

**Customs Regulations.**—Art. 1. Shippers of merchandise in foreign countries shall present to the Spanish consul a statement in duplicate, and without corrections or erasures, of the goods they embark, expressing the name and nature of the vessel, and of the master, port of destination, description of the bales, boxes, packages &c. &c. to be shipped, their marks and numbers, class, quality, and quantity of the merchandise contained in each, in Spanish weight or measure, the consignees thereof, of what nation the produce and manufacture; if of the country whence shipped; and if not, of what other nation or fabric may be their origin, concluding the statement or note with a declaration that it details the true contents of the packages, and that they contain nothing else. There must be separate notes from each shipper and for each consignee.

Art. 3. From all these notes the consul is to form a general summary, with a copy of which, and one of each of the notes of the shippers, he is to form a true register of the cargo, to be delivered to the master in a sealed despatch (with wax and wafer), addressed to the administrator of the custom-house at the port of destination. No merchandise can go on board after delivery of the register to the master without subjecting all to seizure on arrival in Spain.

Art. 8. The master who, in the act of receiving pratique, shall not deliver to the administrator the sealed despatch or register handed to him by the Spanish consul shall pay a fine of 400 dols., the cargo discharged and stored until the consul shall remit a certified copy of the original notes presented by the shippers, and for which the administrator shall apply.

Art. 10. On examination by the administrator, in presence of the master, of these sealed despatches or register, if they manifest marks or evidences of having been previously opened, the master shall be fined 100 dols. for this alone, and—

Art. 11. In case amendments and alterations are observed in the notes, the master shall answer before the tribunal of finance for the crime of forgery, which he may be guilty of.

Art. 12. Where no consul resides, shippers must send their notes to the one nearest resident, and the master shall receive from him these registers, with the understanding that merchandise from a foreign country shall not be admitted to entry which shall not come with the requisites detailed.

Art. 14. The exceptions to the above are cargoes of lumber, staves, codfish, hides, coals, which it shall be evident come to the order of the master in search of a market; but in such cases a document of origin must be presented from the place of loading, specifying the quantity aboard of the vessel.

Art. 23. Within twenty-four hours after anchoring (being visited), the master shall present to the administrator of the custom-house a manifest of the cargo &c.

Art. 27. Fine of 100 dols. if the manifest be not presented within twenty-four hours.

Art. 38. Fine of 100 dols. for every package in excess, and 50 dols. for every one manifested less than what is expressed in the register made up by the Spanish consul.

Art. 39. If the manifest does not specify minutely the contents of the packages of prohibited merchandise manifested in the transitu, they shall be landed and examined.

Art. 42. All goods must be manifested to specified consignees, in no case to 'order.' The general term *merchandise* is not recognised nor admitted, in which case the goods shall be landed and examined in the presence of the master or his agent, and if they shall be found to be illicit goods, they shall be forfeited, and the master fined 25 per cent. if they be worth more than 2,000 dols., and if less 500 dols. If the goods be of licit traffic, half the sums.

Art. 181. Transhipments prohibited.

Art. 182. Merchandise cannot be manifested in transitu for the port from which the vessel originally sailed, nor those touched at in the voyage.

#### TREASURY DEPARTMENT—ORDER IN COUNCIL.

'Your Excellency will please to notify to H.M. consuls abroad that under no pretence they give course to the declarations or notes of shippers unless exactly in conformity with the customs regulations, nor despatch registers including articles of prohibited traffic, under the understanding that for the confiscations and fines which shall be imposed for defects in consular documentation the consuls themselves shall be responsible, notifying them also that all the documents which they give course to must, without exception, be made in the Spanish language.

'Madrid, September 26, 1850.

In the *Gaceta* of Madrid of April 2, 1865, occurs an official notice with a royal decree, showing the exact state of the present Spanish Navigation laws, viz.—

'It is decreed that *flour* imported into the islands of Cuba and Puerto Rico shall pay duty (from July 1, 1865) on each barrel of 92 kilograms=200 lbs. of Spain, as follows:—

	dols.
1. Flour, the produce of Spain, coming from Spanish ports under Spanish flag	2
2. Comies from Spanish ports under a foreign flag	4
3. Foreign flour under Spanish flag	7
4. Foreign flour under foreign flag	10

The railway from Cadiz to Madrid has been completed. This will open a large inland trade advantageous for Cadiz. The railway to Malaga has also been finished, and that to Granada and some interior towns will soon be opened. The journey from Cadiz to the capital per rail is now (1868) performed in about 25 hours.

Cadiz is the port of the whole district, including Port St. Maria, Port Real, San Fernando, Puntales, Rota, Jerez, Seville, San Lucar, Conlova.

Although there is a good deal of fruit &c. shipped in small steamers at Seville, and taken abroad, the long river navigation is against Seville.

*Spanish Commercial Policy.*—It is the peculiar misfortune of Spain that every part of her political system has been alike vicious and objectionable. Had her commercial policy been liberal, it would, in some degree, have compensated for the defects in the distribution of property and political power, and would, no doubt, have given a powerful stimulus to industry. But, unluckily, it has been in perfect harmony with her other institutions, and was, in all respects, worthy of the favourite seat and stronghold of the Inquisition. From the reign of Ferdinand and Isabella down almost to yesterday, the grand object of the Spanish Government, next

to the extirpation of heresy, has been to exclude foreign manufactures from the Peninsula, and to preserve a monopoly of its markets, as well as of those of the colonies, to the home manufacturers. It is, however, almost needless to say that their efforts to bring about this result have been signally unsuccessful. Oppressive taxes, with the multiplication of fasts and holidays, the Government monopolies, and the badness of the roads and other means of communication, made it impossible for the Spanish manufacturers, even if they had evinced greater enterprise and industry than they have done, to produce manufactured articles as cheap as the English, French, and others less unfavourably situated; and such being the case, it is plain that the prohibition of certain descriptions of commodities, and the oppressive duties laid on others, could have no effect except to suppress the legitimate commerce of the country, and to throw it wholly, or almost wholly, into the hands of smugglers. Any one who takes up a map of Spain must be satisfied at a glance that it would be impossible for an army of customs officers to prevent her being deluged with smuggled produce, provided they were materially cheaper than her native products; for, besides her extensive sea frontier, they may be introduced by way of France and Portugal, and also through the Basque Provinces, which have distinct laws, and enjoy an exemption from the commercial code inflicted on the rest of the kingdom. We need not, therefore, be surprised that every effort to prevent the clandestine introduction of foreign products completely failed. The severities occasionally inflicted on the smugglers, instead of abating, seem really to have increased, the evil. The contraband trade has long been a favourite occupation, and has been eagerly followed by the adventurous, and the necessitous, and the desperate. It is believed that for nearly three centuries from 100,000 to 150,000 individuals have been pretty constantly engaged in this occupation; that is, they have been engaged in trampling on the laws, obstructing their officers, and committing acts of violence and blood. A few years ago about 3,000 actions were annually instituted against *contrabandistas* and others engaged in illicit trade, which terminated in the ruin of a vast number of families; at the same time that the courts of law were filled with perjury, and the country with bloody conflicts; and yet these atrocities secured no one object Government had in view.

Notwithstanding their being absolutely prohibited, English and French cotton goods might, in 1848, be bought in every shop in Madrid, and generally throughout Spain; the former at from 20 to 30 per cent. above their price in Gibraltar, where they are about as cheap as in Manchester; and the latter at from 20 to 30 per cent. above their price in Bayonne, which is nearly identical with their price in Rouen! While Cadiz was a free port, about 6,000 persons are said to have been employed in it twisting cigars, which, as soon as finished, were forthwith smuggled into the interior. Three-fourths, in fact, of the foreign trade of Spain were then in the hands of the *contrabandistas*, who carried it on in defiance of the law; and when such was the case, need we wonder at the low state of industry, or at the prevalence of those predatory and ferocious habits that uniformly mark the character of the smuggler?

And, strange to say, notwithstanding the ruinous influence of this wretched system was long since exposed by Ulloa, Campomanes, and other distinguished Spaniards, and by Mr. Townsend and other foreigners who had visited the country, and notwithstanding all the vicissitudes Spain has

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and upwards of silve  
galena; lead contain

undergone during the previous half century, it continued to maintain its ascendancy down to 1819. But the leading Spanish statesmen having been, at length, satisfied of the disastrous influence of the old system, a vigorous effort was made, in the year now mentioned, to introduce a more rational tariff; and notwithstanding the selfish and shortsighted opposition of the Catalans and others, the new tariff was happily passed into a law. It is true that it leaves much to be desired; but it is, at the same time, a vast improvement on the system by which it was preceded; and it is especially valuable as being the first step in the introduction of a new and more liberal and rational policy. In a few cases the duties on importation were increased, but in the great majority of instances they were reduced, and the greater number of the articles that were formerly prohibited are now admitted on payment of duties. The following are the bases of the new tariff, viz.—

‘Machines and instruments necessary for agricultural, manufacturing, and mining operations, to pay a duty of from 1 to 14 per cent, ad valorem.

‘Raw material not abundantly produced by Spain, and used in the operations of the national industry, whatever be the form or the increase of value that it may acquire, to pay from 1 to 14 per cent.

‘Raw material similar to that abundantly produced by Spain, productive agents in the same case, such as coal and coke, and articles of merchandise of foreign manufacture which may compete with those of the same kind and quality manufactured in Spain, to pay from 25 to 50 per cent.’

N.B.—Cottons and silks come under this class. The duties on the former are generally about 35 per cent, ad valorem.

‘Foreign produce and manufacture required for consumption, and not supplied by the national industry, to pay a maximum of 15 per cent., and at the utmost 20 per cent, in every exceptional case.

‘The duties hitherto levied on the colonial produce of foreign countries to be suitably increased.

‘A discriminating duty of 20 per cent, to be charged on articles imported in foreign bottoms; and on those articles which contribute most to the support of the national navigation the discriminating duty may be raised to 50 per cent.’

The prohibited imports are arms, projectiles, and munitions of war, including all kinds of gunpowder; quicksilver; charts, published by the Admiralty, and reprinted abroad; maps and plans by Spaniards, during copyright; cinnabar; vessels constructed of wood of less burden than 300 tons, of 20 quintals each; grain, flour, biscuit, bread, and macaroni &c. for soup, not admitted by the corn laws; books and prints in Spanish, by Spanish authors, if not imported by those individuals during copyright; missals, breviaries, and other books of liturgy (dictionaries, vocabularies, insignias, devices, and military ornaments are not included in this prohibition); pictures &c. offensive to morality, or ridiculing the Catholic religion; common salt, tobacco, shoes, and ready-made clothing, except for the private use of travellers; chemical preparations forbidden by the sanitary laws.

Moderate export duties to be levied on antimony or galena, not argentiferous; black copper, roughly melted; litharge containing less than an ounce of silver per quintal; pig lead, raw silk.

*Prohibited Exports.*—Cork in the bark of the province of Gerona; litharge containing an ounce and upwards of silver per quintal; argentiferous galena; lead containing 24 drachms and upwards

of silver per quintal; cotton, hempen, and woollen rags, and worn-out articles of those materials.

The high discriminating duty on goods imported on foreign bottoms is the most objectionable feature in the Spanish tariff; though we can hardly be surprised at the Spaniards continuing to act on a principle that was acted upon down to a very recent period by the English and the Americans. We believe, however, that it will be far more injurious to themselves than to any one else; and that its effect will be to lessen and embarrass their trade without really providing employment for Spanish merchantmen.

To the other facilities for smuggling in Spain must be added the venality and corruption of the customs officers. Notwithstanding his *españolism*, Mr. Ford bears testimony to its universality. He says, ‘Every lock in Spain is to be picked with a silver key, and every difficulty smoothed by a properly administered bribe. The customs *empleados* have been defined to be gentlemen, who, under the pretence of searching portmanteaus, take money on the highway without incurring the disgrace of begging or the danger of robbing; and practically they worry honest travellers who won't pay them, as much as they facilitate those who will.’ But, in truth, this venality is not confined to the revenue officers, but pervades and debases all classes, from the highest to the lowest.

The following information has been supplied to the editor by an eminent Spanish merchant:—

‘To pass through the custom-house requires a regular education on the part of the merchant. The amount of duty to be paid depends more on mutual understanding than on law. Such laws as are supposed to be in force are imperfectly worded as well as badly administered, and references to the Board of Customs at Madrid are incessant and vexatious. There is little or no official honesty; there is a price for everything, business being vastly expedited by presents. This general corruption of Government officials is almost necessitated by the low rate at which they are paid. Of course uncertainty is fatal to successful trade.’

The writer illustrates the utter want of system in Spanish finance by referring to the fact that during the late dearth of cotton the exporters of Spanish goods to Cuba wished the Government to allow the importation of Spanish goods into that colony duty free, so as to expedite the export of Cuban cotton. The Government assented, but in practice neutralised the boon by annexing a condition that the duty should be paid in Cuba, but repaid to the exporter in Spain. This neither met the difficulty nor checked smuggling: at last the Government saw and acknowledged its error; but the opportunity had passed away.

We incline to think that, allowing for smuggling, the import and export trade of Spain might each be estimated, previously to the late change in the tariff, at about 4,000,000*l.* sterling, or perhaps a little more; and the good effects of that change are already obvious, both importation and exportation having greatly increased, and a corresponding stimulus having been given to industry. This has been further increased by the opening of railways, the formation of companies for steam-navigation, banking &c. In 1856 the duties on imports and exports amounted to 352,936,000 reals. The trade of Spain by sea during that year employed in the out and home voyages 9,660 Spanish vessels of the aggregate burden of 500,870 tons, and 9,357 foreign ships of the aggregate burden of 1,217,488 tons, showing that the foreign vessels employed were more than double the size of the Spanish.

The great articles of export from Spain consist (exclusive of silk manufactures) of raw products. Of these, wine, olive oil, wool, fruits of various kinds, lead, quicksilver, brandy, cork-wood, salt, raw silk, wheat &c. are the most important, and are almost all susceptible of an indefinite increase.

The great articles of import are colonial products, obtained principally from Cuba, Porto Rico &c.; cottons and cotton wool; linens, linen yarn, woollens, with, of late years, large quantities of iron and machinery, coal &c. from England; salted fish, hardware, glass, and earthenware; timber, rice, hides, butter and cheese &c. Subjoined is

*An Account of the Value of the Principal Articles (including Bullion and Specie) Exported from Spain and the Balearic Islands in each of the Years 1861, 1862, and 1863.*

Principal Articles	1861	1862	1863
Animals, living	19,679,101	17,015,730	16,801,798
Books, printed	1,832,400	1,369,500	2,342,236
Coals, vegetable	9,545,430	6,121,125	1,225,306
Cork, in sheets and ready-made	38,496,614	33,456,771	31,822,813
Flax, of all kinds	2,365,308	3,365,799	4,215,758
Flour	145,942,460	86,511,352	75,001,402
Fruit:—			
Olives	1,701,420	2,137,900	3,106,554
Almonds			12,286,539
Dry, not otherwise named			2,090,953
Fresh	108,335,726	145,003,454	8,199,359
Nuts, small			9,250,375
Oranges and lemons			20,586,258
Raisins			71,482,854
Grain, vegetables and seeds	61,297,815	30,365,377	31,241,560
Hemp:—			
Dressed	1,129,200	761,200	1,799,504
Manufactures of, and of cotton	3,585,184	6,062,747	525,158
Hides, of all kinds	5,931,324	5,514,875	6,020,051
Liquorice, juice and paste	3,304,380	4,184,446	4,531,917
Meat, salted	3,717,776	3,016,556	3,025,103
Metals	132,656,278	141,414,825	157,274,330
Oil:—			
Almond	9,998,069	865,487	1,397,874
Olive	44,126,180	55,670,780	96,018,798
Ores, of all kinds	25,682,901	33,476,570	44,155,126
Paper, of all kinds	6,548,009	6,122,530	14,000,824
Plums and herbs	6,069,468	12,974,083	3,450,375
Preserves	4,140,645	2,493,760	7,203,665
Saffron	8,995,000	18,060,090	17,001,325
Salt, common	16,706,744	20,616,258	18,759,767
Shoes, of all kinds	8,157,776	11,653,526	11,825,500
Silk			
Manufactures of	4,100,039	2,112,516	1,205,650
Raw waste	4,327,778	4,401,170	4,092,557
Soap, hard	21,000,150	20,628,520	18,566,040
Esparto grass, stemmed and unstemmed	5,879,470	9,215,970	15,169,681
Spirits and liqueurs	21,950,490	20,133,210	13,772,718
Sugar	5,012,745	2,209,522	3,625,510
Wine	331,975,490	313,114,950	348,107,581
Wool:—			
Manufactures of	2,097,785	1,750,351	980,432
Washed, unwashed, and waste	30,098,749	30,961,078	26,019,231
Silver coin	35,030,541	48,207,196	59,806,584
Total of principal and other articles	1,269,500,460	1,110,532,270	1,219,871,094
	12,895,005	11,105,522	12,198,710

The importance of the trade that Spain formerly carried on with her vast possessions in the New World was, at all times, much exaggerated; and she, in truth, was little better than an agent in the business, the greater part of the goods sent on Spanish bottoms to the colonies being, in reality, the property of foreign merchants. Spain, notwithstanding the emancipation of Mexico and South America, has still some very valuable colonies; and, if nothing else can, the astonishing progress made by Cuba and Porto Rico since the abolition of the prohibitive system should satisfy her of their ruinous tendency.

Wool used to be a leading article of import into this country from Spain; but now, though our imports of wool have vastly increased, they are principally supplied by our possessions in Australia, Africa, India &c. The quantities brought from Spain have, indeed, become quite

inconsiderable; so much so, that while in 1866 she supplied us with only 123,058 lbs., our total imports amounted to the immense quantity of 239,358,689 lbs.! Wine, raisins, olive oil, nuts, lead, copper ore, cattle, and quicksilver are at present the principal articles imported into the United Kingdom from Spain in ordinary years. Sometimes, however, she supplies us with large quantities of wheat and flour. And the completion of the railway from Santander to Leon and Estremadura, two of the finest wheat-growing provinces of Europe, will make the Peninsula one of the principal sources whence we may at all times draw large supplies of these indispensable articles. Previously to the alteration of the tariff in 1819 the declared value of the direct exports from the United Kingdom to Spain varied from 500,000l. to 800,000l. a-year; whereas they amounted, at an average of 1865 and 1866, to 3,079,257l. a-year, while our imports thence in 1867 are valued at 6,088,389l. This is a great increase; still it may be safely affirmed that our trade with Spain does not yet amount to  $\frac{1}{4}$  of what it would be were she to adopt a really free commercial system.

Some portion, though far less now than formerly, of the exports to Portugal, Gibraltar, and Malta find their way, by the intervention of the smuggler, into Spain.

Owing to the badness of the roads, and their unfitness for carriages, the principal carriers of merchandise are the *arrieros*, or muleteers, who traverse the country in all directions along beaten tracks, many of which are accessible only to them. They form a large portion of the provincial population, and, on the whole, have a good character for honesty to their employers, though they are nearly all, more or less, engaged in smuggling transactions. The extent of this traffic may be estimated from the fact that about three-fourths of the entire inland traffic in corn is carried on by their means. Waggoners have, however, been introduced on all the practicable roads; and should the latter be improved, the business of the *arrieros* will proportionally fall off.

There can be no reasonable doubt that, but for the system of misrule to which Spain has been subjected, her commerce would have been very extensive. Her natural advantages, superior to most, and not inferior to those enjoyed by any other kingdom; her wines, brandies, fruits &c.; her wheat, of which she might produce the largest supplies; her wool; her iron, which is of the best quality; her lead and quicksilver mines, respectively the most productive in the world; the number and excellence of her harbours; the enterprising and adventurous character of her inhabitants, and her favourable situation, would, were she permitted to avail herself of them, raise her to a very high rank among commercial nations. Let the Government follow up what it has so well begun, by ceasing to counteract the intentions of nature; let moderate duties take the place of prohibitions, and freedom of regulation, and all sorts of industrious pursuits will revive from the deadly lethargy in which they have been so long sunk.

[We are indebted to Mr. Graham Dunlop, her Majesty's consul at Cadiz, for corrections in this article, as well as to his Report of May 20, 1867, for further information.]

CAGLIARI. The capital of the island of Sardinia, on the north-east shore of a spacious bay on the south coast of the island, lat. 39° 12' 13" N., long. 9° 7' 44" E. Population, in 1862, 30,905. The city stands on a rising ground, and has an imposing effect from the sea. The public buildings and churches are numerous, and some of them

splendid; but the narrow, steep, and west to Cape Carbon about 24 miles arc with good anchor into soundings. A office, and slips us S. from it, in 6 or 8 bottom of mud. T harbour at the sou capable of containi size, besides small of the best and safe

There are two lig the other at the e former gives a red harbour lights are

*Imports and Exports*  
Sardinia is carried fish on its coast and Sicilians, Neopolita Corn is the principa years the exports amount to 400,000 bushels, of wheat, 2 ditto of maize, 100 ditto of peas, 1,000 projected railways would increase. The becoming of more in Catalan pipes are Alghero and Ogliastr considered quantities a monopoly, and affor Flax, linseed, hides, &c. are among the ar and coral fisheries e but, as already observ managed by foreigner

Almost every artic gentry or the peasa stationery, glass, ear well as sugar, coffee supplied by foreigners Sardis possess many r were successfully wr once more becoming their iron and steel carried on in the isla salt, tobacco, and wo

By far the largest p the island is forward of the kingdom. The is said to have amou 3 years ending with 1

Almonds	lbs.	267,000
Bacon and salt meat	lbs.	315,300
Bealls	cwts.	5,800
Beans, barley, pulse	qrs.	15,000
Chita	no.	22,900
Chese	cwts.	49,200
Coral	lbs.	70,100

But the returns fo striking falling off in lead ore.

The following was 1864 and 1866:—

Entered	Foreign	-
	Coasting	-
Cleared	Foreign	-
	Coasting	-

The following repres trade with the island 1861-5.—

splendid; but the streets are, for the most part, narrow, steep, and filthy.

The Gulf of Cagliari extends from Pula on the west to Cape Carbonara on the east, a distance of about 24 miles across, and about 12 in depth, with good anchorage everywhere after getting into soundings. A mole projects from the Praticue office, and ships usually lie about 1 mile S.W. by S. from it, in 6 or 8 fathoms water, on an excellent bottom of mud. There is a very convenient pier harbour at the south angle of the tower wall, capable of containing 14 or 16 vessels of a tolerable size, besides small craft. Altogether, Cagliari is one of the best and safest ports in the Mediterranean.

There are two lighthouses, one on Fanale Point, the other at the entrance of the harbour. The former gives a red flash every two minutes. The harbour lights are also red.

**Imports and Exports.**—Almost all the trade of Sardinia is carried on by strangers; and even the fish on its coast and in its harbours is caught by Sicilians, Neapolitans, Tuscans, and Genoese. Corn is the principal article of export. In good years the exports from the whole island may amount to 400,000 starelli, or about 500,000 bushels, of wheat, 200,000 starelli of barley, 6,000 ditto of maize, 100,000 ditto of beans, 200,000 ditto of peas, 1,000 ditto of lentils. Were the projected railways made, no doubt these exports would increase. The culture of vines is gradually becoming of more importance; and about 3,500 Catalan pipes are exported, principally from Alghero and Ogliastra. Cheese is an important object in the rural economy of Sardinia, and considerable quantities are exported. Salt is a royal monopoly, and affords a considerable revenue. Flax, linseed, hides, oil, saffron, rags, alquifoux &c. are among the articles of export. The tunny and coral fisheries employ a good many hands; but, as already observed, they are almost wholly managed by foreigners.

Almost every article of dress, whether for the gentry or the peasantry, is imported. Soap, stationery, glass, earthenware, and furniture, as well as sugar, coffee, drugs, spices &c. are also supplied by foreigners; and, notwithstanding the Sards possess many rich mines, several of which were successfully worked in antiquity, and are once more becoming productive, they import all their iron and steel. The only manufactures carried on in the island are those of gunpowder, salt, tobacco, and woollen caps.

By far the largest portion of the exports from the island is forwarded to the continental states of the kingdom. The quantity of these exports is said to have amounted, at an average of the 3 years ending with 1863, to—

Almonds	lbs. 967,083	Corkwood	cwis. 21,330
Beacon and salt meat	lbs. 315,399	Fish salt	lbs. 1,038,885
Beania	cwis. 5,880	Lead ore	cwis. 280,875
Beans, barley, pulse	qrs. 15,071	Olive oil	lbs. 1,377,632
Cattle	no. 22,914	Salt	tnns. 81,229
Cheese	cwis. 49,284	Skins	lbs. 1,250,600
Coral	lbs. 70,192	Wheat	qrs. 25,553
		Wine	gals. 722,926
		Wool	lbs. 355,065

But the returns for 1864 and 1865 show a striking falling off in each item of export except lead ore.

The following was the tonnage of Cagliari in 1864 and 1866:—

	1861		1866		
	vessels	tons	vessels	tons	
Entered	Foreign	372	90,100	310	185,668
	Coasting	843	82,692	106	20,791
Cleared	Foreign	375	90,299	696	157,011
	Coasting	846	79,612	77	25,763

The following represents the amount of British trade with the island of Sardinia for the years 1861-5:—

	1861	1862	1863	1864	1865
	£	£	£	£	£
Imports	45,977	46,532	9,385	29,518	49,501
Exports	5,322	37,232	7,974	67,112	57,035
Ditto Colonial and foreign	2,972	8	211	1,679	331
Total	51,481	63,775	17,699	98,455	106,865

**Money, Weights, and Measures.**—Accounts are kept in lire, reali, and soldi. 5 soldi = 1 reale = 1/4d.; 4 reali = 1 lira = 1s. 6d.; 10 reali = 1 scudo = 3s. 9d. The paper money consists of notes for 5, 10, and 20 scudi.

Farm produce and the coarser metals are weighed by the *pesi di ferro*: 12 Sard. oz. = 1 lb. = 14 oz. 5 dr. avoirdupois; 26 lbs. = 1 rubbo; 4 rubbi = 1 cantaro = 93 lbs. 0 oz. 8 dr. avoirdupois.

The starello, or corn measure, is equivalent to 1 bush, 1 1/4 peck Eng. The palm = 10 1/2 Eng. inches.

**Causes of the depressed State of Sardinia.**—The above statements sufficiently show that the commerce of Sardinia is very far from being what might naturally be expected from her extent, fertility, admirable situation, and the excellence of her many harbours. She contains an area of about 9,500 square miles, being, in point of size, but little inferior to Sicily; and in antiquity was reckoned, along with the latter, a principal granary of Rome. 'Siciliam et Sardiniam benignissimas urbis nostræ nutrices.' (Val. Max. lib. vi. c. 6.)

Utraque fragiferis est in aula nobilis arvis:  
Nec plus Hesperiam longinqua mensibus ulle,  
Nec Romam magis complerant horrea terræ.

Lucan, lib. lin. 65.

But the establishment of the feudal system in its worst form, and the unfavourable political and municipal regulations under which the island has latterly been placed, have gone far to neutralise the advantages it owes to nature. The agriculturists of Sardinia principally consist of two great classes—those who cultivate small farms on the *métayer* principle, and those who work on the estates of others, getting, in most instances, a patch of land for their support, and cultivating it at such times as they are not employed on the lord's lands. Both classes are excessively poor. The agreements under which the former class hold are seldom for more than a year; the landlord furnishing the seed as well as the land, and receiving half the produce. Those who occupy land for which they are obliged to pay a rent in corvées, or other feudal services, are, if possible, still worse off; having usually to borrow the seed either from the landlord or from the *Manti Frumentarii* established for that purpose, and having also to defray the title and a host of other burdens. Another disadvantage under which all classes labour is the want of houses on their farms; the peasants live together in villages, and have frequently to perform a journey of several miles in going to and coming from their farms.

Lands belonging to a canton or commune are frequently cultivated on a kind of partnership system, being divided into three portions: one of these, called *vidazzone*, comprises all the lands that are in cultivation, and which are distributed by lot among certain individuals, while the other two portions are occupied in common as pasture. But, as a new distribution takes place every year, it is plain that no individual can take any interest in the improvement of the soil; and this sort of tenure becomes, in fact, the most effectual that can be devised for the extinction of industry. Latterly, however, the Government has been making efforts to promote the formation of inclosures and the division of the lands, which, though opposed by the prejudices of the people, have made some progress. (Marmora, *Voyage en Sardaigne*, lib. v. ch. i.)



**CALAMANDER WOOD.** A beautiful species of timber brought from Ceylon. It is so hard that common edge-tools cannot work it, so that it must be rasped and almost ground into shape. It is singularly remarkable for the variety and admixture of colours. The most prevailing is a fine chocolate, now deepening almost into absolute black, now fading into a medium between fawn and cream colours. It arrests the eye from the rich beauty of the intermingled tints, not from any undue showiness. It takes a very high polish, and is wrought into chairs, and particularly into tables. Sir Robert Brownrigg, late governor of Ceylon, had the doors of the dining-room of his seat in Monmouthshire made of calamander. It is scarce in Ceylon, and is not regularly imported; all that is in Great Britain has been imported by private gentlemen, returning from the colony, for their own use. It is by far the most beautiful of all the fancy woods. The nearer it is taken from the root of the tree, the finer it is. (Millburn's *Orient Com.; Lib. of Entertaining Knowledge, 'Vegetable Substances,'* p. 179.)

**CALCUTTA.** The principal city of the Presidency of Bengal, the capital of the British dominions in India. Its citadel is in lat. 22° 34' 49" N., long. 88° 27' 16" E. It is about 100 miles from the sea, being situated on the eastern bank of the western branch of the Ganges, denominated the Hooghly River, which is the only arm of the Ganges navigable to any considerable distance by large ships. At high water the river opposite to the town is about a mile in breadth; but during the ebb the side opposite to Calcutta exposes a long range of dry sand-banks. Owing to the length and intricacy of the navigation from the sea, it is generally undertaken with a pilot.

In 1717 Calcutta was but a small village. In 1837 the population of what is properly called the town amounted to only 229,700, and in 1861 it was 413,182, of which the European portion was only 8,892. But this is exclusive of about 180,000 persons who reside at night in the suburbs, or neighbouring villages, coming into Calcutta early in the morning to their respective employments. The small number of English resident in Calcutta (where, however, they are far more numerous than in any other part of India) may well excite surprise. It was supposed that the cessation of the Company's monopoly, and of the prohibition of European resort to India, would occasion an influx of British settlers and capital; but this anticipation has not been realised. Scarcely a single English agriculturist, with capital sufficient to cultivate 100 acres of land, has established himself in India, except for the cultivation of indigo and tea, and there has been no immigration of artisans. And this, after all, is only what might have been expected; the country being too fully occupied, the burden on the lands too heavy, and the wages of labour far too low, to admit of anything like an extensive European immigration. The Eurasians, the progeny of white fathers and native mothers, are mostly employed as clerks in the Government offices and mercantile establishments, and are said to be an industrious and useful class. (*Bengal & Agra Gazetteer*, vol. i. part iii. p. 10 &c.) The town, excluding suburbs, extends about 4½ miles along the bank of the river, with an average breadth inland of about 1½ mile. Fort William, the citadel, lies on the same side of the river, a little lower down. It is a strong regular fortification, but so extensive that it would require a garrison of 10,000 men for its effectual defence. Calcutta possesses great natural advantages for inland navigation; all sorts of foreign produce being transported with

great facility on the Ganges and its subsidiary streams to the north-western quarters of Hindostan, over a distance of at least 1,000 miles, while the productions of the interior are received by the same easy channels.

The principal merchants and traders consist of British and other Europeans, Portuguese born in India, Armenians, Jews, Persians from the coast of the Persian Gulf (commonly called Parsees), Moguls, Mohammedans of Hindostan, and Hindoos; the latter usually either of the Brahminical or mercantile castes, and natives of Bengal.

The principal foreign business is conducted by English merchants; but other parties also, either in partnership with the English or on their own account, speculate largely to Europe, America, and especially to China. The brokers known under the name of Sircars and Baboos are all Hindoos. The general rates of agency commission are as follow:—

*Schedule of Commission Charges revised and adopted by a Special General Meeting of the Bengal Chamber of Commerce, held on June 18, 1861, with effect from January 1, 1862.*

	per cent.
1. On the sale, purchase, or shipment of bullion, gold dust, or coin	1
2. On the purchase (when in funds) or sale of indigo, raw silk, silk piece goods, opium, pearls, precious stones, or jewellery	2½
3. On purchasing ditto, when funds are provided by the agent	5
4. On the sale or purchase of all other goods—the commission in all cases to be charged upon the gross amount of sales, and in regard to purchases upon both cost and charges	5
5. On returns for consignments, if made in produce	2½
6. On returns of consignment, if in billie bullion, or treasure	1
7. On accepting bills against consignments	1
8. On the sale or purchase of ships, factories, houses, lands, and all property of a like description	2½
9. On goods and treasure consigned, and all other property of any description referred to agency for sale, whether advanced upon or otherwise, which shall afterwards be withdrawn; and on goods consigned for conditional delivery to others and so delivered (on invoice amount at 2s. per rupee)	half com.
10. On making advances or procuring loans of money for commercial purposes, when the aggregate commission does not exceed 5 per cent.	2½
11. On ordering or receiving and delivering goods, or superintending the fulfilment of contracts, or on the shipment of goods, where no other commission is derived	2½
12. On guaranteeing bills, bonds, or other engagements, and on becoming security for administration of estates or to Government for the disbursement of public money	2½
13. On <i>de-ré-vente</i> , or guaranteeing the due realisation of sales	2½
14. On the management of estates for executors or administrators	2½
15. On chartering ships or engaging tonnage for constituents for vessels to proceed to out-ports for loading	2½
16. On advertising as the agents for owners or commanders of ships for cabin passengers on the amount of passage money, whether the same shall pass through the agent's hands or not	2½
17. On procuring freight for a ship by shipping order or charter, or on procuring employment for a ship on monthly hire, or acting as agents for owners, captain, or charterers of a vessel, upon the gross amount of freight, brokerage inclusive	5
18. On engaging Asiatic emigrants for a ship to the Mauritius, the West Indies, or elsewhere, upon the gross amount of earnings	5
19. On engaging troops for a ship to Great Britain or elsewhere, on the gross amount of passage money for rank and file	2½
20. On realising inward freight, inward troop, emigrant, or cabin passage money	2½
21. On landing and re-shipping goods from any vessel in distress, or on landing and selling by auction damaged goods from any such vessel, and acting as agent for the master on behalf of all concerned—on the declared value of all such goods as may be re-shipped, and on the net proceeds of all such goods as may be publicly sold	5
If opium, indigo, raw silk, or silk piece goods	2½
If treasure, precious stones, or jewellery	5
22. On effecting insurances, whether on lives or property	2½
23. On settling insurance claims, losses, and averages of all classes, and on procuring returns of premium	2½
24. On drawing, purchasing, selling, or negotiating bills of exchange	1
25. On bills of other claims when a process at law or arbitration is incurred in claiming them	2½
Or, if recovered by such means	5
26. On bills of exchange returned dishonoured	1
27. On collecting house rent	2½
28. On ships' disbursements	2½
29. On realising bottomry bonds, or negotiating any loan on <i>respondentia</i>	2½
30. On granting letters of credit	1
31. On sale or purchase of Government securities and bank or other joint stock shares, and on every exchange or transfer not by purchase from one class to another	3
32. On delivering up Government securities and bank or other joint stock shares, on the market value	4
33. On all amounts debited and credited within the year (less the balance brought forward) upon which no commission is owing to 5 per cent. has been charged	4

Brokerage when paid is to be separately charged.

**Customs Tariff.**—By Act No. XVII., called 'The Indian Customs Duties Act. 1867,' passed by the Governor-General of India on March 6, 1867, the following import and export tariffs are approved as applicable to every port in the territories of British India:—

**Import Tariff.**

No.	Description of Article	Value on which duty is assessed	Rate of duty
1	Apparel, including haberdashery, milliners &c.	rs. an.	7½ per cent.
2	Arms, ammunition, and military stores:	ad valorem	
	Gunpowder, common	0 5 per lb.	7½ per cent.
	Fire-arms, and parts of	except as regards military and other regulations uniform forms and accoutrements when imported for private use by persons in the public service, which are free.	
	All other sorts, including military accoutrements, uniforms &c.	ad valorem	7½ per cent.
3	Blacking: quarts - small - in tins -	5 0 per doz. 2 8 " 0 3 "	7½ per cent.
4	Cabinet ware	ad valorem	7½ per cent.
5	Candles: wax, composition, and other kinds - paraffine - spermaceti - composition, and other sorts -	1 0 per lb. 0 8 " 0 8 " 0 6 "	7½ per cent.
6	Carpets and carpeting: single carpets - carpeting in rolls -	ad valorem ad valorem	5 per cent.
7	Carriages	ad valorem	7½ per cent.
8	Chemicals	ad valorem	7½ per cent.
9	China and Japan ware, other than lacquered ware, which is free	ad valorem	7½ per cent.
10	Clocks, watches, and other timekeepers	ad valorem	7½ per cent.
11	Coinc-bullion's materials	ad valorem	7½ per cent.
12	Coffee: Persian Gulf and Red Sea - Other places -	50 0 per cwt. 20 0 "	7½ per cent.
13	Corks	1 8 per gross	7½ per cent.
14	Thread, sewing thread, white and coloured, sewing thread, in reels, or on cards not exceeding one hundred yards* -	0 12 per lb. 2 3 per gross reel	7½ per cent.
	Gun and cottony	50 0 per cwt.	
	Twist, mule, under No. 15	0 7 per lb.	
	No. 16 to 21	0 11 "	
	22 - 25	0 12 "	
	26 - 32	0 13 "	
	33 - 42	0 14 "	
	43 - 52	0 14 "	
	53 - 60	1 1 "	
	70 -	1 2 "	
	80 -	1 3 "	
	90 -	1 4 "	
	100 -	1 5 "	
	110 to 150	1 10 "	
	160 - 200	1 11 "	
	Water	2 12 "	3½ per cent.
	50 -	0 13 "	
	40 -	0 15 "	
	20 -	1 1 "	
	Above 50	1 4 "	
	Turkey red twist, all kinds	1 6 per lb.	
	Twist, orange, red, and other colours†	1 2 "	3½ per cent.
	Piece goods: Grey-shirtings, madapolans and printers - Long cloths, jeans, domestic sheetings, drills, and T. cloth - Other sorts -	0 15 " ad valorem	5 per cent.
	Cotton rope	25 0 per cwt.	
	Cotton goods, other kinds	ad valorem	7½ per cent.
15	Drugs and medicines:		
	Acid, sulphuric	0 3 per lb.	
	Alkali, country (Sajee Khar)	2 0 per cwt.	
	Aloes, black	10 0 "	
	Alum	25 0 "	
	Arenic	3 8 "	
	China, Muscel	8 0 "	
	Asafetida (Hing)	15 0 "	7½ per cent.
	Course (Hingra)	10 0 "	
	Brimstone, flour	7 0 "	
	roll	6 0 "	
	Tough	4 8 "	
	Camphar, Bhimsing (Barra)	50 0 per lb.	
	refined cake	65 0 per cwt.	
	crude in powder	50 0 "	

\* Exceeding this length to be charged in proportion.  
† Duty to be charged on the grey weight of the coloured yarn; when not ascertainable, the actual wharf weight or invoice weight to be taken.

No.	Description of Article	Value on which duty is assessed	Rate of duty
	Cassia lignea - (Costs, red)	rs. an. 50 0 per cwt. ad valorem	
	Capparis, green	2 8 per cwt.	
	Opaline	50 0 per lb.	
	Sul ammoniac	22 0 per cwt.	
	Ralep	60 0 "	
	Rennin leaves	6 0 "	
	All other sorts	ad valorem	7½ per cent.
16	Dyeing and colouring materials:		
	Cochineal	1 12 per lb.	
	Gallinice		
	Country, myrobalan	3 0 per cwt.	
	Yersini	55 0 "	
	Gamboge wood	20 0 "	
	Madder or munjeet	10 0 "	
	Orebilla weed	8 0 "	
	Saffron, Europe	16 0 per lb.	
	meadow, Noorjan	10 0 per cwt.	
	Persian	18 0 per lb.	
	in cakes or lumps	5 0 "	
	Sapan wool and root	3 8 per cwt.	
	All other sorts	ad valorem	7½ per cent.
17	Felt:		
	Sheathing 140 x 52 inches - In rolls or in lengths -	0 4 per piece ad valorem	7½ per cent.
	All other sorts	ad valorem	
18	Fireworks: China -	50 0 per box of 13½ lbs.	7½ per cent.
	Other sorts	ad valorem	
19	Flax, manufactures of:		
	Piece goods -	ad valorem	5 per cent.
	Other sorts -	ad valorem	
20	Fruits and vegetables:		
	Almonds, without shell	25 0 per cwt.	
	with shell	10 0 "	
	Cajoo kernels	10 0 "	
	Cocoanuts	30 0 per 1000	
	Curranis, Europe	9 0 per cwt.	
	Persian	12 0 "	
	Dates, dry, in bags - wet, in bags -	4 0 " 3 0 "	
	in pots	6 0 "	
	Figs, Europe	12 0 "	
	Persian, dried	6 0 "	
	Garlic	4 0 "	
	Pistachio nuts	14 0 "	
	Prunes, Mussoorah	12 0 "	
	Raisins, Black, Persian (Half, Red Sea, and Khunsi) -	12 0 "	
	Monarka, Persian (Half, and Red Sea) -	7 0 "	
	Other sorts	ad valorem	7½ per cent.
	Walnuts, Akroot	5 0 per cwt.	
	Mangoes, dried	ad valorem	
	Prunes, Europe	ad valorem	
	Other sorts, except Hind-misk and Mussoorah nuts, which are free	ad valorem	
21	Glass and glassware:		
	Triangles, glass, china, gilt -	10 0 per 100 pairs	
	Beads: china - nat gilt - common -	5 0 " 30 0 " 28 0 "	
	rule of all sizes	12 0 "	
	seed	10 0 "	
	small, scarlet and red coral (false) Moorzun	0 10 "	
	Broken -	5 0 per cwt.	
	China, of all colours	40 0 per 135½ lbs.	
	Crown, coloured -	10 0 per 100 sqft. feet	7½ per cent.
	of sizes -	6 0 per 100 sqft. feet	
	Plate, not silvered	0 10 per foot	
	Pearls, false (Hajera)	5 0 per lakh	
	Bovia	1 0 per 1000	
	Jouria	8 0 per lakh	
	Nathia	0 6 per 1000	
	Tacha	0 12 "	
	Wattannah	10 0 per lakh	
	Glass ware of all other sorts, except bottles, which are free	ad valorem	
22	Gold leaf, Europe	4 0 per 100 leaves	7½ per cent.
23	Grass and other cloth of	ad valorem	5 per cent.
24	China manufacture	ad valorem	
25	Gunns:		
	Arabic	16 0 per cwt.	
	bellium, common gun	5 0 "	
	Benjamin	35 0 "	
	byssahol, coarse myrrh	12 0 "	
	copal	65 0 "	
	frankincense or oil	9 0 "	7½ per cent.
	lanam	8 0 "	
	gambhier (or kino)	8 0 "	
	myrrh	24 0 "	
	Persian (false)	3 0 "	
	rosin	8 0 "	
	All other sorts	ad valorem	
26	Groceries not otherwise described	ad valorem	7½ per cent.
27	Hides and skins:		
	Boxer hides, prepared	30 0 each	
	Buffalo hides, country, tanned	80 0 per score	
	Calf skins	40 0 per doz.	
	Chamois skins	3 0 "	
	Caw hides, country, tanned	6 0 per score	

No.	Description of Article	Rate of duty
27	Rhinoceros leather - Other sorts -	
	Horns: buffalo - stag or deer - manufacture of	
28	Instruments, musical	
29	Ivory and ivory ware: Elephant's grinders - Tusks 10 lbs. and not exceeding 50 lbs. - Tusks above 50 lbs. - Sea cow or manote teeth, 5 lbs. and upwards - Sea cow or manote teeth under 5 lbs. - Ivory, manufactures of	
30	Silver ware, including plates: Jewellery and plate of other kinds, excepting precious stones and pearls which are free -	
31	Lace: stick - shell -	
32	Jute, manufactures of - all other sorts -	
33	Leather and manufactures of: Leather - Boots and shoes - Harness and saddlery -	
34	Liquor: ale, beer, and porter - other fermented liquors -	
35	Spirits	
36	Wines: Champagnes, sparkling wines, and liquors -	
37	All other sorts -	
38	Marble, wrought, other than statuary -	
39	Mats, floor matting, China of all sorts -	
40	Metals, unwrought, wrought and manufactures of: Brass beads, kookee, China old - sheets, rolls very thin -	
41	Copper, Australian - bolt - brazier's - China cash - Japan - nails and composition nails -	
42	Plugs and slabs, foreign sheet, sheathing and plate -	
43	tiles, ligote, cakes, and bricks -	
44	China, white copper -	

Import Tariff—continued.

Sl. No.	Description of Article	Value on which duty is assessed	Rate of duty	Sl. No.	Description of Article	Value on which duty is assessed	Rate of duty
	Rhinoceros leather	rs. an.			foil dauk-pans, China	3 0 per book of 100 leaves	7½ per cent.
	Other sorts	40 0 per cwt.	7½ per cent.		Europe	4 0 "	
27	Horns: buffalo	11 0 per cwt.	7½ per cent.		ad valorem		
	stag or deer	12 0 "			Iron, beams	85 0 per ton	
	manufacturers of	ad valorem	7½ per cent.		flat, square and bolt, including Scotch	115 0 "	
28	Instruments, musical	ad valorem	7½ per cent.		hoop, plate, and sheet	10 0 per cwt.	
29	Ivory and Ivory ware:	16 0 per cwt.			nail rod	95 0 per ton	1 per cent.
	Elephant's grinders	300 0 "			old	2 8 per cwt.	
	Tusks above 20 lbs.	225 0 "			pig	40 0 per ton	
	Tusks 10 lbs. and not exceeding 20 lbs.	125 0 "	7½ per cent.		rod, round, British, under ¼ inch diam.	110 0 "	
	Tusks under 10 lbs.	225 0 "			Swedish, flat and square	110 0 "	
	Sea cow or myrs teeth, 3 lbs. and upwards	75 0 "			rice bowls	3 4 per set of 10	
	Sea cow or myrs teeth, under 3 lbs.	75 0 "			Other sorts, except anchors, cables, and kentledge, which are free	1 10 per set of 6	
	Ivory, manufactures of	ad valorem	7½ per cent.		fire-arms	11 0 per cwt.	
30	Jewellery, including plate:	1 0 per tolah			Lead, pig	10 0 per cwt.	
	Silver ware, plain	ad valorem	7½ per cent.		pipes	13 8 "	
	Jewellery and plate of all other kinds, excepting precious stones and pearls, which are free	ad valorem	7½ per cent.		tinrod	16 0 "	
31	Lace, manufactures of	16 0 per cwt.	7½ per cent.		sheets (other than thin sheets for taximeters, which are free)	12 0 "	
32	Shell	28 0 "	7½ per cent.		Ore galena	13 0 "	
	all other sorts	ad valorem			Mock gold leaf	5 0 per 20 books	
33	Leather and manufactures of:	ad valorem	7½ per cent.		Ordnance or brass leaves, foreign: Europe	1 4 per lb.	
	Leather	ad valorem			China	0 12 "	
	Horns and shoes	ad valorem	7½ per cent.		Patent or yellow metals, sheathing and sheets	42 0 per cwt.	
	Harness and saddlery	ad valorem			Ditto, ditto, old	32 0 "	
	Other sorts	ad valorem			Quiliver	1 0 per lb.	
34	Liquor: ale, beer, and porter	1 anna per imp. gallon			Rhod. hard	10 0 per cwt.	7½ per cent.
	Other fermented liquors	ad valorem			Spelter nails	17 8 "	
	Spirits	ad valorem			plate and other shapes	11 0 "	
		ad valorem			sheet or zinc sheathing	15 0 "	
		ad valorem			Steel, bilistered	9 0 "	
		ad valorem			British	9 0 "	
		ad valorem			cast	25 0 "	
		ad valorem			spring	10 0 "	
		ad valorem			Swedish	10 0 "	
		ad valorem			Tin block	15 0 "	
		ad valorem			plates, large size, box not exceeding 170 lbs. and 100 plates, and pro rata	21 0 "	
		ad valorem			small size, not exceeding 1 cwt. and 225 plates, and pro rata	11 0 "	
		ad valorem			Wire, brass	0 8 per lb.	
		ad valorem			common iron, Nos. 1 to 40	9 8 per cwt.	
		ad valorem			copper	0 10 per lb.	
		ad valorem			Other sorts, including hardware, ironmongery, and cutlery, but excluding machinery, the component parts thereof, and agricultural implements, which are free	ad valorem	
		ad valorem			Naval stores:		
		ad valorem			Cables, coils, tarred	10 0 per cwt.	7½ per cent.
		ad valorem			Canva, country, cotton	50 0 "	
		ad valorem			Europe sail, not exceeding 40 yards	15 0 per bolt	5 per cent.
		ad valorem			Coit, rope, Moldire and Laccadive	10 0 per cwt.	
		ad valorem			Coit yarn of all kinds	9 0 "	
		ad valorem			Cordage, hemp, Europe	18 0 "	
		ad valorem			Manilla	20 0 "	
		ad valorem			Dammer	5 0 "	
		ad valorem			Pitch, American and Europe	13 0 per net ex. ceeding 5 cwt.	7½ per cent.
		ad valorem			Pitch, coal	4 8 "	
		ad valorem			Tar, American	13 0 "	
		ad valorem			cool	6 8 do. do.	
		ad valorem			Swedish and Archangel	14 0 "	
		ad valorem			Twine, Europe sail	0 8 per lb.	
		ad valorem			All other sorts, except oakum, which is free	ad valorem	
		ad valorem			Oils: Cardamom	10 0 per lb.	
		ad valorem			Casia	4 0 "	
		ad valorem			Castor, cold drawn	4 8 p. doz. pts.	
		ad valorem			Cinnamon, Ceylon	10 0 per lb.	
		ad valorem			Cocconut	20 0 per cwt.	
		ad valorem			Earth	10 0 "	
		ad valorem			Grass	2 0 per lb.	
		ad valorem			Jingee or teel	20 0 per cwt.	
		ad valorem			Kerosene	1 12 p. imp. gal.	
		ad valorem			Linseed, country	18 0 per cwt.	7½ per cent.
		ad valorem			Europe	2 4 p. imp. gal.	
		ad valorem			Naphtha	30 0 per cwt.	
		ad valorem			Oil, of sorts	20 0 per oz.	
		ad valorem			Sandalwood	8 0 per lb.	
		ad valorem			Sorrel	20 0 per cwt.	
		ad valorem			Turpentine	2 0 p. imp. gal.	
		ad valorem			White and fish	15 0 per cwt.	
		ad valorem			Wood	15 0 "	
		ad valorem			All other sorts, except cocum and slush fat, which are free	ad valorem	

Import Tariff—continued.

No.	Description of Article	Value on which duty is assessed		Rate of duty	No.	Description of Article	Value on which duty is assessed		Rate of duty
		rs.	an.				rs.	an.	
10	Oil and floor cloth -			5 per cent.	53	Sonp -	rs. an.	7½ per cent.	
41	Paints, colours, and painter's materials:		ad valorem		54	Alpices -	ad valorem		
	Ochre, all colours -	3	0 per cwt.	7½ per cent.		Amieed star -	3	0 per lb.	
	Paints of sorts -	12	0 "			Betelnut, white, Sheerdhun -	18	0 "	
	Prussian blue, China -	0	8 per lb.			all other kinds -	7	0 "	
	" Europe -	1	8 "			in bulk -	2	0 per 1000	
	Red lead -	14	0 per cwt.			Casla buds, Nagkesaur, China -	0	8 per lb.	
	Turpentine -	2	0 p. imp. gl.			Chilles, dried -	8	0 per cwt.	
	Vermilion, Canton -	85	0 per box			Cloves -	12	0 "	
	" Macao -	50	0 of 90 (bundles)			" in seeds, Nulravung -	8	0 "	
	White lead -	12	0 per cwt.			Mace -	9	2 per lb.	
	All other sorts, including lrasbes -		ad valorem			" False -	10	0 per cwt.	
	Perfumery -		ad valorem			Nutmegs -	0	10 per lb.	
42	Atary, Persian -	15	0 per cwt.		7½ per cent.		" in shell -	0	6 "
	Rose flowers, dried -	10	0 "			" wild -	12	0 per cwt.	
	Rose-water -	1	12 p. imp. gl.			Pepper, black and long -	15	0 "	
	All other sorts -		ad valorem		" white -	25	0 "		
43	Photographic apparatus and materials -		ad valorem	7½ per cent.	55	All other kinds -		ad valorem	
44	Piece goods, not otherwise described -		ad valorem	5 per cent.	56	Stationery other than paper -		ad valorem	
45	Porcelain and earthen-ware -		ad valorem	7½ per cent.		Sugar and sugar-study: -			
46	Provisions and oilman's stores:			7½ per cent.		Sugarcandy, Guinea -	20	0 per cwt.	
	Bacon in cans, tins, loaves and cheeks -	0	9 per lb.			" loaf -	23	0 "	
	Beef -	10	0 per barrel of 5 cwt.		" soft -	12	0 "		
	Cheese -	0	10 per lb.		All other sorts of saccharin produce -		ad valorem		
	Cocoa -	0	8 "		Tallow and greas: -	20	0 per cwt.		
	Cocoa prepared -	0	8 "		" Australian and bastard -	22	0 per cwt.		
	Fish maws -	50	0 per cwt.		" Other sorts -		ad valorem		
	" Small and Singally, small -	6	0 "		Timber and woods: -				
	Flour -	25	0 per hrl. or sack of 300 lbs.	7½ per cent.		Deal or pine planks and boards, superficial square foot, and 1 inch thickness -	5.5	0 p. 1000 ft.	
	Ghee -	0	8 per lb.			Mahogany, in logs -	0	6 per superficial foot of 1 in. thickness	
	Hams -	0	8 per lb.			Australian -	0	10 per lb.	
	Pork -	50	0 per tierce of 53 cwt., and 51 0 per brl. of 7 2 cwt.			" Australian and bastard -	4	0 "	
	Sago -	7	0 per cwt.			All other sorts, excepting ebony, lignum vite, tagwood, and Palmyra wood, which are free -		ad valorem	
	Shark fins -	20	0 "			Manufactures of, including also pipes, staves, and caaks -		ad valorem	
	Tongues, salted -	20	0 "			61 Tobacco: -			
	Vinegar in bottles or in wood, Europe -	1	8 p. imp. gl.			Manufactured -		ad valorem	
	" Do, do, country -	0	6 "			Unmanufactured -		ad valorem	
	All other sorts, except blche de mer, butter, and salted fish, which are free -		ad valorem			Articles such as pipes &c. used in ammunition of -		ad valorem	
47	Railway materials:				1 per cent.	62	Toys and requisites for all games -		ad valorem
	Of iron -		ad valorem				Trunks and boxes -		ad valorem
	Other sorts -		ad valorem	7½ per cent.	63	Trunks and boxes -		ad valorem	
48	Rattans and canes:			7½ per cent.	64	Umbrellas: -			
	Canes, Malacca -	1	0 per doz.			Cotton, steel ribs -	0	13 each	
	Rattans -	7	0 per cwt.		" cane ribs -	45	0 per box of 110		
	All other sorts -		ad valorem		China paper kettisals -		ad valorem		
49	Seeds: Anchuab -	28	0 "	7½ per cent.	65	All other sorts: Piece goods -		ad valorem	
	Anise, Europe -	7	0 "			Hraid -		ad valorem	
	Cajiao -	3	0 "			Other sorts -		ad valorem	
	Castor -	4	8 "						
	Cummin -	5	0 "						
	Eubogol -	5	0 "						
	Linsced -	4	8 "						
	Methee -	5	0 "						
	Mustard -	4	8 "						
	Quince seed or badana -	50	0 "						
	" Rape or sursee -	4	8 "						
	Sawjeerah -	25	0 "						
	" Tookmeria -	7	0 "						
	All other sorts, excepting seeds imported by any public society for gratuitous distribution, which are free -		ad valorem						
50	Shawls -		ad valorem	5 per cent.					
	Shells:								
	Char'as, 'large shells,' for canoes -	13	0 per 100						
	Chanks, white live -	6	0 "						
	" dead -	3	0 "						
	Cowdus, Mozambique and Zanzibar -	3	0 "						
	Cowdus from other places -	0	8 "						
	Cudries: Hazaor, common -	16	0 per cwt.	7½ per cent.					
	" Madier -	16	0 "						
	" Sunkey -	40	0 "						
	Yellow, superior quality -	8	0 "						
	Mother of pearl -	8	0 "						
	Tortoise shell -	6	0 per lb.						
	" nuck -	1	0 "						
	Nuckia and other sorts -		ad valorem						
	Silk: -								
	Floss -	8	0 per lb.						
	Raw, Chronon and Cnchin -								
	" China -	4	0 "						
	" Mathow -	1	12 "						
	" other kinds of China -	7	0 "						
	" Persian -	5	0 "						
	" Punjum and Cuchra -	1	12 "						
	" Siam -	4	0 "						
	" Sewing thread, China -	8	0 "						
	" Other sorts -		ad valorem						
	" Silk piece goods of sorts -		ad valorem	5 per cent.					

No.	Description of Article	Rate of duty
	Kharwah	
	Marmotte	
	Mirzapore	
	Tatus	
	Shana	
	Tuiseeb, Ou	
	Other sorts	
	Twist, countr	
	Hand	
	All other kin	
	gools -	
	icles and skin	
	lides:	
	Buffilo, coo	
	low	
	Skins: Goat	
	Lamb -	
	Any other sort	
	Skins	
	Spices: Aloe w	
	Betelnut in bu	
	Cardamoms	
	laga	
	Chilles, dried	
	Ginger, dry (on	
	(screape)	
	Pepper -	
	Turmeric	
	All other sorts	

Remarks on charging duties questionable. India labours, in sists principally, in sists for foreign necessary paym the case, it is cer to lay duties on siderations of exp suggest that they duty free. There lus this would gi increasing the pu compensate the d inconsiderable su which they are ch

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No.	Description of Article	Rate of duty
	Aloes, in bags and boxes	
	Alum, ditto	
	Arrowroot, in bags	
	Arrowroot, in cases	
	Asafetida, in bags and boxes	
	Appret, in boxes	
	Bark, in bags -	
	Bee's wax -	
	Barilla -	
	Barel nut -	
	Books -	
	Borax or stinal -	
	Brimstone -	
	Bution -	
	Case-lac, in bags	
	Cancher, in cases	
	Cardamoms, in rebbins -	
	boxes	
	Cassia, in boxes -	
	in bags -	
	China root, in bags	
	Chiretta -	
	Cigars -	
	Cloves, in bags -	
	Coals -	
	Cochinal -	
	Coffee, in bags -	
	dry -	
	cks -	
	Coral, rough	
	Cotton in bales, 5 to the	
	Cowries -	
	Cotch, in bags -	
	Dates, wet -	
	dry -	
	Dholl -	
	Erythant's teeth, in bul	
	Furniture -	
	Garlic and onions	
	Ginger -	
	Gram -	
	Gums, in cases -	
	Gunny bags and gunny	

Export Tariff.

No.	Description of Article	Value on which duty is assessed	Rate of duty
		rs. an.	
1	Indigo -		3 rs. per maund
2	Strain of all sorts -		2 ao. per maund
3	Lact: Button -	28	0 per cwt.
	" -	45	0 "
	Seed -	20	0 "
	Shell -	28	0 "
	Stick -	16	0 "
	Other sorts -		ad valorem
4	Oils: Castor -	16	0 per cwt.
	Cocoonut -	20	0 "
	Fish -	15	0 "
	Grass -	2	0 per lb.
	Jingely or teel -	20	0 per cwt.
	Linsced -	14	0 "
	Mhawa -	12	0 "
	Mustard -	16	0 "
	Poppy -	20	0 "
	Rape or sursee -	16	0 "
	Sandalwood -	8	0 "
	Other sorts -		ad valorem
5	Seeds: -		
	Castor seed (erundee) -	4	8 per cwt.
	" Candar seed -	4	0 "
	Cummin seed -	12	0 "
	" Black (salejeera) -	5	0 "
	Ground nuts, with shell -	8	0 "
	" without shell -	6	0 "
	Jingely or teel seed -	6	0 "
	Linsced -	5	0 "
	Methee seed -	4	8 "
	Mustard seed -	4	8 "
	Poppy seed -	5	8 "
	Rape or sursee seed -	4	8 "
	Other sorts -		ad valorem
6	Shawls -		ad valorem
7	Piece goods: -		
	Cotton goods: -		
	Bafaha -	50	0 per score
	Gurrah -	20	0 "

Export Tariff—continued.

Description of Article	Value on which duty is assessed	Rate of duty
Kharwah	rs. an. 25 0 per score	3 per cent.
Manmoolee	32 0 "	
Mirzapore chinta	15 0 "	
Fatna	30 0 "	
Shana	40 0 "	
Tunjeeb, Oude	25 0 "	
Other sorts	ad valorem	
Twist, country, No. 10	0 7 per lb.	
No. 20	0 9 "	
No. 50	0 10 "	
Hand spun	0 5 "	
All other kinds of cotton goods	ad valorem	3 per cent.
Hides and skins tanned		
Hides:		
Huffalo, country, tanned	70 0 per score	
Cow	50 0 "	
Skins: Goat and sheep	10 0 "	
Lamb	5 0 "	
Any other sorts of hides and skins	ad valorem	
Spices: Aloe wood	3 0 per lb.	
Betelnut in husk	2 0 per 1000	
Cardamoms	300 0 per cwt.	
large bastard	40 0 "	
Chillies, dried	8 0 "	
Ginger, dry (rough) Malabar	10 0 "	
Jengal	7 0 "	
(scraped)	15 0 "	
Pepper	15 0 "	
Turmeric	7 0 "	
All other sorts	ad valorem	

Remarks on the above Duties.—The policy of charging duties on exported articles seems very questionable. The great difficulty under which India labours, in a commercial point of view, consists principally in her inability to furnish equivalents for foreign imported goods, and to make the necessary payments abroad; and, when such is the case, it is certainly not a little contradictory to lay duties on exports. The most obvious considerations of expediency and common sense would suggest that they should be allowed to be exported duty free. There can be no doubt that the stimulus this would give to their production would, by increasing the public wealth, infinitely more than compensate the Government for the loss of the inconsiderable sum produced by the duties with which they are charged.

Tonnage Schedule for the Port of Calcutta, which has been in operation since January 1, 1860.

Articles	Cwt. per ton nett	Cubic feet per ton
Aloes, in bags and boxes	20	—
Alum, ditto	20	—
Aniseed, in bags	8	50
Arrowroot, in cases	—	50
Asafetida, in bags and boxes	20	—
Apparel, in boxes	7	50
Bark, in bags	8	—
Bees' wax	20 c wt. gross	—
Barilla	20	—
Betel nut	20	—
Books	20	50
Borax or tincal	20	—
Bristles	20	—
Button	at per cent.	—
Case-lac, in bags	16	50
Camphor, in cases	—	50
Cardamoms, in Robbins	8	—
Cassia, in boxes	—	50
bags	12	—
Chins root, in bags	11	—
boxes	—	50
Chiretta	—	50
Cigars	—	50
Cloves, in bags	—	50
boxes	—	50
Cocals	20	—
Cochinin	—	50
Coffee, in bags	18	—
casks	16	—
Coral, rough	20	52
Custom in bales, 5 to the ton, not to exceed	20	—
Caveries	—	—
Cutch, in bags	18	—
Dates, wet	20	—
dry	16	—
Dhall	20	—
Elephants' teeth, in bulk	—	50
Furniture	—	50
Haric and onions	12	—
Ginger	16	—
Gram	20	—
Gums, in cases	—	50
Gunny bags and gunny cloth	—	50

Articles	Cwt. per ton nett	Cubic feet per ton
Gunjah	—	50
Hemp, in bales, per ton of 5 bales, not to exceed	—	52
Hides, buffalo or cow, cured	14	—
Horns, horn shavings and tips	20	—
Horns, cow, buffalo, or deer	—	50
Indigo	—	50
Duty, 5 bales to the ton, not exceeding	—	52
Lac dye	—	50
Lard	20 cwt. gross	—
Limesed	20	—
Mace	—	50
Machinery	20	—
Manila	—	20
Myrobolans	16	—
Molasses	2 punches, or 4 lbs.	—
Mother o'pearl, in bags	20	—
chests	—	50
Manjeet	—	50
Musard or rape seed	20	—
Nutmegs, in cases or cask	—	10
Nux vomica	16	—
Oxide	16	—
Oil, in cases	—	50
casks	—	4 hog-heads
Oyium	—	per chest
Paddy	16	—
Peas	20	—
Pepper, long	12	—
black	14	—
Planks and deals	—	50
Puppy seed	20	—
Paticook	10	—
Raw silk, in bales	10	—
Resins for dunnage	20	—
Red wood for ditto	20	—
Rhea, in bales, per ton of 5 bales, not exceeding	—	52
Rice	20	—
Roping, in coils	—	50
lines and twines, in bundles	16	—
Rum, in casks	2 punches, or 4 lbs.	—
Safflower, in bales, per ton of 5 bales, not exceeding	—	52
Sago, in cases	—	50
Salammatac, in bags	20	—
boxes	20 cwt. gross	—
Salt	20	—
Salt-petre	20	—
Sax	20	—
Sapan wood for dunnage	20	—
Sealing wax, in cases	—	50
Seed-cake, in cases	—	50
bags	16	—
Senna	—	50
Shells, rough, in bags	20	—
Shellac, in cases	—	50
bags	16	—
Silk, piece goods	—	50
Skins	14	—
Soup, country, in cases	15	50
bags	20	—
bar	20	—
Stick lac, in cases	16	50
bags	—	—
Sugar	20	—
Tallow, in cases or casks	20	—
Talc	20	—
Tamarinds, in cases or casks	20	—
Taploca	—	50
Tea	20	—
Teel seed	20	—
Timber, round	—	40
square	—	50
Tobacco, in bales	16	—
Tortoise shell, in chests	—	50
Turmeric	16	—
Wool	20	—
Wheat	—	50

BENGAL BONDED WAREHOUSE ASSOCIATION, ESTABLISHED 1838.

Table of Rents chargeable on Goods and Packages Received and Stored in the Bengal Bonded Warehouse.

	per month.
Aniseed	rs. s. p. 0 1 0
Beer, in hogheads	0 6 0
bottled, in casks or cases	0 1 0
ditto	0 8 0
Betel-nut	0 6 0
Bottles, in crates	0 6 0
Camphor	0 3 0
Cassias	0 3 0
Cardamoms	0 1 0
Cigars	0 8 0
Cloves, in bags	0 1 0
Coffee	0 1 0
Cordage	0 1 0
Cotton	per screwed bale of 500 lbs. 0 6 0
Cow hides	per large bale 0 12 0
Ditto	per smaller bale 0 8 0
Cuscutin seed	per br. md. 0 1 0
Cutch	per 100 br. md. 2 0 0
Earthenware	per cask 1 0 0
Ginger	per 100 br. md. 3 0 0
Glassware	per cask 1 0 0
Goat skins	per bale 0 8 0
Gumies	per large bale 0 8 0
Ditto	per smaller ba 0 6 0
Hemp	per screwed bale of 500 lbs. 0 6 0
Indigo	per chest 0 8 0

Bengal Bonded Warehouse—continued.

	per month.	Rs.	4.	P.
Jute - - - - -	per screwed bale of 300 lbs.	0	6	0
Law dye - - - - -	- - - - - per chest	0	6	0
Metals - - - - -	- - - - - per br. md.	0	6	0
Oil, turpentine, linseed and other vegetable oils - - - - -	- - - - - per br. md.	0	1	0
Paint - - - - -	- - - - - per kg of 56 lbs.	0	0	6
Pepper - - - - -	- - - - - per br. md.	0	1	0
Piece goods, British and Foreign - - - - -	p. case or b. not exceeding 10 c. ft.	0	0	6
Ditto ditto - - - - -	p. case or b. exceeding 10 c. ft., and not exceeding 15	0	8	0
Ditto ditto - - - - -	15 c. ft., and not exceeding 20	0	10	0
Ditto ditto - - - - -	20 c. ft., "	0	1	0
Ditto ditto - - - - -	30 c. ft., "	0	1	8
Quicksilver - - - - -	- - - - - per br. md.	0	2	0
Rice - - - - -	- - - - - per br. md.	0	0	6
Rosin or dammar - - - - -	- - - - - per br. md.	0	1	0
Safflower - - - - -	- - - - - per bale	0	8	0
Seeds - - - - -	- - - - - per 100 br. nuds.	0	6	0
Shellac - - - - -	- - - - - per chest	0	8	0
Silk - - - - -	- - - - - per bale	0	8	0
Silk piece goods - - - - -	- - - - - per case	0	8	0
Spirits - - - - -	- - - - - per butt or pipe	2	0	0
Ditto - - - - -	per half pipe or hoghead	1	0	0
Ditto in bottle - - - - -	per dozen quarts	0	1	0
Ditto - - - - -	per dozen pints	0	8	0
Sugar - - - - -	- - - - - per br. md.	0	0	6
Tea - - - - -	- - - - - per whole chest	0	3	0
Ditto - - - - -	per smaller box	0	2	0
Tin plates - - - - -	- - - - - per box	0	0	6
Tobacco, American - - - - -	per case not exceeding 5 cubic feet	0	6	0
Turmeric - - - - -	per 100 br. nuds.	0	0	0
Twist of all sorts - - - - -	per bale of 400 or 300 lbs.	0	6	0
Ditto - - - - -	per bale of 400 or 300 lbs.	0	8	0
Ditto - - - - -	per bale above 300 lbs.	0	12	0
Ditto - - - - -	per butt or pipe	2	0	0
Ditto - - - - -	per half pipe or hoghead	1	0	0
Ditto - - - - -	per quarter pipe	0	4	0
Ditto in bottle - - - - -	per dozen quarts	0	0	0
Ditto - - - - -	per dozen pints	0	0	8

\* \* \* All goods not enumerated or comprehended in the above list will be charged for per agreement.

Cargoes of vessels put back from sea will be received into the warehouse—salt-petre and damaged goods excepted; and it will be optional with the Association to apply the above rates, or charge rent according to the space occupied.

Where parties desire to engage accommodation by the month or for a longer period, the Association lets space by measurement: for instance, a range 100 feet long by 20 feet wide on the upper storeys would rent for 150 Rs. a month. Ditto on the ground floor for 200 Rs. per month.

Rent commences from the moment goods are brought within the premises of the warehouse; and if goods are left in the compound of the warehouse, they will remain there at the risk and expense of depositors.

Rent will not be charged for a shorter period than half a month; and thereafter the shortest broken period for which it will be charged is a quarter of a month.

The Association does not undertake to store goods, or to supply labour for that purpose, and is not responsible for any loss or damage that may arise in their receipt or delivery.

COINS, WEIGHTS, MEASURES, EXCHANGES, &c.

Calcutta in Bengal. Coins.—Accounts are kept here in rupees, with their sub-divisions annas and pie: 12 pie make 1 anna; 16 annas, 1 rupee.

The standard of the Bengal money has ever been silver. Gold is occasionally coined, but the great bulk of the currency is silver.

A lakh of rupees is 100,000; and a crore, 100 lakhs or 1,00,00,000 rupees; and in accounts sums are distinguished into crores, lakhs, and single rupees, by marks or divisions, as in the foregoing examples.

Cowries, small, white, glossy shells, are made use of for small payments in the bazaar, and are generally thus reckoned:—

4 cowries } equal to { 1 gunda.  
20 gundas } equal to { 1 panna.  
4 panna } equal to { 1 anna.  
4 annas } equal to { 1 kabian, which is about 1/4 of a rupee.

But they rise and fall according to the demand there is for them, and the quantity in the market.

Coinage.—The Act No. XIII. of 1862 provides for a new silver and a new copper coinage, thus:—

That from November 1, 1862, no silver or copper coins, except those mentioned below, shall be coined at the Mints in British India:—

Silver Coin.

- A rupee to be called the Government rupee.
- A half rupee.
- A quarter rupee or four anna piece.
- A eighth of a rupee or two anna piece.

Copper Coin.

- A double pie or half anna.
- A pie or quarter anna.
- A half pie or one-eighth of an anna.
- A pie, being one third of a pie, or one-twelfth of an anna.

That the rupee so coined shall be 180 grains troy, and the standard as follows:— $\frac{11}{12}$  or 165 grains of pure silver;  $\frac{1}{12}$  or 15 grains of alloy. The other silver coins shall be of proportionate weight and of the same standard.

The copper coins, viz.:

The double pie shall weigh 800 grains troy.
The pie " " " 100 " "
The half pie " " " 50 " "
The pie " " " 33 1/3 " "

Until the Governor-General in Council shall otherwise order, the silver and copper coins so coined shall bear on the obverse the likeness and the name of her Majesty Queen Victoria, and the inscription *Victoria Queen*, and on the reverse the designation of the coins in English filled by the word *India*, with such date and embellishments on each coin as the Governor-General in Council shall from time to time direct.

British-Indian Weights and Measures.—The tola is the unit of the British-Indian ponderary system. Its advantages are—1. That the maund, formed from the modified weight, would be precisely equal to 100 English troy pounds; and, 2. That 35 seers would also be precisely equal to 72 pounds avoirdupois: thus establishing a simple connexion, void of fractions, between the two English metrical scales and that of India. The tola weighs 180 grains English troy weight. From it upwards are derived the heavy weights, viz. *Chittack*, *Seer*, and *Mau* (or Maund); and by its sub-division the small or jeweller's weights, called *Mashas*, *Ruttees*, and *Dhans*.

The following scheme comprehends both of these in one series:

Mau	Pusserree	Seer	Chittack	Tola	Masha	Ruttee	Dhan
1	8	40	610	3200	38100	307200	1288800
	1	5	80	400	4800	38100	153500
		1	16	80	960	7680	30720
			1	5	60	480	1920
				1	12	96	384
					1	8	32
						1	4

The *Mau* (or that weight to which it closely accords in value, and to which it is legally equivalent in the new scale) has been hitherto better known among Europeans by the name of *Bazaar Maund*, but upon its general adoption, under Regulation VII. of 1853, for all transactions of the British Government, it should be denominated the *BRITISH MAUND* (in Hindoe *Ungreeze Mau*), to distinguish it at once from all other weights in use throughout the country. In the same way the Madras, Bombay, and Furruckabad ropce (when the Sicea rupee is abolished, and an English device adopted) may be called the *British rupee*, and in the native language *Ungreeze ruqya*.

The *Pusserree* is, as its name denotes, a five seer weight, and therefore should not form an integral point of the scale, but as its use is very general, it has been introduced for convenience of reference.

The *Seer* being in the retail business being liable, according to hitherto prevalent article sold as well as rarily referred to in cantile dealings, as sicea, buurrees, taking *seer* being always 8

The *Chittack* is the gross weights, and halves and quarters thus marking the which are otherwise the *seer* &c. to the

The *Tola* is chiefly precious metals and is received in this de bullion produce are also usual at the mint of the tola into annas of mashas and ruttees

Comparison of the Tola and Silver or Troy

Place	M
Aleppo	-
Bombay	-
Cairo	-
Calicut	-
China	-
Constantinople	-
Damascus	-
Denmark	-
England	-
France	-
Germany	-
Holland	-
Italy	-
Mocha	-
Pegu	-
Peria	-
Portugal	-
Prussia	-
Russia	-
Spain	-
Venice	-
Yenna	-

*Mashas*, *Ruttees*, and native goldsmiths and employed in the native precious metals: thus 10-12ths pure, and cor of the English assay a closer accordance with scale, inasmuch as the represent the 96 carat pound, and the *dhan* the

British-Indian weights	Engl
One maund	100
seer	20
chittack	10
tolas	180
masha	180
ruttee	180

For particulars of Madras and vide respective Directories.

Comparison with Troy version of English troy India, the following simplicity of their relation table unnecessary.

Lb. Tr.	Oz.	Dwt.
1	12	240
	1	20
		1



Small shells, called cowries, are also made use of for paying coolies &c. which are reckoned as follows:—

4 cowries } 1 gundah  
20 gundahs } make 1 pun  
8 puns } 1 anna

But these rates vary from time to time. The anna a few years ago was valued at 5 puns.

**A Comparative View of the relative Value of the several Denominations of Rupees generally used in keeping accounts.**

	Current rupees
100 sicca rupees (Calcutta) —	16 0 0
100 Nonat rupees	111 0 0
100 Bombay rupees	110 0 0
100 Arcot rupees	108 0 0

	Sicca rupees.
100 Arcot rupees =	93 11 7 2/5-29
100 Bombay rupees	91 13 2 2/5-29
100 Nonat rupees	95 11 0 2/4-29

**Bazaar or Great Weights.**

5 sicca weight } 1 chittack  
16 chittacks } make 1 seer  
40 seers } 1 maund

**The different Weights made use of in Bengal, with their Value in Sicca Weights.**

80 sicca weight	} make 1 Calcutta bazaar seer	
80 " "		1 Serampore seer
82 " "		1 Hooghly seer
84 " "		1 Benares seer
96 " "		1 Lucknow seer
81 " "		1 Mirzapore seer
30 "		1 Allahabad seer
24 lbs. wt. 11 ans.		} 1 Calcutta factory seer
2 puns 10 gunds.		
3 ones 75 dec.		

N.B. One Sicca weight is equal to 6 drachms 57056 decimais avoirdupois weight.

**The Bengal Factory Maund and its Fractional parts, reduced to English Avoirdupois Weight, according to the Standard received from Europe in 1787.**

	lbs. oz. drs. dec.
1 maund	= 74 10 10 656
20 seers	37 5 5 355
10 "	18 10 10 656
5 "	9 5 5 333
4 "	7 7 7 466
3 "	5 9 9 299
2 "	3 11 11 733
1 "	1 13 13 866
8 chittacks	14 13 353
4 "	0 7 7 466
2 "	0 5 11 733
1 "	0 1 13 356

The Bengal bazaar maund is 10 per cent. better than the fy. maund, and is equal to 87 lbs. 2 oz. 2 drs. 356 dec.

**Gold and Silver Weights.**

4 pookh or quarter grain	= 1 gram or dhan
4 dhans	1 ruttee
63 ruttees	1 anna
8 ruttees	1 massa
100 ruttees or 123 masses or 16 as.	1 tola or sa. re.
1063 ruttees or 13-28-1573 massa or 17 as.	1 gold mohur
A gold mohur weighs 7-1/2 and nine-tenths troy weight, containing 197-6/10 fine gold and 17-0/10 alloy.	
A sicca rupee weighs 7-1/11 and two-thirds troy weight, containing 175-9/23 fine silver and 15-9/23 alloy.	

**Cloth Measure.**

5 cubits	= 1 ungootee
3 ungootees	1 goerah
8 goerahs	1 haath or cubit, 18 inches
2 haaths	1 guz or yard

**Reckoning by the Tola.**

3 particulars	= 1 gundah
4 gundahs or 20 particulars	1 cooree or corge

**Liquid Measure.**

5 sicca rupees weight of liquor	= 1 chittack
4 chittacks	1 powah
4 powahs	1 seer
40 seers	1 maund
5 seers make 1 puserree or measure	
6 puserrees or measure make 1 maund	
The coid in cloth measure is 3 inches.	

**Land Measure.**

1 beegah makes 20 cotahs	
1 cotah or 16 chittacks	720 square feet
8 chittacks or 1/2 a cotah	360 "
4 chittacks or 1/4 a cotah	180 "
2 koontees or 1/2 a powah make	90 "
1 ditto	45 "
1 ditto	22 1/2 "
1 ditto	11 1/4 "

**Grain Measure.**

5 chittacks = 1 koonkee  
4 koonkees = 1 rait  
4 rait = 1 rally  
20 pallies = 1 soaly  
16 soallies = 1 kahoon or 40 maunds

**For the mutual Conversion of Bengal, Madras, and Bombay Maunds.**

Bengal Maunds	Madras Maunds	Bombay Maunds	Madras Maunds	Bengal Maunds	Bombay Maunds	Bengal Maunds
1000	9291-448	2938-773	1000	907-490	1000	310-271
100	329-143	293-871	100	307-392	100	31-028
90	226-229	264-192	90	275-114	90	28-625
80	363-315	255-101	80	247-306	80	27-222
70	230-401	205-716	70	212-268	70	25-819
60	197-187	176-348	60	182-230	60	20-416
50	164-371	146-938	50	151-191	50	17-011
40	131-656	117-552	40	124-132	40	13-612
30	98-742	88-161	30	91-114	30	10-203
20	65-828	58-775	20	60-776	20	6-806
10	32-914	29-384	10	30-538	10	3-403
1	3-291	2-939	1	3-504	1	0-340
Seers 50	2-169	2-297	Seers 50	0-235	Seers 50	0-235
10	1-646	1-469	20	0-152	20	0-170
10	0-823	0-731	10	0-076	10	0-085
5	0-411	0-367	5	0-038	5	0-042
4	0-329	0-291	4	0-031	4	0-031
3	0-246	0-220	3	0-022	3	0-022
2	0-163	0-147	2	0-015	2	0-017
1	0-082	0-073	1	0-008	1	0-008

The word *mun*, of Arabic or Hebrew origin, is used throughout Persia and Northern India; but, as might be expected, it represents very different values in different places: thus the *mun* of Tabriz is only 6 1/2 lbs. avoird., while that of Paldoda, in Ahmednuggur, is 16 3/4 lbs.

It is probable that the seer or *ser*, a Hindoo weight (*setak*), was more uniform than the maund, since it was founded upon the tola (*tolaha*), which, with its sub-division, the *massa*, must, in very ancient times, have been extensively known throughout commercial Asia: there can be little doubt that the *tala* and *mace* of the Chinese are identical in origin.

It may be generally assumed that the maund system follows the common scale, viz. —

16 chittacks = 1 seer  
40 seers = 1 maund  
20 maunds = 1 candy or maunce

The use of a five-seer weight also universally prevails under the name of *puserree*, *dhurree*, or *ris*. The *dhurce*, from its name, however, seems to be properly a measure; and accordingly while in Malwa it is equal to 5 seers, in other places it is found of 4, 4 1/2, 5 1/2, 10, 11, and 12 seers. The terms *adhola*, *adhelee* (half), *pao*, *powah* (quarter), *cdhpao* (half-quarter), frequently occur: they explain themselves.

**Weight.**—The sub-divisions of the ponderary systems, throughout the whole of British India, generally agree in name, though they differ in value. Thus in every case

(variable) dhan = 1 ruttee  
8 ruttees = 1 massa  
12 masses = 1 tola  
(variable) tola = 1 chittack  
16 chittacks = 1 seer  
40 seers = 1 maund

The number of dhans in a ruttee, and the number of tolas in a chittack, are arbitrary. The annexed tables show all the varieties that have been brought to notice. To save needless repetition, we shall refer to them as may be necessary, and give in detail only the peculiar systems of each district.

**Table I.**

4 or 8 dhana = 1 ruttee  
8 ruttees = 1 massa  
12 masses = 1 tola

**Table II.**

**Measure.**—The linear measures of India generally are based on the following system:—

5 ungootees or fingers' breadth = 1 mooshtika or palm  
6 mooshtikas = 1 busta, or haath, or cubit

**Also—**

11 jussos or lengths of the thumb  
20 jussos  
21 jussos  
42 ungootees

From the very c. Jorvis, as given in logy, it appears that

1 cubit or haath of 14 guz of 10 jussos  
1 guz of 10 jussos  
1 guz of 12 ungootees

The standard of settlement of the been fixed at 33 inches

33 inches  
5 guz  
20 x 20 = 400 sq. ba.

In Bengal the ha to be 18 inches in le

4 square haath  
20 " cowrie  
20 " kutas

These are the be the only values refer hauth may be said inches, and the beeg square yards. The d not sufficiently precis not affected an accurat not attain.

**Banks.**—The Bank in 1809. Its author Thacker's *Bengal Dir* rupees, which, at 2s. of which 2,200,000, ha are now selling at a big ment is conducted b pointed by Governmen priors: time of servic This bank possesses consequently its circu large arew, its notes t offices, in payment of r the various districts. savings' banks) there branches of banks, of th nominal capital of the to about 14,000,000, th falling much short of t

**Insurances.**—The fire business is conducted agencies, 8 of which ar amounting in aggregate larger proportio appe surance exclusively.

**Pilotage, Port Chag** at Calcutta have issued as to pilotage, port cha

1. Commanders are r their vessels, on arrival certify, or cause to be form of certificate show tonnage, the draught the vessel has or has steamer any part of the use of a row-boat. Th to the pilot, in order to being correctly made on  
2. Commanders are fi after their arrival as pos to the master attendant of the reference for the bills.

3. On the receipt by the above certificate at payment, a single bill w

Also—

11 Jussos or lengths of the first joint	} = 1 hauth or cubit
of the thumb	
20 Jussos	= 1 guz or clothier's yard
24 Jussos	= 1 guz or artificer's yard
42 Ungoolies	= 1 Mahomedan guz or yard

From the very careful investigations of Major Jervis, as given in his works on Indian Meteorology, it appears that

1 cubit or hauth of 14 Jussos or 24 ungoolees	= 19.5189 inches
1 guz of 20 Jussos	= 27.0271 "
1 guz of 24 Jussos	= 33.0325 "
1 guz of 14 ungoolees	= 31.2106 "

The standard of Ilahco guz used in the land settlement of the North-Western provinces has been fixed at 33 inches, whence

33 inches	= 1 Ilahco guz
3 guz	= 1 hauth or measuring rod
20 x 20 = 400 sq. fathoms	= 1 beegah = 3025 sq. yards

In Bengal the hauth or cubit has been assumed to be 18 inches in length, and thus generally—

4 square hauths	= 1 square cowrie or kurra
4 " " " "	= 1 " " " " " " " "
20 " " " "	= 1 " " " " " " " "
20 " " " "	= 1 beegah = 1,600 sq. yards

These are the beegals most in use, and are the only values referable to fixed standards. The hauth may be said to vary between 15 and 30 inches, and the beegah between 1,500 and 3,000 square yards. The data at present before us are not sufficiently precise, and we have consequently not affected an accuracy which in truth we could not attain.

**Banks.**—The Bank of Bengal was established in 1809. Its authorised capital, according to Thacker's *Bengal Directory* for 1868, is 3,00,00,000 rupees, which, at 2s. the rupee, gives 3,000,000*l.*, of which 2,200,000*l.* has been paid up. The shares are now selling at a high premium. The management is conducted by nine directors—three appointed by Government, and six elected by proprietors: time of service for the latter three years. This bank possesses peculiar advantages, and consequently its circulation extends over a very large area, its notes being received at all public offices, in payment of revenue, by the collectors of the various districts. Besides this (exclusive of savings' banks) there are 18 other banks, or branches of banks, of which 13 are 'limited.' The nominal capital of these amounts in the aggregate to about 14,000,000*l.*, the paid up capital, however, falling much short of this amount.

**Insurances.**—The fire, life, and marine insurance business is conducted by 62 establishments and agencies, 8 of which are local, the nominal capital amounting in aggregate to over 30,000,000*l.* The larger proportion appear to conduct marine insurance exclusively.

**Pilotage, Port Charges &c.**—The Marine Board at Calcutta have issued the following regulations as to pilotage, port charges &c. :—

1. Commanders are requested, prior to quitting their vessels, on arrival off Calcutta, to fill up and certify, or cause to be filled up and certified, a form of certificate showing the actual registered tonnage, the draught of water, and whether the vessel has or has not been tugged by a steamer any part of the way, or has not had the use of a row-boat. This form will be furnished to the pilot, in order to the bills of the vessel being correctly made out.

2. Commanders are further requested, as early after their arrival as possible, to notify in writing to the master attendant the name and residence of the reference for the payment of their vessels' bills.

3. On the receipt by the master attendant of the above certificate and written reference for payment, a single bill will be prepared, including

inward pilotage, port dues, and row-boat hire (if any), which, together with the certificate, will be forwarded to the collector of customs for collection within fifteen days of the arrival of the vessel, and having on it the name and residence of the party referred to for payment, which commanders are requested to furnish to the master attendant in writing, as early after their arrival as practicable; that officer will more readily be enabled to present it. By this arrangement all the charges connected with the vessel up to her arrival off Calcutta will be embodied in one bill, instead of, as hitherto, being made in separate bills.

4. In the event of the vessel's docking, or being transported at the desire of the commander, it is requested that a certificate may be given by the commanding officer of the operation having been performed, in order to its accompanying the bill when presented for payment to the referee.

5. The charges for hauling to the chain moorings, for their monthly hire, and for hauling from the moorings, will be in separate bills, including the charge for hauling to the moorings, that for occupying them, and that for hauling from them; and commanders are requested to give, or cause their commanding officers to give, to the master attendant or the harbour-master certificate of the date of hauling to and from the moorings, which certificate, as before, will accompany the bill when presented for payment. The hire of the moorings will be charged for the day on which the vessel is hauled thereto, without reference to the period of the day; and in like manner no charge will be made for the day on which she hauls from her moorings, however late in the day she may quit them.

6. The system of charging outward pilotage on an estimated draught of water, with an addition of 10 per cent., subject to adjustment after the vessel has sailed, and of charging a certain number of days for a row-boat, subject to a like adjustment, is abolished; and in future the outward pilotage and charge for row-boat hire on outward-bound vessels will be made as follows:—

When the vessel is finally laden, the commander is to give notice thereof to the master attendant, when the draught of water is to be ascertained and certified by the commander or commanding officer on the part of the vessel, and by the pilot on the part of Government, subject, in case of dispute, to the decision of the master attendant. On receipt of the certificate, the master attendant will cause a bill to be made out for the regular amount of pilotage, and for the row-boat hire. The bill and certificate will be presented in due course for payment.

7. As, however, it frequently happens that vessels are taking in cargo or filling their water up to the last day of their departure, or that from other causes the bills for the chain moorings and outward pilotage cannot be made out till the eve of departure, owners, agents, and commanders are, in such cases, particularly requested, with a view to despatch, to cause an individual to attend at the Banksball and expedite the transmission of the bill and certificate to the collector of customs for collection.

8. In the event of a vessel being tugged any part of the way down by steam, or not having the use of a row-boat, commanders are to obtain from the pilot at Kodgeroo a certificate to that effect, which they should forward by dak to their agents. On receipt thereof, agents are requested to make out a bill against her Majesty's Government for the  $\frac{1}{2}$  deduction from the pilotage allowed if tugged by steam, or for the row-boat hire paid, as the case may be, and to forward it, together

with the certificate, to the civil paymaster for audit and payment.

9. In cases where a vessel leaves Calcutta, avowedly intending to fill up cargo at some place below, the pilotage will be charged at the draught at which she leaves Calcutta in like manner, though at the reduced amount, as if she had proceeded to sea; and with respect to the subsequent pilotage charge from the place at which the vessel takes in the additional cargo to sea, owners or agents of vessels will be required to furnish a special guarantee to pay the amount chargeable according to a certificate of the draught of water to be signed by the commander or commanding officer and pilot.

10. Two sets of moorings at Diamond Harbour having been fitted specially to enable vessels

arriving in distress from loss of anchors and cables to be readily moored, the charge will be Co.'s Ra. 10 for mooring and unmooring, and the daily hire the same as for the moorings at Calcutta. The moorings will of course be available to vessels not in distress from loss of anchors and cables, but the harbour-master will be instructed at all times to keep two sets vacant during the SW. monsoon to meet casualties.

11. Annexed is a statement of the several port and pilotage charges; and the master attendant trusts that, with these and the certificates of the commanders or commanding officers before them, owners and agents of vessels will at all times be enabled readily to ascertain the correctness of the bills, and to discharge them on presentation.

Pilotage Chargeable on Vessels: Intermediate or Broken Pilotage.

Table with columns for Draught of Water, Full Pilotage, and intermediate/broken pilotage rates for various draughts (Under 8 feet to 23 to 24 feet).

PILOTAGE CHARGES.

Outwards.—From within the Port of Calcutta.

- 1. To below Fort Gloucester - - - - - 1-12
2. To below Hog River Obelisk - - - - - 2-12
3. To below the Anchoring Creek - - - - - 3-12
4. To below Diamond Harbour telegraph station - - - - - 4-12
5. To below Rangfula Obelisk (S.E.) - - - - - 5-12
6. To below Mud Point telegraph station (E.N.E.) - - - - - 6-12
7. To below the Fairway buoy of Hedrons in that channel, or the lowermost buoy of the Auckland, if in that channel - - - - - 7-12
8. To below the apex buoy of Hedrons, or the apex buoy of the western channel, according to the channel used - - - - - 8-12
9. To below a line E. or W. of Saugor anchoring buoy, or of the H. buoy for the western channel - - - - - 9-12
10. To below a line E.N.E. or W.S.W. of the Lower Gaspee light-vessel for the eastern channel, or W.S.W. of the lower eastern reef head passage buoy for the south channel - - - - - 10-12
11. To below a line E.N.E. of the spit buoy for the eastern channel, or W.S.W. of the south channel reef buoy for the south channel - - - - - 11-12
12. To below a line drawn east and west of the lower reef buoy, or the pilot station - - - - - full pilotage

Inwards.—To within the Port of Calcutta.

- 1. From below Fort Gloucester - - - - - 1-12
2. From below Hog River Obelisk - - - - - 2-12
3. From below the Anchoring Creek - - - - - 3-12
4. From below Diamond Harbour telegraph station - - - - - 4-12
5. From below Rangfula Obelisk (S.E.) - - - - - 5-12
6. From below Mud Point telegraph station (E.N.E.) - - - - - 6-12
7. From below the Fairway buoy of Hedrons in that channel, or the lowermost buoy of the Auckland, if in that channel - - - - - 7-12

- 8. From below the apex buoy of Hedrons, or the apex buoy of the western channel, according to the channel used - 8-12
9. From below a line east or west of Saugor anchoring buoy, or of the H. buoy for the western channel - - - - - 9-12
10. From below a line E.N.E. or W.S.W. of the Lower Gaspee light-vessel for the eastern channel, or W.S.W. of the lower eastern reef head passage buoy for the south channel - - - - - 10-12
11. From below a line E.N.E. of the spit buoy for the eastern channel, or W.S.W. of the south channel reef buoy for the south channel - - - - - 11-12
12. From below a line drawn east and west of the lower reef buoy, or the pilot station - - - - - full pilotage
Remar.—Intermediate or broken pilotage is calculated in simple subtraction of the proportion payable for the shorter distance than that chargeable for the greater.
Illustration.—What proportion of the outward pilotage should be paid for conducting a ship outwards from Fultah to Saugor Roads?
Proportion for Fultah, below Hog River Obelisk - - - - - 4-12
Proportion for Saugor Roads, below Apex Hedrons - - - - - 8-12
Proportion payable - - - - - 6-12

Table of Port Dues leviable in the Port of Calcutta under Act No. XXX. of 1857.

Table with columns for Vessels up to 100 tons, 100 to 250 tons, 250 to 500 tons, 500 to 1000 tons, 1000 to 1500 tons, 1500 to 2000 tons, 2000 tons and upwards, and Swinging moorings. Includes sub-sections for Sea-going vessels, No port dues, Dhoni or country vessels, and Vessels entering the port in ballast.

All Vessels occupying or swinging, shall according to the

Table showing Vessels up to 100 tons, 100 to 250 tons, 250 to 500 tons, 500 to 1000 tons, 1000 to 1500 tons, 1500 to 2000 tons, 2000 tons and upwards, and Swinging moorings.

Table of Port Fees and under A

- Hauling to or from chain mooring
Hauling to or from swinging
Re-mooring
Hauling in or out of dock, etc.
Use of buoy hauling in or out
Removing from one part of the agent or master - - -
Hooking - - -
Measuring - - -

Customs Wharfage. The following new Charges have been in 1860:—

I. Goods lying on the House Compound, and allowed to remain for any charge for rent, after (at the rates enumerated) to be charged for four any further number of

II. Goods lying under House to be allowed two single rent, and for any of that period double rent

III. Goods landed at Goods remaining in the twenty-four hours shall be charged for four any further number of

IV. The day of landing be reckoned as one day are not reckoned in the delay is caused by the House Officers to exar after application in due the days of such delay term.

Scale of Beer—whole pipe, butt, or puncheon; half pipe, or hoghead; quarter pipe - - - - - Large casks, containing glass or earthenware - - - - - Tierce - - - - - Large crate - - - - - Small crate - - - - - Wine—bottle or pipe - - - - - half pipe or hoghead - - - - - quarter pipe - - - - - chest of 12 dozen size, or chest of 6 dozen size, or a quarter chest or 3 dozen size, or all boxes under 3 dozen size - - - - - one dozen box - - - - - Spits, per pipe - - - - - per hoghead - - - - - in bottle case as 1 dozen above 1 and under 3 dozen 3 dozens - - - - - above 3 and under 6 dozens 6 dozens - - - - - for every dozen in excess of 6 dozens - - - - - British piece goods, per case above per case of 12 dozen size or per case of 6 dozen size or per bale of smaller size of 12, one from January 1 to June 30, and once from July to December 31, annually - - - - - 0 4 0

Scale of Beer—whole pipe, butt, or puncheon; half pipe, or hoghead; quarter pipe - - - - - Large casks, containing glass or earthenware - - - - - Tierce - - - - - Large crate - - - - - Small crate - - - - - Wine—bottle or pipe - - - - - half pipe or hoghead - - - - - quarter pipe - - - - - chest of 12 dozen size, or chest of 6 dozen size, or a quarter chest or 3 dozen size, or all boxes under 3 dozen size - - - - - one dozen box - - - - - Spits, per pipe - - - - - per hoghead - - - - - in bottle case as 1 dozen above 1 and under 3 dozen 3 dozens - - - - - above 3 and under 6 dozens 6 dozens - - - - - for every dozen in excess of 6 dozens - - - - - British piece goods, per case above per case of 12 dozen size or per case of 6 dozen size or per bale of smaller size of 12, one from January 1 to June 30, and once from July to December 31, annually - - - - - 0 4 0

Scale of Beer—whole pipe, butt, or puncheon; half pipe, or hoghead; quarter pipe - - - - - Large casks, containing glass or earthenware - - - - - Tierce - - - - - Large crate - - - - - Small crate - - - - - Wine—bottle or pipe - - - - - half pipe or hoghead - - - - - quarter pipe - - - - - chest of 12 dozen size, or chest of 6 dozen size, or a quarter chest or 3 dozen size, or all boxes under 3 dozen size - - - - - one dozen box - - - - - Spits, per pipe - - - - - per hoghead - - - - - in bottle case as 1 dozen above 1 and under 3 dozen 3 dozens - - - - - above 3 and under 6 dozens 6 dozens - - - - - for every dozen in excess of 6 dozens - - - - - British piece goods, per case above per case of 12 dozen size or per case of 6 dozen size or per bale of smaller size of 12, one from January 1 to June 30, and once from July to December 31, annually - - - - - 0 4 0

Scale of Beer—whole pipe, butt, or puncheon; half pipe, or hoghead; quarter pipe - - - - - Large casks, containing glass or earthenware - - - - - Tierce - - - - - Large crate - - - - - Small crate - - - - - Wine—bottle or pipe - - - - - half pipe or hoghead - - - - - quarter pipe - - - - - chest of 12 dozen size, or chest of 6 dozen size, or a quarter chest or 3 dozen size, or all boxes under 3 dozen size - - - - - one dozen box - - - - - Spits, per pipe - - - - - per hoghead - - - - - in bottle case as 1 dozen above 1 and under 3 dozen 3 dozens - - - - - above 3 and under 6 dozens 6 dozens - - - - - for every dozen in excess of 6 dozens - - - - - British piece goods, per case above per case of 12 dozen size or per case of 6 dozen size or per bale of smaller size of 12, one from January 1 to June 30, and once from July to December 31, annually - - - - - 0 4 0

Scale of Beer—whole pipe, butt, or puncheon; half pipe, or hoghead; quarter pipe - - - - - Large casks, containing glass or earthenware - - - - - Tierce - - - - - Large crate - - - - - Small crate - - - - - Wine—bottle or pipe - - - - - half pipe or hoghead - - - - - quarter pipe - - - - - chest of 12 dozen size, or chest of 6 dozen size, or a quarter chest or 3 dozen size, or all boxes under 3 dozen size - - - - - one dozen box - - - - - Spits, per pipe - - - - - per hoghead - - - - - in bottle case as 1 dozen above 1 and under 3 dozen 3 dozens - - - - - above 3 and under 6 dozens 6 dozens - - - - - for every dozen in excess of 6 dozens - - - - - British piece goods, per case above per case of 12 dozen size or per case of 6 dozen size or per bale of smaller size of 12, one from January 1 to June 30, and once from July to December 31, annually - - - - - 0 4 0

Scale of Beer—whole pipe, butt, or puncheon; half pipe, or hoghead; quarter pipe - - - - - Large casks, containing glass or earthenware - - - - - Tierce - - - - - Large crate - - - - - Small crate - - - - - Wine—bottle or pipe - - - - - half pipe or hoghead - - - - - quarter pipe - - - - - chest of 12 dozen size, or chest of 6 dozen size, or a quarter chest or 3 dozen size, or all boxes under 3 dozen size - - - - - one dozen box - - - - - Spits, per pipe - - - - - per hoghead - - - - - in bottle case as 1 dozen above 1 and under 3 dozen 3 dozens - - - - - above 3 and under 6 dozens 6 dozens - - - - - for every dozen in excess of 6 dozens - - - - - British piece goods, per case above per case of 12 dozen size or per case of 6 dozen size or per bale of smaller size of 12, one from January 1 to June 30, and once from July to December 31, annually - - - - - 0 4 0

Scale of Beer—whole pipe, butt, or puncheon; half pipe, or hoghead; quarter pipe - - - - - Large casks, containing glass or earthenware - - - - - Tierce - - - - - Large crate - - - - - Small crate - - - - - Wine—bottle or pipe - - - - - half pipe or hoghead - - - - - quarter pipe - - - - - chest of 12 dozen size, or chest of 6 dozen size, or a quarter chest or 3 dozen size, or all boxes under 3 dozen size - - - - - one dozen box - - - - - Spits, per pipe - - - - - per hoghead - - - - - in bottle case as 1 dozen above 1 and under 3 dozen 3 dozens - - - - - above 3 and under 6 dozens 6 dozens - - - - - for every dozen in excess of 6 dozens - - - - - British piece goods, per case above per case of 12 dozen size or per case of 6 dozen size or per bale of smaller size of 12, one from January 1 to June 30, and once from July to December 31, annually - - - - - 0 4 0

Scale of Beer—whole pipe, butt, or puncheon; half pipe, or hoghead; quarter pipe - - - - - Large casks, containing glass or earthenware - - - - - Tierce - - - - - Large crate - - - - - Small crate - - - - - Wine—bottle or pipe - - - - - half pipe or hoghead - - - - - quarter pipe - - - - - chest of 12 dozen size, or chest of 6 dozen size, or a quarter chest or 3 dozen size, or all boxes under 3 dozen size - - - - - one dozen box - - - - - Spits, per pipe - - - - - per hoghead - - - - - in bottle case as 1 dozen above 1 and under 3 dozen 3 dozens - - - - - above 3 and under 6 dozens 6 dozens - - - - - for every dozen in excess of 6 dozens - - - - - British piece goods, per case above per case of 12 dozen size or per case of 6 dozen size or per bale of smaller size of 12, one from January 1 to June 30, and once from July to December 31, annually - - - - - 0 4 0

All Vessels occupying Government Moorings, fixed or swinging, shall be liable to pay for the same according to the following revised scale:—

	From Nov. 1 to May 31, per diem		From June 1 to Oct. 31, per diem	
	rs.	a. p.	rs.	a. p.
Vessels up to 199 tons	1	8 0	3	0 0
from 200 up to 299 tons	2	0 0	4	0 0
300 „ 399 „	2	8 0	5	0 0
400 „ 499 „	3	0 0	6	0 0
500 „ 599 „	3	8 0	7	0 0
600 „ 999 „	4	0 0	8	0 0
1,000 and up to 1,249	5	0 0	10	0 0
1,250 to 1,499 tons	6	0 0	12	0 0
1,500 „ 1,749 „	7	0 0	14	0 0
1,750 „ 1,999 „	8	0 0	16	0 0
2,000 tons and upwards	9	0 0	18	0 0
Swinging moorings	2	0 0	4	0 0

Table of Port Fees leviable in the Port of Calcutta under Act XXX. of 1857.

	rs.	a. p.
Hauling to or from chain moorings, each operation	16	
Hauling to or from swinging moorings, each operation	10	
Re-mooring	16	
Hauling in or out of dock, each operation	50	
Use of buoy hauling in or out of dock	10	
Removing from one part of the port to another	25	
Removing from one mooring to another, at the request of the agent or master	50	
Hooking	16	
Messaring	30	

Customs Wharfage Rules and Scale of Charges.—The following new Wharfage Rules and Scale of Charges have been in operation from January 1, 1860:—

I. Goods lying on the Wharf or in the Custom House Compound, and not under cover, to be allowed to remain four days without incurring any charge for rent, after that period single rent (at the rates enumerated in the annexed Table) to be charged for four days, and double rent for any further number of days.

II. Goods lying under cover within the Custom House to be allowed two days rent-free, two days single rent, and for any number of days in excess of that period double rent.

III. Goods landed at the Custom House and Goods remaining in the shade on the Ghaut beyond twenty-four hours shall be charged Double Wharfage, and if remaining beyond eight days Treble Wharfage.

IV. The day of landing and that of removal to be reckoned as one day; Sundays and holidays are not reckoned in the rent-free terms. When delay is caused by the inability of the Custom House Officers to examine and pass the goods after application in due course for that purpose, the days of such delay are not to reckon in any term.

Scale of Charges.

	Per month
	rs. a. p.
Beer—whole pipe, butt, or punchoon	12 0 0
half pipe, or hoghead	6 0 0
quarter pipe	3 0 0
Large cask, containing glass or earthenware	12 0 0
Tierce „ „ „ or provisions	6 0 0
Large crate „ „ „ dozen bottles	6 0 0
Smaller crate „ „ „ 8 or 6 dozen, or more or less	4 0 0
Wine—butt or pipe	12 0 0
half pipe or hoghead	6 0 0
quarter pipe	3 0 0
chest above 12 dozen size	8 0 0
chest of 12 dozen size, or above 6 dozen	6 0 0
chest of 6 dozen size, or above 3 dozen	5 0 0
quarter chest or 3 dozen	3 0 0
all boxes under 3 dozen and above 1 dozen size	1 0 0
one dozen box	0 0 5
Spirits, per pipe	2 0 0
per hoghead	1 0 0
in bottle case as 1 dozen	1 0 0
above 1 and under 3 dozens	1 6 0
3 dozens	2 0 0
above 3 and under 6 dozens	3 0 0
6 dozens	4 0 0
for every dozen in excess of 6 dozens	0 9 0
British piece goods, per case above 12 dozen size	8 0 0
per case of 12 dozen size or above 6 dozens	6 0 0
per case of 6 dozen size or above 3 dozens	5 0 0
per case of 3 dozen size or less	2 0 0
per bale of size of twist of 400 to 500 lbs.	6 0 0
per bale of smaller size	4 0 0
Twist, of all sorts, per bale of 400 or 500 lbs.	6 0 0
per bale of smaller size	4 0 0

	Per month
	rs. a. p.
Canvas, per bale	0 3 0
Silk, per bale	0 6 0
Silk piece goods, per case	0 6 0
Indigo, per chest	0 6 0
Opium, per chest	0 6 0
Cotton, hemp, jute, and safflower, per screwed bale of 300 lbs.	0 4 0
Ginger, rice, and seeds, per 100 br. mds.	2 0 0
Cutch, per 100 br. mds.	2 0 0
Shell lac and lac dye, per chest	0 4 0
Vermilion, per box	0 4 0
Arsenic, per box	0 3 0
Jirasa leaf, per box	0 2 0
China paper, per case	0 2 0
China cases of nanikitt, cassia, camphor, silks, anised &c. per case	0 5 0
Ginger and turmeric, per 100 br. mds.	3 0 0
Bate-mut, per br. md.	0 0 6
Cloves, per br. md.	0 1 0
Colley, pepper, cardamom, cumminseed, anised, in bags or lbs., p. br. md.	0 1 0
Sugar, spices, and any other similar articles, in hogheads, per hoghead	0 8 0
Sugar, in tierces, per tierce	0 4 0
Tea, per whole chest	0 2 0
per smaller box	0 1 0
Sugar candy, per tub	0 0 6
Paint, per keg of 56 lbs.	0 0 6
Salmon, herrings, or other fish, per keg	0 0 6
Turpentine, linseed, and other vegetable oils, per jar	0 1 0
All sortage, per cwt.	0 1 0
Resin or Dammar, per br. md.	0 1 0
Opasco, unmanufactured, per 1 md. hale	0 2 0
Gunnies, per large bale	0 8 0
per smaller bale	0 6 0
Cow hides, per larger bale	0 12 0
per smaller bale	0 8 0
Goat skins, per bale	0 8 0
Goldbeater, per br. md.	0 2 0
Tin plates, per box	0 0 6
Metals, per br. md.	0 0 6

New Wharfage Rules.—Importers and others landing goods at the Custom House are to appoint watchmen to take care of them: such watchmen are to have in their possession the badge or written authority of the persons appointing them, and which is to be produced when required by an officer of Customs.

Wharf Assistants are strictly cautioned from receiving packages containing matches, acids, crackers, gunpowder, gun-caps, saltpetre, or other inflammable articles within their sheds, and to bring to the notice of the Controller as soon as they find from their boat notes or information otherwise received that such articles are about to be landed. Any person bringing such goods into the Sheds and Godowns of the Custom House will be liable to a fine of 500 Rupees, and to make good all damages arising therefrom.

No packages are allowed to be opened on the Wharf without the Collector's orders, or if for appraisement, under direction of one of the Appraisers.

No full casks or cases of wine, beer, or any other liquor are to be passed out until the empty ones covered by the same Perwannah are removed first. This rule is applicable in cases where parties are allowed to fill up beer, spirits, tar &c., on the wharf before passing.

As the Out-Sheds are only intended for the accommodation of goods landed before the opening and after the closing of the gates, unless under special permission of the Collector, and with certain exceptions, no goods are allowed to be placed therein between the hours of 10 A. M. and 5 P. M.

The following goods only are allowed to be landed outside at all hours:—Timbers and planks of all descriptions, heavy anchors and chains, tar, rosin, pitch, and all heavy packages which require the use of the crane.

All expenses incurred for advertising and removing packages are to be paid by the owners or consignees thereof at the time of passing.

An extra Officer and a Peon to be appointed to all private bond Godowns at the expense of the bonders. The former to receive and the latter to accompany the goods passing into private bond. An officer is also appointed, at the expense of the bonders, to pass out goods from private bond on which duty has been paid.

A Peon (if one be available) will be appointed

by the Officer at the Bonded Warehouse to accompany goods into public bond, otherwise a fee of 4 annas must be paid for an extra Peon.

The rate to be charged by the extra Officer has been fixed from 10 A.M. to 1 P.M. at 1 rupee and 8 annas; and any further time beyond the above up to 5 P.M., 3 rupees. From 5 to 6 P.M. an extra charge of 12 annas will be made, and 1 rupee from 3 to 6-30 P.M. after which time Officers are not expected to work. Fee for Peons, 4 annas each per day.

A conveyance fee of 1 rupee to be paid to the extra Officer when required to attend at a Godown the distance of which from the Custom House exceeds  $\frac{1}{2}$  a mile.

Instances having occurred in which goods could not be received and duly secured in the Bonded Warehouse on account of passing out late from the Wharf, Assistants will not allow any goods intended for private bond to be carted after 4 P.M., and for public bond after 4-30 P.M.

No work will be allowed on Sundays and Christian holidays.

Work before and after hours, and on general holidays, will be allowed only on payment of fees, and under sanction of the Collector.

The rate for working on those holidays, and before and after hours, i.e., from 7 to 10 A.M. and from 5 P.M. to sunset, is fixed at 5 rupees for each requisition for the Assistants, and 8 annas to the Peons; if after sunset, extra fees of 5 rupees and 8 annas, respectively, will be charged.

All applications for working on holidays should be sent in to the Collector the day previous, and in time to allow the necessary arrangements to be made.

Goods lying under cover within the Custom House to be allowed four days rent-free, two days single rent, and for any number of days in excess of that period, double rent up to fourteen days (exclusive of the rent-free and single rent terms), after that to treble rent for ten days more, and quadruple rent for any period in excess of that term. These rates to be calculated by the single rates fixed in Government Order No. 2796, dated November 15, 1859, published in the *Calcutta Gazette* on January 4, 1860.

All empty Cargo Boats lying for more than twenty-four hours on the River bank within the limits of the Custom House, i.e., from Colliah Ghant to Clive-street Ghant, will be charged a rent of 5 rupees per day.

Country timber landed within the above limits will be charged, from the date of landing, a rent of 1 rupee per log per day.

*Scale of Charges for Use of Custom-house Crane.*

	Rs.	A.	P.
Cases, carriage	1	0	0
piano	0	0	8
saws	0	0	4
sundries, size not exceeding 6 dozens	0	4	0
above 6 dozens and not exceeding 12 dozens	0	8	0
above 12 dozens	1	0	0
Casks, piece goods	0	2	0
rice bowls	0	6	0
sundries, size not exceeding 6 dozens	0	4	0
above 6 dozens and not exceeding 12 dozens	0	8	0
above 12 dozens	1	0	0
butts, punchons, wines or spirits	0	12	0
hog-heads	0	6	0
barrels, quarter casks	0	3	0
Bales, cow hides	0	4	0
goat skins	0	2	0
carpets	0	2	0
paper	0	2	0
piece goods	0	2	0
Crates, earthenware, china dec., large	0	4	0
small	0	2	0
Machinery, metals, and weighable articles packed or unpacked, per mannd	0	0	1

N.B.—A second charge of half the above rates will be made on all packages not carried when lifted from the boat.

*Trade of Calcutta.*—During the present century the trade of Calcutta has experienced some very striking vicissitudes. Previously to the opening

of the trade in 1814-15 cotton piece goods formed the principal article of export from India; the value of those exported from Calcutta, at an average of the five years from 1814-15 to 1818-19, being (at 2s. per sicca rupee) 1,260,736l. a-year. The extreme cheapness of labour in India, and the excellence to which the natives had long attained in several departments of the manufacture, would, it might have been supposed, have sufficed to place this important department beyond the reach of foreign competition. But the wonderful genius of our mechanics, the admirable skill of our workmen, and our immense capital, have far more than counterbalanced the apparently insuperable drawback of high wages, and the expense of bringing the raw material of the manufacture from America, and even India itself; and have enabled our manufacturers to bear down all opposition, and to triumph over the cheaper labour, contiguous material, and traditional art of the Hindoos. The imports of British cottons and twist into India have increased since 1814-15 with a rapidity unexampled in the annals of commerce; and the native manufacture has sustained a shock from which it is not very likely it will ever recover. The influence of these circumstances on the trade in piece goods has been very striking. During the year 1857-58 the value of those exported from Bengal was no more than 73,231l., being only about  $\frac{1}{10}$  of what it amounted to 36 or 37 years previously! In 1862-3 it fell, including twist and yarn, to 23,878l., but rose to 119,576l. in 1863-4, and was 78,357l. in 1864-5.

The importation of bullion into Calcutta has fluctuated in an extreme degree since the opening of the trade in 1814. Bullion had from the earliest period been one of the most advantageous articles of export to the East, and it continued to be largely imported into Calcutta down to 1827-28. But from that period the imports declined, and were comparatively inconsiderable down to 1837-38; indeed, in 1831-32, and 1832-33, the exports of bullion exceeded the imports; but since 1837-38 its importation has again become greater than ever. [EAST INDIES; PRECIOUS METALS.]

It does not, however, appear to be very difficult to account for these variations. Formerly the export of bullion to India, though influenced by other causes, was mainly occasioned by the difficulty under which we were then placed of providing articles of merchandise suitable for the Indian markets sufficient to balance our imports. The astonishing increase of our exports of cotton goods and yarn to India has, however, gone far to obviate this difficulty: in truth, the fair presumption seems to be, that in future the circumstances of the case will be reversed, and that the difficulty of procuring return cargoes of produce suitable for our markets will, in ordinary years, be found to be the principal obstacle to the extension of our trade with Hindostan as well as with China. There seems to be no limit other than the necessity of furnishing equivalents in their stead, to the indefinite sale of our products in the East; and in so far, at least, as India is concerned, the facilities for furnishing such equivalents will, most likely, be gradually increased. The soil and climate of Bengal seem to be peculiarly well suited to the production of grain, sugar, indigo, opium, silk, cotton, saltpetre, jute, tea, spices, and a host of other articles; and as the inhabitants are not deficient in industry, nor in the desire to improve their condition, it would seem that there wants only a reduction of the land-tax, which is so heavy as to paralyse all their energies, to enable them to increase their articles of export to an indefinite extent, and to

render their country prosperous.

Calcutta is the chief trade of Bengal; the Chittagong, Cuttack figures and statement mainly the external deney. Of the prin this part of India, o cotton to the United (in this article there h increased export aris in America); indigo t ricia, France, and Gerri dom, Europe, and Am dom, France, Mauri Persian Gulfs; grain Mauritius; raw silk France; saltpetre to U China, and France; s America, Mauritius, an to United Kingdom ar chiefly to the United former New South Wa

*Imports.*—The princi Calcutta consist of co piece goods, chiefly Bri apparel of all kinds, bo nery, malt liquors, metal iron, tin, spelter, mar and military stores, rail wines, salt, woollen goo

The following tables w trade of Bengal at differ

*Account of the Number of each Nation (including Ports in the Presidency mentioned Years ended*

Nationality of Vessels	1867	
	Vessels	Tons
American	1,222	4
Arabian	78	1
Australian	1	1
Austrian	—	—
Belgian	—	—
Burmese	—	—
Dutch	9	4
French	110	4
German	11	—
Italian	—	—
Norwegian	—	—
Portuguese	—	—
Praowan	1	—
Russian	1	—
Swedish	—	—
Spanish	—	—
Swiss	3	—
Turkish	—	—
Total	1,482	8
Native craft	1,657	—

*An Account showing the ported into*

Articles	1850-51
Japan	£
Cash and coin	195,509
Books and stationery	31,090
Wotton (Twist and yarn)	55,831
Wool	710,317
Fruits and nuts	2,202,916
Stearry and precious stones	63,831
Ma herry	55,895
Malt liquor	17,011
Manufactured	49,558
Metals (unmanufactured)	127,489
Wool	868,969
Salt	666,116
Wool goods	173,101
Railway materials	30,930
Wines and spirits	225,676
Woolen goods	172,190
Wool imports	6,158,815
Woolen or treasure	1,145,872
Total import trade	7,304,685

render their country comparatively flourishing and prosperous.

Calcutta is the chief port for carrying on the trade of Bengal; the minor ports being Balasore, Chittagong, Cuttack, and Pooree. The subjoined figures and statements, therefore, will represent mainly the external trade of the Bengal Presidency. Of the principal articles exported from this part of India, opium goes to China chiefly; cotton to the United Kingdom, France, and China (in this article there has been of late years a largely increased export arising from the late disturbances in America); indigo to the United Kingdom, America, France, and Germany; jute to United Kingdom, Europe, and America; rice to United Kingdom, France, Mauritius, America, Arabian and Persian Gulfs; grain of other kinds principally to Mauritius; raw silk to United Kingdom and France; saltpetre to United Kingdom and America, China, and France; spices to United Kingdom, America, Mauritius, and Straits Settlements; seeds to United Kingdom and America; sugar and tea chiefly to the United Kingdom, though of the former New South Wales receives largely.

**Imports.**—The principal articles of import into Calcutta consist of cotton twist and yarn, and piece goods, chiefly British manufacture; wearing apparel of all kinds, books and stationery; machinery, malt liquors, metals (raw) consisting of copper, iron, tin, spelter, manufactured metals, naval and military stores, railway materials, spirits and wines, salt, woollen goods, also bullion, or treasure.

The following tables will show the state of the trade of Bengal at different periods:—

*Account of the Number and Tonnage of Vessels of each Nation (including Steamers) Cleared at Ports in the Presidency of Bengal in the 2 under-mentioned Years ended April 30.*

Nationality of Vessels	1861		1865	
	Vessels	Tons	Vessels	Tons
British	1,224	697,538	1,552	899,318
American	78	61,496	23	19,826
Arabian	7	4,311	3	1,112
Australian	1	457	—	—
Austrian	—	—	—	—
Belgian	—	—	1	417
Burmese	—	—	—	—
Danish	9	2,671	6	3,525
Dutch	4	2,306	—	—
French	110	67,478	121	57,833
German	11	6,927	12	8,106
Italian	—	—	—	—
Norwegian	—	—	—	—
Portuguese	—	—	—	—
Prussian	1	995	3	1,370
Russian	1	443	1	796
Sardinian	—	—	—	—
Spanish	—	—	—	—
Swedish	3	1,042	3	1,240
Turkish	—	—	—	—
Total	1,482	845,702	1,708	995,511
Native craft	175	15,327	215	16,988
Total	1,657	861,029	1,923	1,012,499

*An Account showing the Principal Articles Imported into Bengal.*

Articles	1850-51	1853-54	1860-61	1863-61
	£	£	£	£
Apparel	195,590	172,131	199,531	204,949
Books and coke	34,680	51,519	115,119	132,779
Books and stationery	710,317	400	1,110,425	618,703
Cotton (raw and yarn)	2,402,216	3,406,577	5,195,948	4,191,523
Grains (wheat)	63,831	70,073	83,638	66,053
Jewellery and precious stones	55,895	56,567	107,911	119,820
Machinery	14,401	27,543	719,304	572,198
Malt liquor	48,558	77,798	115,028	218,819
Metals (manufactured)	127,489	191,199	205,747	161,285
Metals (unmanufactured)	868,969	551,110	241,306	1,245,739
Silk	666,116	111,211	504,287	315,532
Wool goods	30,930	54,524	112,567	125,557
Railway materials	—	—	798,162	479,154
Wares and articles	223,627	153,093	270,211	355,564
Woolen goods	132,180	66,173	117,378	265,723
China imports	6,158,813	5,673,367	12,020,634	10,245,680
Opium or treasure	1,115,272	2,45,984	3,529,643	4,836,529
Total import trade	7,304,685	7,759,351	15,550,277	15,080,219

*Account of the Value of Principal Articles Exported from the Bengal Presidency to all parts out of India.*

Articles	1850-51	1853-51	1860-61	1863-64
	£	£	£	£
Cotton (raw and yarn)	281,267	469,651	76,536	3,071,403
Indigo	117,214	40,512	27,468	119,578
Other kinds	1,716,471	1,701,019	1,562,639	1,893,650
Grain (rice)	80,992	70,911	151,107	56,741
Other sorts	308,210	102,549	2,310,980	2,155,122
Gummes and gunny bags	18,850	24,313	138,629	229,310
Hides and skins	166,009	174,229	350,192	104,555
Jute	308,173	375,538	210,912	727,639
Opium	196,356	214,768	409,372	1,507,037
Saltpetre	155,784	102,549	175,560	230,000
Seeds of all kinds	37,290	18,035	61,297	46,405
Shawls, Cashmere	3,155,075	5,688,063	3,575,114	5,907,236
Silk	361,306	501,269	593,307	692,101
Sugar and candy	602,193	267,111	763,672	1,137,725
Tea	17,590	22,109	39,433	70,014
Timber and woods	605,866	685,568	961,291	948,176
Tobacco	332,637	211,911	101,729	80,190
Wool goods	1,521,503	535,678	219,936	395,178
Yarn	18,221	21,315	107,038	223,154
Opium or treasure	4,271	107,410	150,106	55,270
Total export trade	9,997,228	10,133,501	13,198,759	18,610,222

*Statement of the Number of Ships and their Tonnage entered and cleared into and from Bengal.*

1853-54	Entered		Cleared	
	Ships	Tonnage	Ships	Tonnage
British	638	379,255	700	461,572
Foreign	322	159,220	327	149,867
Native craft	397	24,223	311	24,481
Total	1,357	562,698	1,338	635,920
1863-64				
British	1,430	809,824	1,224	697,538
Foreign	288	172,131	258	148,164
Native craft	262	40,170	175	15,327
Total	1,980	1,022,125	1,657	861,029

In 1865-66, 1,089 vessels of 801,170 tons entered the port, and 1,120 of 854,440 tons cleared out.

**Remarks on Exports.**—The reader will elsewhere find [CANTON; OPIUM] pretty ample information in relation to the trade in opium. It is sufficient here to state that it has rapidly grown in magnitude and importance. At an average of the years 1830-31 and 1831-32 the exports from Calcutta were 7,273 chests, worth 1,121,560*l.*; whereas during the year 1857-58 the exports had increased to 38,874 chests, worth 746,083*l.* In 1863-4 the value of the exports from Bengal was 5,207,236*l.*, and in 1864-5 4,724,300*l.* China is not the principal merely, but almost the only market for opium, so that the trade between Calcutta and her is now second only to that between Calcutta and England. It is true that large quantities of opium are shipped for Singapore and other intermediate ports, but China is its ultimate destination.

Towards the close of last century the exports of indigo from Calcutta were comparatively trifling; but about that period Europeans began to engage in the business; and the culture of the plant was, in consequence, so much extended, and the preparation of the drug so much improved, that it has been for a lengthened period an article of primary commercial importance. Of late years, however, the growth of indigo appears to have increased but slowly; the shipments in 1830-31 and 1831-32 being 2,856 tons, and those in 1857-58 only 3,071 tons. The value of the exports from Bengal in 1864-5 (1,426,883*l.*) is, however, higher than that of 1863-4. The stationary state of the trade has been ascribed partly to the influence of importations from Java, where indigo is now very extensively raised, and partly to the alleged decrease in the use of blue cloth. France is, next to England, the great market for indigo.

We had occasion to remark, in a former edition

Abstract View of the External Trade of Bengal.

Countries	Imports				Exports			
	1855-54		1863-64		1855-54		1863-64	
	Merchandise	Treasure	Merchandise	Treasure	Merchandise	Treasure	Merchandise	Treasure
United Kingdom -	4,806,279	896,998	8,504,631	457,398	4,009,775	7,151	9,440,823	15,905
Aden -	162	7,396	420	2,637	7,471	..	18,047	..
Africa -	..	..	25,773	..	..	..	..	..
America -	81,502	1,289	54,183	..	751,957	..	765,938	..
Arabian and Persian Gulf -	67,248	10,940	56,283	19,528	164,099	..	191,992	..
Austria -	..	..	1,323	..	..	..	1,892	..
Hedjaz -	12,527	..	..	..	17,144	..	..	200
Cape de Good Hope -	1,215	300	8,673	210	11,698	..	39,985	..
Cape de Verde Islands -	..	..	..	..	..	..	..	..
Ceylon -	17,571	841	25,071	267,152	25,711	56,386	398,730	655,000
China -	216,400	118,871	167,183	276,759	3,258,178	260,699	4,816,598	107
France -	110,416	115,726	264,569	1,425,429	565,296	..	561,869	..
Germany -	..	..	..	..	..	..	..	..
Holland -	108	..	..	..	36,522	..	..	..
Java and Sumatra -	..	880	..	18,000	4,100	..	10,901	..
Madra -	..	..	..	..	..	..	..	..
Maldiv Islands -	11,633	..	29,803	..	6,035	..	27,272	..
Mauritius and Bourbon -	11,908	76,751	4,907	38,413	19,110	38,260	815,136	..
Mediterranean ports -	16,881	2,391	12,856	1,000	21,912	..	840	..
New South Wales -	23,032	285,081	315,609	1,955,280	123,566	500	162,505	..
Spain and Portugal -	20,818	5,960	29,559	..	..	..	10,218,740	..
Straits Settlements -	199,408	70,745	301,160	619,496	759,881	74,117	1,217,923	10,112
St. Helena -	..	..	..	..	1,748	..	1,792	..
Suez -	40,612	438,770	95,939	57,437	89,272	500	101,122	120
Sweden -	..	..	..	..	..	..	..	..
Turkey -	..	..	..	..	..	..	..	..
West Indies -	66	..	..	..	24,503	..	1,916	..
Total -	5,673,567	2,298,981	10,213,680	4,836,539	10,153,304	437,913	18,610,222	688,511

Account showing the Value of the Imports into and of the Exports from Bengal of Merchandise and Treasure in the following 25 Years, ended April 30.

Year	Imports			Exports		
	Merchandise	Treasure	Total	Merchandise	Treasure	Total
1841	4,590,755	918,808	5,509,563	8,069,566	146,206	8,296,771
1842	4,262,910	890,618	5,252,528	8,065,381	159,156	8,225,530
1843	5,315,185	1,618,712	6,933,897	7,365,438	74,234	7,439,670
1844	4,474,473	1,732,576	6,207,049	9,081,111	185,794	10,076,905
1845	5,235,999	1,981,365	7,217,365	9,942,197	396,343	10,338,540
1846	5,232,617	991,906	6,224,523	9,815,767	987,079	10,802,845
1847	5,215,443	1,339,249	6,554,692	9,231,592	985,161	10,216,757
1848	4,621,362	747,223	5,368,585	9,181,857	905,071	10,086,928
1849	4,596,011	1,411,659	6,007,670	9,039,854	780,878	9,819,732
1850	5,285,170	1,214,865	6,499,035	10,148,039	356,265	10,504,311
1851	5,115,292	1,183,181	6,298,473	9,997,728	276,329	10,274,057
1852	5,097,006	2,309,471	7,406,477	10,125,971	320,588	10,446,559
1853	4,495,675	3,393,987	7,889,662	10,735,555	476,275	11,211,830
1854	5,673,366	2,083,986	7,757,352	10,133,304	437,913	10,571,217
1855	5,629,181	1,654,124	7,283,305	10,653,866	591,666	11,047,416
1856	5,788,696	5,179,854	10,968,550	12,328,800	112,576	12,441,376
1857	7,719,912	6,128,573	13,848,485	12,914,512	289,425	13,203,927
1858	7,734,291	7,186,211	14,920,502	15,371,182	305,219	15,676,401
1859	10,596,100	6,909,721	17,505,821	18,130,416	85,892	18,216,308
1860	9,917,119	7,776,479	17,693,598	19,509,290	209,280	19,718,570
1861	13,029,674	5,729,615	18,759,289	15,198,759	457,247	15,656,006
1862	10,230,791	4,676,964	14,907,755	12,055,001	185,858	12,240,859
1863	10,211,961	4,257,495	14,469,456	15,169,023	428,741	15,597,764
1864	10,213,690	4,876,593	15,090,283	18,610,221	688,511	19,298,732
1865	7,922,881	17,020,205	24,943,086	17,759,715	255,211	18,014,926

of this work, that of the various articles brought from India, sugar seemed to be the one in which an increase of importation would most likely take place. In 1835 the duty on East India sugar, previously comparatively high, was reduced to the amount of that on West India sugar; and that circumstance, and the continued high price of sugar in this country, gave a powerful stimulus to its culture in and exportation from India. But the great increase in the exports of sugar from 1830 down to 1840 has not been continued; and now that the sugar trade is placed on a proper footing by the abolition of the discriminating duties on foreign sugars, the importations from India will, perhaps, be but slowly increased.

In consequence of the American civil war the exports of cotton from Bengal increased enormously, the value having risen from 76,536*l.* in 1860-61 to 3,074,403*l.* in 1863-4; but it fell to 2,452,759*l.* in 1861-5, and the average export for subsequent years will probably be much less.

The exports of saltpetre from India have not, as many anticipated, been affected by the competition of nitrate of soda from South America. In 1830-31 the exports from Calcutta were 424,729 *fat.* maunds; whereas, in 1856-57, they amounted to 946,801 *Ind.* maunds. The value of the exports from Bengal, however, fell from 813,101*l.* in 1862-3 to 529,010*l.* in 1864-5.

The exports of rice from Bengal fluctuate very greatly. This is not caused so much by variations in the crops of the country as by variations in those of other countries; for, when a scarcity occurs in almost any parts of continental Asia or in any of its islands, recourse is most frequently had to Bengal to supply the deficiency, and the demands thence arising have been sometimes enormous. In 1831-32, for example, the exports of rice from Calcutta to the coast of Coromandel amounted to only 16,545 maunds, whereas in 1833-34 they amounted to 1,252,056 maunds. (Bell's *Comparative View of 1832-33 and 1833-34*, p. 41.) The value of the exports of rice from Bengal in 1864-5 was 2,611,759*l.* It is worthy of remark, that while Bengal is shipping immense supplies of rice and other grain to distant parts, a large part of her own population is frequently in a state of great want and suffering. Ireland is not, therefore, the only country in which the most abject poverty and wretchedness on the part of the inhabitants are found combined with great fertility of soil and a large exportation of food.

Besides the articles of native Indian produce exported from Calcutta, she re-exports pretty considerable quantities of various articles brought from other parts. The value of the British cotton goods re-exported amounts to about 200,000*l.* a-year.

They are principally for silver. The cotton the Burmese dominions in Burma, as in England, the genuinity of the smuggled calicoes from the Government without much difficulty. CALICO (Ger. ka) (Ind; Swed. cattun) al. tela bambagina; Pol. baweluka; Chi. cotton; so called from coast, whence it was all white or unprinted; nominated calicoes; this term is applied printed.

*Historical Notice of* This art, though apparently, has been practised in the East since Herodotus mentions it on the shores of the Calicut, the figures of painting with a colour formed by bruising and soaked in this colour was not effected as the clothes themselves, but the colours were dyed, had not those used with the use of mordant passage in Pliny (*Hist. Nat.*) which, though in some instances, the ancient Egyptians with the principle of calico, says he, 'the clothes, not drugs (sorbentibus medicamentis) were dyed, a vat full of boiling dye, a little; when they dyed of various colours, seeing that there is one (unus in cortina color) should be produced by the Pliny further states that hevesive they could not be dyed, clothes were the stronger process is known to India from the earliest mechanical inventions of the cause of vast improvement and beautiful art; but shows distinctly that we have been only perfecting a practice in the remotest parts of the world. Calico Printing in Great Britain.—In Great Britain has formed, for a considerable and valuable trade, truly said to have grown of repeated efforts for its use of calicoes from France and Flanders, and was passed in 1721, imposing a duty of 20*l.* upon calico! Fifteen years after, a statute was so far modified, that it was introduced in Great Britain, 'provided the warp the yarn.' This was the law, till after the invention of the power-loom, which introduced a new era in the manufacture, which was obvious to everyone. passed, allowing printed cotton, to be used, after the year (raised to 3*l.* in 18

They are principally bartered with the Burmese for silver. The conveyance of the latter out of the Burmese dominions is strictly prohibited; but in Burma, as in England and elsewhere, the liguency of the smuggler is too much for the vigilance of the Government, and the trade is carried on without much difficulty. [EAST INDIES.]

CALICO (Ger. kattun; Dutch, katoen; Dan. tøn; Sweil. eattun; Fr. coton, toile de coton; Ital. tela bambagina, tela dipinta; Span. tela de algodón; Port. pano de algodão; Russ. wũboika; Pol. bawelnika; Chinese, pi). Cloth made of cotton; so called from Calicut, on the Malabar coast, whence it was first imported. In England, all white or unprinted cotton cloths are denominated calicoes; but in the United States this term is applied to those only that are printed.

*Historical Notice of the Art of Calico Printing.*—This art, though apparently one of the most difficult, has been practised from a very remote era. Herodotus mentions (lib. i. s. 202) that a nation on the shores of the Caspian were in the habit of painting the figures of animals on their clothes, with a colour formed from the leaves of trees bruised and soaked in water; and he adds that this colour was not effaceable, and was as durable as the clothes themselves. It is difficult to imagine that the colours could have been so permanent, had not those using them been acquainted with the use of mordants. There is, however, a passage in Pliny (*Hist. Nat.* lib. xxxv. sec. 11), which, though in some respects obscure, shows that the ancient Egyptians were fully acquainted with the principle of calico printing. 'They paint,' says he, 'the clothes, not with colours, but with drugs (sorbentibus medicamentis) that have no colour. This being done, they immerse them in a vat full of boiling dye, and leave them there for a little: when they take them out, they are painted of various colours. It is extraordinary; seeing that there is only one colour in the vat (unus in cortina color), that a variety of colours should be produced by the operation of the drugs.' Pliny further states that the colours were so adhesive they could not be washed out; and that clothes were the stronger for being dyed. A similar process is known to have been followed in India from the earliest times. The chemical and mechanical inventions of modern ages have been the cause of vast improvements in this ingenious and beautiful art; but the passage now quoted shows distinctly that we have, in this instance, been only perfecting and improving processes practised in the remotest antiquity.

*Calico Printing in this Country. Duties on Calicoes.*—In Great Britain the printing of cottons has formed, for a considerable period, a very important and valuable business, which may be truly said to have grown up amongst us in despite of repeated efforts for its suppression. To prevent the use of calicoes from interfering with the demand for linen and woollen stuffs, a statute was passed in 1721, imposing a penalty of 5*l.* upon the weaver, and of 20*l.* upon the seller, of a piece of calico! Fifteen years later this extraordinary statute was so far modified, that calicoes manufactured in Great Britain were allowed to be worn, 'provided the warp thereof was entirely of linen yarn.' This was the law with respect to calicoes till after the invention of Sir Richard Arkwright introduced a new era into the history of the cotton manufacture, when its impolicy became obvious to everyone. In 1774 a statute was passed, allowing printed goods, wholly made of cotton, to be used, after paying a duty of 3*d.* per yard (raised to 3½*d.* in 1806); and enacting some

regulations as to the marks to be affixed to the ends of the pieces, the stripes &c.

This Act continued in force down to 1831; but, though an improvement upon the old law, it was much, and justly, complained of. Its injustice and injurious operation were very forcibly pointed out by Mr. Poulett Thomson (afterwards Lord Sydenham), in his excellent speech on taxation, on March 26, 1830. 'It is a matter of surprise to me,' said the right hon. gent., 'that this most impolitic impost should have been allowed to continue, especially when it was declared by the committee of 1818 to be "partial and oppressive, and that its repeal was most desirable;" who, indeed, can examine it and not feel the truth of this observation? Is it credible, that, in order to raise a nett revenue of 599,669*l.*, a gross tax should be imposed of 2,019,737*l.*? and yet this was the return, according to the paper on your table, for 1828. And these figures are still far from showing the real cost of the collection of this tax;—that must be taken upon the gross produce: and supposing the rate of the collection for the excise to be 5 per cent., which is less than it really is, you have a cost of 20 per cent. on the nett produce of this tax, for charges. In addition to this, from all the enquiry I have been able to make, the increased cost to the manufacturer is fully 5 per cent. upon the whole quantity made; so that you have thus two sums, each of 100,000*l.*, levied on the public, for the sake of exacting a duty of 600,000*l.* But the revenue is again, in this case, far from being the measure of the injury you inflict. The inequality of the tax constitutes its chief objection. The duty is levied upon the square yard, at 3½*d.* per yard. Thus, the piece of calico which sells for 6*d.*, duty paid, contributes equally with that which is worth 5*s.* a yard. You levy an onerous and oppressive tax of 100 or 150 per cent. upon the poor, who are the purchasers of inferior cottons; whilst the rich, who buy only the finest kinds, pay but 10 or 15 per cent.'

It is due to Mr. Thomson to state that, besides giving this forcible exposition of the inequality and injurious operation of the duty on printed goods, one of his first measures, on coming into office, was to propose its repeal.

In consequence, partly of the abolition of the tax, but principally, no doubt, of the extraordinary increase of the cotton manufacture, the business of calico printing has increased prodigiously since 1830. In proof of this we may mention that in 1829, about twelve months previously to the abolition of the duty, 89,862,433 yards of all descriptions of printed goods were exported to foreign parts; whereas, in 1841, there were exported, of printed cottons only, the enormous quantity of 329,210,892 yards, of the declared value of 7,772,737*l.* Our exports of printed cottons in 1866 amounted to 897,825,517 yards, valued at 22,095,216*l.*, and in 1867 to 880,619,835 yards, valued at 19,405,384*l.* [COTTON.]

CAMBRIC or CAMBRICK (Ger. kammer-tuch; Dutch, kameryksdoek; Fr. cambray batiste; Ital. cambraja; Span. cambray; Port. cambray; Russ. kamertug). A species of very fine white linen, first made at Cambray, in French Flanders, whence it derives its appellation. It is now produced, of an equally good quality, in Great Britain.

CAMEL (Fr. chameau; Ital. and Span. camelo; Ger. kameel; Arab. djemel; Lat. camelus; Gr. κάμηλος). This animal is indigenous to Arabia, and we only mention it in this place on account of its extreme importance in the commerce of the East.

The camel is one of the most useful of the animals over which the inhabitants of Asia and Africa have acquired dominion. These continents

are intersected by vast tracts of burning sand, the seats of desolation and drought, so as apparently to exclude the possibility of any intercourse taking place between the countries that they separate. But as the ocean, which appears at first view to be placed as an insuperable barrier between different regions of the earth, has been rendered, by navigation, subservient to their mutual intercourse; so by means of the camel, which the Arabians emphatically call *the shir of the desert*, the most dreary wastes are traversed and the nations which they disjoin are enabled to trade with one another. By the wise economy of Providence, the camel seems formed on purpose to be the beast of burden in those regions where he is placed, and where his service is most wanted. In all the districts of Asia and Africa, where deserts are most frequent and extensive, the camel abounds. This is his proper station, and beyond this the sphere of his activity does not extend far. He dreads alike the excesses of heat and cold, and does not agree even with the mild climate of our temperate zone.' (Robertson's *Disquisition on Ancient India*, Note 53.)

The first trade in Indian commodities of which we have any account (Genesis xxxvii. 25) was carried on by camels; and they still continue to be the instruments employed in the conveyance of merchants and merchandise throughout Turkey, Persia, Arabia, Egypt, Barbary, and many contiguous countries. The merchants assemble in considerable numbers, forming themselves into an association or CARAVAN, for their mutual protection against the attacks of robbers, and the dangers incident to a journey through such rude and inhospitable countries. These caravans are often very large, and usually consist of more camels than men. The capacity of the camel to endure fatigue, and the small supply of provisions that he requires, are almost incredible. 'His ordinary burden,' says Volney, 'is 750 lbs.; his food, whatever is given him—straw, thistles, the stones of dates, beans, barley &c. With a pound of food a-day, and as much water, he will travel for weeks. In the journey from Cairo to Suez, which is 40 or 46 hours, they neither eat nor drink; but these long fasts, if often repeated, wear them out. Their usual rate of travelling is very slow, hardly above 2 miles an hour: it is in vain to push them; they will not quicken their pace; but, if allowed some short rest, they will travel 15 or 18 hours a-day.' (*Voyage en Syrie*, tom. ii. p. 383.)

The Arabians regard the camel as a sacred animal, the gift of Heaven, without whose aid they could neither subsist, nor trade, nor travel. His milk is their ordinary food; they also eat his flesh, especially that of the young camel, which they reckon excellent; its hair, which is renewed every year, is partly manufactured into stuffs for their clothes and furniture, and partly sent abroad as a valuable article of merchandise; and even its faeces serve them for fuel. (See the admirable description of the camel in Buffon.)

But, however useful to the inhabitants of parched, sandy deserts, it may be worth while, perhaps, to remark that the camel is of very little service elsewhere. He cannot walk 100 yards on wet or slippery ground without stumbling. He is totally unknown in all hilly or woody countries; and, with few exceptions, may be said to be as great a stranger in the Eastern Islands, Japan, the southern parts of China, and all the southern parts of the latter, including Bengal, as he is in Europe. In all those vast countries the ox is the most useful of the lower animals. It is used for draught (for which the camel is totally

unfit), in the cart and plough, in the carrying of burdens, in treading corn, in the oil-press &c., and finally as food.

**CAMEL'S HAIR** (Ger. *kamelhaar*; Fr. *poil de chameau*, *laine de chevron*; Ital. *pelo di camello*; Span. *pelo ó lana de camello*). The hair of the camel imported into this country is principally used in the manufacture of the pencils for drawing and painting. In the East, however, it is an important article of commerce, and is extensively used in the arts. It serves for the fabrication of the tents and carpets of the Arabs, and for their wearing apparel. Cloth is also manufactured of it in Persia and other places. The most esteemed hair comes from Persia. It is divided into three qualities—black, red, and grey. The black is the dearest, and the grey is only worth half the red. Considerable quantities of camel's hair are exported from Smyrna, Constantinople, and Alexandria. It is used in the manufacture of hats, particularly by the French. (Roese's *Cyclopaedia*, art. 'Camelus.')

In 1866 there were imported into the United Kingdom 336,392 lbs. of camel's hair, valued at 10,500.

**CAMELET or CAMBLET** (Ger. and Dutch, *kamelot*; Fr. *camelot*; Ital. *ciambellotto*; Span. *camelote*; Russ. *kamolot*). A plain stuff, manufactured on a loom, with 2 treadles, as linens are. There are camellets of various colours and sorts; some wholly of goats' hair; others, in which the warp is of hair, and the woof half hair and half silk; and others, again, in which both the warp and the woof are of wool; and, lastly, some, of which the warp is of wool and the woof of thread: some are striped, some watered, and some figured.

**CAMOMILE or CHAMOMILE** (Fr. *camomille*; Ital. *camomilla*; Span. *manzanilla*; Lat. *chamomilla*). A well-known plant (the *Anthemis nobilis* of Linnaeus) whose flowers are used for medicinal purposes. Both varieties, single and double, but especially the former, are bitter and very aromatic. (*British Pharmacopoeia* of the Medical Council.) Most of what is brought to the London market is grown about Mitcham, in Surrey. The imports, however, are not inconsiderable, having amounted in 1852 to 82,262 lbs.; the exports, during the same year, were only 1,000 lbs. A duty of 1d. per lb. formerly laid on this article was repealed in 1845.

**CAMPHOR or CAMPHIRE** (Ger. *kampher*; Dutch, *kamfer*; Fr. *camphre*; Ital. *canfora*; Span. *alcanfor*; Russ. *kamfora*; Lat. *camphora*; Arab. and Pers. *kâfour*; Malty, *katur*). There are two descriptions of this valuable article, which must not be confounded.

1. *Camphor of Commerce*, or that met with in Europe, is obtained by boiling the timber of a species of laurel (*Laurus Camphora*), a tree found in the forests of Fokien, in China, near the city of Chinchew, very commonly in Formosa, and in certain localities in Japan. Most of the camphor imported into Europe comes from China; but a small quantity, considered of superior quality, comes from Japan by way of Batavia. The exports from Canton may be estimated at about 3,000 piculs, or 400,000 lbs.; and if to this we add the exports from Batavia of Japan camphor, amounting to about 500 piculs, the total annual exports will be about 466,000 lbs. It is brought to this country in chests, drums, and casks; and is in small, granular, friable masses, of a dirty white or greyish colour, very much resembling half-refined sugar. When pure, the camphor of commerce has a strong, peculiar, fragrant, penetrating odour, and a bitter, pungent, aromatic taste. It is in reality a concrete essential oil. Camphor, when refined, is in thin hollow cakes of a beautiful virgin white-

ness, and, if exposed to great heat, it is sublimed. Great care is therefore taken to prevent its being mixed with other exports of camphor. 7,466 cwt. and 9,350 lbs.

2. *Camphor of Malacca* (Malty, *Camphor*) is a product of the forest tree, confined to the Malay peninsula. It is found in the fissures of the trees, but very few trees produce it.

The younger trees are cut down, and only a few of the older are left after diligent search, examined before being cut down. Should any be found, the logs, and the stumps, are cut up. The wood of the younger trees is therefore less liable to be much esteemed for camphor.

This species of camphor is much more abundant than that which yields its name among the Chinese, and is wholly consumed. It is in the prices of the finest Chinese camphor, 30 dollars per picul, which is quoted at 30 dollars per picul of the latter 100 times former!

The virtues of this kind are overestimated. Specimens indeed the quality is in an inferior degree, *Camphor*, *lung-nau*, and *po-medicine*, employing the fire-works.

Camphor is exceedingly so if stowed with them.

Malay camphor is without an article of trade.

**CAMPHOR OIL** (Obtained from the essential oil, obtained by heating the wood of the tree. It is nearly as cheap as camphor, but not held in any esteem here, perhaps, be profitably imported as a substitute for spirits of camphor, and for medicinal purposes. The timber of the *Dryobalanops* inferior to any produced in the East, grows, for the purposes of camphor, in the island of Sumatra. (*Private information*; *Asiatic Researches*, vol. i. p. 516.)

**CAMWOOD**. A red wood, obtained from Europe from Africa by principally obtained from Leone, where it is called *cam* or *kam wood* has the colouring matter very little from that of ordinary wood, and is of a quality or quantity, with similar mordants, Dampier, vol. ii. part ii. this valuable article amounts, while the exports are small. The use of the article is in the dyeing of CANALS.

**CANALS**. A channel, filled with water by means of locks or sluices, for the purpose of communication between two or more rivers. 1. *Historical Sketch of the Canal*. The comparative cheapness of which goods may be con-

ness, and, if exposed to the air, totally evaporates. Great care is therefore requisite in packing camphor, to prevent serious loss. The imports and exports of camphor, in 1866, were respectively 7,466 cwt. and 9,356 do.

2. *Camphor Malay*, commonly called, to distinguish it from the last, camphor of Harau, from the port of Sumatra, where it is mostly shipped. It is a product of the *Dryobalanops Camphora*, a forest tree, confined to Sumatra, Borneo, and the Malay peninsula. It is found in concrete masses in the fissures of the wood; there are, however, but very few trees that afford it; and those that do, only in small quantities.

The younger trees seldom possess this concretion, and only a few of the old ones. It is found only after diligent search, for hundreds of trees may be examined before any camphor is discovered. Should any be found, the tree is cut down, sawn into logs, and the substance extracted by instruments. The wood of the tree is fragrant, and being therefore less liable to the attacks of insects is much esteemed for carpentry.

This species of camphor is less biting and pungent than that yielded by the laurel, and is in high repute among the Chinese, by whom it is almost wholly consumed. There is an immense disparity in the prices of the two species in China; the finest Chinese camphor being sometimes quoted at 30 dollars per picul, while the Malay camphor is quoted at 30 dollars per catty, making the price of the latter 100 times greater than that of the former!

The virtues of this kind of camphor have been over-estimated. Specimens brought to Europe possess indeed the qualities of ordinary camphor, but in an inferior degree. The Chinese call it *ping pien, lang-nau*, and *po-lo-hiang*. They use it in medicine, employing the common camphor for fire-works.

Camphor is exceedingly apt to taint other goods, if stowed with them.

Malay camphor is wholly unknown in Europe as an article of trade.

**CAMPBOR OIL** (Malay, *Minyak*). A fragrant essential oil, obtained in large quantities by heating the wood of the *Dryobalanops Camphora*. It is nearly as cheap as spirits of turpentine, but is not held in any esteem by the Chinese. It might, perhaps, be profitably imported into England as a substitute for spirits of turpentine in the arts, and for medicinal purposes. We may add that the timber of the *Dryobalanops Camphora* is not inferior to any produced in the countries where it grows, for the purposes of house and ship building. (*Private information*; and Crawford's *Indian Archipelago*, vol. i. p. 516.)

**CAMWOOD.** A red dyewood, first brought to Europe from Africa by the Portuguese. It is principally obtained from the vicinity of Sierra Leone, where it is called *kambi*; whence its name of cam or kam wood has obviously been derived. The colouring matter which it affords differs but little from that of ordinary Nicaragua wood, either in quality or quantity; and it may be employed with similar mordants. (Bancroft *On Colours*; Dampier, vol. ii. part ii. p. 58.) The imports of this valuable article amounted, in 1866, to 397 tons, while the exports amounted to only 33 tons. The use of the article is declining.

**CANAL, CANALS.** A canal is an artificial channel, filled with water kept at the desired level by means of locks or sluices, forming a communication between two or more places.

1. *Historical Sketch of Canals. Ancient Canals.*—The comparative cheapness and facility with which goods may be conveyed by sea or by means

of navigable rivers seem to have suggested, at a very early period, the formation of canals. The best authenticated accounts of ancient Egypt represent that country as intersected by canals conveying the waters of the Nile to the more distant parts of the country, partly for the purpose of irrigation and partly for that of internal navigation. The efforts made by the old Egyptian monarchs, and by the Ptolemies, to construct a canal between the Red Sea and the Nile, are well known, and evince the high sense which they entertained of the importance of this species of communication. (Ameillon, *Commerce des Egyptiens*, p. 76.)

Greece was too small a territory, too much intersected by arms of the sea, and subdivided into too many independent states, to afford much scope for inland navigation. Attempts were, however, made to cut a canal across the Isthmus of Corinth; but they did not succeed.

The Romans did not distinguish themselves in canal navigation. Their aqueducts, the stupendous ruins of which attest the wealth and power of their founders, were intended to furnish supplies of water to some adjoining city, and not for the conveyance of vessels or produce.

2. *Chinese Canals.*—In China, canals, partly for irrigation and partly for navigation, have existed from a very early period. The most celebrated amongst them is the Imperial or Grand Canal, commencing at Hang-tehou, near the mouth of the Tching-tang-chiang river, in about lat. 30° 22' N., long. 119° 45' E.; it then stretches north, and crossing the great rivers Yang-tse-Kiang and Hoang-ho, terminates at Lin-ting, on the Eu-ho river, in about lat. 37° N., long. 116° E. The direct distance between the extreme limits of the canal is about 512 miles, but, including its bends, it is above 650 miles in length; and as the Eu-ho, which is a navigable river, unites with the Pei-ho, also navigable, an internal water-communication is thus established between Hang-tehou and Peking across 10° of lat. But apart from its magnitude and utility, the Grand Canal does not rank high as a work of art. A vast amount of labour has, however, been expended upon it; for though it mostly passes through a flat country, and winds about to preserve its level, its bed is in parts cut down to a great depth, while in other parts it is carried over extensive hollows, and even lakes and morasses, on vast mounds of earth and stone. The sluices, which preserve its waters at the necessary level, are all of very simple construction, being merely intended to elevate or depress the height of the water by a few inches; as, excepting these, there is not a single lock or interruption to the navigation throughout the whole length of the canal. It is seldom more than 5 or 6 feet in depth, and in dry seasons is sometimes considerably less. The vessels by which it is navigated are sometimes rowed, and sometimes dragged by men, so that the navigation is for the most part slow. The canal is frequently faced with stone. The construction of this great work is usually ascribed to the Tartars, but the Chinese allege that it was merely repaired and renovated by the latter, and that it had been completed in the remotest period of their history. (Barrow's *China*, p. 335 &c.; La Lande, *Canaux de Navigation*, p. 529 &c.)

3. *Italian Canals.*—The Italians were the first people in modern Europe that attempted to plan and execute canals. They were principally, however, undertaken for the purpose of irrigation; and the works of this sort executed in the Milanese and other parts of Lombardy, in the eleventh, twelfth, and thirteenth centuries, are still regarded as models, and excite the warm admiration of

every one capable of appreciating them. In 1271 the Navilio Grande, or canal leading from Milan to Abbiate Grasso and the Tesino, was rendered navigable. (Young's *Travels in France* &c. vol. ii. p. 170.)

**A. Dutch Canals.**—No country in Europe contains, in proportion to its size, so many navigable canals as the kingdom of the Netherlands, and particularly the province of Holland. The construction of these canals commenced as early as the twelfth century, when, owing to its central and convenient situation, Flanders began to be the entrepôt of the commerce between the north and south of Europe. Their number has since been astonishingly increased. 'Holland,' says Mr. Phillips, in his *History of Inland Navigation*, 'is intersected with innumerable canals. They may be compared in number and size to our public roads and highways; and as the latter with us are continually full of coaches, chaises, waggons, carts, and horsemen going from and to the different cities, towns, and villages; so, on the former, the Hollanders in their boats and pleasure barges, their treckschuys, and vessels of burden, are continually journeying and conveying commodities for consumption or exportation from the interior of the country to the great cities and rivers. An inhabitant of Rotterdam may, by means of these canals, breakfast at Delft or the Hague, dine at Leyden, and sup at Amsterdam, or return home again before night. By them, also, a most prodigious inland trade is carried on between Holland and every part of France, Flanders, and Germany. When the canals are frozen over, they travel on them with skates, and perform long journeys in a very short time; while heavy burdens are conveyed in carts and sledges, which are then as much used on the canals as on our streets.'

'The yearly profits produced by these canals are almost beyond belief; but it is certain, and has been proved, that they amount to more than 250,000*l.* for about 400 miles of inland navigation, which is 625*l.* per mile, the square surface of which mile does not exceed two acres of ground; a profit so amazing, that it is no wonder other nations should imitate what has been found so advantageous.

'The canals of Holland are generally 60 feet wide and 6 deep, and are carefully kept clean; the mud, as manure, is very profitable. The canals are generally levels; of course, locks are not wanted. From Rotterdam to Delft, the Hague, and Leyden, the canal is quite level, but is sometimes affected by strong winds. For the most part the canals are elevated above the fields or the country, to enable them to carry off the water which in winter inundates the land. To drain the water from Delfland, a province not more than 60 miles long, they employ 200 windmills in spring-time to raise it into the canals. All the canals of Holland are bordered with dams or banks of immense thickness, and on these depends the security of the country from inundation; of course it is of great moment to keep them in the best repair; to effect which there is a kind of militia, and every village has a magazine of proper stores and men, whose business it is to convey stones and rubbish in carts to any damaged place. When a certain bell rings, or the waters are at a fixed height, every man repairs to his post. To every house or family there is assigned a certain part of the bank, in the repair of which they are to assist. When a breach is apprehended, they cover the banks all over with cloth and stones.

**B. Canal from Amsterdam to Nieuwediep, near the Helder.**—The object of this canal, which is the greatest work of its kind in Holland, and probably

in the world, is to afford a safe and easy passage for large vessels from Amsterdam to the German Ocean. This city has 40 feet of water in the road in front of its port, but the pampus or bar at the junction of the Y with the Zuyder Zee, 7 miles below, has only a depth of 10 feet; and hence all ships of any considerable burden entering or leaving the port must unload and load part of their cargoes without the bar. As the Zuyder Zee is everywhere full of shallows, all ordinary means of improving the access to Amsterdam were necessarily ineffectual; and the resolution was, therefore, at length adopted, of cutting a canal from the city to the Helder, the most northern point of the province of Holland. The distance between these extreme points is 41 English miles, but the length of the canal is about 50½. The breadth at the surface of the water is 124½ English feet (120 Rhinland feet); the breadth at bottom 36; the depth 20 feet 9 inches. Like the Dutch canals generally, its level is that of the highest tides, and it receives its supply of water from the sea. The only locks it requires are, of course, two tide-locks at the extremities; but there are, besides, two sluices, with floodgates in the intermediate space. It is crossed by about 18 drawbridges. The locks and sluices are double, i.e. there are two in the breadth of the canal; and their construction and workmanship are said to be excellent. They are built of brick, for economy; but bands of limestone are interposed at intervals, and these project about an inch beyond the brick, to protect it from abrasion by the sides of vessels. There is a broad towing-path on each side, and the canal is wide enough to admit of two frigates passing. (For the expense of towing, see AMSTERDAM.)

The line which the canal follows may be easily traced on a map of Holland. From the Y at Amsterdam it proceeds north to Furmerend; thence west to Alkmaar Lake; again north by Alkmaar to a point within 2 miles of the coast, near Petten; whence it runs nearly parallel to the coast till it joins the sea a little to the east of the Helder, at the fine harbour of Nieuwediep, formed within the last 50 years. At the latter place there is a powerful steam-engine for supplying the canal with water during neap-tides, and other purposes. The time spent in towing vessels from Nieuwediep to Amsterdam is 18 hours. The Helder is the only spot on the shores of Holland that has deep water; and it owes this advantage to its being opposite to the Texel, which, by contracting the communication between the German Ocean and the Zuyder Zee to a breadth of about a mile, produces a current which scours and deepens the channel. Immediately opposite the Helder there are 100 feet water at high tides, and at the shallowest part of the bar to the westward there are 27 feet. In the same way, the artificial mound which runs into the Y opposite Amsterdam, by contracting the water-way to about 1,000 feet, keeps a depth of 40 feet in the port (at high water), while above and below there is only 10 or 12.

The canal was begun in 1819, and finished in 1825. The cost was estimated at 10,000,000 or 12,000,000 florins, or about 1,000,000*l.* sterling. If we compute the magnitude of this canal by the cubic contents of its bed, it is the greatest, we believe, in the world, unless some of the Chinese canals be exceptions. The volume of water which it contains, or the *prisme de remplissage*, is twice as great as that of the New York Canal, or the Canal of Languedoc, and two and a half times as great as that of the artificial part of the Caledonian Canal. In consequence, however, of the facility with which the Dutch canal was dug, and of the evenness of the ground through which it passes,

the difficulties contend in making those which had the canals now what returns this is not, at least in the able concern. The lowness of in the amount of 40 expenses; and should think, be tolls laid on the SPREEDAM.] This consideration to be at a work of this size the trade of Amsterdam may far more than evident, too, that it would have effect; that is, they have derived these article in the *Scott information*.)

At the present time course of formation at Vuurtoren to Ar Wijk-Ker-meer to t The estimated cost of and it is computed 1870. The entrance by two jetties, that length, that on the designed to drain 6 of land, and will shorsterdam to the sea by

It is almost unnecessary to have superseded the traffic, and that the sea almost entirely to the G. Danish Canals,— belonging to Denmark portance. It joins the on the north-east coast navigable communication a little to the north of enabling vessels to pass by a short cut of about lengthened and difficult through the Cattegat is navigable for vessels feet water from Tom Rendsburg, where it communicates with the 3 miles north of Kiel English miles in length of what is principally cavated portion is 95 inches at bottom, and (measure). Its highest the sea is 24 feet 4 inches are raised and let down navigable by vessels of provided they are consistent cost of the canal opened in 1785, and by of its projectors as to the Danish islands in the of Holstein, Jutland & Holland, England &c. less risk than, in the tion, they could have Skaw; and conversely The smaller class of those under the Dutch gating the Baltic and availed themselves of

the difficulties with which the engineer had to contend in making it were trifling compared to those which had to be overcome in constructing the canals now mentioned. We have not learned what returns this canal yields; most probably it is not, at least in a direct point of view, a profitable concern. Even in Holland, notwithstanding the lowness of interest, it would require tolls to the amount of 40,000*l.* a-year to cover interest and expenses; and so large a sum can hardly, we should think, be raised by the very moderate tolls laid on the ships passing through it. [AMSTERDAM.] This, however, is not the only consideration to be attended to in estimating the value of a work of this sort. Its influence in promoting the trade of Amsterdam, and, indeed, of Holland, may far more than compensate for its cost. It is evident, too, that the imposition of oppressive tolls would have effectually counteracted this advantage; that is, they would have defeated the very object for which the canal was constructed. (We have derived these details, partly from an able article in the *Scotsman*, and partly from *private information*.)

At the present time (1867) a new canal is in course of formation in Holland from the Zuyder Zee at Vuurtooren to Amsterdam, through the Het-ij, Wij-Ker-meer to the North Sea near Breesaap. The estimated cost of the work is 18,000,000 florins, and it is computed that it will be completed by 1870. The entrance into the North Sea will be by two jetties, that on the north 2,000 metres in length, that on the south 1,500. The canal is designed to drain 6,000 hectares (15,000 acres) of land, and will shorten the journey from Amsterdam to the sea by 56 kilometres.

It is almost unnecessary to say that railways have superseded the use of canals for passenger traffic, and that the service of the latter is confined almost entirely to the carriage of goods.

6. *Danish Canals.*—The Holstein Canal, formerly belonging to Denmark, is of very considerable importance. It joins the river Eyder with Kiel Bay on the north-east coast of Holstein, forming a navigable communication between the North Sea, a little to the north of Heligoland, and the Baltic; enabling vessels to pass from the one to the other by a short cut of about 100 miles, instead of the lengthened and difficult voyage round Jutland, and through the Cattagat and the Sound. The Eyder is navigable for vessels not drawing more than 9 feet water from Tonningen, near its mouth, to Rendsburg, where it is joined by the canal, which communicates with the Baltic at Holtenau, about 3 miles north of Kiel. The canal is about 26 English miles in length, including about 6 miles of what is principally river navigation. The excavated portion is 95 feet wide at top, 51 feet 6 inches at bottom, and 9 feet 6 inches deep (Eng. measure). Its highest elevation above the level of the sea is 24 feet 4 inches; to which height vessels are raised and let down by 6 locks or sluices. It is navigable by vessels of 120 tons burden, or more, provided they are constructed in that view. The total cost of the canal was about 500,000*l.* It was opened in 1785, and has so far realised the views of its projectors as to enable coasting vessels from the Danish islands in the Baltic and the east coast of Holstein, Jutland &c. to proceed to Hamburg, Holland, England &c. in less time, and with much less risk, than, in the ordinary course of navigation, they could have cleared the point of the Skaw; and conversely with ships from the west. The smaller class of foreign vessels, particularly those under the Dutch and Hansatic flags, navigating the Baltic and North Seas, have largely availed themselves of the facilities afforded by

this canal. About 3,000 vessels pass annually through the canal. This is a sufficient evidence of its utility. It would, however, be much more frequented, were it not for the difficult navigation of the Eyder from the sea to Rendsburg. The dues are moderate. (Coxe's *Travels in the North of Europe*, 5th ed. vol. v. p. 239, where there is a plan of the canal; Catteau, *Tableau des Etats Danois*, tom. ii. pp. 300—304; and *private information*.)

7. *Swedish Canals.*—The formation of an internal navigation connecting the Cattagat and the Baltic has long engaged the attention, and occupied the efforts, of the people and Government of Sweden. Various motives conspired to make them embark in this arduous undertaking. The Sound and other channels to the Baltic were commanded by the Danes, who were able, when at war with the Swedes, greatly to annoy the latter by cutting off all communication by sea between the eastern and western provinces of the kingdom. Hence, in the view, partly of obviating this annoyance and partly of facilitating the conveyance of iron, timber, and other bulky products from the interior to the coast, it was determined to attempt forming an internal navigation, by means of the river Gotha, and the lakes Wener, Wetter &c., from Gottenburg to Soderköping on the Baltic. The first and most difficult part of this enterprise was the perfecting of the communication from Gottenburg to the lake Wener. The Gotha, which flows from the latter to the former, is navigable, through by far the greater part of its course, for vessels of considerable burden; but, besides others less difficult to overcome, the navigation at the point called Tröllhætta is interrupted by a series of cataracts about 112 feet in height. Owing to the rapidity of the river, and the stubborn red granite rocks over which it flows, and by perpendicular banks of which it is bounded, the attempt to cut a lateral canal, and still more to render it directly navigable, presented the most formidable obstacles. But, undismayed by these impediments, on which it is, indeed, most probable he had not sufficiently reflected, Polhem, a native engineer, undertook, about the middle of last century, the Herculean task of constructing locks in the channel of the river, and rendering it navigable! Whether, however, it were owing to the all but insuperable obstacles opposed to such a plan, to the defective execution, or deficient strength of the works, they were wholly swept away, after being considerably advanced, and after vast sums had been expended upon them. From this period down to 1793 the undertaking was abandoned; but in that year the plan was proposed, which should have been adopted at first, of cutting a lateral canal through the solid rock, about 1½ mile from the river. This new enterprise was begun under the auspices of a company incorporated for the purpose in 1794, and was successfully completed in 1800. The canal is about 3 miles in length, and has about 6½ feet water. This is the statement of Catteau, *Tableau de la Mer Baltique*, tome ii. p. 77; Oddy, in his *European Commerce*, p. 306, and Palbi, *Abrégé de la Géographie*, p. 385, say that the depth of water is 10 feet. It has 8 sluices, and admits vessels of above 100 tons. In one part it is cut through the solid rock to the depth of 72 feet. The expense was a good deal less than might have been expected, being only about 80,000*l.* The Lake Wener, the navigation of which was thus opened with Gottenburg, is very large, deep, and encircled by some of the richest of the Swedish provinces, which now possess the inestimable advantage of a convenient and ready outlet for their products.

As soon as the Trüllhetta canal had been completed, there could be no room for doubt as to the practicability of extending the navigation to Soderköping. In furtherance of this object, the lake Wener was joined to the lake Wetter by the Gotha canal, which admits vessels of the same size as that of Trüllhetta; and the prolongation of the navigation to the Baltic from the Wetter, partly by two canals of equal magnitude with the above, and partly by lakes, has since been completed. The entire undertaking is called the Gotha Navigation, and deservedly ranks among the very first of the kind in Europe.

Besides the above, the canal of Arboga unites the lake Hielmar to the lake Maclar; and since 1819 a canal has been constructed from the latter to the Baltic at Söclertelje. The canal of Strömsholm, so called from its passing near the castle of that name, has effected a navigable communication between the province of Dalecarlia and the lake Maclar &c. The total revenue of the 6 Swedish canals in 1864 was 36,436*l*. (*Report of Mr. Hamilton, Secretary of Legation, of February 9, 1867; Cox's Travels in the North of Europe, 5th ed. vol. iv. pp. 253-266, and vol. v. pp. 58-66; Thomson's Travels in Sweden, p. 35; &c.*)

8. *French Canals.*—The first canal executed in France was that of Briare, 34½ English miles in length, intended to form a communication between the Seine and Loire. It was commenced in 1605, in the reign of Henry IV., and was completed in 1642, under his successor, Louis XIII. The canal of Orleans, which joins the above, was commenced in 1675. But the most stupendous undertaking of this sort that has been executed in France, or indeed on the Continent, is the canal of Languedoc. It was projected under Francis I., but was begun and completed in the reign of Louis XIV. It reaches from Narbonne to Toulouse, and was intended to form a safe and speedy means of communication between the Atlantic Ocean and the Mediterranean. It is 64 French leagues in length, and 6 feet deep; and has, in all, 114 locks and sluices. In its highest part it is 600 feet above the level of the sea. In some places it is conveyed, by bridges of great length and strength, over large rivers. It cost upwards of 1,300,000*l*., and reflects infinite credit on the engineer, Riquet, by whom it was planned and executed.

Besides this great work, France possesses several magnificent canals, such as that of The Centre, connecting the Loire with the Saône; of St. Quentin, joining the Scheldt and the Somme; of Besançon, joining the Saône, and consequently the Rhone, to the Rhine; of Burgundy, joining the Rhone to the Seine &c. Some of these are of very considerable magnitude. The canal of the Centre is about 72 English miles in length. It was completed in 1791, at an expense of about 11,000,000 francs. Its summit level is about 240 feet above the level of the Loire at Digoin; the breadth at the water's edge is about 48 feet, and at bottom 30 feet; depth of water 5½ feet; number of locks 81. The canal of St. Quentin, 28 English miles in length, was completed in 1810. The canal joining the Rhone to the Rhine is the most extensive of any. It stretches from the Saône, a little above St. Jean de Lesne, by Dol, Besançon, and Mulhouse, to Strasburg, where it joins the Rhine—a distance of about 200 English miles. From Dol to Vogeaucourt, near Montbeliard, the canal is principally excavated in the bed of the Doubs. It is not quite finished. The canal of Burgundy will, when completed, be about 242 kilom. or 150 English miles in length; but at present it is only navigable to the distance of about 95 kilom. In addition to these, a great many other canals have been

finished, while several are in progress, and others projected. There is an excellent account of the French canals in the *Histoire de la Navigation Intérieure de la France*, by M. Dutens, in 2 vols. 4to., and to it we beg to refer the reader for further details. He will find at the end of the second volume a very beautiful map of the rivers and canals of France.

The railroads now constructed in France have, however, checked the progress of canals. [*BONDEAUX.*] We may observe, too, that the state of the law in France is very unfavourable to the undertaking and success of all great public works; and we are inclined to attribute the comparative fewness of canals in France, and the recent period at which most of them have been constructed, to its influence. In that country, canals, docks, and such like works, are mostly carried on at the expense and for behoof of Government, under the control of its agents. No scope has been given to the enterprise of individuals or associations. Before either a road or a canal can be constructed, plans and estimates must be made out and laid before the Minister of the Interior, by whom they are referred to the prefect of the department, and then to the *Bureau des Ponts et des Chaussées*; and supposing the project to be approved by these, and the other functionaries consulted with respect to it, the work must after all be carried on under the superintendence of some public officer. In consequence of this preposterous system, very few works of this description have been undertaken as private speculations; and while not a few of these begun by Government remain unfinished and comparatively useless, those that are completed have, as was to be expected, rarely proved profitable. There are some good remarks on this subject in the useful work of M. Dupin on the *Forces Commerciales* of Great Britain.

9. *Prussian Canals.*—The Prussian states are traversed by the great navigable rivers the Elbe, the Oder, and the Vistula; the first having its embouchure in the North Sea, and the others in the Baltic. The formation of an internal navigation to join these great water-ways excited the attention of Government at a distant period; and this object has been successfully accomplished partly by the aid of the secondary rivers falling into the above, and partly by canals. In 1662 the canal of Muhlrose was undertaken, uniting the Oder and the Spree; the latter being a navigable river falling into the Havel, also a navigable river joining the Elbe near Havelburg. But the navigation from the Oder to the Elbe by this channel was difficult and liable to frequent interruption; and to obviate these defects, Frederick the Great constructed, towards the middle of last century, the Fimow canal, stretching from the Oder at Oderburg to the Havel near Liebenwalde; the communication is thence continued by the latter and a chain of lakes to Plauen, from which point a canal has been opened joining the Elbe near Magdeburg.

The Elbe being in this way connected with the Oder by a comparatively easy navigation, the latter has been united to the Vistula, partly by the river Netze, and partly by a canal joining that river to the Brahe, which falls into the Vistula near Bromberg. A vast inland navigation has thus been completed, barks passing freely through the whole extent of country from Hamburg to Dantzic; affording the means of shipping the products of the interior, and of importing those of foreign countries, either by the North Sea or the Baltic, as may be found most advantageous. (*Cateau, Tableau de la Mer Baltique, tome ii. pp. 11—18.*)

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10. *Russian Canals.*—The inland navigation of Russia is of vast extent, and very considerable importance. The reader will find some details with respect to it under the art. *PETRUSSBURG.*

11. *Bavarian Canals.*—A grand canal which was for a lengthened period in progress in Bavaria was completed in 1846, and promises to become of great public utility. It extends from Dietfurth on the Altmühl, a navigable affluent of the Danube, to Bamberg on the Mayn, a distance of 23½ German, or about 112 English miles. It is on a large scale, and has cost above 1,000,000*l.* This magnificent undertaking, which carries an inland navigation through the centre of Europe, and realises the project of Charlemagne for uniting the Black Sea with the German Ocean, is conducted by a joint-stock company, with the assistance of the Bavarian Government. But the navigation of the Mayn and the Danube must be considerably improved before this grand channel of communication can acquire all the importance which, most probably, it is destined to obtain.

12. *Austrian Canals.*—The Austrian empire is traversed in its whole extent by the Danube; but the advantages that might result to the foreign trade of the empire from so great a command of river navigation have been materially abridged by the jealousy of the Turks, who command the embouchure of the river, and by the difficulties in some places incident to its navigation. Two pretty extensive canals have been constructed in Hungary. That called the Béga Canal is 73 English miles in length: it stretches from Fasset through the Banat by Temeswar to Beckserek, whence vessels pass by the Béga into the Theiss a little above its junction with the Danube. The other Hungarian canal is called after the Emperor Francis. It stretches from the Danube by Zambor to the Theiss, which it joins near Foldvar, being 62 English miles in length; its elevation where highest does not exceed 27 feet. Besides the above, the canal of Vienna establishes a communication between that city and Neustadt. It is said to be the intention to continue this canal to Trieste; but however desirable, we doubt much whether this be practicable. A railroad has been made from Munchausen on the Danube to Budweis on the Moldau, a navigable river that falls into the Elbe, which promises to be a highly useful communication. (*Bright's Travels in Hungary*, p. 246; Balbi, *Abrégé de la Géographie*, p. 216.)

13. *Spanish Canals.*—Nowhere are canals more necessary, both for the purposes of navigation and irrigation, than in Spain; but the nature of the soil, and the poverty and ignorance of the Government as well as of the people, oppose formidable obstacles to their construction. During the reign of Charles II. a company of Dutch contractors offered to render the Mançanares navigable from Madrid to where it falls into the Tagus, and the latter from that point to Lisbon, provided they were allowed to levy a duty for a certain number of years on the goods conveyed by this channel. The Council of Castile took this proposal into their serious consideration, and after maturely weighing it pronounced the singular decision—'That if it had pleased God that these two rivers should have been navigable, He would not have wanted human assistance to have made them such; but that, as He has not done it, it is plain He did not think it proper that it should be done. To attempt it, therefore, would be to violate the decrees of His providence, and to mend the imperfections which He designedly left in His works!' (*Clarke's Letters on the Spanish Nation*, p. 281.) But such undertakings

are no longer looked upon as sinful; and many have been projected since the accession of the Bourbon dynasty, though few have been perfected. The canal of the Ebro, begun under the Emperor Charles V., is the most important of the Spanish canals; but it is only partially completed, and during dry seasons it suffers from want of water. It runs parallel to the right bank of the Ebro, from Tudela in Navarre to below Saragossa; the intention being to carry it to Sastago, where it is to unite with the Ebro. The canal of Castile is intended to lay open the country between the Douro and Reynosa, and to facilitate the conveyance of grain from the interior to Santander and Bilbao. It passes by Valladolid, Palencia, and Aguilar del Campos; a small part has been executed, and is now in operation. A company has also undertaken, what the Dutch contractors formerly offered—to render the Tagus navigable from Aranjuez to Lisbon; the free navigation of the river having been stipulated at the Congress of Vienna. A project for deepening the Guadalquivir, and some others, are also on foot. (*Geographical Dictionary*, ii. 710.) It would appear from Mr. Sackville West's Report to the Foreign Office, of January 1, 1867, that on December 31, 1865, the total amount of canal shares and subventions was 211,040,251 reals vellon, or 2,110,402*l.*, and that the sum estimated as necessary for their completion was 1,816,190 reals vellon, or 118,561*l.* (*Reports of Secretaries of Legation*, No. 5 of 1867.)

14. *British Canals.*—Owing partly to the late rise of extensive manufactures and commerce in Great Britain, but more, perhaps, to the insular situation of the country, no part of which is very distant from the sea or from a navigable river, no attempt was made, in England, to construct canals till a comparatively recent period. The efforts of those who first began to improve the means of internal navigation were limited to attempts to deepen the beds of rivers, and to render them better fitted for the conveyance of vessels. So early as 1635, Mr. Sandys, of Flatbury, Worcestershire, formed a project for rendering the Avon navigable from the Severn, near Tewkesbury, through the counties of Warwick, Worcester, and Gloucester, 'that the towns and country might be better supplied with wood, iron, pit-coal, and other commodities.' This scheme was approved by the principal nobility and landowners in the adjoining counties; but the civil war having broken out soon after, the project was abandoned, and does not seem to have been revived. After the Restoration and during the earlier part of last century various Acts were at different times obtained for cheapening and improving river navigation. For the most part, however, these attempts were not very successful. The current of the rivers gradually changed the form of their channels; the dykes and other artificial constructions were apt to be destroyed by inundations; alluvial sand-banks were formed below the weirs; in summer the channels were frequently too dry to admit of being navigated, while at other periods the current was so strong as to render it quite impossible to ascend the river, which at all times, indeed, was a laborious and expensive undertaking. These difficulties in the way of river navigation seem to have suggested the expediency of abandoning the channels of most rivers, and of digging parallel to them artificial channels, in which the water might be kept at the proper level by means of locks. The Act passed by the Legislature in 1755 for improving the navigation of Sankey Brook on the Mersey gave rise to a lateral canal of this description, about 11½ miles in length,

which deserves to be mentioned as the earliest effort of the sort in England.

But before this canal had been completed, the celebrated Duke of Bridgewater, and his equally celebrated engineer, the self-instructed James Brindley, had conceived a plan of inland navigation independent altogether of natural channels, and intended to afford the greatest facilities to commerce, by carrying canals across rivers and through mountains, wherever it was practicable to construct them.

The Duke was proprietor of a large estate at Worsley, 7 miles from Manchester, in which were some very rich coal-mines, which had hitherto been in great measure useless, owing to the cost of carrying coal to market. Being desirous of turning his mines to some account, it occurred to him that his purpose would be best accomplished by cutting a canal from Worsley to Manchester. Mr. Brindley, having been consulted, declared that the scheme was practicable; and an Act having been obtained, the work was immediately commenced. 'The principle,' says Mr. Phillips, 'laid down at the commencement of this business reflects as much honour on the noble undertaker as it does upon his engineer. It was resolved that the canal should be perfect in its kind; and that, in order to preserve the level of the water, it should be free from the usual obstruction of locks. But in accomplishing this end many difficulties were deemed insurmountable. It was necessary that the canal should be carried over rivers, and many large and deep valleys, where it was evident that such stupendous mounds of earth must be raised as would scarcely, it was thought by numbers, be completed by the labour of ages; and, above all, it was not known from what source so large a supply of water could be drawn, even on this improved plan, as would supply the navigation. But Mr. Brindley, with a strength of mind peculiar to himself, and being possessed of the confidence of his great patron, contrived such admirable machines, and took such methods to facilitate the progress of the work, that the world soon began to wonder how it could be thought so difficult.

When the canal was completed as far as Barton, where the Irwell is navigable for large vessels, Mr. Brindley proposed to carry it over that river by an aqueduct 39 feet above the surface of the water in the river. This, however, being considered as a wild and extravagant project, he desired, in order to justify his conduct towards his noble employer, that the opinion of another engineer might be taken, believing that he could easily convince an intelligent person of the practicability of the design. A gentleman of eminence was accordingly called, who, being conducted to the place where it was intended that the aqueduct should be made, ridiculed the attempt; and, when the height and dimensions were communicated to him, he exclaimed, "I have often heard of castles in the air, but never was shown before where any of them were to be erected." This unfavourable verdict did not deter the Duke from following the opinion of his own engineer. The aqueduct was immediately begun; and it was carried on with such rapidity and success as astonished those who, but a little before, thought it impossible.

Before the canal from Worsley to Manchester had been completed, it occurred to the Duke and his engineer that it might be practicable to extend it by a branch, which, running through Chester parallel to the river Mersey, should at length terminate in that river below the limits of its artificial navigation, and thus afford a new, safer, and cheaper means of communication between Man-

chester and its vicinity and Liverpool. The execution of this plan was authorised by an Act passed in 1761. This canal, which is above 29 miles in length, was finished in about 5 years. It was constructed in the best manner, and has proved equally advantageous to its noble proprietor and the public.

'When the Duke of Bridgewater,' says Dr. Aikin, 'undertook this great design, the price of carriage on the river navigation was 12s. the ton from Manchester to Liverpool, while that of land carriage was 40s. the ton. The Duke's charge on his canal was limited by statute to 6s.; and together with this vast superiority in cheapness, it had all the speed and regularity of land carriage. The articles conveyed by it were, likewise, much more numerous than those by the river navigation; besides manufactured goods and their raw materials, coals from the Duke's own pits were deposited in yards at various parts of the canal, for the supply of Cheshire; lime, manure, and building materials were carried from place to place; and the markets of Manchester obtained a supply of provisions from districts too remote for the ordinary land conveyances. A branch of useful and profitable carriage, hitherto scarcely known in England, was also undertaken, which was that of passengers. Boats, on the model of the Dutch treckschuyts, but more agreeable and capacious, were set up, which, at very reasonable rates and with great convenience, carried numbers of persons daily to and from Manchester along the line of the canal.' (Aikin's *Description of the Country round Manchester*, p. 116.)

The success attending the Duke of Bridgewater's canals stimulated public-spirited individuals in other districts to undertake similar works. Mr. Brindley had early formed the magnificent scheme of joining the great ports of London, Liverpool, Bristol, and Hull by a system of internal navigation; and though he died in 1772, at the early age of 56, he had the satisfaction to see his grand project in a fair way of being realised. The Trent and Mersey, or as it has been more commonly termed, the Grand Trunk Canal, 96 miles in length, was begun in 1766 and completed in 1777. It stretches from near Runcorn on the Mersey, where it communicates with the Duke of Bridgewater's Canal, to Newcastle-under-Line; thence southwards to near Titchfield; and then north-westerly, till it joins the Trent at Wilden Ferry, at the north-western extremity of Leicestershire. A water communication between Hull and Liverpool was thus completed; and by means of the Staffordshire and Worcestershire Canal, which joins the Grand Trunk near Haywood in the former, and the Severn near Stourport in the latter, the same means of communication was extended to Bristol. During the time that the Grand Trunk Canal was being made, a canal was undertaken from Liverpool to Leeds, 120 miles in length; another from Birmingham to the Staffordshire and Worcestershire Canal, joining it near Wolverhampton; and one from Birmingham to Fazley and thence to Coventry. By canals subsequently undertaken, a communication was formed between the Grand Trunk Canal and Oxford, and consequently with London, completing Brindley's magnificent scheme. In 1792 the Grand Junction Canal was begun, which runs in a pretty straight line from Brentford, on the Thames, a little above the metropolis, to Braunston, in Northamptonshire, where it unites with the Oxford and other central canals. It is about 90 miles in length. There is also a direct water communication, by means of the river Lea navigation, the Cambridge Junction Canal &c. between London and the Wash. In addition to

these, an immense number of them of great length have been constructed in so that a command obtained, unparallelled with the exception

In Scotland, the canal and Clyde was begun in 1777, and was one of the American wars of 1790. Its total length cuts to Glasgow and 100 miles. Where high level of the sea. It of the English canal surface is 56, and at allly it was about 8 banks have been of water is now about 39 locks. In complete difficulties had to be ever, were all successful unprofitable for a while past yielded a better Swift boats on the described were established (Cleland's *Statistics of*

The Union Canal near Falkirk, Edinburgh, being 31½ miles wide at the top, 20 at the bottom, was completed in 1822. It is an extremely ill-advised canal that its proprietors have the Edinburgh and Glasgow who employ it in their other heavy goods.

A canal intended to be cut between Glasgow, Paisley, and Edinburgh, commenced in 1807; but not being completed, it is now neglected. Glasgow with Johnstoun has hitherto is about 12 miles long broad at top, 18 at bottom here that the experiment on quick travelling by canal have demonstrated that it is not a properly constructed canal for passengers and goods, along or 10 miles an hour, with (See post.)

The Crinan Canal across the mountains of Scotland, admitting vessels of 100 tons, is 12 miles in length, and 12 feet deep.

The Caledonian Canal, which takes the sort of an S-shape, stretches S.W. and N.E. from Inverness to London, and is chiefly formed by Loch Lochy. The total length, including the lakes, is 60½ miles, of which only about 23 miles are above the level of the sea. It is mostly constructed upon a level intended to be 20 feet deep and 122 at top; the locks are 40 feet deep and 49 broad; and had it not been for the fact that it was originally intended for merchant ships of 1,000 tons, it would have passed through it. It was executed entirely at the expense of the Government, from the designs and plans of Thomas Telford, and amounted, exclusive of interest, to £1,347,780. It was opened in May, 1853, to London, Liverpool, &c. It is, however, to have been projected, and has been

these, an immense number of other canals, some of them of great magnitude and importance, have been constructed in different parts of the country; so that a command of internal navigation has been obtained, unparalleled in any European country, with the exception of Holland.

In Scotland, the great canal to join the Forth and Clyde was begun in 1768, but it was suspended in 1777, and was not resumed till after the close of the American war. It was finally completed in 1790. Its total length, including the collateral cuts to Glasgow and the Monkland Canal, is 38½ miles. Where highest it is 150 feet above the level of the sea. It is on a larger scale than any of the English canals. Its maximum width at the surface is 56, and at the bottom 27 feet. Originally it was about 8 feet 6 inches deep; but its banks have been raised, so that the depth of water is now about 10 feet. It has, in all, 39 locks. In completing this canal many serious difficulties had to be encountered. These, however, were all successfully overcome; and though unprofitable for a while, it has for many years past yielded a better return to its proprietors. Swift boats on the plan of those subsequently described were established on this canal in 1832. (Cleland's *Statistics of Glasgow*, p. 170 &c.)

The Union Canal joins the Forth and Clyde Canal near Falkirk, and stretches thence to Edinburgh, being 31½ miles in length. It is 40 feet wide at the top, 20 at bottom, and 5 deep. It was completed in 1822. But it appears to have been an extremely ill-advised undertaking; so much so that its proprietors have sold it at a heavy loss to the Edinburgh and Glasgow Railway Company, who employ it in the conveyance of coal and other heavy goods.

A canal intended to form a communication between Glasgow, Paisley, and Ardrossan was commenced in 1807; but only that portion connecting Glasgow with Paisley and the village of Johnstone has hitherto been finished. This part is about 12 miles long; the canal being 30 feet broad at top, 18 at bottom, and 4½ deep. It was here that the experiments were originally made on quick travelling by canals, which are said to have demonstrated that it was practicable to impel a properly constructed boat, carrying passengers and goods, along a canal at the rate of 9 or 10 miles an hour, without injury to the banks! (See post.)

The Crinan Canal across the peninsula of Kinross, admitting vessels of 160 tons burden, is 9 miles in length, and 12 feet in depth.

The Caledonian Canal is the greatest undertaking of the sort attempted in the empire. It stretches S.W. and N.E. across the island from a point near Inverness to another near Fort William. It is chiefly formed by Loch Ness, Loch Oich, and Loch Lochy. The total length of the canal, including the lakes, is 60½ miles; but the excavated part is only about 23 miles. At the summit it is 96½ feet above the level of the Western Ocean. It is mostly constructed upon a very gradual scale, being intended to be 20 feet deep, 50 feet wide at bottom, and 122 at top; the locks are 20 feet deep, 172 long, and 49 broad; and had it been wholly executed as was originally intended, frigates of 32 guns and merchant ships of 1,000 tons burden might have passed through it. It was opened in 1822, being executed entirely at the expense of Government, from the designs and under the superintendance of Thomas Telford, Esq. The entire cost amounted, exclusive of interest, on the 1st of May, 1853, to 1,347,780*l.* It would appear, however, to have been projected without due consideration, and has been a most unprofitable

speculation. The revenue of the canal amounted in 1852-53 to only 5,889*l.*, whereas the expenditure during the same year, exc. any allowance for wear and tear, and inc. only 900*l.* for repairs, amounted to 7,429*l.*! But this is not all. Owing to a wish to lessen the expense and to hasten the opening of the canal, parts of it were not excavated to their proper depth, while others were executed in a hurried and insufficient manner. Hence the canal does not really admit vessels of above 250 or 300 tons burden, and previously to steam tugs being provided on the lakes, they were frequently delayed in making their passage across for a lengthened period. During 1837 and 1838 the works sustained considerable damage; and the reader needs not be surprised to hear that it was gravely debated whether it would not be better entirely to break up and abandon the canal!

There was naturally, however, an extreme disinclination to destroy a work which, how inexpedient soever originally, has been executed at an enormous expense; and various schemes have been suggested for relieving the public from the expense of keeping it up without involving its destruction. Among others it has been proposed to assign it to a joint-stock company, on their agreeing to complete the works and keep them in repair: and an Act authorising such transfer was passed in 1840. But hitherto it has not been found possible to dispose of the canal in this way, and Parliament has since voted large sums for the partial repair of the works, which, though a good deal improved, will every now and then require fresh outlays.

Some other canals have been projected and completed in different parts of Scotland. Of these the Monkland Canal, for the supply of Glasgow with coal, has been the most successful.

15. *Irish Canals.*—Various canals have been undertaken in Ireland, of which the Grand Canal and the Royal Canal are the principal. The Grand Canal was begun in 1765, by a body of subscribers; but they could not have completed the work without very large advances from Government. The canal commences at Dublin, and stretches in a westerly direction, inclining a little to the south, to the Shannon, with which it unites near Banagher, a distance of 85 statute miles, and thence on the west side of the river to Ballinasloe, 14 miles. But exclusive of the main trunk, there is a branch to Athy, where it joins the Barrow, a distance of about 27 miles; and there are branches to Portarlington, Mount Mellick, and some other places. The total length of the canal, with its various branches, is about 164 Eng. miles. Its summit elevation is 200 feet above the level of the sea at Dublin. It is 40 feet wide at the surface, from 24 to 20 feet at bottom, has 6 feet water, and cost, in all, above 2,000,000*l.*

Two capital errors seem to have been committed in the formation of this canal—it was framed on too large a scale, and was carried too far north. Had it been 4 or 4½ instead of 6 feet deep, its utility would have been but little impaired, while its expense would have been very materially diminished. But the great error was in its direction. Instead of joining the Shannon about 15 miles above Lough Derg, it should have joined it below Limerick. By this means barges and other vessels passing from Dublin to Limerick, and conversely, would have avoided the difficult and dangerous navigation of the Upper Shannon; and the canal would have passed through a comparatively fertile country; and it would not have been necessary to carry it across the bog of Allen, in which, says Mr. Wakefield, 'the company have buried more money than would have cut a spacious

canal from Dublin to Limerick.' (*Account of Ireland*, vol. i. p. 612.)

The Royal Canal was undertaken in 1789. It stretches westward from Dublin to the Shannon, which it joins near Tormanbury. Its entire length is about 92 miles, exclusive of a branch of 5 miles from Kilshee to Longford: its highest elevation is 322 feet above the level of the sea. At bottom it is 24 feet wide, having 6 feet depth of water. It had cost, exclusive of interest on stock, loans &c. advanced by Government, in February 1823, 1,421,951*l*.

This canal seems to have been planned in the most injudicious manner. It has the same defect as the Grand Canal, of being extravagantly large; and throughout its whole course it is nearly parallel to, and not very distant from, the latter. There are consequently two immense canals where there ought, perhaps, to be none. At all events, it is abundantly certain that one canal of comparatively moderate dimensions would have been quite enough for all the business of the district, even if it were much greater than it is at this moment, or than it is ever likely to become.

It appears from *Thom's Almanac* for 1868, that in 1866 the gross revenue of the Royal Canal was 10,504*l*., while the net revenue of the Grand Canal for the first half of 1866 was 7,535*l*.; and deducting from these sums the expense attending the working of the canals, and allowing for their ordinary wear and tear, it is extremely doubtful whether these great public works, which have cost between 5,000,000*l*. and 6,000,000*l*., produce a sixpence of clear revenue.

Besides the above, there are some other canals, as well as various river excavations, in Ireland, the chief of which is the Ulster, 48 miles long; but hardly one of them yields a reasonable return for the capital expended upon it. They have almost all been liberally assisted by grants of public money; and their history, and that of the two great canals now adverted to, strikingly corroborates the caustic remark of Arthur Young, that 'a history of public works in Ireland would be a history of jobs.' (*Tour in Ireland*, part ii. p. 60, 4to. ed.) Those who wish to make themselves fully acquainted with the history and state of the canals of Ireland may consult the Report by Messrs. Henry Mullins and M'Mahon, in the Appendix to the Report of the Select Committee of 1830 on the State of Ireland, and the valuable Report on Railways.

16. *American Canals*.—The United States are pre-eminently distinguished by the spirit with which they have undertaken, and the perseverance they have displayed in executing, the most magnificent plans for improving and extending internal navigation. Besides many others of great, though inferior, magnitude, a canal has been formed connecting the Hudson with Lake Erie. This immense work is 363 miles in length, the rise and fall along the entire line being 692 feet. It was originally 40 feet wide at the surface, 28 feet at bottom, and 4 feet deep. But these dimensions being found, from the rapidly increasing traffic and importance of the canal, to be far too limited, an Act was passed in 1835, providing for its enlargement. Under this Act the canal has been increased, so as to be 70 feet wide on the surface, 42 feet at the bottom, and 7 feet in depth, the locks being of corresponding dimensions. The original cost of the canal was 9,027,456*l*.; and the cost of the enlargement has been about 25,000,000*l*., or nearly three times its first cost. The Erie Canal is the property of the state of New York, and is one of the greatest and most important works of its kind in the world.

Notwithstanding the contracted scale on which it was originally constructed, it has completely verified the predictions of its projector, De Witt Clinton, having been at once extremely profitable as a mercantile speculation, and of singular advantage in a public point of view to the State of New York and the Union generally.

The *Chesapeake and Ohio Canal* would, had it been completed, have been a great and useful work. It begins at the tide water of the Potomac River above Georgetown in the district of Columbia, and is intended to terminate at Pittsburg, in Pennsylvania, a distance of 341½ miles. Its dimensions are nearly identical with those of the new Erie Canal; its breadth at the surface being from 60 to 80 feet, ditto at bottom 50 feet, with a depth of water varying from 6 to 7 feet. Several tunnels occur in the line which crosses the Alleghany ridge. The cost of this work was estimated at 22,275,000*l*., which were to be subscribed partly by individuals, and partly by the United States and the States of Maryland and Pennsylvania. Owing, however, to the inability, or rather disinclination, of the two last-mentioned states to make good their engagements, the works on the canal have been suspended, after about 10 millions of dollars have been expended upon them. But the probability is that they will be resumed and completed at some future period; their completion being the only means by which the capital already expended upon them can be made to yield any thing.

A great many other canals have been completed and are in progress in different parts of the Union. Of the former, the Ohio Canal, uniting the Ohio with Lake Erie, is by far the most important, and is, if at all, only less advantageous than the Erie Canal. Cleveland, where the canal unites with Lake Erie, has become one of the greatest emporiums on the Lakes.

17. *Canadian Canals*.—The British Government has expended a very large sum upon the Rideau River and Canal, stretching from Kingston, on Lake Ontario, to Bytown, on the Ottawa, or Grand River, an affluent of the St. Lawrence. But this work was undertaken as much in the view of improving the military defences of Canada as of protecting its commerce, though in the latter respect it has been of considerable utility. The British Government has also constructed the Welland Canal, uniting Lakes Erie and Ontario, the navigation between which by the river is interrupted by the Falls of Niagara. This canal has become a well-frequented commercial channel, and is every day rising in importance.

18. *Utility of Canals*.—The utility of canals, when judiciously contrived, and opening an easy communication between places capable of maintaining an extensive intercourse with each other, has never been better set forth than in a work published in 1765, entitled 'A View of the Advantages of Inland Navigation,' &c. But the following extract from Macpherson's *Annals of Commerce* (anno 1760) contains a brief, and at the same time eloquent, summary of the principal advantages resulting from their construction:—"They give fresh life to established manufactures, and they encourage the establishment of new ones by the ease of transporting the materials of manufacture and provisions; and thence we see new villages start up upon the borders of canals in places formerly condemned to sterility and solitude. They invigorate, and in many places create, internal trade, which, for its extent and value, is an object of still more importance than foreign commerce, and is exempted from the many hardships and dangers of a maritime life and changes of climate. And

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they greatly promote foreign trade, and consequently enrich the merchants of the ports where they, or the navigable rivers they are connected with, terminate, by facilitating the exportation of produce from, and the introduction of foreign merchandise into, the interior parts of the country, which are thus placed nearly on a level with the maritime parts; or, in other words, the interior parts become coasts, and enjoy the accommodations of shipping. The price of provisions is nearly equalised through the whole country; the blessings of Providence are more uniformly distributed; and the monopolist is disappointed in his schemes of iniquity and oppression by the ease wherewith provisions are transported from a considerable distance. The advantages to agriculture, which provides a great part of the materials, and almost the whole of the subsistence, required in carrying on manufactures and commerce, are pre-eminently great. Manure, marl, lime, and all other bulky articles, which could not possibly bear the great expense of cartage, and also corn and other produce, can be carried at a very light expense on canals; whereby poor lands are enriched, and barren lands are brought into cultivation, to the great emolument of the farmer and landholder, and the general advantage of the community, in an augmented supply of the necessaries of life and materials of manufactures; coals (the importance of which to a manufacturing country few people not actually concerned in manufactures are capable of duly appreciating), stone, lime, iron ore, and minerals in general, as well as many other articles of great bulk in proportion to their value, which had hitherto lain useless to their proprietors by reason of the expense, and, in many cases, impossibility, of carriage, are called into life, and rendered a fund of wealth, by the vicinity of a canal; which thus gives birth to a trade, whereby, in return, it is maintained.

**19. Increased Speed of Travelling by Canals.**—Great as have been the advantages derived from the formation of canals, their progress has been to a considerable degree checked by the formation of RAILROADS. We believe, however, that canals will always be preferred for the conveyance of coal and other bulky and heavy products; and even passengers could be conveyed along them with a rapidity that would previously have been supposed impossible. This new system was introduced on the Paisley and Glasgow Canal, by Mr. Houston, in June 1831. The results are described in the following statements, to which it is unnecessary to call the reader's attention:—

Mr. Thomas Graham, civil engineer, in his *Letter to Canal Proprietors and Traders*, says, 'The experiments of great velocity have been tried and proved on the narrowest, shallowest, and most curved canal in Scotland, viz. the Ardrossan or Paisley Canal, connecting the city of Glasgow with the town of Paisley and village of Johnstoun—a distance of 12 miles.' The result has disproved every previous theory as to difficulty and expense of attaining great velocity on canals, and as to the danger or damage to their banks by great velocity in moving vessels along them.

'The ordinary speed for the conveyance of passengers on the Ardrossan Canal has, for nearly 2 years, been from nine to ten miles an hour; and, although there are fourteen journeys along the canal per day, at this rapid speed, its banks have sustained no injury. The boats are 70 feet in length, about 5 feet 6 inches broad, and, but for the extreme narrowness of the canal, might be made broader. They carry easily from 70 to 80 passengers; and, when required, can and have carried upwards of 110 passengers. The entire cost of a boat and fit-

tings up is about 125*l*. The hulls are formed of light iron plates and ribs, and the covering is of wood and light oiled cloth. They are more airy, light, and comfortable than any coach. They permit the passengers to move about from the outer to the inner cabin, and the fares per mile are one penny in the first, and three farthings in the second cabin. The passengers are all carried under cover; having the privilege also of an uncovered space. These boats are drawn by 2 horses (the prices of which may be from 50*l*. to 60*l*. per pair), in stages of 4 miles in length, which is done in from 22 to 25 minutes, including stoppages to let out and take in passengers, each set of horses doing 3 or 4 stages alternately each day. In fact, the boats are drawn through this narrow and shallow canal at a velocity which many celebrated engineers had demonstrated, and which the public believed, to be impossible.

'The entire amount of the whole expenses of attendants and horses, and of running one of these boats 4 trips of 12 miles each (the length of the canal) or 48 miles daily, including interest on the capital, and 20 per cent. laid aside annually for replacement of the boats, or loss on the capital therein vested, and a considerable sum laid aside for accidents and replacement of the horses, is 700*l*. some odd shillings; or, taking the number of working days to be 312 annually, something under 2*l*. 2*s*. 4*d*. per day, or about 1*l*. *d*. per mile. The actual cost of carrying from 80 to 100 persons a distance of 30 miles (the length of the Liverpool Railway), at a velocity of nearly 10 miles an hour, on the Paisley Canal, one of the most curved, narrow, and shallow in Britain, is therefore just 1*l*. 7*s*. 6*d*. sterling. Such are the facts, and, incredible as they may appear, they are facts which no one who enquires can possibly doubt.'

Boats on this principle were for a time established on a great many British canals, and on the Grand and Royal Canals in Ireland.

**20. Profits of Canals.**—It is a well-known fact, that canals, at an average, and allowing for the length of time that must elapse from the first outlay of capital before they yield any return, are not very productive. When, indeed, they connect places that have an extensive intercourse, and when no very extraordinary difficulties have to be surmounted in their construction, they most commonly yield very large profits; but, generally speaking, this does not appear to be the case; and, on the whole, they seem to have been more beneficial to the public than to their projectors.

It is customary to insert clauses in the Acts authorising canals to be cut, limiting the charge which the proprietors shall be entitled to impose upon the goods conveyed by them. But we think that the dividend ought also to be limited; and that it should be stipulated that whatever a moderate toll yielded over and above defraying this dividend, and providing for the repair of the canal, should be accumulated as a fund in order to buy up the stock of the canal, so that the toll may ultimately be reduced to such a sum as may suffice merely to meet the necessary repairs. We are not aware that any good objection could be made to a plan of this sort; and had it been adopted in this country, there are several instances in which it would have been very advantageous for the public. When the canal of Languedoc was completed, the most likely method, it was found, of keeping it in constant repair was to make a present of the tolls to Riquet the engineer. 'These tolls constitute,' says Dr. Smith, 'a very large estate to the different branches of the family of that gentleman, who have, therefore, a great interest to keep the work in constant repair. But



again, use 100 lbs. of copper, 6 lbs. of brass, and 9 lbs. of tin; and others, 100 lbs. of copper, 10 lbs. of brass, and 15 lbs. of tin.

It seems to be the general opinion that cannon were first made use of in 1336 or 1338; but Don Antonio de Capmany has produced some statements which render it almost certain that some sort of artillery was used by the Moors in Spain so early as 1312. (*Questiones Criticas*, p. 181 &c.) Cannons were certainly used by the English in 1347 at the siege of Calais, and by the Venetians at Chioggia in 1366, and in their wars with the Genoese in 1379 and 1380. The Turks employed them at the sieges of Constantinople, in 1394 and 1453. When first introduced, they were for the most part very heavy and unwieldy, and threw balls of an enormous size: they were, however, owing to their frequently bursting, about as dangerous to those using them as to their opponents. There is a valuable article on the construction and history of cannons in Rees's *Cyclopaedia*; but it was published before the appearance of Capmany's work. In 1866 we exported 17,166 cwt. of cannon and mortars of British manufacture, valued at 97,394*l.* (Brande and Cox, *Dictionary of Science*, s. v. 'Guns,' 'Rifled Cannons.')

**CANTHARIDES** or **SPANISH FLY** (Fr. *cantharides*, *mouches d'Espagne*; Ger. *spanische fliegen*; Ital. *cantarelle*; Lat. *cantharis*; Russ. *lischpanski muchi*; Span. *cantaridas*). Many coleopterous insects possess peculiar medicinal properties, and owe them to a peculiar principle called *cantharidin* by chemists, and which is said to reside in certain parts only of the insect's body.

The *Cantharis vesicatoria*, which supplies the greater part of that found in commerce, is an insect from eight to ten lines in length, by two or three in breadth. It is of a bright and shining metallic green colour. When alive, this animal has a fetid odour. They are found feeding on the leaves of the white poplar, ash, privet, elder, and lilac. They are abundant in Hungary, Spain, Italy, and Southern France, and also in Western Asia. They are usually collected in May and June, at sunrise, when they are torpid. Persons having their faces protected by masks, and their hands by gloves, beat or shake the trees, and catch the insects in linen cloths spread underneath. They are then plunged into diluted vinegar, or exposed to the vapour of vinegar, and subsequently dried and packed in casks, carefully protected from the atmosphere. The best cantharides come from the southern provinces of Russia, and are of a more coppery colour than those of the Mediterranean countries. In 1866 we imported 21,361 lbs. of cantharides, valued at 2,465*l.*

Spanish flies are exposed to damp, they putrefy, and lose their powers. They are also attacked by mites. Powdered flies are occasionally mixed with euphorbium.

The *Cantharis vittata*, *Mylabris cichorii*, and several kinds of *Mela* possess the active principle in as large or larger quantity than the common fly. The physicians of the United States have discovered that several indigenous insects possess the same medical properties with the Spanish fly. (*British Pharmacopoeia*; Wood and Bache's *United States Dispensatory*.)

**CANTON.** Once the chief commercial mart of China, is the capital of Kwang-tung, one of the 23 provinces of China Proper, in 1 at. 23° 7' 10" N., Long. 113° 14' 30" E., on a broad and navigable tidal stream, the Chu-Kiang, or Pearl River, forming one of the channels by which the united waters of two great interior streams, the North and West Rivers, reach the sea. Canton is situated in the

most southerly of the provinces on the sea-board of China. This province is traversed from west to east, from north to south, and from east to west, by three magnificent streams, of which the two latter are navigable by heavily-laden boats for distances of from 200 to 300 miles, whilst the former is derived from the remotest interior, being accessible for fully 700 miles along its own channel, and navigable also by large steamers for nearly 300 miles from the sea. The North and West Rivers join about 30 miles to the westward and northward of Canton, whence, in a noble channel of more than a mile broad, known as the Lower West River, or the Broadway, they pursue a direct southerly course to the sea. A portion of the united West and North Rivers is, however, diverted at the junction through a narrow channel in an easterly direction, and, after passing the important trading and manufacturing town of Fat-shun (Fu-shan), expands at Canton into the broad tidal river, branching into two channels (eventually subdivided into an intricate network around numberless flat, alluvial islands), which has the name of Chu-Kiang. 12 miles farther down the river is the safe and commodious anchorage of Whampoa, and 10 miles lower the East River joins, discharging itself by several mouths channelled through an alluvial plain. The bold shore a few miles lower down, and some rocky islets, compress the stream into a considerably narrower channel, called by the Chinese Hu Mun, or Tiger's Mouth, and by the Portuguese Boca Tigris, and hence 'The Bogue.' This was a fortified position from a very early period; but after having been thrice taken and dismantled at different times within the last thirty years by British squadrons, the once famous batteries of the Bogue are now (1868) only masses of battered masonry. On leaving the Bogue the river expands to a breadth of several miles, joining by numerous tortuous channels the waters of the Lower West River, until it is finally lost in the sea about 80 miles from Canton. The breadth of the estuary is fully 70 geographical miles. At the extreme eastern limit lies the island forming the British colony of Hong Kong, 40 miles to the westward of which, and close to the Broadway Channel, is the Portuguese settlement of Macao.

The facilities offered to commerce by so extensive a river-system and its accessibility from the sea made Canton at a very early date the principal seaport of the empire. This distinction it retained despite the drawback it suffers by its distance from the rich producing districts of Central China. The Northern harbours having silted up as early as the fifteenth and sixteenth centuries, the export and import trade centred at Canton, and as early as the eighth century trade with the ports of the Red Sea and the Indian Ocean was carried on here by Arabian vessels. Of European nations, the Portuguese were the first to reach China. In 1517 Fernao Peres de Andrade visited Canton, and Spanish, Dutch, and English adventurers soon followed. In 1637 the first British vessels reached this port after an encounter with the Bogue forts. Subsequently the prospect of a lucrative trade in silks, drugs, and tea led the East India Company to strive persistently to establish themselves here independently of the Portuguese, who again sought, at their settlement of Macao, to monopolize all communication with China. By the end of the reign of Charles II. the Company had planted several agencies at different ports along the coast, and about 1685 its factory was established at Canton. The first duty upon tea imported into England (5*s.* per lb.) was imposed about 1689. For exactly a century and a half, down to 1834, the trade between the United Kingdom and China

was monopolised by the East India Company; but in that year this monopoly was happily abolished, and the trade with China thrown open to all classes under the conditions specified in the Act 3 & 4 Wm. IV. c. 93.

The only real difficulty in trading with China originated in the despotism, pride, and jealousy of the Government, and in the general corruption of its officers. The former affected to treat all foreigners with contempt, and exposed them to frequent insult; while the latter endeavoured to multiply and enforce vexatious regulations and demands, that they might profit by the donations given for their evasion. We submitted, with exemplary forbearance, for a lengthened period, to every petty indignity the Chinese Government chose to inflict; but the proceedings connected with the seizure and destruction, in 1839, of the opium belonging to British subjects—[*Opium*]—led to hostilities between this country and China; and these, as every one knows, have been productive of events which must powerfully influence the future intercourse of Englishmen, and of foreigners generally, with the Chinese.

Our military and naval operations resulted in the signature of a treaty at Nanking, on August 29, 1842, by which four additional ports (Shanghai, Ningpo, Fu-chow, and Amoy) were thrown open to foreign trade, the rights of residence in and access to all these cities as well as the surrounding country were conceded, a fixed tariff was proclaimed, the Cohong or Chinese mercantile monopoly abolished at Canton, and the Island of Hong Kong ceded to the British.

From this period our commercial relations with China vastly increased, but the preeminence of Canton gradually declined. Several years elapsed, indeed, before the new ports drew to themselves any considerable share of trade.

Tea has always been by far the principal article of import from China; and it is mainly owing to the diffusion of the taste for it, and its consumption by all ranks and orders of the people, that the trade with China has attained its present importance; and, as already seen, we believe we must look principally to the increased consumption of tea that will, no doubt, follow the effectual reduction that has been made in the exorbitant duties with which it was formerly loaded, for the future increase of the trade. The other articles of import are raw silk and silk manufactures, cassia lignea, and a few more; but they are of very inferior value and importance as compared with tea.

The great articles of export from this country to China consist of cotton stuffs and yarn, woollen goods, linen &c., earthenware, iron, and steel &c. Bullion used to be largely exported to China, but for some years past that has not been the case. [*PRECIOUS METALS.*]

Previously to the abolition of the monopoly, in 1834, the real value of the merchandise annually exported from the United Kingdom to China did not exceed 600,000*l.*, whereas it had increased in 1836 to 1,326,388*l.* The interruption of the regular trade by the disturbances and hostilities that afterwards ensued prevents any conclusions in regard to its real amount being deduced from the returns for 1839, 1840, and 1841.

*War of 1856.*—The Treaty of 1842 did not prove to be so lasting as many supposed it would be. It was, in truth, in many respects vague and indefinite, and disputes, of one sort and another, could hardly fail to arise out of its provisions. But that which led to, or was a pretext for, the war of 1856 was about as worthless as could well be imagined. On the 8th of October of that year a species of vessel called a *lorcha*, registered at

Hong Kong, and said (though that has been stoutly denied) to have had the British flag flying, was boarded near Canton by a party of Chinese, who seized a portion of her crew (natives) and hauled down the alleged British flag. The consul and the governor of Hong Kong took, or pretended to take, fire at this real or imaginary insult to the majesty of the British nation; and the Chinese governor having refused to humour their prejudices by making an apology, they proceeded forthwith to bombard Canton, and to destroy the war junks in the river. When the intelligence of these violent proceedings arrived in England, they gave rise to much diversity of opinion. They were disapproved of by the House of Commons; but on its being dissolved, and an appeal made to the country, the bellicose propensities of the latter were fully developed, and a House was returned pledged to inflict signal vengeance on the Chinese for their insult to our flag and dignity! An expedition was in consequence fitted out to accomplish this and other objects. Happily it was accompanied by an able diplomatist, the Earl of Elgin, who was authorised to negotiate a treaty with the Chinese. It would be useless, and it would also be foreign to the object of this work, to enter into any details in regard to the proceedings of Lord Elgin's expedition. It is enough to say that they were completely successful; and a portion of the English forces, accompanied by a small French squadron, having proceeded up the Peiho to Tien-tsin, within 80 miles of Peking, a treaty of peace was agreed to on June 26, 1858, between the British (by whom it was in fact dictated) and Imperial commissioners; and similar treaties were subsequently agreed to with the plenipotentiaries of France, Russia, and the United States.

The allied occupation of Canton was prolonged through the attempt of the Chinese Government in 1859 to resist the advance of the British and French Ministers towards Peking, and the ratification of the treaties concluded by Lord Elgin and Baron Gros in the previous year. This resistance led to the successful campaign of 1860, which brought the British army under Sir Hope Grant to the gates of Peking. Hero the treaty of 1858 was fully ratified, and an additional convention wrung from the Chinese commissioners.

The following is a synopsis of the treaty of Tien-tsin:—

*Summary of the Treaty between her Majesty and the Emperor of China, signed at Tien-tsin, June 26, 1858.*

Art. 1. Confirms the treaty of Nankin of 1842, and abrogates the supplementary treaty and general regulations of trade.

2. Provides for the appointment of ambassadors, ministers, or other diplomatic agents on the part of either country at the courts of Peking and St. James's.

3. Contains provisions for the permanent establishment of a British minister, his family and suite at Peking, and the forms to be observed in his communications with the Imperial Government.

4. Makes arrangements for the travelling and the transmission of the correspondence of the minister and the employment by him of special couriers.

5. The Emperor of China consents to nominate one of the secretaries of state, or some high officer, to transact business with the British minister either personally or in writing, on a footing of perfect equality.

6. The same privileges are to be granted to the Chinese minister in London.

7. Consuls may be appointed in China, and may

reside in any of the open ports, and in such rank and position as the local authorities are determined to grant.

8. The Christian religion, and the persons professing it, shall be protected, and the rights of the British subjects shall be secured.

9. British subjects shall be permitted to reside in all parts of the interior of the empire, and their consuls, consulates, and other establishments shall be determined. The provisions of the present treaty shall be applied to ships of war, and to the regulations of the consuls and the local authorities, given to Nankin, or other ports.

10. British merchant ships shall be permitted to trade up the great river Yangtze, and the present disturbed state of the valley no port is to be opened, with the exception of Chin Kiang, until a year from the signature of the present treaty, after which peace is restored, British ships shall be permitted to trade at such ports, as shall be determined by the consuls, after consulting with the local authorities.

11. In addition to the ports of Canton, Shanghai, Ningpo, Tientsin, and Swatow, and Kiangsu, no port is to be opened, and no property is to be landed.

12. British subjects are permitted to trade at such ports, as shall be determined by the consuls.

13. No restrictions are to be placed on the trade of British subjects, or on their carrying any lawful cargo.

14. The hire of boats for passengers, and the settlement of disputes without the interference of the local authorities, shall be determined. The number of boats, and no monopoly shall be granted, and the office of the consuls shall be determined by law.

15. All questions in regard to the jurisdiction of the British consuls shall be determined by law.

16. Chinese subjects are permitted to trade with British subjects, and the Chinese authorities are to be bound by the law of China; British subjects are to be bound by the law of Great Britain.

17. Determines the mode of settling disputes, and the manner of complaints on the part of Chinese subjects.

18. Provides for the protection of the property of British subjects in the interior of the empire.

19. If any British merchant ship is plundered by robbers, the local authorities are to be bound to capture and punish the robbers, and to return the stolen property.

20. Wrecked or stranded property shall be secured under stress of weather, and security in any Chinese port shall be furnished by the local authorities, with the means of conveyance to the nearest consular station.

21. Chinese criminals, or on board of British ships, shall be permitted to trade with the Chinese, and the same also if taking refuge in the vessels of British subjects.

reside in any of the open ports, and their official rank and position as regards the Chinese local authorities are determined.

8. The Christian religion, as professed by Protestants or Roman Catholics, to be tolerated, and its professors protected.

9. British subjects to travel for pleasure or trade into all parts of the interior, with passports from their consuls, countersigned by the local authorities. The regulations as regards these passports are determined. The provisions of the article not to be applied to ships' crews, for the due restraint of whom regulations are to be drawn up by the consul and the local authorities. No pass to be given to Nankin, or cities in the hands of the rebels.

10. British merchant ships are to be allowed to trade up the great river (Yang-tze), but in the present disturbed state of the upper and lower valley no port is to be opened for trade with the exception of Chin Kiang, which is to be opened in a year from the signature of the treaty. When peace is restored, British vessels are to be admitted to trade at such ports, as far as Hankow, not exceeding three in number, as the British minister, after consulting with the Chinese secretary of state, shall determine.

11. In addition to the present ports, New Chwang, Tang Chow, Tai Wan (Formosa), Chow Chow (Swatow), and Kiung-Chow (Hainan) are to be opened, and the right of residence and holding landed property is conceded.

12. British subjects are to make agreements for landed property at the rates prevailing among the people.

13. No restrictions to be placed on the employment by British subjects of Chinese subjects in any lawful capacity.

14. The hire of boats for transport of goods or passengers to be settled between the parties themselves without the interference of the Chinese Government. The number of the boats not to be limited, and no monopoly allowed. If any smuggling takes place, the offender to be punished according to law.

15. All questions in regard to rights of property of a person between British subjects to be subject to the jurisdiction of the British authorities.

16. Chinese subjects guilty of any criminal act towards British subjects to be arrested and punished by the Chinese authorities according to the law of China; British subjects committing any crime in China to be tried and punished by the consul or other public functionary according to the laws of Great Britain.

17. Determines the mode of procedure in the matter of complaints on the side either of British or Chinese subjects.

18. Provides for the protection of the persons and property of British subjects.

19. If any British merchant vessel in Chinese waters is plundered by robbers or pirates, the Chinese authorities are to use every endeavour to capture and punish the offenders, and to recover the stolen property.

20. Wrecked or stranded vessels, or vessels under stress of weather, are to be afforded relief and security in any Chinese port; and the crews are to be furnished by the Chinese, if necessary, with the means of conveyance to the nearest consular station.

21. Chinese criminals taking refuge in Hong Kong, or on board of British ships, shall, upon the requisition of the Chinese authorities, be given up; the same also if taking refuge in the houses or on board the vessels of British subjects at the open ports.

22. The Chinese authorities to do their utmost to arrest Chinese subjects failing to discharge their debts to British subjects or fraudulently absconding, and to enforce recovery of the debts. The British authorities to do likewise as regards British subjects indebted to Chinese.

23. Debts incurred by Chinese at Hong Kong must be recovered in the courts of justice on the spot. If the debtor should abscond, and should possess real or personal property in the Chinese territory, the Chinese authorities, in concert with the British consul, are to see justice done between the parties.

24. British subjects shall pay on all merchandise imported or exported the duties prescribed by the tariff, but in no case shall they pay other or higher duties than the subjects of other foreign nations pay.

25. Import duties to be considered payable on the landing of the goods, and duties of export on the shipment of the same.

26. The tariff fixed by Article 10 of the treaty of Nankin to be revised by a commission of British and Chinese officers to meet at Shanghai, so that the revised tariff may come into operation immediately after the ratification of the treaty.

27. Either contracting party may demand a further revision of the tariff and of the commercial articles of the treaty at the end of ten years; but six months' notice must be given, or the tariff is to remain in force for ten years more, and so at the end of each successive ten years.

28. It is agreed that within four months of the signature of the treaty, the Chinese collector of duties at ports already opened and hereafter to be opened to British trade shall be obliged, on application of the consul, to declare the amount of duties leviable on produce between the place of production and the port of shipment, and upon imports between the consular port in question and the inland markets named by the consul; and a notification thereof shall be published in English and Chinese. British subjects may, however, clear their goods of all transit duties by payment of a single charge; the amount of the charge to be calculated as near as possible at the rate of 2½ per cent. ad valorem duty, and it is to be fixed for each article at the conference to be held at Shanghai.

The payment of transit dues by commutation is in no way to affect the tariff duties on imports or exports, which will continue to be levied separately and in full.

29. Regulates the amount of tonnage dues. British merchant vessels of more than 150 tons burden to pay at the rate of 4 mace per ton; if of 150 tons and under, at the rate of 1 mace per ton.

Vessels engaged in the coasting trade, or clearing for Hong Kong from any of the open ports, shall be entitled to a special certificate exempting them from all further payment of tonnage dues in any open port of China for a period of 4 months from the date of port clearance.

30. The master of any British merchant vessel may within 48 hours after his arrival, but not later, depart without breaking bulk; in which case he will not be subject to pay tonnage dues. No other fees or charges upon entry or departure shall be levied.

31. No tonnage dues to be paid on passenger boats, or boats conveying baggage, letters, articles of provision, or other articles not subject to duty. All cargo boats, however, conveying merchandise subject to duty, shall pay tonnage dues once in 6 months, at the rate of 4 mace per register ton.

32. The consuls and superintendents of customs

to consult together respecting the erection of buoys and light ships, as occasion may demand.

33. Duties to be paid to the authorised Chinese bankers, either in sycee or in foreign money, according to the assay made at Canton, July 13, 1843.

34. Sets of standard weights and measures to be delivered by the superintendent of customs to the consul at each port, to secure uniformity.

35. British merchant vessels to be at liberty to engage pilots to take them into any of the open ports, and to convey them out, after they have discharged all legal dues and duties.

36. The superintendent of customs shall depute one or more customs officers to guard a British merchant ship on arriving off one of the open ports. They shall stay either in a boat of their own or on board ship; their food and expenses shall be supplied from the custom house, and they shall be entitled to no fees from the master or consignee.

37. Ships' papers, bills of lading &c., to be lodged in the hands of the consul twenty-four hours after arrival, and full particulars of the vessel to be reported to the superintendent of customs within a further period of twenty-four hours; omission to comply with this rule within forty-eight hours punishable by a fine of 50 taels for each day's delay. The total amount of penalty not to exceed 200 taels. The master responsible for the correctness of the manifest: a false manifest subjects the master to a fine of 500 taels, but he will be allowed to correct any mistake within twenty-four hours without incurring the penalty.

38. If the master shall begin to discharge any goods without the permit from the superintendent of customs, he shall be fined 500 taels, and the goods discharged shall be confiscated wholly.

39. British merchants must apply to the superintendent of customs for a special permit to land or ship cargo. Cargo landed or shipped without such permit will be liable to confiscation.

40. No transshipment from one vessel to another can be made without special permission, under pain of confiscation of the goods transhipped.

41. The superintendent of customs shall give a port clearance when all dues and duties have been paid, and the consul shall then return the ship's papers.

42. If the British merchant cannot agree with the Chinese officer in fixing a value on goods subject to an ad valorem duty, each party shall call in two or three merchants, and the highest price at which any of the merchants would purchase them shall be assumed to be the value of the goods.

43. Provides that duties shall be charged upon the nett weight of each article, making a deduction for the tare weight of congee &c., and regulates the manner in which the tare on any article, such as tea, shall be fixed. The British merchant may appeal to his consul within twenty-four hours.

44. Upon all damaged goods a fair reduction of duty shall be allowed, proportionate to their deterioration. If any disputes arise, they shall be settled in the manner pointed out in the clause of this treaty having reference to articles which pay duty ad valorem.

45. British merchants who have imported merchandise into an open port and paid duty may re-import their goods under certain regulations without payment of any additional duty.

British merchants desiring to re-export duty-paid imports to a foreign country to be entitled, under similar regulations, to a drawback certificate, which is to be a valid tender in payment of customs duties.

Foreign grain brought into a Chinese port in a British ship, if no part has been landed, may be re-exported without hindrance.

46. The Chinese authorities at the ports to adopt the means they may judge most proper to prevent the revenue suffering from fraud or smuggling.

47. British merchant-vessels not to resort to other than the ports declared open; not unlawfully to enter ports, or to carry on clandestine trade along the coasts. Vessels violating this provision to be, with their cargoes, subject to confiscation by the Chinese Government.

48. If a British merchant vessel be concerned in smuggling, the goods to be subject to confiscation by the Chinese authorities, and the ship may be prohibited from trading further, and sent away as soon as her accounts shall have been adjusted.

49. All penalties or confiscations under the treaty to belong and be appropriated to the public service of the Chinese Government.

50. All official communications addressed by British diplomatic or consular agents to the Chinese authorities are henceforth to be written in English. For the present they will be accompanied by a Chinese version; but it is understood that in case of there being any difference of meaning between the English and Chinese text, the English Government will hold the sense expressed in the English text to be the correct sense. This provision is to apply to the present treaty, the Chinese text of which has been carefully corrected by the English original.

51. The character '1' (barbarian) not to be applied to the British Government or to British subjects in any Chinese official document issued by the Chinese authorities.

52. British ships of war or no hostile purpose, or being engaged in the pursuit of pirates, to be at liberty to visit all the Chinese ports, and to receive every facility for procuring necessaries, or, if required, for making repairs. The commanders of such ships to hold intercourse with the Chinese authorities on terms of equality and courtesy.

53. The contracting parties agree to concert measures for the suppression of piracy.

54. Confirms all advantages secured to the British Government by previous treaties, and stipulates that the British Government shall participate in any advantages which may be granted by the Emperor of China to any other nation.

55. The conditions affecting indemnity for expenses incurred, and loss sustained, in the matter of the Canton question, to be included in a separate article, which shall be in every respect of equal validity with the other articles of the treaty.

56. Ratifications to be exchanged within a year after the day of signature.

Separate article provides that a sum of 2,000,000 taels, on account of the losses sustained by British subjects through the misconduct of the Chinese authorities at Canton, and a further sum of 2,000,000 taels on account of the expenses of the war, shall be paid to the British representative in China by the authorities of the Kwang Tung province.

The arrangements for effecting these payments to be determined by the British representative in concert with the Chinese authorities at Kwang Tung.

The British forces are not to be withdrawn from Canton until the above amounts are discharged in full.

We also annex an abstract of the trade regulations annexed to the treaty.

Rule 1. *Unenumerated Goods.*—Articles not enumerated in the list of exports, but enumerated

In the list of imports, amount of duty on ports; and, similar the list of imports exports, when limited duty set against them.

Articles not enumerated in the list of duty-free goods, to be subject to a duty of 5 per cent value.

Rule 2. *Duty free goods.*—Lion, foreign coins, preserved meats, confectionery, fireworks, perfume, ware, perfumery, foreign wood, candles (foreign), wine, bottles, ships' stores, personal baggage, ironing, drugging, cut glass and crystal ware.

The above pay no duty if transported into the port of destination in the possession of personal baggage, and foreign coins, pay 2½ per cent. ad valorem.

A freight or port duty (personal baggage) and foreign coins except carrying them, though liable to tonnage-duty.

Rule 3. *Contraband.*—Trade is alike prohibited in Gunpowder, shot, crumsters, pistols, and other arms, and accoutrements of war; and

Rule 4. *Weights and measures.*—The provisions of the Tariff, that one hundred catties is held to be equal to three hundred and thirty-three and a half English pounds; and the length of the foot to be equal to one English inch.

One Chinese chih is held to be equal to one-tenth inches English; and three inches to equal one Chinese chih.

Rule 5. *Regarding Contraband.*—The following goods are prohibited in opium, cash, grain, saltpetre, and spelter.

The following conditions:

1. Opium will henceforth be prohibited import duty at the port. It will be Chinese only, and only for British traders will not be permitted.

The provisions of Article 15, by which British subjects, by which British subjects, proceed into the interior will not extend to it.

of the same treaty, by which the Chinese Government is regulated; the transit of the Chinese Government as the Chinese Government revisions of the Tariff, to be applied to opium.

2. *Copper Cash.*—The provisions of the Tariff, which prohibit foreign port is prohibited for British subjects to import into the ports of China to another port.

following Regulation:—The amount of duty on the port of its destination, either by a bond with the depositing such other goods, by the Customs satisfaction of the date of the port of shipment, with an acknowledgment.

In the list of imports, when exported will pay the amount of duty set against them in the list of imports; and, similarly, articles not enumerated in the list of imports, but enumerated in the list of exports, when imported will pay the amount of duty set against them in the list of exports.

Articles not enumerated in the list, nor in either list of duty-free goods, will pay an ad valorem duty of 5 per cent. calculated on their market value.

**Rule 2. Duty-free wools.**—Gold and silver bullion, foreign coins, flour, Indian meal, sago, biscuit, preserved meats and vegetables, cheese, butter, confectionery, foreign clothing, jewellery, plated ware, perfumery, soap of all kinds, charcoal, firewood, candles (foreign), tobacco (foreign), cigars (foreign), wine, beer, spirits, household stores, ships' stores, personal baggage, stationery, carpeting, drugging, cutlery, foreign medicines, and glass and crystal ware.

The above pay no import or export duty, but, if transported into the interior, will, with the exception of personal baggage, gold and silver bullion, and foreign coins, pay a transit duty at the rate of 2½ per cent. ad valorem.

A freight or part freight of duty-free commodities (personal baggage, gold and silver bullion, and foreign coins excepted) will render the vessel carrying them, though no other cargo be on board, liable to tonnage-dues.

**Rule 3. Contraband goods.**—Import and export trade is alike prohibited in the following articles: Gunpowder, shot, cannon, fowling-pieces, rifles, muskets, pistols, and all other munitions and implements of war; and salt.

**Rule 4. Weights and Measures.**—In the calculations of the Tariff, the weight of a picul of one hundred catties is held to be equal to one hundred and thirty-three and one-third pounds avoirdupois; and the length of a chang of ten Chinese feet to be equal to one hundred and forty-one English inches.

One Chinese chih is held to equal fourteen and one-tenth inches English; and four yards English less three inches to equal one chang.

**Rule 5. Regarding certain Commodities heretofore Contraband.**—The restrictions affecting trade in opium, cash, grain, pulse, sulphur, brimstone, saltpetre, and spelter are relaxed, under the following conditions:

1. Opium will henceforth pay thirty taels per picul import duty. The importer will sell it only at the port. It will be carried into the interior by Chinese only, and only as Chinese property; the foreign trader will not be allowed to accompany it. The provisions of Article 9 of the Treaty of Tientsin, by which British subjects are authorised to proceed into the interior with passports to trade, will not extend to it, nor will those of Article 28 of the same treaty, by which the transit-dues are regulated; the transit-dues on it will be arranged as the Chinese Government see fit; nor, in future revisions of the Tariff, is the same rule of revision to be applied to opium as to other goods.

2. **Copper Cash.**—The export of cash to any foreign port is prohibited; but it shall be lawful for British subjects to ship it at one of the open ports of China to another, on compliance with the following Regulation:—The shipper shall give notice of the amount of cash he desires to ship, and the port of its destination, and shall bind himself, either by a bond with two sufficient sureties, or by depositing such other security as may be deemed by the Customs satisfactory, to return, within six months from the date of clearance, to the collector at the port of shipment, the certificate issued by him, with an acknowledgment thereon of the re-

ceipt of the cash at the port of destination, by the collector at that port, who shall thereto affix his seal; or, failing the production of the certificate, to forfeit a sum equal in value to the cash shipped. Cash will pay no duty inwards or outwards; but a freight or part freight of cash, though no other cargo be on board, will render the vessel carrying it liable to pay tonnage-dues.

3. The export of rice and all other grain whatsoever, native or foreign, no matter where grown or whence imported, to any foreign port, is prohibited; but these commodities may be carried by British merchants from one of the open ports of China to another, under the same conditions in respect of security as cash, on payment at the port of shipment of the duty specified in the Tariff.

No import duty will be leviable on rice or grain; but a freight, or part freight of rice or grain, though no other cargo be on board, will render the vessel importing it liable to tonnage-dues.

4. **Pulse.**—The export of pulse and bean-cake from Tang-chau and New-chwang under the British flag is prohibited. From any other of the open ports they may be shipped, on payment of the tariff duty, either to other ports of China or to foreign countries. The restriction as to the ports of Tang-chau and New-chwang was abolished in January 1862.

5. Saltpetre, sulphur, brimstone, and spelter, being munitions of war, shall not be imported by British subjects, save at the requisition of the Chinese Government, or for sale to Chinese duly authorised to purchase them. No permit to land them will be issued until the Customs have proof that the necessary authority has been given to the purchaser. It shall not be lawful for British subjects to carry these commodities up the Yang-tszekiang, or into any port other than those open to the seaboard, nor to accompany them into the interior on behalf of Chinese. They must be sold at the ports only, and, except at the ports, they will be regarded as Chinese property.

Infractions of the conditions, as above set forth, under which trade in opium, cash, grain, pulse, saltpetre, brimstone, sulphur, and spelter may be henceforward carried on, will be punishable by confiscation of all the goods concerned.

**Rule 6. Liability of Vessels entering Port.**—To prevent misunderstanding, it is agreed that the term of twenty-four hours, within which British vessels must be reported to the Consul under Article 37 of the Treaty of Tien-tsin, shall be understood to commence from the time a British vessel comes within the limits of the port; as, also, the term of forty-eight hours allowed her by Article 30 of the same Treaty to remain in port without payment of tonnage-dues.

The limits of the ports shall be defined by the Customs, with all consideration for the convenience of trade, compatible with due protection of the revenue; also the limits of the anchorages within which lading and discharging are permitted by the Customs; and the same shall be notified to the Consuls for public information.

**Rule 7. Transit Dues.**—It is agreed that Article 28 of the Treaty of Tien-tsin shall be interpreted to declare the amounts of transit dues legally leviable upon merchandise imported or exported by British subjects, to be one half of the tariff duties, except in the case of the duty-free goods liable to a transit duty of 2½ per cent. ad valorem, as provided in Article 2 of these rules. Merchandise shall be cleared of its transit dues under the following conditions:—

In the case of Imports.—Notice being given at the port of entry, from which the imports are to be forwarded inland, of the nature and quantity

of the goods; the ship from which they have been landed; and the place inland to which they are bound, with all other necessary particulars, the Collector of Customs will, on due inspection made, and on receipt of the transit duty due, issue a transit-duty certificate. This must be produced at every barrier station, and visé. No further duty will be leviable upon imports so certificated, no matter how distant the place of their destination.

In the case of Exports.—Produce purchased by a British subject in the interior will be inspected, and taken account of, at the first barrier it passes on its way to the port of shipment. A memorandum, showing the amount of the produce and the port at which it is to be shipped, will be deposited there by the person in charge of the produce; he will then receive a certificate, which must be exhibited and visé at every barrier, on his way to the port of shipment. On the arrival of the produce at the barrier nearest the port, notice must be given to the Customs at the port, and the transit dues due thereon being paid, it will be passed. On exportation the produce will pay the tariff duty.

Any attempt to pass goods inwards or outwards otherwise than in compliance with the rule here laid down will render them liable to confiscation.

Unauthorised sale, in transitu, of goods that have been entered as above for a port, will render them liable to confiscation. Any attempt to pass goods in excess of the quantity specified in the certificate will render all the goods of the same denomination named in the certificate liable to confiscation. Permission to export produce which cannot be proved to have paid its transit dues will be refused by the Customs until the transit dues shall have been paid. The above being the arrangement agreed to regarding the transit dues, which will thus be levied once and for all, the notification required under Article 28 of the Treaty of Tientsin, for the information of British and Chinese subjects, is hereby dispensed with.

*Rule 8. Foreign Trade under Passport.*—It is agreed that Article 9 of the Treaty of Tien-tsin shall not be interpreted as authorising British subjects to enter the capital city of Peking for purposes of trade.

*Rule 9. Abolition of the Melting Fee.*—It is agreed that the percentage of one tael two mace, hitherto charged in excess of duty payments, to defray the expenses of melting by the Chinese Government, shall be no longer levied on British subjects.

*Rule 10. Collection of Duties under one System at all Ports.*—It being, by Treaty, at the option of the Chinese Government to adopt what means appear to it best suited to protect its revenue, accruing on British trade, it is agreed that one uniform system shall be enforced at every port.

The high officer appointed by the Chinese Government to superintend foreign trade will, accordingly, from time to time, either himself visit, or will send a deputy to visit, the different ports. The said high officer will be at liberty, of his own choice, and independently of the suggestion or nomination of any British authority, to select any British subject he may see fit to aid him in the administration of the Customs revenue; in the prevention of smuggling; in the definition of port boundaries; or in discharging the duties of harbour-master; also in the distribution of lights, buoys, beacons, and the like, the maintenance of which shall be provided for out of the tonnage-dues.

The Chinese Government will adopt what measures it shall find requisite to prevent smuggling

upon the Yang-tze-kiang when that river shall be opened to trade.

The following is a synopsis of the Supplementary Convention of Peking, signed October 24, 1860:—

Art. I. Expresses the regret of the Emperor of China for the breach of friendly relations in 1859.

Art. II. Establishes the right of residence at Peking on the part of the British Ambassador.

Art. III. Provides for the payment of a war-indemnity of six millions of taels (2,000,000L) in addition to two million taels previously demanded as indemnity for the losses of British merchants at Canton.

Art. IV. Opens the Port of Tien-tsin to trade.

Art. V. Authorises the emigration to foreign countries of Chinese with their families.

Art. VI. Cedes to the Queen of Great Britain and Ireland a tract of land known as Kow-loon, on the mainland opposite Hong Kong.

Art. VII. Provides for the immediate operation of the Treaty of 1858.

Art. VIII. Provides for the publication throughout the Empire of the treaty and convention.

Art. IX. Contains agreements with respect to the evacuation of the sundry places of which possession had been taken.

High expectations were now entertained, and with reason, of a vastly extended commerce with China, and large European settlements sprang up at the ports newly thrown open. The diffusion of trade over so wide an area could not, however, but be prejudicial to the prosperity of Canton, already seriously undermined by the hostilities of 1856-1858. The teas and other exports which were formerly brought by a land journey of 600 miles from the producing districts of Hu-peh across the mountains, and down the North River to the Canton market, were now purchased at Hankow, in the centre of the producing districts, and despatched by steamers navigating the Yang-tze to Shanghai, whence they were shipped to England direct. Imports in like manner were introduced at half a dozen eligible points to the markets of the interior.

Hong Kong, too, in 1854 suddenly rose in importance, owing to the prevalence of the rebellion around Canton, which caused many of the native traders to seek security in Hong Kong either as residents or by transporting merchandise thence in steamers to Canton. Two years later the entire foreign community was removed from Canton, owing to the pending hostilities, and a large accession to the importance of Hong Kong as a settlement was the natural consequence. The proximity of our colony to the seat of trade gave encouragement to merchants to maintain their depôts and residences in the island, inducing the Chinese dealers to visit them there for the purchase of imports. For the introduction of these into the interior, exceptional facilities were afforded by the numerous branches of the Canton river, through which merchandise, and especially opium, can be clandestinely conveyed, and the payment of customs duties at Canton avoided. Under these circumstances Hong Kong grew rapidly, at the expense of Canton; and when tranquillity was restored, it became apparent, after a year or two, that the great mercantile houses no longer make the latter place their head quarters. The number of foreign residents has dwindled year by year in proportion to the growth of Hong Kong, whilst the introduction of powerful river steamers built in the United States, and making the voyage between Canton and Hong Kong daily in less than six hours, has rendered it still more easy for the Chinese dealers to visit the colony and supply their wants from the importers there in the cheapest and most

expeditious method in the principal from Canton, and assistants employed silk; but a large trade has passed agents, whilst it very rapidly to or through the agencies, thus portance of the once drew to the of the entire out of intercommuni the extended use the vast influx of world, are rapidly to a level with native as well as uniform distribution, entailed the evils unsettled markets, of periodical failures.

Perhaps at no other the trade of China by a few wealthy Chinese native agencies, marts of Europe, as in Australia and Singapore.

This diversion of trade must be steadily borne upon the diminished and of exports and farther on. This diminishes the actual fall so much as the trans business done to China annually published later, respecting which is accessible. At the time is not the case, as the outward commerce in trade within the cognate establishments; but at Canton with Hong Kong much merchandise is being regularly between imports or exports by purely native tariff, and the foreign Inspectorate returns of trade are deranged.

The administration of China demands a brief on imports and exports, transit of merchandise, one of the recognised sources and have usually been in court favourites, forming lucrative conditions. The paid annually by the State at Canton was fixed at (267,000L) per annum were usually above 1,000 pursued at this and other stant bargaining between the merchant, and a corruption was usually a existed, but was seldom This demoralising system who proved, naturally, was equally injurious to and to the higher class of

An accidental circumstance Shanghai by rebels in 1850 the Chinese Collectorate

expeditious manner. In consequence of this revolution in the method of conducting trade, many of the principal firms have withdrawn altogether from Canton, whilst others are still represented by assistants employed for the purchase of tea and silk; but a large and increasing proportion of the trade has passed into the hands of commission agents, whilst the Chinese themselves are learning very rapidly to do business on their own account, or through the medium of the foreign commission agencies, thus progressively curtailing the importance of those few celebrated houses which once drew to themselves all but a fractional part of the entire outward and inward trade. Rapidity of intercommunication, the employment of steam, the extended use of the English language, and the vast influx of competitors from all parts of the world, are rapidly reducing the power of capital to a level with that of energy and enterprise, native as well as foreign; but with the more uniform distribution of the advantages of trade are entailed the evils of commercial insecurity and unsettled markets, with the attendant calamities of periodical failure and panics.

Perhaps at no distant time, instead of having the trade of China to a great extent engrossed by a few wealthy British houses, we may have Chinese native agencies in the various commercial marts of Europe, as we already see them flourishing in Australia and California, in Java and Singapore.

This diversion of trade from Europeans to Chinese must be steadily borne in mind in any reflections upon the diminished returns of customs revenue and of exports and imports which will be shown farther on. This diminution does not really represent the actual falling off in the amount of trade so much as the transfer of a large portion of the business done to Chinese hands. The statistics annually published have no reference to the latter, respecting which little or no information is accessible. At the other open ports, indeed, this is not the case, as the necessity of carrying on all outward commerce in foreign bottoms brings the trade within the cognisance of the Customs establishments; but at Canton the river communication with Hong Kong is so easy and safe, that much merchandise is carried by native junks plying regularly between the two places, and the imports or exports by which pay duty under a purely native tariff, apart from the jurisdiction of the foreign Inspectorate of Customs whence the returns of trade are derived.

The administration of the Maritime Customs of China demands a brief explanation here. Duties on imports and exports, as well as on the internal transit of merchandise, have been for 1,500 years one of the recognised sources of revenue in China, and have usually been made productive of profit to court favourites, farming the income under highly lucrative conditions. The revenue required to be paid annually by the Superintendent of Customs at Canton was fixed in 1800 at 800,000 taels (267,000*l.*) per annum, but the actual receipts were usually above 1,000,000 taels. The system pursued at this and other ports was one of constant bargaining between the Custom-house and the merchant, and a well-understood system of corruption was usually at work. A nominal tariff existed, but was seldom the rule for levying duty. This demoralising system was profitable to many, who proved, naturally, its warm supporters, but was equally injurious to the Chinese Government and to the higher class of merchants.

An accidental circumstance (the capture of Shanghai by rebels in 1853) led to the placing of the Chinese Collectorate of Customs at that port

in the hands of a commission of three Europeans, appointed by the Consuls of Great Britain, France, and the United States. The honesty and regularity with which business was transacted under them commended the services of foreigners to the notice of the Chinese authorities, by whom the system was continued, with the tacit consent of the Cabinet of Peking, even after the expulsion of the rebels.

A few years later, a clause of the Treaty of Tien-tsin placed the employment of foreigners in the Customs department on a recognised footing. The system was soon extended to all the open ports, with beneficial results. At Canton (as elsewhere) a European Commissioner is stationed, with a staff of clerks, tide-waiters &c., by whom the entire working of the tariff is conducted, with the exception of money payments. These remain entirely in the hands of the Chinese. The papers of all vessels entering port are deposited with the Consul of the nation to which they belong, and report is then made to the Custom-house, which completes the *entry* of the vessel. The master or consignee obtains from the Custom-house his permit to load or discharge cargo, and, on payment into the Chinese Customs' Bank of all duties and tonnage-dues, a clearance (called the Grand Chop) is issued under the seal of the Chinese Superintendent of Customs, on production of which at his Consulate the master receives back his papers and can proceed to sea.

The following statement shows the state of the commerce at Canton down to 1865:—

Year	Value of Imports	Value of Exports	Total Value in Mexican dollars
	dollars	dollars	
1860	18,400,000	16,200,000	34,600,000
1861	12,900,000	15,900,000	28,700,000
1862	10,500,000	17,700,000	28,200,000
1863	9,500,000	16,000,000	25,500,000
1864	8,100,000	13,600,000	21,700,000
1865	7,900,000	17,500,000	21,400,000

The duties have fallen off proportionately: the total collection for—

1860	amounted to	1,496,000	taels
1861	"	1,230,000	"
1862	"	1,089,000	"
1863	"	950,000	"
1864	"	737,000	"

It is thus shown that the value of the foreign trade of Canton for 1864 was about  $\frac{1}{3}$  what it was in 1860, and the amount of duties received is less than  $\frac{1}{2}$  of what it was 5 years previously. On the other hand while in 1842 the exports from the United Kingdom to China amounted to 969,311*l.*, in 1843 they were 1,456,180*l.*, and in 1845 they rose to the then unprecedented amount of 2,394,827*l.* But though they declined in 1848 to 1,445,950*l.*, they have since progressively risen till, in 1866, they amounted to, exclusive of Hong Kong and Macao, 5,008,474*l.*, and inclusive of these two ports 7,677,633*l.* Great as this amount may seem, most probably it would, at no distant period, be very much increased but for the difficulty the Chinese experience in making returns; a difficulty which will, however, be now very materially diminished.

Although Canton is situated nearly in the same parallel of latitude as Calcutta, there is a considerable difference in their temperature; the former being much cooler, and requiring fires during the winter months. The streets are very narrow, paved with little round stones, and flagged close to the sides of the houses. The front of every house is a shop, and these of particular streets are laid out for the supply of strangers. China-street is appropriated to Europeans; and here the productions of almost every part of the globe are to be found. One of the shopkeepers is always to be found sitting on the counter, writing with a

camel's-hair brush, or calculating with his swan-pan, on which instrument a Chinese will perform operations in numbers with as much celerity as the most expert European arithmetician.

The Chinese, considered as traders, are eminently active, persevering, and intelligent. They are, in fact, a highly commercial people; and the notion that was once very generally entertained, of their being peculiarly characterised by a contempt of commerce and of strangers, is as utterly unfounded as any notion can possibly be. Business is transacted at Canton with great despatch; and nowhere in the world may cargoes be sold and bought, loaded and unloaded, with more business-like speed and activity.

Provisions and refreshments of all sorts are abundant in Canton, and, in general, of an excellent quality; nor is the price exorbitant. Every description of them, dead and alive, is sold by weight. It is a curious fact that the Chinese make no use of milk, either in its liquid state or in the shape of curds, butter, or cheese. Among the delicacies of a Chinese market are to be seen horse-flesh, dogs, cats, hawks, and owls. The country is well supplied with fish from the numerous canals and rivers by which it is intersected.

The British settlement at Canton is designated the Shamen Site, and is an artificial island constructed in 1860-1 at an expense of 325,000 dollars, of which one-fifth was defrayed by the French Government, to whom a proportionate allotment of the area was made.

Steamers of heavy burden can ascend the river to an anchorage immediately facing the Shamen Site; and although the limits of the port of Canton are officially held not to extend above the anchorage of Whampoa, the advantage to trade which is entailed by the loading and discharging of steamers at Canton is so great that a tacit permission is given to the practice. Several large steamers trade regularly between Canton, Shanghai, and Tien-tsin, carrying almost exclusively native merchandise, such as drugs, dried fruits, iron and brass ware, paper (of which large quantities are manufactured near Canton from the macerated hull of the bamboo) &c. The great variety of these miscellaneous articles of commerce can best be estimated by a review of the Custom-house returns, in which they are included in virtue of their shipment in British bottoms. It is rarely, however, that foreign traders are concerned in these shipments. The great staples of tea and silk, opium and cotton goods, may still be said to occupy almost exclusively the attention of foreign merchants. Continental (chiefly German) houses do, indeed, import some quantities of petty European manufactures, among which watches and fire-arms take the lead; but the importance of this trade is not great. Among the articles of the second class to be enumerated are matting and fire-crackers (largely shipped to the United States) and drugs. Guano has of late years been introduced, and has found a ready sale. The price obtained has been on an average about 300 dollars per picul (133½ lbs.).

A very considerable trade in Indian cotton, imported from Bombay by Parsee and Koja traders, for the most part is carried on in ordinary years; but the flow of cotton eastwards was interrupted during 1862-1864, when this article of merchandise was for the first time exported from China (principally from Shanghai) to meet the English demand consequent upon the war in the United States. Indian cotton is considered by the Chinese inferior to their own staple, but its cheapness causes it to be extensively employed. Rice is

another article very largely imported, as the production in China has never kept pace with the demand. The carrying trade in rice forms one of the principal sources of employment for sailing vessels during the winter months, when tea and other freights are slack. It is brought from Siam, Burmah, Manila, and Saigon, and is usually transhipped at Hong Kong on board native junks.

As regards the manner of purchase and sale, it must be borne in mind that imports are seldom brought to Canton by the European merchants, who, as has already been said, prefer attracting the Chinese buyers to Hong Kong. Propositions to establish bonded warehouses at Canton have hitherto been negatived by the Chinese Government, and have also been unfavourably viewed by the residents of Hong Kong. Exports, however, must be purchased on the spot from the Chinese brokers. To buyer and seller alike the brokers are as essential in China as in other countries, and by their intervention trade is carried on at Canton with great facility. Tea is brought from the interior by companies of traders, who purchase and prepare it for the market in the producing districts. The owners of a lot or *chop* of tea (usually 500 to 600 chests) place their merchandise in the hands of a broker, who obtains for them from the native banks an advance of some 75 per cent. of its value, and circulates among the foreign merchants samples or 'musters' of its quality. When a purchase is decided upon, the *chop* is examined by the tea inspector of the firm, but seldom more than one per cent. of the chests is opened. If, as is usually the case, the tea in bulk is approved of as 'equal to muster,' it is immediately prepared for shipment, a guarantee or *security chop* being usually given by the broker, who thus becomes responsible for its good quality throughout until its arrival in England and examination by sworn brokers. Silk is similarly examined and guaranteed.

The commercial honesty of the Chinese is remarked upon by all who have dealings with them, but is giving way gradually before the influx of eager foreign competition and the admission of a lower class of natives to participation in international dealings.

**Moneys.**—The currency at Canton in European transactions is the Mexican dollar, but the dollar coined at Hong Kong since May 1866 is expected to supersede this gradually. The Chinese have no silver coin, and keep their accounts in taels, mace, candareens, and cash, forming a decimal system, of which only the lowest member is represented by a coin. Weight of silver is, indeed, the basis of their notation in this respect. A tael or *liang* equals 1½ oz. of silver, and is divided into 10 mace (*tsien*), the mace into 10 candareens (*fun*), and the candareen into 10 *li*, to which 1 cash in copper should precisely correspond. Owing, however, to the decline in the value of the cash, which for nearly half a century has undergone progressive depreciation in the mintage, the average value of the tael is 1,400 copper cash (*lung-tsi'en*). These coins are cast in moulds, with a square hole occupying the centre, around which, on the obverse, are Chinese characters, denoting the reign, with the words 'Circulating Value,' and on the reverse the name of the mint in Manchu characters.

In large native transactions, pure silver, known as *sycee*, is the basis of exchange. The silver is cast in ingots, called *shoes*, from a fancied resemblance in shape; these weigh from ½ a tael to 100 taels. Silver of the highest standard of purity is produced at the Customs Bank by melting and refining the foreign dollars received in payment of

duties, and is known as *sycee*. It stands for the dollar currency of the respective dities.

**Exchange.**—The sterling in the book but its value varies according to the price of dollars in London. The proportional value may be by the multiplier 1 Spanish dollar be 60 = 1 tael will be 79.7 in the same proportion.

**Finesness of Gold.**—Gold and silver is exchanged into 100 parts, called modern practices of 93 touch, it is under alloy and 93 of pure metal. The fineness of the these decimal proportions English proportions by Suppose gold is 91.66 11, the standard, and standard silver into to 92.5, the touch of ster

**Gold.**—Gold is not merchandise: it is sold in unmined weight; the large each; and the gold is it may be only 92 or 93.

**Weights.**—Gold and catty of 16 taels; the 100 candareens, or 12, reckoned to weigh 12, makes the tael equal to 37.566 grammes.

The principal weights are the picul, the catty, and divided into 100 catties,

1 tael weighs, around picul 16 taels, or 1 catty 100 catties, or 1 picul Hence the picul weighs 60.472 kilograms.

**Long Measure.**—That is *chih*; it is divided into equal to 0.3713 metres, Chinese have used *chih*, of which nearly 10 Chinese Commercial Gu The most important are

Canton. Tailor's *chih*, called Mercer's measure

Peking. Architect's measure Land surveyor's

**Land Measure.**—Land parcels by the *king* and *ang*; = 100 square *pai-t* (feet); is much employed ground; 60 of these

1847 *mow* = 1 English measurement adopted a based on official enquiries = 1 *pu*, and 2 *pu* = 1 *cha* 250 sq. feet. English = 1

The *li* contains 180 *fa* (feet), called engineer's, *li* = 360 *fa*; therefore the *li* = 360 *fa*; his measure a mean *li*; but European m

divided the degree into 360 English feet; which English miles, or 11.131

duties, and is known as Hai-Kwan (i. e. Customs) sycee. It stands at a premium as regards the dollar currency of from 3 to 10 per cent. according to the respective abundance of the two commodities.

**Exchange.**—The tael used to be reckoned at 6s. 8d. sterling in the books of the East India Company; but its value varies, and is generally computed according to the price paid per ounce for Spanish dollars in London. The tables given for this proportional value may be calculated in pence sterling, by the multiplier 1·208. Thus, if the price of the Spanish dollar be 60d. per oz., the value of the tael will be 60 x 1·208 = 72·48d.; if at 66d., the value of the tael will be 79·728d.; and for any other price in the same proportion.

**Fineness of Gold and Silver.**—The fineness of gold and silver is expressed by dividing the weight into 100 parts, called toques or touch; similar to the modern practices of France. Thus, if an ingot be 93 touch, it is understood to contain 7 parts of alloy and 93 of pure metal, making in the whole 100.

The fineness of the precious metals, expressed in these decimal proportions, may be converted into English proportions by the following analogies:—Suppose gold is 91·66 touch, say, as 100: 91·66:: 12: 11, the standard, and vice versa; and to convert standard silver into touch, say, as 240: 222:: 100: 92·5, the touch of sterling silver.

**Gold.**—Gold is not considered as money, but as merchandise: it is sold in regular ingots of a determined weight; the largest of these weigh 10 taels each; and the gold is reckoned 94 touch, though it may be only 92 or 93.

**Weights.**—Gold and silver are weighed by the catty of 16 taels; the tael is divided into 10 mace, 100 candareens, or 1,000 cash. 100 taels are reckoned to weigh 120 oz. 16 dwt. troy, which makes the tael equal to 579·8 English grains, or 37·566 grammes.

The principal weights for merchandise are the picul, the catty, and the tael; the picul being divided into 100 catties, or 1,600 taels.

1 tael weighs, avoirdupois - lbs. oz. dwts. 0 1 5·333 = 1 1/2 oz.  
 16 taels, or 1 catty - 1 5 9·333 = 1 1/2 lb.  
 100 catties, or 1 picul - 135 5 5·333 = 135 1/2 lbs.  
 Hence the picul weighs 60·472 kilogrammes, or 162 lbs. 0 3/4 lbs. 2 1/2 grs. troy.

**Long Measure.**—That used in China is the covid or *chih*; it is divided into 10 inches (*ts'un*), and is equal to 0·3713 metres, or 14·625 English inches.

The Chinese have numerous variations of the *chih*, of which nearly 100 are enumerated in the *Chinese Commercial Guide*, ed. 1863, page 281. The most important are the following:—

Canton. Tailor's *chih*, called *pai-ts'ien-chih* - inches 14·625  
 Mercer's measure for buying wholesale - 11·721  
 retailing - 14·37  
 Peking. Architect's measure - 12·7  
 Land surveyor's rule - 12·875

**Land Measure.**—Land is measured in large parcels by the *king* and *now*. At Canton, the *king* = 100 square *pai-ts'ien-chih* (= 149·756 sq. feet), is much employed in measuring small plots of ground; 60 of these = 1 *now*, at which rate 647 *now* = 1 English acre. The standard of measurement adopted at the British Consulate, used on official enquiries, is as follows: 66 inches = 1 *pu*, and 2 *pu* = 1 *chang* (or 10 *chih*). Hence 2500 sq. feet English = 1 square *now*.

The *li* contains 180 fathoms, each 10 feet—the *li*, called engineer's, measuring 12·65 English fathoms; therefore the *li* = 1,897 1/2 English feet; and the *li* measure a mean degree of the meridian nearly; but European missionaries in China have divided the degree into 200 *li*, each *li* making 286 English feet; which gives the degree 69·166 English miles, or 11·131 French myriamètres.

**Measures of Capacity.**—Thirteen divisions of a decimal scale are enumerated by the Chinese, but only four are in actual use. These are the *ko*, *shing*, *half shing*, and *tow*. The *tow* measures usually about 1 1/2 gallon, containing 10 *shing*.

The following tables, extracted from the *Chinese Commercial Guide*, will be found useful:—

EQUIVALENTS OF CHINESE WEIGHTS ETC. IN ENGLISH DITTO.

Table for converting Chinese Money Weight into English Troy Weight.

taels	oz.	dwts.	grs.	mace	ca.	da.	grs.	
100	120	16	0	7	0	19	7·872	
50	60	8	0	3	0	16	21·888	
25	30	4	0	1	0	11	11·904	
24	28	19	00·16	5	0	12	1·960	
23	27	15	16·32	4	0	9	15·936	
22	26	11	12·48	3	0	7	5·952	
21	25	7	8·64	2	0	4	19·968	
20	24	3	4·80	1 or 10	ca.	0	2	9·984
19	22	19	0·96	ca.	0	2	18·956	
18	21	13	21·12	8	0	1	22·382	
17	20	10	17·28	7	0	1	16·588	
16	19	6	13·44	6	0	1	10·794	
15	18	2	9·60	5	0	1	4·990	
14	16	10	5·76	4	0	0	23·196	
13	15	14	1·92	3	0	0	17·392	
12	14	9	8·08	2	0	0	11·598	
11	13	5	4·24	1	0	0	5·794	
10	12	1	13·40	ca.	0	0	5·21856	
9	10	17	10·56	9	0	0	4·63872	
8	9	13	6·72	8	0	0	4·05888	
7	8	9	2·88	7	0	0	3·47904	
6	7	4	23·04	6	0	0	2·89920	
5	6	0	19·20	5	0	0	2·31936	
4	4	16	15·36	4	0	0	1·73952	
3	3	11	11·52	3	0	0	1·15968	
2	2	8	7·68	2	0	0	0·57984	
1	1	4	3·84	1	0	0		
mace	9	1	1	17·856	2	0		

Formula for reducing Chinese, English, and Indian Weights.

- One pound troy is equal to taels 9·933 nearly.
- One pound avoirdupois is equal to 3/4 catty, or 12 tls.
- One hundred weight is equal to 84 catties.
- Ninety catties *seda* at Macao are equal to 1 picul *balanca*.
- One ton is equal to 16 piculs 80 catties.
- One ton is equal to 27·222 Indian maunds, or nearly 27 1/2 mannds.
- One Indian maund is 82 1/2 lbs. avoirdupois exactly.
- One maund or 100 lbs. troy is equal to 993·446 tals.
- One tola is equal to 3·221 taels.
- One Bengal factory maund is equal to 56 catties.
- One Bengal bazaar maund is equal to 61·6 catties.
- To convert taels into pounds troy.—Divide by 10, and to the quotient add 2/3rds of 1 per cent.
- To convert piculs into pounds avoirdupois.—Add a third to the number of catties.
- To convert pounds avoirdupois into piculs.—Subtract a quarter, and divide by 100.
- To convert hundred weights into piculs.—Multiply by 84 catties, and divide by 100.
- To convert Bengal factory maunds into piculs.—Multiply by 56, and divide by 100.
- To convert piculs into hundred weights.—Multiply by 100, and divide by 84; or if minute exactness is not required, add 1/5th, and from the result deduct 8 per mil.
- To convert piculs into Bengal factory maunds.—Multiply by 100, and divide by 56; or if minute accuracy is not required, add 3/4, and 2 per cent. upon the result.
- To convert Bengal bazaar maunds into piculs.—Multiply by 61·6, and divide by 1,000.
- To convert piculs into Bengal bazaar maunds.—Multiply by 1,000 and divide by 61·6; or if minute accuracy is not required, add 6 1/4 per cent.
- To convert Indian weights into avoirdupois weights.—1. Multiply the weight in seers by 12, and divide by 35; the result will be the weight in



Goods conveyed to and from Whampoa in Cargo Boats.—Cargo boats conveying goods from Canton to Whampoa for shipment there, must be taken for examination to the customs' jetty before the goods can be put on board the ship. On arrival at Whampoa their permits must be exhibited at the float-

ing Custom-house, for countersignature; in like manner, the permits of cargo boats conveying goods to Canton from ships at Whampoa must be countersigned at the Whampoa floating Custom-house, and on arrival at Canton they must repair to the customs' jetty for examination.

Account of the Average Weights and Measurements of the Principal Goods.

Articles	Net Weight	Measurement	Packages in a Ton of 40 Feet	Packages in a Ton of 30 Feet
Teas: Congou	85 lbs.	4'5	9	11
" "	40 "	4'5	16	20
Houchong	80 "	4'5	9	11
" "	37 "	2'6	16	20
Flowery Pako	65 "	4'5	9	11
Orange	50 "	2'5	16	20
Powhong	30 "	2'2	18	23
Ningsang and Oolong	36 "	2'5	16	20
Hysou	70 "	4'3	9-3	11-6
" "	46 "	"	"	"
Young hyson	55 "	"	"	"
Gunpowder	58 "	"	"	"
Imperial	53 "	"	"	"
Twa-ka	49 "	"	"	"
Hysou skin	68 "	"	"	"
Raw silk	80 catties	6'0	6	8
" "	50 lbs.	2'6	15-4	19-2
Casas, in mats	50 catties	4'0	10	12-4
" "	50 "	5'0	7	8-4
Rhubarb	50 "	3'6	11	14-0
Casas buds	1 picul	5'2	7-7	9-0
Star anise	1 "	8'5	4-7	5-9
Camphor	1 "	4'1	9-7	12-2
Casas oil	1 "	2'5	11-5	14-9
Anise	1 "	2'5	16	20
Vermilion	1 "	1'2	33	41-7
Spit cattans	1 bundle	11	11	14
Preserves	6 jars	1'8-3	22	27-3
Fire crackers	40 packs	1'12	95	120
Rattan chairs	137-2	2	5	3'6
Slating, size 2	40 yards	3'6	11	14
" "	"	4'8	8	10-4
" "	"	6'0	6	8
" "	"	7'2	5-6	7

Foreign Merchants.—These consist of British, American, French, Dutch, Danish, Swedish, Spanish, and Portuguese, with Parsee and Indian Mahomedan British subjects. The Americans, French, and Dutch have each consular agents recognised by the Imperial Government. The same privileges have been, or are to be, conceded to all foreigners that have been granted to the English.

Rates of Commission in China, agreed upon in November 1831, and revised by the Chamber of Commerce, March 1838.

- On all sales of opium, cotton, cochineal, camphor, barres, birds' nests, diamonds, and other precious stones, pearls, ships and houses - 3 per cent.
- On sales of all other goods - 5 "
- On returns, if in goods - 2 1/2 "
- On returns, if in treasure, bullion, or bills - 1 "
- On purchases, not being returns for goods sold:
  - Of raw silk - 5 "
  - Of manufactured silk - 5 "
  - Of all other goods - 5 "
- On inspecting teas, whether for returns or otherwise, an additional charge of - 1 "
- On sale, purchase, or shipment of bullion - 1 "
- On drawing, sale, or negotiation of bills when not involving responsibility as drawer or indorser - 1 "
- On drawing, sale, or negotiation of bills when guaranteed by the agent as drawer or endorser, and not covered by adequate security - 2 1/2 "
- On purchasing bills, or effecting remittance by bills, of the agent or otherwise - 1 "
- On negotiating loans or respondentia - 2 "
- On guaranteeing bills, bonds, or other engagements - 2 1/2 "
- On guaranteeing sales when especially required without including responsibility for remittances - 2 1/2 "
- On guaranteeing both sales and remittance of proceeds - 1 "
- On bills of exchange, returned noted, or protested - 1 "
- On letters of credit for mercantile purposes - 2 1/2 "
- On all advances of money for purposes of trade, whether the goods are consigned to the agent or not, and where a commission of 5 per cent. is not charged - 2 1/2 "
- On entering goods or superintending the fulfilment of contracts, where no other commission is derived - 2 1/2 "
- On all goods, treasure &c. consigned, and afterwards withdrawn or sent to auction, and for goods consigned for additional delivery to others - 1/2 commission
- On procuring freight, or advertising as agents for

- owners or commanders, on the amount of freight, whether the same passes through the hands of the agent or not - 5 per cent.
- On receiving inward freight - 1 "
  - On ships' disbursements - 2 1/2 "
  - On chartering ships for other parties - 2 1/2 "
  - On effecting insurance, or writing orders for insurance - 1/2 "
  - Settling insurance losses, total or partial, and on procuring return of premium - 1 "
  - Debts, where a process at law or arbitration is necessary, 2 1/2 per cent.; and if recovered - 5 "
  - Collecting house rent - 2 1/2 "
  - Acting for the estates of persons deceased, as executors or administrators - 5 "
  - The management of the estates of others, on the amount received - 2 1/2 "
  - All cash receipts, not serving for the purchase of goods, and not otherwise specified above - 1 "
  - Shroffing - 2 per mil.
  - Transshipping goods - 1 per cent.
  - All advances not punctually liquidated, the agent to have the option of charging a second commission, as upon a fresh advance, provided the charge does not occur twice in the same year - 1 "
  - At the option of the agent, on the amount debited or credited within the year, including interest, and excepting only items on which a commission of 5 per cent. has been charged - 1 "

N.B.—This charge not to be applied to paying over a balance due on an account made up to a particular period, unless where such balance is withdrawn without reasonable notice.

Port Charges are fixed under the new treaty at 4 mace per ton for vessels of more than 150 tons burden, and at 1 mace per ton for vessels of less than 150 tons.

The Act 6 & 7 Vict. c. 80 authorises the superintendent of the trade of her Majesty's subjects in China, being at the same time governor of Hong Kong, to issue, with the advice of the legislative council of the island, laws and ordinances for the government of British subjects in China, or within 100 miles of the same. Laws and ordinances so issued are to be laid before Parliament.

TRADE OF UNITED KINGDOM ETC. WITH CHINA. Value of the Exports from British India to China in the Fifteen Years 1853-65.

Year	Value (£)	Year	Value (£)
1853	7,651,815	1860	10,128,416
1854	7,224,778	1861	11,489,966
1855	6,663,578	1862	10,662,369
1856	6,663,001	1863	12,172,527
1857	8,016,881	1864	10,506,525
1858	9,500,808	1865	10,874,652
1859	11,214,260		

This account includes Japan for the last year.

Account of the Quantities and Values of the Principal Articles imported into the United Kingdom from China, inc. Hong Kong, in each of the 5 Years ending with 1863.

Principal and other Articles	Quantities				
	1862	1863	1861	1865	1866
Canes or sticks, of all sorts value	—	—	—	—	—
Cassia lignea lbs.	22,487	138,355	298	99,123	—
China or Porcelain ware	—	2,056	917	858	695
Cotton, raw	1,226	145,174	459,847	209,946	29,713
piece goods	—	1,300	1,262	—	308
Galls	—	—	1,666	3,172	5,634
Ginger, preserved	148,319	55,689	175,889	186,578	146,087
Hemp	6,238	17,234	8,914	873	3,969
Japaned and Lacquered ware	118	387	—	—	138
Mats and matting value	—	—	126	99	—
Rhubarb lbs.	142,371	116,343	55,628	74,310	44,821
Silk, raw	3,263,575	1,679,531	450,484	126,485	91,637
waste, knobs or bunks	1,879	5,039	—	2,052	5,651
thrown	3,162	720	—	—	—
Silk manufactures	—	—	—	—	—
Crape shawls, scarfs, and handkerchiefs, and crape in pieces	5,292	5,677	5,142	6,751	15,129
Pongees and Pongee handkerchiefs	15,889	7,951	2,227	—	922
Unenumerated	—	—	—	54	—
Sugar, unrefined	7,528	10,589	11	4	—
Tea	105,315,950	127,130,187	112,129,072	109,805,895	127,486,120
Tin	—	35	3,318	—	—
Wax, vegetable	—	1,681	—	141	—
Wool, sheep and lambs'	342,875	429,617	142,161	9,426	50,008
All other articles	—	—	—	—	—
Total	—	—	—	—	—
Computed Real Value					
	1862	1863	1861	1865	1866
Canes or sticks, of all sorts value	£ 8,312	£ 15,981	£ 12,810	£ 7,970	£ 6,559
Cassia lignea lbs.	936	5,482	12	4,116	—
China or Porcelain ware	—	—	11,376	9,242	8,476
Cotton, raw	11,579	1,125,220	3,671,504	1,061,346	128,798
piece goods	101,756	210	2,403	—	290
Galls	5,610	—	5,355	9,753	11,538
Ginger, preserved	4,953	1,747	7,202	8,173	6,288
Hemp	5,219	28,006	4,741	821	7,983
Japaned and Lacquered ware	2,738	4,205	1,716	1,150	1,239
Mats and matting value	5,140	1,838	4,128	6,777	8,555
Rhubarb	19,925	16,128	10,368	25,024	14,043
Silk, raw	3,028,009	1,614,385	461,980	161,952	110,719
waste, knobs or bunks	18,091	51,036	26,768	64,795	59,941
thrown	3,162	684	—	—	—
Silk manufactures	—	—	10,070	14,730	22,388
Crape shawls, scarfs, and handkerchiefs, and crape in pieces	4,237	10,068	—	—	—
Pongees and Pongee handkerchiefs	14,268	6,503	1,862	74	1,126
Unenumerated	2,219	2,069	2,013	1,176	925
Sugar, unrefined	8,165	10,192	17	—	—
Tea	8,418,194	9,869,322	8,386,629	9,081,486	10,178,070
Tin	—	199	13,322	—	—
Wax, vegetable	—	3,463	—	737	—
Wool, sheep and lambs'	10,958	13,277	5,558	353	1,261
All other articles	28,323	46,998	27,722	39,318	39,251
Total	11,699,964	12,826,757	12,667,190	10,499,034	10,620,452

Account of the Quantities and Values of the Principal Articles of British Produce and Manufactures exported from the United Kingdom to China, including Hong Kong, in each of the 5 Years ending with 1866.

Principal Articles	Quantities					Declared Real Value				
	1862	1863	1861	1865	1866	1862	1863	1861	1865	1866
Apparel and haberdashery val.	—	—	—	—	—	21,358	38,550	26,385	12,577	17,427
Arms and ammunition	—	—	—	—	—	23,226	69,273	59,399	14,438	29,623
Beer and ale	5,074	10,335	5,713	3,790	4,618	20,455	42,265	25,244	14,459	20,299
Coals, cinders, and cain	—	—	—	—	—	—	—	—	—	—
Cotton yarn	180,369	107,884	79,369	54,079	51,761	50,588	53,279	35,102	30,377	38,358
Cottons, entered by the yard	939,966	13,949	168,749	218,120	237,800	30,735	1,536	24,041	24,762	25,359
Cottons, entered at value	60,618,421	30,750,941	50,907,843	88,867,557	111,900,987	953,803	778,162	1,402,756	1,061,102	3,316,724
Hardware and cutlery, unenumerated	1,669	4,121	4,016	1,580	587	9,858	22,954	18,972	8,472	5,161
Iron, wrought and unwrought	6,237	11,579	10,625	7,504	5,620	68,223	132,058	118,057	60,101	56,576
Lead and shot	4,230	7,610	3,619	1,241	2,326	91,439	161,191	78,300	36,571	80,925
Pickles and sauces val.	—	—	—	—	—	7,529	22,917	11,399	36,571	80,925
Provisions, unenumerated	—	—	—	—	—	9,621	24,056	15,147	6,352	9,257
Woolens, entered by the yard	4,966,551	8,482,856	13,613,551	16,245,721	20,306,251	490,248	732,611	1,018,228	1,305,318	1,381,817
Woolens, entered at value	—	—	—	—	—	4,501	8,448	4,131	1,210	1,700
All other articles	—	—	—	—	—	215,204	321,510	227,153	114,762	121,500
Total	—	—	—	—	—	12,024,118	24,416,705	3,022,511	3,623,395	5,520,000

Quantities and Values

Articles	Quantities	Values
Cotton piece goods	—	—
Drills, American	—	—
Shirtings, grey	—	—
white	—	—
blue	—	—
T cloth, 36 yards	—	—
white	—	—
blue	—	—
Cottons, dyed, figured, p	—	—
Blue moties	—	—
Dumacks	—	—
Printed	—	—
Muslins	—	—
Handkerchiefs	—	—
Velveteens	—	—
Velvets	—	—
Yarn	—	—
Cotton, Bombay, raw	—	—
Woolen manufactures	—	—
Hosiery	—	—
Broad cloths	—	—
Camlets	—	—
Fustians	—	—
Habit and medium cloth	—	—
Lanings	—	—
Long sils	—	—
Spanish stripes	—	—
Woolen and cotton mixt	—	—
Iron manufactures	—	—
Lead	—	—
Quicksilver	—	—
Tin	—	—
Opium, Malwa	—	—
Patna	—	—
Chinese cargoes &c., chiefly trade in foreign bottoms	—	—
Total of principal and other a	—	—

\* Rate of Exchange

Quantities and Value of

Articles	Quantities	Values
Tea, black	—	—
green	—	—
Silk, raw	—	—
thrown	—	—
coarse	—	—
refuse	—	—
sarcenet	—	—
Cotton, Bombay	—	—
China	—	—
Chinese cargoes &c., chiefly of and carrying trade in foreign bottoms	—	—
Total	—	—

\* Rate of Exchange

Quantities of Black and

Countries to which Exported	Black	Values
Great Britain	—	—
Australia	—	—
Bombay	—	—
Hong Kong	—	—
United States	—	—
South America	—	—
Other countries	—	—
Total	—	—

Number and Tonnage of Vessels entered at the Port of

Nationality of Vessels	1862	
	Vessels	Tons
British	108	58,390
River steamers and launches	—	118
American	48	39,782
River steamers	—	120,353
Other countries	59	16,265
Total	723	253,116

Quantities and Value of the Principal and other Articles Imported at the Port of Canton in each of the Years 1862-64.

Principal Articles	1862		1863		1864	
	Quantities	Value	Quantities	Value	Quantities	Value
Cotton piece goods :		dols.		dols.		dols.
Drills, American	30,965	162,566	2,196	15,391	1,562	29,412
Shirtings, grey	126,229	480,714	48,829	195,353	41,216	221,080
"    white	49,728	154,343	41,695	192,876	42,376	201,295
T cloths, 36 yards	1,870	9,778	6,035	31,062	—	—
"    "    "    "	30,601	47,382	28,402	76,623	22,359	87,173
"    "    "    "	21,927	73,252	30,100	85,392	14,457	65,055
Cottons, dyed, figured, plain	—	—	—	—	—	—
Blue mottles	—	—	4,272	12,696	716	6,155
Damasks	5,667	22,092	3,006	22,110	—	—
Printed	11,382	33,402	15,812	41,018	6,980	20,212
Muslins	510	1,984	1,984	2,503	31	41
Handkerchiefs	28,057	33,071	27,121	35,786	29,734	37,168
Yvettes	1,711	11,277	4,813	63,715	1,308	15,080
Veilves	1,060	9,510	2,625	22,222	1,022	11,212
Yarn	20,334	1,016,713	14,819	1,106,171	9,501	779,156
Cotton, Bombay, raw	35,928	718,565	488	10,022	—	—
Woolen manufactures :						
Blankets	3,510	21,060	3,849	21,199	3,615	19,890
Broad cloths	157	8,732	118	8,436	1,568	89,571
Camlets	4,417	73,082	6,649	117,085	4,982	57,073
Flannels	271	6,000	352	7,094	147	3,087
Habit and medium cloths	566	21,621	1,196	66,014	—	—
Lastings	5,411	56,656	4,641	71,755	4,050	68,850
Long cels	8,000	79,740	11,863	106,143	6,724	57,154
Spanish stripes	9,001	177,427	7,448	111,533	6,793	122,274
Woolen and cotton mixtures	8,769	54,806	5,769	39,402	11,530	109,830
Iron manufactures	43,254	129,765	29,291	844,221	24,021	61,055
Lead	25,906	216,776	60,655	408,269	51,853	337,548
Quicksilver	3,336	39,780	4,034	169,877	3,746	261,225
Tin	2,214	62,963	810	27,559	1,285	35,989
Opium, Malacca	1,668	1,213,979	1,775	1,193,655	—	772,063
"    Patna	2,216	1,137,458	2,036	1,096,579	—	530,803
Chinese cargoes &c., chiefly coast and carrying trade in foreign bottoms	—	4,176,656	—	3,973,162	—	4,158,991
Total of principal and other articles	{ dols.	10,260,298	{ dols.	9,565,485	{ dols.	8,531,192
	{ £	2,412,515*		2,281,524†		2,033,532‡

\* Rate of Exchange, 4s. 7d.

† 4s. 9½d.

‡ 4s. 9½d.

Quantities and Value of the Articles (exclusive of Treasure) Exported from the Port of Canton in each of the Years 1862-64.

Articles	1862		1863		1864	
	Quantities	Value	Quantities	Value	Quantities	Value
Tea, black	25,589,332	6,170,923	18,057,591	4,131,156	10,943,186	2,571,925
"    green	6,504,702	1,689,491	6,419,860	1,527,812	3,006,738	772,753
Silk, raw	6,091	2,528,067	5,408	2,235,108	2,753	1,153,593
"    thrown	—	—	496	125,851	12	52,415
"    coarse	5,215	3,11,926	3,914	371,001	3,400	329,880
"    refuse	794	35,714	693	31,507	771	31,696
"    coccons	—	—	—	—	—	—
Cotton, Bombay	38,773	775,491	938	25,559	833	27,088
"    China	—	—	—	—	—	—
Chinese cargoes &c., chiefly of the coast and carrying trade in foreign bottoms	—	6,230,028	—	7,628,888	—	4,875,275
Total	{ dols.	17,742,591	{ dols.	16,083,082	{ dols.	9,813,711
	{ £	4,060,746*		3,862,039†		2,261,421‡

\* Rate of Exchange, 4s. 7d.

† 4s. 9½d.

‡ 4s. 9½d.

Quantities of Black and Green Teas Exported to various Countries from the Port of Canton in each of the Years 1862-64.

Countries to which Exported	1862			1863			1864		
	Black lbs.	Green lbs.	Total lbs.	Black lbs.	Green lbs.	Total lbs.	Black lbs.	Green lbs.	Total lbs.
Great Britain	22,604,599	3,139,566	25,744,165	14,715,519	3,048,033	17,763,552	9,234,065	1,473,311	10,707,410
Australia	—	—	—	—	—	—	—	—	—
Bombay	1,650,466	976,577	2,627,413	1,511,266	1,216,262	2,726,528	857,778	379,360	1,237,138
Hong Kong	624,566	1,831,063	2,455,449	225,208	1,538,509	1,763,517	490,791	871,037	1,361,848
United States	—	—	—	—	—	—	—	—	—
South America	—	—	—	—	—	—	—	—	—
Other countries	711,501	357,496	1,068,997	1,606,398	787,216	2,393,614	360,551	222,977	613,528
Total	25,589,332	6,504,702	31,894,034	18,057,591	5,419,820	23,477,411	10,943,186	3,006,738	13,949,924

\* By river steamers, lorchas, and Chinese boats.

Number and Tonnage of Vessels of various Nations entered at the Port of Canton in 1862-64.

Nationality of Vessels	1862		1863		1864	
	Ves. sels	Tons	Ves. sels	Tons	Ves. sels	Tons
British	108	58,390	96	57,425	99	50,762
River steamers and lorchas	118	18,154	167	29,268	12	8,352
American	48	39,782	27	19,265	9	7,783
River steamers	300	120,555	420	172,268	617	230,251
Other countries	59	16,265	37	29,000	110	31,809
Total	723	253,116	867	300,220	847	352,719

Quantities of the different kinds of Silk Exported from the Port of Canton in each of the Years 1862-64.

Description of Silk	1862	1863	1864
	lbs.	lbs.	lbs.
Raw	799,661	719,264	363,235
Thrown	16,992	39,562	16,369
Coarse	694,212	520,568	452,753
Refuse	105,808	92,568	102,543
Coccons	—	—	—
Total	1,618,010	1,371,762	934,990

From this table it will be seen that the silk

trade is declining. The export of tea fell from 263,000 piculs in 1860 to 109,742 piculs in 1865.

#### Consular Fees.

For every declaration made before the consul in forms H. C. F. H. and L. in the schedule of the Merchant Shipping Act	£	s.	d.
Endorsing a memorandum of change of master upon certificate of registry	0	2	0
For granting a provisional certificate of registry	0	10	0
For revoking a mortgage of a ship	0	10	0
Transfer of do.	0	7	0
Discharge of do.	0	7	6
Rate of ship	0	10	0
Inspection of register	0	1	0
Entry seaman engaged before consul	0	2	0
Alteration in agreement	0	2	0
Seaman discharged	0	2	0
Desertion certified	0	2	0
Attesting seaman's will	0	2	0
Examination of provisions and water, to be paid by party in default	0	10	0
Salvage bond (17 & 18 Viet. c. 104 s. 488)	2	0	0
Disbursements for distressed seamen	2	0	0
In all these cases the consul's interposition is required by law.			

In matters of voluntary jurisdiction, the following fees are claimable:—

	£	s.	d.
Noting protest, with certified copy if needed	0	5	0
Order of survey, with do.	0	5	0
Extending a protest with do.	0	5	0
If beyond 200 words, for each additional 100 words	3	2	6
Preparing and attesting botomy or arbitration bond	1	0	0
Attesting do, when not prepared by consul	0	5	0
Attendance at shipwreck out of consular office with travelling expenses	1	1	0
Attending valuation of goods under 200l.	0	10	6
Do, if above, for each day's attendance	1	1	0
Attending sale of goods under 200l.	1	1	0
Do, if above, for each day's attendance	2	2	0
Certificate of due landing of goods from United Kingdom	0	9	0
Bill of health	0	10	0
Vide of passport	0	2	0
Opening will of British subject (not being seaman)	1	1	0
Management of property of do.	2	5	0
Registration of documents	0	2	6
If exceeding 100 words, for every 100 additional	0	0	6
Every certified copy of document not before consul need	0	2	6
If beyond 100 words, for each 100	0	0	6
Administering oath and attesting signature, if required	0	2	0
Attesting signature	0	2	4
Attesting official seal to any document not previously named	0	5	0

No fee to be taken for custody of or endorsement on ship's articles and papers deposited with the consul in accordance with 17 & 18 Viet. c. 104 s. 279.

Where the fee is fixed in preceding tables for any particular act, no additional fee to be demanded for signature, attestation, or annexing seal of office.

The above fees, if not paid in English money, are to be calculated at the current rate of exchange.

The payment of our consuls by fees is much, and we believe justly, objected to at Canton. It is a bad practice anywhere, and especially so in China.

A Chinese ship or junk is seldom the property of one individual. Sometimes 40, 50, or even 100 different merchants purchase a vessel, and divide her into as many different compartments as there are partners; so that each knows his own particular part in the ship, which he is at liberty to fit up and secure as he pleases. The bulk-heads, by which these divisions are formed, consist of stout planks, so well caulked as to be completely watertight. A ship thus formed may strike on a rock and yet sustain no serious injury; a leak springing in one division of the hold will not be attended with any damage to articles placed in another; and from her firmness she is qualified to resist a more than ordinary shock. A considerable loss of stowage is, of course, sustained; but the Chinese exports generally contain a considerable value in small bulk. It is only the very largest class of junks that have so many owners; but even in the smallest class the number is very considerable.

Population of China.—For some remarks on the

conflicting accounts and theories that have been put forth with respect to the population of this empire, the reader is referred to the *Geographical Dictionary*, art. 'China.'

CANVAS (Fr. toile à voile; Ger. segeltuch; Ital. canevazza, lona; Russ. parusnoo polotno, parusina; Span. lona). Unbleached cloth of hemp or flax, chiefly used for sails for shipping. Masters of ships used to be required to make entry of all foreign-made sails and cordage, not being standing or running rigging, in use on board their respective ships, under a penalty of 100*l*. But this and all other restrictions and regulations in regard to foreign canvas are now repealed. It had been the practice for a considerable period to grant bounties on the exportation of canvas or sail-cloth: these, however, finally ceased on the 1st of January, 1832. By an Act passed in the reign of Geo. IV. new sails were ordered to be stamped with the maker's name and place of abode; but this regulation was repealed by the 10 Geo. IV. c. 43 s. 9.

It is usually made in pieces or "bolts" from 24 to 30 inches wide, and 38 to 40 yards long. A bolt of navy canvas (always of the best quality) is about 40 yards long. Each bolt of canvas is numbered, to show its quality, and bolts 39 yards long and 24 inches broad ought to weigh, No. 1 quality, 46 lbs.; No. 2, 43 lbs.; No. 3, 40 lbs.; No. 4, 36 lbs.; No. 5, 33 lbs.; No. 6, 30 lbs.; No. 7, 27 lbs.; No. 8, 25 lbs.; No. 9, 23 lbs.; and No. 10, 21 lbs. The two last are uncommon. (Young's *Nautical Dictionary*.)

#### Prices of Sail-cloth paid by Trinity House.

	per yard	per d.	per q.
For sails, canvas No. 1	1865 - -	1	4
	1864 - -	1	5
	1865 - -	1	5

Falling 1*d*. per yard each number.

The price fixed for the value of imports of sails and sail-cloth in 1866 was 1*s*. per square yard.

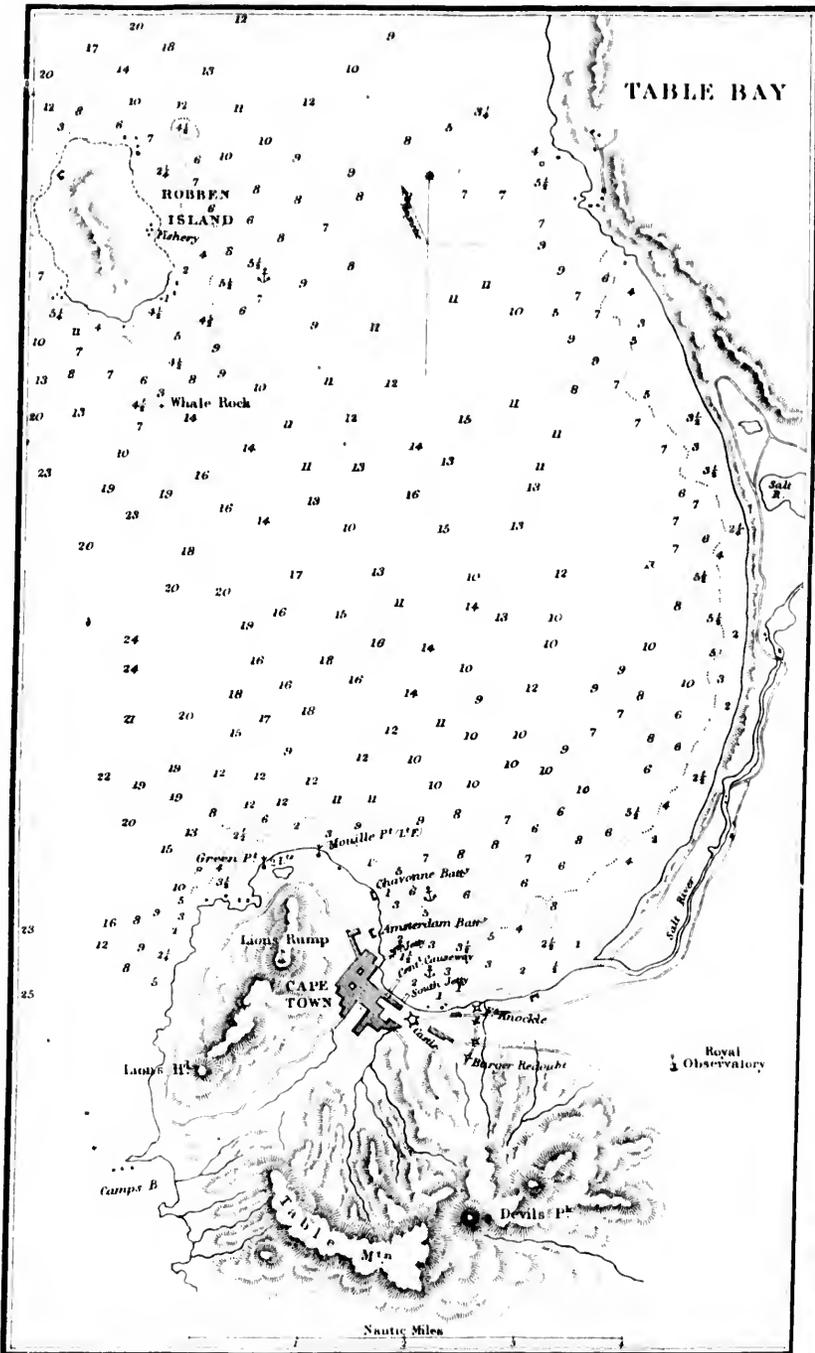
CAOUTCHOUC (Ger. federharz; Dutch, caustiek gom; Fr. caoutchouc; Ital. gomma elastica; Span. goma resina elastica). Caoutchouc, gutta, elastic, or India-rubber, are the general names for a substance now so well known, familiar, and important, that it seems matter for surprise that the latter half of the preceding century should have passed away before it was made known to Europe by memoirs read to a learned body: for the remainder of the century its extraordinary property of elasticity and the grotesque objects made by the Indians caused it to be met with in the cabinets of the curious; its general knowledge and use was confined to erasing marks of black lead pencil from paper, and in this country it received the common name of lead-eater. (Ure's *Dictionary*, by Hunt.)

The chief source of the 'India rubber' of commerce is the juice of several kinds of siphonia, and especially the *Siphonia elastica* of Central and South America. The largest quantity of caoutchouc is imported from Pará in Brazil.

Caoutchouc comes either in large flat pieces, or moulded on a framework of clay, in the shape of a bottle. The latter are formed by concreting successive layers of fresh juice on a clay mould. In order to facilitate the drying of these layers, the mass is exposed to smoke, which gives the substance a black colour. When it is not so treated, the mass is a yellowish white. It is said that acids, and especially alum, cause a more rapid coagulation, and that ammonia retards the process.

The properties of caoutchouc were first made known by Bouguer and La Condamine, who had been sent to Peru, by the Academy of Sciences in Paris, in order to measure a meridional arc in

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1736. The tree producing the substance was first described by Aublet in 1768.

The following are the importations of caoutchouc since 1851:—

Year	cwt.	Year	cwt.
1851	15,269	1861	43,030
1852	19,647	1862	57,831
1853	47,386	1863	69,703
1854	87,588	1864	63,649
1855	44,703	1865	71,047
1856	39,763	1866	71,329
1857	32,000	1867	74,176
1858	35,135		79,756
1859	21,311		

These figures indicate the increase in the use of this valuable material.

In a report by Messrs. Neumann & Co., and given in the 'Economist' in March 1866, the price of rubber is stated to be 2s. 2½d. per lb., or 100 per cent. higher than its price in 1857.

CAPERS (Fr. capres; Ger. kappern; Dutch, kappers; Ital. cappari; Span. alcapparas; Kusa. kapersit; Lat. capparis). The pickled buds of the *Capparis spinosa*, a low shrub, generally growing out of the joints of old walls, and the fissures of rocks, in most of the warm parts of Europe. Capers are imported into Great Britain from different parts of the Mediterranean—the best from Toulon in France. Some small salt capers come from Majorca, and a few flat ones from about Lyons. In 1866, 209,967 lbs. capers were imported, valued at 8,750l. In 1853 the duty of 6s. 4d. per lb. on their importation was reduced to 1½d. per ditto, and was repealed in 1860.

CAPE-TOWN. The capital of the British territory in South Africa, at the bottom of Table Bay, about 32 miles north from the Cape of Good Hope, and on the western side of the territory to which it gives its name; lat. 30° 55' 56" S., lon. 18° 21' E. The town was founded by the Dutch in 1650, and remained, with the territory subject to it, in their possession till it was taken by the British in 1795. It was restored to the Dutch by the Treaty of Amiens; but being again captured by the British in 1806, it was finally ceded to us in 1815. The streets are laid out in straight lines, crossing each other at right angles; many of them being watered by canals, and planted on each side with oaks. The population in 1842 amounted, according to the *Cape Almanac*, to 22,543, of whom about a third were blacks, and in 1856 according to the *Geographical Dict.* to 26,420. The town is Table Bay is capable of considerable strength, defended by a castle of considerable strength. Table Bay is exposed to the westerly winds, which, during the months of June, July, and August, throw in a heavy swell—a cause of many distressing accidents. This, in fact, is the great drawback upon Cape-Town, which in all other respects is most admirably fitted for a commercial station. At the proper season, however, or during the prevalence of the easterly monsoon, Table Bay is perfectly safe; while the cheapness and abundance of provisions, the healthiness of the climate, and above all its position, render it a peculiarly desirable resting-place for ships bound to or from India, China, Australia &c.

Port Instructions.—Art. 1. On the arrival of merchant vessels in Table Bay, a proper berth will be pointed out to the masters thereof by the port captain when he boards them; and no master of a merchant vessel shall shift his berth without permission from the port captain unless in case of extreme emergency, when he must report his having done so as early as possible at the Port-Office.

2. Should it be the intention of a master of a vessel to discharge or receive on board any considerable quantity of merchandise, a berth will be pointed out to him as close to the jetty or other

CAPE-TOWN

landing-place as the safety of the vessel and other circumstances will admit; and the master will then moor with two bower anchors, with an open hawse to the NNE., taking especial care, in so mooring, not to overlay the anchors of any other ship, or in any way to give the vessel near him a foul berth. Ships and vessels touching in Table Bay for water and refreshments alone may ride at single anchor in the outer anchorage; but in this case it is particularly recommended to veer out 80 or 90 fathoms, if they ride by a chain cable, as the liability of starting or fouling the anchor, or breaking the chain, will thereby be greatly lessened; and if riding by a rope or coir cable, to run out a stream or good kedge, to steady the ship; and in both cases the other bower anchor should be kept in perfect readiness to let go. When the vessel is properly moored with bower anchors or well secured with a bower and stream anchor, and with good cables, buoys, and buoy ropes, the master will then take the exact place of the ship by the bearings of 2 land-marks, and the depth of the water; and should accident occur, by which the vessel may drift from this situation, or lose her anchors, a good bearing and depth of water must be taken at the time, and the same must be notified in writing to the port captain. It is particularly recommended that vessels be kept as snug as possible, to counteract the effects of the periodical winds, which at times blow with considerable violence.

Cape Colony, extending as it does from Cape-Town on the west to the Keiskamma River on the east, is of very great extent, and contains every variety of soil, from the richest level land to the wildest mountain, and traces destitute of even the appearance of vegetation. The climate fluctuates between the two extremes of rain and drought. On the whole, its advantages and disadvantages seem to be pretty equally balanced, and the prospects which it holds out to the industrious emigrant, if not very alluring, are certainly not discouraging.

Population.—According to the official returns, the population of the Cape Colony in 1866 amounted to 496,381, of whom 314,789 were coloured.

Produce.—Large quantities of corn of a very good description are produced in the immediate neighbourhood of Cape-Town, and in other parts of the colony; but agriculture is crippled by the Dutch law of succession, which, by dividing a man's property equally among his children, hinders the accumulation of capital in masses, and the formation of proper farming establishments. (Thomson's *Travels in Southern Africa*, p. 324.)

Natal is the principal market for the corn of the Cape, and efforts are being made to improve its harbour. The exports of wool have increased with astonishing rapidity, having risen from 113,077 lbs. in 1833, to 1,754,757 lbs. in 1843, to above 16,000,000 lbs. in 1858, and in 1865 to 32,806,246 lbs., valued when exported at 1,681,565l. It is now by far the most important article sent from the colony. The native breed of sheep is very inferior: its fleece is worth nothing, and it is remarkable only for the size of the tail, which sometimes weighs 20 lbs. But fine-woolled Spanish merinos, Saxon and English sheep succeed remarkably well, and their wool fetches a high price. The eastern district of Albany is especially suitable for sheep.

Large quantities of wine, and of what is called brandy, are produced at the Cape; but, with the exception of Constantia, they are very inferior. The effect of allowing the importation of Cape wines into the United Kingdom at a comparatively low duty is, not to occasion their direct consumption, but to cause them to be employed as a con-



Account of the Quantities and Values of the Principal Articles, the Produce of the Colony, exported  
 thence to the United Kingdom in each of the 5 Years ending with 1866.

Principal and other Articles	Quantities				
	1862	1863	1864	1865	1866
Alces - - - lbs.	421,015	410,305	474,763	731,777	791,594
Arrowroot - - - cwts.	1,048	1,136	1,533	1,250	9,465
Coffee - - - tons	18,560	37,157	49,199	86,168	401,213
Copper ore - - - tons	2,960	3,153	2,381	4,008	4,178
Cotton, raw - - - cwts.	6,546	34,094	1,707	1,111	4,815
Feathers, ostrich - - - lbs.	8,880	11,215	15,092	17,892	17,995
Hides, not tanned - - - cwts.	14,181	13,161	14,434	14,019	15,999
Horns, horns, tips, and pieces of horn - - - tons	63	66	64	87	66
Indigo - - - tons	197	66	66	3784	1,275
Oil, train or blubber - - - tons	11	39	47	64	164
Opium, resin or head matter - - - tons	—	40	154	8	—
Petroleum - - - "	—	—	—	—	637
Rice, not rough nor in the hulk - - - cwts.	685	5,839	—	11,270	24,023
Rough or in the hulk - - - qrs.	—	—	—	—	—
Skins, goat, undressed - - - tons	223,991	218,094	184,762	366,874	304,510
Seal - - - "	8,305	3,199	1,481	4,123	5,396
Sheep, undressed - - - cwts.	643,956	519,741	551,779	980,262	761,914
Sugar, unrefined - - - "	1,139	17,430	69,294	54,735	31,411
Teeth, elephants' - - - "	1,194	2,232	1,110	896	263
Tobacco, manufactured - - - lbs.	148	418	5,787	225,738	863
Wine - - - gallons	49,153	105,167	29,175	97,303	23,686
Wool, sheep and lambs' - - - lbs.	18,930,886	20,166,617	10,830,305	29,220,523	29,429,000
All other articles - - - value	—	—	—	—	—
Total - - - "	—	—	—	—	—
Computed Real Value					
	1862	1863	1864	1865	1866
Alces - - - lbs.	4,093	8,823	9,529	12,865	12,413
Arrowroot - - - cwts.	2,957	3,241	3,992	3,801	7,801
Coffee - - - tons	611	1,080	1,387	2,889	12,851
Copper ore - - - tons	74,393	80,924	110,779	96,628	75,574
Cotton, raw - - - cwts.	35,436	196,018	15,137	8,017	29,806
Feathers, ostrich - - - lbs.	41,553	108,918	139,234	142,261	105,913
Hides, not tanned - - - cwts.	21,413	27,149	31,622	23,900	25,949
Horns, horns, tips, and pieces of horn - - - tons	2,176	3,613	1,570	2,099	1,871
Indigo - - - cwts.	—	—	1,376	—	7,658
Oil, train or blubber - - - tons	447	1,789	2,114	3,795	7,911
Opium, resin or head matter - - - tons	—	—	10,620	—	—
Petroleum - - - "	—	—	—	—	9,424
Rice, not rough nor in the hulk - - - cwts.	375	3,528	—	7,153	13,573
Rough or in the hulk - - - qrs.	—	—	—	—	—
Skins, goat, undressed - - - tons	35,419	41,295	51,353	62,803	46,653
Seal - - - "	7,229	1,889	713	2,082	5,375
Sheep, undressed - - - cwts.	63,608	50,016	53,961	88,975	79,486
Sugar, unrefined - - - "	1,853	31,232	76,741	58,390	32,260
Teeth, elephants' - - - "	27,193	69,371	35,415	28,927	19,779
Tobacco, manufactured - - - lbs.	7	21	331	9,411	35
Wine - - - gallons	5,853	10,610	2,744	8,057	2,010
Wool, sheep and lambs' - - - lbs.	1,151,312	1,413,152	1,424,798	1,837,383	2,179,509
All other articles - - - value	79,609	45,067	22,061	40,293	43,140
Total - - - "	1,517,851	1,919,843	1,975,873	2,145,485	2,719,323

But we should fall into the greatest error if we supposed that either the whole or even the greater portion of this produce was shipped from Cape-Town. On the contrary, Port Elizabeth, on the W. side of Algoa Bay, with an excellent harbour, being situated in the most fertile district of the colony, and the most suitable for the growth of wool, is become the centre of a considerable trade, its exports in some years having exceeded those of Cape-Town. The recent annexation of British Kaffraria, however, will no doubt increase the relative importance of Cape-Town. The following table shows the comparative commercial importance of the places referred to:—

Statement showing the Number and Tonnage of the Vessels that entered each of the undermentioned Ports of Cape Colony in 1863-65.

Ports	Entered					
	1863		1864		1865	
	Vessels	Tons	Vessels	Tons	Vessels	Tons
Cape Town	391	177,875	392	177,081	353	151,807
Port Beaufort	2	923	—	—	2	948
Mosel Bay	8	1,667	10	1,973	5	768
Simon's Town	37	20,934	49	26,991	42	27,094
Port Elizabeth	188	51,332	268	67,977	174	71,156
Port Alfred	—	—	—	—	1	159
Total	629	2,27,759	809	273,925	655	254,931
Coastwise:						
Cape Town	119	11,918	210	27,555	195	29,755
Port Beaufort	18	2,841	—	—	15	2,307
Mosel Bay	29	5,478	56	4,242	39	6,087
Simon's Town	19	3,967	19	3,917	21	4,377
Port Elizabeth	60	17,973	65	18,207	77	27,338
Total coastwise	245	41,777	350	54,551	347	66,924
Total	874	2,79,536	1,159	3,28,476	1,002	3,21,855

In the 5 years 1862-6 we exported to the Cape foreign and colonial produce and manufactures of the values of 113,315*l.*, 102,424*l.*, 108,825*l.*, 57,360*l.*, and 60,989*l.*

CUSTOM-HOUSE REGULATIONS, DUTIES, FEES ETC.

On Admission of a Ship to Entry, observe—

1. The ship's register must be lodged in the Custom-house until the vessel clear again for sea.
2. The manifest of the cargo on board for this place must be deposited there.
3. The cockets of cargoes shipped from any place in Great Britain or Ireland for this place must also be deposited there.

From the endorsement of such cockets an extract is to be made, which will show the contents of the different packages on board, and facilitate the making out of the entries.

4. In making out the declarations, the value by invoice of the different commodities must be given by the importer, in order to enable the Custom-house to estimate the duties payable, and to send in to Government, annually, the required statement of the total duties received upon the several articles imported.

In the clearing of a Ship outwards, observe—

1. The master must produce a certificate from the harbour-master that the tonnage duties of the port have been paid.
2. The export manifest must be examined with the permits granted, in order to ascertain whether packages have been shipped without a permit.

3. Export declarations must be sent in by the several shippers of the quality and value of goods or produce shipped by them, in order to ascertain the amount of the exports of the colony.

4. When Cape wine is shipped for exportation to England, affidavit of the particular description of such wine must be delivered, and a certificate granted, by the collector or comptroller of customs, to the master, of his having received such affidavit.

5. Manifests, in triplicate, of such goods as are shipped from the Cape for Great Britain, must be delivered signed and sworn to by the master, before the collector or comptroller.

The original of which is to be returned to the master to accompany the cargo.

The duplicate to be forwarded, by the first conveyance sailing subsequently to the vessel containing the original, to the commissioners of customs in England or Scotland respectively, as the case may happen.

And the triplicate, written on or covered with a stamp, to remain in an office copy.

N.B.—Ships taking in cargoes for other parts of the world are required to deliver only original and duplicate manifests.

6. When whale oil or whale bone is shipped from the Cape for England, the proprietor of the whale fishery is to make oath before the collector or comptroller that the same were bonâ fide the produce of fish, or creatures living in the sea, actually taken and caught wholly by her Majesty's subjects usually residing in this colony; and the collector or comptroller is to grant a certificate under his hand and seal to the master, testifying that such oath hath been made before him.

7. When salted seal skins are shipped from the Cape for England, the shipper is to make oath before the collector or comptroller that the same are really and bonâ fide the skins of seals taken and caught on the coasts appertaining to the Cape of Good Hope, wholly by her Majesty's subjects usually residing in this colony; and that all the salt used in the curing or preserving of the same was not made in, or exported from, Great Britain or Ireland; and the collector or comptroller is to grant a certificate to the master accordingly.

8. The original manifest, and a copy thereof, of ships touching at the Cape of Good Hope, with cargoes from the eastward for England, to be delivered and sworn to by the master before the collector or comptroller. The original to be returned to the master, and the copy forwarded from the Custom-house to the commissioner of customs.

9. If any part of such cargo shall be discharged at the Cape of Good Hope, the collector or comptroller is to endorse upon the manifest the part of the cargo so discharged, and verify the same.

*A Table of Duties of Customs payable on Goods, Wares, and Merchandise imported into the Colony of the Cape of Good Hope, per Act I. 1855.*

Goods	Duty
	£ s. d.
Alc or beer, viz.:-	
in bottles - - - - - gal.	0 3 6
not in bottles - - - - - gal.	0 2 0
Cheese - - - - - cwt.	10 0 0
Cinnamon or cassia - - - - - lb.	0 3 6
Cloves - - - - - lb.	0 4 0
Coffee - - - - - cwt.	0 12 6
Flour, wheaten - - - - - bar. of 196 lbs.	0 3 0
Fruits, dried, viz.:-	
currants, raisins, or figs - - - - - cwt.	0 5 0
Ginger, viz.:-	
dry - - - - - lb.	0 0 1
preserved or chow-how - - - - - lb.	0 0 1
Gunpowder - - - - - lb.	0 0 6
Gun, or gun-barrels - - - - - bar.	1 0 0
Mice - - - - - lb.	0 0 9
Meat, salted or cured - - - - - cwt.	0 5 0
Nutmegs - - - - - lb.	0 6 0
Pepper - - - - - cwt.	0 10 0
Pistols, or pistol-barrels - - - - - each	0 10 0
Rice - - - - - cwt.	0 2 0
Spirits of all sorts, not exceeding the strength of proof by Nyke's hydrometer, and so in proportion for any greater strength - - - - - gal.	0 3 0

Goods	Duty
	£ s. d.
Liqueurs, cordials, or sweetened spirits - - - gal.	0 4 0
unrefined - - - - - cwt.	0 3 6
refined, or candy - - - - - cwt.	0 5 0
molasses - - - - - cwt.	0 2 0
Tea - - - - - lb.	0 0 6
Tobacco, viz.:-	
not manufactured - - - - - cwt.	1 8 0
manufactured (not cigars), or snuff - - - cwt.	2 16 0
cigars (at the option of the officers of customs) 1000 or the lb. - - - - - cwt.	0 12 0
Wine, viz.:-	
in bottles - - - - - gal.	0 2 6
not in bottles - - - - - gal.	0 2 0
Wood, unmanufactured - - - - - cubic foot	0 0 2
Goods not here, enumerated or described, nor otherwise charged with duty, and not prohibited to be imported into, or used in, the Colony of the Cape of Good Hope, for every 100l. value - - - - -	7 10 0

Foreign reprints of books, originally published in the United Kingdom, and there protected by copyright, may now (Act Col. Parl. No. 4, 1854) be imported here on paying an ad valorem duty of 20 per cent. on the bonâ fide value of such reprints.

FREE.

- Animals, living.
- Books and music printed.
- Bottles of common glass, imported full of spirits, wine, beer, or ale.
- Bullion or coin.
- Coals, coke, or patent fuel.
- Diamonds.
- Guano.
- Ice.
- Maps or charts.
- Pictures.
- Provisions or stores of every description, imported or supplied for the use of her Majesty's land or sea forces, when the customs duties shall not have been paid thereon.
- Seeds, bulbs, or plants.
- Specimens illustrative of natural history.
- Wine, imported or taken out of bond for the use of military officers serving on full pay in this colony or in British Kaffraria, and also for the use of officers of her Majesty's navy serving on board any of her Majesty's ships: subject, however, to such regulations as the governor shall think fit to make; and provided that if any such wines shall be subsequently sold in this colony, except for the use or consumption of any of her Majesty's military or naval officers serving as aforesaid, the same shall be forfeited, and be liable to seizure accordingly.

All articles of naval or military uniform or appointments imported by officers stationed in this colony, or British Kaffraria, for their own use.

Custom House Fees.—All fees abolished by Ordinance No. 6 of 1853.

Queen's Warehouse Rent.—A certain sum per week is charged upon goods, in proportion to their bulk and value.

Commission.—The following rates of commission are charged and allowed, namely:—

	Per cent.
1. On the net amount of all sales of goods by public sale, and on the gross amount of all other sales - - - - -	5
2. Goods consigned, and afterwards withdrawn - - - - -	2 1/2
3. On purchases effected from the proceeds of goods on which a commission has already been charged - - - - -	2 1/2
4. On all other purchases, or shipments of goods - - - - -	5
5. On the sale or purchase of ships, houses, or lands - - - - -	2 1/2
6. On ships' disbursements - - - - -	5
7. On procuring freight - - - - -	5
8. On collecting freight on ships bound to this place - - - - -	2 1/2
9. On guaranteeing bills or bonds by indorsement or otherwise - - - - -	2 1/2
10. On collecting debts without recourse to law - - - - -	2 1/2
11. On where legal proceedings are taken - - - - -	5
12. On effecting remittances by bills of exchange - - - - -	1
13. On the negotiation of bills - - - - -	1
14. On effecting insurances - - - - -	1
15. On the administration of estates - - - - -	5
16. On cash advances - - - - -	2 1/2
17. On the debtor and creditor sides of cash accounts, on which no other commission is charged - - - - -	1

Money.—Accounts are either kept in pounds, shillings, pence, and farthings, or in rix-dollars, schillings, and stivers.

The Treasury Revenue of Cape 275,559l. v the same 651,515l. Banks have been Cape of G with a pa African Ba with a pa Bank, esta 1847; and banks tran allow inter notes. Jo formed for and for othe Weights of in the pound of A 50 lbs, down which is reg

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1 silver = 8 of a penny  
 6 silver = 2 pence, or 1 schilling  
 8 schillings = 18 pence, or 1 rix-dollar

The Commissariat department grant bills on the Treasury at a premium of 1 1/2 per cent.

**Revenue and Expenditure.**—In 1865 the revenue of Cape Colony amounted to 499,812*l.*, of which 275,559*l.* was derived from the Customs. During the same year the expenditure amounted to 651,515*l.*

**Banks &c.**—Five joint-stock banking companies have been established in Cape Town, viz. the Cape of Good Hope Bank, established in 1837, with a paid up capital of 70,000*l.*; the South African Bank, established in the following year, with a paid-up capital of 60,000*l.*; the Colonial Bank, established in 1844; the Union Bank in 1847; and the Commercial Bank in 1854. These banks transact ordinary banking business, and allow interest on deposits, but the first only issues notes. Joint-stock companies have also been formed for conducting the business of insurance and for other purposes.

**Weights and Measures.**—The weights made use of in the Cape are derived from the standard pound of Amsterdam; and those assized are from 50 lbs. down to 1 loot, or the 32nd part of a pound, which is regarded as unity.

**Liquid Measure.**

16 Hasks = 1 anker,  
 4 ankera = 1 aam,  
 4 aams = 1 leaquet

**Corn Measure.**

4 schepels = 1 muid  
 10 muids = 1 load

107 schepeis=52 Winch. bushels, or 4 schepels=3 Imp. bushels, very neatly.

The muid of wheat weighs, at an average, about 110 lbs. Dutch, being somewhat over 196 lbs. English.

**Cloth and Long Measure.**

12 Rhyland inches = 1 Rhyland foot  
 27 ditto = 1 Dutch ell  
 141 ditto = 1 square foot  
 141 square feet = 1 rood  
 600 roods = 1 morgen

**Colonial Weights and Measures compared with those of England.**

**Weights.**

100 lbs. Dutch = nearly 109 lbs. English avoirdupois  
 100 lbs. English = nearly 92 lbs. Dutch

**Wine or Liquid Measure.**

1 Hask = 0,6 old gallon, or 4/946 Imperial gallons  
 1 anker = 94 " " 7/9 " "  
 1 aam = 38 " " 51 1/2 " "  
 1 leaquet = 152 " " 126 1/2 " "  
 1 pipe = 110 " " 91/6 " "

**Saldanha Bay**, in lat. 33° 6' S., long. 17° 58' 15" E., being 16 1/2 leagues North of Cape-Town, is one of the best and most commodious harbours in the world. It is perfectly safe at all seasons.

Besides the *Cape Almanac* for 1865, one of the best of that class of publications, and the other authorities referred to, we have derived part of the above details from the *Geographical Dictionary*, the papers of the Board of Trade &c.

**CAPITAL.** In Political Economy, comprises those portions of the produce of industry that may be directly employed either to support human beings or to assist in production. (*Principles of Political Economy*, 5th ed. p. 47.) But in commerce, and as applied to individuals, capital is understood to mean the sum of money which a merchant, banker, or trader adventures in any undertaking, or which he contributes to the common stock of a partnership. It signifies likewise the fund of a trading company or corporation; in which sense the word *stock* is generally added to it. Thus we say the *capital stock* of the Bank &c.

The profit derived from any undertaking is estimated by the *rate* which it bears to the capital that was employed.

**CAPSICUM.** [PEPPER.]

**CARAT.** [COINS; DIAMONDS; WEIGHTS AND MEASURES.]

**CARAVAN.** An organised company of merchants, or pilgrims, or both, who associate together in many parts of Asia and Africa, that they may travel with greater security through deserts and other places infested with robbers, or where the road is naturally dangerous. The word is derived from the Persian *hervan*, or *cārvān*, a trader or dealer. (Shaw's *Travels in the Levant*, p. 9, 4toed.)

Every caravan is under the command of a chief or aga (*caravan-bachi*), who has frequently under him such a number of troops or forces as is deemed sufficient for its defence. When it is practicable, they encamp near wells or rivulets, and observe a regular discipline. Camels are used as a means of conveyance, almost uniformly, in preference to the horse or any other animal, on account of their wonderful patience of fatigue, eating little, and subsisting 3 or 4 days or more without water. There are generally more camels in a caravan than men. [CAMEL.]

The commercial intercourse of Eastern and African nations has been principally carried on, from the remotest period, by means of caravans. During antiquity the products of India and China were conveyed either from Suez to Rhinocellura, or from Bussorah, near the head of the Persian Gulf, by the Euphrates, to Babylon, and thence by Palmyra, in the Syrian desert, to the ports of Phœnicia on the Mediterranean, where they were exchanged for the European productions in demand in the East. Sometimes, however, caravans set out directly from China, and, occupying about 250 days in the journey, arrived on the shores of the Levant, after traversing the whole extent of Asia. (Gibbon, vol. vii. p. 93.) The formation of caravans is, in fact, the only way in which it has ever been possible to carry on any considerable internal commerce in Asia or Africa. The Governments that have grown up in those continents have seldom been able, and seldom indeed have they attempted, to render travelling practicable or safe for individuals. The wandering tribes of Arabs have always infested the immense deserts by which they are intersected; and those only who are sufficiently powerful to protect themselves, or sufficiently rich to purchase an exemption from the predatory attacks of these freebooters, can expect to pass through territories subject to their incursions without being exposed to the risk of robbery and murder.

Since the establishment of the Mohammedan faith, religious motives, conspiring with those of a less exalted character, have tended to augment the intercourse between different parts of the Eastern world, and to increase the number and magnitude of the caravans. Mohammed enjoined all his followers to visit, once in their lifetime, the *Caaba*, or square building in the temple of Mecca, the immemorial object of veneration amongst his countrymen; and in order to preserve continually upon their minds a sense of obligation to perform this duty, he directed that, in all the multiplied acts of devotion which his religion prescribes, true believers should always turn their faces towards that holy place. In obedience to this precept large caravans of pilgrims used to assemble annually in every country where the Mohammedan faith is established; and though, owing either to a diminution of religious zeal, or the increasing difficulties to be encountered in the journey, the number of pilgrims has of late

years declined greatly, it is still very considerable. Few, however, of the pilgrims are actuated only by devotional feelings. Commercial ideas and objects mingle with those of religion; and it redounds to the credit of Mohammed that he granted permission to trade during the pilgrimage to Mecca, providing at the same time for the temporal as well as the lasting interests of his votaries. 'It shall be no crime in you if ye seek an increase from your Lord by trading during the pilgrimage.' (Sale's *Koran*, c. ii. p. 36, ed. 1764.)

The numerous camels of each caravan are loaded with those commodities of every country which are of easiest carriage and readiest sale. The holy city is crowded during the month of Dhalhaja, corresponding to the latter part of June and the beginning of July, not only with zealous devotees, but with opulent merchants. A fair or market is held in Mecca and its vicinity on the 12 days that the pilgrims are allowed to remain in that city, which used to be one of the best frequented in the world, and continues to be well attended.

'Few pilgrims,' says Burckhardt, 'except the mendicants, arrive without bringing some productions of their respective countries for sale; and this remark is applicable as well to the merchants, with whom commercial pursuits are the main object, as to those who are actuated by religious zeal; for, to the latter, the profits derived from selling a few articles at Mecca diminish, in some degree, the heavy expenses of the journey. The Moggrebyns (pilgrims from Morocco and the north coast of Africa) bring their red bonnets and woollen cloaks; the European Turks, shoes and slippers, hardware, embroidered stuffs, sweetmeats, amber, trinkets of European manufacture, knit silk purses &c.; the Turks of Anatolia bring carpets, silks, and Angora shawls; the Persians, Cashmere shawls and large silk handkerchiefs; the Afghans, tooth-brushes, called Mesouak Kattary, made of the spongy boughs of a tree growing in Bokhara, beads of a yellow soapstone, and plain course shawls manufactured in their own country; the Indians, the numerous productions of their rich and extensive region; the people of Yemen, snakes for the Persian pipes, sandals and various other works in leather; and the Africans bring various articles adapted to the slave-trade. The pilgrims are, however, often disappointed in their expectations of gain; want of money makes them hastily sell their little adventures at the public auctions, and often obliges them to accept very low prices.' (*Travels in Arabia*, vol. ii. p. 21.)

The two principal caravans which yearly rendezvous at Mecca are those of Damascus and Cairo. The first is composed of pilgrims from Europe and Western Asia, the second of Mohammedans from all parts of Africa.

The Syrian caravan is said by Burckhardt to be very well regulated. It is always accompanied by the pacha of Damascus, or one of his principal officers, who gives the signal for encamping and starting by firing a musket. On the route, a troop of horsemen ride in the front, and another in the rear to bring up the stragglers. The different parties of pilgrims, distinguished by their provinces or towns, keep close together. At night torches are lighted, and the daily distance is usually performed between three o'clock in the afternoon and an hour or two after sunrise on the following day. The Bedouins or Arabs, who carry provisions for the troops, travel by day only, and in advance of the caravans, the encampment of which they pass in the morning, and are overtaken in turn and passed by the caravan on the following night, at their own resting place. The journey with these Bedouins is less fatiguing than with

the great body of the caravan, as a regular night's rest is obtained; but their bad character deters most pilgrims from joining them.

At every watering place on the route is a small castle and a large tank, at which the camels water. The castles are garrisoned by a few persons, who remain the whole year to guard the provisions deposited there. It is at these watering-places, which belong to the Bedouins, that the sheikhs of the tribe meet the caravan, and receive the accustomed tribute for allowing it to pass. Water is plentiful on the route; the stations are nowhere more distant than 11 or 12 hours' march; and in winter, pools of rain-water are frequently found. Those pilgrims who can travel with a litter, or on commodious camel-saddles, may sleep at night, and perform the journey with little inconvenience; but of those whom poverty, or the desire of speedily acquiring a large sum of money, induces to follow the caravan on foot, or to hire themselves as servants, many die on the road from fatigue. (*Travels in Arabia*, vol. ii. pp. 3-9.)

The caravan which sets out from Cairo for Mecca is not generally so large as that of Damascus, and its route along the shores of the Red Sea is more dangerous and fatiguing. But many of the African and Egyptian merchants and pilgrims sail from Suez, Cosseir, and other ports on the western shore of the Red Sea, for Djidda, whence the journey to Mecca is short and easy.

The Persian caravan for Mecca sets out from Bagdad; but many of the Persian pilgrims are now in the habit of embarking at Bussorah, and coming to Djidda by sea.

Caravans from Bagdad and Bussorah proceed to Aleppo, Damascus, and Diarbeker, laden with all sorts of Indian, Arabian, and Persian commodities; and large quantities of European goods, principally of English cottons, imported at Bussorah, are now distributed throughout all the eastern parts of the Turkish empire by the same means. The intercourse carried on in this way is, indeed, every day becoming of more importance.

The commerce carried on by caravans, in the interior of Africa, is widely extended and of considerable value. Besides the great caravan which proceeds from Nubia to Cairo, and is joined by Mohammedan pilgrims from every part of Africa, there are caravans which have no object but commerce, which set out from Fez, Algiers, Tunis, Tripoli, and other states on the sea-coast, and penetrate far into the interior. Some of them take as many as 50 days to reach the place of their destination; and as their rate of travelling may be estimated at from 18½ to 22 miles a day, as they are heavy or light, the extent of their journeys may easily be computed. As both the time of their outset and their route are known, they are met by the people of the countries through which they travel, who trade with them, Indian goods of every kind form a considerable article in this traffic; in exchange for which, the chief commodity the inhabitants have to give is slaves.

Three distinct caravans are employed in bringing slaves and other commodities from Central Africa to Cairo. One of them comes direct from Mourzouk, the capital of Fezzan, across the Libyan desert; another from Senaar; and the third from Darfur. They do not arrive at stated periods, but after a greater or less interval, according to the success they have had in procuring slaves, ivory, gold dust, drugs, and such other articles as are fitted for the Egyptian markets. The Mourzouk caravan is said to be under the best regulations. It is generally about 50 days on its passage, and seldom consists of less than 100,

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or of more than 300, travellers. The caravans from Senaar and Darfur used formerly to be very irregular, and were sometimes not seen in Egypt for 2 or 3 years together; but since the occupation of the former by the troops of Mohammed Ali, the intercourse between it and Egypt has become comparatively frequent and regular. The number of slaves imported into Egypt by these caravans was said to amount, at one time, to about 10,000 a-year. The departure of a caravan from Darfur is looked upon as a most important event; it engages for a while the attention of the whole country, and even forms a kind of era. (Browne's *Travels in Africa*, 2nd ed. p. 78.) A caravan from Darfur is considered large if it has 2,000 camels and 1,000 slaves. Many of the Moorish pilgrims to Mecca cross the sea from Souakin and Massouah to the opposite coast of Arabia, and then travel by land to Mecca; and Burckhardt states that of all the poor pilgrims who arrive in the Hedjaz, none bear a more respectable character for industry than those from Central Africa.

Caravans are distinguished into *heavy* and *light*. Camels loaded with from 500 to 600 lbs. form a heavy caravan; light caravans being the term applied to designate those formed of camels under a moderate load, or perhaps only half loaded.

The safety of a caravan depends materially on the conduct of the *caravan-bachi*, or leader. Niebuhr says that when the latter is intelligent and honest, and the traveller understands the language, and is accustomed to the Oriental method of travelling, an excursion through the desert is rarely either disagreeable or dangerous. But it is not unusual for the Turkish pachas to realise considerable sums by selling the privilege of conducting caravans; and it is generally believed in the East that leaders so appointed, in order to indemnify themselves, not unfrequently arrange with the Arabian sheikhs as to the attack of the caravans, and share with them in the booty! At all events, a leader who has paid a large sum for the situation, even if he should be honest, must impose proportionally heavy charges on the association. Hence the best way in travelling with caravans is, to attach oneself to one conducted by an active and experienced merchant, who has a considerable property embarked on the expedition. With ordinary precaution, the danger is then very trifling. It would be easy, indeed, were there any thing like proper arrangements made by Government, to render travelling by caravans, at least on all the great routes, abundantly secure. (Niebuhr, *Voyage en Arabie*, tome ii. p. 194, ed. Amst. 1780.)

No particular formalities are required in the formation of a caravan. Those that start at fixed periods are mostly under the control of Government, by whom the leaders are appointed. But, generally speaking, any dealer is at liberty to form a company and make one. The individual in whose name it is raised is considered the leader, unless he appoint some one else to his place. When a number of merchants associate together in the design, they elect a chief, and appoint officers to decide whatever controversies may arise during the journey. (For further details with respect to caravans, see the *Modern Part of the Universal History*, vol. xiv. pp. 244-243; Robertson's *Disquisition on Ancient India*, note 54; Rees's *Cyclopaedia*, art. 'Caravan,' part of which is copied from Robertson, though without a single word of acknowledgment; Burckhardt's *Travels in Arabia*, vol. ii. passim; Urquhart's *Turkey and its Resources*, pp. 137, 151; Vamsey's *Travels in Bokharu*; &c.)

CARAVANSERA. A large public building or inn appropriated for the reception and lodgment of the caravans. Though serving in lieu of inns, there is this radical difference between them—that, generally speaking, the traveller finds nothing in a caravansera for the use either of himself or his cattle. He must carry all his provisions and necessaries with him. They are chiefly built in dry, barren, desert places, and are mostly furnished with water brought from a great distance and at a vast expense. A well of water is, indeed, indispensable to a caravansera. Caravanseras are also numerous in cities, where they serve not only as inns, but as shops, warehouses, and even exchanges.

CARAWAY-SEED (Fr. carvi, cumin des prés; Ger. keummel, brodkümmel; Ital. carvi; Span. alcaravea). A small seed, of an oblong and slender figure, pointed at both ends, and thickest in the middle. It is the produce of a biennial plant (*Carum carvi*), Nat. Order *Umbellifera*, with a taper root like a parsnip, but much smaller. It should be chosen large, new, of a good colour, not dusty, and of a strong, agreeable smell. It is principally used by confectioners, and is extensively cultivated in several parts of Essex. The Russian liqueur *kümmel* derives its flavour from the caraway seed.

This plant is a native of southern Europe, but it has been naturalised in most countries, growing wild as well as being cultivated. The root improved by culture is edible, and is used for food in northern Europe. In 1866, 13,793 cwts. were imported into England, almost entirely from Holland, and were valued at 1*l.* 15*s.* 4*d.* per cwt.

CARBON, BISULPHIDE OF. (*Dictionary of Manufactures*.)

CARBONATE. [DIAMOND.]

CARBUNCLE (Ger. karfunkel; Fr. escarboucle; Ital. carbonchio; Span. carbunculo; Lat. carbunculus). A precious stone of the garnet kind, of a very rich glowing blood-red colour, highly esteemed by the ancients. The term *carbuncle* among jewellers is applied to such garnets as are cut *en cabochon*, i. e., with a flat base, and a smooth convex top. If they are pure, of large size, and are free from spots, they are, says Mr. Emanuel, occasionally worth as much as 20*l.*

CARD (Fr. cardes; Ger. karditschen, karden, wollkratzen; Ital. cardi; Russ. bardü; Span. cardas). An instrument, or comb, for arranging or sorting the hairs of wool, cotton &c. Cards are either fastened to a flat piece of wood, and wrought by the hand; or to a cylinder, and wrought by machinery; or are made to move over 2 cylinders. The spikes with which carding cloth is armed range from fine wire, used to hackle delicate tissues, to strong wire, employed to dress coir &c. The machinery by which carding cloth is manufactured is very elaborate.

CARDAMOMS (Fr. cardamomes; Ger. karlamom; Ital. cardamomi; Span. kardanomas; Hind. gujarati elachi; Arab. ebil; Chinese, peh-tau-kau). This spice, the name of which is derived from the Greeks, has been imported from the East into Europe uninterruptedly for many centuries. It was known to our forefathers under the name of grains, or grains of Paradise, and was the cheapest of the Oriental spices introduced by the Italian merchants into mediæval Europe. (Rogers's *Agriculture and Prices in England*, vol. i. p. 609.)

The spice is the seed of various kinds of Scitamineæ, as the *Elettaria major*, *Amomum cardamomum*, *Amomum angustifolium*, *Amomum grana Paradisi*, and especially *Elettaria cardamomum*. The first of these, according to Dr. Pereira, is the produce of Ceylon. The pod contains numerous angular, rug-

ged, yellowish-red seeds, which have a peculiarly fragrant odour. The second, which is identified with the *Amomum* of Dioscorides, and is the 'round cardamom' of commerce, grows in Sumatra, Java, and other East Indian islands. The capsules, rather smaller than a cherry, contain a number of cuciform seeds. Sometimes the capsules are sent into the market in their native clusters, and then form the *Amomum racemosum*, or *anome à grappes* of the French. This kind is chiefly sent to the south of France. The third or Java cardamom is of very inferior quality. The fourth is obtained from Madagascar, where it grows in marshy ground. The fifth, known also as Guinea grains, grains of Paradise, or Maleguetta pepper, are obtained from western Africa, are strongly hot and peppery, are of a round or ovate form, often angular and cuciform, rough, brown externally, and white within. They have but a feeble aromatic odour. Similar seeds have been sent from Trinidad, and are probably to be procured from other West Indian islands. They are chiefly used in veterinary practice, and to give a factitious strength to beer and spirits. The various plants, in short, called *Scitamineæ* have a wide geographical range within the tropics.

The true cardamom of pharmacy is the last named. The fruit is a three-celled capsule, containing many seeds.

The plant is a native of the Malabar mountains. When the forests and undergrowth are removed, it springs up everywhere spontaneously. It yields fruit at the end of the fourth, and continues to bear for many years. The ripe capsules are collected, dried over a gentle fire, and then rubbed by the hands from the foot-stalk and calyx. They contain numerous small angular, irregular, rough, brown seeds. The seeds are about 74 per cent. in weight.

According to Pereira, three varieties are distinguished in British commerce—shorts, long-longs, and short-longs—the distinctions being founded on the shape of the capsules.

It is said, and with obvious probability, that the purchase of the seed collected by the natives is made a Government monopoly, the agents sent to collect the produce putting a fixed price on the article, and selling it to the merchants at enhanced rates. Such a custom is very general in the East, and ought assuredly to be put an end to.

Cardamoms are used in cookery as an ingredient in curries, and largely in medicine. The consumption of this article is very considerable among Eastern nations. They should be kept whole, as they lose their virtues in powder. These virtues depend on a peculiar volatile oil, which when extracted, though air be carefully excluded, loses its peculiar odour and taste. (Wood and Buche's *Dispensatory*.)

**CARDS or PLAYING CARDS** (Dutch, kaarten, speelkarden; Fr. cartes à jouer; Ger. karten, spiel karten; Ital. carte da giuoco; Russ. kartu; Span. carras, naipes; Swed. kort). The only thing necessary to be noticed in this place with respect to cards is the regulations as to their manufacture, sale, and the payment of the duty.

It was regulated by the 9 Geo. IV. c. 18, that an annual license duty of 5s. shall be paid by every maker of playing cards and dice. The duty on every pack of cards was 1s., and was to be specified on the ace of spades. Cards were not to be made in any part of Great Britain except the metropolis, nor in Ireland except in Dublin and Cork, under a penalty of 100*l.* Cards are to be enclosed in wrappers, with such marks as the Commissioners of Stamps may appoint. Before license can be had, bond must be given to the amount of

500*l.* for the payment of the duties &c. Selling or exposing to sale any pack of cards not duly stamped, subjected a licensed maker to a penalty of 50*l.*, and any one else to a penalty of 10*l.* Any person having in his possession, or using, or permitting to be used, any pack of cards not duly stamped, to forfeit 5*l.* Second-hand cards may be sold by any person, if sold without the wrapper of a licensed maker; and in packs containing not more than 52 cards, including an ace of spades duly stamped, and enclosed in a wrapper with the words 'Second-hand Cards' printed or written in distinct characters on the outside; penalty for selling second-hand cards in any other manner, 20*l.*

The former duty of 1*s.* per pack on cards produced, in 1861, the sum of 13,637*l.*; showing that 272,740 packs had been disposed of. But in 1862 the stamp duty was reduced to 3*d.* a pack. At the same time the license of cardmakers was raised, in case the maker also sold them, from 5*s.* to 1*l.* Dealers only previous to the Act of 1862 exempt from license pay 2*s.* 6*d.* Since the change the produce of the stamp duty has been very uniform, being a little less on the average than 9,000*l.*, the license duty yielding 1,040*l.* in 1866-7. The customs duty on foreign playing cards is 3*s.* 9*d.* per dozen packs.

**CARMEN**, of the city of London, are constituted a fellowship by act of common council. The rates which they are allowed to charge, and the regulations by which they are to be guided, are settled at the quarter sessions. In other respects they are subjected to the rule of the president and governors of Christ's Hospital, to whom the owner of every cart pays an annual license duty of 17*s.* 4*d.*

Carmen are to help to load and unload their carts; and if any carman exacts more than the regular rates, upon due proof, before the Lord Mayor or any two magistrates, he shall suffer imprisonment for the space of 21 days.

If any person shall refuse to pay any carman his hire, according to the regular rates, upon complaint made, the president of Christ's Hospital, or a justice of the peace, may compel payment.

Merchants or other persons may choose what cart they please, except such as stand for wharf-work, tackle-work, crane-work, at shops and merchants' houses, which are to be taken in turn; and every carman standing with his empty cart next to any goods to be loaded shall, upon the first demand, load the same for the accustomed rates; and if any person shall cause a carman to attend at his house, shop, warehouse, or cellar, with his loaded cart, the carman being willing to help to unload the same, he shall pay the carman after the rate of 12*d.* for every hour after the first half hour for his attendance.

Every licensed carman is to have a piece of brass fixed upon his cart, upon which is to be engraven a certain number; which number, together with the carman's name, is registered in a register kept at Christ's Hospital; so that, in case of any misbehaviour, the party offended, by taking notice of the number of the cart, may search for it in the register, and the name will be found.

Carmen not conforming to these rules, or working without a numbered piece of brass fixed on the cart, may be suspended from their employment.

Carmen riding upon the shafts of their carts, or sitting within them, not having some person on foot to guide the horses, shall forfeit 10*s.*

**CARMINE** (Ger. karmin; Dutch, karmyn; Fr. carmine; Ital. carminio; Lat. carminium). A powder of a very beautiful red colour, bordering upon purple, and used by painters in miniature. It is a species of *lake*, and is formed of finely pulverised

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cochineal. It is high priced, but its value has been considerably affected by the discovery of aniline colours.

## CARNELIAN. [AGATE.]

CAROB BEANS or LOCUST BEANS. The seed in the pods of the carob tree, the *Ceratonia siliqua*, St. John's bread; one of the Natural Order of the *Leguminosae*. (Syn. Ger. karobbaum, Johannisbrodbaum; Span. algarrobo; Port. algarrobo; Ital. carrubio, caruba; Arab. kharroob.) The carob tree grows in southern Europe, in Asia, and all the Mediterranean coasts. At Malta it is almost the only tree that grows. The pods contain a sweet, nutritious pulp, and are used as a common article of human food where the tree is a native. They are principally used, however, in most of the southern countries of Europe, and in Egypt and Asiatic Turkey, as a nutritious and fattening food for cattle and horses. They are at present also used to a small extent in England in the preparation of artificial food for cattle. In the island of Cyprus great attention has of late years been devoted to the cultivation of the carob tree. The sale of carobs in that island was formerly a Government monopoly, but since its abolition about 40 years since the production has largely increased. In 1852, 27,000 cwt. were exported from the island; and in 1864 the export had increased to 7,087 tons, of the value of 31,500*l*. The tree grows wild in Cyprus, but is more particularly abundant in the districts of Limassol and Kerinea: the finest trees are found at Lefcara. (*From Consular Reports and other sources*.)

CARPET, CARPETS (Ger. teppiche; Dutch, tapyten, vloer-tapyten; Fr. tapis; Ital. tappeti; Span. alfombras, alfatisas, tapices; Port. tapetes, alfatisas; Russ. kowrú, kilim). Indian, Persian, and Turkish carpets are the most esteemed. In England, carpets are principally manufactured at Kidderminster, Durham, Halifax, Wilton, Cirencester, Worcester, Axminster &c.; and in Scotland, at Glasgow and Kilmarnock. Those made at Axminster are believed to be very little, if anything, inferior to those of Persia and Turkey. In 1866 there were exported 7,600,511 yards of carpets and druggets, the produce of the United Kingdom, valued at 1,217,682*l*. (For much curious and instructive matter on carpets, tapestry &c. in connection with the Paris Exhibition, see Mr. Digby Wyatt's *Report*, in vol. ii., presented to Parliament 1868.)

## CARRIAGES. [COACHES.]

CARRIERS. Persons undertaking for hire to carry goods from one place to another.

Proprietors of carts and waggons, masters and owners of ships, hoymen, lightermen, bargemen, ferry-men &c. are denominated common carriers. The master of a stage coach who only carries passengers for hire is not liable for goods; but if he undertake to carry goods and passengers, then he is liable for both as a common carrier. The Postmaster-General is not a carrier in the common acceptance of the term, nor is he subjected to his liabilities.

1. *Duties and Liabilities of Carriers.*—Carriers are bound to receive and carry the goods of all persons for a reasonable hire or reward; to take proper care of them in their passage; to deliver them safely, and in the same condition as when they were received (excepting only such losses as may arise from the act of God or the queen's enemies); or, in default thereof, to make compensation to the owner for whatever loss or damage the goods may have received while in their custody, that might have been prevented.

Hence a carrier is liable, though he be robbed of the goods, or they be taken from him by irresistible

force; and though this may seem a hard rule, yet it is the only one that could be safely adopted; for if a carrier were not liable for losses unless it could be shown that he had conducted himself dishonestly or negligently, a door would be opened for every species of fraud and collusion, inasmuch as it would be impossible in most cases to ascertain whether the facts were such as the carrier represented. On the same principle a carrier has been held accountable for goods accidentally consumed by fire while in his warehouse. In delivering the opinion of the Court of King's Bench on a case of this sort, Lord Mansfield said—'A carrier, by the nature of his contract, obliges himself to use all due care and diligence, and is answerable for any neglect. But there is something more imposed upon him by custom, that is, by the common law. A common carrier is in the nature of an insurer. All the cases show him to be so. This makes him liable for everything except the act of God and the king's enemies; that is, even for inevitable accidents, with those exceptions. The question, then, is, *What is the act of God?* I consider it to be laid down in opposition to the act of man; such as lightning, storms, tempests, and the like, which could not happen by any human intervention. To prevent litigation and collusion, the law presumes negligence except in those circumstances. An armed force, though ever so great and irresistible, does not excuse; the reason is, for fear it may give room for collusion, which can never happen with respect to the act of God. We all, therefore, are of opinion that there should be judgment for the plaintiff.' (*Forward v. Pittard*, 1 *T. R.* 27.)

A carrier is not obliged to have a new carriage for every journey: it is sufficient if he provide one that, without any extraordinary accident, may be fairly presumed capable of performing the journey.

A carrier may be discharged from his liability by any fraud or concealment on the part of the individual employing him, or of the bailor; as if the latter represent a parcel as containing things of little or no value, when in fact it contains things of great value. But when the carrier has not given a notice limiting his responsibility, and when he puts no questions with respect to the parcel to the bailor, the latter need not say anything with respect to it; and though the bailor should represent the thing delivered to the carrier as of no value, yet, if the latter know it to be otherwise, he will be responsible in the event of its being lost or damaged. If the bailor deliver goods imperfectly packed, and the carrier does not perceive it, he is not liable in the event of a loss occurring; but if the defect in the package were such that the carrier could not but perceive it, he would be liable. On this principle a carrier was made to answer for the loss of a greyhound that had been improperly secured when given to him.

A carrier may refuse to admit goods into his warehouse at an unreasonable time, or before he is ready to take his journey; but he cannot refuse to do the ordinary duties incumbent on a person in his situation.

It is felony if a carrier open a parcel and take goods out of it with intent to steal them; and it has been decided that if goods be delivered to a carrier to be carried to a specified place, and he carry them to a different place, and dispose of them for his own profit, he is guilty of felony; but the embezzlement of goods by a carrier without a felonious taking merely exposes to a civil action.

No carrier, waggonman, carman, or whinman, with their respective carriages, shall travel on Sundays, under a penalty of 20*s*. (3 *Ch. l. c. 1*.)

A carrier is always, unless there be an express agreement to the contrary, entitled to a reward for

his care and trouble. In some cases his reward is regulated by the Legislature, and in others by a special stipulation between the parties; but though there be no legislative provision or express agreement, he cannot claim more than a reasonable compensation.

2. *Limitation of Responsibility.*—Until the Act of 1830 a carrier might, by express stipulation, giving public notice to that effect, discharge his liability from all losses by robbery, accident, or otherwise (except those which arose from *misfeasance and gross negligence*, from which no stipulation or notice could exempt him), and provided the notice did not contravene the express conditions of an Act of Parliament.

Notices generally bore that the carrier would not be responsible for more than a certain sum (usually *5*l.**) on any one parcel, the value of which had not been declared and paid for accordingly; so that a person aware of this notice, entering a box worth 1,000*l.* without declaring its value, or entering it as being worth 200*l.*, would, should it be lost, have got in the first case only *5*l.**, and in the latter only 200*l.*, unless he could have shown that the carrier had acted fraudulently or with gross negligence. But, to avail himself of this defence, the carrier was bound to show that the bailor or his servant was acquainted with the notice at the time of delivering the goods. No particular manner of giving notice was required. It might be done by express communication, by fixing it up in a conspicuous place in the carrier's office, by insertion in the public papers or Gazette, by the circulation of handbills &c.; it being in all cases a question for the jury to decide whether the bailor was really acquainted with the notice of the limitation; since, if he were not, he was entitled to recover, whatever efforts the carrier may have made to publish it. Thus, a notice stuck up in a carrier's warehouse, where goods were delivered, was of no avail against parties who could not read; neither was it of any avail against those who could read, and who had seen it, *unless they had actually read it.* On this principle it was held that a notice in a newspaper is not sufficient, even when it was proved that the bailor read the newspaper, unless it could also be proved that he had read the notice itself.

These attempts to limit responsibility gave rise to a great deal of litigation and uncertainty; and to obviate the inconveniences thence arising, the important statute 1 Wm. IV. c. 63 was passed. This Act declares that carriers *by land* shall not be liable for the loss of certain articles specified in the Act, when their value exceeds 10*l.*, unless the *nature and value* of such articles be stated at the time of their delivery to the carrier, and an increased charge paid or agreed to be paid upon the same. It is further declared that no publication of any notices by carriers shall have power to limit their responsibility at common law for all other articles except those specified in the Act. But as the Act is of great importance, we subjoin it.

From and after the passing of this Act, no mail-contractor, stage-coach proprietor, or other common carrier *by land* for hire, shall be liable for the loss of or injury to any article or articles or property of the description following, viz. gold or silver coin of this realm or of any foreign state, or any gold or silver in a manufactured or unmanufactured state, or any precious stones, jewellery, watches, clocks, or timepieces of any description, trinkets, bills, notes of the Governor and Company of the Banks of England, Scotland, and Ireland respectively, or of any other bank in Great Britain or Ireland, orders, notes, or securities for payment

of money, English or foreign stamps, maps, writings, title-deeds, paintings, engravings, pictures, gold or silver plate or plated articles, glass, china, silks in a manufactured or unmanufactured state, and whether wrought up or not wrought up with other materials, furs, or lace, or any of them, contained in any parcel or package which shall have been delivered, either to be carried for hire or to accompany the person of any passenger in any mail or stage coach or other public conveyance, when the value of such article or articles or property aforesaid contained in such parcel or package shall exceed the sum of 10*l.*, unless at the time of the delivery thereof at the office, warehouse, or receiving house of such mail contractor &c. the value and nature of such article or articles or property shall have been declared by the person or persons sending or delivering the same, and such increased charge as hereinafter mentioned, or an engagement to pay the same, be accepted by the person receiving such parcel or package. (Sec. 1.)

When any parcel or package containing any of the articles above specified shall be so delivered, and its value and contents declared as aforesaid, and such value shall exceed the sum of 10*l.*, it shall be lawful for such mail contractors, stage coach proprietors, and other common carriers to demand and receive an increased rate of charge, to be notified by some notice, affixed in legible characters in some public and conspicuous part of the office, warehouse, or other receiving house, where such parcels or packages are received by them for the purpose of conveyance, stating the increased rates of charge required to be paid over and above the ordinary rate of carriage, as a compensation for the greater risk and care to be taken for the safe conveyance of such valuable articles; and all persons sending or delivering parcels or packages containing such valuable articles as aforesaid at such office shall be bound by such notice, without further proof of the same having come to their knowledge. (Sec. 2.)

Provided always, that when the value shall have been so declared, and the increased rate of charge paid, or an engagement to pay the same shall have been accepted as hereinbefore mentioned, the person receiving such increased rate of charge or accepting such agreement shall, if required, sign a receipt for the package or parcel, acknowledging the same to have been insured, which receipt shall not be liable to any stamp duty; and if such receipt shall not be given when required, or such notice as aforesaid shall not have been affixed, the mail contractor, stage coach proprietor, or other common carrier as aforesaid, shall not have or be entitled to any benefit or advantage under this Act, but shall be liable and responsible as at the common law, and be liable to refund the increased rate of charge. (Sec. 3.)

And be it enacted, that from and after the 1st day of September 1830, no public notice or declaration heretofore made or hereafter to be made shall be deemed or construed to limit or in any wise affect the liability at common law of any such mail contractors, stage coach proprietors, or other public common carriers as aforesaid, for or in respect of any articles or goods to be carried and conveyed by them; but that all and every such mail contractors, stage coach proprietors, and other common carriers as aforesaid shall, from and after the said 1st day of September, be liable, as at the common law, to answer for the loss of any injury [so in the Act] to any articles and goods in respect whereof they may not be entitled to the benefit of this Act, any public notice or declaration by them made and given contrary thereto, or in

anywise limit (Sec. 4.)

And be it enacted, that any contract made under this Act, for the hire of a house, which shall be used for the purpose of a mail contract, shall not be deemed to be a contract for the carriage of parcels to be carried for hire or to accompany the person of any passenger in any mail or stage coach or other public conveyance, when the value of such article or articles or property aforesaid contained in such parcel or package shall exceed the sum of 10*l.*, unless at the time of the delivery thereof at the office, warehouse, or receiving house of such mail contractor &c. the value and nature of such article or articles or property shall have been declared by the person or persons sending or delivering the same, and such increased charge as hereinafter mentioned, or an engagement to pay the same, be accepted by the person receiving such parcel or package. (Sec. 1.)

Provided always, that when the value shall have been so declared, and the increased rate of charge paid, or an engagement to pay the same shall have been accepted as hereinbefore mentioned, the person receiving such increased rate of charge or accepting such agreement shall, if required, sign a receipt for the package or parcel, acknowledging the same to have been insured, which receipt shall not be liable to any stamp duty; and if such receipt shall not be given when required, or such notice as aforesaid shall not have been affixed, the mail contractor, stage coach proprietor, or other common carrier as aforesaid, shall not have or be entitled to any benefit or advantage under this Act, but shall be liable and responsible as at the common law, and be liable to refund the increased rate of charge. (Sec. 3.)

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Provided always, that when the value shall have been so declared, and the increased rate of charge paid, or an engagement to pay the same shall have been accepted as hereinbefore mentioned, the person receiving such increased rate of charge or accepting such agreement shall, if required, sign a receipt for the package or parcel, acknowledging the same to have been insured, which receipt shall not be liable to any stamp duty; and if such receipt shall not be given when required, or such notice as aforesaid shall not have been affixed, the mail contractor, stage coach proprietor, or other common carrier as aforesaid, shall not have or be entitled to any benefit or advantage under this Act, but shall be liable and responsible as at the common law, and be liable to refund the increased rate of charge. (Sec. 3.)

anywise limiting such liability, notwithstanding. (Sec. 4.)

And be it further enacted, that for the purposes of this Act, every office, warehouse, or receiving house, which shall be used or appointed by any mail contractor, or stage coach proprietor, or other such common carrier, for the receiving of parcels to be conveyed as aforesaid, shall be deemed and taken to be the receiving house, warehouse, or office of such mail contractor, stage coach proprietor, or other common carrier; and that any one or more of such mail contractors, stage coach proprietors, or common carriers, shall be liable to be sued by his, her, or their name or names only; and that no action or suit commenced to recover damages for loss or injury to any parcel, package, or person, shall abate for the want of joining any co-proprietor or co-partner in such mail, stage coach, or other public conveyance by land for hire as aforesaid. (Sec. 5.)

Provided always, and be it further enacted, that nothing in this Act contained shall extend or be construed to annul or in anywise affect any special contract between such mail contractor, stage coach proprietor, or common carrier, and any other parties, for the conveyance of goods and merchandises. (Sec. 6.)

Provided also, and be it further enacted, that where any parcel or package shall have been delivered at any such office, and the value and contents declared as aforesaid, and the increased rate of charges been paid, and such parcels or packages shall have been lost or damaged, the party entitled to recover damages in respect of such loss or damage shall also be entitled to recover back such increased charges so paid as aforesaid, in addition to the value of such parcel or package. (Sec. 7.)

Provided also, and be it further enacted, that nothing in this Act shall be deemed to protect any mail contractor, stage coach proprietor, or other common carrier for hire, from liability to answer for loss or injury to any goods or articles whatsoever, arising from the felonious acts of any coachman, guard, book-keeper, porter, or other servant in his or their employ, nor to protect any such coachman, guard, book-keeper, or other servant, from liability for any loss or injury occasioned by his or their own personal neglect or misconduct. (Sec. 8.)

Provided also, and be it further enacted, that such mail contractors, stage coach proprietors, or other common carriers for hire, shall not be concluded as to the value of any such parcel or package by the value so declared as aforesaid, but that he or they shall in all cases be entitled to require, from the party suing in respect of any loss or injury, proof of the actual value of the contents by the ordinary legal evidence; and that the mail contractors, stage coach proprietors, or other common carriers, as aforesaid, shall be liable to such damages only as shall be so proved as aforesaid, not exceeding the declared value, together with the increased charges as before mentioned. (Sec. 9.)

And be it further enacted, that in all actions to be brought against any such mail contractors &c., the defendant or defendants may pay the money into court. (Sec. 10.)

It will be observed that carriers continue, notwithstanding this Act, liable, as before, for the felonious acts of their servants, and their own misfeasance or gross negligence. It is not possible, however, to lay down any general rule as to the circumstances which constitute this offence. Differing as they do in almost every case, the question, when raised, must be left to a jury. But it has been decided, that the *misdelivery* of a

parcel, or its *non-delivery within a reasonable time*, is a misfeasance that cannot be defeated by any notice on the part of the carrier limiting his responsibility. In like manner, the sending of a parcel by a different coach from that directed by the bailor, the removing it from one carriage to another, are misfeasances. Where a parcel is directed to a person at a particular place, and the carrier, knowing such person, delivers the parcel to another who represents himself as the consignee, such delivery is gross negligence. Leaving parcels in a coach or cart unprotected in the street is also gross negligence.

At common law, there is no distinction between carriage performed by sea or land; but by the 7 Geo. II. c. 15, and 26 Geo. III. c. 86, corrected and amended by the 53 Geo. III. c. 159, it is enacted that ship owners are not to be liable for any loss or damage happening to goods on board through the fraud or neglect of the master, without their knowledge or privity, further than the value of the vessel and the freight accruing during the voyage. [OWNERS.]

3. *Commencement and Termination of Liability.*—A carrier's liability commences from the time the goods are actually delivered to him in the character of carrier. A delivery to a carrier's servant is a delivery to himself, and he will be responsible. The delivery of goods in an inn yard or warehouse, at which other carriers put up, is not a delivery so as to charge a carrier, unless a special notice be given him of their having been so delivered, or some previous intimation to that effect.

A carrier's liability ceases when he vests the property committed to his charge in the hands of the consignee or his agents by actual delivery; or when the property is resumed by the consignor, in pursuance of his right of stopping it in transitu. It is in all cases the duty of the carrier to deliver the goods. The leaving goods at an inn is not a sufficient delivery. The rule in such cases, in deciding upon the carrier's liability, is to consider whether anything remains to be done by the carrier as such; and if nothing remains to be done, his liability ceases, and conversely.

A carrier has a lien upon goods for his hire. Even if the goods be stolen, the rightful owner is not to have them without paying the carriage.

In order to obviate any risks which might be incurred on the part of the public in consequence of the actual monopoly possessed by railway and canal companies, whose interests are now generally united, the Railway and Canal Traffic Act was passed in 1854 (17 & 18 Vict. c. 31), and inter alia provided: That every railway and canal company shall be liable for the loss of or any injury done to any horses, cattle, and other animals, or to any articles, goods, or things in the receiving, forwarding, or delivering thereof, occasioned by the neglect or default of such company or its servants, notwithstanding any notice, condition, or declaration made or given by such company contrary thereto or in anywise limiting such liability—every such notice, condition, or declaration being hereby declared to be null and void; provided always, that nothing herein contained shall be construed to prevent the said companies from making such conditions with respect to the receiving, forwarding, or delivering of any of the said animals, articles, and goods or things as shall be adjudged by court or judge before whom any question relating thereto shall be heard, to be *just and reasonable*. It then provides that the maximum value of a horse shall be 50*l.*, of cattle 15*l.*, of sheep or pigs per head 2*l.*, unless a previous *declaration* should be made of higher value, in which case the company may demand a reasonable per centage in ad-

dition to cover the extra risk: proof of the value to lie on the claimant. It then provides that no special contract between such company and any other parties respecting the receiving, forwarding, or delivering of any animals, articles, goods, or things as aforesaid, shall be binding upon or affect any such party unless the same be signed by him or by the person delivering such animals, articles, goods, and things respectively for carriage.

The following interpretation was put by Chief Justice Jervis on this clause, which is confessedly obscure: 'The fair meaning of this section, as it seems to me, is this: the first branch of it declares that all notices, conditions, and declarations made and given by the company shall be null and void in so far as they go to release the company from liability for loss or injury to goods &c. in the receiving, forwarding, and delivering thereof, occasioned by the neglect or default of the company or its servants. But then it goes on to provide, in the next branch, that this shall not prevent the company from making such conditions, which shall be adjudged by the court or judge before whom any question relating thereto shall be tried, to be just and reasonable; and further, though just and reasonable, such condition or special contract shall not be binding unless signed by the person sending or delivering the goods. The result seems to be this: a general notice is void; but the company may make special contracts with their customers, provided they are just and reasonable, and signed; and whereas the monopoly created by railway companies compels the public to employ them in the conveyance of their goods, the Legislature have thought fit to impose the further security that the court shall see that the condition or special contract is just and reasonable.' The Court of Exchequer took a different view, and held that the first part of the Act applies only to notices, conditions, and declarations by the company; and that the parties were, by a special contract signed by the person sending the goods, at liberty to make whatever arrangements they pleased; and where there was such a signed and special contract, the question of reasonableness and unreasonableness of its terms did not arise. Ultimately the Court of Exchequer Chamber overruled this decision of the court below, and adopted and confirmed Chief Justice Jervis's construction. (Smith's *Mercantile Law*, ed. 1865, p. 290.)

For further details as to this subject see Jeremy *On the Law of Carriers*, passim; Chitty's *Commercial Law*, vol. iii, pp. 369-386; and Smith's *Mercantile Law*. There are some excellent observations with respect to it in Sir William Jones's *Essay on the Law of Bailments*. (For an account of the regulations as to the conveyance of passengers in stage coaches, see COACHES, STAGE.)

**CARROT** (*Daucus carota*, Linn.) (Fr. carotte; Ger. gemeine mahre, gelle rube; Ital. carota; Span. zanahoria). A biennial plant, a native of Britain. Though long known as a garden plant, its introduction into agriculture has been comparatively recent. The uses of the carrot in domestic economy are well known. It is extensively cultivated in Suffolk, whence large quantities are sent to the London market. Horses are remarkably fond of carrots. In 1866, 426 cwt. of carrot seed were imported into the United Kingdom.

**CARTS**. Every cart &c. for the carriage of anything to and from any place, where the streets are paved, within the bills of mortality, shall contain 6 inches in the felly. No person shall drive any cart, waggon &c. within 5 miles of the General Post Office, unless the name, surname, and place of abode of the owner be painted in conspicuous letters, at least 1 inch in height, on the

right or off side thereof, under a penalty of 5l. Any person may seize and detain any cart, waggon &c. without such mark. (1 & 2 Wm. IV. c. 22.)

#### CASCARILLA. [BARK.]

**CASH**. In Commerce, the ready money, bills, drafts, bonds, and all immediately negotiable paper in an individual's possession. [CANTON.]

**CASH ACCOUNT**. In Book-keeping, an account to which nothing but cash is carried on the one hand, and from which all the disbursements of the concern are drawn on the other. The balance is the cash in hand. When the credit side more than balances the debit or disbursement side, the account is said to be in cash; when the contrary, to be out of cash.

**CASH ACCOUNT**. In Banking, the name given to the account of the advances made by a banker in Scotland to an individual who has given security for their repayment. [BANKS (Scotch).]

**CASHEW NUTS** (Ger. akajunüsse, Westindische anakarden; Dutch, catojnocooten; Fr. noix d'acajou; Ital. acaju; Span. nueces d'acaju; Port. nozes d'acaju). The produce of the *Anacardium occidentale*, a native of the West Indian Islands and tropical America. They are externally of a greyish or brownish colour, of the shape of a kidney, somewhat convex on the one side, and depressed on the other. The shell is very hard; and the kernel, which is sweet and of a very fine flavour, is covered with a thin film. Between this and the shell is lodged a thick, blackish, inflammable oil, of such a caustic nature in the fresh nuts, that if the lips chance to touch it, blisters immediately follow. The kernels are used in cooking, and in the preparation of chocolate.

#### CASPIAN SEA. [TAGANROG.]

**CASSIA**. There are 4 species of cassia in the market, viz. *Cassia lignea* or *Cassia Bark*; *Cassia fistula*; *Cassia Buds*; and *Cassia Senna*.

1. *Cassia lignea*, or *Cassia Bark* (Fr. casse; Ger. cassia; Port. cassia lenhosa; Arab. selekeh; Hind. tuj; Malay, kayu-legi). The bark of a tree (*Laurus cassia*, Linn.) growing in Sumatra, Borneo, the Malabar coast, Philippine Islands &c.; but chiefly in the provinces of Quantong and Kingsi, in China, which furnish the greatest part of the cassia met with in the European markets. The tree grows to the height of 50 or 60 feet, with large, spreading, horizontal branches. The bark resembles that of cinnamon in appearance, smell, and taste, and is very often substituted for it; but it may be readily distinguished; it is thicker in substance, less quilled, breaks shorter, and is more pungent. It should be chosen in thin pieces; the best being that which approaches nearest to cinnamon in flavour: that which is small and broken should be rejected. A good deal of the cassia in the Indian markets is brought from Borneo, Sumatra, and Ceylon. Malabar cassia is thicker and darker coloured than that of China, and more subject to foul packing; each bundle should be separately inspected. (Ainslie's *Materi. Indica*; Milburn's *Orient. Com.*; &c.)

2. *Cassia Buds*, the dried fruit or berry of the tree (*Laurus cassia*) which yields the bark described in the previous article. They bear some resemblance to a clove, but are smaller, and, when fresh, have a rich cinnamon flavour. They should be chosen round, fresh, and free from stalk or dirt. Cassia buds are the produce of China. (Milburn's *Orient. Com.*; *Anglo-Chinese Calendar*; and *Parl. Paper No. 257*, Sess. 1843.)

3. *Cassia fistula* (Fr. casse; Ger. rhonkaste; Ital. polpa di cassia; Lat. cassiæ pulpa; Arab. khyar sheber) is a tree which grows in the East and West Indies, and Egypt (*Cassia fistula*, Linn.).

The fruit is a thickness of length. Those principally from East Indies, are smaller smooth of the pulp. In 3,747 exported.

#### 4. Cassia Senna

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The fruit is a woody, dark brown pod, about the thickness of the thumb, and nearly 2 feet in length. Those brought to this country come principally from the West Indies, packed in casks and cases; but a superior kind is brought from the East Indies, and is easily distinguished by its smaller smooth pod, and by the greater blackness of the pulp. In 1866, 14,321 lbs. were imported, 8,747 exported. (*British Pharmacopœia*, 1867.)

4. *Cassia Senna*. [SENNA.]

The duties on cassia were  $1\frac{1}{10}$ d. and  $3\frac{1}{10}$ d. per lb. They are now repealed.

In 1866 the imports of cassia buds amounted to 78,048 lbs. and the exports to 22,881 lbs. Cassia buds are worth in the London market about 9l. per cwt. The imports of Cassia lignea in 1866 were 349,449 lbs., and its price from 4l. 15s. to 5l. 4s. 7d. per cwt.; that from China being 4l. 18s. 6d. Of Cassia vera 115,782 lbs. were imported from Holland.

CASTOR (Fr. castoreum; Ger. bibergeil, kastoreunt; Dutch, bevoergeil; Russ. babrowaja struja; Ital. castoro; Span. castoreo). The produce of the beaver. In the inguinal region of this animal are found four bags, a large and a small one on each side: in the two large ones there is contained a softish, greyish yellow, or light brown substance, which, on exposure to the air, becomes dry and brittle, and of a brown colour. This is castor. It has a heavy but somewhat aromatic smell, not unlike musk; and a bitter, nauseous, and subacid taste. The best comes from Russia, and is obtained in autumn and winter, but of late years it has been very scarce; and all that is now found in the shops is the produce of Canada. The goodness of castor is determined by its sensible qualities: that which is black is insipid, inodorous, oily, and unfit for use. It is said to be sometimes counterfeited by a mixture of some gummy and resinous substances flavoured with castor; but the fraud is easily detected. In 1866 the imports were 4,989 lbs., valued at 1,122l.; the exports 3,696 lbs.

CASTOR OIL (Fr. huile du ricin; Ger. rizinsöl; Ital. olio di ricino; Span. aceite de ricino) is obtained from the seeds of the *Ricinus communis*, or *Palma Christi*, an annual plant found in most tropical countries, and in Greece, the south of Spain &c. The oil is separated from the seeds either by boiling them in water or by subjecting them to the action of the press. It is said that though the largest quantity of oil may be procured by the first method, it is less sweet, and more apt to become rancid, than that procured by expression, which in consequence is the process now most commonly followed. Good expressed castor oil is nearly inodorous and insipid, but the best leaves a slight sensation of acrimony in the throat after it is swallowed. It is thicker and heavier than the fat oils, being viscid, transparent, and colourless, or of a very pale straw colour. That which is obtained by boiling the seeds has a brownish hue; and both kinds, when they become rancid, thicken, deepen in colour to a reddish brown, and acquire a hot, assulous taste. It is very extensively employed in the materia medica as a cathartic. (*Thomson's Dispensatory*.)

The duty of 1s. 3d. per cwt. on castor oil was repealed in 1845. In 1866 the imports amounted to 23,037 cwt., and the exports to 6,103 cwt.

CATECHU (Fr. caehou; Ger. kaschu; Hind. cutt; Mal. gambir). An extract prepared from the wood of the *Acacia Catechu*. The acacia which produces it is a small tree about 12 feet in height, growing abundantly in Hindostan and the Burmese empire. It is said to be also common in Jamaica.

The wood of the tree abounds in astringent matter which is extracted by boiling and inspissating the product. Before its source was discovered it was supposed to be a kind of earth. Hence its commercial name, *terra japonica*. After it was found to be of vegetable origin, it was taken to be an extract of the betel nut; but the real nature of the drug was first determined by Mr. Kerr, of the Bengal Civil Hospital, an eye-witness of the manufacture. Catechu, or *terra japonica*, is also called *cutch* by the English traders, who have derived this name from the Hindostanee *cutt*.

Catechu has several uses. It has long been employed as an astringent medicine, being the most powerful of the kind. It is consumed in large quantities by the natives of tropical Asia, who mix the substance with a small quantity of lime and aromatic drugs, and wrapping it in the leaf of the piper betel, use it as a masticatory. It is used for this purpose in France, made into small pills or lozenges.

But its most important economical use is as a dye and tanning drug. It owes these properties to the large amount of tannic acid it contains, amounting occasionally to more than half the weight of the substance. It is said that a pound of catechu has as much tanning power as seven or eight pounds of oak bark.

Catechu is derived from many countries and in various forms. The following have been enumerated: 1. Cuke catechu, in quantities weighing from a few ounces to 2 pounds. This is resinous in its fracture, and bears marks of having been inspissated in saucers or similar flat vessels. 2. Pegu catechu, imported in masses of large size, sometimes nearly a hundred weight. This is of excellent quality, compact, dark brown in colour, and resinous in character. 3. Bengal catechu, in quadrangular cakes, about 2 to 3 inches in length and breadth, and similar in character to those mentioned above; and 4. A catechu in balls, the quality of which is generally inferior.

As the plants producing catechu are so widely distributed, the cost of the article depends in great degree upon the cost of labour and carriage. The quantities sent to Europe are increasing. The price of catechu varies at the Eastern ports from 10s. to 15s. the cwt. (*Wood and Bache, United States Dispensatory*, from which excellent and exhaustive work the above has been chiefly compiled.)

CAT'S EYE. A mineral of beautiful appearance. Its colours are grey, green, brown, red, of various shades. Its internal lustre is shining, its fracture imperfectly conchoidal, and it is translucent. It has derived its name from a peculiar play of light, arising from white fibres interspersed. The French call the appearance *chatoyant*. Among jewellers this gem is also known by the names of *cat's eye*, *chrysoberyl*, and *cymophane*. It is found in Ceylon, Brazil, Moravia, the Ural Mountains (where a beautiful variety is known as Alexandrite), and in the United States. Good cat's eyes, according to Mr. Emanuel, are worth from 100l. to 300l., and are becoming more valuable than formerly. It scratches quartz, is easily broken, and resists the blow-pipe. It is set by the jewellers as a precious stone.

CAT SKINS. The skin or fur of the cat is used for a variety of purposes, but is principally dyed and sold as false sable. It appears from evidence taken before a Committee of the House of Commons (1859) that it is a common practice in London to decoy the animal and kill it for the sake of its skin. The fur of the wild cat is, however, far more valuable than that of the domestic cat. The

wild cat skins imported into this country are brought almost wholly from the territories of the Hudson's Bay Company. The animal from which they are taken is a good deal larger than the English wild cat, and is sometimes called the *lop cervier*, or Canadian lynx. It is very courageous. At an average about 30,000 cat skins are annually imported, of which more than a half are retained for home consumption.

**CATTLE.** A collective term applied to designate all those quadrupeds that are used either as food for man or in tilling the ground. By *neat* or *horned cattle* is meant the two species included under the names of the ox (*Bos*) and the buffalo (*Bubulus*); but as the latter is hardly known in this country, it is the former only that we have here in view.

The raising and feeding of cattle, and the preparation of the various products which they yield, have formed, in all countries emerged from the savage state, an important branch of industry.

It would be quite inconsistent with the objects and limits of this work to enter into any details with respect to the different breeds of cattle raised in this or other countries. They are exceedingly various. In Great Britain they have been vastly improved, in the weight of carcase, the quality of the beef, and the abundance of the milk, by the extraordinary attention that has been given to the selection and crossing of the best breeds, according to the objects in view. This sort of improvement began about the middle of last century, or rather later, and was excited and very much forwarded by the skill and enterprise of two individuals—Mr. Bakewell of Dishley, and Mr. Culley of Northumberland. The success by which their efforts were attended roused a spirit of emulation in others; and the rapid growth of commerce and manufactures since 1760 having occasioned a corresponding increase in the demand for butchers' meat, improved systems of breeding, and improved breeds, have been very generally introduced.

But the improvement in the size and condition of cattle has not been alone owing to the circumstances now mentioned. Much of it is certainly to be ascribed to the great improvement that has been made in their feeding. The introduction and universal extension of the turnip and clover cultivation has had, in this respect, a most astonishing influence, and has wonderfully increased the food of cattle, and consequently the supply of butchers' meat.

It was stated in the First Report of the Select Committee of the House of Commons on Waste Lands (printed in 1795), that cattle and sheep had, at an average, increased in size and weight about a fourth part since 1732; but there are strong grounds for supposing that the increase had been much more considerable than is represented by the committee.

The average price of oxen, during part of the thirteenth and the whole of the fourteenth centuries, as exhibited in Mr. Rogers's work *On Agriculture and Prices in England*, 1259-1400, was 13s. 1d., of cows 9s. 6d., of bulls 10s. 4d. These averages have been derived from many thousand entries, and indicate that the oxen were on the whole intended to be used as meat, since the price is considerably in excess of that at which cows were sold, and that no general attempt was made to improve the herd, since bulls were cheaper than oxen.

The average weight of an ox in the year 1547, if we can rely on a victualling bill of the navy, preserved in the Public Record Office, and containing the weights of 40 oxen, was 4 cwt. It is

possible that the herd may have improved during the century and a half which follow on the period comprised in the work referred to. (*Agriculture and Prices in England*, vol. i. p. 53.)

According to an estimate of Dr. Daventur in 1710, the average weight of the *net* carcase of black cattle was only 370 lbs., of calves 50 lbs., and of sheep only 28 lbs.; but according to Sir F. M. Eden (*History of the Poor*, vol. iii. Appendix p. 88) and Mr. Middleton (*Agriculture of Middlesex*, 2nd ed. p. 541), the average *net* weight of the carcase of bullocks killed in London might be taken, about the end of the last or the beginning of this century, at 800 lbs., calves at 140 lbs., sheep at 80 lbs., and lambs at 50 lbs.

**Consumption of Butchers' Meat in London.**—The number of head of cattle, sheep, and lambs sold in Smithfield market, each year from 1732 to 1852, has been as follows:—

Year	Cattle	Sheep	Year	Cattle	Sheep
1732	76,210	511,709	1793	216,848	728,480
1733	80,169	535,050	1794	199,448	719,180
1734	78,810	566,910	1795	187,550	714,920
1735	83,891	580,970	1796	117,152	758,840
1736	87,606	587,240	1797	108,577	695,510
1737	89,862	605,370	1798	123,770	730,510
1738	87,010	589,170	1799	123,986	831,400
1739	86,787	569,980	1800	125,075	842,210
1740	84,810	501,280	1801	129,346	862,760
1741	77,711	503,180	1802	125,389	745,470
1742	79,601	503,260	1803	117,551	787,450
1743	76,475	468,170	1804	137,506	821,010
1744	76,618	490,520	1805	125,013	912,110
1745	74,188	565,990	1806	120,250	898,570
1746	71,582	617,100	1807	120,459	909,260
1747	71,159	611,780	1808	114,012	1,012,280
1748	67,681	610,060	1809	117,609	989,250
1749	72,746	619,370	1810	135,715	962,360
1750	70,765	636,510	1811	124,212	966,490
1751	69,589	631,990	1812	153,851	955,650
1752	73,706	614,100	1813	135,779	981,400
1753	75,252	648,410	1814	135,071	870,880
1754	70,437	631,350	1815	121,918	902,840
1755	74,294	617,100	1816	120,459	909,260
1756	77,257	624,710	1817	123,888	1,014,740
1757	82,612	511,960	1818	138,017	965,250
1758	81,232	550,250	1819	135,225	915,900
1759	86,439	582,360	1820	139,933	1,012,300
1760	86,991	629,210	1821	129,145	1,107,230
1761	85,314	606,010	1822	124,043	1,130,160
1762	102,831	774,160	1823	149,532	1,149,920
1763	80,851	653,110	1824	163,615	1,339,730
1764	75,168	556,360	1825	156,985	1,130,310
1765	81,630	637,000	1826	173,460	1,270,230
1766	75,234	574,390	1827	138,563	1,355,100
1767	77,324	571,010	1828	147,698	1,288,160
1768	79,660	586,170	1829	156,513	1,240,390
1769	84,131	612,910	1830	159,907	1,287,070
1770	86,980	619,090	1831	148,168	1,189,010
1771	95,573	631,860	1832	166,281	1,361,650
1772	89,503	509,540	1833	152,093	1,167,800
1773	90,133	609,740	1834	162,185	1,237,360
1774	90,119	585,280	1835	170,325	1,381,740
1775	93,581	623,590	1836	169,311	1,219,510
1776	98,372	671,700	1837	175,135	1,329,010
1777	93,714	714,870	1838	183,302	1,403,400
1778	97,660	658,540	1839	180,780	1,360,250
1779	97,352	676,540	1840	177,497	1,371,870
1780	102,983	706,850	1841	166,922	1,210,220
1781	102,713	743,330	1842	175,317	1,336,660
1782	101,176	728,370	1843	175,153	1,571,660
1783	101,810	701,610	1844	180,311	1,600,130
1784	98,143	616,110	1845	192,160	1,411,980
1785	99,017	611,470	1846	199,875	1,458,220
1786	92,270	665,910	1847	240,862	1,438,280
1787	91,916	608,570	1848	240,183	1,478,280
1788	92,829	719,100	1849	225,560	1,544,170
1789	95,269	693,700	1850	225,714	1,555,270
1790	105,708	707,720	1851	215,511	1,511,250
1791	101,164	710,360	1852	226,948	1,575,340
1792	107,318	760,850			

The number of *fatted calves*, exclusive of sucklers, of which no account is taken, sold annually in Smithfield from 1821 to 1852 inclusive, was as follows:—

Date	Number	Date	Number
1821	21,768	1837	17,716
1822	21,255	1838	18,655
1823	22,759	1839	18,148
1824	21,949	1840	17,153
1825	20,938	1841	17,054
1826	22,118	1842	19,648
1827	20,729	1843	20,113
1828	20,832	1844	19,985
1829	20,879	1845	18,734
1830	20,590	1846	18,616
1831	19,522	1847	20,232
1832	19,216	1848	20,706
1833	18,619	1849	20,720
1834	19,721	1850	20,728
1835	20,859	1851	20,728
1836	18,590	1852	20,607

The contract at Greenwich below:—

1750	-
1740	-
1760	-
1770	-
1780	-
1790	-
1800	-
1810	-
1815	-

But it should be 1860, the quality been 'prime.' (1868) consists of beef of butchers.

We suspect, practical men of assigned by Sir the cattle sold when their estate excess; but the in the breeding of the empire average size; and now, we have been the mark. In we shall take the lbs.; and supposed to be nearly right; knew the respect to estimate the the furnished for London; exclusive of hogs a cow, however, distinct is known that the as 3 to 1; so that weight of the sheep

Average Number of Animals sold in Smithfield in each of the 3 years ending Dec. 31, 1852

215,411 cattle	-
1,569,590 sheep and lambs	-
53,192 calves	-
Total	-

This quantity, exclusive of sucklers, would cost 7,902,384l.

But exclusive of the sheep so called, including the head and horns, is used as food.

A part of the cattle of the towns in the vicinity of London, many cattle are slaughtered for the account is taken.

The latter quantity, supposing that the above quantity regarded as forming meat required for the pigs, suckling calves, hams, and so on, at a distance. The account are very large in the introduction of steam cattle and sheep at distant parts of the country sent up for sale have no means of feeding on such a subject, that the carcasses

The contract prices of butchers' meat per cwt. at Greenwich Hospital, since 1730, have been as below:—

	£	s.	d.		£	s.	d.		
1750	-	1	5	8	1830	-	3	10	4½
1740	-	1	8	0	1825	-	2	19	6½
1730	-	1	6	6	1820	-	2	3	6
1760	-	1	11	6	1835	-	2	0	7½
1770	-	1	8	6	1840	-	2	14	0
1780	-	1	12	6	1845	-	2	6	9
1790	-	1	16	10	1850	-	2	1	5½
1800	-	3	4	1	1855	-	3	18	9
1810	-	3	12	0	1860	-	2	17	5½
1815	-	3	8	0	1865	-	3	12	7

But it should be remarked that since January 1, 1860, the quality of the meat contracted for has been 'prime.' The mutton for the hospital now (1868) consists entirely of legs and loins, and the beef of buttocks and thick flanks free from bone.

We suspect, from what we have heard from practical men of great experience, that the weights assigned by Sir F. M. Eden and Mr. Middleton to the cattle sold in Smithfield were, at the time when their estimate was framed, decidedly in excess; but the great improvements since made in the breeding and feeding of cattle in all parts of the empire have materially increased their average size; so that the above weights are now, we have been well assured, not far from the mark. In order to be within bounds, we shall take the nett weight of the cattle at 750 lbs.; and supposing this and the other estimates to be nearly right, we should be able, provided we knew the respective numbers of sheep and lambs, to estimate the total quantity of butchers' meat furnished for London by Smithfield market, exclusive of hogs and pigs. Sheep and lambs are not, however, distinguished in the returns; but it is known that the former are to the latter nearly as 3 to 1; so that we may estimate the average weight of the sheep and lambs at about 70 lbs.

Average Number of Animals sold in Smithfield in each of the 5 years ending Decr. 31, 1852	Gross Weight		Nett Weight		Butchers' Meat
	lbs.	lbs.	lbs.	lbs.	
215,411 cattle	1,000	250	750	182,538,250	
1,560,520 sheep and lambs	99	20	79	109,866,100	
55,192 calves	175	55	140	1,616,880	
Total				297,071,530	

This quantity, estimated at the average price of 6d., would cost 7,426,788s.; at 8d. it would cost 9,902,384s.

But exclusive of the above, or of the beef properly so called, a large portion of the offal, including the head and tongue, heart, tripe, fat &c., is used as food.

A part of the cattle sold in London go to supply the towns in the vicinity; but, on the other hand, many cattle are sold in the adjoining towns, and slaughtered for the use of London, of which no account is taken. We have reason to think that the latter quantity rather exceeds the former; but, supposing that they mutually balance each other, the above quantity of 297,071,530 lbs. may be regarded as forming the annual supply of butchers' meat required for London (in 1853); exclusive, however, of the offal used as food, and of hogs, pigs, suckling calves &c., and exclusive also of bacon, hams, and salted provisions brought from a distance. The quantities thus omitted from the account are very large indeed; and since the introduction of steam navigation great numbers of cattle and sheep are killed in Scotland and other distant parts of the empire, the carcasses of which are sent up for sale in the London market. We have no means of forming any correct conclusion on such a subject, but we are inclined to think that the carcasses so sent up, added to the offal

used as food, and the hogs killed in town, may be considered as fully equivalent to the butchers' meat used in the victualling of ships. On this hypothesis there will remain 297,071,530 lbs. of butchers' meat for the supply of the metropolis, which, taking the population (for 1853) at 2,400,000, gives 123½ lbs. for the consumption of every individual, exclusive of bacon, hams, and salted provisions, and also of poultry. If the population of the metropolis be taken at 3,000,000, the quantity required, on the preceding calculation, will be 371,121,530 lbs.

This, though not nearly so great as has been sometimes represented, is, we believe, a larger consumption of animal food than takes place any where else by the same number of individuals. Mr. Middleton (*Agriculture of Middlesex*, p. 642) estimates the consumption of animal food in London, exclusive of fish and poultry, at 234 lbs. a-year for every individual! And he further estimates the total average annual expense incurred by each inhabitant of the metropolis, for all sorts of animal food, at 8l. 8s. According to M. Chabrol, the consumption of butchers' meat in Paris amounts to between 85 lbs. and 86 lbs. for each individual. At Brussels the consumption is a little greater, being supposed to average 89 lbs. each individual; being rather more than 3 lbs. above the mean of Paris, and 3½ lbs. under the mean of London.

There were 342,398 cattle, 40,207 calves, 1,624,405 sheep, and 30,803 pigs brought into the Metropolitan Cattle Market in 1855.

In estimating the weights of the animals killed in country towns, a lower standard must be adopted than that taken for London; first, because the largest and finest cattle are brought to the metropolis; and secondly, because a very large proportion of the calves killed in country towns are sucklers, which are excluded from the London accounts. Neither is the consumption so great in country towns as in the metropolis; and supposing the consumption in the latter to be at the rate of 123 lbs. per individual, it does not probably exceed 100 lbs. per do. in Manchester, Glasgow, Liverpool, and other great provincial towns. In 1851 there were slaughtered in Glasgow 29,569 oxen, 4,413 calves, 123,188 sheep and lambs, and 5,157 pigs. And this statement taken in connection with the fact that very large quantities of fresh and salted meat are imported into Glasgow, and that, so late as 1760, the slaughter of bullocks for the supply of the public market was unknown in that city, sets the wonderful improvement that has taken place in the food of the Scotch people in the most striking point of view. Previously to 1780 it was customary in Glasgow, Edinburgh, and the principal Scotch towns, for families to purchase in November what would now be reckoned a small half-fed cow or ox, the salted carcase of which was the only butchers' meat they tasted throughout the year. In the smaller towns and country districts this practice prevailed till the present century; but it is now everywhere abandoned. We believe, indeed, that there has never been, in any country, a more rapid increase in the quantity, or a greater improvement in the quality, of the food brought to market, than has taken place in Scotland, since 1770. In so far as respects butchers' meat, this has been occasioned partly by the growing numbers and opulence of all classes, and partly by the vast increase in the food of cattle consequent on the introduction of green crops, and of an improved system of cultivation. [BREAD.]

The introduction of steam navigation, and the improved means of communication by railroads

and otherwise, have already had, and will no doubt continue to have, a material influence over the supply of butchers' meat. Owing to the difficulty and expense of their conveyance, cattle could not formerly be conveniently fattened at any very considerable distance from the great markets; but steam navigation has gone far to remove this difficulty. Instead of selling their cattle, lean or half-fed, to the Norfolk graziers, by whom they were fattened for the London market, the producers, in various districts of Scotland, now fatten them at home, either sending the live animals or the carcasses by steam to London, Liverpool &c. This practice is indirectly as well as directly advantageous to the farmer, inasmuch as it enables him to turn his green crops to better account, and to raise larger supplies of manure. The same practice is also extending in Ireland; and will, no doubt, spread itself over every part of the country where feeding can be carried on, that has the required facility of transport.

Exclusive of the cattle raised in Great Britain, we import considerable supplies of beef and of live cattle from Ireland.

*Account of the Number of Cows and Oxen, and of the Quantities of Beef, imported into Great Britain from Ireland in the undermentioned Years.*

Year	Cows and oxen	Beef
1801	no.	barrels
1801	51,513	28,911
1805	21,862	28,519
1810	41,553	71,603
1815	33,809	60,307
1820	59,014	24,291
1825	63,519	65,537

In 1825 the trade between Great Britain and Ireland was placed on the footing of a coasting trade, so that there are no means of continuing this account to a later date from official returns. But the following statement collected by the Customs from non-official sources has been continued from 1860 to 1866 from the valuable Statistics of Ireland, published in Mr. Thom's *Almanac* for 1868:—

*Imports of Cattle, Sheep, and Swine from Ireland into Great Britain during each of the undermentioned Years ending with 1866.*

Year	Oxen, bulls, and cows	Calves	Sheep and lambs	Swine
1816	186,483	6,363	259,257	489,847
1817	189,960	9,997	324,179	106,407
1818	195,012	7,086	255,582	110,787
1819	201,811	9,831	241,061	68,053
1820	181,616	4,162	176,915	109,170
1821	185,769	2,171	151,807	156,162
1822	253,287	31,295	419,791	362,912
1823	551,501	21,560	407,176	358,187
1824	587,151	41,868	558,651	561,651
1825	599,503	42,587	517,532	552,938
1826	589,119	19,076	370,781	356,545
1827	524,652	11,082	578,831	385,132
1828	561,881	31,350	598,816	504,221

The average annual value of the total imports for the last seven years being 7,279,376*l*.

*Number of Head of Cattle in Great Britain.*—It would, on many accounts, be very desirable to have an accurate estimate of the number and value of the stock of cattle in Great Britain, and of the proportion annually killed and made use of; but owing to the little attention that has been paid to such subjects in this country, where most branches of statistical knowledge are at a low ebb, there are no means of arriving at any conclusions that can be depended upon. The following details may not, however, be unacceptable.

Arthur Young has given, both in his *Eastern and Northern Tour*, estimates of the number and value of the different descriptions of stock in

England. The greatest discrepancy, unaccompanied by a single explanatory sentence, exists between them; but there can be no doubt that the following estimate (*Eastern Tour*, vol. iv. p. 456), though, perhaps, rather under the mark, is infinitely nearer the truth than the other, which is about twice as great:—

Number of draught cattle	-	-	681,491
"    "    "    "    "    "	-	-	741,555
fattening cattle	-	-	515,369
young cattle	-	-	914,656
			3,852,018

Now, taking this number at the round sum of 3,000,000, and adding a half to it for the increase since 1770, and 1,500,000 for the number of cattle in Scotland, we shall have 6,000,000 as the total head of cattle of all sorts in Great Britain. The common estimate is, that about a fourth part of the entire stock is annually slaughtered; which, adopting the foregoing statement, gives 1,500,000 head for the supply of the kingdom; a result which all that we had heard down to 1850 inclined us to think was not far from the mark.

But in 1866 an enumeration of the cattle, sheep, and pigs was taken for England, Wales, and Scotland. The number in Ireland has been stated for some years past. This census gives 4,785,846 as the total number of cattle in Great Britain. Of these, 3,307,054 were returned for England, 541,401 for Wales, 937,411 for Scotland. In Ireland the cattle were 3,423,414; those in the Isle of Man and the Channel Islands 37,700: making a total of 8,316,960 for the United Kingdom.

The cattle reared and held in the United Kingdom is considerably less than that held on an average in foreign countries. We subjoin a table of the population and number of cattle in several of these countries according to the latest returns, the countries being arranged according to the number of their population.

Countries	Date of return of live stock	Population	Cattle
Russia	1859-63	71,139,394	23,411,069
France	1869	37,368,713	11,197,560
Austria	1863	36,267,648	11,257,116
United States	1860	31,145,000	16,911,175
United Kingdom	1866	29,070,952	8,316,960
Prussia	1862	18,491,280	5,653,500
Spain	1863	15,658,531	2,901,598
Bavaria	1863	4,807,410	5,185,892
Belgium	1856	4,029,161	1,237,619
Sweden	1860	3,859,728	1,016,608
Holland	1861	5,613,159	1,333,887
Naples	1861	2,225,840	638,460
Hanover	1861	1,880,070	919,179
Wurtemberg	1861	1,740,708	957,172
Denmark	1861	1,662,751	1,116,724
Baden	1861	1,429,199	621,486
Hesse	1863	833,515	516,655
Hessein	1861	661,811	297,572
Mecklenburg Schwerin	1857	559,254	266,837
Nassau	1861	468,511	200,645
Schleswig	1861	421,366	300,011
Oldenburg	1852	271,637	219,913

These figures will show how much less is the proportion of cattle to head of population in the United Kingdom than it is to be found in some other communities.

*Importation of Cattle.*—Previously to 1812 the importation of horned cattle, sheep, hogs, and other animals used as food was strictly prohibited; but this prohibition was then withdrawn, and the importation of the animals in question permitted on paying a duty of 20*s*. a head on oxen and bulls, 15*s*. on cows, 3*s*. on sheep, 5*s*. on hogs &c. This certainly was one of the boldest and most important inroads ever made on the prohibitive system, and reflected the greatest credit on the administration of Sir Robert Peel. It was supposed at the time that this change would lead to a very heavy fall in the prices of all sorts of stock, a supposition which was in some degree realised

by the panic which no good foundation this we endeavor this Dictionary prohibition.

The home produced by the change—during the prevalence of 1816 Sir R. Peel cattle trade by the result has been lean stock, the most profitable business.

*Account showing*

Oxen, bulls, cows, and sheep and lambs	-	-	-
Total	-	-	-

According to the Animals (July 16, chief sources of cattle are Spain, Portugal, Schleswig, Denmark is also supplied from Scotch ports, and from England. Importation ports only, these h Customs authorities tically a measure of for foreign cattle are Hull, Newcastle, Leith, cattle, Glasgow, Sill pool, and Bristol.

carried to Liverpool The following are the House of Comm pointed to enquire in home and foreign trad

*Transit.*—The sea in good condition, exceptions, specially have divisions for windsails or other r and in some cases sh

The cattle, however appear to suffer from of air when the vessel or are waiting for the as at Newcastle, Hull the cattle cannot be tide.

The animals carried tied with their heads, though the best mode heads to the centre, affords greater facilit and for good ventilation brought over loose.

There is no rule res board, but with the e the Irish and Bremen appear to be overcrow

It is in evidence th arises to cattle from b drovers, and that cat Spain arrive in a be Ireland.

In the voyage fro allowed space to lie c pressed food, and wate mals are packed clo

by the panic which it occasioned. But there was no good foundation for such anticipations; and this was endeavoured to show, in the edition of this Dictionary published soon after the repeal of the prohibition.

The home producer was not affected adversely by the change—indeed no real change occurred during the prevalence of these duties. Hence in 1846 Sir K. Peel completed his reform in the cattle trade by admitting animals duty free. The result has been a considerable importation of lean stock, the fattening of which has been the profitable business of farmers and graziers. Cattle

imported are rarely in condition for the butcher, for the confinement and hardships of a sea voyage toll severely upon lean stock, and would involve a serious loss on beasts shipped in prime condition.

A temporary check, however, was given to the importation of foreign cattle by the late prevalence of the cattle plague. In the period from June 24, 1865 to November 10, 1866, 198,481 cattle in England were attacked, of which but 21,589 recovered, while 38,443 healthy beasts were slaughtered to prevent the spread of the disease. (*Miscellaneous Statistics*, p. 323.)

*Account showing the Number and Declared Real Value of the Foreign Cattle, Sheep &c. Imported into the United Kingdom in 1865-67 (Statistical Abstract, 1868).*

	1865		1866		1867	
	Number	Value £	Number	Value £	Number	Value £
Oxen, bulls, cows, and calves -	283,371	4,401,482	277,739	4,092,941	177,948	3,295,110
Sheep and lambs -	914,170	1,787,886	799,880	1,501,312	740,536	915,661
Total -	-	6,189,368	-	5,594,253	-	4,210,771

According to the last Report on the Trade in Animals (July 16, 1866, Parl. Paper No. 427), the chief sources of cattle imports into Great Britain are Spain, Portugal, France, Belgium, Holland, Schleswig, Denmark, and Sweden. The market is also supplied from Orkney and Shetland to the Scotch ports, and from Scotland and Ireland to England. Importations are permitted to certain ports only, these having been approved by the Customs authorities, the regulation being practically a measure of quarantine. The chief ports for foreign cattle are Liverpool, London, Harwich, Hull, Newcastle, Leith, and Granton; and for Irish cattle, Glasgow, Sillith, Morecambe Bay, Liverpool, and Bristol. Scotch cattle are generally carried to Liverpool and London.

The following are extracts from the Report of the House of Commons' Committee of 1866 appointed to enquire into the manner in which the home and foreign trade in animals is conducted:—

*Transit.*—The sea-borne cattle arrive generally in good condition. The vessels are, with some exceptions, specially fitted up for the purpose, and have divisions for every four or six animals, windsails or other means to secure ventilation, and in some cases shelter for the cattle on deck. The cattle, however, in well-ventilated vessels appear to suffer from the want of a free current of air when the vessels are coming up the Thames or are waiting for the tide to discharge their cargo, as at Newcastle, Hull, Bristol, and Leith, where the cattle cannot be landed at all states of the tide.

The animals carried between decks are usually tied with their heads to the sides of the vessel, though the best mode is to tie them with their heads to the centre, because this latter method affords greater facility for feeding and watering, and for good ventilation; the Irish store cattle are brought over loose.

There is no rule respecting the numbers put on board, but with the exception of some cases in the Irish and Bremen trade, the vessels do not appear to be overcrowded.

It is in evidence that in Ireland much injury arises to cattle from bad treatment received from drovers, and that cattle landed from Oporto and Spain arrive in a better state than those from Ireland.

In the voyage from Oporto, each animal is allowed space to lie down, and is fed with compressed food, and watered; in other cases the animals are packed close to one another, so as to

prevent their lying or being shaken down, and sometimes are neither fed nor watered until landed.

The animals are chiefly made to walk on and off board, and the practice of slinging is nearly abandoned.

It has always been the practice to cleanse the ships, more or less, after each voyage, and recently disinfectants have been used.

On the railways cattle are often overcrowded and badly treated, especially in Ireland, and are carried for 36 to 48 hours without being fed or watered.

It is bad for the cattle and troublesome to un-truck them, while there is some difficulty in watering them while in a truck—a difficulty, however, which is not insuperable.

A journey, whether by sea or rail, causes cattle to deteriorate in value, and makes them feverish, and tends to produce, if it does not actually cause, the foot and mouth disease. These evils are very much increased if cattle are ill-treated or not properly watered.

Since the recent Orders in Council, the cattle trucks appear to have been properly cleansed as far as is possible. Possibly the floors might be constructed so as to admit of a more thorough cleansing than is at present practicable.

The Committee is of opinion that it should be made imperative upon all railway companies or steamboat proprietors who are engaged in the carriage of animals, to thoroughly cleanse and disinfect the trucks, steamboats, and pens used by them after every journey or voyage; and that provision should be made under Government superintendence for the proper ventilation of all vessels employed in carrying cattle by sea; and also that similar provision should be made with respect to the vessels employed in carrying cattle from Ireland and Scotland.

The laws relating to cruelty to animals might be often enforced with advantage in the case of both vessels and railways.

*Home Trade.*—If London and other large towns could be supplied entirely with meat killed in the country, a great deal of the traffic in cattle, and consequently a great deal of the chance of spreading infectious diseases, would be avoided.

London and other large towns can, except in hot weather, be supplied, to a great extent, with dead meat from a distance; and frequently country-killed meat, though not so good looking, is better and keeps longer than town-killed meat.

At present, the cost of sending carcasses by rail is larger than that of sending live cattle; but, with proper arrangements, the cost of carriage might be diminished.

If animals are slaughtered in districts which are thinly peopled, there is great difficulty in disposing of the offal, which does not bear the expense of carriage. It would be a loss to the farmer in such districts to be obliged to send his cattle to distant markets, dead instead of alive, and to the poor of London and large towns, who are great consumers of offal, and who would be deprived of it if those places were supplied by dead meat only.

The trade generally object to a dead-meat system; they say that the supply is very irregular, and that prices are only kept from violent fluctuations by the live-meat market.

Moreover, while admitting that the general demand is tolerably uniform, they say that their individual demand varies—that they can only meet this irregularity by buying cattle and keeping them alive in their own lairs to slaughter when required.

Many butchers and contractors who supply the suburbs of London are dependent for their meat on the metropolitan markets. If they could only obtain dead meat at these markets, it would be impossible to supply meat in as good a condition as they do at present.

The Committee is of opinion that it is not possible at present to dispense with a live-meat market in the metropolis and other large towns.

Both in London and in the provincial towns, butchers of the suburbs or neighbouring places have been in the habit of purchasing cattle in the live markets; and removing them to their own premises, and keeping them there until required for slaughter. These persons have suffered great inconvenience and extra expense by the recent prohibition of such removal, by the Orders in Council made in consequence of the cattle plague.

There does not seem to be any general desire permanently to restrain the general home traffic in cattle, but the Committee recommend that the Metropolitan Market should be confined to animals intended for immediate slaughter; and that all animals exhibited therein should be branded, and not allowed to be exhibited for sale in any other market, but should be slaughtered within 10 days, and that, subject to this regulation, the animals might be moved so as to allow butchers to take them to their own places and slaughter them.

The Committee does not recommend that any permanent restrictions, other than those above suggested, should be placed on the home traffic in cattle. That they are of opinion that the wilful exposure for sale in a public market of animals suffering from infectious disorders, such as rinderpest, sheep pox, pleuro-pneumonia, or glanders, or the knowingly driving such animals upon the public highways, or conveying them upon railway or boat, should be rendered an offence punishable in a summary manner; and, if necessary, a Bill to effect this should be introduced into Parliament.

The great inconvenience of cattle driving in the streets of London and other towns arises partly from cattle being driven to the live-meat markets and partly from cattle being driven from those markets to private slaughter-houses.

The live markets are not unhealthy in themselves, nor are slaughter-houses if properly kept, though they usually attract several trades which, in crowded localities, are injurious to public health.

The private slaughter-houses are occupied by two classes, carcass butchers and retail butchers.

The carcass butchers kill animals for the purpose of selling them wholesale in the dead-meat market. This slaughtering could be carried on at a public slaughter-house adjoining the live market as well as at private slaughter-houses; and if this were done, the number of cattle driven through the streets would be very much reduced, and the noxious trades which are connected with them would be removed.

The slaughter-houses of the retail butchers stand on a different footing. Their abolition would cause great hardship to many butchers who have slaughter-houses adjoining their shops, and can slaughter animals as they require them under their own superintendence.

For the public interest it would be advisable as far as practicable to adopt a system of public slaughter-houses, and in all cases slaughter-houses should be placed under regulations and proper inspection, as is the case at present in some of the provincial towns; and this Committee is of opinion that power should be given by a general Act to local authorities to acquire land for the erection of slaughter-houses, and to make regulations respecting them.

That the system of inspection at present existing in the City of London should be extended to the whole metropolitan district, although not entirely satisfactory inspection of meat can be carried out until all meat is killed in specified public slaughter-houses.

*Foreign Trade.*—The importation of foreign cattle is very important, for, as the home supply of cattle is reduced, the importation tends to keep down the price of meat, and it appears impossible to supply dead meat from foreign ports, to any but a very small extent.

The introduction of disease is, to a great extent, prevented by the system of inspection, which makes importers careful to send sound animals. The inspection is at present carried out effectually, though the accommodation at some wharves is deficient.

Diseased animals are slaughtered, but the rest of the cargo is sold, except in cases of rinderpest, when the whole cargo is slaughtered. Store stock affected with foot and mouth disease are, in some cases, detained until cured.

Inspectors cannot discover undeveloped seeds of disease in an animal, and therefore, with the view of preventing the importation of disease from abroad, many persons are desirous of placing store cattle in quarantine, and of maintaining the present regulation as to slaughtering fat cattle at the port of discharge within four days from their arrival.

The compulsory slaughter of all foreign cattle at the port of discharge, under the recent Orders in Council, has prevented the importation of any store cattle or sheep (which was an increasing trade), much to the detriment of the Scotch farmers, who have been unable to stock their lands, and has diminished the importation of fat cattle, a trade which would otherwise have increased.

The temporary inconvenience of insufficient accommodation for slaughtering at the wharves could no doubt be removed, but the evil of causing a large amount of additional slaughtering in large towns, as Liverpool and Hull, is more difficult to deal with.

Compulsory slaughter at a port, like compulsory slaughter at a market, is more expensive to the butcher, hampers the trade, and will diminish the importation, and raise the price to the consumer.

The Committee recommends that all imported

fat cattle should be English fat cattle.

That the country, in which the cattle plague is and to prohibit animals therefrom shall only that animals in any market, entry within four

Besides the port of discharge might be a separate London close stock might be market, or on the

The plan would be to bring infection from the metropolitan market, of driving cattle to the wall to Copenhagen brought back to

It is objected nearly all the butchers that the separation of the markets would be in competition, and while by giving it would increase unfair advantage

Although to some purchase foreign cattle, yet there is a separation of the men from one or two

Such a separation therefore undisturbed driving in the streets if the cattle were than at present, a this course would condition, and all the wharves.

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It seems desirable Any system of quarantine accommodation at cases (as Liverpool great difficulty in

The objections in time are the expense and the deterioration of quarantine, while it catch the disease quarantined. A quarantine tax on importation together, with price to the purchaser

It is alleged on the would gladly pay an animal; but it may quarantine furnishes animal is free from

The only disease to be at all reasonable Where countries are only free from rinderpest the exportation of countries, there seems to be for cattle exported from

fat cattle should be subject to the same rule as English fat cattle when exposed in a market.

That the Privy Council shall declare any country, in which they have reason to believe the cattle plague is existing, to be an infected country, and to prohibit the importation altogether of animals therefrom, or to declare that such importation shall only take place at certain ports, and that animals so imported shall not be taken into any market, but be slaughtered at the port of entry within four days of their being landed.

Besides the general question of slaughtering at the port of discharge, it was suggested that there might be a separate market for foreign fat stock in London close to the wharves, and that foreign stock might be excluded from the metropolitan market, or on the banks of the Thames.

The plan would prevent the chance of introducing infection from foreign cattle into the metropolitan market, and would stop the inconvenience of driving cattle through the streets from Blackwall to Copenhagen Fields, many of which are brought back to Whitechapel.

It is objected to by several inspectors, and by nearly all the butchers and salesmen, who alleged that the separation of the home and foreign markets would be inconvenient, would decrease the competition, and tend to diminish the importation; while by giving additional trouble to the butchers it would increase the price, and would give an unfair advantage to owners of English stock.

Although to some extent one class of butchers purchase foreign, and another class English fat cattle, yet there are many who purchase both. The separation of the markets would exclude these men from one or the other market.

Such a separation of the two markets seems therefore undesirable. The evil of the cattle driving in the streets might be much diminished if the cattle were landed lower down the river than at present, and brought up by rail, while this course would also bring the cattle in better condition, and allow of better accommodation at the wharves.

The chance of infection will also be much diminished if the metropolitan market be made exclusively a fat meat market, as in that case all the cattle would be, according to our previous recommendations, killed within 10 days.

It seems desirable, where practicable, in large towns to separate the fat and store cattle markets.

Any system of quarantine will require extensive accommodation at the port of arrival, and in some cases (as Liverpool and London) there will be great difficulty in providing this.

The objections urged to any system of quarantine are the expense, the interference with trade, and the deterioration of the animal during the quarantine, while it is said that the animal might catch the disease from the place where it is quarantined. A quarantine would, no doubt, act as a tax on importation, and if it did not stop importation altogether, would diminish it, and raise the price to the purchaser.

It is alleged on the other hand that a purchaser would gladly pay an increased price, as he would have a kind of warranty of the soundness of the animal; but it may be doubted whether the quarantine furnishes an adequate security that the animal is free from disease.

The only disease for which quarantine appears to be at all reasonable is the rinderpest.

Where countries like Spain or Denmark are not only free from rinderpest, but are not a channel for the exportation of cattle from infected inland countries, there seems to be no reason for a quarantine for cattle exported from them.

The Committee is of opinion that a permanent department of the Council Office should be appointed to keep up communications with the Board of Customs and her Majesty's consuls abroad, in order to have accurate accounts as to the existence or otherwise of the cattle plague, upon whose recommendation the Council could, if they thought fit, order a quarantine, or impose such restrictions upon the trade in animals as circumstances might appear to them to justify.

**Laws as to Cattle.**—No salesman, broker, or factor, employed in buying cattle for others, shall buy for himself in London, or within the bills of mortality, on penalty of double the value of the cattle bought and sold. (31 Geo. II. c. 40.)

Cattle not to be driven on Sunday, on penalty of 20s. (3 Ch. I. c. 1.)

Any person unlawfully and maliciously killing, wounding, or maiming any cattle shall be guilty of felony, and, upon conviction, may be transported, at the discretion of the court, beyond seas for life, or for any term not less than 7 years, or be imprisoned for any term not exceeding 4 years, and kept to hard labour; and, if a male, may be once, twice, or thrice publicly or privately whipped, if the court shall think fit so to order. (7 & 8 Geo. IV. c. 30.)

Persons wantonly and cruelly abusing, beating, or ill-treating cattle may, upon being convicted before a justice of such offence, be fined in any sum not exceeding 5*l.* and not below 10*s.*; and upon non-payment of fine may be committed to the house of correction for any time not exceeding 3 months.

Complaint must be made within 10 days after the offence. Justices are instructed to order compensation to be made, not exceeding 20*s.*, to persons vexatiously complained against. (3 Geo. IV. c. 71.)

**CAVIAR or CAVIARE** (Fr. caviar, caviar; Ger. kaviar; Ital. caviario, caviare; Span. caviario; Russ. ikra; Lat. caviarium). A substance prepared in Russia, consisting of the salted roes of large fish. The best, which is made of the roe of the sturgeon, appears to consist entirely of the eggs, and does not easily become fetid. It is packed in small casks or kegs; the inferior sort being in the form of dry cakes. Caviar is highly esteemed in Russia, and considerable quantities are exported to other countries. It is principally made of the roe of the sturgeon caught in the Wolga, in the neighbourhood of Astrachan, as many as 30,000 barrels of caviar having been exported from that city in a single season. In 1866, 128 cwts. of caviar were imported into Great Britain, valued at 2,313*l.* (*Geog. Dict. art. 'Astrachan.'*)

**CAYENNE PEPPER or GUINEA PEPPER.** [**PEPPER.**]

**CEDAR** (Ger. zeder; Dutch, ceder; Fr. cèdre; Ital. and Span. cedro; Russ. kedr; Lat. cedrus). The cedar of Lebanon, or great cedar (*Pinus cedrus*) of the Old Testament. It grows to a very great size. The timber is resinous, has a peculiar and powerful odour, a slightly bitter taste, a rich yellowish brown colour, and is not subject to the worm. Its durability is very great; and it was on this account (*propter aeternitatem*, Vitruvius, lib. ii. sec. 9) employed in the construction of temples and other public buildings, in the formation of the statues of the gods, and as tablets for writing upon. In the time of Vitruvius cedars were principally produced in Crete, Africa, and some parts of Syria. (Loc. cit.) Very few are now found on Lebanon; but some of those that still remain are of immense bulk, and in the highest preservation.

Cedar exceeds the oak in toughness, but is very inferior to it in strength and stiffness. Some very fine cedars have been produced in England.

There are several other kinds of timber that are usually called cedar: thus a species of cypress is called white cedar in America; and the cedar used by the Japanese for building bridges, ships, houses &c. is a kind of cypress, which Thunberg describes as a beautiful wood, that lasts long without decay. The *Juniperus oxycedrus* is a native of Spain, the south of France, and the Levant; it is usually called the brown-berried cedar. The Bermudian cedar (*Juniperus Bermudiana*), a native of the Bermuda and Bahama islands, is another species that produces valuable timber for many purposes, such as internal joiners' work, furniture, and the like. The red cedar, so well known from its being used in making black lead pencils, is produced by the Virginian cedar (*Juniperus Virginiana*), a native of North America, the West India islands, and Japan. The tree seldom exceeds 45 feet in height. The wood is very durable, and, like the cedar of Lebanon, is not attacked by worms. It is employed in various ways, but principally in the manufacture of drawers, wardrobes &c., and as a cover to pencils. The internal wood is of a dark red colour, and has a very strong odour. It is of a nearly uniform texture, brittle, and light. (Tredgold's *Principles of Carpentry: Library of Entertaining Knowledge, Vegetable Substances; Rees's Cyclopaedia; &c.*)

The duties on cedar, which produced only a trifling sum, were repealed in 1845. A duty of 1s. per ton was, however, imposed on cedar in 1860, but the importation has been free since March, 1866. The imports in 1866 were 5,647 tons, valued at 59,224l. The use of cedar in pencil making has been superseded to a considerable extent by other and cheaper woods.

**CEMENT.** Another name for hydraulic mortar, i. e. mortar which solidifies under water, and thereupon becomes impermeable to it. These cements always contain alumina and silica, and the rationale of their action is the formation of a hydrated silicate of lime, alumina, and occasionally magnesia. The sources of hydraulic lime are—  
1. The septarie of the oolite and London clay, found on the coasts of Kent, the Isles of Sheppey and Thanet, Yorkshire, Somerset, and the Isle of Wight, as well as in many continental countries.  
2. The blue lias cement stones found in South Wales, Somerset, Lyme Regis, and Nottinghamshire.  
3. The Isle of Portland cements of similar character may also be made artificially by the calcination of lime with silica and similar compounds. (Ur's *Dictionary*.)

The value of British cement exported in 1866 was 280,916l., about the average of the former 3 years.

**CERTIFICATES,** in the Customs. *Certificates of origin* were required in respect of all goods which are entitled to any exemption from or remission of duty, or other peculiar advantage, on their being imported. They were required, for example, in the case of sugar and spirits from the British possessions in America and the Mauritius, of sugar from places within the limits of the East India Company's charter, of wine from the Cape of Good Hope &c. The clauses with respect to them were embodied in the Customs Consolidation Act. [IMPORTATION AND EXPORTATION.] The statute enacted that the Commissioners of the Treasury may by order under their hands declare that a certificate of production shall be required upon the exportation of any goods from any British possession abroad or other place, or upon the importation of such goods into the United Kingdom, and frame such regula-

tions respecting such certificates and goods as they may think fit; and if any goods in respect of which such certificates are required be imported without such certificate, they shall be deemed to be foreign goods and liable to any duty attaching to them as such; and such orders of the Treasury shall be published in the London and Dublin Gazettes three times at least within three months from the date thereof respectively. (Sec. 78.)

The following clauses relate to the importation of goods from the Channel Islands—

**Goods of Guernsey, Jersey &c.**—Any goods of the growth of the Channel Islands, and any goods manufactured in the said islands from materials of the growth of the said islands, or from materials not subject to duty in the United Kingdom, or from materials upon which the duty has been paid in the United Kingdom, and upon which no drawback has subsequently been granted, may be imported into the United Kingdom from the said islands respectively without payment of any duty, and such goods shall not be deemed to be included in any charge of duties imposed by any Act on the importation of goods generally from parts beyond the seas; but such goods shall be charged with any proportion of such duties as shall fairly countervail any duties of excise payable on the like goods the produce or manufacture of the part of the United Kingdom into which they shall be imported, or payable upon any of the materials from which such goods are manufactured; and all goods manufactured in any of the said islands shall be declared and taken to be foreign goods. (Sec. 82.)

**Master to deliver Certificate of Produce.**—Before any goods shall be entered as being the produce of the said Islands (if any benefit attach to such distinction), the master of the ship importing the same shall deliver to the collector or comptroller of customs a certificate from the governor, lieutenant-governor, or commander-in-chief of the island whence such goods were imported, that proof had been made in manner required by law that such goods were of the produce of such island, stating the quantity and quality of the goods, and the number and denomination of the packages containing the same. (Sec. 83.) These regulations are now repealed.

**CHAIN.** In Surveying, a measure of length, composed of a certain number of links made of iron wire, serving to take the distance between two or more places. Gunter's chain contains 100 such links, each measuring  $7\frac{1}{4}$  inches, consequently equal to 66 feet, or 4 poles.

**CHAIN CABLES.** [ANCHORS AND CABLES.]

**CHALDRON.** A dry English measure. 36 coal bushels make a chaldron, and 21 chaldrons a score. The coal bushel is 19½ inches wide from the outside, and 8 inches deep. It contains 2217·6 cubic inches; but when heaped, 2815·3, making the chaldron 58·65 cubic feet. There are 12 sacks of coal in a chaldron; and if 5 chaldrons be purchased at the same time, the seller must deliver 63 sacks: the 3 sacks additional are called the *ingrain*. But coals are now sold in London, and almost everywhere else, by the ton of 20 cwt. avoirdupois. The Newcastle chaldron of coals is 53 cwt., and is exactly double the London chaldron. [COALS.]

**CHAMBER OF COMMERCE.** An assembly of merchants and traders, where affairs relating to trade are treated of. There are several establishments of this sort in most of the chief cities in France; and in this country chambers of this kind have been erected for various purposes.

**CHAMBER OF ASSURANCE,** in France, denotes a society of merchants and others for carrying on

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the business of insurance; but in Holland it signifies a court of justice where causes relating to assurance are tried.

**CHAMPAGNE.** One of the most esteemed and celebrated of the French wines. [WINE.]

**CHANKS or CHANK SHELLS.** Common conch shells (*Voluta Pyrum*) are fished up by divers in the Gulf of Manaar, on the coast opposite Jaffnapatam, in Ceylon, in about 2 fathoms water; and at Travancore, Tuticoreen, and other places. Large fossil beds of chanks have also been found. Chanks are of a spiral form. They are important as an article of trade in India, being in extensive demand all over the country. They are sawn into narrow rings or bracelets, and are worn as ornaments on the arms, legs, fingers &c. by the Hindoo women: many of them are also buried with the bodies of opulent and distinguished persons. Those which, from being taken with the fish, are called green chanks, are most in demand. The white chank, which is the shell thrown upon the beach by strong tides, having lost its gloss and consistency, is not worth the freight up to Calcutta. The value of the green chank depends upon its size. A chank opening to the right, called in Calcutta the right-handed chank, is so highly prized as sometimes to sell for 400, or 500, or even 1,000 rupees. (Bell's *Commerce of Bengal*; and *Private communications*.)

The fishery of chanks used to be monopolised by Government, who formerly let the banks for from 3,000l. to 4,000l. a-year. But of late years the fishery, partly from the poaching of the fishermen of the contiguous coasts, and partly from a decrease in the supply of chanks, declined so that the rental of the banks fell off to from 300l. to 400l. a-year; and this smaller sum was not paid, as formerly, for a license to dive for live chanks, but for permission to dig up the dead shells along the shore of the Gulf of Manaar. Under these circumstances Government have wisely abandoned the chank monopoly, which, without being of any value in a financial point of view, obstructed the employment of the inhabitants on the shores of the Gulf. (See the valuable *Report of Sir J. E. Tennent*, p. 55 of *Papers on Ceylon*, presented to Parliament in 1848.)

**CHARCOAL** (Fr. charbon; Ger. kohlenstoffe; Ital. carbone; Span. carbon). There are three forms of carbon—*diamond*, *graphite* or *plumbago*, and *charcoal*. The origin of the first two has not been determined; the latter is an artificial product. The most important kinds of artificial carbon are **LAMP-BLACK**, **vegetable charcoal**, and **animal charcoal**.

Vegetable charcoal is prepared by igniting wood and admitting as small a quantity of air as possible during the process of combustion. Branches of trees are piled in a conical shape, and are covered with turf, a few holes being left at the bottom of the pile, at which air is admitted. The pile is then ignited from below, and suffered to burn slowly till smoke ceases to be evolved. The apertures are then closed, and the charcoal suffered to cool. This method of manufacturing charcoal is very ancient, and has been practised in this country for centuries. The man who found the body of Rufus in the New Forest was a charcoal burner, and his descendants followed the occupation up to the close of the last century. Large quantities of charcoal are also produced by the distillation of wood in close vessels, in the manufacture of pyroligneous acid and wood naphtha. Coke is an impure variety of charcoal. The charcoal used in the manufacture of gunpowder is made of the young branches of various plants, the lighter and more vascular parts—excepting the bark, which contains more salts than the rest of the tree—being selected. These woods are charred in

iron vessels at high temperatures, and the product reduced to an impalpable powder.

The economical uses of wood charcoal are considerable. It has powerful disinfectant and decolorising properties, and arrests putrefaction in animal and vegetable substances. These qualities appear to depend on its extraordinary power of absorbing gases, particularly those which are the result of putrefaction. Thus 1 volume of charcoal will absorb 90 volumes of ammoniaical gas, and 55 volumes of sulphuretted hydrogen, giving off these products on being heated. Hence charred casks are the safest vessels for water to be used in by sea voyagers, and piles charred at the end are much more able to resist rot than uncharred wood. Disagreeable odours are eliminated by charcoal. It also absorbs colours. Hence its power of bleaching water, and its familiar use as a filter. Its properties are most notable in proportion to its lightness, which varies greatly with its origin, since its specific gravity when solidified is 3.5, while some kinds of porous charcoal are as low as .44.

Animal charcoal is obtained by submitting certain animal substances, generally bones, to a red heat, the vessel containing the material being closed. The product when obtained from bones is called bone black, or ivory black.

The extraordinary decolorising power of animal charcoal does not depend on the mere fact that the substance is carbonised, but on the minuteness to which the division of particles is carried. This division in the case of ordinary bone black is effected by the phosphate and carbonate of lime contained in the product, which being intimately blended with the charcoal, though only in a state of mechanical combination, render the surface of the charcoal, in which the decolorising power consists, more extended. By far the most powerful form in which animal charcoal can be obtained is from the ignition of dried blood, hair, albumen, and similar animal substances, with carbonate of potassa, and washing the product. Such a kind of charcoal, when compared with the decolorising power of ordinary bone black, the latter being taken as unity, exercises twenty times as much power in decolorising sugar, and fifty times as much in producing the same effect on a solution of indigo. If, however, the substance combined with the charcoal undergoes fusion, and so permanently coats the surface of the charcoal, the product is worthless.

Animal charcoal has great value in the art of the sugar refiner, in that of the dyer, and in various departments of economical chemistry.

**CHARLESTON.** A city and sea-port of the United States, in South Carolina, in 'lat. 32°46' 33" N., long. 79° 49' W. Population in 1869, 51,200, including the suburbs of Neck &c. beyond the limits of the city.

The situation of Charleston is not unlike that of New York, being built on a point of land between the Ashley and Cooper rivers, at their point of confluence. The exports principally consist of cotton and rice (particularly the former), which are the staple products of the state. There are a few other articles exported, such as naval stores, hams, bacon &c., but their value is inconsiderable. All the cotton sent from South Carolina to foreign countries is shipped at Charleston. In the year ending August 31, 1857, the shipments of cotton to foreign countries amounted to 229,185 bales; the shipments of cotton coastwise during the same year were estimated at 169,348 bales. But during and since the civil war which closed in 1865 the state of her trade has been abnormal. The imports from

foreign countries principally consist of cottons, woollens, linens and silks, hardware, iron and steel, coffee, sugar, tea, wine, spices &c. The greater part of the imports do not, however, come from abroad, but from the Northern and Middle States. The former supply her with fish, shoes, and all sorts of coarse manufactured goods for the use of the slave population; while the latter supply her with wheat, flour &c. The largest portion of the imports of foreign produce is also brought at second-hand from New York, which occupies the same rank in the Union that Liverpool and London do in Great Britain. In South Carolina the dollar is worth 4s. 8d. currency, so that 11 sterling = 11. 0s. 8d. currency. *Weights and Measures* same as in England. [New York.]

*Port.*—Charleston Harbour is spacious and convenient; but the entrance to it is incommoded by a range of sandbanks, stretching from Sullivan's Island on the north to Folly Island on the south, about 2½ leagues. There are several channels through these banks, but only three (the middle or direct channel, the ship channel, and Lawford channel between the latter and the mainland) that ought to be attempted by ships of considerable burden. The entrance to the ship channel is in lat. 32° 10'. The depth of water on the shallowest part of the bar at ebb tide is 12 feet, and at flood from 17 to 18 feet; whilst the depth in the middle channel at low water does not exceed 9 feet, and in Lawford channel it does not exceed 10 or 11 feet. There are two lights on Morris Island, lat. 32° 41' 56" N., long. 79° 52' 29" W., and on the west of the Ship channel. There are two lights on the east end of Charleston Battery, and two in Charleston harbour. But the lighthouse system of this, like that of the other harbours in the Southern States, has been deranged by the late war. After getting into the channel, which is marked by the breakers and buoys on each side, the proper course for a ship to steer is to bring the lighthouse to bear NW. by W., and stand direct for it till you get within the banks, when the course is N. by W. But it is unnecessary to enter into further details on these points, as all ships entering Charleston harbour are bound, provided they are hailed by a licensed pilot off the bar, to pay him full pilotage fees, whether they accept his services or not. In point of fact, however, they are always accepted: for the shifting of the sands, the influence of the tides &c. render the entrance so difficult to those not perfectly familiar with it, that even the packet ships that sail regularly to and from New York uniformly heave-to without the bar for a pilot.

Ships usually moor alongside quays or wharves, where they are in perfect safety.

*Shipping Charges.*—The charges of a public nature paid by ships entering this port differ but little in amount on a native and a foreign ship. On a vessel supposed to be of 300 tons burden, entering, unloading, taking on board a mixed cargo and clearing out, they would be as under:—

	dols.	cts.	¢	¢	¢
Fee on entry at the Custom-house	2	50	0	11	14
Surveyor's fee, on a foreign ship	5	00	1	1	44
ditto, on a native ship	5	00	0	12	00
Port warden's survey, when required	10	00	2	2	84
Fees on clearance at the Custom-house, of a native ship	5	50	0	14	11½
ditto, of a foreign ship	2	70	0	11	64
Photage inwards and outwards, supposing the ship to draw 14 feet water	50	00	10	15	64
Wharfage, per ditto	1	00	0	4	34

The difference in the fees on the clearance at the custom-house of a native and a foreign ship is owing to the former being obliged to give certain bonds which are not required of the latter.

## CHARTERPARTY

The greater or smaller tonnage of the ship makes no difference on any of the above charges except that of pilotage, which is in proportion to her draught of water, and is the same whether for a foreign or a native ship.

Harbour fees are 1½ cent per ton, according to the tonnage in the vessel's register or papers, on all vessels of the United States, and upon all foreign vessels entering upon the same terms as vessels of the United States, payable every voyage, excepting steamboats and packets, and other vessels performing regular successive voyages from North Carolina and Georgia, which vessels pay 1 per cent. per ton, once in every quarter. Fees to be paid at the harbour-master's office 48 hours after arrival. All other foreign vessels not entering upon the same terms as vessels of the United States pay double, or 3 cents per ton. All vessels owned in the State of South Carolina, and steadily plying or trading within the limits of the same, are exempted from the above fees. (See Mr. Edwards's excellent *British Shipmaster's Guide*, Longmans, 1866.)

*Rates of Commission.*—The rates of commission or factorage usually charged and allowed at Charleston on transacting different sorts of business are as follows, viz.—

For selling domestic produce, 2½ per cent.  
For selling foreign merchandise, 5 per cent.  
For guaranteeing either of these sales, 2½ per cent. additional is commonly allowed.  
For purchasing with funds in hand, or drawing domestic bills for reimbursement, 2½ per cent.  
For purchasing goods and drawing foreign bills for reimbursement, 5 per cent. is charged.  
For the sale of real or personal estate, the regular charge is 5 per cent.; but where the property to be sold is of any considerable value, the parties in general enter into an agreement beforehand, and a much lower rate of commission is allowed.

*CHART* (Ger. seekarten; Dutch, zeeakten; Fr. cartes marines; Ital. carte marine; Span. and Port. cartas de marear). This term is properly applied to a projection of some part of the sea, as the term *Map* is to a portion of the land; wherefore charts are sometimes denominated 'Hydrographical maps.' They are distinguished into several kinds, as plane, globular, and Mercator charts.

*CHARTERPARTY* The name given to a contract in writing, between the owner or master of a ship and the freighter, by which the former hires or lets the ship, or a part of the ship, under certain specified conditions, for the conveyance of the goods of the freighter to some particular place or places. Generally, however, a charterparty is a contract for the use of the whole ship: it is in commercial law what an indenture is at common law.

No precise form of words or set of stipulations is requisite in a charterparty. The forms subjoined to this article are those most commonly in use; but these may, and, indeed, in many cases must, be varied, to suit the views and intentions of the parties.

A charterparty is seldom under seal; for generally a printed or written instrument is signed by the parties, called a *memorandum of a charterparty*; and this, if a formal charterparty be not afterwards executed, is binding. The stamp in either case is the same.

Charterparties, when ships are let or hired at the place of the owners' residence, are generally executed by them, or some of them; but when the ship is in a foreign port, a charterparty must necessarily be executed by the master, and the merchant or his agent, unless the owner's name

an agent in such act for them in

A charterparty when he is in a the ship's employment circumstances which or when it is in circumstances which or implied assent the latter. But, no direct action instrument itself signed and sealed (authorise the master to enter into the treaty expressed only as agent.

When a ship is several persons, executed by each, or action for non-performance party be not excepted parties, but ruses denied witnesseth with consent of A the ship to freightment contains cov A and B; in this action upon the contract with them; but it cannot be sued upon proper form.

The general construction of this agreement, is, that the agreeable to the conformable to the of the particular relates.

The charterparty of the ship; and by of 1681 it is required Molloy (bk. ii. ch. ii) by the ton, and found by the payment shall and if a ship be freighted abouts, the addition author) is commonly less; but it is now register measurement

The usual covenant worthy, and in a condition the owners to prepare to commence and fulfil the charterparty contract owner of the vessel bound, as a carrier, to be fit to perform the he should give notice from losses occasioned his vessel, unless a want of ordinary care if his ship were not sustained. In all maritime the utmost consequence the object or lost; and therefore, by the time appointed the other may seek bringing an action to be sustained.

The manner in which cargo is, for the merchant custom and usage of it, unless there be an charterparty with respect, the owner is bound

an agent in such port, having proper authority to act for them in such matters.

A charterparty made by the master in his name, when he is in a foreign port in the usual course of the ship's employment, and, therefore, under circumstances which do not afford evidence of fraud; or when it is made by him at home, under circumstances which afford evidence of the expressed or implied assent of the owners; is binding upon the latter. But, according to the law of England, no direct action can be maintained upon the instrument itself against the owners, unless it be signed and sealed by them, or unless they authorise the master (or agent, as the case may be) to enter into the contract, and unless it be distinctly expressed in the charterparty that he acts only as agent.

When a ship is chartered by several owners to several persons, the charterparty should be executed by each, or they will not be liable to an action for non-performance. But if the charterparty be not expressed to be made between the parties, but runs thus—'This charterparty indented witnesseth, that C, master of the ship W, with consent of A and B, the owners thereof, lets the ship to freight to E and F,' and the instrument contains covenants by E and F to and with A and B; in this case A and B may bring an action upon the covenants expressed to be made with them; but unless they seal the deed, they cannot be sued upon it. This, therefore, is a very proper form.

The general rule of law adopted in the construction of this, as of other mercantile instruments, is, that the interpretation should be liberal, agreeable to the real intention of the parties, and conformable to the usage of trade in general, and of the particular trade to which the contract relates.

The charterparty usually expresses the burden of the ship; and by the famous French Ordinance of 1681 it is required to do so. According to Molloy (bk. ii. ch. iv. s. 8), if a ship be freighted by the ton, and found of less burden than expressed, the payment shall be only for the real burden; and if a ship be freighted for 200 tons, or *thereabouts*, the addition of *thereabouts* (says the same author) is commonly reduced to *five* tons more or less; but it is now usual to say so many tons 'register measurement.'

The usual covenant, that the ship shall be seaworthy, and in a condition to carry the goods, binds the owners to prepare and complete every thing to commence and fulfil the voyage. But though the charterparty contained no such covenant, the owner of the vessel would be, at common law, bound, as a *carrier*, to take care that the ship should be fit to perform the voyage; and even though he should give notice, limiting his responsibility from losses occasioned to any cargo put on board his vessel, unless such loss should arise from want of ordinary care &c., he would be liable if his ship were not seaworthy. [SEAWORTHY.]

In all maritime transactions expedition is of the utmost consequence; for even by a short delay, the object or season of a voyage may be lost; and therefore, if either party be not ready by the time appointed for the loading of the ship, the other may seek another ship or cargo, and bring an action to recover the damages he has sustained.

The manner in which the owner is to lade the cargo is, for the most part, regulated by the custom and usage of the place where he is to lade it, unless there be any express stipulation in the charterparty with respect to it. Generally, however, the owner is bound to arrange the different

articles of the cargo in the most proper manner, and to take the greatest care of them. If a cask be accidentally staved in letting it down into the hold of the ship, the master must answer for the loss.

If the owner covenants to load a full and complete cargo, the master must take as much on board as he can do with safety, and without injury to the vessel.

The master must not take on board any contraband goods, whereby the ship or cargo may be liable to forfeiture and detention; nor must he take on board any fals- or colourable papers; but he must take and keep on board all the papers and documents required for the protection and manifestation of the ship and cargo by the law of the countries from and to which the ship is bound, by the law of nations in general, or by any treaties between particular states.

If the master receive goods at the quay or beach, or send his boat for them, his responsibility commences with the receipt in the port of London. With respect to goods intended to be sent coastwise, it has been held that the responsibility of the wharfinger ceases by the delivery of them to the mate of the vessel upon the wharf. As soon as he receives the goods, the master must provide adequate means for their protection and security; for even if the crew be overpowered by a superior force, and the goods taken while the ship is in a port or river within the country, the master and owners are liable for the loss, though they may have committed neither fraud nor fault. This may seem a harsh rule; but it is necessary, to put down attempts at collusive or fraudulent combinations.

The master must, according to the terms of the charterparty, commence the voyage without delay, as soon as the weather is favourable, but not otherwise.

The courts of law have recently given some important decisions on the subject of delay, and other contingencies arising from local customs.

Thus there is a custom at Newcastle that coal should be loaded by *turns*. In a case in which the cargo was to be coke, and an action was brought for delay, the Court of Common Pleas held that there should be evidence alleged that the custom extended to coke.

Again, it was held that, a custom prevailing at Liverpool, by which 3 months' interest or discount might be deducted from freights payable under bills of lading on goods coming from New Orleans, and a shipowner demanding a full freight, the Court of Queen's Bench held that the custom was not repugnant to the written contract.

Again, when it was agreed by the charterparty that the ship should lade with all possible despatch in the customary manner a full and complete cargo of coke, to be loaded in regular turn, it was held that evidence was not admissible to show that, according to a custom at the port of lading under a contract so framed, the shipowner was bound (provided reasonable despatch was used) to wait his turn, according to a list kept by a coke manufacturer, who was not named in the contract, but whose name was mentioned at the time when it was entered into. The court held that such evidence would be inconsistent with the terms of the charterparty. (Maude and Pollock, p. 234.)

Several important decisions have been made, subsequent to the Russian war, on the fulfilment of the terms of a charterparty after a declaration of war, and an agreement made, previous to this declaration, to sail to a port which, by the fact of war being declared, became hostile. In the case of *Exposit v. Bowen* it was decided by the Court of

Queen's Bench that the plea alleged was not sufficient, for that the contract might have been performed either by purchasing a cargo before notice of declaration or from a British subject at Odessa. But the Court of Exchequer Chamber, on appeal, reversed this decision, on the ground that a shipment of cargo from an enemy's port was, *prima facie*, illegal, and therefore that the contract was dissolved. (Maude and Pollock, p. 247.)

For the effects of blockade on contracts of affreightment, see *CONTRABAND and NEUTRALITY*.

Sometimes it is covenanted and agreed upon between the parties, that a specified number of days shall be allowed for loading and unloading, and that it shall be lawful for the freighter to detain the vessel a further specified time, on payment of a daily sum as *DEMURRAGE*. If the vessel be detained beyond both periods, the freighter is liable to an action on the contract. The rate of demurrage mentioned in the charterparty will, in general, be the measure of the damages to be paid; but it is not the absolute or necessary measure; more or less may be payable, as justice may require, regard being had to the expense and loss incurred by the owner. When the time is thus expressly ascertained and limited by the terms of the contract, the freighter is liable to an action for damages if the thing be not done within the time, *although this may not be attributable to any fault or omission on his part*; for he has engaged that it shall be done. (Abbott *On the Law of Shipping*, part iii. c. 1.)

If there has been any undertaking or warranty to sail with convoy, the vessel must repair to the place of rendezvous for that purpose; and if the master neglect to proceed with convoy, he will be answerable for all losses that may arise from the want of it.

The owners or master should sail with the ship for the place of her destination with all due diligence, and by the usual or shortest course, unless in cases of convoy, which the master must follow as far as possible. Sometimes the course is pointed out in the charterparty. A *deviation* from the usual course may be justified for the purpose of repairs, or for avoiding an enemy or the perils of the seas, as well as by the sickness of the master or mariners, and the mutiny of the crew.

By an exception in the charterparty, not to be liable for injuries arising from the act of God and the queen's enemies, the owner or master is not responsible for any injury arising from the sea or the winds, unless it was in his power to prevent it, or it was occasioned by his imprudence or gross neglect. 'The question,' said Lord Mansfield, in an action brought by the East India Company, 'is, whether the owners are to pay for the damage occasioned by the storm, the act of God; and this must be determined by the intention of the parties, and the nature of the contract. It is a charter of freight. The owners let their ships to hire, and there never was an idea that they insure the cargo against the perils of the sea. What are the obligations of the owners which arise out of the fair construction of the charterparty? Why, that they shall be liable for damages incurred by their own fault, or that of their servants, as from defects in the ship, or improper stowage &c. If they were liable for damages occasioned by storms, they would become insurers.' The House of Lords confirmed this doctrine by deciding (May 29, 1788) that the owner is not liable to make satisfaction for damage done to goods by storm.

The expression *perils of the sea* is held to cover the following losses:—A 'loss by pirates,' 'accidental collision,' 'the swell of the tide in a

dry harbour,' 'the wilful but not barratrous act of the crew in throwing ballast overboard,' and a stranding rendered necessary by leakage produced by the careless loading of the cargo.

But on the other hand it was not held to include losses caused by the injury of worms at sea, by another vessel firing into the ship by mistake, or injury to goods by rats. Losses when a vessel has been under repair on the beach, or by alteration in the banks of a navigable river due to natural causes, or by the rising and falling of a vessel with the tide while moored in harbour, are not losses by sea perils.

In one case when the defendants agreed to convey some boxes of gold-dust from the Pacific across the Isthmus of Panama to London, and provided against robbers, dangers of roads, of whatsoever nature or kind, the court held that robbers did not protect the defendants from liability for the loss of one of the boxes stolen from a railway track between Southampton and London, for that robber meant robber by force, and danger of roads must be that arising from the condition of roads, e.g. the overturning of carriages.

The charterer of a ship may lade it either with his own goods, or, if he have not sufficient, may take in the goods of other persons, or (if not prevented by a clause to that effect in the charterparty) he may wholly underlet the ship to another. (For further details, see *Abbott On the Law of Shipping*, part iii. c. 1; *Chitty's Commercial Law*, vol. iii. c. 9 &c.; and the articles *BILL OF LADING, FREIGHT, MASTER, &c.*)

*Forms of Charterparties.*—The following is one of the most usual forms of a charterparty:—

'This charterparty, indented, made &c. between A B, &c. mariner, master, and owner of the good ship or vessel, called &c. now riding at anchor &c. of the burden of 200 tons, or thereabouts, of the one part, and C D of &c. merchant of the other part, witnesseth, that the said A B, for the consideration hereinafter mentioned, hath granted and to freight letten, and by these presents doth grant and to freight let, unto the said C D, his executors, administrators, and assigns, the whole tonnage of the hold, stern-sheets, and half-deck of the said ship or vessel, called &c. from the port of London to &c. in a voyage to be made by the said A B with the said ship, in manner hereinafter mentioned. (that is to say), to sail with the first fair wind and weather that shall happen after &c. next, from the port of London with the goods and merchandise of the said C D, his factors or assigns, on board, to &c. aforesaid (the act of God, the queen's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind, in so far as ships are liable thereto, during the said voyage, always excepted), and there unlade and make discharge of the said goods and merchandises; and also shall there take into and on board the said ship again the goods and merchandises of the said C D, his factors or assigns, and shall then return to the port of London with the said goods, in the space of &c. limited for the end of the said voyage. In consideration whereof, the said C D, for himself, his executors and administrators, doth covenant, promise, and grant, to and with the said A B, his executors, administrators, or assigns, by these presents, that the said C D, his executors, administrators, factors, or assigns, shall and will well and truly pay, or cause to be paid, unto the said A B, his executors, administrators, or assigns, for the freight of the said ship and goods, the sum of &c. (or so much per ton), within twenty-one days after the said ship arrived, and goods returned, and discharged at the port of London

aforesaid, for also shall and shall be by de factors or assign and every &c. v, the said A B, administrators, to and with th ministrators, and the said ship or of London to ta or before &c. ne for himself, his within 10 days a be thus ready, t said ship, to pr also, on arrival days to have his said ship, to retu said A B, for h ministrators, cloth and with the said trators, and assign now is, and at all be, to the best en his executors an and their own pr things made and k apparelled, furnishe men and mariners s and govern the sa rigging, boats, tac provision, and appu for the said men a ship during the voy

The great variety different voyages ar ing diversity in char of which the follow example of the more struments:—

'It is this day mu B. Rann, owner of th the *Mermaid*, Willi measurement of 472 the river Thames, an firm of Messrs. Thom of Mauritius, mercha tight, staunch, and s for the voyage, shall sail and proceed to New S convicts out to New S troops, merchandise, mentioned port of Ca at Madras on her v owner's account, or so safely get, and there l said merchants at Ca cargo of rice, or any o charterer engages to same to Port Louis, i deliver the same free there a full and compl or other lawful mercha nage, which the char exceeding what she carry over and above visions, and furniture: therewith proceed to L as she may safely get being paid freight, viz. equal to the actual qua that may be shipped a at 12s. 6d. per ton of 2 and should the vessel de port of London than th goods, actually shipped

aforsaid, for the end of the said voyage; and also shall and will pay for demurrage (if any shall be by default of him, the said C D, his factors or assigns) the sum of &c. per day, daily, and every day, as the same shall grow due. And the said A B, for himself, his executors and administrators, doth covenant, promise, and grant, to and with the said C D, his executors, administrators, and assigns, by these presents, that the said ship or vessel shall be ready at the port of London to take in goods by the said C D, on or before &c. next coming. And the said C D, for himself, his &c. doth covenant and promise, within 10 days after the said ship or vessel shall be thus ready, to have his goods on board the said ship, to proceed in the said voyage; and also, on arrival of the said ship &c. within &c. days to have his goods ready to put on board the said ship, to return on the said voyage. And the said A B, for himself, his executors and administrators, doth further covenant and grant, to and with the said C D, his executors, administrators, and assigns, that the said ship or vessel shall be, to the best endeavours of him, the said A B, his executors and administrators, and at his and their own proper costs and charges, in all things made and kept stiff, staunch, strong, well-apparelled, furnished, and provided, as well with men and mariners sufficient and able to sail, guide, and govern the said ship, as with all manner of rigging, boats, tackle, and apparel, furniture, provision, and appurtenances, fitting and necessary for the said men and mariners, and for the said ship during the voyage aforsaid. In witness &c.

The great variety of circumstances under which different voyages are made produce a corresponding diversity in charterparties. The charterparty of which the following is a copy affords a good example of the more complex species of these instruments:—

'It is this day mutually agreed between Mr. T. B. Rann, owner of the good ship or vessel called the *Mermaid*, William Henniker master, of the measurement of 472 tons, or thereabouts, now in the river Thames, and Mr. David Thomson, of the firm of Messrs. Thomson, Passmore, and Thomson, of Mauritius, merchants, that the said ship, being tight, staunch, and strong, and every way fitted for the voyage, shall, with all convenient speed, sail and proceed to Calcutta, with leave to take convicts out to New South Wales, and from thence troops, merchandise, or passengers, to the aforementioned port of Calcutta, with leave to touch at Madras on her way thither, if required on owner's account, or so near thereunto as she may safely get, and there load, from the factors of the said merchants at Calcutta, a full and complete cargo of rice, or any other lawful goods which the charterer engages to ship, and proceed with the same to Port Louis, in the Isle of France, and deliver the same free of freight; afterwards load there a full and complete cargo of sugar in bags, or other lawful merchandise of as favourable tonnage, which the charterer engages to ship, not exceeding what she can reasonably stow and carry over and above her tackle, apparel, provisions, and furniture; and, being so loaded, shall therewith proceed to London, or so near thereunto as she may safely get, and deliver the same on being paid freight, viz. for such quantity of sugar equal to the actual quantity of rice, or other goods, that may be shipped at Calcutta, at the rate of 3*l.* 12*s.* 6*d.* per ton of 20 cwt. nett, shipped there; and should the vessel deliver more nett sugar in the port of London than the quantity of rice, or other goods, actually shipped in Calcutta, the owners to

be paid on the excess at the regular current rate of freight for sugar which other vessels, loading at the same time at Port Louis, receive; the tonnage of the rice, wheat, or grain, to be reckoned at 20 cwt. nett per ton; that of other goods at the usual measurement (the act of God, the queen's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, during the said voyage, always excepted). The freight to be paid on unloading and right delivery of the cargo, as is customary in the port of London. Ninety running days are to be allowed the said merchant (if the ship is not sooner despatched) for loading the ship at Calcutta, discharging the cargo at Port Louis, and loading the cargo there; the said lay days to commence on the vessel being ready to receive cargo, the master giving notice in writing of the same at Calcutta, and to continue during the loading there; and from the time of her arrival at Port Louis, and being ready to discharge, till the final loading at that port, and to be discharged in the port of London with all possible despatch; and 20 days on demurrage over and above the said luying days at 12*l.* per day. Penalty for non-performance of this agreement, 4,000*l.* The cargo to be brought to and taken from alongside at the expense and risk of the merchants. The necessary cash for the disbursements of the vessel at Calcutta, not exceeding 350*l.*, to be advanced by the charterer's agents; they taking the master's drafts on the owner for the same, at the regular current rate of exchange, and at three months' sight; and if the said bills be not regularly accepted and paid when due, the same to be deducted from the freight payable by this charterparty. The vessel to be disbursed at Port Louis by the chartering agents; sum not to exceed 300*l.*, free of commission; and the amount to be deducted from the freight at the final settlement at the port of London. Captain not to ship goods without consent. In the event of the ship being prevented by damage or any other cause, reaching the Mauritius on or before the 1st day of January, 1843, the charterer or his agents shall be at liberty to employ the vessel for one or two voyages to Calcutta, at the rate of 2*l.* per ton of rice, or other goods, delivered at Mauritius. Fifty running days, to load and discharge, to be allowed on each voyage; it being understood that the charterer or his agents shall load the ship, as before agreed, either at the end of the first or second voyage, as the case may be. The freight on the intermediate voyages (if any) to be paid on delivery of the cargo, in cash, or by bills on London at usance, at the option of the master. The vessel to be addressed, both at Calcutta and Isle of France, to the agents of the charterer. In witness whereof, the said parties have hereunto set their hands and seals, at London, the 2nd day of December, 1811.'

*Stamp Duties on Charterparties.*—By the 55 Geo. III. c. 184, charterparties were made liable to a duty of 1*l.* 15*s.* In case the document contained more than 2,160 words, every entire quantity of 1,080 words above the first 1,080 was liable to a further stamp duty of 1*l.* 5*s.*

But by 5 & 6 Vict. c. 79 these duties were repealed, and in place it was enacted that every charterparty, or agreement or contract for the charter of any ship, and every memorandum, letter, or other writing between the captain, master, or owner of any ship and any other persons for or relating to the freight or conveyance of any moneys, goods, or effects on board any ship, must be stamped with a 5*s.* stamp. By 28 & 29 Vict. c. 96, the duty was further reduced from

5s. to 6d. The stamp may be impressed, without the payment of any penalty, within 14 days after the charterparty bears date, and has been executed by the party who first executed it. Within a month from this time the stamp may be obtained on payment of a penalty of 10l.: beyond this period it cannot be affixed at all.

**CHAY OR CHOY ROOT.** The roots of a small biennial, rarely triennial, plant, the *Oldenlandia umbellata*, Nat. Order *Rubiaceae*, growing spontaneously in light, dry, sandy ground near the sea; and extensively cultivated, especially on the coast of Coromandel. The cultivated roots are very slender, and from 1 to 2 feet in length, with a few lateral fibres; but the wild are shorter, and supposed to yield one fourth part more of colouring matter, and of a better quality. The root gives a yellow colour to cold, a reddish to hot water, which becomes bright red by alkalis. The basis of the dye is *alizarine*. The roots are employed to dye the durable reds for which the Indian cotton yarn and chintzes have been long famous, and which can only be equalled by the Turkey red.

Chay root forms a considerable article of export from Ceylon. Only a particular set of people are allowed to dig it. It used to be all bought up by Government, who paid the diggers a fixed price of 75 or 80 rix-dollars a caudy, and sold it for exportation at about 175 rix-dollars. (Hertolacci's *Ceylon*, p. 270.)

This root has been imported into Europe, but with no success. Dr. Bancroft suspects it may be injured by the long voyage; but he adds, that it can produce no effect which may not be more cheaply produced from madder. It is a very bulky article, and is consequently burdened with a very heavy freight. (*Permanent Colours*, vol. ii. pp. 282-303.)

**CHEQUES, CHEQUES, or DRAFTS.** Orders addressed to some person, generally a banker, directing him to pay the sum specified in the check to the person named in it, or bearer on demand. The following is the usual form:—

£100, London, 10th November, 1853.  
Pay A. B. Esq., or bearer, One Hundred Pounds  
on account of C. D.  
Messrs. Glyn, Mills, and Co.

In point of form, checks nearly resemble bills of exchange. They are assignable by delivery only, and are payable instantly on presentment, without any days of grace being allowed. But by the custom of London, a banker has until 5 of the afternoon of the day on which a check is presented for payment, to return it; so that where a check was returned before 5, with a memorandum of 'cancelled by mistake' written under it, it was held a refusal to pay. If a check upon a banker be lodged with another banker, a presentment by the latter at the clearing-house is sufficient. Checks are usually taken conditionally as cash; for unless an express stipulation be made to the contrary, if they be presented in due time and not paid, they are not a payment. It is difficult to define what is the due or reasonable time within which checks, notes, or bills should be presented. A man, as Lord Ellenborough has observed, is not obliged to neglect all other business that he may immediately present them: nevertheless it is the safest plan to present them without any avoidable delay; and if received in the place where payable, they had better be presented that day, or next at furthest. If a check be not presented within a reasonable time, the party on whom it is drawn will be justified in refusing to pay it; and

the holder will lose his recourse upon the drawer. (*Clarity On Commercial Law*, vol. iii. p. 591; *Woollrych On Commercial Law*, ch. iii. s. 2 &c.)

In consequence of the alteration of the law effected by the 16 & 17 Vict. c. 53, checks were for a time of two sorts, viz. those on unstamped or plain paper, and those on paper impressed with a penny stamp.

1. In plain checks the place of issue and the date of issue had to be correctly stated, and to be drawn upon bankers having their place of business within 15 miles of the locality where the checks are issued; and not payable to order, but to bearer.

2. Checks on stamped paper enjoyed sundry privileges. Thus it was not necessary to adix the date or the place of their issue; they might be drawn upon any one, whether banker or not; they might be issued at any distance from the place where they were to be paid; and they might be payable either to bearer or to order. If made payable to order, it was essential that they 'purport to be indorsed' by the payee; but the party on whom they were drawn, provided he was a banker, was not bound to enquire whether such indorsement was genuine. By 21 Vict. c. 20 the stamp duty is extended to all checks.

If the party on whom a stamped check payable to order is drawn be not a banker, his responsibilities are not affected by the late Acts, and we apprehend that to make himself secure he should be satisfied, before paying the check, of the authenticity of the signature of the payee.

The system of drawing checks on a balance held by a banker is almost peculiar to our monetary system. The practice commenced about a century ago, when the London bankers adopted it in place of issuing their own notes. It is only, however, within the last twenty years that the use of the check-book has become almost universal, not only with traders, but with professional men, and even those who have fixed incomes, though of small amount. The exchange of checks [CLEANING HOUSE] has greatly aided the general adoption of the banking and check system.

To the economist and the merchant the check system presents some striking phenomena. It has infinitely facilitated business transactions; but it has also had a remarkable effect on the metallic and paper currency, economising the former, and contracting the latter, even under the circumstances of an incredible increase of home and foreign commerce.

In consequence of questions having arisen as to the legal effect of crossing a cheque, the 21 & 22 Vict. c. 79 provides that a cheque crossed with the name of a banker should be paid only to that banker; and if crossed with the words 'and Company,' or any abbreviation thereof, then only to some banker. [BANKS.]

**CHEESE** (Ger. käse; Dutch, kaas; Fr. fromage; Ital. formaggio, caseo; Span. queso; Russ. sur; Lat. caseus). The curd of the milk separated from the whey, or pressed or hardened. It has been used as an article of food from the earliest ages; vast quantities of it are consumed in Great Britain, and in most countries of Europe.

There is an immense variety of cheeses, the qualities of which depend principally on the richness and flavour of the milk of which they are made, and partly on the way in which they are prepared. England is particularly celebrated for the abundance and excellence of its cheese, Cheshire and Gloucestershire are, in this respect, two of its most famous counties; the cheese produced in the former has been estimated at 14,000 tons a year. There are two kinds of Gloucester cheese, double and single; the first is made of the milk

and cream, the half the cream, double generally single, or Berkel out of fashion, a cheese is also 1 which borders Wiltshire. The Cheshire cheese; Gloucestershire cheese, somewhat at Cheddar in Somerset, pale or coloured, the largest price. Stilton is made in the villages round reckoned sufficient be two years old; decayed, blue, and made at Leigh, in made in England, name, either from quality, are the Southam cheeses. cheeses, of a peculiar where they are made in Bath, York, and Bucks for their cream cheese and Banbury in Oxfordshire for these cheeses; made in it, very large to London and Birmingham distinguished for its best is called Dunlop Ayrshire, where it is Dunlop cheeses generally; and are, in most of Derbyshire, except Cheeses made to resemble extensively produced Large quantities of ducced in Holland. In cheese, which is reckoned hydrochloric acid is instead of rennet. The preserves it from mould called from Parma in France, is merely a soft its rich flavour to the along the Po, where Parmesan cheese is kept ever carried to many months old. Swiss cheese nominated Gruyère, famous in the canton of Gruyère cheeses are milk-skimmed milk, and are generally weigh from packed for exportation cheeses each. According to Mr. Ma produce of cheese from land is from 3 to 4 cwt. weight of the butter. *Statistical Account of Britain* The duty on all des counted, previously to but in that year the duties on British possession was in 1813 the duties were 1s. 6d. per cwt. respectively from and from British the duty on cheese from further reduced to 2s. 6d. wholly abolished in 1850.

and cream, the latter of the milk deprived of about half the cream. They are of various sizes; the double generally run from 30 to 40 lbs., and the single, or Berkeley, which are, however, fast going out of fashion, average 16 lbs. A great deal of cheese is also made in that part of Shropshire which borders upon Cheshire, and in North Wiltshire. The former goes under the name of Cheshire cheese; the latter was, till lately, called Gloucestershire cheese: now it receives its appellation from the county where it is made. A strong cheese, somewhat resembling Parmesan, is made at Cheddar in Somersetshire. This sort is either pale or coloured, and being much in favour brings the largest price. The celebrated rich cheese called Stilton is made in Leicestershire, principally in the villages round Melton Mowbray. It is not reckoned sufficiently mellow for cutting unless it be two years old; and is not saleable unless it be decayed, blue, and moist. A rich cheese is also made at Leigh, in Lancashire. The other cheeses made in England, which have acquired a peculiar name, either from the quantity made or from the quality, are the Derbyshire, Cottenham, and Southern cheeses. The last two are new milk cheeses, of a peculiarly fine flavour: the places where they are made are in Cambridgeshire, Bath, York, and Buckinghamshire are remarkable for their cream cheeses. The county of Warwick, and Banbury in Oxfordshire, are also remarkable for these cheeses; the former for the quantity made in it, very large supplies being sent from it to London and Birmingham. Banbury cheese is distinguished for its richness.

Scotland is not celebrated for its cheese; the best is called Dunlop cheese, from a parish in Ayrshire, where it was originally manufactured. Dunlop cheeses generally weigh from 20 to 60 lbs. each; and are, in most respects, similar to those of Derbyshire, except that the latter are smaller. Cheeses made to resemble those of Dunlop are now extensively produced in other parts of Scotland.

Large quantities of very good cheese are produced in Holland. In the manufacture of Gouda cheese, which is reckoned the best made in Holland, hydrochloric acid is used in curdling the milk instead of rennet. This renders it pungent, and preserves it from mites. Parmesan cheese, so called from Parma in Italy, where it is manufactured, is merely a *skim-milk* cheese, which owes its rich flavour to the fine herbage of the meadows along the Po, where the cows feed. The best Parmesan cheese is kept for 3 or 4 years, and none is ever carried to market till it be at least six months old. Swiss cheese, particularly that denominated Gruyère, from the bailiwick of that name in the canton of Friburg, is very celebrated. Gruyère cheeses are made of skimmed or partially skimmed milk, and are flavoured with herbs. They generally weigh from 40 to 60 lbs. each, and are packed for exportation in casks containing 10 cheeses each.

According to Mr. Marshall, the average yearly produce of cheese from the milk of a cow in England is from 3 to 4 cwt., or more than double the weight of the butter. (For further details, see *Statistical Account of British Empire*, i. 501, 3rd ed.)

The duty on all descriptions of foreign cheese amounted, previously to 1842, to 10s. 6d. per cwt.; but in that year the duty on cheese imported from a British possession was reduced to 2s. 6d. per cwt. In 1843 the duties were fixed at 5s. per cwt. and 1s. 6d. per cwt. respectively on cheese from foreign ports and from British possessions. And in 1853 the duty on cheese from a foreign country was further reduced to 2s. 6d. per cwt. The duty was wholly abolished in 1859.

In 1866, 872,342 cwt. of cheese were imported into the United Kingdom, of the value of 2,801,579*l.* Of this vast amount, 415,221 cwt. came from the North Atlantic ports of the United States, and 426,559 cwt. from Holland. The average value of American cheese was 3*l.* 6s. 8*d.* per cwt.; of Dutch *3*l.* 1s. 9*d.** In 1867 the imports had swelled to 965,476 cwt., valued, however, at but 2,555,264*l.*

**CHERRIES.** The fruit of a tree (*Prunus Cerasus*, Linn.) too well known to require any description.

They derive their name from Cerasus, a city of Pontus, whence the tree was brought by Lucullus, about half a century before the Christian era. It soon after spread into most parts of Europe, and is supposed to have been carried to Britain about a century after it came to Rome. The principal supplies of cherries for the London market are brought from the cherry orchards in Kent and Herts. The wood of the cherry is close, takes a fine polish, and is not liable to split. (Rees's *Cyclopædia*; London's *Encyclopædia of Agriculture*; &c.)

**CHESTNUT.** A forest tree (*Fagus castanea*) growing abundantly in most parts of the southern countries of Europe. It was at one time very common in England, and is still frequently met with. It is long lived, grows to an immense size, and is very ornamental. The wood is hard and compact: when young, it is tough and flexible; but when old, it is brittle, and often shaky. The chestnut contains only a very small proportion of sap-wood; and hence the wood of young trees is found to be superior to even the oak in durability. It is doubtful whether the roof of Westminster Hall be of oak or chestnut; the two woods being, when old, very like each other, and having been formerly used almost indifferently in the construction of buildings. A good deal of chestnut has been planted within the last fifty years. (Tredgold's *Principles of Carpentry*.)

**CHESTNUTS.** *Castanea vesca*, Nat. Order *Corylaceæ* (Fr. châtaignes; Ger. kastanien; Ital. castagne; Span. castañas; Russ. kaschtanil; Pol. kasztang). The fruit of the chestnut tree. Chestnuts grow in this country, but are very inferior both in size and perfection to those imported from the South of Europe. In some parts of the Continent they are frequently used as a substitute for bread, and form a large proportion of the food of the inhabitants. This is particularly the case in the Limousin, in Corsica, and several districts of Spain and Italy. The inhabitants of the Limousin are said to prepare them in a peculiar manner, which deprives them of their astringent and bitter properties. Chestnuts imported from Spain and Italy are frequently kiln-dried, to prevent their germination on the passage. In this country they are principally served up roasted at desserts.

The chestnut is very widely disseminated, being a native of all temperate regions of Europe, Asia, and America, but not of any part of Africa.

The chestnut contains a large quantity of starch, a peculiar sugar, and a small quantity of gluten, so small that the flour cannot be fermented. In France, where the chestnut is of great economical importance, the large chestnut is known by the name of *marron*. These sorts are chiefly grown in the hills of Vivarais, Forez, and Dauphiné, but being generally sold in Lyons, are called *marrons de Lyon*. The best chestnuts come from the neighbourhood of Périgord. There are from ten to twelve varieties of the edible chestnut.

The duty of 2s. a bushel on chestnuts, repealed in 1845, produced in 1842, 3,435*l.* 3s. nett, showing that the consumption must have amounted to

31,351 bu. hels. In 1866, 67,701 bushels were imported, chiefly from France. The imports were valued at 27,299l.

**CHETWERT or TSCHETWERT.** A measure of corn in Russia, equal to 5.77 Imperial bushels; hence 100 chetwerts = 72.12 Imperial quarters.

**CHILCA RED.** A colouring matter analogous to indigo, obtained from the leaves of the *Bignonia Chilca*, a tree found in Central America. It is used by the natives as a dye, and has been imported into this and other countries, under the name of *Cajum*.

**CHICORY or SUCCORY.** The wild endive, or *Cichorium Intybus* of Linnæus. Natural Order *Synanthesæa* (Span. achicoria; Fr. chicorée; Ger. zichorien, wagwart; Ital. cicoria). This plant is said to be originally a native of China, and to have been introduced into Europe at the middle of the sixteenth century. It is now found growing wild on calcareous soils in England, and in most countries of Europe. In its natural state the stem rises from 1 to 3 feet high, but when cultivated it shoots to the height of 5 or 6 feet. The root, which runs deep into the ground, is white, fleshy, and yields a milky juice. In Germany, the Netherlands, and France, chicory has long been extensively cultivated for the sake of its root, which is used as a substitute for coffee. When prepared on a large scale, the roots are partially dried, and sold to the manufacturers of the article, who wash them, cut them in pieces, kiln-dry them, and grind them between fluted rollers into a powder, which is packed up in papers containing from 2 oz. to 3 or 4 lbs. The powder has a striking resemblance to dark ground coffee, and a strong odour of liquorice.

Chicory contains a large quantity of sugar, from 24 to 35 per cent. in the dry root. When it is kiln-dried, and partially charred, a portion of this sugar is converted into *caramel*, and it is to the production of this substance that the peculiar properties of roasted chicory are due. The admixture of chicory with coffee may be detected in various ways: 1. by the presence of sugar; 2. by the large quantity of silica contained in its ash; 3. by the red colour of its ash, due to the presence of iron; 4. by the fact that it gives a colour to cold water, in consequence of the caramel produced by roasting; 5. its structure may be detected under the microscope.

Chicory is destitute of the peculiar properties of coffee, those, namely, which render the latter exhilarating and restorative. It gives only bitterness and colour to the infusion. Hence, as it is a cheap product, and was not till lately subject to an excise duty, it is largely employed as a means for adulterating coffee.

If chicory be sold under its own proper name, there can be no fair objection to its culture, or to its being exempted from taxation; but if it be fraudulently sold under the name of coffee, which in truth and reality is the very purpose to which it has been applied, and used as a substitute for and a means of adulterating the latter, then there can be no question that justice to the coffee-growers and to the public requires that this abuse should be prevented, or that chicory should be subjected to the same duty as coffee. And yet, singular as it may appear, the fraudulent substitution of chicory for coffee was in effect legalised by a Treasury minute of August 4, 1849; and though much objected to, this minute was not rescinded till 1852, when a new minute was issued, prohibiting the sale of coffee mixed with chicory, but allowing coffee dealers to sell the latter in parcels marked as such. But though a great improvement on the previous practice, this arrangement

was said not to realise all the advantages that were expected; and after a good deal of further enquiry and discussion a fresh minute was issued on February 25, 1853, permitting the sale of chicory mixed with coffee, provided the parcels containing such compound be labelled 'MIXTURE OF COFFEE AND CHICORY.' And notwithstanding the objections that have been taken to this minute, we do not well see what more can be required. It is illegal to sell coffee mixed with chicory without giving intimation that such is the case; but if parties aware of the circumstance prefer the mixture to pure coffee, it is merely an affair of taste, to the gratification of which, whatever we may think of it, there can be no good objection.

In 1860 a small excise duty was levied on chicory. This was gradually increased to 1l. 4s. 3d. the cwt., or to nearly the same rate as the customs' duty on coffee. But the produce of the excise tax on chicory in the year ending March 31, 1866, was only 13,273l. Foreign chicory when raw or kiln-dried pays 1l. 6s. 6d. the cwt., while roasted carries the same duty as roasted coffee, viz. 4d. the pound. In 1866 our imports of chicory were 103,763 cwts., raw or kiln-dried, of the value of 41,763l.

**CHINA GRASS.** The fibre of a species of nettle. A valuable Report by Mr. Abbot, United States Consul at Bradford, states that prepared China grass makes an excellent material for admixture with long staple woollen textiles, particularly for those requiring a stiff, strong, and cool texture, combined with a glossy silk appearance. The Report, which is of some length, is to be found in the United States *Commercial Relations with Foreign Countries for the Year ended September 1865*.

**CHINA ROOT** (Ger. chinawurzel; Dutch, chinawortel; Fr. squine, esquine; Span. raiz china, coccolmea; Arab. rhubimio). The root of a species of climber (*Smilax China*, Linn.). It comes from the West Indies as well as from China; but that from the latter is best. It is oblong and thick-jointed, full of irregular knots, of a brownish colour on the outside, and a pale red within; while new it will snap short, and look glittering within; if old, the dust flies from it when broken, and it is light and kecky. It should be chosen large, sound, heavy, and of a pale red colour internally. It is of no value if the worm be in it. It is used for the same purposes as *SARSAPARILLA*.

**CHINA WARE.** [PORCELAIN.]

**CHIN-KIANG.** [THE TREATY PORTS OF CHINA AND JAPAN.]

**CHINTS or CHINTZ** (Fr. indiennes; Ger. zitze; Ital. indiane; Russ. siz; Span. chites, zaraza). Fine printed calico, first manufactured in the East Indies, but now largely manufactured in Europe, particularly in Great Britain. [CALICO.]

**CHIP HATS.** [HATS.]

**CHOCKING.** [DUNNAGE.]

**CHOCOLATE** (Dutch, chocolade; Fr. chocolat; Ger. schokolade; Ital. cioccolata; Port. chocolate; Russ. schokolad; Span. chocolate). A kind of cake or confection, prepared principally from the cocoa nut. The nuts are first roasted like coffee; and being next reduced to powder and mixed with water, the paste is put into tin moulds of the desired shape, in which it speedily hardens, being, when taken out and wrapped in paper, fit for the market. Besides cocoa the Spanish use vanilla, sugar, maize &c. in the preparation of chocolate. This article, though celebrated for its nutritious qualities, is but little used in Great Britain; a circumstance which is probably, in

some considerable degree, owing to regulations to which its importation used, and though this prohibitive the duties on it are upon cocoa, we manufacture required for our consumption is said to be very large, and Castile soap. (Edin. p. 364, ed. 1819.) In from France) 176,959 colate, valued at 10,37 were entered for consumption per lb. amounting to 1,

'Alike easy to convey it contains a large of stimulating particles in been said with truth, and shea butter assist in In the New World, maize have rendered a lands of the Andes and (Humboldt's *Pers. Var.*

**CHRISTIANIA.** The ated at the bottom of a ti of Aggerhuus; in lat. 59 Population in 1860, 44,2 which entered the port was about 142,000, whi from it. Christiania is open sea; the gulf is in and its navigation some sufficiently deep for the or 7 fathoms water close pulsory on all ships to the mouth of the bay.

considerable. The prin and deals, which are in United Kingdom; glass, and nails, bones, smalts and pickled fish, one of Norway, is principally The deals of Christiania highest estimation; a excellence of the timber, in the sap-wood and other away; and not, as M supposed, of the skillful saw mills were formerly quantity only, and the 1 make oath that it was

*Travels in the North of* p. 28.) This absurd reg Consul-General Crowe, it remarks, 'that the Not sibly decreased of late judicious and culpable undoubtedly has materi staple capital of the coun restrictions on industry than in Sweden. In ti factured goods are admi and are very generally- cipal articles of import a and hardware; machine cotton goods; coals, bu corn is sometimes exten-

*Customs Regulations.*— vessel has got to her mo deliver to the collector ship and cargo, or presen for having such report a nance of a ship broker, w foreign vessels cannot en making this general rep- to be exhibited, and pay other dues inward is to b

some considerable degree, ascribable to the fiscal regulations to which it has been subjected. Its importation used, indeed, to be prohibited; and though this prohibition no longer exists, yet, as the duties on it are proportionally heavier than upon cocoa, we manufacture at home almost all that is required for our consumption. British chocolate is said to be very largely adulterated with flour and Castile soap. (Edwards's *West Indies*, vol. ii. p. 364, ed. 1819.) In 1866 we imported (chiefly from France) 176,559 lbs. of cocoa paste, or chocolate, valued at 10,974*l.*, of which 171,227 lbs. were entered for consumption; the duty at 2*d.* per lb. amounting to 1,427*l.* [Cocoa.]

'Alike easy to convey and employ as an aliment, it contains a large quantity of nutritive and stimulating particles in a small compass. It has been said with truth, that in Africa, rice, gum, and shea butter assist man in crossing the deserts. In the New World, chocolate and the flour of maize have rendered accessible to him the tablelands of the Andes and vast uninhabited forests.' (Humboldt's *Pers. Nar.* vol. iv. p. 231, Eng. trans.)

**CHRISTIANIA.** The capital of Norway, situated at the bottom of a fiord or gulf, in the province of Aggerhuus; in lat. 59° 53' N., long. 10° 48' E. Population in 1860, 44,212. The average tonnage which entered the port in the three years 1862-4 was about 142,000, while about 130,000 cleared from it. Christiania is about 60 miles from the open sea; the gulf is in some places very narrow, and its navigation somewhat difficult; but it is sufficiently deep for the largest vessels, having 6 or 7 fathoms water close to the quay. It is compulsory on all ships to take a pilot on board at the mouth of the bay. The trade of the town is considerable. The principal exports are timber and deals, which are largely imported into the United Kingdom; glass, particularly bottles; iron and nails, bones, smalts, oak bark &c. Salted and pickled fish, one of the staple products of Norway, is principally exported from Bergen. The deals of Christiania have always been in the highest estimation; a consequence of the excellence of the timber, and of the care with which the sap-wood and other defective parts are cut away; and not, as Mr. Coxce seems to have supposed, of the skillful sawing of the plank. The saw mills were formerly licensed to cut a certain quantity only, and the proprietors were bound to make oath that it was not exceeded. (Coxce's *Travels in the North of Europe*, 5th edit. vol. iv. p. 28.) This absurd regulation no longer exists. Consul-General Crowe, in his *Report* of Feb. 1868, remarks, 'that the Norwegian timber has sensibly decreased of late years, owing to the injudicious and culpable system of felling, which undoubtedly has materially reduced this hitherto staple capital of the country.' There are far fewer restrictions on industry and commerce in Norway than in Sweden. In the former, British manufactured goods are admitted on moderate duties, and are very generally made use of. The principal articles of import are colonial produce; iron and hardware; machinery; woollen, linen, and cotton goods; coals, butter, wine, brandy &c.; corn is sometimes extensively imported.

**Customs Regulations.**—Within 24 hours after a vessel has got to her moorings, the master should deliver to the collector his general report as to ship and cargo, or present the requisite documents for having such report made out with the assistance of a ship broker, whose services masters of foreign vessels cannot entirely dispense with. On making this general report, the measuring bill is to be exhibited, and payment of the tonnage and other dues inward is to be made. If the ship have

not been previously measured in Norway, and is, consequently, not provided with a Norwegian measuring bill, she is to be measured, to ascertain her burden in Norwegian commercial lasts, for the calculation of the tonnage duty.

The general report having been made, the Custom-house officers in charge of the vessel are furnished with the books for delivery, and the discharge of the cargo commences under their inspection; and the consignees may make their special reports under their responsibility and signature. If they are without precise information as to the contents of any or all of the packages or bales to their address, these bales or packages may, at their request, be opened in the presence of the officers before report is made. If a consignee omits availing himself of this permission, his pretending thereafter that more or other goods than he had ordered, or been advised of, have been sent to his address, will not be attended to. In the reports or entries is to be stated whether it is intended to pay the duties forthwith, whether the goods are intended for exportation, or whether they are to be landed.

Prior to commencing loading outwards, the master is to give verbal notice of his intention at the Custom-house. If he have no Norwegian measuring bill, the vessel is to be measured. This being done, the shipper or shippers of the outward-bound cargo are each of them to make their special entries as to the quality, weight, and measure of the goods they mean to load. A copy of such entries is to be deposited at the Custom-house, and the loading commences under the control of the officers. This applies to all mixed cargoes; but if the outward-bound cargo consist exclusively of wood, the shipper or shippers are only to notify that they intend loading wood, without specifying quantity, measure &c., as the export duty on wood is charged according to the burden of the vessel. When the master clears outwards, he produces the proper documents for showing the burden of his vessel, and to what port she belongs, and he is then, on proper application being made, provided with a pilot, who takes his vessel to sea.

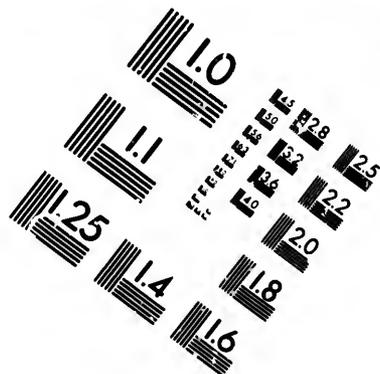
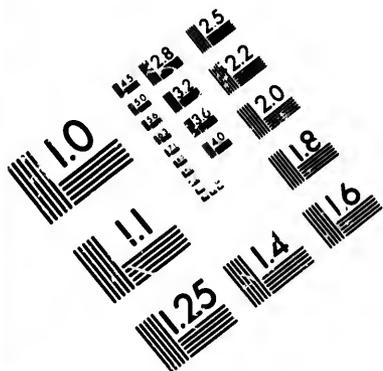
**Warehousing.**—In Norway, goods brought from abroad may be bonded or warehoused, with a view to their being again exported at some future period. Goods entered for home consumption may also be bonded for a certain period, in order to facilitate the payment of the duties.

The former is called *transit oplat*, i.e. depositing or warehousing goods for exportation, subject to transit duties only. The latter is called *credit oplat*, i.e. warehousing or bonding on credit.

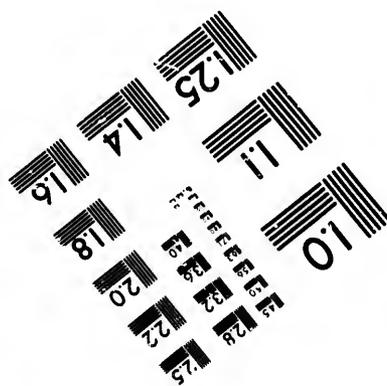
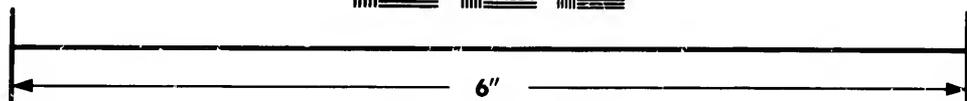
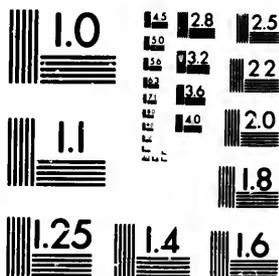
1. *Transit Oplat.*—Under this system, goods from abroad may be warehoused for exportation free of import duty, paying on exportation a transit duty, which, in most cases, is  $\frac{1}{15}$  of what they would pay if entered for home consumption. If the goods are deposited in the Custom-house warehouses, they lie free of rent or dues during 14 days; and if in private warehouses, under the key and seal of the Customs during 6 months. If they remain long, viz. beyond 14 days in the one, and beyond 6 months in the other case, they pay rent or dues equal to  $\frac{1}{4}$  of the transit duty per month; which, after the lapse of 3 months, as regards goods in the Custom-house warehouses, is increased to  $\frac{1}{2}$  of the transit duty per month.

2. *Credit Oplat.*—This system allows most goods imported from abroad to be placed in the owner's or importer's own warehouses, under his own lock, free of duty, for a given time, on his reporting to the Customs, every 3 months, how much he has





**IMAGE EVALUATION  
TEST TARGET (MT-3)**



**Photographic  
Sciences  
Corporation**

73 WEST MAIN STREET  
WEBSTER, N.Y. 14580  
(716) 872-4503

1.5  
1.8  
2.2  
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8.8

10

sold, otherwise consumed, or exported, and then paying the duty on such amount; the Custom-house officers, who are bound quarterly to examine the goods, convincing themselves by ocular demonstration that no more is missing than the quantity reported to have been taken away.

This credit on the duties in no case to exceed 2 years from the time the goods were imported.

By way of security for payment of the duties on which the credit is granted, Government reserve to themselves—

1. Priority of mortgage on all the goods in question.

2. Priority, or first right, in the property, goods, and effects of every description belonging to the trader availing himself of this credit, in as far as such property is not previously legally mortgaged.

3. Liberty for the Custom-house officers, when and as often as they shall deem it expedient, between the stated quarterly inspection, to look over the stock on hand, with a view of ascertaining

whether there remains sufficient value for the duties; and if they see reason to doubt this, full right, in default of other satisfactory security being offered, to seize the stock, and to sell the whole, or as much as shall cover the duties.

4. In case of death or failure of the party, an equal right to sell forthwith the whole of his stock at public auction, and to retain as much of the proceeds as shall cover the duties; and in case of deficiency, an established claim for the remainder on the estate of the deceased or bankrupt, as the case may be.

In charging the duties, no allowance is made for waste or damage in the warehouses.

The warehouse rent charged on goods bonded under the transit system in the Custom-house warehouses is as follows:—

	Per month.
On a quarter of wheat, for the first 3 months	0 0-5578
Afterwards -	0 1-1076
On a ton of raw sugar, for the first 3 months	0 11-5581
Afterwards -	1 11-9769

Account of the Quantities and Values of the Principal Articles of British and Irish Produce and Manufacture exported from the United Kingdom to Norway, in each of the Five Years ending with 1866.

Principal and other Articles	Quantities					
	1862	1863	1864	1865	1866	
Apparel and haberdashery	value	12,191	13,557	9,816	15,079	11,097
Alkali, soda	cwts.	56	1	1	5	5
Carrriages	number	119,015	128,083	179,817	177,528	193,111
Coals, cinders, and culm	tons	1,859	2,297	3,244	3,623	4,009
Copper, wrought and unwrought	cwts.	61,873	126,251	150,980	430,179	491,926
Cotton yarn	lbs.	1,637,173	1,802,346	2,262,127	3,132,118	4,535,737
Cottons, entered by the yard	yards	877	1,541	1,580	1,163	1,587
Carriage and twine	cwts.	5,553	6,110	6,007	10,595	9,516
Earthenware and porcelain	value	11,713	14,545	16,985	14,559	16,202
Hardware and cutlery, unenumerated	tons	154	181	158	180	156
Iron, wrought and unwrought	value	67,291	216,769	579,663	65,792	81,603
Lead and shot	value	263,329	346,965	895,755	519,813	456,036
Leather, wrought and unwrought	value	—	—	—	—	—
Linens, entered by the yard	yards	—	—	—	—	—
Machinery: steam engines	value	61,762	77,499	83,717	76,441	21,812
Oil, seed	gallons	11,716	10,740	9,207	12,463	14,092
Painters' colours	value	102,918	10,021	30,256	21,217	25,380
Salt	tons	46,659	92,202	68,240	51,305	58,774
Tin plates	value	1,051,199	1,096,291	1,176,356	972,895	1,016,891
Wool, sheep and lambs'	value	—	—	—	—	—
Woolen and worsted yarn	value	—	—	—	—	—
Woolens, entered by the yard	yards	—	—	—	—	—
Woolens, entered by the yard	value	—	—	—	—	—
All other articles	value	—	—	—	—	—
Total	value	—	—	—	—	—

Principal and other Articles	Declared Real Values				
	1862	1863	1864	1865	1866
Apparel and haberdashery	£ 27,701	£ 25,281	£ 21,805	£ 13,756	£ 21,895
Alkali, soda	£ 4,702	£ 3,901	£ 3,226	£ 5,226	£ 5,551
Carrriages	£ 8,499	£ 200	£ 55	£ 104	£ 1,557
Coals, cinders, and culm	£ 6,505	£ 50,488	£ 71,586	£ 79,628	£ 91,825
Copper, wrought and unwrought	£ 8,121	£ 13,219	£ 10,335	£ 15,315	£ 20,111
Cotton yarn	£ 3,892	£ 10,128	£ 14,995	£ 35,507	£ 39,133
Cottons, entered by the yard	£ 35,900	£ 51,751	£ 68,916	£ 80,910	£ 115,352
Carriage and twine	£ 6,745	£ 9,104	£ 15,113	£ 18,418	£ 21,678
Earthenware and porcelain	£ 12,050	£ 15,557	£ 12,735	£ 10,913	£ 12,533
Hardware and cutlery, unenumerated	£ 28,896	£ 37,799	£ 37,601	£ 42,581	£ 48,206
Iron, wrought and unwrought	£ 83,859	£ 81,897	£ 135,228	£ 122,097	£ 141,233
Lead and shot	£ 3,207	£ 3,269	£ 3,118	£ 3,881	£ 3,141
Leather, wrought and unwrought	£ 14,718	£ 6,671	£ 19,105	£ 7,145	£ 10,699
Linens, entered by the yard	£ 8,221	£ 12,016	£ 12,841	£ 7,409	£ 7,409
Machinery: steam engines	£ 11,355	£ 18,022	£ 45,285	£ 28,255	£ 27,313
Oil, seed	£ 10,221	£ 7,115	£ 9,759	£ 9,207	£ 8,295
Painters' colours	£ 3,730	£ 799	£ 2,845	£ 4,011	£ 4,609
Salt	£ 4,432	£ 13,611	£ 14,168	£ 16,618	£ 20,292
Tin plates	£ 4,751	£ 12,935	£ 13,384	£ 10,103	£ 5,391
Wool, sheep and lambs'	£ 6,717	£ 4,942	£ 4,711	£ 5,609	£ 5,473
Woolen and worsted yarn	£ 4,752	£ 5,169	£ 4,812	£ 6,218	£ 8,802
Woolens, entered by the yard	£ 62,750	£ 5,415	£ 5,735	£ 4,877	£ 6,421
Woolens, entered by the yard	£ 2,577	£ 740	£ 2,381	£ 1,779	£ 2,569
All other articles	£ 57,179	£ 72,774	£ 101,656	£ 62,013	£ 125,579
Total	£ 506,009	£ 556,979	£ 722,095	£ 677,007	£ 821,518

Account of the

Principal	Total
Animals: oxen and bullocks	—
Animals: cows and calves	—
Bones of animals and tallow	—
Cobalt, oxide of	—
Copper ore	—
Iron, wrought and unwrought	—
Corn: oats	—
Fish	—
Ice	—
Iron, ore	—
Iron, in bars, unwrought	—
Bloom	—
Chromate of iron	—
Nickel, ore of	—
Oil, train or blubber	—
Oil-seed cake	—
Primes of iron or copper	—
Skins, seal	—
Skins, seal	—
Wood and timber, not sawn	—
Wood and timber, sawn	—
Staves	—
Birch wood	—
Lathwood	—
Birch bark	—
Herring	—
All other articles	—
Total	—

These exports of the Kingdom there show colonial produce, coffee, tobacco, tea &c., the 1866 was 265,511, the exports 1,119,859, the most important of the whole, fish, and ice. The trade in it will be seen from imports are valued the value of our imports 1867 was 6,477,855. For the cod and herring. Cod is sent per steamer Hull and London, and to be a profitable em money, weights, there are no gold coins called a species dollar. There are, also, half species, or 24-skilling pieces; an demyut, or small copper pieces. The species pure silver, and sterling, the par of 12 1/2 skill. = 12. small change, are a

Account of the Quantities and Values of the Principal Articles imported into the United Kingdom from Norway in each of the Five Years ending with 1866.

Principal and other Articles	Quantities				
	1862	1863	1864	1865	1866
Animals: oxen and bulls - - - - - number	9	—	—	222	271
cows and calves - - - - - "	49	—	1	1	58
Bones of animals and fish (except whalefins) (tons)	559	576	460	1,917	797
Cobalt, oxide of - - - - - value	—	—	—	15	—
Copper ore - - - - - tons	641	1,139	738	1,469	1,654
unwrought and part wrought - - - - - "	115	131	131	150	76
Corn: oats - - - - - cwt.	25,551	97,193	46,954	118,690	119,017
Fish - - - - - tons	71,911	51,464	103,236	179,174	187,249
Ice - - - - - tons	26,010	36,192	21,792	38,605	62,371
Iron, ore - - - - - "	551	270	1,981	8,750	4,877
in bars, unwrought - - - - - "	165	359	861	172	389
bloom - - - - - "	62	57	75	82	152
chromate of - - - - - value	122	433	151	155	—
Nickel, ore of - - - - - value	—	—	—	—	—
Oil, train or blubber - - - - - tons	77	297	120	351	754
Oil-seed cake - - - - - tons	660	701	1,131	1,151	2,222
Pyrites of iron or copper - - - - - "	4,955	6,756	16,987	22,249	78,262
Skins, seal - - - - - number	32,591	33,455	45,871	61,502	79,292
Wood and timber, not sawn or split deals, battens, boards &c., - - - - - loads	111,813	101,993	158,029	122,093	140,290
sawn or split - - - - - "	211,604	250,509	290,955	287,539	307,577
slaves - - - - - "	3	5	56	49	4,612
firewood - - - - - "	81,745	35,838	99,009	157,287	97,559
lathwood - - - - - "	32	32	41	190	8,081
birch and fir, for making herring barrels - - - - - "	3,060	4,747	6,294	5,659	5,132
All other articles - - - - - value	—	—	—	—	—
Total - - - - -	—	—	—	—	—

Principal and other Articles	Computed Real Value				
	1862	1863	1864	1865	1866
Animals: oxen and bulls - - - - - number	£ 151	£ 80	£ 18	£ 4,060	£ 5,116
cows and calves - - - - - "	723	—	—	672	1,024
Bones of animals and fish (except whalefins) (tons)	2,818	3,070	2,603	8,252	3,897
Cobalt, oxide of - - - - - value	5,195	5,561	9,999	11,925	6,210
Copper ore - - - - - tons	3,736	3,033	3,197	15,771	16,411
unwrought and part wrought - - - - - "	107,566	12,717	11,264	11,369	6,879
Corn: oats - - - - - cwt.	9,111	32,775	15,572	42,116	50,528
Fish - - - - - tons	41,110	49,189	126,211	102,212	157,826
Ice - - - - - tons	27,029	32,814	22,203	34,716	66,137
Iron, ore - - - - - "	535	258	1,801	8,372	5,411
in bars, unwrought - - - - - "	1,322	5,913	9,881	1,295	4,056
bloom - - - - - "	499	513	625	738	1,216
chromate of - - - - - value	737	2,400	560	950	—
Nickel, ore of - - - - - value	5,985	1,831	37,585	11,428	19,855
Oil, train or blubber - - - - - tons	5,414	11,564	16,974	18,169	35,015
Oil-seed cake - - - - - tons	4,990	5,082	10,814	9,398	17,814
Pyrites of iron or copper - - - - - "	9,210	10,191	25,575	32,226	67,555
Skins, seal - - - - - number	6,529	6,850	7,165	9,226	6,581
Wood and timber, not sawn or split deals, battens, boards &c., - - - - - loads	242,992	214,787	296,515	236,001	248,935
sawn or split - - - - - "	620,988	701,092	847,180	720,796	723,794
slaves - - - - - "	25	31	76	581	55,980
firewood - - - - - "	77,669	91,655	94,059	150,323	83,645
lathwood - - - - - "	50	1,138	90	390	14,516
birch and fir, for making herring barrels - - - - - "	4,590	7,121	9,111	8,489	7,699
All other articles - - - - - value	31,249	28,719	20,742	36,738	37,298
Total - - - - -	1,105,973	1,251,083	1,572,754	1,434,272	1,611,359

To these exports of produce from the United Kingdom there should be added, of foreign and colonial produce, coffee, raw cotton, wool, hides, tobacco, tea &c., the aggregate value of which in 1866 was 265,511*l*, making the value of the total exports 1,119,859*l*. Of our imports from Norway the most important are timber, about two-thirds of the whole, fish, oats, iron and copper ore, oil, and ice. The trade in ice is of growing importance. It will be seen from the account that our total imports are valued for 1866 at 1,611,359*l*. The value of our imports from Sweden and Norway in 1867 was 6,477,865*l*.

For the cod and herring fisheries of Norway see **COB, HERRING**. Considerable quantities of salmon are sent per steamer from Christiansand to Hull and London, and shark fishing is now found to be a profitable employment in Norway.

**Money, Weights, and Measures.**—In Norway there are no gold coins. The principal silver coin, called a species dollar, is divided into 120 skilling. There are, also, half species, or 60-skilling pieces;  $\frac{1}{3}$  species, or 24-skilling pieces;  $\frac{1}{4}$  species, or 8-skilling pieces; and what is denominated skillingmynt, or small change, i.e. 4 and 2 skilling pieces. The species dollar contains 390.58 English grs. pure silver, and is consequently worth 4*s*. 6*d*. sterling, the par of exchange being 4 species dollars 12  $\frac{1}{2}$  skill. = 1*l*. All Norway coins, except the small change, are alloyed with  $\frac{1}{4}$  copper, so that

the species dollar weighs 418.38 English grs., an 1 its divisions in proportion. Small change coins are alloyed with three times their weight of copper. There are 1 and 2 skilling pieces of copper.

**Weights and Measures** same as at COPENHAGEN. **Shipping Charges.**—The various charges of a public nature payable by a ship of about 300 tons burden, entering the port of Christiania with a mixed cargo on board, unloading there, taking on board another cargo, and clearing out, are as follows:—

1. Charges Inwards.

	£	s.	d.
Pilotage from Farder, at the mouth of Christiania Bay, where all ships must take a pilot on board - - - - -	2	2	2
Bill of health, assuming that the crew, including the master, consists of 11 persons - - - - -	—	0	17 9
Tonnage dues and light money - - - - -	—	9	16 9
Broker's fees - - - - -	—	1	5 4
Total - - - - -	£ 11	2	0

2. Charges Outwards.

	£	s.	d.
Pilotage - - - - -	—	0	9 2
Castle dues - - - - -	—	0	1 7
Master's toll of crew - - - - -	—	1	0 5
Palé or stake money - - - - -	—	0	3 2
Measuring bill - - - - -	—	2	4 5
Charity chest - - - - -	—	0	1 7
Tonnage dues and light money - - - - -	—	10	11 1
Highland light - - - - -	—	0	0 9
Pilotage to Farder - - - - -	—	1	16 8
Broker's fees - - - - -	—	1	18 11
Total - - - - -	£ 18	6	11

N.B.—There is no difference between the charges on native ships in Norwegian ports, and privilege foreign ships, i.e. the ships of countries having reciprocity treaties with Norway; nor in

the duties on goods imported by native ships and such privileged foreign ships. Great Britain is a privileged country.

The shipping of Norway has declined considerably of late years; a proof, if any such were wanting, of the groundlessness of the clamours kept up in this country as to the supposed pernicious influence of reciprocity treaties on our shipping.

We borrow from Consul-General Crowe's Report of Feb. 1868 the following

*Review of the Aggregate Amount of Imports into and Exports from Norway during 1866, with the Official Estimate of their Relative Value, reduced to British Sterling, with the Amount of Duties collected.*

Articles	Estimated Value		Duty Levied	
	Imports	Exports	On Imports	On Exports
	£	£	£	£
Live animals	15,412	2,475	5,531	41
Provisions—of animals	269,722	1,416,627	68,820	4,277
Cereals	13,579	22,693	—	—
Colonial goods	867,855	274	292,265	—
Fruits, garden stuff &c.	76,069	6,399	15,862	—
Spirits and drinkables	189,428	1,859	53,539	—
Woven stuffs &c.	492,715	1,360	—	—
Yarn, ropemakers' work &c.	106,989	3,010	7,212	—
Manufactures of spun stuff	800,984	—	92,214	—
Hair, feathers, skins, horns &c.	150,781	166,143	7,213	231
Manufactures of ditto	27,163	43	2,166	—
Tallow, grease, oil, tar, gums &c.	86,401	421,057	9,530	2,771
Manufactures of ditto	35,731	20	4,353	—
Wool goods, unwrought and half wrought	64,921	1,638,972	1,165	51,562
Dye stuffs	29,158	598	1,297	—
Other manufactures of vegetable substances	64,117	756	2,398	—
Soap and paper work	85,419	5,603	1,223	1
Other manufactures of vegetable substances	29,959	1,600	4,253	—
Minerals: raw stuff	4,514	1,272	416	—
Minerals: manufactured	321,578	110,658	29,555	—
Metals: manufactured	76,974	501	12,702	—
raw and half wrought	187,585	101,677	13	—
wrought	295,256	2,611	10,612	—
Ships, carriages, machinery &c.	562,527	4,429	5,530	—
Total	4,816,863	5,915,677	618,933	41,645

**Banking.**—There are no private banking establishments in Norway; but there is a public bank, having its principal office at Drontheim, with branches at Christiania, Bergen, and Christiansand. It was established by a compulsory assessment in 1816. Its capital consists of 2,000,000 species dollars, in transferable shares, divided amongst those who were forced to contribute to its formation. These shares are now at a premium of 30 per cent. Its managers are appointed by, and are accountable to, the Storting or Norwegian Parliament. It issues notes for 100, 50, 10, and so low as 1 species dollar. These notes should be payable in specie on demand; but they are at a discount of 35 per cent., and are paid by the bank at that rate. It discounts bills at 2 and 3 months' date at 6 per cent. per annum; advances money on mortgage at 4 per cent.; and transacts the ordinary banking business of individuals. It does not allow interest on deposits.

**Credit.**—Goods are sold partly for ready money and partly on credit, but principally the former.

**Commission &c.**—The number of brokers in Christiania is limited to 4. Commission on the sale of goods, 2 per cent., or, *del credere* included, 3 per cent. Brokerage is fixed by law at  $\frac{5}{8}$  per cent., which, in practice, is paid by the sellers.

**Insurance.**—All houses situated in Norwegian market towns must be insured in the General Insurance Company at Christiania, which is guaranteed by the state. The premium is moderate, being, on buildings situated in towns,  $\frac{1}{4}$ , and on those situated in the country  $\frac{1}{8}$  per cent. Sometimes, however, when very destructive fires occur, it is raised.

**Provisions &c.**—Christiania is not a favourable place for careening and repairing ships; but

supplies of beef, bread, water, and other sea stores may be had as cheap or cheaper than in any other port of Norway. The distance, however, of the city from the sea is too great to allow of its being visited by ships desirous merely of victualling. (We have derived these details from various sources, but principally from Consular Returns.)

**Timber.**—A standard Christiania deal is 11 feet long, 14 inch thick, and 9 inches broad; and 51-2 such deals make a load.

Freight of deals from Norway to England is calculated at the rate of single deals, the standard measure of which for Christiania and all the southern ports of Norway, except Dram (a small town on the Drammen, about 20 miles SW. of Christiania), is 11 feet long, and 14 inch in thickness. A single deal from Dram is reckoned 10 feet long, and 14 inch thick.

**Battens.**—Three battens make 2 deals, retaining their own length and thickness. Half deals are only counted as deal ends if they run under 6 feet; but if they run 6 or 7 feet long, then 2 half deals are counted a deal, retaining their own thickness.

**Ends of Deals.**—Four ends of deals, although 5 feet long, make but a deal 11 feet long, retaining their thickness, which the owners and captains of ships think unreasonable; but as the freighters of ships seldom wish to have this assortment, which commonly run from 3 to 5 feet, and are taken on board as stowage, consequently for the advantage of the ship and not the freighter, the ship ought to bear the burden.

**Ends of Battens, called Larwick Palings.**—No less than 6 ought to be counted a single deal, 11 feet long and 14 inch thick.

**Pale-boards,** when they have their proper length, are 7 feet long; 3 pale-boards are counted a single deal.

**Staves** for hogsheds take up much room; in consequence of which more than 10 cannot be computed a single deal.

The width of deal is never noticed in the calculation of freight: a good deal ought to run 9 inches within the sap, which not a twentieth part of a cargo does at present; but, though some may be above 9 inches wide, many are only 8, therefore one must make up for the other.

**Timber or Heavy Goods** cannot be exactly computed according to the contents in deals, because it cannot be stowed in a ship in the same manner as deals: the freight is, therefore, agreed for by the lump, or according to the number of deals which the vessel may have taken on board on a former occasion.

One hundred deals = 120.

A ton = 40 solid feet of timber, cut to a square.

One load of balk, or timber, = 50 solid feet.

Two loads of timber are reckoned for 150 deals.

The several bills of lading contain together an exact account of the cargo which the captain has received on board his ship, consequently binding him to deliver according to their contents: when, therefore, the deals are mentioned as usual 9 and 10 feet, and 11 and 12 feet, he cannot insist on more freight than half of the length, according to its description.

One thousand Norway standard deals are reckoned equal to a keel of coals, which is 21 tons.

**Boesprits** pay duty as masts; capravens are above 12 and under 18 inches in circumference at the middle, and without bark. Clapboard is exported in whole pieces and unquartered. Deals from Germany pass as Norway deals; spruce deals are upwards of 20 feet in length; deals from Norway, above 7 feet long, are counted as whole deals; above 5 feet, and not above 7 feet in length,

are accounted as one whole.

The difference standard being ought to be times happen and Dram has Christiania has the others for which runs ve year. (Kordla Reports, &c.)

**CHROMIUM** covered by Va ish white color affected by any cal value, but t anee as dyes ar

**CHUNAM.** The best, obtain employed in the it is said, its inj

**CIDER** or apfelwein; Ital. The juice of app produce of the pressed and ferr in 1828, to 37,22

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vermillion; Fr. cinabrio; Russ. kin cinnabrium).

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Islands is said to that of Almaden, i also abundant in the of China. The bes colour, brilliant, a matter. Only 24 ex at 3360, were impo

2. *Artificial Cinn* cury and 1 of sulpl a mortar, the mercer the whole assumes formerly called *E* mineral is heated r proper vessel be pla tained of a fine red mery called cinnab

are accounted as half deals, and two of them pass as one whole deal.

The difference between the Christiania and Dram standard being nearly  $\frac{1}{11}$ , the freights to Dram ought to be varied proportionally. It has sometimes happened that ships both for Christiania and Dram have been in company, and those for Christiania have got up, loaded, and sailed, before the others for Dram have got over Dramstroom, which runs very strong down in the spring of the year. (Rordansz' *European Commerce; Consular Reports; &c.*)

**CHROMIUM.** This metal, which was discovered by Vauquelin in 1797, is brittle, of a greyish white colour, and very hard. It is scarcely affected by any acids. The metal has no economical value, but its salts are of the greatest importance as dyes and colours.

**CIUNAM.** The name given in India to lime. The best, obtained by the calcination of shells, is employed in the composition of BETEL, to prevent, it is said, its injuring the stomach.

**CIDER** or **CYDER** (Fr. cidre; Ger. zider, apfelwein; Ital. cidro; Russ. sidor; Span. sidra). The juice of apples expressed and fermented. The produce of the duty on cider and perry (the expressed and fermented juice of pears) amounted, in 1828, to 37,220L; which, as the duty was 10s. a barrel, shows that the quantity produced and brought to charge must have amounted to 71,440 barrels, exclusive of what might be clandestinely manufactured. The perry is supposed to have amounted to about a fourth part of this quantity. The duty was repealed in 1830. [APPLES.] Perhaps the total produce of cider and perry may now be estimated at from 100,000 to 110,000 barrels.

The manufacture of cider is also an important branch of industry in France, especially in the provinces of Normandy, Brittany, Picardy, and Artois. It is made from summer, autumn, and winter apples, which are not only distinguished by the time at which they reach maturity, but by the different quality of the beverage produced from them. Cider is also largely manufactured in Canada and the United States.

Good cider contains about 6 per cent. of proof spirit. Cider is sometimes adulterated with lead, with the object of masking tartness. This practice is exceedingly injurious, as lead is a dangerous poison. Common cider is also extensively used for the manufacture of spurious wine.

**CIGARS.** [TOBACCO.]

**CINNABAR** (Ger. zinnober; Dutch, einaber, verniljoen; Fr. cinnabre; Ital. cinabro; Span. cinabrio; Russ. kinowar; Chinese, chú shá; Lat. cinabrium).

1. *Native Cinnabar.*—A mineral substance, red, heavy, and brilliant. It is found in various places, chiefly in quicksilver mines, being one of the ores of that metal. The cinnabar of the Philippine Islands is said to be of the highest colour; but that of Almaden, in Spain, is the richest. It is also abundant in the central and western provinces of China. The best native cinnabar is of a high colour, brilliant, and free from earthy or stony matter. Only 24 cwts. of native cinnabar, valued at 336L, were imported in 1866.

2. *Artificial Cinnabar.*—When 2 parts of mercury and 1 of sulphur are triturated together in a mortar, the mercury gradually disappears, and the whole assumes the form of a black powder, formerly called *Ethiops mineral*. When this mineral is heated red hot, it sublimes; and if a proper vessel be placed to receive it, a cake is obtained of a fine red colour. This cake was formerly called cinnabar; and, when reduced to a fine

powder, is well known in commerce under the name of *vermilion*. Cinnabar, the ordinary ore of mercury, has been found in enormous quantities in California. [MERCURY.]

The production of cinnabar is considerably facilitated if the sulphur be previously melted. The pigment is prepared on a large scale in Holland, the sulphur being melted in a cast-iron vessel, and the mercury being finely divided, and also purified, by being squeezed through the pores of a chamois leather bag. As soon as the substances have combined, sublimation is allowed to begin. The larger the quantity of materials, the richer is the tint of the product. It is important also that both the sulphur and the mercury should be as pure as possible.

Enormous quantities of cinnabar are used in China. Red is the colour of rejoicing with the Chinese, and vermilion is therefore used in documents &c.

**CINNAMON** (Dutch, kaneel; Fr. cannelle; Ger. zimmt, kanehl; Ital. canella; Lat. cinnamomum, canella; Port. canella; Span. canela; Pers. and Hind. darclinie; Arab. darsini; Malay, kaimanis; Gr. Κίναμον; Chinese, jún kwei; Cingalese, karundu; Tamil, karua puttay). The inner bark of the cinnamon tree (*Laurus cinnamomum*), Nat. Order *Lauraceæ*, a native of Ceylon, where it grows in great abundance, Cochin China, and perhaps of some other countries. It is brought home in bags or bales weighing 92 lbs. each; and, in stowing it, black pepper is mixed with the bales to preserve the cinnamon. The best cinnamon is thin and rather pliable: it ought to be about the substance of royal paper, or somewhat thicker; is of a light yellowish brown colour, approaching nearly to that of Venetian gold; it is smooth and shining; fractures splintery; has an agreeable, warm, aromatic flavour, and a mild, sweetish taste; when chewed, the pieces become soft, and seem to melt in the mouth; it is not so pungent but that it may be borne on the tongue without pain, and is not succeeded by any after taste. Whatever is hard, thick as a half-crown piece, dark-coloured or brown, or so hot that it cannot be borne, should be rejected. Particular care should be taken that it be not false packed, or mixed with cinnamon of an inferior sort. (Milburn's *Orient. Comm.*; *British Pharmacopœia*, 1867; Marshall's *Essay*, quoted below.)

The cinnamon of Cochin China grows in the dry sandy districts lying N. W. of the town of Faifoe, between 15° and 16° N. lat. It is preferred in China to the cinnamon of Ceylon: the annual imports into Canton and other ports vary from 250,000 to 300,000 lbs. There are no fewer than 10 varieties of this species in the market. It is not cured, like that of Ceylon, by freeing it from the epidermis. (Crawford's *Embassy to Siam* &c. p. 475.)

Besides the produce of the inner bark of the *Laurus cinnamomum*, the bark of the root affords a volatile oil which is similar in flavour to oil of cinnamon, but has also a camphorous pungency. Another kind of oil is distilled from the leaves. The cinnamon-leaf oil of commerce is of two kinds; one fatty and probably procured from the fruit, the other volatile and similar in taste and odour to oil of cloves or oil of pimento.

The principal cinnamon gardens of Ceylon are near Colombo. The seeds are planted so that the shrub should grow in clumps or clusters. The shoots which are decorticated are generally from 1 to 3 inches in diameter. The finer and thinner the bark, the more valuable is the product. The cinnamon harvest lasts from May to October.

Cinnamon is obtained from China, the Malabar

coast, Manilla, Java, Cayenne, the Leeward Islands, and the Isle of France. The produce of China is called *CASSIA*.

*Cinnamon Monopoly.*—Down to 1833 the cultivation of cinnamon in Ceylon was restricted to a few gardens in the neighbourhood of Colombo; the production and sale of the article being wholly monopolised by Government. Upon the transference of the island from the East India Company to the King's Government, the former agreed to pay 60,000*l.* a-year for 400,000 lbs. or 4,312½ bales of cinnamon; it being stipulated that if the quantity collected exceeded this amount, *the surplus was to be burned!* (See an article by H. Marshall, Esq., Staff Surgeon to the Forces in Ceylon, in Thomson's *Annals of Philosophy*, vol. x. p. 356.) But this agreement was afterwards broken off; and the cinnamon was sent to England by Government, and sold on its account at quarterly sales. The nett revenue derived from the cinnamon monopoly in 1831 is said to have amounted to 127,961*l.* As the monopoly could not be enforced except by confining the culture of cinnamon to certain districts, it necessarily led to the most oppressive interferences with the rights of individuals, to the creation of numberless imaginary offences, and the multiplication of punishments, forming a heavy drawback upon the prosperity of the island. A sense of these disadvantages led at length to the abolition of the monopoly system in 1833, when we ceased to be amenable to the charge of upholding, without improving, the worst part of the Dutch policy, and restored to the natives their right to cultivate cinnamon anywhere and in any way they think fit.

*Duties on Cinnamon.*—Unluckily, however, the abolition of the old monopoly system was accompanied by the imposition of the exorbitant duty of 3*s.* per lb. on all cinnamon exported, without distinction of quality, reduced in 1837 to 2*s.* 6*d.* on the 1st and 2nd qualities, and 2*s.* on the 3rd or lowest quality, and in 1841 to 2*s.* on all qualities. We took the liberty to animadvert as follows on this system in a former edition of this work:—'The natural cost of cinnamon does not, we believe, exceed 6*d.* or 8*d.* per lb.; but taking it at 1*s.*, the duty is no less than 200 per cent.! So enormous a tax, by confining the export of cinnamon within the narrowest limits, will go far to deprive the island of the advantages it would otherwise derive from the repeal of the monopoly, and will be, in all respects, most injurious. It is contended, in vindication of this oppressive tax, that Ceylon having a natural monopoly of cinnamon, it is sound policy to burden it with the highest duty it will bear, as the largest revenue is thus obtained at the least expense to the island. But, in addition to the cinnamon produced in Cochin China, and which it is more than probable will speedily find its way to the European markets, the extent to which cassia lignea is substituted for cinnamon shows that the monopoly possessed by Ceylon is of trifling importance. And though it were otherwise, though cassia lignea did not exist, and cinnamon were to be found nowhere but in Ceylon, we should not the less object to so exorbitant an export duty. So long as it is maintained, it will confine within the narrowest limits what might otherwise become an important branch of industry, and a copious source of wealth to the island.'

'Under the old system, the produce of cinnamon in Ceylon amounted to about 500,000 lbs.; and it is not at all probable that the exports will materially increase under the new system; but had the duty varied from about 6*d.* per lb. on the best, to 3*d.* or 4*d.* on the inferior sorts, we have little doubt, now that the culture is free, that the exports

would, at no very distant period, have amounted to 1,000,000 lbs. It is the high price of cinnamon—a price not caused by its scarcity or the difficulty of its production, but by the oppressive monopolies and duties to which it has been subjected—that has made it be regarded as a luxury attainable only by the rich.

'Should the exports of cinnamon from Ceylon under the new plan amount to 500,000 lbs. a-year, Government will receive from it an annual revenue of 50,000*l.*; and supposing them to amount to 600,000 lbs., the revenue will be 60,000*l.* And to secure the immediate payment of this trifling sum, every ulterior consideration of profit and advantage has been sacrificed. It is, however, pretty clear that this short-sighted rapacity will be, in the end, no less injurious to the revenue than to the industry and trade of the island. Were cinnamon allowed to be exported for a few years under a low duty, or till such time as the taste for it was fully diffused throughout this and other countries, it might then be easy, by gradually raising the duty, to obtain from it, without materially checking the consumption, a *large revenue*; at least two or three times more than it will ever produce under the present plan.

'Suppose that we had had the power effectually to monopolise the inventions by which Sir Richard Arkwright and others have so prodigiously facilitated the spinning of cotton, what would have been thought of the policy of those who should have proposed laying a duty on exported cotton equivalent to the peculiar advantages we enjoyed in their production? Had this been done, we should have got a *monopoly value* for our exports of cotton; but instead of amounting, as at present, to 30,000,000*l.* a-year, they would not, under such a plan, have amounted to 200,000*l.*; and instead of affording subsistence for some 1,300,000 or 1,400,000 individuals, the cotton manufacture would not have supported 50,000! And yet this is the mischievous nostrum—for it would be an abuse of terms to call it a principle—on which we have proceeded to regulate the export of the staple product of Ceylon.'

Experience has more than confirmed the truth of these statements. Instead of increasing, as they certainly would have done but for the exorbitance of the duty, the exports of cinnamon declined even below their amount during the monopoly. Notwithstanding the reduction of the duty in 1841 to 2*s.* per lb., the exports in that year amounted to only 323,461 lbs., producing a revenue of 33,111*l.*! This result was brought about, as we anticipated, partly by the high duty and its consequent high price restricting the demand for cinnamon; partly by the duty operating as a bounty to introduce the culture of the plant into other places; and partly and principally by its encouraging the use of *cassia lignea* and other substitutes in the place of the genuine article.

'It does not,' says Mr. Cook (formerly of the firm of Trueman and Cook, brokers), 'admit of a doubt, that unless the export duty of 2*s.* per lb. payable on the shipment of cinnamon at Ceylon be removed, the trade must speedily be annihilated. From 1798 to 1825 the cultivation was known in no other part of the world, and notwithstanding the impolicy even then of such an exorbitant charge, the trade was comparatively little affected; but in 1825 a successful attempt was made in Java by an experienced planter from Ceylon, and the shipments from that island, which, having since been annually increasing, were estimated (1842) at 117,000 lbs. at least, on which is levied a duty, on the value, of 4 per cent. only. The culture has also extended itself to Guiana and the West

Indies; and received from it can be said and that a confidently there being China, Malacca doubtless ere produce being charges. It namon can withstand the countries; and understood by trade would a man in its prolon cinnamon, fluences, would European mar lignea as a sub will no doubt e the cinnamon o as 100,000*l.*, or whereas in 18 47,000*l.* only; a even this much so that the lev proved as injuri to the prosperit

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This brief notic cinnamon affords ample of the ris duties on the ex substitutes may l elsewhere. Had of cinnamon in 18 aside, it is all b would have been present, and that portant as well as industry.

The imports of United Kingdom

1815	-	-	621,82
1816	-	-	688,21
1817	-	-	695,13
1818	-	-	724,67
1819	-	-	681,81
1821	-	-	732,94

The years mark weight from other are inconsiderable. mon from all quart in the last three ye

1865	-
1866	-
1867	-

The duty on cinna

Indies; and, judging from a small parcel lately received from Jamaica, there can be no question it can be successfully produced in that quarter, and that a supply may at no distant period confidently be expected from thence, the duty there being only 2½ per cent. From Cochin China, Malabar &c. large quantities will also doubtless ere long find their way to Europe, their produce being comparatively free from fiscal charges. It is therefore evident that Ceylon cinnamon cannot, under existing circumstances, withstand the competition of that of other countries; and if the merits of the question were understood by the Government, this interesting trade would assuredly be no longer suffered to remain in its present anomalous state. Indeed, Ceylon cinnamon, independently of other adverse influences, would be very soon driven out of the European markets by the increased use of cassia lignea as a substitute. The question of revenue will no doubt engage the attention of Government, the cinnamon duty having yielded in 1833 as much as 160,000*l.*, or about half the revenue of the island; whereas in 1841 the governor estimated it at 47,000*l.* only, and it is doubtful if it will realise even this much—in fact it only realised 33,111*l.*; so that the levying an impost so oppressive has proved as injurious to the collection of revenue as to the prosperity of the trade.

Such conclusive statements could not be disregarded, and in 1844 the export duty on cinnamon was reduced to 1*s.* But even this was a great deal too high; and it soon became evident that the culture of the plant had taken such firm root in Java and elsewhere, and that the public taste had become so habituated to cassia and other substitutes, that the Ceylon planters would with difficulty maintain their ground, even if the duty were wholly repealed. And after being reduced to 4*d.* in 1848, and to 2*d.* in 1853, it was finally abolished in 1860. But it had continued long enough to inflict irreparable injury on the trade. The exports have, indeed, increased, though not very materially; but the quality of the spice has deteriorated, and now principally consists of the coarser and inferior varieties; so that, though the quantities exported are greater than formerly, their value is less. The consumption of the spice has not increased in the United Kingdom.

This brief notice of the legislation in regard to cinnamon affords an instructive and striking example of the risk attending the imposition of duties on the exportation of articles for which substitutes may be found, or that may be raised elsewhere. Had no duty been laid on the export of cinnamon in 1833, when the monopoly was set aside, it is all but certain that its production would have been incomparably greater than at present, and that it would have formed an important as well as interesting branch of Cingalese industry.

The imports of cinnamon from Ceylon into the United Kingdom have been:—

1815	-	624,556 <i>lb.</i>	1862	-	810,691 <i>lb.</i>
1820	-	658,237 <i>lb.</i>	1863	-	874,704 <i>lb.</i>
1825	-	692,125 <i>lb.</i>	1864	-	596,769 <i>lb.</i>
1830	-	721,672 <i>lb.</i>	1865	-	846,455 <i>lb.</i>
1837	-	686,875 <i>lb.</i>	1866	-	906,827 <i>lb.</i>
1861	-	752,240 <i>lb.</i>			

The years marked thus \* include a few pounds weight from other places than Ceylon, but they are inconsiderable. The total imports of cinnamon from all quarters into the United Kingdom in the last three years were as follow:—

1865	-	-	846,751 <i>lb.</i>
1860	-	-	932,729
1867	-	-	859,031

The duty on cinnamon from a British possession,

after being constant from 1840 at 3*d.* per *lb.*, was reduced in 1853 to 2*d.* per *lb.* The annual entries for consumption since the repeal of the duty in 1860 are not known. The average value of Cingalese cinnamon in 1866 was 1*s.* 9*d.* per *lb.* In the article *Colombo* we have given an account of the exports of cinnamon from Ceylon since 1810, and, for ample details on this subject, see Sir James Emerson Tennent's excellent work on Ceylon.

**CINQUE PORTS.** These are ancient trading towns, lying on the coast of Kent and Sussex, which were selected, from their proximity to France and early superiority in navigation, to assist in protecting the realm against invasion, and vested with certain privileges by royal charter.

The ports so privileged, as we at present account them, are Dover, Sandwich, Romney, Hastings, Hythe, and the two ancient towns of Winchelsea and Rye; although the two latter places appear to have been originally only members. The services which they were appointed to perform were either honorary, viz. assisting at the coronation and sending members to Parliament; or auxiliary to the defence of the realm, as furnishing a certain supply of vessels and seamen, on being summoned to that service by the king's writ.

In process of time the Cinque Ports grew so powerful, and by the possession of a warlike fleet so audacious, that they made piratical excursions in defiance of all public faith; on some occasions they made war, and formed confederacies as separate, independent states. It seems, however, that these irregularities were soon suppressed when the Government was strong, and sufficiently confident to exert its powers. So long as the mode of raising a navy by contributions from different towns continued, the Cinque Ports afforded an ample supply; but since that time their privileges have been preserved, though their separate or peculiar services have been dispensed with. Their charters are traced to the time of Edward the Confessor: they were confirmed by the Conqueror and by subsequent monarchs. William the Conqueror considering Dover Castle the key of England, gave the charge of the adjacent coast, with the shipping belonging to it, to the constable of Dover Castle, with the title of Warden of the Cinque Ports—an office resembling that of the Count of the Saxon coast (*Comes littoris Saxonie*) on the decline of the Roman power in this island. The lord warden has the authority of Admiral in the Cinque Ports and their dependencies, with power to hold a court of admiralty; he has authority to hold courts both of law and equity; is the general returning officer of all the ports—parliamentary writs being directed to him, on which he issues his precepts; and, in many respects, he was vested with powers similar to those possessed by the heads of counties palatine. At present the efficient authority, charge, or patronage of the lord warden is not very great; the situation is, however, considered very honourable, and the salary is 3,000*l.* He has under him a lieutenant and some subordinate officers; and there are captains at Deal, Walmer, and Sandgate Castles, Arcliff Fort, and Moats Bulwark.

There is an exclusive jurisdiction in the Cinque Ports (before the mayor and jurats of the ports), into which exclusive jurisdiction the king's ordinary writ does not run; that is, the court cannot direct their process immediately to the sheriff, as in other cases. In the Cinque Ports, the process is directed to the governor of Dover Castle, his deputy or lieutenant. A writ of error lies from the mayor and jurats of each port to the lord warden of the Cinque Ports, in his court of Shepway, and from the court of Shepway to the

King's Bench; a memorial of superiority reserved to the Crown at the original creation of the franchise; and prerogative writs, as those of habeas corpus, prohibition, certiorari, and mandamus, may issue, for the same reason, to all these exempt jurisdictions, because the privilege that the king's writ runs not, must be intended between party and party, and there can be no such privilege against the king.' (Chitty's *Commercial Law*, vol. ii. p. 12; Knocker's *Grand Court of Shepway*, &c., London, 1862.) The peculiar jurisdiction of the Cinque Ports was much modified by 18 & 19 Vict. c. 48, and other Acts, and the salary of the lord warden has been abolished.

**CITRON** (Ger. succade; Danish, sukkat; Ital. ciffetoni di cedro; Span. neitron verde; Fr. citronat verd). An agreeable fruit, resembling a lemon in colour, smell, and taste. It is the *Citrus medica* of botanists, and is probably a mere variety of lemon. It is much larger than the lemon, of an ovoid shape, and with a very thick rind. The juice too is less acid than that of the lemon and lime. The cuticle of the rind is full of vesicles containing an essential oil, on which the flavour of the rind depends. The *Citrus medica* is a native of Asia, and was probably imported from Persia or Media, in the second century of our era. It is now cultivated in warm climates throughout the world. The candied rind is imported from Madeira, of the finest quality.

**CIVET** (Ger. zibeth; Dutch, civet; Fr. civette; Ital. zibetto; Span. galgala). A perfume derived from two animals—the *Viverra civetta* of Africa, and the *Viverra zibetha* of the East Indies. The substance is secreted in certain glands situated in the perineum of the animal. In order to obtain greater supplies, the civet cat has been domesticated, and the substance, the quantity of which may be increased by irritating the sac in which it is secreted, is collected.

Civet was once used as a medicine, but now solely as a perfume. Its odour is very strong, and even offensive when it is smelt in bulk or near; but when diluted and at a distance, it is considered to be very agreeable. When genuine it is worth 30s. or 40s. an ounce.

**CIVITA VECCHIA**. A fortified sea-port town of the Papal dominions, on the Mediterranean, lat. 42° 4' 38" N., long. 11° 41' 52" E. Population about 12,000.

**Harbour**.—The port of Civita Vecchia is artificial, and is formed by three large moles. Two of them projecting from the main land, inclined one to the north and the other to the south, form the sides of the harbour; while a third mole, or breakwater, constructed opposite to the gap between the other two, serves to protect the harbour from the heavy sea that would otherwise be thrown in by the westerly gales. There are 3 lights in this port: one, which revolves every 40 seconds, on Antemuzale, the S. end of the Breakwater; a second on Bicliese Mole; a third on the Lazaretto Mole. Vessels may enter either by the south or north end of the outer mole, but the southern channel is the deepest, having from 8 to 6 and 4 fathoms. Ships may anchor within the port in from 16 to 18 feet water; or between it and the outer mole, where the water is deeper. Within the port are a dock and an arsenal.

**Historical Notice**.—This harbour, which is by far the best on the western side of the Papal dominions, owes its origin to the Emperor Trajan, and affords the most unequivocal proof, not of his power merely, but of his sagacity and desire to promote the interests of commerce and navigation. There is in one of Pliny's Letters (lib. vi. epist. 31) a clear and interesting account of this great

work, which has obviously been planned and constructed with equal skill and judgment. The outer mole was mostly formed, precisely like the breakwater at Plymouth, by sinking immense blocks of stone into the sea, which became fixed and consolidated by their own weight, till by degrees it was raised above the waves. Originally it was called *Trajanus Portus*, and it is to be regretted that it did not always bear the name of its illustrious founder. But in the latter ages of the Roman empire it was called *Cantam Celso*, and in modern times *Civita Vecchia*. (Cellarii *Notitia Orbis Antiquae*, i. p. 731.)

**Money**.—Accounts are kept *Lerc*, and throughout the Papal States, in crowns or *scudi*, called *scudi Romani* and *scudi moneta*. 1 *scudo* = 10 *paoli*, and 1 *paolo* = 10 *bajocchi*. The *scudo* contains 403 grains of English standard silver, and is, consequently, worth 4s. 4d. sterling. Payments above 5 *scudi* are made in *cedole*, or schedules, a species of bank notes; but these not being payable in specie on demand, are uniformly at a discount.

**Weights**.—The *libra* or pound of 12 *onci*, or 6,192 *grani*, contains 5,234 English grains. Hence, 100 Roman pounds = 74,771 lbs. avoirdupois = 90,868 lbs. troy = 33,906 kilogrammes = 70,008 lbs. of Hamburg. There are three different cantaros or quintals; viz. of 100, 160, and 250 lbs. The *migliajo* = 1,000 lbs.

**Measures**.—The Roman foot = 11.72 Eng. in.; the *canna* = 78.34 Eng. in.; the *canna* used by builders = 87.96 Eng. in.; the *barrel* of wine = 12,841 imp. gals., and the barrel of oil = 12.64 imp. gals.; the *soma* of oil = 36.13 imp. do.; the *rubbio* of corn = 8.143 imp. bbls. (Kelly's *Cambist*; Nelkenbrecher, *Manuel Universel*.)

**Imports and Exports**.—Though the wealth and population of the country round Civita Vecchia be much fallen off in modern times compared with antiquity, it still continues to be the entrepôt of Rome, with which it is connected by a railway, and engrosses almost the entire trade of the Papal dominions on the side of the Mediterranean. The imports consist principally of cotton stuffs and yarn; woollens, silks, and linens; iron and hardware; coffee, sugar, cocoa, and other colonial products; salt and salted fish, coal, wines, jewellery, glass and earthenware &c. The exports consist of staves and timber, corn, wool, cheese, potash, pumice-stone, alum from Tolfa, in the vicinity, cream of tartar, rags &c. The total value of the imports may be reckoned at from 700,000L to 800,000L: inasmuch, however, as a considerable portion of these are on account of the strangers resident in Rome, the exports are by no means so great, and do not, indeed, exceed from 250,000L to 350,000L. Marseilles and Genoa have the largest share of the foreign trade of Civita Vecchia, and next to them England.

In addition to the ordinary sailing-vessels which frequent the port, it is now regularly visited by steam-packets from Malta, Marseilles, Genoa, Naples &c. by which from 10,000 to 12,000 passengers are annually conveyed on their way to and from Rome.

In 1866 the value of the exports of domestic produce from the United Kingdom (chiefly coal and iron) to the Papal dominions amounted to 15,293L, and in 1867 to 15,313L. Our imports from the Papal dominions amounted to 5,491L in 1866, and to 5,162L in 1867.

In 1864, 2,028 vessels, of 331,890 tons, entered, and 1,996 vessels, of 336,569 tons, cleared, the port of Civita Vecchia.

**Duties**.—Civita Vecchia is a free port; i.e. a port into which produce may be imported, and either consumed or re-exported, free of duty.

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Quarantine regulations are strictly enforced; no vessel with a foul bill of health being permitted to enter any of the Papal ports. (*Annuaire du Commerce Maritime*, tom. ii. p. 366, &c.)

CLARET. A name of ancient origin, given in England to the red wines of Bordeaux. [BORDEAUX; WINE.]

CLEARING. In 1775 the London, or rather the 'City,' bankers established the 'Clearing-house.' This is a house to which each banker who deals with it is in the habit of daily sending a clerk, with him the various bills and checks in the possession of his house that are drawn upon other bankers; the practice formerly being to exchange them for the bills and checks in the possession of those others that were drawn upon his constituents, and to pay the balance, on the one side or the other, in cash or Bank of England notes. By this means the bankers connected with the clearing-house were enabled to settle transactions to the extent of several millions a day, by the employment of not more, at an average, than from 200,000*l.* to 500,000*l.* in cash or Bank of England notes.

Laterly, however, the arrangements connected with the clearing-house have been so much simplified and improved, that neither notes nor coins are any longer required in settling the largest transactions. The clearing-house itself, and the various banking firms and joint-stock companies connected with it, have accounts at the Bank of England; and the balances that were formerly settled by a money payment are now settled by transfers from one account to another. The economy of money in the adjustment of large transactions, occasioned by this and other contrivances, accounts for the fact that the proportion of notes of 20*l.* and upwards issued by the Bank has considerably declined of late years, while that of 5*l.* and 10*l.* notes, which are used in ordinary dealings, has been materially increased.

Originally the convenience of the clearing was permitted to the private bankers only, but after a lapse of time the private banks gave way, and admitted the joint-stock banks to share its advantages. Laterly, too, the clearing system has been extended to the country banks, through their London correspondents. These difficulties arose as to the admission of these country establishments:—The adoption of the system was likely to involve some inconvenience to the London bankers in the loss of time and additional trouble which the concession would involve. Then, again, it was impossible to grant the convenience, in case the country bank deducted, as they sometimes did, a small commission or percentage on checks drawn on their own house. And lastly, it was not always easy to accommodate the system to that rule of law which requires the person in whose favour a check is drawn to present it as early as possible for payment. The Post-office obviated to a great extent the last difficulty, and ultimately a plan proposed by Sir John Lubbock was accepted, and put into operation. (For the details of this plan, see the *Journal of the Statistical Society*, September 1865.)

There is another service, that of railways, to which the advantages of a clearing are obvious. Railways have often running powers over each other's lines; and even if they have no legal power to use any neighbouring or adjoining line, which may join their own, they constantly find it to be a convenience to the public, and therefore an advantage to themselves, to issue through tickets which will enable the purchaser to complete his journey without being put to the pains of procuring a second, or even several tickets; or

again to run their carriages on a neighbouring line, or receive carriages belonging to another company on their railroad; or lastly, to convey parcels through without a fresh booking and additional entries. But in order to balance their accounts readily, it is necessary to have a speedy settlement of these: hence they have established a *Railway Clearing*, the form of which is analogous to that established now nearly a hundred years by the London bankers.

CLEARING-HOUSE. The place where the operation termed clearing is carried on.

CLOCK, CLOCKS (Ger. *uhren*, *grosse uhren*, *wiandunrhe*; Dutch, *uren*, *uurwerken*, *horologien*; Fr. *horloges*; Ital. *orologi*, *orologi*; Span. *relojes*; Russ. *tachastl*). A kind of machine, put in motion by a gravitating body, and so constructed as to divide, measure, and indicate the successive portions of time with very great accuracy. Most clocks mark the hour by striking or chiming. It is a highly useful instrument, and is extensively employed for domestic and philosophical purposes. Clocks are made of an endless variety of materials and models, so as to suit the different uses to which they are to be applied, and the different tastes of their purchasers. Their price consequently varies from a few shillings to more than 100*l.* The Germans and Dutch are particularly celebrated for their skill in the manufacture of wooden clocks; while the English, French, and Genevese, especially the former, have carried the art of making metallic clocks, so as to keep time with the greatest precision, to a high degree of perfection.

The history of the invention, introduction, and successive improvements in the manufacture of clocks has been carefully investigated by some very learned and industrious antiquaries (see Beckmann's *History of Inventions*, vol. i. pp. 419-462, Eng. ed.; and Rees's *Cyclopaedia*); but, notwithstanding these researches, the subject is still involved in considerable obscurity. It seems, however, that the middle of the fourteenth century may be regarded as the epoch when clocks, having weights suspended as a moving power, and a regulator, began to be introduced. The period when, and the individual by whom, the pendulum was first applied to clockwork, have been subjects of much contention. Galileo and Huygens have disputed the honour of the discovery. 'But whoever may have been the inventor, it is certain that the invention never flourished till it came into the hands of Huygens, who insists that if ever Galileo thought of such a thing, he never brought it to any degree of perfection.' The first pendulum clock made in England was in the year 1662, by one Fromantel, a Dutchman. (*Hutton's Mathematical Dictionary*.)

The clock manufacture is of considerable importance and value. It is carried on to a great extent in London.

Previously to 1842 an ad valorem duty of 25 per cent., which was then reduced to 10 per cent., was laid on all clocks when imported. In 1853 the duty was further reduced, and placed on a new footing. It was repealed in 1860. We subjoin

*An Account of the Numbers and Values of the Clocks Imported in 1866, specifying the Countries whence they came.*

Country	Number	Value
Holland - -	39,055	9,523
France - - -	30,177	190,291
United States -	134,210	54,355
Other parts - -	612	1,682
Total - - -	204,054	255,879

On the other hand in 1866 we exported 5,774 clocks, other than British, valued at 5,518*l.*, besides British clock and watch movements of the value of 15,818*l.*

Clockmakers are obliged to engrave upon the dial-plate of all clocks made by them their names and the place of their residence. It is illegal to import except in transit, and subject to such regulations as the Treasury may direct, clocks and watches of any metal impressed with any mark or stamp appearing to be or to represent any legal British assay mark or stamp, or purporting by any mark or appearance to be of the manufacture of the United Kingdom. (16 & 17 Vict. c. 107 s. 44.)

It is said, however, not to be an uncommon practice among the less reputable portion of the trade to engrave their names and 'London' on foreign clocks and watches, and to sell them to the public as English work. The fraud may be detected by referring to any respectable watchmaker.

By a Treasury order of Sept. 4, 1828, clocks and watches for private use, though not marked in the manner now specified, may be admitted on payment of the duty, on the parties making affidavit of their entire ignorance of the law in question.

Persons hired by, or in the employment of, clock and watchmakers, who shall fraudulently embezzle, secrete, sell &c. any metal, material, or precious stone, with which they may happen to be intrusted, shall, upon trial and conviction before a justice of the peace, forfeit 20*l.* for the first offence; and for the second, and every subsequent offence, they shall forfeit 40*l.*; and, in default of payment, they are to be committed to the house of correction. (27 Geo. II. c. 7 s. 1.) [WATCH.]

#### CLOTH. [LINES; WOOL; &c.]

CLOVER (Ger. klee; Dutch, klaver; Fr. trèfle, luzerne; Ital. trifoglio; Span. trebol; Russ. trislitnik; Lat. trifolium). A very important species of grass. Some of the species in cultivation are annual, others biennial or triennial, and others perennial. The seed used formerly to be principally imported from Holland, but that which is raised in this country is now said to be of a superior quality. (Loudon's *Encyclopædia of Agriculture*.) Culture for seed is, however, very precarious, and of uncertain profit.

We have been for a lengthened period in the habit of importing considerable quantities of clover seed; and there can be little doubt, despite the improvement of the home produce, that the imports would have been much greater but for the heavy duty of 20*s.* a cwt. with which foreign clover seed was formerly loaded. Such duty had the mischievous effect of tempting farmers to use seed of inferior quality, and fell with peculiar severity on Scotland and those parts of the country which grow no seed. We are, therefore, glad to have to state that after being reduced to 10*s.* a cwt. in 1842, and to 5*s.* per do. in 1846, the duty was finally repealed in 1853. In 1866 we imported 226,014 cwt. clover seed, valued at 726,004*l.*, of which nearly a half came from France, while our exports amounted to only 4,493 cwt. The price varied from 3*l.* 3*s.* to 3*l.* 7*s.* 6*d.* per cwt., that of France being 3*l.* 5*s.* In 1867 the imports were 150,968 cwts., valued at 503,669*l.*

CLOVES (Ger. nüglein, gewürznelken; Dan. nelliker, krudeneliker; Dutch, kruidnagelen; Pol. gozdrzik; Fr. clous de girofle, girofles; Ital. chiovi di garofana, garofani, garofoli; Span. clavos de especia, clavillos; Port. cravos da India, cravos girofes; Russ. gwosdika; Arab. kerentul; Malay, chankee; Chinese, ting hiang tsz' ting hiang).

The fruit, or rather cup, of the unopened flowers of the clove-tree, or *Caryophyllus aromaticus*, Nat. Order *Myrtaceæ*. It is not known when this spice was introduced into European markets. In the middle ages, however, it was brought by the Venetians and Genoese by the route over the highlands of Armenia, by that from Bagdad to Lyeia, and by the Red Sea and the Nile. It was by far the costliest of Eastern spices. In 1329 the fellows of Merton College, Oxford, bought cloves at the rate of 1*l.* 1*s.* 4*d.* per lb. (troy) in money of the time; that is, at not less than 12*l.* 12*s.* in modern value. In 1719 cloves were purchased at 12*s.* per lb.

The clove-tree is a native of the Moluccas. Though its natural range was limited, it grew abundantly in all the islands; but the Dutch, for reasons given below, succeeded in extirpating the plant in all the islands except Amboyna and Ternate. A Frenchman, however, one Poiret, the governor of Mauritius and Bourbon, contrived to export several trees to the islands under his government: thence they have spread to Cayenne and the West Indies, to Brazil, to Sumatra, and Zanzibar.

They were first introduced into the islands of Zanzibar and Pemba about 1830 from the Mauritius: they thrive, and the cultivation has now almost entirely superseded that of sugar and rice, formerly the chief products of those islands. The average crop of Zanzibar cloves is about 200,000 *faraslahs*, or about 7,000,000 lbs., valued at about 85,000*l.* Owing to the increased production, the price has fallen about 70 per cent. within a few years. In Colonel Pelly's Report for 1860, published in 1863, the value of the cloves exported from Zanzibar is stated as 55,666*l.*, the quantity having been 4,860,100 lbs. Export duties are not charged on the cloves shipped from Zanzibar.

Cloves are shaped like a nail; whence the name, from the French *clou*, nail; about 6 lines long, plump and heavy. They are imported from the Dutch settlements; the best in chests, and an inferior kind in bags. The best variety of the Amboyna cloves is smaller and blacker than the other varieties, very scarce, and, as a mark of pre-eminence, is termed the Royal clove. Good cloves have a strong, fragrant, aromatic odour; and a hot, acrid, aromatic taste, which is very permanent. They should be chosen large sized, perfect in all parts; the colour should be a dark brown, almost approaching to black; and, when handled, should leave an oily moisture upon the fingers. Good cloves are sometimes adulterated by mixing them with those from which oil has been drawn; but these are weaker than the rest, and of a paler colour; and whenever they look shrivelled, having lost the knob at the top, and are light and broken, with but little smell or taste, they should be rejected. As cloves readily absorb moisture, it is not uncommon, when a quantity is ordered, to keep them beside a vessel of water, by which means a considerable addition is made to their weight. Cloves contain a very large amount of volatile oil, the quantity being nearly 20 per cent. They are also, it is said, very rich in tannin. Every portion of the tree is aromatic, and has been subjected to distillation; but under existing circumstances the supply of this article, once so scarce and precious, is abundant. The use of cloves in cookery is familiar to every one, but they enter also largely into perfumery, and are used in the Pharmacopœias of this country and the United States. (Thomson's *Dispensatory*; Milburn's *Oriental Commerce*; *British Pharmacopœia*, 1867.)

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*Policy of the Dutch as to the Trade in Cloves.*—From the expulsion of the English from Amboyna in 1623, the Dutch have, a few short intervals only excepted, enjoyed the exclusive possession of the Moluccas, or Clove Islands. In their conduct as to the clove trade they exhibited a degree of short-sighted rapacity which has been, we believe, seldom equalled even in the annals of monopoly. The object of the Dutch East India Company was not to encourage the growth and trade of cloves, but to confine both within the narrowest limits. They preferred deriving a large profit from a stunted and petty trade, to a moderate profit from a trade that might have afforded employment for a very large amount of capital; and to prevent their narrow and selfish projects from being counteracted by the operations of the natives, they subjected them to the most revolting tyranny. 'That they might,' says Mr. Crawford, 'regulate and control production and price just as they thought proper, the clove-trees were extirpated everywhere but in Amboyna, the seat of their power; and the surrounding princes were bribed by annual stipends to league with them for the destruction of their subjects' property and birthright. This plan was begun about the year 1551. The contracts are still in force, and an annual fleet visits the surrounding islands to suppress the growth of cloves, which in their native country spring up with a luxuriance which these measures of Satanic rigour, and of sacrifice towards bountiful nature, can scarce repress. By the plan on which the clove trade is now conducted—a plan carried into effect through so much iniquity and bloodshed—the country of spices is rendered a petty farm, of which the natural owners are reduced to the worst condition of predial slavery; and the great monopoliser and oppressor is that Government whose duty it should have been to insure freedom and afford protection. Human ingenuity could hardly devise a plan more destructive of industry, more hostile to the growth of public wealth, or injurious to morals, than this system framed in a barbarous age; and it reflects disgrace upon the character of a civilised people to persevere in it.

It is curious to remark how the monopolisers, in carrying the details of this system into effect, at once impose upon the natives and deceive themselves. The *nominal* price paid to the natives is actually above the natural price of the commodity, but they are cheated in the details. The cultivator brings his produce to the public stores, where it is subjected at once to a deduction of one-fifth for payment of the salaries of the civil and military officers. The price of the remainder is fixed at the rate of 9·6 Spanish dollars the picul: but before payment is made, another deduction of one-fifth is made; one-half of which is for the chiefs or *rajahs*, and the other for the native *elders*, who are overseers of the forced culture. The real price, therefore, paid to the grower is 8 Spanish dollars per picul, or 3½*d.* per lb. avoirdupois, instead of 11·520 Spanish dollars per picul, or 4½*d.*, which is pretended to be given.

When cloves have been sold on the spot, the price usually exacted has been about 64 Spanish dollars the picul, or 8 times the price paid to the cultivator. The average price in Holland, previously to the war of the French revolution, was about 6s. per lb., or 177·250 Spanish dollars per picul, being 2,122 per cent. advance on the real cost of the commodity in the place of its growth. When brought direct to England, they cost at an average 3s. 8*d.* the lb., making 108·94 Spanish dollars per picul, an advance on the natural export price

of 1,258 per cent.' (*Eastern Archipelago*, vol. iii. pp. 388–390.)

But it would be most unfair to the Government and people of Holland not to mention that this oppressive system has been entirely abolished. As respects the culture of cloves, it is now carried on upon nearly the same plan that has been adopted in Java in respect to the culture of coffee and most other articles, and is not very different from that under which opium is raised in Bengal. A certain extent of land is assigned to each village for the growth of spices; and the produce, which the villagers are bound to raise, is delivered to the Government at certain fixed rates. And provided these are reasonable, which we are assured is the case, we incline to think that this is the best plan that can be pursued. If left to follow their own views, it is all but certain that the natives would confine their attention to the culture of the few articles necessary for their subsistence, and that the production of spices would be either wholly neglected or prosecuted only to a trifling extent. (Temminck, *Possessions Néerlandaises dans l'Inde Archipelagique*, iii. pp. 202–241.)

It was supposed for a lengthened period that cloves were a product peculiar to the Moluccas, and that they could not be raised elsewhere; and this notion seems to have stimulated the Dutch East India Company to obtain the monopoly of the trade. This notion is, however, far from being so well founded as was at first supposed. It is true that the attempts to cultivate the clove-tree in Surinam have not been very successful, and that in Java, where its prospects were believed to be highly favourable, it has not answered. This, however, is not the case with the plantations that have been tried in other places. Those, for example, that have been formed in Prince of Wales Island (formerly *Pulo Penang*) have been singularly successful, and furnish considerable supplies of the finest cloves. (Thornton's *East India Gazetteer*, iv. 175.) They are also pretty extensively grown in the Isle de Réunion (*ci-devant* Isle de Bourbon), at Bencoolen, in Sumatra, and other places.

Of 900,057 lbs. cloves we imported in 1857, no fewer than 873,716 lbs. are said to have been supplied by the British East Indies; but of these, considerable quantities were no doubt derived indirectly from the Dutch possessions, and from the Isle de Réunion, the Mauritius &c.

The *Duty on Cloves* was considerably reduced in 1819; and there was, in consequence, a considerable increase in the consumption of the article, though not nearly so great as it would have been had it been supplied under a more liberal system. It was further reduced in 1842 to 6½*d.* per lb., and in 1853 to 2*d.* It was repealed in 1860. In 1866 we imported 1,213,467 lbs., valued at 18,845*l.*, and exported 1,441,817 lbs. In the London market, in June 1867, the price of cloves varied, Amboyna from 4½*d.* to 5½*d.* per lb.; Penang and Bencoolen from 9½*d.* to 1s. 0½*d.*; Zanzibar from 3*d.* to 3½*d.* per do.

COACHES. Vehicles for commodious travelling. They have sometimes two, and sometimes four wheels. The body of the coach is generally suspended, by means of springs, upon the framework to which the wheels are attached. They are usually drawn by horses, or impelled by steam. The forms and varieties of coaches are almost innumerable.

1. *Historical Notice.*—Beckmann has investigated the early history of coaches with his usual care and learning. It is certain that a species of coaches were used at Rome; but whether they were hung on springs, like those now made use of

is not certain. After the subversion of the Roman power, horseback was almost the only mode of travelling. About the end of the fifteenth century, however, covered carriages began to be employed by persons of distinction on great occasions. In 1550 there were at Paris only three coaches; one of which belonged to the queen; another to the celebrated Diana of Poitiers; and the third to a corpulent, unwieldy nobleman, René de Laval, lord of Bois-Dauphin. Coaches were seen for the first time, in Spain, in 1546. They began to be used in England about 1580, and were in common use among the nobility in the beginning of the seventeenth century. (*History of Inventions*, vol. i. pp. 111, 127, Eng. trans.)

2. *Manufacture of Carriages.*—This is a department of considerable value and importance. The best built and handsomest carriages are made in London, where only the trade of a coach carrier is carried on; but the carriages made at Edinburgh and some other places are also very superior. Down to 1825 a duty was laid on all carriages made for sale; and, supposing that at an average carriage may last for 10 years, an annual supply of from 29,000 to 30,000 new carriages would be required to keep up the stock of those that are now (1866) charged with duty, ex hackney carriages.

3. *Duties on Carriages.*—These duties have been long imposed, and have fluctuated considerably at different periods. The table on page 306 shows the number of four-wheeled and other carriages (exclusive of hackney coaches) charged with duties in 1856 and 1866.

4. *Stage Coaches, Travelling by.*—Owing to the improvement in the breed of horses and the building of carriages, but above all to the extraordinary improvements that were effected within the last half century in the laying out, construction, and keeping of roads, the ordinary rate of travelling by stage coaches, previously to their all but total extinction by railways, was seldom under 9 or 10 miles an hour, stoppages included, and, on some roads, was as much as 11 or 12. The stages having been shortened, this speed was not found to be materially more injurious to the horses than the slower rate at which they previously travelled. The surface of the roads being perfectly smooth, and most sharp turns or rapid descents having been got rid of, travelling even at this rate was comparatively safe; and it was surprising, considering the number of coaches, how few accidents occurred. They were occasioned, for the most part, by the misconduct of the drivers, and principally by their endeavouring to make up by increased speed for time lost at stoppages, or by their attempting to pass each other. It is, perhaps, needless to add that since the opening of railways between all the principal places of the country, travelling by stage coaches no longer exists, except in a few remote districts, and has become a matter of history.

*Law as to Stage Coaches.*—This is chiefly embodied in the Acts 2 & 3 Wm. IV. c. 120, and 3 & 4 Wm. IV. c. 48.

*Definition.*—A stage coach is any carriage travelling along the road at the rate of 3 miles or more an hour, without regard to form, provided the passengers pay separate fares for their places therein; but all carriages used wholly on a railway, or impelled by steam, are excepted from this definition. (2 & 3 Wm. IV. c. 120 s. 4.)

*Licenses, Duties &c.*—The license duties imposed by this Act, and the mileage, or duty on passengers travelling by stage carriages, were repealed in 1853, and the following license duties imposed in their stead, viz. :—

*Postmasters:—Licenses to Let Horses for Hire.*

Persons keeping	1 horse or 1 carriage	£	s.	d.
Not exceeding	2	7	10	0
	3	30	0	0
	4	30	0	0
	5	40	0	0
	6	40	0	0
	7	50	0	0
	8	50	0	0
	9	60	0	0
	10	60	0	0
	11	70	0	0
	12	70	0	0
	13	80	0	0
	14	80	0	0
	15	90	0	0
	16	90	0	0
	17	100	0	0
	18	100	0	0
	19	110	0	0
	20	110	0	0
	21	120	0	0
	22	120	0	0
	23	130	0	0
	24	130	0	0
	25	140	0	0
	26	140	0	0
	27	150	0	0
	28	150	0	0
	29	160	0	0
	30	160	0	0
	31	170	0	0
	32	170	0	0
	33	180	0	0
	34	180	0	0
	35	190	0	0
	36	190	0	0
	37	200	0	0
	38	200	0	0
	39	210	0	0
	40	210	0	0
	41	220	0	0
	42	220	0	0
	43	230	0	0
	44	230	0	0
	45	240	0	0
	46	240	0	0
	47	250	0	0
	48	250	0	0
	49	260	0	0
	50	260	0	0
	51	270	0	0
	52	270	0	0
	53	280	0	0
	54	280	0	0
	55	290	0	0
	56	290	0	0
	57	300	0	0
	58	300	0	0
	59	310	0	0
	60	310	0	0
	61	320	0	0
	62	320	0	0
	63	330	0	0
	64	330	0	0
	65	340	0	0
	66	340	0	0
	67	350	0	0
	68	350	0	0
	69	360	0	0
	70	360	0	0

The duty of 1s. 2d. per mile on every four passengers conveyed by railway, imposed by the 2 & 3 Wm. IV. c. 129, having been found to operate unequally and oppressively, was repealed in 1842 by the 5 & 6 Vict. c. 59. This Act imposed, at the same time, a duty of 5 per cent. on all receipts from passengers (restricted by the 7 & 8 Vict. c. 85 s. 9 to those paying more than 1d. per mile) by railways.

An important alteration in the excise laws regulating stage carriages was effected in 1863, 26 & 27 Vict. c. 32, which inter alia enacted that the duties then payable for the licenses and stage carriages thereafter described should be reduced, and in lieu of these duties there should be paid in Great Britain for every original license, to be taken out yearly, to keep a stage carriage to carry not more than 8 passengers at one time, the duty of 10s., and for every supplementary license for the same carriage, which shall be taken out in any case allowed by law during the period for which such original license was granted, the duty of 6d.

And for every mile which any such stage carriage shall be licensed to travel, the duty of 3d. Penalty on carrying more than 8 passengers 10l. Licenses may be granted (at the discretion of the Commissioners of Inland Revenue) for short periods.

For a carriage with	1 horse,	1 day	£	s.	d.
	2 horses,	"	3	0	0
	more than 2 horses,	"	10	0	0

If for longer than one day, half the above rates for each additional day, up to six days.

*Stage Coaches.*—The duties levied on stage coaches by the Act 29 & 30 Vict. c. 36 are as follow:—

For every mile which any stage carriage shall be licensed to travel in Great Britain, the excise duty of 3d. In the Eleventh Report of the Commissioners of Inland Revenue it is stated that the result of the reduction of the duty to 3d. was an increase in the mileage in the year ended June 30, 1867, to 34,054,798, or 1,179,000 over the return of the previous year; but the mileage duty fell from 130,085l. to 40,742l.

The following are the rates payable for horses &c. let to hire under this Act after July 6, 1866:—

Where the person taking out a license shall keep at one and the same time and let to hire 1 horse	£	s.	d.
or 1 carriage only	5	0	0
3 horses and 2 carriages	10	0	0
4 " 3 "	15	0	0
5 " 4 "	20	0	0
6 " 5 "	25	0	0
8 " 6 "	30	0	0
12 " 9 "	40	0	0
16 " 12 "	50	0	0
20 " 15 "	60	0	0
Exceeding 15 carriages	70	0	0
Exceeding 20 horses, then for each additional number of 10 horses, and for any additional number less than 10, over and above 20, or any other multiple of 10 horses, the further additional duty of	10	0	0

In lieu of the duties now payable on such licenses.

Stage carriage licenses expire on the first Sunday of November. Stage carriage licenses may be taken out for a quarter of a year. Each quarter to be deemed to commence on April 1, July 1, October 1, January 1, and the license payable being one-fourth of the annual sum due.

Stage carriage may be transported by rail or with recall or with improvement each by a penalty (28.)

Penalty on not the owner Forging the Names of the license in legible and of the extreme shall be license holder of passenger outside. Penalty (Sec. 36.)

Certain Carriages or Luggage, which shall be more than the bearing of distance between wheels, shall be (Sec. 37.)

Luggage on a Height, viz. 10 ft carriage drawn by inches from ditto horses. Driver of it is committed liability. The clauses in relating to the district have been repealed which substitutes

Number of Outstage carriage with roof of which shall ches from the ground shall not the centre of the carriage shall be less than 9 passes not more than 50 if licensed to carry more than 12 passengers more than 8 of licensed to carry than 15 passengers, than 11 of such passengers to carry more than 12 of such passengers carry any greater shall be allowed to passengers outside

passengers which such carry in the whole greater number of the outside than is more be carried, (29.)

Driver, Guard, counted as passenger reckoned as one passenger No person to sit more than 1 person

Penalty (Sec. 35.)

Justices, Road-measured; any passenger driver to stop at gate-keeper to measure and to count the number of passengers. Penalty on gate-keeper upon refusing to measure Wm. IV. c. 120 s. 4.

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Stage carriage licenses during their currency may be transferred by endorsement.

**Want of License &c.**—Keeping, using &c. any stage carriage without a license, or without plates, or with recalled plates, or contrary to their licenses, or with improper plates, are offences punishable each by a penalty of 20*l.* (& 3 Wm. IV. ss. 27, 28.)

**Penalty on Drivers of Coaches without Plates**, if not the owner, 10*l.*; if the owner, 20*l.* (Sec. 30.)

**Forging Plates**, a misdemeanour. (Sec. 32.)

**Names of Proprietors &c. to be painted outside**, in legible and conspicuous characters; the names of the extreme places between which such carriage shall be licensed to go; and also the greatest number of passengers licensed to be carried inside and outside. Penalty for neglecting this particular, 5*l.* (Sec. 35.)

**Certain Carriages not to carry Outside Passengers or Luggage**, viz. those the top or roof of which shall be more than 8 feet 9 inches from the ground, or the bearing of which on the ground, that is, the distance between the centres of the tracks of the wheels, shall be less than 4 feet 6 inches. Penalty, 5*l.* (Sec. 37.)

**Luggage on the Roof not to exceed a certain Height**, viz. 10 feet 9 inches from the ground on a carriage drawn by 4 or more horses; and 10 feet 3 inches from ditto if on a carriage drawn by 2 or 3 horses. Driver of any carriage where such offence is committed liable in a penalty of 5*l.* (Sec. 43.)

The clauses in the Act 2 & 3 Wm. IV. c. 120 relating to the distribution of outside passengers &c. have been repealed by the Act 3 & 4 Wm. IV. c. 48, which substitutes the following in their stead:—

**Number of Outside Passengers &c.**—Any licensed stage carriage with 4 wheels or more, the top or roof of which shall not be more than 8 feet 9 inches from the ground, and the bearing of which on the ground shall not be less than 4 feet 6 inches from the centre of the tracks of the wheels, if such carriage shall be licensed to carry any number not more than 9 passengers, shall be allowed to carry not more than 5 of such passengers outside; and if licensed to carry more than 9 and not more than 12 passengers, shall be allowed to carry not more than 8 of such passengers outside; and if licensed to carry more than 12 and not more than 15 passengers, shall be allowed to carry not more than 11 of such passengers outside; and if licensed to carry more than 15 and not more than 18 passengers, shall be allowed to carry not more than 12 of such passengers outside; and if licensed to carry any greater number than 18 passengers, shall be allowed to carry not more than 2 additional passengers outside for every 3 additional passengers which such carriage shall be so licensed to carry in the whole; provided that in no case a greater number of passengers shall be carried on the outside than is authorised by the license. If more be carried, driver to forfeit 5*l.* (Sec. 2.)

**Driver, Guard, and Children in lap** not to be counted as passengers; 2 children under 7 years reckoned as one passenger. (Sec. 3.)

**No person to sit on Luggage on the Roof**, nor more than 1 person besides driver on the box. Penalty 5*l.* (Sec. 14.)

**Justices, Road-surveyors, Toll-keepers &c.** authorised to cause stage carriages and luggage to be measured; any passenger authorised to require the driver to stop at a toll-gate and to require the gate-keeper to measure the carriage and luggage, and to count the number of inside and outside passengers. Penalty on driver refusing to stop, 5*l.*; on gate-keeper neglecting to provide a measure, or refusing to measure and count, 5*l.* (2 & 3 Wm. IV. c. 120 s. 45.)

**Conduct of Drivers &c.**—Drivers quitting the box before a proper person shall stand at the head of the horses; such person leaving the horses before some other person shall be placed in like manner, or have the command of the horses, or before the driver has resumed his seat on the box and taken the reins; driver allowing any passenger or other person to drive for him, or leaving the box without any reasonable occasion, or for a longer time than is absolutely necessary; concealing or displacing plates; guard discharging fire-arms unnecessarily; driver, conductor, or guard neglecting to take care of luggage; asking more than the proper fare; neglecting to account to his employer; or assaulting or using abusive language to any person having travelled, or about to travel, as a passenger, or to any person accompanying the same; shall in each and every such case forfeit 5*l.* (Sec. 47.)

**Drunkenness &c.**—Drivers, conductors, or guards leaving the care of any stage carriage, endangering through intoxication, negligence, or wanton and furious driving, the safety of any passenger or other person, or the property of the owner of such carriage or other person, shall each person so offending forfeit 5*l.* (Sec. 49.)

**Owners liable for penalties**, when driver or guard is not known or cannot be found. (Sec. 49.)

Mail coaches are under the regulations of the Postmaster-General; and the enactments in this Act as to plates, inscriptions, outside passengers, and luggage do not extend to them; but the other regulations as to the conduct of drivers, guards &c. do apply to them. Mail coaches have only four outside passengers: one on the box, and three immediately behind the box. No passenger allowed to sit beside the guard. The rate of travelling, the time allowed for stoppages, the quantity of luggage to be carried &c. are all regulated by the Postmaster-General.

**Rates of Duty on Carriages.**—These are fixed by the 16 & 17 Vict. c. 90 as follows, viz:—

	Annual Duty for each Carriage
	£ s. d.
For every such carriage with 4 wheels:—	
Where the same shall be drawn by 2 or more horses or mules	3 10 0
And where the same shall be drawn by 1 horse or mule only	2 0 0
For every carriage with 4 wheels, each being of less diameter than 30 inches:—	
Where the same shall be drawn by 2 or more ponies or mules, neither of them exceeding 15 hands in height	1 15 0
And where the same shall be drawn by 1 such pony or mule only	1 0 0
For every carriage with less than 4 wheels:—	
Where the same shall be drawn by 2 or more horses or mules	2 0 0
And where the same shall be drawn by 1 horse or mule only	0 15 0
And where the same shall be drawn by 1 pony or mule only, not exceeding 15 hands in height	0 10 0
And where any such carriage shall be kept and used solely for the purpose of being let for hire	One half of the above-mentioned duties respectively
For every carriage used by any common carrier principally and bona fide for and in the carrying of goods, wares, or merchandise, whereby he shall seek a livelihood, where such carriage shall be occasionally only used in conveying passengers for hire, and in such manner that the stage carriage duty or any composition for the same shall not be payable under any license by the Commissioners of Inland Revenue:—	
Where such last-mentioned carriage shall have 4 wheels	2 6 8
And where the same shall have less than 4 wheels	1 6 8

#### Rules for charging the said Duties.

1. The said duties to be respectively charged for every coach, Indian, chariot, chaise, sciable, caravan, curriole, chair, or car, and for every other carriage constructed for the like purposes, by

whatever name or names the same shall be called or known, and upon all such carriages hired by the year or any longer period, and upon all such carriages kept to be let out to hire.

2. The duty on carriages kept to be let out to hire to be paid by the person keeping the same for such purpose, and to be charged on the greatest number of such carriages which shall have been kept at any one time, and which shall have been actually let during the preceding year; provided that if a due return thereof shall not be made by the hirer of any such carriage, according to the directions of the Acts in force, stating therein the name and place of abode of the person letting the same to hire, such hirer shall be chargeable with the said duties.

*Numbers of Stage and Hackney Carriages.*—In the year ending March 31, 1867, 3,099 stage and hackney carriages paid Excise license duty in Great Britain, to the amount of 13,174*l.*, the proportion being about 36 in England for 1 in Scotland. The duty, for what reason it is not easy to divine, does not extend to Ireland. (For an account of HACKNEY COACHES, see the term; and Railway Carriages, see RAILWAYS.)

In 1866 we exported 798 carriages and carts, valued at 70,698*l.*, besides 1,057 railway passenger carriages of the value of 165,711*l.*, and 668 railway waggons and trucks worth 37,816*l.*

During the years ended April 5, 1856 and 1866, carriages were charged under Assessed Taxes, and produced as follows, viz.:

	1856			1866						
	Articles Charged	Amount of Duty			Articles Charged	Amount of Duty				
Carriages with 4 wheels, drawn by 2 or more horses	24,735	£	85,182	15	0	32,375	£	110,721	5	0
with less than 4 wheels, drawn by 2 or more horses	47,761		84,796	10	0	79,538		144,890	10	0
Ditto, used by carriers	215		477	0	0	900		505	0	0
	147,030		165,476	7	6	178,811		126,197	5	0
	5,471		9,119	15	4	6,772		11,525	6	8
Totals	225,240		282,812	5	10	297,186		533,830	6	8

**COAL** (Dutch, steenkoolen; Fr. charbon de terre; Ger. steinkohlen; Ital. carboni fossili; Lat. lithanthrax; Port. carvoes de terra, ou de pedra; Russ. ngolj, kamennoe; Span. carbones de tierra, carbones de piedra; Swed. stenkol). This highly important mineral is recognised by mineralogists under three heads: 1. Lignite, brown or boghead coal; 2. Common or Bituminous Coal; 3. Anthracite. The second of these kinds contains an endless number of varieties.

*Lignite.*—Bovey coal, so called from its being worked at Bovey Tracey in Devonshire. It is of comparatively little importance, being used chiefly for pottery. Some of the varieties of lignite are of considerable value, as the boghead or brown canal of Scotland, and similar products in Prussia and Austria.

Bituminous coal is the commonest kind. It is very widely distributed in Great Britain, being worked from Somerset to Sutherlandshire.

The Somerset and Gloucester collieries are those of the Forest of Dean and the Bristol coal-field. The produce of this region in the year 1864 was, inclusive of the Devonshire anthracite of Bideford, nearly 2,000,000 tons. The Bristol coal-field contains about 50 square miles.

*South Wales Field.*—This district, which supplied nearly 7,000,000 tons of coal and anthracite during the year 1864, is of great extent and thickness. It has been computed by S. W. Logan and Sir H. de la Bèche that the thickness of these carboniferous strata is not less than 11,000 to 12,000 feet.

*Shropshire.*—This contains the Coalbrook-dale field. The total thickness of the coal is from 16 feet to 55. Produce in 1864, 1,150,000 tons.

*Stafford and Worcestershire.*—This coal-field, which has been described minutely by Mr. Beete Jukes (see the *Birmingham Hardware Industries*), contains a peculiar and important bed of thick coal. The area is about 130 square miles, and the bed of thick coal is about 30 feet in thickness. The produce of the coal in the two counties was 11,459,851 tons in the year 1864.

*Derbyshire and Nottinghamshire.*—The produce from the first-named county was in the same year 4,470,750, that from the latter 796,700.

*Leicestershire and Warwickshire.*—The best coal of this district is that at Ashby de la Zouch.

The produce of Leicestershire was in the same year 890,600 tons. The Warwickshire coal, between Tamworth and Coventry, supplied 754,000 tons.

*Yorkshire.*—This county comprises the important collieries of Barnsley, Halifax, Leeds, Bradford, Huddersfield &c. The produce was 8,809,600 tons.

*Lancashire.*—The area of this coal-field is about 250 square miles. In certain districts the aggregate thickness of the coal strata is 93 feet. It contains the thick and valuable seams of canal coal at Wigan. The produce was 11,530,000 tons.

*Cheshire.*—Produce in 1864, 822,750 tons. *Monmouthshire.*—Produce in 1864, 2,028,500 tons.

*Cumberland.*—This district is a narrow region about Whitehaven; the workings in some parts being carried under the sea. The produce in 1864 was 1,380,795 tons.

*Durham and Northumberland.*—This is the widest and most important area from which coal has been extracted, and that from which it has been longest obtained. The produce in 1864 was 23,248,367 tons.

*North Wales.*—This district comprises the coal measures of Flintshire and Denbighshire. In 1864 it supplied 1,987,060 tons.

*Scotland.*—There are three principal coal-basins in Scotland. 1, that of Ayrshire; 2, that of Clydesdale; 3, that of the valley of the Forth. It supplied 12,400,000 tons in 1864.

*Ireland.*—Although the Irish supply is at present very small, the island having produced only 125,000 tons in 1864, the area over which coal is distributed is very large. Anthracite is found in the Leinster and Munster districts, bituminous coal in Connaught and Ulster.

*Anthracite.*—This exceedingly important kind of fuel, which is a modification of coal, is extensively used in blast furnaces, for which it is especially fitted, for its great heating power. It contains very little volatile matter, and the best varieties have only a slight amount of ash. In fact, it is nearly pure carbon igniting with some difficulty, and giving out intense heat during combustion. Its localities in the United Kingdom are Bideford, the western division of the South Wales

coal-field, and considered to be thrown away. Anthracite as a fuel (*Dictionary*).

The total coal according to Mr. Hunt is 12,800 square miles of the whole surface of the globe. The proportion is still the same authority as in coal-bearing stratum 1-22, in B. America also 1-20. But it is believed that three or four times as much is derived from all the coal in this country therefore stands to the editor by his next Professor of Oxford.

Coal is found in systems of strata—very little, and that *boniferous rocks*, just mountain limestone, coal formation, and about 29,000 square of these strata may be 15,000 feet. In the and the southern part and worked in the stone strata, oceanic stone. In the North Tweed and the Trent, but nowhere abundant series.

But in general, in where coal is now obtained is from the upper part of true coal formation. In miles of mountain limestone has only a few square near Kilkenny and sources of the Shannon castle. Scotland possesses in the British islands, a basin of the Forth a very rich both in coal and the limestone above, as series below.

The carboniferous system, between the Tweed between 9,000 and 10,000 feet, with the exceptions of the limestone of the Forth, and Yorkshire, coal worked at intervals throughout the really productive 2,000 square miles, to which known to occur or very in eastern borders, in Durham and Nottinghamshire, about square miles. Of the of Britain, the largest is the 50 square miles. The of Flintshire, the vale of the coal-fields, may be assumed including very probable series.

Thus we have for a great area actually known at coal highly probable extent making a total of 5,400 square miles. Usually we may be Derbyshire, and Nottingham

coal-field, and Ireland. Fifty years ago it was considered to be incombustible refuse, and was thrown away. (For particulars as to the value of anthracite as a fuel for furnace purposes, see Ure's *Dictionary*.)

The total coal area of the British Islands, according to Mr. Hunt, the Keeper of Mining Records, is 12,800 square miles, and therefore amounts to  $\frac{1}{10}$  of the whole surface. In the United States the proportion is still higher, being according to the same authority  $\frac{2}{5}$  of the whole. In France the coal-bearing strata are 1-100 of the area, in Belgium 1-22, in Bohemia 1-20, in British North America also 1-20, in Spain 1-52, in Prussia 1-90, but it is believed that the produce of the British mines is three or four times as much as that derived from all these countries put together.

The following observations as to the supply of coal in this country, and the relation in which it therefore stands to industry, have been supplied to the editor by his friend Mr. Phillips, the eminent Professor of Geology in the University of Oxford:—

'Coal is found and worked in our islands in two systems of strata—the *oolitic rocks*, which yield very little, and that of small value; and the *carboniferous rocks*, justly so named, which include mountain limestone, millstone grit, and proper coal formation, and occupy in the British Isles about 29,000 square miles. The total thickness of these strata may be taken as not exceeding 15,000 feet. In the northern part of England, and the southern part of Scotland, coal is found and worked in the midst of the mountain limestone strata, occasionally with valuable ironstone. In the North of England, between the Tweed and the Trent, coal is found and worked, but nowhere abundantly, in the millstone grit series.

'But in general, in all parts of Great Britain where coal is now obtained in large quantity, it is from the upper part, called exceptionally the true coal formation. Ireland, with 16,000 square miles of mountain limestone and millstone grit, has only a few square miles of valuable coal beds, near Kilkenny and Castle Comer, about the sources of the Shannon, in Tyrone, and at Ballycastle. Scotland possesses the largest coal-field in the British islands, about 1,600 square miles in the basin of the Forth and Clyde. This field is very rich both in coal and iron—is productive in the limestone above, as well as in the sandstone series below.

'The carboniferous system of the north of England, between the Tweed and the Trent, occupies between 9,000 and 10,000 square miles. With the exceptions of the limestone districts of Derbyshire and Yorkshire, coal is found and has been worked at intervals throughout this large tract; but the really productive tracts do not exceed 1,000 square miles, to which we may add, for coal known to occur or very likely to be found on the eastern borders, in Durham, Yorkshire, Derbyshire, and Nottinghamshire, about 600 more; in all 2,200 square miles. Of the other coal-fields of Great Britain, the largest is that in South Wales, about 500 square miles. The remainder, in Anglesea, Flintshire, the vale of the Severn, and the midland coal-fields, may be assumed at 400 square miles, or, including very probable extensions, at 700 square miles.

'Thus we have for a grand total, of productive coal area *actually known* about 4,500 square miles, and *highly probable extensions* 900 square miles, making a total of 5,400 square miles.

'Conjecturally we may believe that in Yorkshire, Derbyshire, and Nottinghamshire, under the

plain of Cheshire, between the midland coal-fields, and in the valleys of the Severn and Avon, as much as 600 square miles of coal will be found workable. This makes in all 6,000 square miles of available British coal.

'The greatest total thickness of coal in any district of Britain probably occurs in South Wales—120 feet. In most parts of England it falls below 60 feet. The thickness is not to be assumed as equal over the whole area: in some parts the coal beds are in such condition as to fault, depth, and earlier workings as to be quite unworkable. Many of the beds are too thin to be workable. For these reasons we may take  $\frac{2}{3}$  of the total quantity existing as really attainable.

'Sixty feet of coal existing, our estimate of available thickness is 40 feet, from which  $\frac{1}{4}$  must be deducted for old workings and waste. 30 feet remain, which, on the usual calculation of 1,000 tons per acre for each foot in thickness, gives 30,000 tons per acre=19,200,000 tons per square mile=115,200,000,000, as the total quantity which according to reasonable estimates can ever be reached in these islands.  $\frac{1}{4}$  of this quantity (1,500 square miles) has been admitted as probable; the remainder may be regarded as certainly available, but at *prices continually growing higher and higher* as the depths of the works continually augment, and as coal beds less in value or more expensive in working come into demand.'

As to foreign coal-fields, Mr. Phillips says:—

'Most of the coal of Europe, excepting our own, lies in tracts of no great extent, at considerable distances from the sea. The valuable coal-field of Belgium continued across the Rhine to Elberfeld is one of the nearest to shipping. Coal in fact reappears on the same line at Boulogne; but whether there be a continuous deposit from the vicinity of Valenciennes to near this port is not known: if it be so, the depth would probably be found in most parts too great for working. The principal coal-field of France, St. Etienne, is covered with industrial establishments, and is limited to a small area, viz. 100 square miles.

'The coal-fields of Saarbrueck, Silesia, and Bohemia are all of considerable extent; Russia has several tracts of inferior coal south of Moscow; Poland a small basin of good thick coal; Spain some considerable tracts in the Asturias, and Portugal a small area on the Douro. The whole of these European fields would probably be found on strict enquiry not to contain so much coal as the coal-measures of Great Britain.

'In the Black Sea, at Heraclia, a small quantity of coal is known; in India several pretty large scattered tracts, some fairly productive. The coal of Borneo is used for steam purposes, and increased supplies will soon be drawn from New Zealand, Queensland, and New South Wales. Japan yields much coal, accessible from the sea; China contains coal far inland; Africa has coal on the Zambesi.

'British America has coal in the eastern provinces, especially in Nova Scotia and New Brunswick, the thickest beds being at Pictou. The United States possess tracts of productive coal-measures exceeding those of all the rest of the world, as at present known. The greatest fields of coal are on the western side of the Appalachian chain, *a thousand miles from the sea*; but a small tract of good coal appears on the eastern side of the range, near Richmond. Brazil, lately under examination by Agassiz, contains a large tract of coal in the interior.

'On the whole it appears that Britain, and the

islands under the control of Britain, must be looked to for exports of coal "dum stabit fortuna," and that we can never hope to feed our own furnaces and work our own looms by the aid of fuel from other parts of the world."

The great value of anthracite coal as a means for supplying heat is illustrated by the following results of Dr. Fyfe's experiments on the comparative powers of Scotch bituminous coal with anthracite:—

Fuel	Pounds burnt per hour	Duration of trial, hours	Temperature	Pounds of water evaporated from initial temperature by 1 lb. of coal	Pounds of water at 212° from 1 lb. of coal	Coal per hour on 1 sq. foot of grate	Time in seconds of consuming 1 lb. coal
Middlerig Scotch coal	81.33	9	450	6.55	7.74	10.00	41.27
Anthracite	47.94	8½	450	8.75	10.10	5.85	75.99

The number of collieries in existence in the year 1866 was 3,188, as contrasted with 2,397 in 1853. There are twelve inspectors of collieries: one for Northumberland, Cumberland, and the North division of Durham; one South Durham; one Yorkshire; one Derby, Notts, Warwick, Leicestershire; one Cheshire, Shropshire, North Stafford; one South Stafford; one North and East Lancashire; one St. Helen's and Wigan district in Lancashire, and for North Wales; one South-west of England and South-east Wales; one Glamorganshire and South-western Wales; one for the Western division of the Scotch field, and one for the Eastern. There is no inspector for Ireland.

*Origin of Coal. Phenomena of Combustion &c.*—Coal beds, or strata, lie among those of gravel, sand, chalk, clay &c., which form great part of the present surface of the earth, and have been evidently accumulated during remote ages by the agency of 'moving water,' similar to accumulations now in process of formation at the mouths of all great rivers, and in the bottoms of lakes and seas. When these strata had, by long contact and pressure, been solidified into a rocky crust to the earth, this crust, by subsequent convulsions of nature, of which innumerable other proofs remain, has been in various parts broken and heaved up above the level of the sea, so as to form the greater part of our dry or habitable land; in some places appearing as lofty mountains, in others as extended plains. In many situations the fracture of the crust exhibits the edges of the various distinct strata found in a given thickness of it. When the fracture has the form of a precipitous cliff, these edges appear one above another, like the edges of piled planks or books; but often also they are met with in horizontal succession along a plain, as the edges of a pile of books laid down upon a table; or they may be seen surrounding hills of granite, which protrude through them. Coal, and other precious minerals, were first discovered at the fractures of the strata above described, and by the continued digging of the strata or veins the vast excavations called mines have been gradually formed. When it was at last discovered that the mineral strata occur every where in nearly the same order or succession, so that the exposure of a portion of one stratum is a good indication of the other strata being near, the operations of the miner became of much surer result, and expensive boring through superior strata might be prudently undertaken, even where no specimen of the desired but more deeply buried substance had yet been seen.

Before the discovery of coal-mines, or the invention of cheap means of working them, wood was generally used as fuel; and in many countries where the arts have not much flourished, it continues to be principally employed as such. Coal, however, for many purposes, answers much better than wood; and, in fact, the two, although in appearance so different, are in their ultimate composition very nearly allied. They both have for

their basis or chief ingredient the substance called by the chemists *carbon*, and for their chief other ingredient the substance called *hydrogen*, which, when separated, exists in the form of air or gas. The hydrogen is easily driven away or volatilised from either coal or wood by heating in a close place; and when it is caught and preserved, it forms the gas now used to light our streets and public buildings. What remains of coal, after being so treated, is the substance called *coke*; and what remains of wood, similarly treated, is the substance called *charcoal*—both being nearly pure carbon, but differing as to the states of compactness. This kindred nature of coal and wood does not surprise when the fact is known that much of our coal is really transformed wood; many coal-mines being evidently the remains of antediluvian forests, swept together in the course of the terrestrial changes already alluded to, and afterwards solidified to the state now seen. In these mines, the species of the plants or trees which formed them are still quite evident in abundant specimens, mixed often with the remnants of the animals which inhabited the earth at the same time. The extensive peat-mosses now existing on the surface of the earth consist chiefly of vegetable remains in an early stage of the kind of change which terminates in the formation of coal.

A substance which, like coal or wood, cheaply answers the purpose of producing great heat and light is called fuel, and the phenomenon of that production is called combustion. Now, modern discovery has ascertained that, in every instance, combustion is merely an appearance which accompanies the mutual action, when very intense, of two substances in the act of forming an intimate or chemical union. Where that act is less energetic, the heat produced is less intense, and there is no light. Thus, water and sulphuric acid when mixing produce great heat, but no light. Water and quicklime produce still greater heat; sufficient, it is known, to set fire to a ship in which the mixture unfortunately occurs. It is an occurrence of the same kind when heat is evolved from an acid dissolving a metal; and it is still of the same kind when a mass of coal or wood in a fire-grate is, with the appearance of combustion, undergoing solution in the oxygen of the atmosphere. In this last case, however, the temperature of the fuel is, by the very intense action, raised so much that the fuel becomes incandescent or luminous; an appearance assumed by every substance, whether burning or not—of a stone, for instance, or piece of metal—when heated beyond the temperature indicated by 800° of Fahrenheit's thermometer. The inferior degrees of such incandescence are called *red heat*; the superior degrees, *white heat*. The reason why any strongly heated body throws out light we cannot yet explain. When a quantity of wood or coal has been burned to ash in a confined portion of air, the whole of the fuel, vanished from view, is held in solution by the air, as salt is held in water, and is again recoverable

by the art of common fire, fuel being of atmosphere. it as is true coke and charcoal of red-hot state as hydrogen, sums the form burning, and incandescence

The two gases serves to maintain the former heat, and by the duration converts the di- what, for many and by the lat- any climate w- effect most im- substances whic- since the invent- heat perform a society. From ceived the impor- and, as the chea- having abundan-

As respects th- generally favour- of the country- thick beds of th- precious to us th- precious metals, for coal, since it- engine, is really- almost every pu- rected by ingenu- possession of her- Britain, in relati- city is to the rur- the producer and- ducts of art and is-

The kinds or di- comparative prop- and of earthy in- While some speci- of their weight o- fiftieth part. The- pleasing in partou- ture of gas. The- stone coal, for ins- large heaps, or w- nable coal: they- coal is burned wh- not pass through- bine with and cons- rises, a dense sm- hydrogen and carb- which form a pitc- above mentioned- flame, and hence- breweries, and in- towns, where sm- foliated or cubical- use' as fuel in pri- for smithy forges; open, answers bes- wind furnace, as it- and glance coal, fo- drying grain and m- contain less volatil- fish or the Scotch; smelting the ore, f- iron.

The following ac- England is taken fr- tics for 1866:—

by the art of the chemist. The phenomenon of common fire, or combustion, then, is merely the fuel being chemically dissolved in the air of the atmosphere. If the fuel has nothing volatile in it, as is true of pure carbon, and nearly true of coke and charcoal, it burns with the appearance of red-hot stones; but if there be an ingredient, as hydrogen, which, on being heated, readily assumes the form of air, that ingredient dilates before burning, and in the act produces the more bulky incombustible called flame.

The two great purposes which combustion serves to man are to give light and heat. By the former he may be said to lengthen considerably the duration of his natural existence; for he converts the dismal and almost useless night into what, for many ends, serves him as well as day; and by the latter, besides converting winter into any climate which he desires, he is enabled to effect most important mutations in many of the substances which nature offers for his use; and, since the invention of the steam-engine, he makes heat perform a great proportion of the work of society. From these considerations may be perceived the importance of having fire at command; and, as the cheapest means of commanding fire, of having abundance of coal.

As respects the supply of coal, Britain is singularly favoured; a large portion of the surface of the country having under it continuous and thick beds of this valuable mineral—vastly more precious to us than would have been mines of the precious metals, like those of Peru and Mexico; for coal, since it has been applied to the steam-engine, is really hoarded power, applicable to almost every purpose which human labour directed by ingenuity can accomplish. It is the possession of her coal-mines which has rendered Britain, in relation to the whole world, what a city is to the rural district which surrounds it—the producer and dispenser of the various products of art and industry.

The kinds or differences of coal depend on their comparative proportions of carbon and hydrogen, and of earthy impurities totally incombustible. While some species of coal contain nearly a third of their weight of hydrogen, others have not a fiftieth part. The former kinds are flaming coal, pleasing in parlour fires, and fit for the manufacture of gas. The other kinds—some of the Welsh stone coal, for instance—will only burn when in large heaps, or when mixed with more inflammable coal: they have no flame. When flaming coal is burned where a sufficiency of oxygen cannot pass through or enter above the fire, to combine with and consume the hydrogen as fast as it rises, a dense smoke is given out, consisting of hydrogen and carbon combined in the proportions which form a pitchy substance. The Welsh coal above mentioned can as little give out smoke as flame, and hence is now much used in great breweries, and in the steam-engine furnaces of towns, where smoke is a serious nuisance. The foliated or cubical coal, and slate coal, are chiefly used as fuel in private houses; the caking coals, for smithy forges; the slate coal, from its keeping open, answers best for giving great heats in a wind furnace, as in distillation on a large scale; and glance coal, found in Staffordshire, is used for drying grain and malt. The coals of South Wales contain less volatile matter than either the English or the Scotch; and hence, when employed in smelting the ore, produce a greater quantity of iron.

The following account of the produce of coal in England is taken from Mr. Hunt's *Mineral Statistics for 1866* :—

Summary of Coal Produce of the United Kingdom for 1866.

	Tons.		Tons.
Durham and Northumberland	25,194,550	Shropshire	1,220,700
Cumberland	1,480,181	Somersetshire, and Devonshire	1,850,700
Yorkshire	9,174,700	Monmouthshire	4,115,000
Derbyshire	4,750,520	South Wales	9,376,113
Nottinghamshire	1,690,560	North Wales	2,082,000
Leicestershire	865,500	Scotland	12,625,000
Warwickshire	755,000	Ireland	123,750
Staffordshire and Worcestershire	12,208,500	Total produce of the United Kingdom	101,630,514
Lancashire	12,320,500		
Cheshire	825,500		

Table showing the Increase in the Number of Collieries in the 10 Years since 1856.

Counties	1856	1866
ENGLAND.		
Durham and Northumberland	270	297
Cumberland	28	30
Cheshire	32	39
Lancashire	329	331
Yorkshire	399	417
Derbyshire	176	150
Leicestershire	11	11
Warwickshire	16	15
Nottinghamshire	21	25
North Staffordshire	123	107
South Staffordshire and Worcestershire	425	512
Shropshire	63	63
Gloucestershire	56	79
Somersetshire	29	35
Devonshire	2	0
WALES.		
Pembrokeshire	17	20
Carmarthenshire	37	30
Glamorganshire	165	232
Merioneth and Monmouthshire	65	100
Powyslandorwaen	42	40
Pembshire	34	35
Anglesea	5	5
SCOTLAND.		
Lanarkshire	155	206
Ayrshire	—	97
Fifeshire	40	45
Clackmannan	10	5
Haddingtonshire	11	13
Edinburghshire	14	13
Lothianshire	15	13
Stirlingshire	35	47
Highlandshire	11	16
Perthshire	11	10
Other Counties	6	4
Ireland	22	59
Total	2,815	3,183

General Summary of the Quantities of Coal brought into the London District, Coastwise, by Inland Navigation, and Railways.

Year	Coastwise	Inland Navigation	Total
	tons	tons	tons
1851	—	—	2,000,547
1855	—	—	2,299,416
1856	—	—	2,390,551
1857	2,696,097	2,324	2,698,421
1858	2,781,085	1,685	2,782,770
1859	2,625,323	12,933	2,638,256
1860	2,568,299	22,138	2,590,437
1861	2,509,114	33,591	2,542,705
1862	2,725,200	51,519	2,776,719
1863	2,628,520	74,684	2,703,204
1864	2,190,910	72,256	2,263,166
		Railway and Canal	
1845	5,592,512	86,629	5,679,141
1846	2,289,577	33,667	2,323,244
1847	2,280,120	41,927	2,322,047
1848	3,418,310	60,819	3,479,129
1849	3,539,146	61,610	3,600,756
1850	3,355,701	85,579	3,441,280
1851	3,231,542	234,421	3,465,963
1852	3,351,428	411,917	3,763,345
1853	3,373,266	653,729	4,027,095
1854	3,399,561	977,210	4,376,771
1855	3,016,869	1,161,086	4,177,955
1856	3,119,881	1,271,700	4,391,581
1857	3,133,459	1,253,172	4,386,631
1858	3,266,146	1,210,645	4,476,791
1859	3,299,170	1,205,732	4,504,902
1860	3,575,777	1,497,138	5,072,915
1861	3,557,002	1,661,083	5,218,085
1862	3,414,402	1,591,917	5,006,319
1863	3,355,174	1,278,115	4,633,289
1864	3,116,703	2,351,742	5,468,445
1865	3,161,683	2,741,588	5,903,271
1866	2,833,133	2,980,073	5,813,206

The number of persons (all males) engaged in coal-mining was returned in the census of 1861

at 246,613. It is probable that although within the last five years the produce of coal-mines has materially increased, no great addition has been made to the number of coal-miners, since machinery is being employed for cutting coal to an extent which becomes annually greater. To these persons, however, we must add those who are engaged in the coal trade, the number of whom, according to the same authority, including coal-factors, contractors, coal-leavers, dealers &c., is 32,424.

**Progressive Consumption of Coal down to 1866.**—The following table exhibits the increase in the production of coal in Great Britain alone, and of the export from and the consumption in the United Kingdom, from 1855 to 1866:—

Year	Coals				Increase and Decrease of Home Consumption tons
	Raised *	Exported	Retained for Home Consumption	Consumption	
1855	61,507,459	4,876,902	59,530,557	1,298,473+	
1856	66,508,815	5,875,779	60,629,036	2,092,567—	
1857	65,272,047	6,752,718	58,519,329	177,913—	
1858	64,887,899	6,829,483	58,058,416	6,491,100+	
1859	71,859,465	7,006,949	64,852,516	7,784,092+	
1860	79,025,273	7,251,832	72,001,111	5,655,588+	
1861	85,512,141	7,855,113	77,657,029	2,111,013—	
1862	87,510,838	8,301,851	79,208,987	4,781,867+	
1863	88,165,665	8,276,242	79,889,423	5,462,442+	
1864	92,662,875	8,809,008	83,853,867	5,127,443+	
1865	98,150,587	9,170,477	88,980,110	2,878,169+	
1866	101,506,794	9,648,216	91,858,578	2,878,169+	

\* Ireland is omitted.

It will be plain from this table that the consumption of coal has increased within eleven years by nearly one-third. The importance of coal as a necessary of life, and the degree in which our superiority in arts and manufactures depends upon our obtaining supplies of it at a cheap rate, have naturally attracted a good deal of attention to the question as to the period when the exhaustion of the coal-mines may be anticipated. Frequent discussions on the subject led, at length, to the appointment of a Royal Commission, which is still (1868) pursuing its enquiries.

The test of scarcity is price. If the increased demand of a limited quantity is felt to so far affect supply as to threaten a check to its fulness, the price of the article inevitably rises. The more necessary the commodity is, the more incessant and undoubted is the demand, the more sensitive is the market. It does not appear, however, at least, that the price of coal, in the London district at the present time, has been sensibly affected by the consumption. The table is taken from Mr. Hunt's *Mineral Statistics*.

The presence of coal in any estate is of course of great advantage to the owner, and it may be the case that even at present prices, which do not seem to suggest any notable increase during the last thirty-four years, the price has been kept down by the eagerness of colliery proprietors to realize the benefits of the property they possess. Still, even though this motive be operative, it would not be strong enough to hide the manifest advantage of checking supply and so of raising prices. Whatever may be the facts of the case, it is clear that at present the owners of coal-mines do not anticipate that they will be benefited in the future by diminishing the quantity sent to the market.

At some time, which will probably be not very remote, the annual produce and consumption of coal will reach its maximum, and scarcity will be felt. Such a scarcity will induce a rise in the price, and with it an economy of the article. This economy, often a countervailing force to the

scarcity, will be exhibited either in an abandonment of some forms of consumption, or in the discovery of processes by which the same result will be achieved with far less expenditure of fuel. The latter economy has often been realised even under present conditions. Small coal or waste, which used to be thrown aside as worthless, is now found to be valuable; improvements in the construction of furnaces have made it possible to consume smoke and inflammable gases which were previously lost; and most important of all, the use of the hot blast in iron-smelting has reduced the expenditure of coal in this branch of manufacture to at least  $\frac{1}{3}$  the quantity formerly used. Nay, the purification of cast iron in the Bessemer process is to a very great extent effected by the combustion of the impurities present in the raw material. In short it may be laid down as a general canon in prices, that the scarcity of any commodity, employed at once for objects of primary necessity and of merely economical importance, will affect the latter so continuously as to arrest consumption and finally to limit it to the former use.

**Prices of Coal at the London Coal Market during the Year 1866.**

Week ending	Newcastle			Sunderland		Hartlepool
	Walls End	Tansfield	Hartley	Eden Main	W. E. Kellow	
January 5	s. d. 17 0	s. d. —	s. d. 16 9	s. d. 19 3	s. d. 17 9	
12	—	—	—	18 3	19 0	
19	—	—	—	18 3	19 0	
26	16 3	15 3	16 9	16 9	17 6	
February 2	15 9	15 3	16 3	16 0	16 6	
9	15 3	15 3	16 3	16 0	16 3	
16	15 9	15 0	16 0	16 6	17 0	
23	—	—	—	—	—	
March 2	16 6	15 0	15 6	16 6	17 9	
9	15 9	15 0	15 9	16 6	16 9	
16	15 6	—	16 0	—	16 3	
23	15 6	—	16 6	17 0	—	
30	—	—	—	—	—	
April 6	15 9	11 6	17 3	16 6	16 6	
13	16 3	—	17 0	—	17 6	
20	16 6	—	17 0	16 9	17 3	
27	16 6	14 6	17 3	16 6	17 0	
May 4	17 0	—	17 3	17 0	17 3	
11	15 6	—	17 3	17 0	17 6	
18	16 3	—	17 3	16 9	17 0	
25	16 3	11 6	17 3	16 9	17 3	
June 1	16 0	11 6	17 3	—	17 0	
8	15 9	—	17 0	—	16 6	
15	16 6	—	17 3	16 9	17 6	
22	16 9	—	17 0	17 3	17 9	
29	16 9	—	17 0	—	18 0	
July 6	—	—	17 3	18 0	—	
13	—	14 6	17 3	19 3	19 6	
20	—	18 9	11 6	17 6	19 9	
27	—	—	—	17 6	19 0	
August 3	—	—	—	17 6	18 9	
10	—	17 6	—	17 9	18 6	
17	—	—	—	17 9	19 0	
24	—	18 0	—	17 9	19 0	
31	—	—	—	18 0	20 0	
Sept. 7	—	—	—	18 0	20 9	
14	—	—	15 6	18 3	21 0	
21	—	20 6	15 6	18 0	21 6	
28	—	20 6	—	18 0	21 0	
October 5	—	19 6	—	18 0	20 6	
12	—	19 6	—	17 9	20 6	
19	—	19 6	—	17 9	19 9	
26	—	19 3	—	—	—	
Nov. 2	—	20 6	—	17 3	21 0	
9	—	18 9	—	16 6	19 9	
16	—	20 0	—	17 3	21 0	
23	—	—	—	17 9	21 0	
30	—	20 0	—	17 9	21 3	
Dec. 7	—	19 6	—	18 0	21 0	
14	—	19 0	—	18 0	20 0	
21	—	18 0	15 0	18 0	19 6	
28	—	17 0	—	17 9	18 6	
Average for the year	17 9	15 0	17 0	18 5	18 6	
Highest average of weekly sales	20 6	15 6	18 3	21 3	21 9	
Lowest average of weekly sales	15 3	11 6	15 6	15 9	16 3	

Year	Jan.		Feb.		Mar.	
	Highest	Lowest	Highest	Lowest	Highest	Lowest
1852	s. d. 21 6	s. d. 14 0	s. d. 22 0	s. d. 15 0	s. d. 21 0	s. d. 14 0
1853	21 0	14 3	21 18	15 18	21 0	14 0
1854	21 0	15 6	21 0	15 6	21 0	14 0
1855	26 0	15 0	22 0	15 0	22 0	15 0
1856	25 6	15 0	22 0	15 0	22 0	15 0
1857	27 0	16 6	22 0	15 0	22 0	15 0
1858	27 0	17 0	22 0	15 0	22 0	15 0
1859	24 5	17 0	22 0	15 0	22 0	15 0
1860	25 0	17 0	22 0	15 0	22 0	15 0
1861	25 0	17 0	22 0	15 0	22 0	15 0
1862	21 0	16 0	22 0	15 0	22 0	15 0
1863	21 0	16 0	22 0	15 0	22 0	15 0
1864	21 0	16 0	22 0	15 0	22 0	15 0
1865	26 0	16 0	22 0	15 0	22 0	15 0
1866	25 0	16 0	22 0	15 0	22 0	15 0

**Profits of Coal**

generally speak distinctly the large fortunes and associations these are rare in is a very expensive of very uncertain to an infinite number of caution can be have, it is true, introduction of some mines are invention of this been entirely abandoned which are still from the careless contingencies, destroyed by erections by drowning or workings through and consequent great, indeed, in of property, the effect an insurance water, or any other Mr. Buddle House of Lords collieries, in the and companies, than might be profit, according lottery; yet, as employed on the tainly it has no Again, being as on the Tyne and made on their "According to t think that by no at simple interest for the rec In addition to sinking of shaft

The Prices of Newcastle and Sunderland Coal in the London Market during each Month of the Years 1832 to 1866, both inclusive.

Year	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	Highest	Lowest																						
1832	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1833	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1834	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1835	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1836	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1837	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1838	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1839	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1840	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1841	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1842	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1843	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1844	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1845	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1846	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1847	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1848	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1849	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1850	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1851	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
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1864	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1865	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6
1866	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6	11	6

*Profits of Coal-Mining. Coal-Owners' Monopoly* &c.—Instead of the business of coal-mining being, generally speaking, an advantageous one, it is distinctly the reverse. Sometimes, no doubt, large fortunes have been made by individuals and associations engaged in this business; but these are rare instances. The opening of a mine is a very expensive and hazardous operation, and of very uncertain result. Collieries are exposed to an infinite number of accidents, against which no caution can guard. The chances of explosion have, it is true, been a good deal lessened by the introduction of Sir Humphry Davy's lamp; and some mines are now wrought, that, but for the invention of this admirable instrument, must have been entirely abandoned. But besides explosions, which are still every now and then occurring, from the carelessness of the workmen and other contingencies, mines are very liable to be destroyed by creeps or by the sinking of the roof, and by drowning or the irruption of water from old workings through fissures which cannot be seen and consequently cannot be guarded against. So great, indeed, is the hazard attending this sort of property, that it has never been possible to effect an insurance on a coal-work against fire, water, or any other accident.

Mr. Biddle informed the committee of the House of Lords, in 1829, that 'although many collieries, in the hands of fortunate individuals and companies, have been, perhaps, making more than might be deemed a reasonable and fair profit, according to their risk, like a prize in a lottery; yet, as a trade, taking the whole capital employed on both rivers, he should say that certainly it has not been so.' (*First Report*, p. 56.) Again, being asked, 'What have the coal-owners on the Tyne and Wear, in your opinion, generally made on their capital employed?' he replied, 'According to the best of my knowledge, I should think that by no means 10 per cent. has been made at simple interest, without allowing any extra interest for the redemption of capital.' (p. 57.)

In addition to the vast expense attending the sinking of shafts, the erection of steam-engines

&c., and the risk of accidents, the coal, after being brought to the surface, has frequently to be conveyed 7 or 8 miles to the place of shipping; and those whose collieries are in that situation have to pay *way-leave* rents, amounting, in some cases, to 500*l.* a-year, for liberty to open a communication, or a railroad, through the properties lying between them and the shore.

Much has frequently been said of the monopoly of the coal-owners on the Tyne and the Wear; but we are satisfied, after a pretty careful investigation of the circumstances, that no such monopoly has ever existed; and that the high price of coal in the metropolis is to be ascribed wholly to the various duties and charges that have been laid upon it from the time that it has passed from the hands of the owner to the time that it is lodged in the cellar of the consumer. What means have the coal-owners of obtaining a *monopoly price* for their coal? They enjoy no exclusive privileges of any sort; they are a numerous body; and the trade is as open as any other to all capitalists to engage in. The number of places on the east and west coasts, both of England and Scotland, and the southern parts of Wales, from which coals are exported, render it quite visionary to suppose that any general agreement to keep up prices can take place amongst the various coal proprietors; and though such an agreement were entered into, it is impossible it could be maintained. The *power* of producing coal greatly exceeds the present demand; many new mines have been recently opened, and many others would be brought into activity were the price artificially enhanced. It is true that the coal-owners referred to, having experienced the ruinous effects of throwing a superabundant quantity of coal upon restricted and already glutted markets, have occasionally met together; and each having named the price he thinks his coal will command, and at which he intends to sell it, they have proceeded jointly to regulate, according to the probable demand, the quantity that each shall raise during any particular period. By means of this arrangement the supply and price of coal have been kept, during the

time it has existed, comparatively steady. Common prudence prompts and justifies such an arrangement; but it also suggests the necessity of reducing the price of coal to the lowest level that will afford the customary rate of profit. For were the price demanded by the northern coal-owners raised above this level, new mines would be opened in Durham and Northumberland; the imports from the Tees, whence a large supply of excellent coal is at present brought to the London market, would be augmented; and fresh competitors, from Swansea and other places, would come into the field and undersell them. Government should encourage and promote this fair competition; but it ought, at the same time, to do equal justice by all the competitors. It is not to lend assistance to, or remove burdens from, one set of adventurers, which it does not lend to or remove from others. It is no part of its duty to say *how* coals, or any species of produce, shall be carried to market. It is bound to give every reasonable facility for the opening of new channels or modes of conveyance between all parts of the country; but it would be glaringly unjust to lay a tax on the coals conveyed by a particular channel from which those conveyed by other channels were exempted.

The aggregate capital employed by the coal-owners on the Tyne amounts to about 4,500,000*l.*, exclusive of the craft in the river: and supposing this estimate to be nearly correct, it will follow, allowing for the value of the ships, that the total capital employed in the coal trade may be moderately estimated at from 20 to 25 millions; an immense sum to be almost wholly at the risk of the owners, without any insurance upon it.

*History of the Use of Coal. Duties and Regulations affecting it, particularly in the Port of London.*—There are no mines of coal in either Greece or Italy; and no evidence has been produced to show that the ancients had learned to avail themselves of this most useful mineral. No evidence has as yet been adduced as to the time at which sea-coal was first employed for economical purposes. The following is from Mr. Rogers's work on *Agriculture and Prices in England*, vol. i. p. 422: 'Its appearance at so distant a place as Dover in 1279, the earliest entry which has come under my observation, suggests that the coasting traffic in this article must have been familiar. It was purchased for the use of the castle, and must, of course, have been burned in a fire-place with chimney. Again it is used at Waleton and Weston, two places in Suffolk and Hert, which formed part of the estate of Roger Bigod, the great Earl of Norfolk. It is found at Southampton in 1298. It is quoted in the accounts of Clare Castle and Clarette, part of the possessions of the Earl of Gloucester. It is bought at Hexley in Kent and Hoton in Essex. It is found at Westbury in Wilts, probably from the Somersetshire measures. It may be added that among the various traders given in the taxing bill of Colchester, *Rot. Parl.*, vol. i., sea-coal dealers are mentioned at the close of the 13th century.' It occurs in a charter of Henry III., granting license to the burgesses of Newcastle to dig for coal. In 1281 Newcastle is said to have had a considerable trade in this article. About the end of this century, or the beginning of the fourteenth, coals began to be imported into London, being at first used only by smiths, brewers, dyers, soap-boilers &c. This innovation was, however, loudly complained of. A notion got abroad that the smoke was highly injurious to the public health; and in 1316 Parliament petitioned the king, Edward I., to prohibit the burning of coal, on the ground of its being an intolerable nuisance. His Majesty

issued a proclamation conformably to the prayer of the petition; but it being very little attended to, recourse was had to more vigorous measures; a commissioner of oyer and terminer being issued out, with instructions to enquire as to all who burned sea-coal within the city, or parts adjoining; to punish them for the first offence by 'pecuniary mulcts;' and upon a second offence to demolish their furnaces; and to provide for the strict observance of the proclamation in all time to come.

But notwithstanding the efforts that were thus made to prohibit the use of coal, and the prejudice that was long entertained against it, it continued progressively to gain ground. This was partly, no doubt, owing to experience having shown that coal smoke had not the noxious influence ascribed to it, but far more to the superior excellence of coal as an article of fuel, and the growing scarcity and consequent high price of timber. In the reign of Charles I. the use of coal became universal in London, where it has ever since been used to the exclusion of nearly all other articles of fuel. At the Restoration the quantity imported was supposed to amount to about 200,000 chaldrons. In 1670 the imports had increased to 270,000 chaldrons. At the Revolution they amounted to about 300,000 chaldrons, and have since gone on increasing with the growing magnitude and population of the city; being, in 1750, about 500,000 chaldrons; in 1800, about 900,000 chaldrons; and in 1866 about 600,000,000 tons. (Campbell's *Political Survey of Great Britain*, vol. ii. p. 30; Edington *On the Coal Trade*, p. 41; &c.)

It might have been supposed, considering that coal is, in this country, a prime necessary of life, and by far the most important of all the instruments of manufacturing industry, that it would have been exempted from every species of tax, and that every possible facility would have been given for its conveyance from the mines to the districts in the south of England, and other places in want of it. But such has not been the case. The coal trade of Great Britain was, for more than a century and a half, subjected to the most oppressive regulations. From a very early period the corporation had undertaken the task of weighing and measuring the coal brought to London, and had been accustomed to charge 8*d.* a ton for their trouble. In 1613 the power to make this charge was confirmed to the city by royal charter, it being at the same time ordered that no coal should be unladen from any vessel till the Lord Mayor had given leave. The right to charge this sum according to the chaldron of coal has since been confirmed to the city by Act of Parliament; and as the labouring meters, notwithstanding they have been very well paid, have received only 5*d.* out of the 8*d.*, the balance of 3*d.* per chaldron, which produced about 20,000*l.* a-year, went to the city treasury.

But besides the above, duties for civic purposes have been laid on the coal imported into London from the reign of Charles II. downwards. They were originally imposed in 1667, after the great fire, in order to assist in the rebuilding of churches and other public edifices; and have ever since been continued, to enable the corporation to execute improvements in the city; though it is probable most of our readers will be inclined to think that few improvements could be so great as a reduction in the price of so very important an article as coal.

Exclusive of the corporation duties, a duty payable to Government was laid on *all sea-borne* coal in the reign of William III., which only ceased in 1831. This duty was at once glaringly unjust

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and oppressive; unjust, inasmuch as it fell only on those parts of the empire to which coals had to be carried by sea; and oppressive, inasmuch as it amounted to full fifty per cent. upon the price paid to the coal-owner for the coal. This tax, after being long stationary at 6s. per chaldron, was raised to 9s. 4d. during the late war, and was reduced to 6s. in 1824. But the inequality of the tax was not confined to its affecting those parts only of the empire to which coal had to be carried by sea. Even there its pressure was not equal; for, while it amounted to 6s. per chaldron, or 4s. per ton, in the metropolis and all the south of England, it only amounted to 1s. 7½d. per ton on coal carried by sea to Ireland, and to 1s. 8d. on that carried to Wales; while Scotland was for many years entirely exempted from the duty.

Besides this striking partiality and injustice, various troublesome Custom-house regulations were required in consequence of distinctions being made between the duties on large and small coal, between those on coal and culm (a species of coal), and coal and cinders, and of coal being allowed to be imported duty free into Cornwall, Devon &c. for the use of the mines. These distinctions were, however, wholly abolished in 1830, and no duties exist on coal except those collected in London and a few other ports, and appropriated to local purposes.

A small supply of coal was of late years brought to London from Staffordshire by canal navigation. This coal was charged with a duty of 1s. per chaldron; but this is now also repealed.

The regulations to which the sale and delivery of coals were subjected in the city of London were, if possible, still more objectionable than the duties imposed on them. Instead of being sold by weight, all coals imported into the Thames were, previously to 1831, sold by measure. It is curious to observe the sort of abuses to which this practice has given rise. It is stated by the celebrated mathematician Dr. Hutton, who, being a native of Newcastle, was well acquainted with the coal trade, that, 'If one coal, measuring exactly a cubic yard (nearly equal to 5 bolls), be broken into pieces of a moderate size, it will measure 7½ bolls; if broken very small, it will measure 9 bolls; which shows that the proportion of the weight to the measure depends upon the size of the coals; therefore accounting by weight is the most rational method.' The shippers were well aware of this, and insisted upon the coal-owners supplying them with large coal only; and to such an extent was this principle carried, that all coal for the London market was screened, as it is technically termed, or passed over gratings, to separate the smaller pieces. Inasmuch, however, as coals were sold in all their subsequent stages by measure, no sooner had they been delivered by the owner than it was for the interest of every one else into whose hands they came before reaching the consumer, to break them into smaller portions. In fact, the profit of many of the retailers in London arose chiefly from the increase of measure by the breakage of coal. And Mr. Brandling, a very intelligent and extensive coal-owner, stated to the Commons' committee of 1829 that, in consequence of the breakage, coals are reduced in London to a size inferior to what they would be were they put on board *unscreened*, and subjected to no additional breakage.

The statements now made sufficiently evince the nullity of all the regulations enforcing the sale of coal by correct measures; for even though these regulations had been enforced, instead of being, as they usually were, wholly neglected, they would have been of almost no use; inasmuch as any dishonest dealer was as able to cheat by

breaking his coals a little smaller than usual, as if he had sold them in deficient measures.

The loss occasioned by the useless process of screening has been very great. The quantity of coal separated by it has amounted in some cases to from 20 to 25 per cent. of the whole; and the greater part of this residue, containing a portion of the very best coal, is *burned on the spot*. 'I have known,' says Mr. Buddle, 'at one colliery, as many as from 90 to 100 chaldrons a day destroyed. If they were not consumed, they would cover the whole surface, and in the burnings of them they are extremely destructive; they destroy the crops a great way round, and we pay large sums for injury done to the crops, and for damage to the ground.' (*First Lords' Report*, p. 72.) The waste of coal has been in this way enormous; and the coal-owner has been obliged to charge a higher price upon the coal sold, in order to indemnify himself for the loss of so great a quantity, and for the mischief he does to others in burning.

The fact that so monstrous a system should have been persevered in for more than a century sets the power of habit in reconciling us to the most pernicious absurdities in a very striking point of view. Happily, however, the nuisance was at last abated; the sale of coal by weight taking away both the temptation to break coal, and the necessity of screening.

The duties of all sorts that were formerly paid to the corporation of the city of London were computed in 1830 for a duty of 1s. 1d. per ton, which produced in 1851 a gross revenue of 187,991l. 16s. 4½d. (*Parl. Paper* No. 29, Sess. 1852.)

Most of the coals for discharging into barges are now brought to the Pool by screw steamers. The cost of the best Walls-end put into barges in the Pool would now (1868) be 19s. 3d., made up as under:—

Prime cost, free on board, in the North	£	d.
Freight by screw steamers	-	12 0
City dues	-	5 0
Factor's charges, insurance, half metage &c.	-	1 1
	-	1 2
	-	19 3

To which must be added charges incurred for conveyance from the vessel to the cellar of the consumer:—

Lighterage (in any ordinary wharf between London and Yauxhall bridges)	£	d.
Wharfage &c.	-	0 10
Loading	-	0 6
Small, i. e. cost of screening and loss on difference of selling price of the small*	-	1 0
Cartage	-	2 0
	-	2 6
	-	6 10
	-	19 3
Average cost for the year 1867-68	-	25 7

\* The loss by small is greater by screw steamers than by sailing vessels.

Steam ships are gradually superseding sailing vessels, as they can carry at a much cheaper rate.

There are many wharves *below bridge* where vessels unload alongside, and so save the cost of lighterage and reloading from the barges; but a different class of ship is required, the freight of which is dearer. The charges by this way would be:—

Cost of coal, free on board	£	d.
Freight	-	12 0
City dues	-	5 0
Factor's charges, insurance &c.	-	1 1
Wharfage, interest on outlay on machinery &c.	-	1 2
Loading, weighing &c.	-	0 9
Small (much less than by screw steamer)	-	0 4
Cartage (these wharves being necessarily below bridge, the average distance of delivery will be greater)	-	1 3
	-	5 0
	-	25 4

No doubt, however, the expenses attending the delivery of coal to the consumer might be farther, and very materially reduced, were quays constructed at which ships could lie alongside, and discharge their cargoes without the intervention of lighters, and without being subject to the

delays to which they are now exposed. It appears, also, that the practice of sending coals to the consumers in bags might in the great majority of cases be advantageously dispensed with. No such practice exists in Manchester, Liverpool, Glasgow, or other large towns; and, generally speaking, it seems to occasion not only a heavy, but a perfectly useless, expense. There is a very keen competition in the retail coal trade in London, and the individual who deals with a respectable coal merchant may be pretty well assured that he gets his coals at the lowest price at which, as matters now stand, they can be sold.

Eightpence per ton of the duty of 1s. 1d. would have ceased in 1862 but for the Act of 1861, which continued it in its entirety till 1872. By 26 & 27 Viet. c. 46 the duty to the extent of 1s. was further continued to 1882,  $\frac{1}{2}$  being mortgaged for the Thames Embankment, and  $\frac{1}{4}$  for the Holborn Hill improvements. Again, by 31 Viet. c. 17 it has been still farther extended to 1889—the  $\frac{1}{4}$  being diverted, however, to freeing certain suburban bridges from toll.

*Account exhibiting the Quantities of the various Descriptions of Coal imported into London by Sea in 1858, and specifying also the Number of Ships or Cargoes.*

Description of Coal	Ships or Cargoes	Tons
Newcastle Main	2,654	961,360
Newcastle Wallsend	801	227,592
Seaham	1,073	267,109
Sunderland	351	114,479
Sunderland Wallsend	1,837	646,692
Middlesbro'	257	60,859
Hartlepool and West Hartlepool	2,731	695,591
Hyth	175	43,067
Scotland	59	10,975
Welsh	351	155,512
Yorkshire &c.	376	29,943
Liverpool	5	502
Small coal	52	15,257
Calm	6	1,300
Cinders	91	8,387
Total, 1858	10,603	3,266,416

During the same year (1858) 1,213,464 tons were imported into London by land, that is, by canals, railways, and common roads.

*Statement showing the Quantities of Coals &c. brought into the London District, by Railway, Canal, and by Sea, in 1866 and 1867.*

	1866 tons	1867 tons
By Railway and Canal.		
London and North-western Railway	1,188,996	
Great Northern	1,006,277	
Great Western	507,008	
Great Eastern	212,467	
Midland	156,616	
South-western	21,478	
South-eastern	9,751	
Chatham and Dover	6,156	
Tilbury and Southend	638	
Grand Junction Canal	10,476	
Total	2,980,072	
By Sea.		
Newcastle	1,502,517	1,319,281
Seaham	112,228	82,082
Sunderland	731,377	795,546
Middlesbro'	65,192	56,481
Hartlepool and West Hartlepool	315,468	416,481
Hyth	13,777	6,909
Scotland	29,421	39,442
Welsh	29,504	43,130
Yorkshire	23,375	25,988
Dull	692	—
Small coal	21,128	9,516
Calm	590	—
Cinders	8,730	9,337
Total	3,035,193	3,016,116
Total by Rail, Canal, and Sea	6,015,265	6,329,550

*Regulations as to Sale in London.*—A seller's ticket is to accompany all coals sold within the city of London and its environs, specifying the species of coal, and the number of sacks and weight of coal sent. The coals may be either in bags containing 1 or 2 cwt., or in bulk. The earman is in all cases bound to carry a weighing machine with the coal, which machine is to be made

conformably to regulation; and, upon being desired, he is to weigh any one sack, or the whole sacks in his waggon. Penalty on refusing to weigh, or otherwise obstructing the weighing, 20l.—Penalty on non-delivery of ticket to purchaser, 20l. In the event of the weight being deficient, a penalty is imposed of 10l. or 50l. according to deficiency. Quantities of less than 560 lbs. may be sold without being weighed. (1 & 2 Wm. IV. c. 76.)

To save trouble in collecting the duties that still attach to coal in the port of London, the corporation is authorised to compound with the owner or master of any ship or vessel importing coal, for the tonnage upon which the duties are to be paid. A certificate of such composition, expressing the number of tons of coal, cinders, or culm agreed to be taken as the cargo of the ship or vessel compounded for, is to be given to the master or owner of the same, and to be taken as evidence of the quantity on board.

When no composition is entered into, the coal is to be weighed in the presence of an officer of the customs at the port of shipment; and the duties are to be paid upon the weight so shipped.

The shipment of coal in the Tyne is regulated by the Act 5 Geo. IV. c. 72, commonly called the *Turn Act*. The object of this Act is to make all ships engaged in the trade of the Tyne be loaded in the order in which they arrive. It prevents any preference being given to particular ships, and renders it nearly impossible for any coal-owner to give constant employment to any vessel in the trade which he may wish to employ. In some respects this Act is probably advantageous, but, on the whole, its policy seems very questionable. Why should a coal-owner be prevented from employing certain ships in preference to others? Under this Act, if more ships engage in the trade than can be profitably employed in it, the loss produced by detention in port, and waiting for a cargo, instead of falling, as it naturally would, were the trade free, on particular ships, and driving them from the business, falls equally on every ship employed, and represses the whole trade. There is no regulation of this sort on the Wear.

*Duty on Coal conveyed to London by Railway, Canal &c.*—The 8 & 9 Viet. c. 101 has imposed the same duties on coals conveyed to the metropolis by railway, canal, or other inland carriage, that are imposed on them when conveyed by sea. It has further enacted that 1d. per ton of the produce of such duties shall be accumulated from December 31, 1845, as a fund for the execution of improvements within the metropolis.

*Duties on Coal when exported.*—The question as to the policy of laying duties on the exportation of coal mainly depends (as the exhaustion of the mines need not be thought of) on the fact whether British coal be necessary or of considerable consequence to the progress of manufactures and arts in foreign countries. If it be, then certainly it will be good policy to preserve that superiority which we derive from the possession of coal by prohibiting its exportation, or burdening it when exported with a considerable duty; but if the possession of our coal be not necessary or of considerable importance to the foreigner, such prohibition or duty would encourage the working of foreign mines by discouraging the working of our own, without producing any corresponding advantage. It has been said that it is not easy to pronounce positively how the fact stands. On the whole, however, there does not appear to be much room for doubting that a supply of British coal, though it may not be indispensable to the foreigner, is of the greatest ser-

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*Account of the London 1861 to 1867*

Year	Per
1861	3
1862	3
1863	3
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Country	Value
Russia	—
Sweden	—
Norway	—
Denmark	—
Schleswig Holstein	—
Prussia	—
Mecklenburg	—
Hanover	—
Oldenburg	—
Hamburg	—
Bremen	—
Lubeck	—
Holland	—
Belgium	—
France	—
Portugal, Acores, and Spain and the Canaries	—
Italy	—
Sardinian States	—
Tuscany	—
Naples and Sicily	—
Adriatic ports, and the Roman Provinces	—
Austrian Territory	—
Greece	—
Ionian Islands	—
Turkey Proper	—
Egypt	—
Algeria	—
Cape Verde Island	—
Java	—
China (exclusive of Japan)	—
China	—

The following price of coal is the underment

Year	Per	Chaldron
1750	£ 4	d. 6
1755	1	5 0
1760	1	9 0
1765	1	10 0
1770	1	7 7 1/2
1775	1	8 7 1/2
1780	1	12 8 1/2
1785	1	12 8 1/2
1790	1	9 12 1/2
1795	1	10 11 1/2

\* Best This table sets the on coals, and of the management of the t

vice to him, and enables him to carry on with advantage various undertakings in which he could not otherwise have engaged with much chance of success. The coal of Belgium is not so good as that of England, and is too far inland to come into successful competition with ours in the market of the world; and the same may be said of the coal of the United States. The latter, indeed, far from supplying others with coal, are large importers of English coal, having taken from us in 1865 134,875 tons. Such being the case, we have always regarded the repeal in 1845 of the duty of 4s. a ton on coal when exported as a most unwise proceeding. We are well convinced that its retention would not have materially affected the exportation of coal, at the same time that it would have yielded a considerable amount of revenue which (be it remembered) would have been wholly paid by the

foreigner. But British coal (the total exports of which in 1866 were 9,618,216 tons, valued at 4,870,019*l.*) is of incomparably more importance to the foreigner now than it was in 1845; and we think that the imposition of a duty of 5s. a ton on it when exported would be a highly expedient measure. It will be no holiday task to show how a revenue of upwards of 2,400,000*l.* a-year may be raised with less inconvenience.

The following is an account of the number of tons of coals imported into the port of London during each of the years from 1861 to 1866 inclusive, and of the gross and nett amount of revenue received in each of those years from the duty on coals; showing also the quantity of coals brought landwise into the city of London and its limits, and the amount of duty received thereon, in each of these years:—

Account of the Total Quantities of Coal brought by Sea, Rail, and Canal within the Limits of the London Coal Duty Radius, and the Nett Proceeds of the Duties thereon, in each of the Years from 1861 to 1866, both inclusive. (Parl. Paper No. 212 of 1867.)

Year	Seaborne	Railway	Canal	Road	Total	Nett Proceeds of 9d. duty *			Nett Proceeds of 4d. duty †		
	tons	tons	tons	tons	tons	£	s.	d.	£	s.	d.
1861	3,567,602	1,612,501	18,571	4,007	5,202,082	159,083	16	5	75,831	1	5
1862	3,112,102	1,513,295	11,651	6,171	4,643,025	134,067	8	10	68,376	5	11
1863	3,535,174	1,775,187	9,256	7,209	5,327,006	166,113	18	4	75,911	19	11
1864	3,116,707	2,314,110	8,902	8,381	5,476,102	171,719	4	3	76,319	12	11
1865	3,161,683	2,735,036	8,522	6,609	5,909,340	186,310	11	1	84,801	15	2
1866	3,033,193	2,969,856	10,176	6,917	6,020,142	187,102	9	5	85,156	12	10

\* Proceeds applied by the Metropolitan Board of Works in effecting public works and improvements within the metropolis.  
† Nett proceeds applied by the City of London in effecting public works and improvements in and adjacent to the said city.

An Account of the Quantities and Value of Coal exported from the United Kingdom in 1866, specifying the Quantities and Values of the Coal sent to different Countries.

Countries	Quantities	Value	Countries	Quantities	Value
	tons	£		tons	£
Russia	561,094	270,225	St. Thomas	199,314	54,714
Sweden	235,570	119,624	Martinique	52,262	16,013
Norway	185,115	85,788	United States:		
Denmark	329,365	219,966	North Atlantic ports	115,590	68,172
Schleswig Holstein	153,564	66,878	South Atlantic ports	12,591	8,501
Prussia	461,571	192,702	Pacific ports	7,491	7,269
Mecklenburg	49,926	20,856	Mexico	15,721	7,539
Hanover	70,131	52,868	New Granada	27,590	17,792
Oldenburg	29,305	10,180	Pera	60,959	41,310
Hamburg	559,889	259,442	Chili	130,686	65,656
Bremen	9,469	6,711	Peral	245,138	149,660
Lubeck	26,192	12,061	Uruguay	118,016	69,913
Holland	237,758	115,926	Argentine Confederation	51,095	35,195
Belgium	661,311	324,703	Channel Islands	73,584	34,775
France	1,976,425	901,503	Gibraltar	75,201	41,286
Portugal, Azores, and Madeira	168,223	81,543	Malta	168,258	92,198
Spain and the Canaries	451,156	219,787	British Possessions in South Africa:		
Italy:			Africa	86,449	15,543
Sardinian States	509,333	160,438	Mauritius	28,130	15,351
Tuscany	49,309	11,125	Aden	70,561	37,851
Naples and Sicily	220,733	112,812	British India:		
Adriatic ports of Ancona and the Romagna	28,922	15,625	Bombay and Scinde	215,598	118,766
Veneta	42,221	21,032	Madras	27,105	15,029
Austrian Territories	61,812	34,714	Bengal and Pegu	41,075	22,658
Greece	29,560	16,872	Singapore and the Straits Settlements	61,617	36,858
Ionian Islands	50,997	17,265	Ceylon	63,574	35,923
Turkey Proper	149,132	118,712	Hong Kong	55,200	31,889
Egypt	278,145	147,177	Australia	22,370	15,067
Algeria	27,581	15,792	British North America	187,811	96,230
Cape Verde Islands	41,969	21,569	British West India Islands and British Guiana	137,287	80,015
Java	10,082	8,953	Other countries	123,578	68,616
China (exclusive of Hong Kong)	51,736	32,535	Total	9,618,216	4,870,019
Japan	10,985	5,808			
Cuba	201,422	115,581			

The following is an account of the contract price of coal supplied to Greenwich Hospital in the undermentioned years:—

Year	Per Chaldron	Year	Per Chaldron	Year	Per Chaldron
1750	£ 4. 6	1780	£ 1. 17 3/4	1830	£ 1. 12 11
1755	1 4 0	1785	1 17 3/4	1835	0 16 8p-1
1760	1 9 0	1790	1 14 3/4	1840	0 19 8
1765	1 10 0	1795	1 12 3/4	1845	0 14 9
1770	1 7 7 1/2	1800	2 11 7	1842	0 18 9
1775	1 8 7 1/2	1805	2 11 8 1/2	1845	0 18 9
1780	1 12 8	1810	3 0 8 1/2	1849	0 14 9
1785	1 12 4 1/2	1815	2 15 1/2	1853	1 11 1/2
1790	1 9 1 1/2	1820	2 5 9	1860	0 17 9 1/2
1795	1 10 11 1/2	1825	2 5 2	1865	1 0 6 1/2

\* Best Wall-end. † Eisecar.

This table sets the beneficial influence of the abolition of the duty on coals, and of the other alterations that have been made in the management of the trade, in a very striking point of view.

Return of the Quantity of Coals exported from the United Kingdom in the following Years.

Year	Coals	Year	Coals	Year	Coals
1828	357,861	1811	1,818,284	1854	4,509,255
1829	371,271	1812	1,899,501	1855	4,073,902
1830	504,119	1813	1,866,211	1856	5,879,779
1831	510,851	1814	1,751,171	1857	6,737,718
1832	588,116	1815	2,531,282	1858	6,599,483
1833	631,148	1816	2,531,108	1859	7,006,919
1834	615,225	1817	2,485,161	1860	7,321,832
1835	736,040	1818	2,783,290	1861	7,855,115
1836	916,868	1819	3,848,039	1862	8,501,832
1837	1,115,610	1820	3,531,880	1863	8,275,212
1838	1,513,709	1851	3,408,545	1864	8,809,928
1839	1,439,417	1852	3,649,191	1865	9,170,477
1840	1,606,315	1853	3,955,052	1866	4,870,019

In 1867 our exports of coals were 10,052,759 tons, while coals, cinders, and culm reached 10,124,886 tons, valued at 5,100,353*l.*

It is probable that coal will ere long be included among those articles that are reckoned contraband of war. Now that steam is destined to play an important part in naval warfare, the coal by which steam is produced is certainly entitled to a prominent place among *munitious de guerre*.

**COASTING TRADE.** The trade or intercourse carried on by sea between two or more ports or places of the same country.

It has been customary in most countries to exclude foreigners from all participation in the coasting trade. This policy began in England in the reign of Elizabeth (5 Eliz. c. 5), or, perhaps, the reign of remote æra; and it was perfected by the Act of Navigation passed in 1651 and 1660. A vast number of regulations have since been enacted having reference to this matter. And it was finally laid down in the Customs Consolidation Act of 1853 (16 & 17 Vict. c. 107 ss. 152, 191) that no goods or passengers should be carried coastwise from one part to another of the United Kingdom except in British vessels. But this restriction was repealed in the course of 1854 by the 17 Vict. c. 5, so that the coasting trade is now quite free.

**Policy of the Repeal of Restrictions on Coasting Trade.**—Much doubt has, for a considerable time, been entertained in regard to the policy of the monopoly of the coasting trade; and in 1849 it was proposed that it should be thrown open. It is not easy, indeed, to see any grounds on which this monopoly could be satisfactorily vindicated. In considering this question it is needless to refer to countries destitute of a commercial marine, for without the aid of foreigners they could have no coasting trade. And the shipowners of countries that have such a marine, and which also have any considerable facilities for carrying on navigation, have so many advantages on their side, that it is difficult to imagine that they should ever be superseded, in any considerable degree, by foreigners in carrying on the coasting trade. But while the admission of the latter to the privileges of engaging in that trade hinders the native shipowners from availing themselves of any peculiar circumstances (such as existed in 1853 and 1854) to stances (such as existed in 1853 and 1854) to charge oppressive rates of freight, it at the same time subjects them to that wholesome competition by which alone their inventive energies are fully developed. The probability consequently is, that the introduction of a free system will be as advantageous in all that respects shipping and navigation as in most other things. Our naval pre-eminence is the result of our manufacturing and mercantile superiority, and of the greater facilities we enjoy for the construction of ships, and the breeding of sailors; and while the former will most likely be increased, the latter will not certainly be diminished, by the opening of the coasting trade to the ships of other nations.

Foreign ships engaged in the coasting trade are subjected in all respects to the rules and regulations (given below) laid on British ships engaged in the same trade. We subjoin an abstract of the Act admitting foreign ships to the coasting trade, the 17 Vict. c. 5.

**Repeal of the recited Enactments.**—Sections 152 and 191 of the Customs Consolidation Act, 1853, and 16 & 17 Vict. c. 107, shall be repealed from the passing of this Act: Provided, that it shall be lawful for her Majesty to exercise, in respect of foreign ships employed in the coasting trade as aforesaid, and of goods carried coastwise in such ships, such or the like powers as are conferred on her Majesty by the 16 & 17 Vict. c. 107 ss. 324, 325, & 326, in respect of foreign ships employed in the oversea trade, and of goods exported or imported in such ships. (Sec. 1.)

**Foreign Ships in Coasting Trade subject to same Rules as British Ships.**—Every foreign ship which after the passing of this Act is employed in carrying goods or passengers coastwise from one part of the United Kingdom, or from the islands of Guernsey, Jersey, Alderney, Sark, or Man to the United Kingdom, or from the United Kingdom to any of the said islands, or from any of the said islands to any other of them, or from any part of any one of the said islands to or from any other part of the same, shall be subject, as to any other part of the crew, and in all other respects, to the same laws, rules, and regulations as to which British ships when so employed are now subject. (Sec. 2.)

**Foreign Ships in Coasting Trade not subject to higher Rates than British Ships.**—No foreign ship which after the passing of this Act is employed in the coasting trade as aforesaid, nor any goods carried in any such ship, shall, during the time such ship is so employed, be subject to any higher rate of dock, pier, harbour, light, pilotage, or other rate of dues, duties, tolls, rates, or other charges whatsoever, or to any other rules or the employment of pilots, or any other rules or restrictions whatsoever, than British ships employed in like manner, or goods carried in such ships, any law, charter, special privilege, or grant to the contrary notwithstanding; nor shall any body corporate or person having or claiming any right or title to any such higher or other rates, dues, duties, tolls, or other charges as aforesaid be entitled to any compensation in respect thereof under any law or statute relating thereto, or otherwise howsoever. (Sec. 3.)

**Foreign Steam Vessels carrying Passengers Coastwise subject to 14 & 15 Vict. c. 79.**—And whereas it is expedient to provide for the safety of passenger steamers: be it enacted, that every foreign steam vessel carrying passengers from one place to another on the coasts of the United Kingdom and the Channel Islands shall be subject to the provisions of the Steam Navigation Act, 1851 (14 & 15 Vict. c. 79). (Sec. 4.)

**Regulations under which Coasting Trade is conducted.**—These, which have been very much simplified, are embodied in the Customs Consolidation Act, the 16 & 17 Vict. c. 107, and are as follows, viz.:

**All Trade by Sea from one part of the United Kingdom to another to be deemed Coastwise.**—All trade by sea from any one part of the United Kingdom to any other part thereof shall be deemed to be a coasting trade, and all ships while employed therein shall be deemed to be coasting ships, and no part of the United Kingdom, however situated with regard to any other part, shall be deemed in law, with reference to each other, to be pars beyond the seas; and if any doubt shall at any time arise as to what or to or from what parts of the coast of the United Kingdom shall be deemed a passage by sea, the Commissioners of the Treasury may determine and direct in what cases the trade by water from one port or place in the United Kingdom to another of the same shall or shall not be deemed a trade by sea within the meaning of this or any Act relating to the Customs. (Sec. 151.)

**Coasting Ship confined to Coasting Voyage.**—No goods shall be carried in any coasting ship, except such as shall be laden to be so carried at some port or place in the United Kingdom, and no goods shall be laden on board any ship to be carried coastwise until all goods brought in such ship from parts beyond the seas shall have been unladen; and if any goods shall be taken into or put out of any coasting ship at sea or over the

sea, or if any place over the unless forced by the master of a touched at an declare the ann collector or co Kingdom when arrive, the mas sum of 100l. (5

**Times and P.** any goods be coastwise, or shipped to be holidays, or u authority of t or unless at appointed or pose, the same of the ship sh 154.)

**Master of C**—The master cause to be key of the ship, the belongs, and o each voyage, enter in such account of all ship, stating t the quantities therein, and t any goods ste respective shi particulars ar port of discla days on which out of such s parture from at every port on demand, p of any officer to make any examination book as conta not to contain contents, shal shall be fou entered in suc and if such

**Account of the Cleared, Vessels &**

Employed between and Ireland. Other coasting vessels. Total

In 1867 (U and steam) e in the Unite which 18,348

**Transire Arrival.**—W coasting ship any goods be of the place discharged t the collector on the date on board s

sea, or if any coasting ship shall touch at any place over the sea, or deviate from her voyage, unless forced by unavoidable circumstances, or if the master of any coasting ship which shall have touched at any place over the sea shall not declare the same in writing under his hand to the collector or comptroller at the port in the United Kingdom where such ship shall afterwards first arrive, the master of such ship shall forfeit the sum of 100*l.* (Sec. 153.)

**Times and Places for Landing and Shipping.**—If any goods be unshipped from any ship arriving coastwise, or be shipped or water-borne to be shipped to be carried coastwise, on Sundays or holidays, or unless in the presence or with the authority of the proper officer of the Customs, or unless at such times and places as shall be appointed or approved by him for that purpose, the same shall be forfeited, and the master of the ship shall forfeit the sum of 50*l.* (Sec. 154.)

**Master of Coasting Vessel to keep a Cargo Book.**—The master of every coasting ship shall keep or cause to be kept a cargo book, stating the names of the ship, the master, and the port to which she belongs, and of the port to which she is bound on each voyage, and shall at every port of lading enter in such book the name of such port, and an account of all goods there taken on board such ship, stating the descriptions of the packages and the quantities and descriptions of the goods therein, and the quantities and descriptions of any goods stowed loose, and the names of the respective shippers and consignees, so far as such particulars are known to him, and shall at every port of discharge of such goods note the respective days on which the same or any of them are delivered out of such ship, and the respective times of departure from every port of lading and of arrival at every port of discharge; and such master shall, on demand, produce such book for the inspection of any officer of Customs, who shall be at liberty to make any note or remark therein; and if upon examination any package entered in the cargo book as containing foreign goods shall be found not to contain such goods, such package, with its contents, shall be forfeited, or if any package shall be found to contain foreign goods not entered in such book, such goods shall be forfeited; and if such master shall fail correctly to keep

such cargo book, or to produce the same, or if at any time there be found on board such ship any goods not entered in such book as laden, or any goods noted as delivered, or if any goods entered as laden or any goods not noted as delivered be not on board, the master of such ship shall forfeit the sum of 20*l.* (Sec. 155.)

**Account previous to Departure to be delivered to Collector.**—Before any coasting ship shall depart from the port of lading, an account, with a duplicate thereof, in the form or to the effect following, and signed by the master, shall be delivered to the collector or comptroller; and the collector or comptroller shall retain the duplicate, and return the original account, dated and signed by him; and such account shall be the clearance of the ship for the voyage, and the TRANSIRE or PASS for the goods expressed therein; and if any such account be false, the master shall forfeit the sum of 20*l.*

Port of TRANSIRE.				
Ship's name	Tonnage	Port of registry	Master's name	Whither bound
Here state the Particulars according to the above Headings.				
Here state the Particulars according to the above Headings.				
(Signed)				
Cleared the		Day of (Signed)	186 .	Master.
				Collector or Comptroller.

Provided always that the Commissioners of Customs may, whenever it appears to them expedient, permit general transires to be given, under such regulations as they may direct, for the lading and clearance and for the entry and unloading of any coasting ship and goods, and the same may be revoked by notice in writing under the hand of the proper officer delivered to the master or owner of any ship, or any of the crew on board. (Sec. 156.)

*Account of the Number and Tonnage of British and Foreign Vessels (Sailing and Steam) Entered and Cleared, Coastwise, in 1866, with Cargoes only, at Ports in the United Kingdom, distinguishing the Vessels Employed between Great Britain and Ireland.*

	Entered						Cleared	
	British		Foreign		Total		British and Foreign	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
Employed between Great Britain and Ireland - - -	35,093	6,964,511	98	12,706	35,191	6,977,217	34,502	6,899,778
Other coasting vessels - - -	107,433	11,528,938	522	91,865	107,955	11,620,303	111,343	11,571,593
Total - - - - -	142,526	18,493,449	620	104,571	143,141	18,597,520	145,845	18,471,371

In 1867 the total tonnage of vessels (sailing and steam) entered with cargoes coastwise at ports in the United Kingdom was 18,445,981 tons, of which 18,348,998 were British, and 96,983 foreign.

**Transire to be delivered in 24 Hours after Arrival.**—Within 24 hours after the arrival of any coasting ship at the port of discharge, and before any goods be unladen, the transire, with the name of the place or wharf where the lading is to be discharged noted thereon, shall be delivered to the collector or comptroller, who shall note thereon the date of delivery; and if any of the goods on board such ship be subject to any duty of

excise, the same shall not be unladen without the authority or permission of the proper officer of excise; and if any goods on board any coasting ship arriving in Great Britain or Ireland from the Isle of Man shall be the growth or produce of that isle, or manufactures of that isle from materials the growth or produce thereof, or from materials not subject to duty in Great Britain or Ireland, or from materials upon which the duty shall have been paid and not drawn back in Great Britain or Ireland, the same shall not be unladen until a certificate be produced to the collector or comptroller, from the collector or comptroller at

the port of shipment, that proof had there been made in manner required by law that such goods were of such growth, produce, or manufacture, as the case may be; and if any goods shall be unladen contrary hereto, the master shall forfeit the sum of 20*l.*; and if any goods shall be laden on board any ship in any port or place in the United Kingdom, and carried coastwise, or, having been brought coastwise, shall be unladen in any such port or place contrary to this or any other Act relating to the Customs, such goods shall be forfeited. (Sec. 157.)

*Officer may go on board and examine any Coasting Ship.*—Any officer of the Customs may go on board any coasting ship in any port or place in the United Kingdom, or at any period of her voyage search such ship, and examine all goods on board, and all goods then loading or unloading, and demand all documents which ought to be on board such ship; and the collector or comptroller may require that all or any such documents shall be brought to him for inspection, and the master of any ship refusing to produce such documents on demand, or to bring the same to the collector or comptroller when required, shall forfeit and pay the sum of 20*l.* (Sec. 158.)

**COBALT** (Ger. kobalt; Dutch, kobal; Swed. kobolt; Fr. cobalt; Ital. cobalto; Russ. kobolt; Lat. cobaltum). A mineral of a grey colour, with a shade of red, and by no means brilliant. It has scarcely any taste or smell; is rather soft; specific gravity about 8*½*. Sometimes it is composed of plates, sometimes of grains, and sometimes of small fibres adhering to each other. The oxide of cobalt is extensively used as a means of dyeing glass, and for glazing and colouring porcelain. The principal ores of cobalt are the arsenates, called *arsenical cobalt* and *grey cobalt*. They are found in Sweden, Saxony, Saalfeld, Hessian, and in England in Cumberland and Cornwall. A very small amount of oxide is sufficient to tinge a large quantity of glass. [SMALT.] In 1866 3 cwts. of cobalt, 429 tons of ore, and 14 tons of oxide, of the aggregate value of 24,608*l.*, were imported into the United Kingdom.

**COCA**. A stimulating drug masticated by the Indians of the Peruvian and Bolivian Andes.

**COCCULUS INDICUS** or **INDIAN BERRY** (Fr. coque de Levant; Ger. kekkelkörner, fischkörner; Ital. galla di Levante; Sans. kakamari; Malay, tubanbidgi). The fruit or berry of the *Menispermum Cocculus*, Nat. Order *Menispermeaceae*, a strong climbing tree or shrub found on the Malabar coast, in Ceylon &c.

The berry is kidney-shaped, dark brown, about the size of a large pea; but when dried and imported it is shrivelled and smaller. The outer layer encloses a woody shell, containing a yellowish kernel. *Cocculus Indicus* is acrid and intensely bitter. In some parts of the East it is used, when formed into a paste with moistened rice, as a bait by fishermen and bird-catchers, but especially the former. Being thrown into the sea, or scattered on the ground, it is greedily devoured by the fish and birds, which it either kills or stupefies, so that they are easily captured. It is said not to render the flesh of such animals poisonous, as strychnine does. Its effects on man have not been accurately determined; but if taken in large doses it would, no doubt, be fatal. When added to malt liquors it increases their intoxicating power; and provided it be not administered in excess, or does not exceed 3 lbs. cocculus to 10 qrs. malt, its use in this way is not supposed to have any injurious influence. (Pereira's *Materia Medica*, 3rd ed. p. 2153; Thomson's *Materia Medica*; Ainslie's *Materia Medica*, p. 131; &c.)

Its use in adulterating beer is illegal, being prohibited, along with a number of other articles, by the 56 Geo. III. c. 58, under a penalty of 200*l.* upon the brewer and of 500*l.* on the seller of the drug, over and above the confiscation of the beer and brewing utensils. But a statute of this sort had much better be repealed. It is binding only on such tradesmen as choose to respect the law, and is no check on those of a different character. *Cocculus Indicus* is imported in bags of about 1 cwt. each. In 1866 there were but 394 cwts. imported, valued at 70*l.*; and 203 cwts. exported.

**COCHINEAL** (Ger. koschenille; Dutch, cochennille; Fr. cochenille; Ital. cocciniglia; Span. cochinilla, grana; Port. cochenilha; Russ. kose-nuel). The female insect of the *Coccus cacti*, found in Mexico, Central America, and New Granada, the Canary Islands, Brazil &c. It has been introduced into Java, and promises to become an important product of that rapidly improving colony. Formerly it was in Mexico only that it was reared with care, and formed a valuable article of commerce; but its culture is now more or less attended to in many other places, and especially of late in the Canary Islands. Here its growth has been so very rapid that the exports, which amounted in 1832 to only 120 lbs., had increased in 1856 to no fewer than 1,511,716 lbs.!

(*Consular Reports*, 1857, p. 149.) It is a small insect, seldom exceeding the size of a grain of barley; and was generally believed for a considerable time after it began to be imported into Europe, to be a sort of vegetable grain or seed. There are two sorts or varieties of cochineal: the best or domesticated, which the Spaniards call *grana fina*, or the grain; and the wild, which they call *grana sylvestra*. The former is nearly twice as large as the latter, probably because its size has been improved by the favourable effects of human care, and of a more copious and suitable nourishment, derived solely from the *Cactus cochinniflor*, during many generations. Wild cochineal is collected six times in the year; but that which is cultivated is only collected thrice during the same period. The insects, of which there are about 70,000 in a pound, being detached from the plants on which they feed by a blunt knife, are put into bags, and dipped in boiling water to kill them, after which they are dried in the sun. It is principally used in the dyeing of scarlet, crimson, and other esteemed colours. The watery infusion is of a violet crimson; the alcoholic, of a deep crimson; and the alkaline, of a deep purple, or rather violet hue. It is imported in bags, each containing about 200 lbs.; and has the appearance of small, dry, shrivelled, rugose berries or seeds, of a deep brown, purple, or mulberry colour, with a white matter between the wrinkles. In this state they suffer no change from length of keeping. Dr. Bancroft says that that cochineal is the best which is 'large, plump, dry, and of a silver-white colour on the surface.'

The species of cochineal called *granilla*, or dust, is supposed by Dr. Bancroft to be principally formed of *grana sylvestra*. The insects of which it consists are smaller than those composing the fine cochineal; and it does not yield more than a third part of the colouring matter that is yielded by the latter. The cochineal insect was introduced into India in 1795; but a very inferior sort only is produced. It has also been introduced into Java and Spain; but with what success remains to be seen. (Thomson's *Dispensatory*; Bancroft *On Colours*; &c.)

The duties on cochineal, after being reduced in 1842 to 1*s.* per cwt., were finally abolished in 1845. In 1866 the imports and exports of cochineal, including granilla and dust, were respectively

32,751 and 2 at 594,818*l.* estimated at

The price during the war which it occasioned, and part of direct Government price of the berries; and it has with hardly a down to from the war term under 12*s.* or 1*s.* some extent in this circumstance occasioned, no partly, perhaps been materially ever, has not a price, and it has continuance of low nation, but with they are quite sure of the article.

Prices.) In October in the London

As. 10*l.* per lb. COCOA, or, m Span. cacao; Ger the cocoa tree (*Coccoloba*, Jussieu) in the West Indies.

America. It is a bear some resemblance a young *blackberry*. The introduction due to Columbus, a tion was carried o America and the V

pean occupation of familiarly by the M attention of the E close of the 17th ce

The tree, if uncultivated, about 30 feet, and parallels, but flourishes, and at a height the level of the sea, and in clusters; the petals 5; stamens fruit is five-celled, oval pointed shape, inches in length, and narrow, only more the end; tough and yellow, according to red and it is very thick, but contained in each embedded in a soft

(Maugin's excellent *de Chocolat*, Paris. The shell of the nut brittle, and thin; and externally, brown equal portions adhere without much difficulty, and an unctuous and peculiar, but no should be chosen full any mustiness, and is by expression, a gre cultivated only that preparation of the e the manufacture of c the principal ingredi

32,751 and 21,238 cwt.; the imports being valued at 594,818*l*. The consumption may, perhaps, be estimated at about 12,000 cwt., or 1,342,000 lbs.

The price of cochineal fluctuated very much during the war, partly on account of the obstacles which it occasionally threw in the way of importation, and partly on account of its being an article of direct Government expenditure. In 1811 the price of the best cochineal was as high as 3*l*s. and 3*l*9*s*.; and it has since gone on regularly declining, with hardly a single rally, till, in 1850, it settled down to from 4*s*. to 6*s*. 4*d*. per lb. Previously to the war terminated in 1815, it had never been under 12*s*. or 13*s*. Lac dye has been employed to some extent in dyeing scarlet; but notwithstanding this circumstance, the consumption of cochineal, occasioned, no doubt, partly by its cheapness, and partly, perhaps, by some change of fashion, has been materially increased since 1835. This, however, has not had any material influence on its price, and it would appear, from the long continuance of low prices not only without any diminution, but with a large increase of imports, that they are quite sufficient to remunerate the growers of the article. (Teoke &c. *On High and Low Prices*.) In October, 1866, the price of cochineal in the London market varied from 3*s*. 4*d*. to 4*s*. 10*d*. per lb.

COCOA, or, more properly, CACAO (Fr. and Span. cacao; Ger. kakao). The seed or nuts of the cocoa tree (*Theobroma cacao*), Nat. Order *Mulvaceae*, Jussieu; *Sterculiaceae*, Lindley; growing in the West Indies and in many parts of South America. It is said, by Mr. Bryan Edwards, to bear some resemblance, both in size and shape, to a young *blackheart cherry*.

The introduction of this article into Europe was due to Columbus, and for a long time the cultivation was carried on by the Spaniards in South America and the West Indies. Before the European occupation of the New World, it was used familiarly by the Mexicans. Cacao attracted the attention of the English in Jamaica before the close of the 17th century.

The tree, if unchecked, reaches the height of about 30 feet, and will grow between the 25th parallels, but flourishes best within the 15th parallels, and at a height of not less than 500 feet above the level of the sea. The flowers are very small, and in clusters; the calyx is composed of 5 sepals; petals 5; stamens 5, with double anthers. The fruit is five-celled, without halves, about 7 to 9 inches in length, and 3 to 4 in breadth, of an elliptical pointed shape, something like the vegetable marrow, only more elongated and pointed at the end; tough and quite smooth; the colour varying, according to the season, from bright yellow to red and purple. The rind of the fruit is very thick, but quite tasteless. The seeds contained in each pod number from 20 to 40, embedded in a soft, pinkish white acid pulp. (Maugin's excellent and valuable work, *Le Cacao et le Chocolat*, Paris, 1860.)

The shell of the nut is of a dark brown colour, brittle, and thin; the kernel is, both internally and externally, brownish, divided into several unequal portions adhering together, but separating without much difficulty; it has a light, agreeable smell, and an unctuous, bitterish, rather rough and peculiar, but not ungrateful taste. The nuts should be chosen full, plump, and shining, without any mustiness, and not worm-eaten. They yield, by expression, a great deal of oil; but they are cultivated only that they may be employed in the preparation of the excellent beverage cocoa, and the manufacture of chocolate, of which they form the principal ingredient. The finest cocoa is said

to be that of Xococho or Sonocuseo. The principal importations were formerly derived from the Caracas and Guayaquil, particularly the former, and now chiefly from the West India Islands, New Granada, Ecuador, and Brazil.

Von Humboldt estimated the consumption of cocoa in Europe, in 1806, at 23,000,000 lbs., of which from 6,000,000 to 9,000,000 were supposed to be consumed in Spain. The production of cocoa was languishing in the Caracas for several years previously to the commencement of the disturbances in South America; and latterly the cultivation of coffee seems to have been in most parts gaining; the ascendancy. (Humboldt, *Pers. Narrative*, vol. iv. pp. 236-247, Eng. trans.)

*Duties. Consumption in England.*—Down to a late period the consumption of cocoa in England was confined within very narrow limits; a result which we are inclined to ascribe to the oppressiveness of the duties with which it has been loaded, and not to its being unsuitable to the public taste.

It is now many years since Mr. Bryan Edwards declared that the ruin of the cocoa plantations, with which Jamaica once abounded, was the effect of 'the heavy hand of ministerial exaction' (*History of West Indies*, il. 363, ed. 1819); and, unaccountable as it may seem, this pressure was not materially abated till 1842, when the duties on cocoa from a British possession were reduced from 6*d*. to 2*d*. per lb. And such was the influence of this judicious measure, that the consumption of cocoa, which, at an average of the 3 years ending with 1831, amounted to 410,578 lbs. a-year, had increased, at an average of the 3 years ending with 1842, to 2,072,355 lbs.! The duty on foreign cocoa continued from 1830 down to 1842 to be (generally 6*d*. per lb.) three times as great as that on coffee from a British possession; and in consequence of this discrepancy, none of it was entered for home consumption under the duty, though it is worthy of remark that cocoa for the navy, paying no duty, was almost always taken from a foreign stock. In 1842 the duty on cocoa from a British possession was further reduced 1  $\frac{1}{2}$  *d*. per lb.; and it might have been expected that the ratio of protection in favour of plantation cocoa would then, also, have been diminished; but it was not till 1846 that the duty on foreign cocoa was reduced to 2  $\frac{1}{2}$  *d*. per lb.

In 1853 the duties were finally equalised, and fixed at 1*d*. per lb., and on paste or chocolate at 2*d*. per do. The duties on husks and shells were then, also, fixed at  $\frac{1}{2}$  *d*. per lb., but were reduced to 2*s*. per cwt. in 1855.

In 1866, 4,053,153 lbs. and in 1867, 4,235,917 lbs. of cocoa were retained for home consumption.

In 1866 the imports of cocoa from the British West Indies amounted to 5,366,853 lbs., of which 3,619,081 lbs. were supplied by Trinidad, and 1,511,904 lbs. by Grenada. In the same year we imported 1,263,252 lbs. from Ecuador, and 1,870,374 lbs. from New Granada: the total imports being 10,308,298 lbs., valued at 346,579*l*. In 1867 they were 11,954,802 lbs., valued at 346,869*l*.

No statement is made from the duty on cocoa on account of damage. (16 & 17 Vict. c. 107 s. 76.)

Prices current of Cocoa per cwt. October 26, 1866	Present prices		Prices at same date last year	
	<i>s</i> .	<i>d</i> .	<i>s</i> .	<i>d</i> .
Trinidad red - - - - -	86	0 to 114	67	0 to 100
fine marks (Caracas) - - - - -	105	0	126	0
grey - - - - -	75	0	90	0
Grenada, fine marks - - - - -	78	0	85	0
grey to good red - - - - -	70	0	77	0
St. Lucia, Dominica &c. - - - - -	68	0	72	0
Para - - - - -	72	0	75	0
Guayaquil - - - - -	75	0	77	0
Surinam - - - - -	80	0	88	0



ships were employed in the Iceland fishery; which indulgence might arise from the marriage of James with a princess of Denmark.' (Pennant's *British Zoology*.)

Cod is prepared in two different ways: that is, it is either gutted, salted, and then barreled—in which state it is denominated green or pickled cod; or it is dried and cured—in which state it is called dried cod. Ready access to the shore is indispensable to the prosecution of the latter species of fishery.

**Cod Fishery, British.**—This fishery, including under the term not only that of common cod, but of haddock, ling, hake, torsk &c., is of very considerable value and importance. It consists of two grand departments, which may be respectively termed the *home*, and the *distant or colonial* fishery. The first is carried on in a great variety of places contiguous to the shores of the British islands; but the most productive and valuable of the adjacent fisheries are those in the neighbourhood of the Shetland and Orkney islands, and off the shores of Essex, Suffolk, Norfolk, Lincoln &c. Formerly the principal part of the cod brought to London was taken round the edges of the Dogger-bank, or rather in the hollows between it and the Well-bank; and the finest is still brought thence. But for a number of years the London market has been in great part supplied with cod taken

between Yarmouth and the Nore; and in consequence of its being procured so much nearer home, the average price of cod has fallen from 30 to 50 per cent. below what it was from 1815 to 1820. (*Report on the Channel Fisheries*, p. 85.) This change has occasioned a great increase in the number of fishing smacks belonging to Barking, Gravesend, and other ports on the Thames; while those belonging to Harwich and the more distant ports have been materially reduced. The cod taken by the fishermen of Shetland and the Western Isles is mostly cured dried, but it is partially also cured green or in pickle; and it is sometimes, though much seldomer now than formerly, conveyed alive in walled vessels to London. The haddocks taken on the Aberdeenshire coast, and cured at the village of Jinnan, near Aberdeen, are held in the highest estimation. The haddocks taken in Dublin Bay are the largest of any taken on the British coasts.

There are no means by which to form any estimate either of the number of fishing vessels, or of the quantity or value of the fish annually taken in the home cod fishery; by far the larger portion being landed without account or notice of any kind, and disposed of fresh. The following account contains such particulars only as have been brought under the notice of the Commissioners for the Improvement of the British Fisheries:—

Account of the Total Quantity of Cod, Ling, or Hake, cured, punched, or branded, and exported, from 1830 to 1866, in so far as the same has been brought under the Cognisance of the Officers of the Fishery Board.

Periods	Total quantity of cod, ling, or hake cured				Total quantity of cod, ling, or hake punched or branded			
	Cured dried		Cured in pickle †		Cured dried		Cured in pickle	
	cwt.	barrels	cwt.	barrels	cwt.	barrels	cwt.	barrels
Year ended April 5, 1830	101,914	5,632‡	8,836‡	92,314‡	8,164	16,369	3	15
1835	44,152‡	—	5,767‡	9,492‡	2,235	10,632	2	24
1836	58,040‡	—	6,276‡	6,765‡	5,018	10,592	2	20
1837	66,882‡	—	7,273‡	8,589‡	3,206	10,195	2	11
1838	84,996‡	—	10,503‡	9,259‡	4,373	22,166	2	36
1839	85,279‡	—	10,051‡	25,936‡	5,095	26,701	5	30
1840	93,560‡	—	6,053‡	21,495‡	3,205	22,636	1	24
1841	91,494‡	—	9,480‡	21,029‡	3,491	30,550	1	44
1842	76,849‡	—	7,038‡	15,283‡	2,184	25,293	1	0
1843	77,207‡	—	6,451‡	10,030‡	1,342	25,737	3	70
1844	92,417‡	—	5,123‡	20,810‡	2,295‡	26,476	0	4
1845	92,325‡	—	5,037‡	11,372‡	935	29,352	0	0
1846	92,735‡	—	6,247‡	12,387‡	1,422	34,435	1	15
1847	86,624‡	—	6,247‡	8,145‡	955	25,662	3	0
1848	85,463‡	—	6,910‡	9,520‡	1,681	22,608	3	0
1849	96,983‡	—	6,588‡	15,556‡	997	24,154	1	20
1851*	90,658‡	—	5,032‡	—	—	22,304	1	0
1852	92,083‡	—	7,019‡	—	—	17,141	2	0
1853	102,976‡	—	6,868‡	—	—	14,594	2	0
1855	105,596‡	—	5,122‡	—	—	22,650	3	14
1854	109,684‡	—	6,166‡	—	—	19,557	2	0
1855	115,561‡	—	6,516‡	—	—	29,154	2	25
1856	110,504‡	—	6,242‡	—	—	29,329	3	0
1857	104,668‡	—	4,793‡	—	—	34,310	0	0
1858	95,596‡	—	4,581‡	—	—	32,132	0	0
1859	118,385‡	—	5,762‡	—	—	35,928	0	0
1860	115,688‡	—	4,239‡	—	—	32,221	0	0
1861	122,344‡	—	4,145‡	—	—	26,961	0	0
1862	100,657‡	—	7,353‡	—	—	32,869	3	0
1863	129,725‡	—	7,337‡	—	—	53,736	0	0
1864	107,758‡	—	7,963‡	—	—	46,461	0	0
1865	112,807‡	—	7,678‡	—	—	44,994	3	0
1866	115,819‡	—	9,957‡	—	—	47,753	0	15

\* Since this date for Scotland and the Isle of Man only.

† The branding and punching of cod and ling was discontinued on January 5, 1850, as well as the collection of returns for England.

N.B.—The books of the Fishery Board do not exhibit the total quantity of cod, ling, or hake cured till the year commencing April 5, 1825. The bounty from the commencement of this abstract to April 5, 1830, was near 4s. per cwt. for fish cured and dried, and 2s. 6d. per barrel for fish cured in pickle, taken by the crews of vessels or boats not on the tonnage bounty; while the bounty for vessels licensed for cod, ling, or hake fishery was 50s. per ton for tonnage and cargo to July 5, 1826; 45s. from thence to July 5, 1827; 40s. to July 5, 1828; and 35s. to April 5, 1830; when the bounties

ceased altogether, and have not since been renewed.

**Cod Fishery, Iceland.**—The large cod remain near the island during the winter, the chief station being Faxebay. The earliest and best fishings commence in February or March, and extend to May or June. The Icelanders capture the fish either by small driftnets, deep sea or hand lines, or the ordinary long lines. The line fishing is carried on in from 18 to 20 fathoms water; but it would be possible to fish successfully in deeper water, were the islanders wealthier and more adventurous.

The export of cod from Iceland in 1862 and 1865 was as follows:—

	1862	1865
Clipfish	5,621,424 lbs.	2,468,000
Stockfish	730,752 barrels	35,000
Liver oil	6,557	—
Roe	1,489	—

The export of an average year is—clipfish 3,250,000 lbs., of stockfish 1,408,000 lbs., of an abundant year, 5,280,000 lbs. clip, and 2,112,000 lbs. stockfish. In 1864, 62 decked boats, 1,190 open boats with 4 to 8 oars, 230 of from 8 to 12 oars, and 2,011 small boats were occupied by about 10,000 fishermen.

The French had in 1864, 260 vessels off the coast of Iceland, with an average burden of 90 tons. They are said to take about 30,000 cod per ship. (Consul-General Crowe's Report 1866.)

**Cod Fishery, Norway.**—These fisheries are carried on along the Norwegian coast from the Naaze to the Varanger Fjord, near the Russian frontier, chiefly near the Loffodens. The fishery is a bank of from 20 to 30 fathoms in one part, of a 40 to 50 in another, and of 90 to 120 fathoms in the third terrace. The fishing commences in December, and the best months are January and February. The number of persons engaged in the fishery in 1866 was, according to a return made in accordance with the law, 25,756, in 5,723 boats. In 1866 about 21,000,000 fish were taken at the Loffodens. It takes about 400 fish to supply a barrel of liver oil. The yield of oil in 1866 was about 26,000 barrels; of roe, 18,000 barrels. The following gives the returns of fishings from 1860 to 1866:—

Year	Loffoden	Finnmark	Romdal	Total catch
1861	20,000,000	5,000,000	5,500,000	28,500,000
1862	11,500,000	8,000,000	6,000,000	25,500,000
1863	17,500,000	5,000,000	4,000,000	24,500,000
1864	10,000,000	11,500,000	5,500,000	27,000,000
1865	19,000,000	9,000,000	9,500,000	37,500,000
1866	21,000,000	15,000,000	3,000,000	39,000,000

Exports of Cod &c. from 1815-65.

Year	Stockfish	Clipfish	Liver oil	Roes
	lbs.	lbs.	barrels	barrels
1815-19	17,263,560	5,261,000	19,195	8,515
1820-24	22,817,560	9,691,400	27,265	22,742
1825-29	31,638,760	12,851,200	40,458	21,742
1830-34	36,301,440	14,892,400	27,468	21,556
1835-40	32,955,040	22,513,760	38,564	22,863
1841-45	27,315,560	18,505,960	49,904	21,149
1846	35,089,760	26,070,720	61,914	21,387
1847	35,315,400	24,047,480	55,932	25,657
1848	30,321,720	22,591,720	55,900	23,957
1849	36,365,560	26,214,120	59,910	21,233
1850	33,719,520	24,468,160	39,509	21,429
1851	42,676,240	24,328,800	45,571	35,259
1852	38,596,600	28,414,760	55,127	28,215
1853	32,879,120	25,688,920	47,487	30,668
1854	35,575,040	44,636,680	79,804	39,816
1855	32,748,960	45,217,920	76,691	19,729
1856	40,173,760	43,215,520	55,298	21,109
1857	31,216,600	34,654,680	36,562	21,951
1858	27,221,520	41,410,680	36,894	31,064
1859	22,753,440	41,576,560	72,634	30,591
1860	29,119,440	40,271,080	67,551	26,167
1861	27,290,960	36,122,240	65,181	26,167
1862	29,633,680	—	—	—

Year	Stockfish	Clipfish	Cod salted in bulk in ships	Liver oil	Roes
	lbs.	lbs.	barrels	hogs	barrels
1863	26,609,320	36,075,600	57,690	5,570,711	31,156
1864	27,447,240	50,839,400	61,169	7,577,574	35,636
1865	37,225,600	54,918,560	33,771	9,930,221	37,941
1866	—	—	—	—	—

The Norwegian 'pot,' or quart, is equal to 0.2124 gallon. The barrel is equal to 3.1862 bushels, or 0.3983 qrs.

The export of cod salted in bulk and bartered to the Russian traders of the White Sea cannot be accurately ascertained; it is computed to average

between 10,000 and 15,000 tons annually. The number of barrels above quoted is only the quantity cleared out from the custom-houses.

The chief exports of Norwegian fish are to the Mediterranean, Sweden, Holland, and Italy, which take together about 28,000,000 lbs. of stockfish; Spain, which consumes 45,000,000 lbs. of fish; the Hanse Towns and Holland, which clipfish; about 1,500,000 gallons of liver oil. (Consul-General Crowe's Report 1866.)

**Distant Cod Fishery.**—The great bank of Newfoundland, discovered by John or Sebastian Cabot in 1497, was long, and perhaps still is, the principal seat of the distant cod fishery. The extraordinary abundance of cod-fish on its banks having been speedily ascertained, the French, Portuguese, and Spaniards soon after engaged into the field. In 1578 France had on the banks of Newfoundland 150 vessels, Spain 120 or 130, Portugal 50, and England from 30 to 50. During the first half of last century the fishery was principally carried on by the English, including the Anglo-Americans, and the French; but the capture of Cape Breton, and of their other possessions in America, gave a severe blow to the fishery of the latter; that American war divided the British fishery; that portion of it which had previously been carried on from New England being thereafter merged in that of the United States. Still, however, we contrived to preserve the largest share. At an average of the 3 years ending with 1789 we are said to have had 402 ships, 1,911 boats, and 16,856 men engaged in the American fisheries. During last century the French being excluded from the fisheries of England attained to an extraordinary degree of prosperity; the total value of the produce of the Newfoundland fishery in 1814 having exceeded 2,800,000*l.* But since the peace the British fishery on the Newfoundland banks has rapidly declined, and can hardly, indeed, be said, at this moment, to exist. It is now carried on almost entirely by the French and the Americans; the facilities enjoyed by the latter for its prosecution being greater than those of any other people, and the former being tempted to engage in it by the extraordinary encouragements afforded by Government. At present the British fishery carried on by the inhabitants of Newfoundland is confined to the shore or beat fishery; but this, though probably not so good a nursery of sailors as the bank fishery, is admitted to be the most productive of merchantable fish and oil. (M'Gregor's *British America*, 2nd ed. vol. i. p. 206.)

The average annual products of the fisheries of all sorts, including sea-salmon &c., exported from Newfoundland, during the 3 years ended with 1832, is said to have amounted to 516,417*l.* A considerable fishery is also carried on from the ports and harbours of Nova Scotia and Cape Breton, New Brunswick &c. But next to that of Newfoundland, the principal British fishery is carried on along the coast of Labrador. We borrow from the valuable work now referred to, the following statements with respect to it:—

During the fishing season from 280 to 300 schooners proceed from Newfoundland to the different fishing stations on the coast of Labrador, where about 20,000 British subjects are employed for the season. About one-third of the schooners make two voyages, loaded with dry fish, back to Newfoundland during the summer, and several merchant vessels proceed from Labrador with their cargoes direct to Europe, leaving, generally, full cargoes for the fishing vessels to carry to Newfoundland. A considerable part of the fish of

the second voyage and dried after or nine schooner having on board men. Some of Europe, and they carry animal oil, and salmon.

From Nova chiefly from the amount to 6,000, 1,200 seamen carry the principal green state.

One-third English, Irish, of the property also employ the catching seals constantly at

An Account of (inc)

Cod fish	-	refined	
Oil of cod	-	seal	
Skins, seal	-		
			Total
			200

About eight from Newfoundland to Spain, Portugal; the Great Britain. The Act 5 relations with r Aliens are pr or in the ba cepting, howe by treaty to Majesty.

All British occupy vacan and to do othe Certificate out for the land a repor and register usual clear on board; a Persons t the fishing o justice of th subject to a

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the second voyage is in a greer, or pickled state, and dried afterwards at Newfoundland. Eight or nine schooners from Quebec frequent the coast, having on board about 80 seamen and 100 fishermen. Some of the fish caught by them is sent to Europe, and the rest to Quebec; besides which, they carry annually about 6,000*l.* worth of furs, oil, and salmon to Canada.

From Nova Scotia and New Brunswick, but chiefly from the former, 100 to 120 vessels resort to Labrador. The burden of these vessels may amount to 6,000 or 7,000 tons, carrying about 1,200 seamen and fishermen. They generally carry the principal part of their cargoes home in a green state.

One-third of the resident inhabitants are English, Irish, or Jersey servants, left in charge of the property in the fishing rooms, and who also employ themselves, in the spring and fall, catching seals in nets. The other two-thirds live constantly at Labrador, as furriers and seal-

catchers on their own account, but chiefly in the former capacity, during winter, and all are engaged in the fisheries during summer. Half of these people are Jerseymen and Canadians, most of whom have families.

From 16,000 to 18,000 seals are taken at Labrador in the beginning of winter and in spring. They are very large; and the Canadians, and other winter residents, are said to feast and fatten on their flesh. About 4,000 of these seals are killed by the Esquimaux. The whole number caught produce about 350 tons of oil, value about 8,000*l.* (Vol. i. p. 185.)

The total produce of the Labrador fishery in 1832 was estimated by M'Gregor at 302,650*l.*; and he farther estimated the total produce of the British fisheries in the various seas and rivers of America, including seal oil and skins, at an average of the five years ending with 1832, at 857,210*l.* a-year. (Vol. ii. p. 596.) But it is now considerably greater. We subjoin

An Account of the Quantities and Values of the Exports of the Produce of the Newfoundland Fishery (including that carried on at Labrador by Boats from Newfoundland) in 1863-5.

Articles	Quantities			Values		
	1863	1864	1865	1863	1864	1865
Cod fish - - - quintals	311,777	849,539	801,539	761,275	795,460	706,352
Oil: cod - - - " "	2,696	2,275	2,727	129,438	115,737	136,355
refined - - - " "	221	172	419	23,000	25,500	27,914
seal - - - " "	4,115	1,605	3,268	186,568	76,947	156,578
Skins, seal - - - number	287,151	125,950	242,471	45,075	18,895	37,586
Total - - - value				1,143,351	1,030,737	1,065,115

\* \* \* The number of ships employed in the fisheries cannot be ascertained; the number of boats is about 7,000.

About eight-tenths of the dried fish exported from Newfoundland by British subjects are sent to Spain, Portugal, Italy, and other Continental nations; the rest goes to the West Indies and to Great Britain.

The Act 5 Geo. IV. c. 51 contains several regulations with respect to the Newfoundland fisheries. Aliens are prohibited from fishing on the coasts, or in the bays or rivers of Newfoundland, excepting, however, the rights and privileges granted by treaty to foreign states at amity with his Majesty.

All British subjects may take, cure, and dry fish, occupy vacant places, cut down trees for building, and do other things useful for the trade. (Sec. 5.)

Certificates should be granted to vessels clearing out for the fishery; and on arrival at Newfoundland a report should be made of such certificate, and registered; and on leaving the fishery the usual clearance shall be obtained. Vessels having on board any goods other than fish &c. to forfeit the fishing certificate. (Sec. 4.)

Persons throwing out ballast &c. to the prejudice of the harbours in Newfoundland shall be subject to a penalty. (Sec. 5.)

A contract in writing, specifying wages, and how to be paid, must be entered into with seamen and fishermen. (Sec. 7.)

A fisherman is prohibited receiving more than three-fourths of his wages during service; but the balance due to him is to be paid immediately upon the expiration of the covenanted time of service. No fisherman to be turned off, except for wilful neglect of duty or other sufficient cause, under a penalty, for each offence, of not less than 5*l.*, nor more than 50*l.*

In order to fulfil the conditions in any treaty with a foreign state, his Majesty may empower the governor of Newfoundland to remove any works erected by British subjects for the purpose of carrying on the fishery between Cape St. John and Cape Ray, and to compel them to depart to another place. (Sec. 12.)

Every person so refusing to depart shall forfeit 50*l.* (Sec. 13.)

The governor is empowered to sell or lease places within the island called Ship-rooms. (Sec. 14.)

For the regulations &c. as to the importation of fish into Great Britain, see FISUR.

It is doubtful whether the distant cod fishery may not have passed its zenith. Spain, Italy, and other Catholic countries have always been the great markets for dried fish; but the observance of Lent is every day becoming less strict; and the demand for dried fish will, it is most likely, sustain a corresponding decline. The relaxed observance of Lent in the Netherlands and elsewhere has done more than anything else to injure the herring fishery of Holland.

*Cod Fishery, American.*—The Americans have at all times prosecuted the cod fishery with great vigour and success. Their fishermen are remarkable for their activity and enterprise, sobriety and frugality; and their proximity to the fishing grounds, and the other facilities they possess for carrying on the fishery, give them advantages with which it would be very difficult to contend, even if they were not assisted by Government, which, however, is the case. In 1795 the Americans employed in the cod fishery about 31,000 tons of shipping; in 1807 they are said to have employed 70,306 tons; but it subsequently declined for several years, and was almost entirely suspended during the war ended 1815.

In the year ending June 30, 1858, the Americans had 110,896 tons shipping engaged in the cod fishery. During the same year they exported 161,269 quintals of dried, and 30,470 barrels and 3,375 kegs of pickled cod; their aggregate value being 684,448 dols. In 1864 they exported 192,505 cwt. of smoked and dried, and 73,756 cwt. of pickled fish, valued together at 1,476,486 dols. By far the larger portion of the dried and smoked fish went to Hayti, St. Domingo, and the Spanish West Indies.



M'Gregor and others: we believe, however, that they have materially over-rated its influence.

**COD LIVER OIL.** (Fr. huile de morue; Ger. stockfisch lebertran). The trade in this article illustrates the effect of a medical demand on an important branch of industry. This is a fixed oil extracted from the fresh liver of the common cod, but oil bearing this name is also procured from the ling, the coal-fish, the pollock, the hake, and the haddock.

The best cod liver oil is obtained by heating the livers, broken up into a mass, by means of steam, to a temperature not exceeding 180°. The livers should be as fresh as possible. This product is called *shore oil*, and is the purest. If the livers are left till putrefaction commences, oil rises to the surface, and if rapidly taken off, is of second quality, being known as *strait oil*. The residue left to putrefy and then boiled constitutes the *banks oil*, and is offensive both in taste and odour. Sometimes the oil is expressed, after heating the fresh livers: the product being filtered supplies a good variety of the oil.

Great use is made of cod liver oil, and especially of the coarser kinds, in the manufacture of shoe leather, which is most conveniently dressed with this substance. But its most important economical use is as a medicine. In what manner it operates is not determined, but it is said to be one of the most valuable alteratives and restoratives in cases of scrofula and consumption. In 1866 we imported 895 tons of this oil, valued at 65,979*l.*, the chief supplies coming from Hamburg, British North America, and Norway.

**Sorts of Cod Liver Oil.**—In consequence of its great value as a drug, the article is frequently adulterated with other fixed oils of animal origin, and sometimes with fixed vegetable oils. Exact chemical analysis might detect some of these adulterations, but unfortunately the process, if possible, is exceedingly delicate and uncertain. The following are, according to the best authorities, the most trustworthy tests:—

1. The specific gravity of genuine oil ranges between '915 and '9195 at 72°. Shark liver oil, which is said to be substituted for the genuine article, is reported to have the specific gravity of '866.

2. Genuine cod liver oil does not congeal at 14°.

3. The sulphuric acid test. A drop of this acid gives a centrifugal movement to the oil, and a fine violet colour, passing to a yellowish or brownish red. Sometimes the colour is red at once.

4. The nitric acid test. This acid when agitated with the oil gives a pinkish or rose red colour, afterwards becoming brown.

5. The sensible qualities of odour and taste. (*British Pharmacopœia*, 1867; and *Private information*.)

**COFFEE** (Ger. kofee, koffeholmen; Dutch, koffy; koffitoonen; Dan. kaffe, kaffebønner; Swed. kofe; Fr. Ital. and Port. caffè; Span. café; Russ. kofé; Pol. kawna; Lat. coffea, caffen; Arab. bun; Malay, kawa; Persian, tochem, keweh; Turk. chaube). The berries of the coffee plant (*Coffea Arabica*, Linn.). They are generally of an oval form, smaller than a horse-bean, and of a tough, close, and hard texture; they are prominent on the one side and flattened on the other, having a deeply marked furrow running lengthwise along the flattened side; they are moderately heavy, of a greenish colour, and a somewhat bitterish taste.

**Historical Notice of Coffee.**—The coffee plant is a native of that part of Arabia called *Yemen*—*terris faba missa Sabæis*; but it is now very extensively cultivated in the southern extremity of India, in Java, the West Indies, Brazil &c. We

are ignorant of the precise period when it began to be roasted, and the decoction used as a drink, though the discovery is not supposed to date further back than the early part of the fifteenth century. No mention of it is made by any ancient writer, nor by any of the moderns previously to the sixteenth century. Leonhart Rauwolf, a German physician, is believed to be the first European who has taken any notice of coffee. His work was published in 1573, and his account is, in some respects, inaccurate. Coffee was, however, very accurately described by Prosper Aibinus, who had been in Egypt as physician to the Venetian consul, in his works *de Plantis Egypti*, and *de Medicina Egyptiorum*, published in 1591 and 1592.

A public coffee-house was opened for the first time, in London, in 1652. A Turkey merchant, of the name of Edwards, having brought along with him from the Levant some bags of coffee, and a Greek servant accustomed to make it, his house was thronged with visitors to see and taste this new sort of liquor; and, wishing to gratify his friends without putting himself to inconvenience, he allowed his servant to make and sell coffee publicly. In consequence of this permission, the latter opened a coffee-house in Newman's Court, Cornhill, on the spot where the Virginia Coffee-house now stands. Garraway's was the first coffee-house opened after the great fire in 1666. (See the learned and elaborate treatise of Mosley *On Coffee*, 5th ed. p. 15.)

Charles II. attempted, by a proclamation issued in 1675, to suppress coffee-houses, on the ground of their being resorted to by disaffected persons, who 'devised and spread abroad divers false, malicious, and scandalous reports, to the defamation of his Majesty's government, and to the disturbance of the peace and quiet of the nation.' The opinion of the Judges having been taken as to the legality of the proceeding, they resolved, 'That retailing coffee might be an innocent trade; but as it was used to nourish sedition, spread lies, and scandalise great men, it might also be a common nuisance.'

M. de la Roque mentions that the use of coffee was introduced into France between 1640 and 1660; and he further states that the first coffee-house for the sale of coffee in France was opened at Marseilles, in 1671. (*Voyage de 'u Syrie*, tom. ii. pp. 310-319.) It was hardly, however, known, except to a few travellers who had visited the East, till 1669, when it was introduced to the best society in Paris by Solymán Aga, ambassador from the Grand Seigneur to Louis XIV. It immediately became fashionable; and the taste for it having been quickly diffused, a coffee-house was opened for its sale in 1672, which, in no long time, had several competitors. (See the excellent work of Le Grand d'Aussy, *Vie privée des Français*, iii. 127, ed. 1815.)

Some time between 1680 and 1690 the Dutch planted in the vicinity of Batavia coffee beans they had procured from Mocha. In 1690 they sent a plant to Europe; and it was from berries obtained from this plant that the first coffee plantations in the West Indies and Surinam were derived.

**Progressive Consumption of Coffee in Great Britain.** *Influence of the Duties.*—In 1660 a duty of 4*d.* per gallon was laid on all coffee made and sold. Previously to 1732 the duty on coffee amounted to 2*s.* per lb.; but an Act was then passed, in compliance with the solicitations of the West India planters, reducing the duty to 1*s.* 6*d.* per lb.; at which it stood for many years, producing, at an average, about 10,000*l.* a-year. In conse-

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quence, however, of the prevalence of smuggling, caused by the too great magnitude of the duty, the revenue declined, in 1783, to 2,8697. 10s. 10 $\frac{1}{2}$ d.; and it having been found impossible otherwise to check the practice of clandestine importation, the duty was reduced, in 1784, to 6*d.* The consequences of this wise and salutary measure were most beneficial. Instead of being reduced, the revenue was immediately raised to near three times its previous amount, or to 7,2007. 15s. 9*d.*, showing that the consumption of legally imported coffee must have increased in about a ninefold proportion!—a striking and conclusive proof, as Mr. Bryan Edwards has observed, of the effect of heavy taxation in defeating its own object. (*History of the West Indies*, vol. ii. p. 310, 8vo. ed.)

The history of the coffee trade abounds with similar and even more striking examples of the superior productiveness of low duties. In 1807 the duty was 1*s.* 8*d.* per lb.; and the quantity entered for home consumption amounted to 1,170,164 lbs., yielding a revenue of 161,245*l.* 11*s.* 4*d.* In 1808 the duty was reduced from 1*s.* 8*d.* to 7*d.*, and in 1809 no fewer than 9,251,847 lbs. were entered for home consumption, yielding, notwithstanding the reduction of duty, a revenue of 245,856*l.* 8*s.* 4*d.* The duty having been raised in 1819 from 7*d.* to 1*s.* per lb., the quantity entered for home consumption in 1824 was 7,993,041 lbs., yielding a revenue of 407,544*l.* 4*s.* 3*d.* In 1824, however, the duty being again reduced from 1*s.* to 6*d.*, the quantity entered for home consumption in 1825 was 10,766,112 lbs.; and in 1831 it had increased to 22,740,627 lbs., yielding a net revenue of 583,751*l.*

The rapid increase in the consumption from 1825 to 1832 must not, however, be wholly ascribed to the reduction of the duty. This, no doubt, had the greatest influence; but a good deal is also owing to the low price of coffee from 1824 to 1830, and also to the great reduction during the same period in the price of low brown sugar (fully 1 $\frac{1}{2}$ *d.* per lb.), a cheap and abundant supply of which is indispensable to the extensive use of coffee.

These statements, which are principally deduced from the accompanying account, No. I., refer to the consumption of Great Britain only; but the account No. II. includes the United Kingdom, and is brought down to 1867 inclusive. The most remarkable features in this account are the reduction of the duty on coffee from the East Indies and Ceylon to the same level as that on coffee from the West Indies, and the farther reduction of the duty on coffee from British possessions in 1842 to  $\frac{1}{2}$ *d.* per lb. The equalisation of the duty on East and West India coffee had become indispensable after the rapid decline in the supplies from the West Indies consequent on the emancipation of the slaves; for as foreign coffee was burdened with a high discriminating duty, the price of British coffee must otherwise have risen to such a height as materially to interfere with the consumption. The latter, indeed, has not increased since 1837 in the ratio that might have been expected from the increasing population and wealth of the country; and since 1847, when the consumption amounted to 37,441,373 lbs., it has declined, having been in 1866 only 27,849,694 lbs.

The produce of colonial coffee as indicated by the imports has risen considerably. When the last edition of this work was published the imports of colonial coffee were little more than 24,000 tons; they were in 1865 considerably more than double this amount.

The stationary or declining state of the consumption of coffee may, however, be easily explained. We have seen how rapidly the growth of

chicory has extended in this country [CHICORY]; and its substitution for coffee has no doubt prevented the increase of the latter. The adulteration of coffee with chicory was, indeed, authorised by a Treasury minute passed in 1840. But the well-founded objections made to this extraordinary attempt to legitimise a proceeding by which the revenue as well as the public was defrauded, led to the repeal of the minute referred to in 1852. The sale of coffee mixed with chicory was then prohibited. Inasmuch, however, as this prohibition could not be made effectual, a new minute was passed in 1853, permitting the sale of coffee intermixed with chicory, provided the parcels containing such compound be labelled MIXTURE OF COFFEE AND CHICORY. And we do not well see what more can be done in the matter. Dealers who supply chicory, or a mixture of coffee and chicory, to customers who order coffee, are swindlers who ought to be adequately punished; but if customers order chicory, or coffee alloyed with chicory, there neither is nor can be any good reason why they should not be supplied with the article they want.

Under such circumstances the best thing that can be done by those who have the opportunity, and who wish to make sure of getting genuine coffee, is to buy it before it is ground; and as a mill for grinding may be bought for a small sum, and coffee is sold really 'roasted,' there is, in this way, no great difficulty in obviating adulteration. Those who use ground coffee will also be pretty secure against fraud if they resort only to first-class shops.

It is seen, from the accompanying tables, that the duty on foreign coffee was reduced in 1841 to 6 $\frac{1}{2}$ *d.* per lb.; and, following up the example set in the case of the sugar duties, it was farther reduced in 1851 to 3*d.* per lb., that is, to the same rate of duty that was then laid on British colonial coffee. The duty on all descriptions of coffee, after being raised to 4*d.* per lb. in 1855, was again reduced in 1857 to 3*d.* A duty equal to that on coffee has also been imposed on chicory. [CHICORY.]

I. An Account of the Quantity of Coffee retained for Home Consumption in Great Britain, the Rates of Duty thereon, and the Produce of the Duties, in each Year from 1789 to 1813, both inclusive.

Year	Quantities retained for Home Consumption	Rates of duty on				Net revenue of Customs and Excise	
		British plantation	East India				
	lbs.	per lb.	per lb.	per cent.	£	s.	d.
				£ s. d.			
1789	930,141	0 10 $\frac{1}{2}$	4. 0	—	46,296	7	4
1790	975,110	—	2 0	—	50,799	7	4
1791	1,047,259	—	—	—	57,659	5	11
1792	916,666	—	—	—	48,825	8	9
1793	1,070,458	—	—	—	67,257	11	9
1794	969,512	—	—	—	71,439	4	6
1795	1,451,588	1 5 $\frac{1}{2}$	2 6 $\frac{1}{2}$	—	65,788	5	11
1796	396,953	—	—	—	30,018	6	11
1797	637,901	1 5 $\frac{1}{2}$	3 7	—	92,669	3	11
1798	697,187	1 5 $\frac{1}{2}$	2 5 $\frac{1}{2}$	—	76,966	6	9
1799	684,432	1 5 $\frac{1}{2}$	2 5 $\frac{1}{2}$	2 0 0	74,901	2	2
1800	826,590	—	—	—	119,867	11	5
1801	758,961	—	—	—	106,075	2	9
1802	829,135	1 6	2 7 $\frac{1}{2}$	2 0 0	72,485	2	3
1803	905,552	1 6 $\frac{1}{2}$	1 11 $\frac{1}{2}$	2 16 5	77,098	15	8
1804	1,061,527	1 7 $\frac{1}{2}$	2 0 $\frac{1}{2}$	2 6	151,798	8	11
1805	1,201,736	1 7 $\frac{1}{2}$	2 0 $\frac{1}{2}$	3 0 0	120,172	18	7
1806	1,157,014	1 7 $\frac{1}{2}$	2 0 $\frac{1}{2}$	3 7 11	159,759	6	9
1807	1,170,164	—	0 7	0 10 3	161,245	11	4
1808	1,069,601	—	—	3 7 11	229,758	16	8
1809	9,251,837	—	0 7	0 10 3	215,886	8	4
1810	5,308,096	—	—	—	175,965	2	4
1811	6,399,122	—	—	—	212,808	12	11
1812	8,118,754	—	—	—	255,181	7	1
1813	8,788,501	0 7 $\frac{1}{2}$	0 10 $\frac{1}{2}$	3 19 2	255,181	7	1
1814	6,321,267	0 7 $\frac{1}{2}$	0 11 $\frac{1}{2}$	—	215,513	18	4
1815	6,117,511	—	—	—	258,762	18	3
1816	7,557,771	—	—	—	299,871	11	11
1817	8,688,726	—	—	—	298,540	5	11
1818	7,967,857	—	—	—	250,106	4	10
1819	7,429,552	1 0	1 6	—	232,151	8	10

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II. An Account of the Quantity of Coffee retained for Home Consumption in Great Britain, the Rates of Duty thereon, and the Produce of the Duties, in each Year from 1789 to 1813, both inclusive.

Year	Quantity	Rate of Duty	Produce
1820	—	—	—
1821	—	—	—
1822	—	—	—
1823	—	—	—
1824	—	—	—
1825	—	—	—
1826	—	—	—
1827	—	—	—
1828	—	—	—
1829	—	—	—
1830	—	—	—
1831	—	—	—
1832	—	—	—
1833	—	—	—
1834	—	—	—
1835	—	—	—
1836	—	—	—
1837	—	—	—
1838	—	—	—
1839	—	—	—
1840	—	—	—
1841	—	—	—
1842	—	—	—
1843	—	—	—
1844	—	—	—
1845	—	—	—
1846	—	—	—
1847	—	—	—
1848	—	—	—
1849	—	—	—
1850	—	—	—
1851	—	—	—
1852	—	—	—
1853	—	—	—
1854	—	—	—
1855	—	—	—
1856	—	—	—
1857	—	—	—
1858	—	—	—
1859	—	—	—
1860	—	—	—
1861	—	—	—
1862	—	—	—
1863	—	—	—
1864	—	—	—
1865	—	—	—
1866	—	—	—
1867	—	—	—

II. An Account of the Quantity, in Pounds Weight, of Coffee imported into the United Kingdom, the Quantity retained for Consumption, the Produce of the Duties, and the Rates of Duty on the same, in each Year from 1820.

Year	Quantities imported into the United Kingdom	Quantities retained for home consumption in the United Kingdom	Amount of duty received thereon	Rates of duty per pound
	lbs.	lbs.		
1820	48,811,626	7,103,109	342,528	Of any British possession in America or Africa - 0 1 0 From any place within the limits of the East India Company's Charter - 0 1 6 All other coffee - 0 2 6
1821	45,237,869	7,595,001	384,283	" " " " " "
1822	44,005,121	7,669,431	387,512	" " " " " "
1823	45,053,373	8,541,920	428,513	" " " " " "
1824	59,671,219	8,262,915	420,088	" " " " " "
1825	52,397,518	11,082,970	515,801	Of any British possession in America - 0 0 6 Of any British possession within the limits of the East India Company's Charter - 0 0 9 Of any other place (From April 5.) - 0 1 3 Of any British possession in America - 0 0 6 Of Sierra Leone - 0 0 9 Imported from any British possession within the limits of the East India Company's Charter - 0 0 9 Imported from any other place within those limits - 0 1 0 Otherwise imported (From July 5.) - 0 1 3
1826	42,017,105	13,199,255	536,570	" " " " " "
1827	47,938,017	15,560,117	399,690	" " " " " "
1828	41,069,731	17,114,655	440,215	" " " " " "
1829	39,971,215	19,466,028	498,931	" " " " " "
1830	40,929,163	20,669,285	573,505	" " " " " "
1831	43,007,828	22,715,807	683,791	" " " " " "
1832	49,982,939	22,922,527	594,038	" " " " " "
1833	51,426,109	23,741,981	591,941	" " " " " "
1834	41,263,111	25,785,095	614,451	" " " " " "
1835	28,396,403	23,295,016	652,121	Of any British possession in America, or within the limits of the East India Company's Charter, or of Sierra Leone - 0 0 6 Imported from any British possession within the limits of the East India Company's Charter, not being the produce thereof - 0 0 9 Imported from any other place within those limits - 0 1 0 5 4 Otherwise imported (From September 9.) - 0 1 3
1836	31,051,837	24,917,690	691,610	" " " " " "
1837	36,112,514	26,348,961	656,015	" " " " " "
1838	39,532,029	25,765,673	685,982	" " " " " "
1839	41,003,316	26,789,915	779,115	" " " " " "
1840	70,250,766	28,661,741	921,551	Of any British possession in America, or within the limits of the East India Company's Charter, or of Sierra Leone - 0 0 6 5 10 Imported from any British possession within the limits of the East India Company's Charter, not being the produce thereof - 0 0 9 9 20 Imported from any other place within those limits - 0 1 0 5 5 Otherwise imported (From May 15.) - 0 1 3 2
1841	45,317,762	28,570,857	887,717	" " " " " "
1842	41,141,411	28,519,616	768,986	Of and from British possessions - 0 0 4 1 5 Of and from foreign countries - 0 0 8 2 5 (From July 9.)
1843	58,912,169	29,979,104	697,376	" " " " " "
1844	46,523,188	31,532,382	681,616	Of and from British possessions - 0 0 4 1 Of and from foreign countries - 0 0 6 3 10 (From June 6.)
1845	50,377,915	31,295,190	717,871	" " " " " "
1846	51,815,651	36,754,551	756,838	" " " " " "
1847	55,351,041	37,411,573	746,436	" " " " " "
1848	57,053,450	37,072,546	709,632	" " " " " "
1849	65,215,787	31,599,374	642,520	" " " " " "
1850	50,805,132	31,166,358	665,659	Raw - (Of British possessions) 0 0 4 1 Foreign - 0 0 6 3 10 Kiln-dried, roasted or ground (Of British possessions) 0 0 5 Foreign - 0 0 8 (From January 1.)
1851	55,110,660	32,501,515	411,670	Haw (from all parts) - 0 0 3 Kiln-dried, roasted or ground - 0 0 6 (From April 15.)
1852	51,935,510	34,978,432	457,229	" " " " " "
1853	55,631,753	36,985,122	462,357	Raw - 0 0 3 Kiln-dried, roasted, or ground - 0 0 4 (From June 4.)
1854	66,500,558	37,350,924	467,018	" " " " " "
1855	64,061,479	35,761,561	546,261	Raw - 0 0 4 Kiln-dried, roasted, or ground - 0 0 5 (From April 21.)
1856	56,992,116	34,995,944	584,517	" " " " " "
1857	58,892,726	34,555,123	454,727	Raw - 0 0 3 Kiln-dried, roasted, or ground - 0 0 4 (From April 6.)
1858	60,697,265	35,208,972	440,475	" " " " " "
1859	65,350,000	34,350,000	425,828	" " " " " "
1860	82,770,000	35,980,000	411,437	" " " " " "
1861	83,530,000	35,490,000	450,122	" " " " " "
1862	91,040,000	34,450,000	450,078	" " " " " "
1863	117,350,000	32,760,000	426,552	" " " " " "
1864	109,380,000	31,360,000	410,700	" " " " " "
1865	138,190,000	30,510,000	388,779	" " " " " "
1866	127,044,816	30,939,413	371,495	" " " " " "
1867	137,742,716	31,285,108	391,190	" " " " " "

\* To March 31.

The table No. III. (p. 328) is interesting, inasmuch as it not only shows the sources whence we derive our supplies of coffee, but the estimation in which the products of different countries are held in the mercantile world.

The introduction of tea and coffee, it has been well remarked, 'has led to a wonderful change in the diet of civilised nations, a change highly im-

portant both in a moral and physical point of view. These beverages have the admirable advantage of affording stimulus without producing intoxication, or any of its evil consequences. Lovers of tea or coffee are, in fact, rarely drinkers; and hence the use of these beverages has benefited both manners and morals.' (Scotsman, Oct. 17, 1827.)

III. An Account exhibiting the different Sources whence the Coffee imported into the United Kingdom in 1866 was derived, with the Quantities imported from each, the Total Quantities retained for Home Consumption, and the Computed Value of the Imports and the Duty.

Countries	Imported	Retained for Home consumption	Value	Price	Duty
From Hamburg -	lbs. 109,990	lbs. 5,019	£ 8,603	per cwt. £ s. d. 2 17 1	£ 50
Holland -	70,257	15,510	2,458	3 18 3	194
France -	142,105	14,492	5,871	3 1 0	186
Portugal -	214,654	4,415	1,376	3 19 9	56
Egypt -	375,121	4,413	11,476	4 5 5	581
West Africa: Portuguese possessions -	171,923	3,920	5,383	3 10 2	37
Philippine Islands -	726,974	19,116	21,708	3 6 11	243
Cuba -	51,256	4,568	924	2 19 1	57
Porto Rico -	489,795	98,177	15,116	3 9 2	552
Haiti and St. Domingo -	2,225,177	7,825	61,032	3 1 6	98
United States: North Atlantic ports -	979,931	9,148	31,310	3 11 8	115
South Atlantic ports -	4,328	13	70	3 7 6	-
Ports on the Pacific -	891,747	-	96,275	3 6 0	-
Central America -	7,100,367	2,850,056	221,500	3 9 6	28,137
New Granada -	2,981,916	545,180	80,563	3 0 6	6,790
Brazil -	9,781,491	67,050	211,336	3 16 2	438
British possessions in South Africa -	401,213	57,552	12,814	3 11 3	717
British India: Bombay and Sind -	921,750	600,976	31,148	3 15 8	8,562
Madras -	14,167,555	4,441,724	421,117	3 17 7	55,522
Bengal and Pegu -	6,871	7,949	237	3 18 0	100
Singapore and the Eastern Straits Settlements -	971,123	37,319	96,753	3 1 2	469
Ceylon -	81,128,379	21,537,082	4,709,552	5 14 4	269,211
British West India Islands -	4,511,929	1,078,228	147,150	3 15 1	15,474
British Honduras -	166,245	128,868	4,205	3 6 0	261
Other parts -	311,734	75,227	9,556	3 2 7	945
Deduct exported on drawback, over-entered &c.	127,014,816	50,939,815	4,089,349	Repaid	386,282
		309,977			3,669
		30,530,236			383,951

**Supply and Consumption of Coffee.**—Owing to the increasing consumption of coffee in this country, the Continent, and America, the great value of the article, the large amount of capital and labour employed in its production, and the shipping required for its transport, it has become a commodity of primary commercial importance. It deserves particular attention, too, inasmuch as there are few, if any, articles that exhibit such variations, not only of consumption, but also of growth and price. These are occasioned partly by changes of commercial regulations and duties, and partly also by the plant requiring 4 or 5 years before it comes to bear: so that the supply is neither suddenly increased when the demand increases, nor diminished when it falls off. St. Domingo used formerly to be one of the greatest sources of supply, having exported, in 1786, about 35,000 tons; and it is supposed that, but for the negro insurrection which broke out in 1792, the exports of that year would have amounted to 42,000 tons. The devastation occasioned by this event caused, for a series of years, an almost total cessation of supplies. They have again, however, increased, and were understood to amount, in 1866, to about 16,000 tons a-year. From Cuba the exports of coffee have, for some years, owing partly to the decline in its price and partly to the efforts of the planters having been more directed to the cultivation of sugar, greatly fallen off. They may at present amount, including Porto Rico, to 7,000 tons. In Java and Brazil the culture of coffee has increased with unprecedented rapidity [BATAVIA; RIO JANEIRO]. The exports from Java, which did not a few years ago exceed 18,000 tons, now (1867) amount to at least 55,000; while those from Brazil, which have increased in an equal degree, amount to above 140,000 tons. From Rio alone the exports in 1866 were 309,583,360 lbs. The growth of coffee in India and Ceylon has also been very greatly increased, especially in the latter, where the plantations have been so much extended that their produce is now equal to more than double the present consumption of the United Kingdom. There has, no doubt, been a serious decrease in the exports of coffee from the British West Indies; the imports into the United Kingdom having declined from 11,014 tons in 1832 to 2,015 in 1866; but when reference is

made to the whole supply, this diminution is inconsiderable. On the other hand, the exports of coffee from the East Indies have increased from 132,819 lbs. in 1857 to 785,102 lbs. in 1866.

According to Mr. Palgrave, 'very little, so little indeed as to be quite inappreciable, of the Mocha or Yemen berry ever finds its way westwards of Constantinople. Arabia, Syria, and Egypt consume two-thirds; the remainder goes to Turks and Armenians. Even that which is exported is of inferior quality, the best grains being carefully selected for home use.'

The Mocha coffee quits its native land by three main lines of export—that of the Red Sea to Egypt, that of the inner Hejaz to Syria, and that of Rasam to Nejed and Shimer.

The second species of coffee is the growth of Abyssinia. Its berry is larger.

Another, and the commonest kind in the East, is Indian coffee. Mr. Palgrave adds that American coffee, in the judgment of Orientals, holds the very last rank. (*Arabia*, vol. i. p. 425.)

The Cingalese region in which coffee is principally cultivated is that near Gampola. This cultivation received its first impetus from the decline of the coffee produce in the West Indies after the emancipation of the negroes. The exports from Ceylon, which had been only 1,792,448 lbs. in 1827, were 67,453,680 lbs. in 1857, and the imports thence into the United Kingdom in 1866 were 81,428,370 lbs. According to a report of Mr. Ferguson contained in Sir E. Tennent's work *On Ceylon* (vol. ii. p. 239), there were, in 1857, 403 estates in the district, containing 80,950 acres, of which 63,771 were in bearing condition; the average crop per acre being 5.5 cwt. The number of coolie labourers required during crop time was 129,200.

The consumption of coffee in the United States has increased with great rapidity since 1821, in which year it amounted to only 5,306 tons. Part of this increase is, no doubt, to be ascribed to the reduction of the duty, first from 5 to 2 cents per lb., and its subsequent repeal; part to the fall in the price of coffee; and a part, perhaps, to the increase of temperance societies. The consumption, however, has been checked since the war, in consequence of the reimposition of high duties.

Account of the Coffee exported from 1837 to

Year	Quantity
1837	cwt. 54,165
1838	49,511
1839	41,967
1840	68,008
1841	80,584
Total for 5 years	371,360
Average	54,872
1842	119,805
1843	91,847
1844	135,957
1845	178,803
1846	173,932
Total for 5 years	701,103
Average	140,220
1847	235,221
1848	280,010
1849	373,293
1850	276,173
1851	319,957
Total for 5 years	1,575,254
Average	315,050

Prices of Coffee

- Jamaica: Good middling
- Low middling and mild
- Fine ordinary
- Good ordinary
- Ordinary and triage
- Ceylon: Native, fine hold
- Good and fine ordinary
- Small and ordinary
- Plantation fine
- Fine middling
- Good middling
- Middling
- Fine ordinary to low mild
- Mixed and triage

Pro form a.

Account Sales of	
5 casks weighing tare an	
5 casks weighing tare an	
6 casks weighing tare an	
10 casks	
To landing charge	
freight on 150	
marine insur	
fire insurance	
public sale ext	
brokerage, 1	
commission, 1	
customs entry	

London, July 5

Species of Coffee.

Jamaica, Ceylon, are deemed the best; the Rica, Dominica, Java, Martinique, and coffee is produced in being raised upon m soils. The most fer the growth of ver Edwards observes q frequently ameliorat luxuriant tree and which are large, an many years, rank a remark is made by

**Account of the Quantities and Values of the Coffee exported from Ceylon in each Quinquennial Period from 1837 to 1866, both inclusive.**

Year	Quantity	Value	Year	Quantity	Value
	cwts.	£		cwts.	£
1837	31,164	106,990	1852	372,379	632,823
1838	49,511	174,442	1853	328,971	655,602
1839	41,362	126,363	1854	407,681	850,845
1840	68,206	211,529	1855	506,541	1,025,282
1841	80,584	266,118	1856	440,819	981,725
<b>Total for 5 years</b>	<b>271,560</b>	<b>756,603</b>	<b>2,056,530</b>	<b>4,806,318</b>	
<b>Average</b>	<b>54,312</b>	<b>151,320</b>	<b>411,306</b>	<b>961,263</b>	
1842	119,805	369,763	1857	601,655	1,495,898
1843	91,847	292,891	1858	511,635	1,357,456
1844	153,357	387,063	1859	380,998	1,408,092
1845	178,603	565,459	1860	678,449	1,599,253
1846	175,892	528,791	1861	650,517	1,652,874
<b>Total for 5 years</b>	<b>701,104</b>	<b>1,822,367</b>	<b>3,019,034</b>	<b>7,563,623</b>	
<b>Average</b>	<b>140,220</b>	<b>364,473</b>	<b>603,806</b>	<b>1,512,724</b>	
1847	295,221	456,625	1862	605,709	1,516,461
1848	290,110	387,180	1863	424,285	2,146,220
1849	375,293	515,545	1864	871,863	1,746,410
1850	278,473	609,262	1865	927,440	2,345,532
1851	349,257	688,156	1866	897,624	2,226,680
<b>Total for 5 years</b>	<b>1,575,254</b>	<b>2,686,738</b>	<b>3,931,221</b>	<b>10,019,503</b>	
<b>Average</b>	<b>315,050</b>	<b>537,347</b>	<b>786,244</b>	<b>2,003,900</b>	

	£	s.	d.
Other Brit. E. Indies: Fine and superior per cwt.	86	0	to 98
Good to fine	82	0	85
Middling to good middling	74	0	81
Fine ordinary to low middling	69	0	73
Good ordinary, native	55	0	60
Ordinary	52	0	58
Mocha: Fine garbled	115	0	132
Middling to good	92	0	105
Ungarbled	78	0	86
Java: Yellow	63	0	67
Pale and mixed	50	0	67
Manilla	40	0	50
Singapore	33	0	42
Sumatra	-	-	-
Padang	-	-	-
African	60	0	65
Brazil: Washed	62	0	75
Fine ordinary and superior	48	0	58
Good ordinary	42	0	47
Ordinary	36	0	41
La Hayra	55	0	70
Costa Rica: Middling to fine	58	0	60
Ordinary to fine ordinary	53	0	67
Guatemala	58	0	72
Cuba: Middling to fine	72	0	81
Fine ordinary and double fine ordinary	66	0	71
Ordinary and good ordinary	57	0	65
Porto Rico	60	0	62
St. Domingo	44	0	66

Coffee is sold in bond; the business being done in the public market either by private or public sales. It is always sold at landing weights and revenue tares; the latter being on casks, barrels, and boxes identical with the real tares, and an average rate on bales and bags. Draft is allowed for as follows: viz. on packages weighing under 1 cwt., 1 lb.; 1 cwt. and under 3 cwt., 2 lbs.; 3 cwt. and under 5 cwt., 4 lbs.; and 5 cwt. and upwards, 5 lbs.

The following is an account of the sale of coffee from Ceylon. Such sales are made out as if the goods were sold within one month from arrival. There is no charge for rent, as the consolidated rate covers that charge for twelve weeks. Coffee is always rent-free to the purchaser to the prompt day, and lies at the seller's risk till then unless paid for.

**Prices of Coffee in the London Market, April 15, 1868.**

	per cwt.	s.	d.
Jamaica: Good middling to fine	60	0	to 105
Low middling and middling	72	0	79
Fine ordinary	60	0	70
Good ordinary	53	0	58
Ordinary and triage	35	0	53
Ceylon: Native, fine hold	56	0	61
Good and fine ordinary	49	6	54
Small and ordinary	42	0	49
Plantation fine	90	0	95
Fine middling	85	0	89
Good middling	97	0	83
Middling	75	0	78
Fine ordinary to low middling	65	0	72
Mixed and triage	28	0	31

**Pro form A.**

Account Sales of 16 Casks Native Coffee ex Jane, Smith, @ Ceylon, sold at Public Sale May 14, 1868, on account and risk of Messrs. J. B. & Co. by the undersigned.		£	s.	d.	£	s.	d.
B	5 casks weighing, gross 41 0 4	38	5	7	85	7	9
	tare and draft 3 0 25	-	-	-	-	-	-
	5 casks weighing, gross 43 0 15	38	5	14	53	11	8
	tare and draft 5 1 1	-	-	-	-	-	-
6 casks weighing, gross 52 1 37	46	1	1	97	2	10	
tare and draft 6 0 26	-	-	-	-	-	-	
<b>16 casks</b>				<b>266</b>	<b>2</b>	<b>3</b>	
	Discount 1 per cent.						263 9 1
<b>Charges</b>							
To landing charges, warrants &c.				13	4	2	
freight on 130 cwt. 3 qrs. 7 lbs. at 60s. per 10 cwt.				24	10	6	
marine insurance on 500L. at 30s. per cent. and stamp				4	10	3	
fire insurance, 3 months, 300L. at 1s. 6d. per cent. and duty				5	3		
public sale expenses, advertising &c.				7	6		
brokerage, 1 per cent.				2	12	4	
commission, 2 1/2 per cent.				6	12	11	
customs entry, postage, and petty expenses				6	3		
Nett proceeds due June 20, 1868							210 18 7
Errors and oversights excepted							
London, July 5, 1868.				(Signed) H. B. & Co.			

**Species of Coffee. Roasting &c.**—The coffees of Jamaica, Ceylon, and Mocha are generally esteemed the best; then follow the coffees of Costa Rica, Dominica, Berbice, Demerara, Bourbon, Java, Martinique, and Hayti. Arabian or Mocha coffee is produced in a very dry climate, the best being raised upon mountainous slopes and sandy soils. The most fertile soils are not suitable for the growth of very fine coffee. Mr. Bryan Edwards observes that 'a rich deep soil, frequently ameliorated by showers, will produce a luxuriant tree and a great crop; but the beans, which are large, and of a dingy green, prove, for many years, rank and vapid.' And the same remark is made by Mr. Crawford with respect to

the coffee of Java. (*East Indian Archipelago*, vol. i. p. 487.) Coffee is improved by being kept; it then becomes of a paler colour. Mocha, or, as it is commonly called, Turkey coffee, should be chosen of a greenish light olive hue, fresh and new, free from any mustiness, the berries of a middling size, clean, plump, and without any intermixture of sticks or other impurities. Particular care should be taken that it be not false packed. Good West India coffee should be of a greenish colour, fresh, free from any unpleasant smell, the berries small and unbroken. Coffee berries readily imbibe exhalations from other bodies, and thereby acquire an adventitious

and disagreeable flavour. Sugar placed near coffee will, in a short time, so impregnate the berries and injure their flavour as to lower its value 10 or 20 per cent. Dr. Moseley mentions that a few bags of pepper, on board a ship from India, spoiled a whole cargo of coffee.

\*The roasting of the berry to a proper degree requires great nicety: the virtue and agreeableness of the drink depend upon it; and both are often injured by the ordinary method. Bernier says, when he was at Cairo, where coffee is so much used, he was assured by the best judges that there were only two people in that great city who understood how to prepare it in perfection. If it be under-done, its virtues will not be imparted, and, in use, it will load and oppress the stomach; if it be over-done, it will yield a flat, burnt, and bitter taste, its virtues will be destroyed, and, in use, it will heat the body, and act as an astringent.' (Moseley, p. 39.)

*Regulations with respect to Sale, Importation &c.*—Roasted beans and rye, reduced to powder, have frequently been used to adulterate ground coffee; and the possession of such substitutes for coffee was formerly an offence punishable by the forfeiture of the articles and a penalty of 100*l.* But by the Act 3 Geo. IV. c. 53, persons who are *not dealers in coffee* may take a license for roasting and selling corn, peas, beans, or parsnips, labelling the parcels with the names, and conforming to the various regulations prescribed in the Act.

No coffee can be imported in packages of less than 100 lbs. *nett weight*.

No abatement of duties is made on account of any damage coffee may have received.

Coffee cannot be entered as being the produce of any British possession in America or of the Mauritius until the master of the ship in which the coffee is imported deliver to the collector or comptroller a certificate of its origin, and declare that the coffee is the produce of such place. (8 & 9 Vict. c. 86 s. 38.)

**COINS.** Pieces of metal, most commonly gold, silver, or copper, impressed with a public stamp, and frequently made legal tender in payment of debts, either to a limited or an unlimited extent.

1. *Circumstances which led to the Introduction and Use of Coins.*—When the precious metals first began to be used as money, or as standards by which to measure the value of different articles, and the equivalents for which they were most commonly exchanged, they were in an unfashioned state, in bars or ingots. The parties having agreed upon the quantity of metal to be given for a commodity, the exact amount was then ascertained by weight. But it is obvious that a practice of this sort must have been attended with a great deal of trouble and inconvenience. There can, however, be little doubt that the greatest obstacle to the use of unfashioned metals as money would be found in the difficulty of determining their quality, or the degree of their purity, with sufficient precision. The operation of assaying is one of great nicety and difficulty, and could not be performed in the early ages otherwise than in a clumsy, tedious, and inaccurate manner. It is, indeed, most probable that when the precious metals were first used as money, their quality would be appreciated only by their weight and colour. A very short experience would, however, be sufficient to show the extreme inexactness of conclusions derived from such loose and unsatisfactory criteria; and the devising of some method by which the fineness of the metal might be easily and correctly ascertained

would very soon be felt as indispensable to the general use of gold and silver as money. Such a method was not long in presenting itself: it was early discovered that, to ascertain the purity of the metal, and also to avoid the trouble and expense of weighing it, no more was necessary than to mark each piece with a *stamp*, declaring its weight and fineness. This invention was made at a very early period; but the accounts which assign it to particular dates are mythical.

2. *Metal used in the Manufacture of Coins.*—Before the art of metallurgy was well understood, the baser metals were frequently used as money. Iron was the primitive money of the Lacedæmonians, and copper of the Romans. But both iron and copper deteriorate by being kept; and besides this defect, the rapid improvement of the arts, by lowering their price, rendered their bulk too great in proportion to their value to permit of their continuing to be used as money. Copper, indeed, is still used in the form of tokens, convertible into silver in very small payments. In this country copper or bronze pence and halfpence are rated at about 75 per cent. above their real value; but as their issue is exclusively in the hands of Government, and as they are only legal tender to the extent of one *shilling* in any one payment, this over-valuation is not productive of any bad effect. The use of copper in other countries is limited in much the same way; gold and silver being everywhere the only metals made use of in the manufacture of the coins used in considerable payments.

3. *Standard of Coins.*—By the standard of a coin is meant the degree of its purity, and its weight; that is, the fineness of the metal of which it is made, and the quantity of metal contained in it.

(1) *Silver Coins.*—A pound troy, or 12 ounces, of the metal of which English silver coins are made, contains 11 oz. 2 dwts. pure silver, and 18 dwts. alloy. This pound is coined into 66 shillings; so that each shilling contains 80-727 grains fine silver, and 87-27 grains standard silver; and the *money pound*, consisting of 20 shillings, contains 1614-515 grains pure silver, and 1745-451 grains standard silver. From 1600 down to 1815 the pound weight of standard silver bullion was coined into 62 shillings. All the English silver coins have been coined out of silver of 11 oz. 2 dwts. fine, from the Conquest to this moment, except for the short period of 16 years, from the 34th Henry VIII. to the 2nd Elizabeth.

(2) *Gold Coins.*—The purity of gold is not estimated by the weights commonly in use, but by an Abyssinian weight called a *carat*. The carats are subdivided into four parts, called grains, and these again into quarters; so that a *carat grain*, with respect to the common divisions of a pound troy, is equivalent to 2½ dwts. Gold of the highest degree of fineness, or pure, is said to be 24 carats fine. When gold coins were first made at the English mint, the standard of the gold put in them was of 23 carats 3½ grains fine, and ½ grain alloy; and so it continued, without any variation, to the 18th of Henry VIII., who, in that year, first introduced a new standard of gold of 22 carats fine, and 2 carats alloy. The first of these standards was called the old, and the second the new standard, or crown gold; because crowns or pieces of the value of 5*s.* were first coined of this new standard. Henry VIII. made his gold coins of both these standards under different denominations, and this practice was continued by his successors until 1633. From that period to the present the gold of which the coins of this kingdom have been made has been invari-

riably of the same of the variously to 16: when they went. (Livery

The purity fore, 11 parts sovereign, or 2 grains fine gold. The pound Troy 16.00 sovereign standard price 1*l.* 14*s.* 6*d.* p. ounce.

The alloy in is allowed in a sense that would metals so as to degree of purity; is small, it has harder, and less. If the quantity would lessen the metals, and would the coins.

The standard may be learned Table of Coins see

4. *Variations of* sorts of property lions in almost all or hire, being man that no change can money or coins with estimates and con portion of society portion, or vice versa all commodities (is) ments in the arts, or the discovery of can be selected to not vary in its real that the precious rial that could be exception of the es caused by the dis it seems to have other periods.

But in addition inherent in the valuations in the cost of made, their standard. Notwithstanding being universally compute the value equivalent for which changed, is by far measures used in quently, be precisely there is none that The necessities or have forced them to selves of the incur have almost univ graceful expedient is, of cheating the the extent of the every other debt same.

The ignorance facilitated this species of the coins been metal contained in would have been But, although the going perpetual, a ductions, their anc

riably of the *new* standard, or crown gold; though some of the coins made of the old standard, previously to 1633, continued to circulate till 1732, when they were forbidden to be any longer current. (Liverpool *On Coins*, p. 27.)

The purity of our present gold coins is, therefore, 11 parts due gold and 1 part alloy. The sovereign, or 20 shilling piece, contains 113.001 grains fine gold, and 123.274 grains standard gold. The pound Troy of standard gold is coined into 36.89 sovereigns, or into 46l. 11s. 6d. The mint standard price of gold is, therefore, said to be 37l. 15s. 6d. per lb. troy, or 3l. 17s. 10½d. per ounce.

The alloy in coins is reckoned of no value. It is allowed in order to save the trouble and expense that would be incurred in refining the metals so as to bring them to the highest degree of purity; and because, when its quantity is small, it has a tendency to render the coins harder, and less liable to be worn or rubbed. If the quantity of alloy were considerable, it would lessen the splendour and ductility of the metals, and would add too much to the size of the coins.

The standard of the coins of foreign countries may be learned at a glance by inspecting the *Table of Coins* subjoined to this article.

4. *Variations of the Standard.*—The value of all sorts of property being estimated, and the stipulations in almost all contracts for its purchase, sale, or hire, being made, in money or coins, it is plain that no change can take place in the value of such money or coins without virtually subverting these estimates and contracts, and enriching the debtor portion of society at the expense of the creditor portion, or vice versa. As the cost of producing all commodities is liable to vary from improvements in the arts, the exhaustion of the present or the discovery of new sources of supply, none can be selected to serve as money or coin that may not vary in its real value. It is believed, however, that the precious metals vary less than any material that could be suggested. And with the exception of the extraordinary fall in their value caused by the discovery of the American mines, it seems to have been remarkably constant at other periods.

But in addition to the fluctuations naturally inherent in the value of coins, arising from variations in the cost of the metal of which they are made, their standard has been repeatedly changed. Notwithstanding that money or coin, from its being universally used as a scale by which to compute the value of all commodities, and as the equivalent for which they are commonly exchanged, is by far the most important of all the measures used in society, and should, consequently, be preserved as invariable as possible, there is none that has been so frequently altered. The necessities or extravagance of governments have forced them to borrow; and to relieve themselves of the incumbrances thus contracted, they have almost universally had recourse to the disgraceful expedient of degrading the coin: that is, of *cheating* those who lent them money, to the extent of the degradation, and of enabling every other debtor in their dominions to do the same.

The ignorance of the public in remote ages facilitated this species of fraud. Had the names of the coins been changed when the quantity of metal contained in them was diminished, there would have been no room for misapprehension. But, although the weight of the coins was undergoing perpetual, and their purity occasional, reductions, their ancient denominations were almost

uniformly preserved; and the people who saw the same names still remaining after the substance was diminished—who saw coins of a certain weight and fineness circulate under the names of florins, livres, dollars, and pounds—and who saw them continue to circulate as such after both their weight and the degree of their fineness had been lessened, began to think that they derived their value more from the *stamp* affixed to them by authority of Government than from the quantity of the precious metals they contained. This was long a very prevalent opinion. But the rise of prices which invariably followed every reduction of the standard, and the derangement that was thereby occasioned in every pecuniary transaction, undeceived the public, and taught them and their rulers the expediency of preserving the standard of money inviolate.

The standard may be reduced by simply raising the denomination of the coin; by ordering, for example, that a half-sovereign should pass for a sovereign, and the latter for a double sovereign &c. If injustice be resolved upon, this is the least mischievous way in which it can be perpetrated, inasmuch as it saves all the trouble and expense of a recoinage. But as it renders the fraud obvious and glaring, it has rarely been resorted to; and most reductions have been effected either by diminishing the weight of the coins, or by increasing the proportion of alloy in the metal of which they are made, or both.

Originally the coins of all countries seem to have had the same denomination as the weights commonly used in them, and contained the exact quantity of the precious metals indicated by their name. Thus, the *talent* was a weight used in the earliest period by the Greeks, the *as* or *paulo* by the Romans, the *livre* by the French, and the *pound* by the English and Scotch; and the coins originally in use in Greece, Italy, France, and England bore the same names, and weighed precisely a talent, a pondo, a livre, and a pound. The standard has not, however, been preserved inviolate, either in modern or ancient times. It has been less degraded in England than any where else; but even here the quantity of silver in a pound sterling is less than the *third* part of a pound weight—the quantity it contained in 1300. In France, the *livre* current in 1789 contained less than *one sixty-sixth* part of the silver implied in its name, and which it had actually contained previously to 1103. In Spain, and some other countries, the degradation has been carried still further. (For an account of the degradation of the coins of the ancient and modern Continental nations, see the article 'Money,' in the Supplement to the old, or in the new edition of the *Encyclopaedia Britannica*.)

From 1296 to 1355 the coins of England and Scotland were of the same weight and purity; but at the last-mentioned epoch the standard of Scotch money was, for the first time, sunk below that of England; and by successive degradations the value of Scotch money, at the union of the crowns in 1600, was only a *twelfth* part of the value of the English money of the same denomination. It remained at this point till the union of the kingdoms cancelled the separate coinage of Scotland.

The gold and silver coins of Ireland have been for a considerable period the same as those of Great Britain; but, until 1825, they were nominally rated 8½ per cent. higher. This difference of valuation, which was attended with considerable inconveniences, was put an end to by the Act 6 Geo. IV. c. 79, which assimilated the currency throughout the empire.



be freely exported and imported without being liable to any charge or duty whatever; and they may be imported without being either reported or entered at the Custom-house. This regulation has rendered it next to impossible to ascertain the value of the bullion imported.

**8. Forgery of Coin. Issue of forged or spurious Coins.**—The forgery of coin is an offence that is practised more or less at all periods. The most effectual means of preventing it is to improve the fabric of the genuine coin, to cut the dies with great delicacy, and occasionally to vary the form of the coins. During the lengthened period from 1770 down to 1816 the genuine silver coins in circulation were so much worn and defaced that it was very difficult to distinguish between them and counterfeit, which, in despite of the severest penalties, were thrown into circulation in immense quantities. But since the issue of the new coins, in 1816, forgery has been comparatively rare. Sufficient time has not yet been afforded for determining the influence of the law exempting the offence of counterfeiting from the punishment of death.

**9. Law as to the counterfeiting &c. of Coin.**—The Acts as to this were consolidated and amended by the 2 & 3 Wm. IV. c. 34, of which the following is a brief abstract:—

Counterfeiting the gold or silver coin of the realm, transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years; and every such offence shall be deemed to be complete although the counterfeiting be not finished. (Sec. 3.)

Colouring counterfeit coin, or any pieces of metal, with intent to make them pass for gold or silver coin, colouring or altering genuine coin with intent to make it pass for higher coin; transportation for life, or for any term not less than 7 years, or imprisonment for any term not exceeding 4 years. (Sec. 4.)

Impairing the gold or silver coin with intent to make the coin so impaired pass for gold or silver coin of full weight, transportation for not exceeding 14 nor less than 7 years, or imprisonment for not exceeding 3 years. (Sec. 5.)

Buying or selling &c. counterfeit gold or silver coin for lower value than its denomination, importing counterfeit coin from beyond seas, transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years. (Sec. 6.)

Uttering counterfeit gold or silver coin, imprisonment for not exceeding 1 year; and uttering, accompanied by possession of other counterfeit coin, or followed by a second uttering within 10 days, imprisonment for not exceeding 2 years; every second offence of uttering after a previous conviction shall be felony: transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years. (Sec. 7.)

Having 3 or more pieces of counterfeit gold or silver coin in possession, with intent to utter the same, imprisonment for not exceeding 3 years; second offence, transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years. (Sec. 8.)

Making, mending, having possession of, or selling any mould &c., or coining tools, or any press or engine, conveying tools or moneys out of the mint without authority, felony; transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years. (Secs. 10, 11.)

Counterfeiting any current copper coin, or making, mending, or possessing any coining tool, or buying, selling &c. any counterfeit copper coin

for lower value than its denomination, transportation for not exceeding 7 years, or imprisonment for not exceeding 2 years; and uttering any counterfeit copper coin, or having in possession 3 or more pieces of counterfeit copper coin, imprisonment for not exceeding 1 year. (Sec. 12.)

Gold or silver coin tendered to any person suspecting any piece to be counterfeit, may be broken by such person; and if it shall appear to be counterfeit, the person tendering shall bear the loss; but if it shall be of due weight, and appear to be of lawful coin, the person breaking it is to receive it at the rate it was coined for, and any dispute shall be finally determined by any justice; and the tellers of the Exchequer and the receivers-general of the revenue are to break or deface every piece of counterfeit coin tendered for payment. (Sec. 13.)

Any person discovering any counterfeit coin, gold, silver, or copper, or any coining tool, is to carry the same forthwith before some justice, and on reasonable cause to suspect any person of counterfeiting, or having such coin, or any tool &c., such justice may cause any place under the control of such suspected person to be searched, either in the day or night, and if any such coin or tool shall be found, to cause the same to be seized forthwith, and carried before a justice, who is to secure the same for the purpose of being produced in evidence, and afterwards of being delivered up to the mint. (Sec. 14.)

The necessity of the evidence of any officer of the mint to prove counterfeit coin dispensed with. (Sec. 17.)

The court may order hard labour or solitary confinement. (Sec. 19.)

The words 'king's coin' include all coin lawfully current in the United Kingdom; and lawfully having, in any dwelling-house or other building, lodging, apartment, field or other place, open or enclosed, whether belonging to or occupied by the accused or not, and whether for his own use or benefit, or for that of another, shall be deemed having in his possession within this Act. (Sec. 21.)

Persons acting in the execution of this Act protected in the usual manner, by requiring notice of action &c. and allowing tender of amends &c. (Sec. 22.)

**10. Convictions for Coining and Uttering.**—In the 7 years ending with 1818, 63 persons were convicted in England and Wales of the offence of counterfeiting the coin of the realm, of whom 1 was executed. In the next 7 years the convictions for coining were reduced to 14, but of these 5 were executed. In the last septennial period, ending with 1832, the convictions were 34, and the executions 7. The convictions for issuing forged coins in the first of the above periods were 21, in the second 9, and in the third 32.

#### TABLES RELATIVE TO THE COINS OF GREAT BRITAIN AND OTHER COUNTRIES.

**No. I. English Coins.**—The following table gives an account of the quantity of *fine* silver coined into 20s. or the pound sterling; the quantity of *standard* silver, of 11 oz. 2 dwts. fine and 11 dwts. alloy, contained in 20s. or the pound sterling in the different reigns from the time of Edward I. to the reign of William IV. A similar account with respect to gold. And an account of the proportional value of fine gold to fine silver, according to the number of grains contained in the coins. Calculated in grains and 1000th parts Troy weight.



No. III. *Scotch Coins*.—The annexed table gives the number of pounds, shillings, and pennies Scotch which have been coined out of one pound weight of silver at different times; with the degree of purity of such silver, or its fineness, from the year 1107 to the year 1601. (From Cardonnel's *Numismata Scotia*, page 24.)

A.D.	Anno Regni	Purity	Alloy	Value of the Money coined out of a Lib. Weight of Silver			A.D.	Anno Regni	Purity	Alloy	Value of the Money coined out of a Lib. Weight of Silver		
				oz. pw.	oz. pw.	£ s. d.					oz. pw.	oz. pw.	£ s. d.
From 1107	Alexander I.					1451	15 James II.						
	David I.					1456	20 James II.						
	William Alexander II.	11 2	0 18	1 0 0		1475	16 James III.						
	Alexander III.					1484	24 James III.						
1396	John Balliol					1488	11 James IV.						
From 1506						1489	12 James IV.	11 2	0 18	7 0 0			
to 1529	Robert I.	11 2	0 18	1 1 0		1529	16 James V.	11 0	1 0	9 12 0			
1565	38 David II.	11 2	0 18	1 5 0		1544	5 Mary	11 0	1 0	9 12 0			
1567	39 David II.	11 2	0 18	1 9 4		1556	14 Mary	11 0	1 0	13 0 0			
From 1571						1565	23 Mary	11 0	1 0	18 0 0			
to 1590	Robert II.	11 2	0 18	1 9 4		1567	1 James VI.	11 0	1 0	18 0 0			
1593						1571	5 James VI.	9 0	3 0	16 14 0			
1599	4 Robert III.	11 2	0 18	1 12 0		1576	10 James VI.	8 0	4 0	16 14 0			
1601	19 James I.	11 2	0 18	1 17 6		1579	15 James VI.	11 0	1 0	24 0 0			
						1581	15 James VI.	11 0	1 0	24 0 0			
						1597	31 James VI.	11 9	1 0	30 0 0			
						1601	35 James VI.	11 0	1 0	36 0 0			

No. IV. *Scotch Coins*.—The following is an account of the number of pounds, shillings, and pennies Scotch which have been coined out of one pound weight of gold; with the degree of their purity, and the proportion that the gold bore to the silver. (Cardonnel, p. 25.)

A.D.	Anno Regni	Fineness	Alloy	Value of the Coin coined out of One Pound of Gold			Pound of Pure Gold weighed of Pure Silver		
				£ s. d.	£ s. d.	£ s. d.	lbs. oz. dw. gr.		
1571, &c.	Robert II.	11 18 18	0 1 6	17 12 0	0	0	11 1 17 22		
1590, &c.	Robert II.	11 18 18	0 1 6	17 12 0	0	0	11 1 17 22		
1594	19 James I.	11 18 18	0 1 6	22 10 0	0	0	11 1 17 22		
1451	15 James II.	11 18 18	0 1 6	33 6 0	0	0	9 8 4 14		
1456	20 James II.	11 18 18	0 1 6	50 0 0	0	0	9 8 4 14		
1475	16 James III.	11 18 18	0 1 6	78 15 0	0	0	10 5 7 9		
1484	24 James III.	11 18 18	0 1 6	78 15 0	0	0	10 5 7 9		
1488	1 James IV.	11 18 18	0 1 6	78 15 0	0	0	10 5 7 9		
1489	16 James V.	11 18 18	0 1 6	108 0 0	0	0	10 5 7 9		
1506	14 Mary	11 0 0	1 0 0	144 0 0	0	0	10 5 8 6		
1529	10 James VI.	11 0 0	1 0 0	240 0 0	0	0	10 5 8 6		
1544	5 James VI.	10 10 0	1 0 0	210 0 0	0	0	11 5 20 0		
1565	31 James VI.	11 0 0	1 0 0	360 0 0	0	0	12 0 0 0		
1567	10 James VI.	11 0 0	1 0 0	432 0 0	0	0	12 0 0 0		
1579	15 James VI.	11 0 0	1 0 0	492 0 0	0	0	13 2 7 11		
1601	35 James VI.	11 0 0	1 0 0	492 0 0	0	0			
1653	9 Charles I.	11 0 0	1 0 0	492 0 0	0	0			

No. V.—The following is an account of the value of the gold and silver coins, specifying each, coined at the Mint, each year since 1790:—

Year	Gold coined			Silver coined			Year	Gold coined			Silver coined		
	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
1790	3,660,566	10	0	..	..	..	1809	3,446,725	12	6	108,259	16	0
1791	2,156,566	17	6	..	..	..	1810	2,387,881	2	6	125,510	19	6
1792	1,171,463	0	0	251	17	6	1811	2,872,949	14	5	35,696	5	8
1793	2,747,430	0	0	..	..	..	1812	3,730,757	12	6	145	4	0
1794	2,556,404	12	6	..	..	..	1813	1,225,269	13	6	145	4	0
1795	495,416	0	0	293	11	11	1814	66,949	12	5	432,775	4	0
1796	461,580	2	6	..	..	..	1815	1,809,718	8	10	146,665	1	0
1797	2,000,297	5	0	..	..	..	1816	1,787,782	5	5	427,719	4	0
1798	2,967,504	15	0	..	..	..	1817	1,233,988	8	2	75,385	4	0
1799	449,961	15	0	..	..	..	1818	2,855,364	15	0	174,012	0	0
1800	189,937	2	6	..	..	..	1819	501,510	14	3	380,651	0	0
1801	450,242	2	6	53	7	1	1820	..	..	207,900	0	0	
1802	437,018	18	6	62	0	0	1821	378,472	10	0	89,611	4	0
1803	596,448	12	6	79	6	8	1822	3,277,051	18	2	192,832	0	0
1804	718,336	17	6	77	10	0	1823	6,607,349	10	0	232,860	0	0
1805	51,668	5	0	182	18	0	1824	3,563,949	7	6	610,632	0	0
1806	405,105	15	0	..	..	..	1825	4,334,608	10	6	647,638	0	0
1807	..	..	..	108	10	0	1826	4,534,847	6	6	556,248	0	0
1808	371,741	2	0	..	..	..	1827	5,158,440	0	0	125,730	0	0
1809	398,946	11	0	114	14	0	1828	3,451,999	10	1	55,442	0	0
1810	316,939	12	6	120	18	0	1829	2,172,935	1	1	149,392	0	0
1811	312,263	3	6	..	..	..	1830	1,491,836	17	9	129,096	0	0
1812	..	..	..	52	14	0	1831	4,400,411	4	9	87,868	6	0
1813	519,722	3	6	89	18	0	1832	6,742,270	12	11	186,396	12	7
1814	..	..	..	161	4	0	1833	11,922,591	5	11	701,544	14	3
1815	..	..	..	..	..	..	1834	4,152,183	6	4	140,480	8	1
1816	..	..	..	1,805,211	16	0	1835	9,008,663	9	4	195,210	19	6
1817	4,275,337	10	0	4,436,297	12	0	1836	5,008,114	19	6	462,528	0	0
1818	2,862,373	10	0	576,279	0	0	1837	4,859,860	2	2	375,230	0	0
1819	1,010,819	0	0	1,407,372	12	0	1838	1,211,923	9	10	448,395	0	0
1820	919,516	0	10	847,717	4	0	1839	3,649,509	15	6	647,064	0	0
1821	9,520,738	15	10	435,686	0	0	1840	3,121,708	10	0	218,403	7	0
1822	5,336,787	18	0	31,350	7	1	1841	8,130,170	9	0	267,481	6	0
1823	769,748	10	0	285,271	16	0	1842	7,836,413	15	6	148,518	11	10
1824	4,063,075	0	0	292,070	16	0	1843	6,807,456	5	4	161,172	0	0
1825	4,380,919	0	0	417,535	16	0	1844	9,553,297	17	6	335,194	0	0
1826	5,846,661	7	6	604,605	16	0	1845	2,367,614	4	1	261,732	0	0
1827	2,517,636	17	6	33,019	16	0	1846	5,076,676	14	0	493,116	0	0
1828	1,004,559	2	6	16,248	3	0							

Nos. VI. and VII. Gold and Silver Coins of different Countries.—The following tables contain the assays, weights, and values of the principal gold and silver coins of all countries, computed according to the mint price of gold in England, and from assays made both at London and Paris, which have been found to verify each other.

VI. Table showing the Legal Weight, Fineness, and Value of the Principal Gold Coins of all Countries, computed at the English Mint Price of 3*l.* 17*s.* 10*d.* per Ounce of Standard Gold.

Coins	Legal Weight	Legal Fineness	Value in Sterling
<b>AUSTRIA</b> - - - - -			
4 ducaton piece (1855) - - - - -	8 45 <i>g.</i>	H. 1 2 <i>g.</i>	1 17 7 <i>g.</i>
1 ducat (1848) - - - - -	2 5 <i>g.</i>	H. 1 2 <i>g.</i>	0 9 4 <i>g.</i>
1 Kremtitzer ducat (1843) - - - - -	2 5 <i>g.</i>	H. 1 3 <i>g.</i>	0 9 5 <i>g.</i>
1 Souverain d'or, Lombardo-Venetian Kingdom (1847) - - - - -	7 6 <i>g.</i>	W. 0 1 <i>g.</i>	1 7 10 <i>g.</i>
1 krone - - - - -	7 3 <i>g.</i>	W. 0 1 <i>g.</i>	1 7 3 <i>g.</i>
<b>BELGIUM</b> - - - - -			
See FRANCE, and Monetary Convention concluded between SWITZERLAND, FRANCE, BELGIUM, and ITALY in December 1857.			
<b>BRAZIL</b> - - - - -			
20 milreis piece (1857) 10 in proportion - - - - -	11 12 <i>g.</i>	standard	2 4 10 <i>g.</i>
<b>DENMARK</b> - - - - -			
Frederika d'or (1853) - - - - -	4 6 <i>g.</i>	W. 0 1 <i>g.</i>	0 9 4 <i>g.</i>
<b>FRANCE</b> - - - - -			
100 francs piece (1859) - - - - -	20 17 <i>g.</i>	W. 0 1 <i>g.</i>	3 19 3 <i>g.</i>
50 " - - - - -	10 8 <i>g.</i>	W. 0 1 <i>g.</i>	1 19 7 <i>g.</i>
40 " (1850) - - - - -	8 6 <i>g.</i>	W. 0 1 <i>g.</i>	1 11 6 <i>g.</i>
20 " (1861) - - - - -	4 3 <i>g.</i>	W. 0 1 <i>g.</i>	0 9 5 <i>g.</i>
10 " (1859) - - - - -	2 1 <i>g.</i>	W. 0 1 <i>g.</i>	0 7 11 <i>g.</i>
5 " (1858) - - - - -	1 0 <i>g.</i>	W. 0 1 <i>g.</i>	0 3 11 <i>g.</i>
See Monetary Convention concluded in December 1865 between FRANCE, BELGIUM, SWITZERLAND, and ITALY. [TREATY, COMMERCIAL.]			
<b>GERMANY</b> - - - - -			
Baden, ducat (1854) - - - - -	2 8 <i>g.</i>	H. 0 2 <i>g.</i>	0 9 4 <i>g.</i>
Bavaria, ducat (1850) - - - - -	2 5 <i>g.</i>	H. 1 2 <i>g.</i>	0 9 4 <i>g.</i>
Brunswick, 2 Wilhelms d'or piece (1856) - - - - -	8 15 <i>g.</i>	W. 0 2 <i>g.</i>	1 12 6 <i>g.</i>
Hamburg, ducats (1860) - - - - -	4 6 <i>g.</i>	H. 1 2 <i>g.</i>	0 9 4 <i>g.</i>
Hanover, George d'or piece (1855) - - - - -	4 6 <i>g.</i>	W. 0 2 <i>g.</i>	0 16 3 <i>g.</i>
Krone (1859) - - - - -	7 3 <i>g.</i>	W. 0 1 <i>g.</i>	1 7 3 <i>g.</i>
Hesse Cassel, Wilhelms d'or piece (1840) - - - - -	4 6 <i>g.</i>	W. 0 1 <i>g.</i>	0 15 4 <i>g.</i>
Mecklenburg Schwerin, Pauls d'or piece (1810) - - - - -	4 6 <i>g.</i>	W. 0 2 <i>g.</i>	0 16 2 <i>g.</i>
Prussia, Friedrichs d'or (1841) - - - - -	4 7 <i>g.</i>	W. 0 1 <i>g.</i>	0 16 5 <i>g.</i>
Krone (1859) - - - - -	7 4 <i>g.</i>	W. 0 1 <i>g.</i>	0 15 3 <i>g.</i>
Saxony, August d'or piece (1849) - - - - -	4 7 <i>g.</i>	W. 0 1 <i>g.</i>	0 16 5 <i>g.</i>
Württemberg, ducat (1811) - - - - -	2 5 <i>g.</i>	H. 1 2 <i>g.</i>	0 9 4 <i>g.</i>
<b>GREAT BRITAIN</b> - - - - -			
5 sovereign piece - - - - -	25 16 <i>g.</i>	standard	5 0 0 <i>g.</i>
1 " - - - - -	5 3 <i>g.</i>	"	1 0 0 <i>g.</i>
1 " - - - - -	2 16 <i>g.</i>	"	0 10 0 <i>g.</i>
India: gold mohur, Company's (1841) - - - - -	7 2 <i>g.</i>	"	1 2 0 <i>g.</i>
" native - - - - -	7 2 <i>g.</i>	B. 1 2 <i>g.</i>	1 1 0 <i>g.</i>
" pagoda - - - - -	2 4 <i>g.</i>	W. 1 5 <i>g.</i>	0 7 10 <i>g.</i>
<b>GREECE</b> - - - - -			
20 drachmas piece (1833) - - - - -	3 17 <i>g.</i>	W. 0 1 <i>g.</i>	0 14 2 <i>g.</i>
<b>HOLLAND</b> - - - - -			
5 gulden piece (1826) - - - - -	2 3 <i>g.</i>	W. 0 1 <i>g.</i>	0 8 2 <i>g.</i>
Ducat (1849) - - - - -	3 5 <i>g.</i>	H. 1 2 <i>g.</i>	0 9 4 <i>g.</i>
<b>ITALY</b> - - - - -			
Sardinia, 100 lire piece (1833) - - - - -	20 17 <i>g.</i>	W. 0 1 <i>g.</i>	3 5 5 <i>g.</i>
80 " 4 doppie (1829) - - - - -	16 14 <i>g.</i>	W. 0 1 <i>g.</i>	3 3 5 <i>g.</i>
20 " doppie (1829) - - - - -	4 3 <i>g.</i>	W. 0 1 <i>g.</i>	0 15 10 <i>g.</i>
20 " Regno d'Italia (1861) - - - - -	4 3 <i>g.</i>	W. 0 1 <i>g.</i>	0 15 10 <i>g.</i>
Naples, 6 ducati piece, 2 onette (1856) - - - - -	4 20 <i>g.</i>	B. 1 3 <i>g.</i>	0 10 7 <i>g.</i>
Parma, 20 lire piece (1815) - - - - -	4 3 <i>g.</i>	W. 0 2 <i>g.</i>	0 15 10 <i>g.</i>
Tuscany, zecchini (1839) - - - - -	2 5 <i>g.</i>	B. 2 0 <i>g.</i>	0 9 2 <i>g.</i>
ruspone, 3 zecchini (1836) - - - - -	6 17 <i>g.</i>	B. 2 0 <i>g.</i>	1 8 7 <i>g.</i>
Venice, Republic before 1797 - - - - -	2 5 <i>g.</i>	B. 1 3 <i>g.</i>	0 9 2 <i>g.</i>
The coinage of the Kingdom of ITALY since 1865: See Monetary Convention concluded in December 1865 between ITALY, FRANCE, BELGIUM, and SWITZERLAND. [TREATY, COMMERCIAL.]			
<b>JAPAN</b> - - - - -			
Koban - - - - -	8 8	W. 6 1 <i>g.</i>	1 3 1
<b>MEXICO</b> - - - - -			
Onza de oro, doubloon (1850), 1-2, 1-4, 1-8, 1-16 in proportion - - - - -	17 9 <i>g.</i>	W. 1 0	3 4 6 <i>g.</i>
By Mexican decree of November 28, 1867, certain changes are introduced into the standard of money then in use in the Republic based on the exclusive adoption of the decimal system of coinage. The dollar is retained as the unit of currency, and the gold coinage is to consist of pieces of the value of 20 dollars, 10 dollars, 5 dollars, 2 dollars, and 1 dollar respectively.			
<b>PERBIA</b> - - - - -			
2 5	2 5	B. 1 0 <i>g.</i>	0 9 0 <i>g.</i>
<b>PORTUGAL</b> - - - - -			
Dobroo of 24,000 reis (1725) - - - - -	31 11	standard	6 14 7 <i>g.</i>
4 dobroo, or João (1822) - - - - -	9 5 <i>g.</i>	"	1 15 10 <i>g.</i>
4 dobroo, or Libonino, or Moeda d'ouro (1816) - - - - -	6 2 <i>g.</i>	"	1 5 14 <i>g.</i>
4 cortas d'ouro (1860) - - - - -	5 6 <i>g.</i>	"	1 5 14 <i>g.</i>
4 cortas d'ouro of 2,500 reis (1851) - - - - -	3 1 <i>g.</i>	"	0 11 11 <i>g.</i>
<b>ROME</b> - - - - -			
10 scudi piece (1850), 5, 2 <i>g.</i> , 1, in proportion - - - - -	11 5 <i>g.</i>	W. 2 1 <i>g.</i>	2 2 10 <i>g.</i>
<b>RUMIA</b> - - - - -			
Imperial of 5 rubles (1860) - - - - -	4 5	standard	0 16 7 <i>g.</i>
Ducat - - - - -	2 2 <i>g.</i>	H. 1 2 <i>g.</i>	0 9 4 <i>g.</i>
<b>SOUTH AMERICAN REPUBLICS</b> - - - - -			
Bolivia, see MEXICO.			
Chili, candor of 10 pesos (1859), 1-2, 1-5, 1-10, in proportion, see MEXICO - - - - -	9 19 <i>g.</i>	W. 0 1 <i>g.</i>	1 17 6
Ecuador, see MEXICO.			
La Plata, see MEXICO.			
New Granada, see MEXICO.			
Candor of 10 pesos (1859), 1, 1, in proportion Peru, see MEXICO. - - - - -	10 8 <i>g.</i>	W. 0 1 <i>g.</i>	1 19 7 <i>g.</i>
<b>SPAIN</b> - - - - -			
Onza de oro, doubloon (1794), 1, 2, 1, in proportion - - - - -	17 9 <i>g.</i>	W. 1 0	3 4 6 <i>g.</i>
Centen of 100 reales (1860) - - - - -	5 9 <i>g.</i>	W. 0 1 <i>g.</i>	1 0 7 <i>g.</i>
4 piasters piece, issued for the Philippine Islands (1861) - - - - -	4 7 <i>g.</i>	W. 0 1 <i>g.</i>	0 16 6
2 piasters piece, in proportion. - - - - -			
40 reales piece (1861), 20 in proportion - - - - -	2 3 <i>g.</i>	W. 0 1 <i>g.</i>	0 8 3
Ducat (1859) - - - - -	2 3 <i>g.</i>	H. 1 1 <i>g.</i>	0 9 3 <i>g.</i>
See Monetary Convention concluded in December 1865 between SWITZERLAND, FRANCE, ITALY and BELGIUM. [TREATY, COMMERCIAL.]			
<b>TURKEY</b> - - - - -			
100 piasters piece of Turkish gold (1852) - - - - -	4 15 <i>g.</i>	W. 0 0 1-10	0 18 1
20 " (1807) - - - - -	1 1 <i>g.</i>	W. 1 3 <i>g.</i>	0 3 10
20 " (1839) - - - - -	2 7 <i>g.</i>	W. 0 0 1-10	0 3 0
20 " (1839) - - - - -	0 29 <i>g.</i>	W. 0 0 1-10	0 3 0
<b>UNITED STATES (America)</b> - - - - -			
50 dollars piece, California (1851) - - - - -	54 3 <i>g.</i>	W. 0 0	10 5 8
20 " (1860), 10, 5, 3, 2 <i>g.</i> , 1, in proportion - - - - -	21 12	W. 0 0	4 2 2
5 dollars piece (1810) - - - - -	5 15	standard	1 1 10 <i>g.</i>
2 <i>g.</i> (1769) - - - - -	2 19 <i>g.</i>	"	0 10 11

AUSTRIA -

BELGIUM -

BRAZIL -

CHINA -

DENMARK -

FRANCE -

GERMANY -

GREAT BRITAIN -

GREECE -

HOLLAND -

ITALY -

JAPAN -

MEXICO -

PORTUGAL -

ROME -

RUMIA -

SOUTH AMERICAN REPUBLICS -

SPAIN -

TURKEY -

UNITED STATES (America) -

VII. Table showing the Legal Weight, Fineness, and Value of the Principal Silver Coins of all Countries computed at the Rate of 5s. 2d. per Ounce of Standard Silver.

Coins		Legal Weight	Legal Fineness	Value in Sterling	
AUSTRIA	Maria Theresa thaler (1780), Levant thaler	23 77	900	4 2	
	Kronenthaler (1797)	18 24	900	4 7 1/2	
	Conventhaler (1815)	18 14	900	4 6	
	2 gulden piece (1839)	15 21	900	3 11 1/2	
	Vereinthalers of 14 gulden (1858)	11 21 1/2	900	2 11 1/2	
	5 gulden (1858)	7 2 1/2	900	2 0	
BELGIUM	Zwanziger, 20 kreuzers (1848)	4 7 1/2	900	0 8 1/2	
	6 kreuzer piece (1849)	1 5 1/2	900	0 1 1/2	
	See FRANCE and the Monetary Convention concluded between BELGIUM, FRANCE, SWITZERLAND, and ITALY in Dec. 1865.				
	2 milreis piece of 2,000 reis (1856), 1 and 1/2 in proportion	16 9 1/2	900	4 2 1/2	
	1 " " " "	23 13	900	6 6	
	1 " " " "	18 23 1/2	900	4 6 1/2	
BRAZIL	2 rigdalar piece (1855), 1, 1-2, 1-8, 1-16, 1-12 in proportion	18 23 1/2	900	4 6 1/2	
	5 francs piece (1856)	7 1 1/2	900	4 0	
	1 " " " "	6 10 1/2	900	1 7 1/2	
	1 " " " "	3 5 1/2	900	0 9 1/2	
	50 centimes piece (1856)	1 14 1/2	900	0 5 1/2	
	25 " " " "	0 19 1/2	900	0 2 1/2	
CHINA	20 " " " "	0 15 1/2	900	0 2	
	According to the Monetary Convention concluded between FRANCE, BELGIUM, SWITZERLAND, and ITALY, the 2 francs, 1 franc, 50 centimes, 25 and 20 centimes pieces are to be issued only, 835-1000 (W. 1 1/2) fine, and the intrinsic value of these coins will therefore be proportionately reduced.				
	GERMANY	Baden, 3/4 gulden or 2 thaler piece (1852)	23 20 1/2	900	6 7
		2 gulden piece (1851)	13 13 1/2	900	5 5 1/2
		1 " " " "	6 19 1/2	900	3 8 1/2
		1 " " " "	6 19 1/2	900	1 8 1/2
1 " " " "		3 5 1/2	900	0 10 1/2	
1 " " " "		11 21 1/2	900	2 10 1/2	
DENMARK	Bavaria, kronenthaler (1816)	18 23 1/2	900	4 7 1/2	
	3/4 gulden piece, see BADEN.				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
FRANCE	vereintenthaler piece, see PRUSSIA.				
	Brunswick, 2 thaler piece, see PRUSSIA.				
	1 " " " "				
	vereintenthaler, after 1857, see PRUSSIA.				
	Hamburg, 1 marc (1855), 1/2, 1/4, 1/8 in proportion	5 2 1/2	900	1 2 1/2	
	1 schilling (1857)	0 16 1/2	900	0 6 1/2	
GREAT BRITAIN	Hanover, 2 thaler piece (1855), see BADEN.				
	1 " " " "				
	vereintenthaler (1859)				
	1 " " " "				
	1 " " " "				
	1 " " " "				
INDIA	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
ITALY	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
NETHERLANDS	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
PRUSSIA	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
RUSSIA	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
SPAIN	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
SWITZERLAND	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
UNITED STATES	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				
	1 " " " "				

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VII. Table showing the Legal Weight &c. of Silver Coins—continued.

Coins		Legal Weight	Legal Fineness	Value in Sterling
		dis. gra.	crs. dwts.	s. d.
SPAIN (continued)	- Media peseta of 2 reales (1860)	1 16	W. 0 6	0 5
	- Real (1860)	0 20	W. 0 6	0 5
SWEDEN	- Riksdaler species (1842)	32 6	W. 2 2	4 8
	- Riksdaler species (1842)	5 11 1/2	W. 2 2	1 1 1/2
SWITZERLAND	- See FRANCE and Monetary Convention concluded in December 1865 between SWITZERLAND, ITALY, FRANCE, and BELGIUM.			
TURKEY	- 20 piasters piece (1845), 10, 5, 2, 1 in proportion	15 11 1/2	W. 1 2 1/2	3 7 1/2
UNITED STATES	- Dollar (1857)	17 4 1/2	W. 0 6	4 3 1/2
	- 1 dollar, 50 cents (1858)	8 0	W. 0 6	2 0 1/2
	- 1 dollar, 25 cents (1861)	4 0	W. 0 6	1 0
	- 1-10 dollar, dime (1860)	1 14 1/2	W. 0 6	0 4 1/2
	- 1-20 dollar, 1 dime (1860)	0 19 1/2	W. 0 6	0 5 1/2

**Monetary Convention.**—The following is a translation of the Monetary Convention recently concluded between France, Belgium, Italy, and Switzerland:—

**Preamble.**—His Majesty the King of the Belgians, his Majesty the Emperor of the French, his Majesty the King of Italy, and the Swiss Confederation, being equally desirous of establishing a more complete harmony between their monetary legislation, to remedy the inconveniences which press upon the communications and transactions between the inhabitants of their respective states in consequence of the diverse values of their coined moneys, and to contribute by the formation of a Monetary Union to the progress of uniformity in weights, measures, and currency, have resolved to conclude a convention to that effect, and have agreed upon the following articles:—

Art. 1. Belgium, France, Italy, and Switzerland are constituted a Union as respects the weights, values, form, and currency of their respective coinages in gold and silver. No change is made at present in the legislation relating to the copper money of each of the states.

Art. 2. The high contracting parties engage not to coin, nor allow to be coined, bearing their impressions and designs, any gold moneys in any other forms than those of gold pieces of 100 francs, 50 frs., 20 frs., 10 frs., and 5 frs., fixed as to weight, value, allowance for loss and diameter as follows:—

Nature of pieces	Full weight	Allowance in weight at home and abroad	Standard	Allowance from Standard	Diameter.
	grammes	1000th parts	1000th parts	1000th parts	milli-metres
frances 100	7.258.06	1	900	2	55
50	3.629.03	1	900	2	42
20	1.511.61	1	900	2	31
10	755.80	1	900	2	19
5	377.90	1	900	2	17

They shall receive without distinction into their public treasuries gold pieces coined according to the foregoing conditions in one or other of the four states, with the reservation, nevertheless, of excluding all coins whose weight shall have been reduced by wear to the extent of 1/2 per cent. below the allowances mentioned above, or where the stamped impressions shall have become effaced.

Art. 3. The contracting Governments bind themselves not to make, nor allow to be made, silver pieces of 5 francs except according to the conditions of weight, standard, allowance, and diameter fixed as follows:—

Full weight	Allowance	Full Standard	Allowance	Diameter
25 grammes	5/1000	900	2/1000	37 millimètres

They shall mutually receive the said coined pieces into their public treasuries, with the right of excluding those which shall have lost weight by

wear to a greater extent than 1 per cent. below the allowance above mentioned, or where the stamped impression shall have become effaced.

Art. 4. The high contracting parties henceforth shall not manufacture silver pieces of 2 frs., 1 fr., 50 centimes, and 20 centimes, except according to the conditions of weight, standard, allowance, and diameter as follows:—

Description	Full weight	Allowance in weight	Full standard	Allowance	Diameter
	grammes	1000th parts	1000th parts	1000th parts	milli-metres
frances 2	10	5	835	3	27
1	5	5			23
0.50	2.50	7			18
0.20	1	10			16

These pieces shall be recast by the Governments that issued them when they shall have become reduced by wear to the extent of 5 per cent. below the above-mentioned allowance, or when their stamped impressions shall have become effaced.

Art. 5. The silver pieces of 2 frs., of 1 fr., of 50 centimes, and of 20 centimes manufactured otherwise than according to the various conditions specified in the foregoing article shall be withdrawn from circulation before January 1, 1869. This period is extended until January 1, 1878, in respect of pieces of 2 frs. and 1 fr. issued in Switzerland by virtue of the law of January 31, 1860.

Art. 6. Silver pieces manufactured according to the conditions of Art. 4 shall have legal currency among private individuals in the state which has manufactured them to the extent of 50 frs. in a single payment. The state which has issued them shall receive them from its own countrymen without any limit of quantity.

Art. 7. The public treasuries of each of the four countries shall accept silver moneys coined by one or several of the other contracting states in conformity with Art. 4 to the extent of 100 frs. in each single payment to such mentioned treasuries.

The Governments of Belgium, France, and Italy shall receive upon the same terms until January 1, 1878, the Swiss pieces of 2 frs. and 1 fr. issued by virtue of the law of January 31, 1860, and which are assimilated in all respects during the same period to pieces manufactured in accordance with the conditions of Art. 4. The reservation in respect of wear mentioned in Art. 4 applies in all cases.

Art. 8. Each of the contracting Governments undertakes to receive back from individuals or from the public treasuries of the other states the old coinage which it has issued, and to exchange it for an equal value in current coin (gold pieces of 5 fr. pieces in silver) upon condition that the sum presented for exchange shall not be less than 100 frs. This obligation shall be prolonged for a period of 2 years from the date of the expiration of the present treaty.

Art. 9. Has  
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Art. 10. Th  
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Art. 12. The  
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Art. 14. The  
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ner for further p  
of notice.  
Art. 15. Relat  
vention made in  
1865.  
Notes to the T  
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VIII. Gold Coins  
Principal  
England,  
each other

\* \* \* The publishers of originally appeared.

APATHIAN	Souver
DOMINIONS	Double
	Caroli
BAVARIA	Caroli
	Med d
	Pucat
BERN	Ducat
	Pistole
BRUNSWICK	Pistole
	Ducat
GLORON	Ducat
DANMARK	Ducat
	Christ
	Guine
ENGLAND	Guine
	5 s. pie
	2 s. pie
FRANCE	Double
	Double
	Louis
	Louis
	Double
	Napol
	New
FRANKFORT ON THE M.	Pistole
GENOVA	Pistole
	Nequi
GENOA	Nequi
HAMBURG	Ducat
HANOVER	Georg
	Ducat
	Gold
HOLLAND	Double
	Hydr
	Ducat
MALTA	Double
	Louis
	Deni
MILAN	Nequi
	Dopp
	40 li
NAPLES	6 unc
	2 unc
	3 du

\* The London Assays by Pierre Frederic Bonn... Specimens of all the... Bank of England, by or... rained the Tables in... assays; and that all... credit, published in 18

Art. 9. Has reference to the number of coins to be issued by each state according to the respective populations.

Art. 10. The date of colnago shall hereafter be stamped upon pieces of gold and silver struck in any of the four states.

Art. 11. Has reference to mutual communications between the states as to their issue of coins &c.

Art. 12. The right of acceding to this convention is reserved to any other state which shall accept its obligations, and which shall adopt the monetary system of the Union in whatever relates to gold and silver specie.

Art. 13. Has reference to the application of the constitutional laws in the four states with respect to the execution of this treaty.

Art. 14. The present convention shall remain in force until January 1, 1880. If one year prior to that date notice to determine it shall not have been given, it shall remain obligatory in full force for a further period of 15 years, and in like manner for further periods of 15 years in the absence of notice.

Art. 15. Relates to the ratification of this convention made in four parts at Paris December 23, 1865.

Notes to the Tables of Foreign Coins.—The intrinsic value of many coins enumerated in the above tables may not be stated with perfect accuracy, as in some countries the legal mint standards are not strictly adhered to; but those to

whom a knowledge of the exact value of gold and silver coins is more particularly essential are not likely to be misled by it.

The statements (reports) of the purity of gold and silver coins by English assayers are made in comparison with the fixed English standards, and the comparative difference is called their *betterness* or *worseness*, as the case may be.

*Betterness* means better than standard, and is expressed by the letter B; *worseness* means worse than standard, and is expressed by the letter W. Thus for a gold coin, B 1. 2 means 1 carat and 2 carat grains better than standard gold, and consequently contains 23 carats and 2 carat grains of pure gold and 2 carat grains of alloy.

For a silver coin, W 2. 2 means that it is 2 oz. 2 dwts. worse than standard silver, and consequently contains only 9 oz. of pure silver and 3 oz. of alloy.

The fineness of gold and silver coin in France is expressed in *millièmes* or thousandth parts: thus a gold or silver coin of  $\frac{950}{1000}$  fine means that it contains 950 parts of pure gold or silver and 50 parts of alloy.

Nos. VIII. and IX.—As they contain much curious and useful information, we reprint the tables of the gold and silver coins of different countries from Dr. Kelly's *Cambist*, that appeared in previous editions of the *Commercial Dictionary*.

VIII. Gold Coins of different Countries.—Table containing the Assays, Weights, and Values of the Principal Gold Coins of all Countries, computed according to the Mint Price of Gold in England, and from Assays made both at London and Paris, which have been found to verify each other.\*

\*. \* The publishers of this work purchased the right to publish this Table from Dr. Kelly, in the second edition of whose *Cambist* it originally appeared.

Coins	Assay	Weight	Standard Weight	Contents in Pure Gold	Value in Sterling.	
					gr.	s. d
AUSTRIAN } Sovereign	W. 0 01	5 14	3 13 15	78.6	15 10 92	
	H. 1 23	4 12	4 20 5	105.4	15 9 37	
BOHEMIA } Ducat Krennits, or Hungarian	H. 1 3	2 52	2 10 3	57.3	9 5 91	
	W. 3 2	6 51	5 5 10	115*	20 4 23	
SAVARIA } Ducat	W. 3 23	4 4	3 14 0	77*	13 7 44	
	H. 1 24	2 52	2 19 11	52.8	9 4 12	
BERN } Ducat (double &c. in proportion)	H. 1 12	1 23	2 2 1	45.9	8 1 48	
	W. 0 14	4 21	4 19 0	105.5	18 7 46	
BRUNSWICK } Pistole (double in proportion)	W. 0 14	4 21	4 19 5	105.7	18 8 48	
	H. 1 03	2 52	2 8 9	51.8	9 2 4	
COLON } Ducat	H. 1 2	2 52	2 5 3	52.6	9 3 70	
	W. 0 32	2 0	1 21 19	42.2	7 5 62	
DENMARK } Ducat specie	B. 1 2	2 52	2 9 8	52.6	9 3 70	
	W. 1 1	4 7	4 5 16	93.3	16 6 11	
ENGLAND } Guinea	Standard	5 9 4	5 8 10	118.7	21 0 0*	
	Standard	2 16 3	2 16 15	59.3	10 6 0*	
FRANCE } Louis	Standard	1 19	1 19 0	35.6	7 0 13	
	Standard	5 34	5 3 5	113.1	20 0 0*	
FRANCE } Double Louis (coined before 1786)	W. 0 2	10 11	10 5 6	234.9	39 9 61	
	W. 0 2	5 53	5 2 12	112.4	10 10 71	
FRANCE } Double Louis (coined since 1786)	W. 0 1	8 20	9 15 15	212.6	37 7 53	
	W. 0 14	4 22	4 19 19	106.3	18 9 75	
FRANCE } Napoleon, or piece of 40 francs	W. 0 13	8 7	8 3 0	179*	31 8 36	
	W. 0 13	4 33	4 1 10	89.7	15 10 5	
FRANKFORT ON THE MAINE } Ducat	B. 1 23	2 52	2 9 14	52.9	9 4 71	
	W. 0 2	4 21	4 4 18	92.5	16 4 15	
GENOVA } Pistole, new	W. 0 04	3 153	3 15 4	80*	14 1 9	
	B. 1 35	2 52	2 10 6	53.4	9 5 11	
GENOVA } Ducat (double in proportion)	W. 0 2	5 53	5 9 14	125.9	19 5 59	
	W. 0 11	4 63	4 5 3	92.6	16 4 6	
HAMBURG } Ducat	H. 1 23	2 52	2 10 3	57.3	9 5 91	
	W. 3 03	2	1 18 6	37*	6 10 83	
HANOVER } George d'or	Standard	12 21	12 21 0	283.2	50 1 46	
	Standard	6 9	6 9 0	140.2	24 9 75	
HOLLAND } Ryder	H. 1 24	2 52	2 9 12	52.8	9 4 13	
	Standard	10 16	9 18 18	215.3	38 1 25	
MALTA } Louis	W. 1 5	5 8	4 21 16	108*	19 1 37	
	W. 1 24	2 16	2 11 3	54.5	9 7 75	
MILAN } Sequin	H. 1 3	2 52	2 40 0	53.2	9 4 36	
	W. 0 1	4 13	4 0 8	88.4	15 7 74	
NAPLES } Doppia or pistole	W. 0 2	8 8	8 4 0	179.7	31 9 84	
	W. 0 2	4 16	4 12 18	121.9	21 6 89	
NAPLES } 40 lire piece of 1808	W. 1 24	1 204	1 16 6	37.4	6 7 42	
	H. 1 33	2 103	2 15 1	58.1	10 3 40	

\* The London Assays in this Table were made by Robert Bingley, Esq. F.R.S., the King's Assay Master of the Mint, and those at Paris by Pierre Frédéric Bonjevy, Essayeur du Commerce, as published in his elaborate work on the Coins of all Nations. Specimens of all the foreign coins brought to London for commercial purposes have been supplied for this Table from the Bullion Office, Bank of England, by order of the Bank Directors, and have been selected by John Humble, Esq., the chief clerk of that office, who also examined the Tables in their progress. It may likewise be added, that the Mint Reports of the commercial coins are chiefly from average assays; and that all the computations have been carefully verified by different calculators.—(Note by Dr. Kelly to second edition of the *Cambist*, published in 1821.)

VIII. Gold Coins of different Countries—continued.

Countries	Coins	Assay	Weight		Standard Weights	Contents in Pure Gold	Value in Sterling
			gr.	dwt. gr.			
NETHERLANDS	Gold lion, or 14 florin piece	car. gr. 5 7/8	4 7/8	5 7/16	366	20 8-89	
	10 florin piece (1890)	W. 0 14	18 9	4 8 15	37-4	16 9-99	
PARMA	Quadruple pistole (double in proportion)	W. 0 3	4 14	4 10	97-4	68 3-78	
	Pistole - duppa of 1757	W. 0 10	4 14	4 14	95-9	17 7-85	
PIEMONTE	Marie Theresa (1818)	W. 0 11	4 30	4 1 10	97-7	16 11-57	
	Pistole (4 in proportion)	W. 0 11	4 30	5 17 0	129-8	15 10-35	
POLAND	Ducat	Standard	18 6	18 6	152-2	22 2-75	
	Dobron of 14,000 rees	Standard	18 6	18 6	152-2	9 4-54	
PORTUGAL	Dobra of 14,000 rees	W. 0 08	18 6	18 6	152-2	14 7-65	
	Piece of 16 tostons, or 1,600 rees	W. 0 08	18 6	18 6	152-2	8 8-70	
PRUSSIA	Gold rouble of 1756	Standard	18 6	18 6	152-2	71 0-70	
	Ducat of 1787	W. 0 11	17 9	17 9	129-8	26 11-21	
ROMANIA	Leu of 1878	Standard	18 6	18 6	152-2	154 3-98	
	Leu of 1899	Standard	18 6	18 6	152-2	71 0-70	
RUSSIA	Rouble of 1756	Standard	18 6	18 6	152-2	26 11-21	
	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
SERBIA	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
SICILY	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
SPAIN	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
SWEDEN	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
TURKEY	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
UNITED STATES	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
WEST INDIES	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
EAST INDIES	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	
	Ducat of 1787	W. 0 11	17 9	17 9	129-8	154 3-98	

\* Much variation is found in the fineness of the Sicilian gold coins. Its weight was then reduced from 246 gr. pure gold to 232 do.; and hence, as the American eagle coined previously to 1834. Its weight was then reduced from 246 gr. pure gold to 232 do.; and hence, as the eagle is the equivalent of 10 dollars, the sovereign, which was previously worth 4 dots, 50 cents, has since been worth 4 dots, 87 cents. The reader will find in the art. New York in this work, full details in regard to the coins of the United States with the values of other coins rated in them.

IX. Silver Coins of different Countries.—Table containing the Assays, Weights, and Values of the Principal Silver Coins of all Countries, computed at the Rate of 6s. 2d. per Ounce Standard, from Assays made both at the London and Paris Mints.

Countries	Coins	Assay	Weight		Standard Weights	Contents in Pure Silver	Value in Sterling
			gr.	dwt. gr.			
AUSTRIA	Rixdollar of Francis II. (1860)	W. 1 5	18 1	18 1	355-5	4 1-61	
	Rixdollar of the kingdom of Hungary	W. 1 5	18 1	18 1	355-5	4 2-39	
BADEN	Rixdollar of 10 batzen	W. 1 3	9 0	9 0	175-6	2 1-07	
	Rixdollar of 20 kreutzer piece	W. 1 3	9 0	9 0	175-6	2 1-07	
BAVARIA	Rixdollar of 1800 (4 in proportion)	W. 1 3	9 0	9 0	175-6	2 1-07	
	Rixdollar of 1800 (4 in proportion)	W. 1 3	9 0	9 0	175-6	2 1-07	
BERN	Rixdollar of 1800 (4 in proportion)	W. 1 3	9 0	9 0	175-6	2 1-07	
	Rixdollar of 1800 (4 in proportion)	W. 1 3	9 0	9 0	175-6	2 1-07	
BRUNSWICK	Rixdollar of 1800 (4 in proportion)	W. 1 3	9 0	9 0	175-6	2 1-07	
	Rixdollar of 1800 (4 in proportion)	W. 1 3	9 0	9 0	175-6	2 1-07	
DENMARK	Rixdollar of 1800 (4 in proportion)	W. 1 3	9 0	9 0	175-6	2 1-07	
	Rixdollar of 1800 (4 in proportion)	W. 1 3	9 0	9 0	175-6	2 1-07	

Countries	Coins	Value in Sterling
ENGLAND	Crown	25 0-00
	Half crown	12 6-00
FRANCE	20 francs	3 25-00
	10 francs	1 62-50
GERMANY	100 marks	4 16-67
	50 marks	2 8-33
NETHERLANDS	100 florins	16 10-00
	50 florins	8 5-00
PRUSSIA	100 marks	4 16-67
	50 marks	2 8-33
RUSSIA	100 rubles	13 10-00
	50 rubles	6 15-00
UNITED STATES	100 dollars	4 00-00
	50 dollars	2 00-00

\* By one of the articles made either in Prussia or in the Netherlands, nominally reckoned to be the term 24 guineas, minted or valued in 30 at least, the value of this ready obtained; as each florin of Austria, and also in order, therefore, to be taken was entered into the from the mark's weight should be adopted for the from the mark's weight of 594.

IX. Silver Coins of different Countries—continued.

Coins	Assay	Weight	Standard Weight	Contents in Pure Silver	Value in Sterling
ENGLAND	Crown (old)	on. dwt. 19 24	dwt. gr. 19 8 10	dwt. gr. ni. 9 16 5	42 2 6
	Half crown	Standard	9 16 5	9 16 5	2 6
	Milling	Standard	5 31	5 31 0	1 0
	Silvers	Standard	1 24	1 24 10	0 6
	Crown (new)	Standard	18 4 4	18 4 7	4 8 5 6
FRANCE	Half crown	Standard	9 2	9 2 4	2 4 18
	Piece of 2 francs	Standard	5 15	5 15 6	1 12 2
	Piece of 1 franc	Standard	1 9 3	1 9 3 4	0 5 6 3
	Piece of 5 francs	W. 0 7	16 1	15 12 4	3 4 4 1
FRANKFORT	Piece of 2 francs	W. 0 7	6 11	6 6 2	1 38 8
	Demi-franco	W. 0 8 1	3 5 1	3 3 1	0 69 4
GENOVA	Patagon	W. 1 0	17 9	15 19 8	3 51 1
	Piece of 15 sous of 1794	W. 2 6	2 1 1	1 15 1	0 36 1
HAMBURG	Rixdollar, specie	W. 0 10	18 18	17 21 12	3 97 5
	Double mark, or 32 schilling piece (single in proportion)	W. 2 3	11 18	9 11 8	2 410 3
HANOVER	Piece of 4 schillings	W. 3 12	3 8 3	2 6 4	0 6 99
	Rixdollar, Convention (See Art. HAMBURG.)	W. 4 6	2 2	1 6 12	0 3 95
	Florin, or piece of 1/2 rixdollar	W. 0 9	18 10	18 0 10	4 430 3
	1/4 florin, or piece of 1/4 ditto	W. 0 16	4 4	4 11 4	0 99 2
	1/8 florin, or piece of 1/8 ditto	W. 0 16	2 2	2 4 10	0 48 6
HESSIAN CAMEL	Rixdollar, Convention	W. 2 1	11 0 3	8 23 5	3 196 2
	Florin, or piece of 1/2 (1/3 in proportion)	W. 1 6	18 1	15 22 6	3 35 3
	Half of 1796	W. 1 6	9 0 1	7 25 3	1 78 8
	Ecu, Convention (1815)	W. 1 6	17 25 3	15 21 2	3 159 3
HOLLAND	Bon gros	W. 6 14	4	0 11 5	10 3 0
	Rixdollar	W. 0 13	30 22	21 4 1 1/2	4 471 6
	Florin or guildier (1/3 in proportion)	W. 0 4 1/2	6 18	6 14 11 1/2	1 46 8 1/2
	1/2 silver piece	W. 0 16 1/2	4 12	4 3 18	0 99 1
	Rixdollar, or 50 silver piece	W. 0 5 1/2	17 0	16 13 18	3 367 9
LUBEC	Rixdollar, specie	W. 0 13 1/2	18 8	17 15 12	3 91 9
	Double mark	W. 2 3	11 8	9 11 8	2 536 5
	Mark	W. 2 3	9 21	4 17 14	1 105 1
	Schudo	W. 0 3	17 0	16 18 10	3 372 3
MALTA	Scudo	W. 2 5	15 1 1/2	15 4 14	3 537 4
	1/2 tari piece	W. 2 19	1 2	0 19 2	1 17 7
	Scudo of 6 lire (1/3 in proportion)	W. 0 7	14 20 1/2	14 9 10	3 519 6
MODENA	Scudo of 15 lire, 1759 (double &c. in proportion)	W. 0 14	18 1 1/2	17 8 9	3 352 4
	Scudo of 5 lire, of 1789	W. 0 3	5 19	5 17 2	1 120 8
	Scudo of 1789	W. 0 3	3 18	3 12 1/2	0 287 1
	Ducat, new (1/3 in proportion)	W. 1 0	14 15	13 7 8	2 295 4
	Piece of 12 Carlini of 1791	W. 1 0	17 15	16 0 18	3 356 4
NETHERLANDS	Ditto of 1805 (1/3 in proportion)	W. 1 2	17 18 1/2	15 23 18	3 352 4
	Ditto of 10 Carlini (1818)	W. 1 2	18 18	15 7 0	3 295 1
	1/2 florin (1/3 in proportion)	W. 0 11	15 0	17 19 0	3 302 2
	Florin of 1816	W. 0 7 1/2	6 22	6 16 6	1 148 1
	1/4 florin (with divisions in proportion)	W. 0 1 5 1/2	5 11	5 9 2	0 75 0
POLAND	Ditto of 1796 (1/3 in proportion)	W. 0 5 1/2	16 12 1/2	16 2 18	3 357 9
	Piece of 3 lire	W. 1 4	4 14	4 3 2	1 90 7
	Seis vintems, or piece of 180 rees (1802)	W. 1 2	18 1	16 6 2	3 309 4
	Ditto, new (1794)	W. 2 17	15 10 1/2	11 11 6	2 251 3
	1/2 florin, or gulden	W. 4 2	6 0	5 18 16	8 1 1/2
PORTUGAL	Ditto of 1690	W. 0 4	11 0	10 19 0	2 259 2
	Ditto (1718)	W. 0 6 1/2	9 8	9 1 0	2 209 2
	Ditto (1795)	W. 0 7	9 9	9 18	2 211 6
	Three vintems, or piece of 210 rees (1799)	W. 0 7	4 16	4 12 10	1 100 4
	Testoon (1799)	W. 0 7	2 0 1/2	1 22 18	0 45 1
PORTUGUESE COLONIES	New cruzado (1809)	W. 0 4	9 3	8 23 0	1 198 2
	Seis vintems, or piece of 180 rees (1802)	W. 0 9	2 4 1/2	2 2 8	0 46 6
	Testoon (1802)	W. 0 9	2 0	1 12 0	0 42 5
	Tres vintems, or piece of 60 rees (1802)	W. 0 9	1 2 1/2	1 1 4	0 23 5
	Half testoon (1812)	W. 0 9	5 2 1/2	0 22 0	0 20 4

\* By one of the articles of the Zollverein, or Customs-Union of Germany, it was stipulated that the settlements for the duties should be made either in Prussian dollars or in florins, at the rate of 7 florins for 4 Prussian dollars. These were, however, no florins in existence exactly of this value: but as the nearest approach to it was a valuation called the 24 guldenflorin, or florin-flor, these Zollverein florins were nominally reckoned to be in this rate, though the difference amounts to more than 2 per cent.

† The term 24 guldenflorin signifies that the mark weight of fine silver is rated at 24 gulden or florins. It was formed by giving to the coin minted or valued in 20 guldenflorin an increased value of one-fifth, as rating the 20 kreutzer piece at 24 kreutzers. At 100 per ounce standard, the value of this mark of fine silver is worth 40s. 7 1/2d. sterling, from which the value of the different florins... monetary integers is readily obtained: as reckoning 27 1/2 marks banco or 53 marks current of Hamburg, 14 dollars of Pa. 4s. 21/2 florins of South Germany, 20 florins of Austria, and also 60 lire, a quadrato of Lombardy, to be of this amount.

‡ In order, therefore, to prevent the loss or inconvenience which would attend their adhering to this mode of valuation, a money convention was entered into on August 25, 1837, among the States forming the Union, by which it was agreed upon that a new basis of valuation should be adopted for their coins, under the term of Suddentscher Wahrung, or South German valuation, at the rate of 24 gulden or florins from the mark's weight of fine silver.

§ Bavaria, Wurttemberg, Baden, and Saxony have since issued their coins at this rate, and the other States of the Confederation are doing or preparing to do the same. Among them Frankfurt, in 1840, began the mintage of coins of this value; and by a regulation of the Chamber of Commerce of this free city, all the rates of exchange, as well as the values of bullion and foreign coins, were ordered to be expressed in this Suddentscher Wahrung from the beginning of the present year (1843). One of these new and very exactly-minted florins was assayed by Messrs. Johnson and Cook of London Garden, who reported it to be, full weight, 19 1/2 grains, or 5 1/2 grains more than the old florin, from which the value, at 60d. per ounce standard, is very exactly 19 1/2d. sterling, making the par of exchange with London 1208 florins in S. D. W. for 100 sterling.

¶ I have been thus particular in these explanations, partly because several persons imagine that the late alteration in the rate of exchange with Frankfurt was made in compliance with the wishes, or to suit the convenience, of one or more of our leading houses in exchange negotiations, but more particularly because it is maintained by many that the valuation of this rate is not merely nominally, but really, in 24 guldenflorin. This is a point of no small importance to the commercial world, for had it been so, the par of exchange with London would have been only 118 florins, and the difference between this and the 7 per cent price of 121 1/2 florins on Frankfurt would have exceeded 2 1/2 per cent. a variation which every practical capitalist well knows could not exist, except under very extraordinary circumstances, and with nearly corresponding differences in the other rates of exchange: neither of which causes is now in operation.—(Letter of William To, Esq., Author of 'The Comlist,' to the Times.)

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7 59  
4 63  
0 9 6

IX. Silver Coins of different Countries—continued.

Coins	Assay	Weight	Standard Weight	Contents in Pure Silver	Value in Sterling			
					£ s. d.	¢		
PRUSSIA	* Rixdollar, Prussian currency (4 in proportion)	W. 2 5	14 6½	11 9 0	252.8	2	11.27	
	Rixdollar, Convention	W. 1 3	16 1	16 3 2	339.5	4	9.15	
	Florin, or piece of 2	W. 2 3	11 2	8 22 4	198.4	2	5.70	
	Florin of Silesia	W. 2 2	9 11	7 16 0	170.3	1	11.74	
	Triel, or piece of 3 good groschen	W. 2 5	5 9½	5 40 4	65.5	0	11.91	
ROME	Piece of 6 groschen	W. 2 9	5 3	4 23 4	63.3	0	8.69	
	Scudo, or crown (coined since 1753)	W. 0 4	17 1	16 17 13	371.5	4	3.87	
	Mezzo scudo, or half crown	W. 0 4	8 12½	8 8 16	185.7	2	1.98	
	Testone (1785)	W. 0 5	5 3	4 23 4	112.5	1	3.00	
	Paolo (1785)	W. 0 4	1 17	1 16 4	37.2	0	5.19	
	Grosso, or half Paolo (1785)	W. 0 5	0 20½	0 20 0	18.5	0	2.38	
	Scudo of the Roman Republic (1799)	W. 0 6	17 1	16 13 18	369.1	4	3.00	
RUSSIA	Rouble of Peter the Great	W. 2 7	18 1	14 1 8	312.1	3	7.56	
	Ditto of Catherine I. (1725)	W. 2 4½	17 11	13 23 0	309.9	3	7.27	
	Ditto of Peter II. (1727)	W. 2 12	18 5½	13 23 4	319	3	7.26	
	Ditto of Anne (1731)	W. 1 11	16 14½	14 6 16	317.2	3	8.29	
	Ditto of Elizabeth (1750)	W. 1 7	16 12	14 11 16	321.9	3	8.93	
	Ditto of Peter III. (1762)	W. 2 2	15 10	12 12 0	277.5	3	2.75	
	Ditto of Catherine II. (1780)	W. 2 4	15 12	12 10 6	275.9	3	2.52	
SARDINIA	Ditto of Alexander	W. 0 16	13 12	12 12 12	278.1	3	2.83	
	N.B. It was ordered by a ukase, dated July 1, 1870, that this coin should be the standard of value in Russia. It is divided into 100 copecks; and the other silver coins are of the value of 25, 50, 25, and 10 copecks each. This same ukase enacts that 1 silver rouble shall henceforth be equal to 51 old paper roubles.							
	Bine	1816 the money of Sardinia has been identical with that of France. The scudo of Genoa, = 6 fr. 56 cents.						
	Rixdollar, Convention (4 and 1 in proportion)	W. 1 3	18 0	16 5 4	358.2	4	2.01	
	Piece of 10 groschen of Leipzig	W. 2 2	9 9½	7 14 16	169.1	1	11.61	
	Rixdollar current of Saxe-Gotha	W. 4 4½	18 1	11 4 2	218.1	2	10.64	
	1-6 thaler of 1804	W. 4 3	3 11	2 0 19	43.3	0	6.92	
	Ditto of 1808	W. 4 11½	3 54	3 54	321	0	3.87	
	Ditto of Jerome Bonaparte of 1809	W. 5 4	3 17	2 3 6	43.7	0	6.10	
	Scudo (3 in proportion)	W. 1 4	17 14	15 16 6	349.2	4	0.62	
SICILY	Real of 8 grains	W. 0 8	7 21	6 7 12	119	1	4.10	
	1 Dollar, of late coinage	W. 0 8	17 8	16 17 0	370.9	4	3.79	
	Half dollar, ditto	W. 0 8	8 16	8 8 10	185.3	2	1.98	
	Mexican pecunia (1774)	W. 0 8	4 7 1	4 3 16	92.3	1	0.98	
	Real of Mexican plate (1775)	W. 0 8	2 5½	2 1 20	46.1	0	6.13	
	Pecunia provincial of 2 reals of new plate (1775)	W. 1 9½	3 18	3 6 0	74.2	0	10.08	
	Real of new plate (1795)	W. 1 9½	1 21	1 15 0	261	0	5.04	
	Ditto of late coinage	W. 0 12	18 20	17 19 10	395.5	4	7.24	
	Scudo of Lucerne (1796)	W. 0 11½	17 12	17 12 0	368.5	4	6.98	
	Half ditto	W. 1 2	9 20	8 20 12	196.7	2	5.16	
SWEDEN	Florin, or piece of 10 schillings of Lucerne (1795)	W. 1 5	4 22	4 8 11	96.8	1	1.91	
	Ecu of 40 batzen of the Helvetic Republic, 1798 (1 in proportion)	W. 0 6	18 25	18 10 11	409.5	4	9.18	
	Ecu of 4 franken	W. 0 7	18 53	18 8 12	407.6	4	9.18	
	1/2 Piastre of Selim of 1801	W. 5 6	8 6	4 7 8	95.7	1	1.36	
	Piastre of Orin Factory (1778)	W. 6 13	10 5	4 2 4	80.9	1	0.69	
	Piastre of Tunis (1787)	W. 6 5½	10 0	4 8 6	96.5	1	1.17	
	Piastre (1818)	W. 5 14	5 6½	5 1 4	67.7	0	9.43	
	Piece of 10 padoi of the kingdom of Etruria (1801)	W. 0 4	17 13½	17 5 18	382.9	4	3.86	
	Scudo Pisa of ditto	W. 0 2	17 12	17 8 4	382.0	4	3.76	
	Piece of 10 lire ditto	W. 0 7	25 6	26 1 12	574.7	6	8.80	
UNITED STATES	Lira	B. 0 7	2 8	2 9 16	53.4	0	7.45	
	* Since 1853 the weights and values of the American silver coins have been as follows, viz. :—							
	Dollar of 10 dimes, weight 412½ gr. standard silver	= 37.5545 sterling.						
	Half ditto	= 18.77725 "						
	Quarter ditto	= 9.388625 "						
	Dime	= 3.75545 "						
	N.B. The half and quarter dollars not being of full weight, are merely a subsidiary currency, and are legal tender to the extent of only five dollars.							
	Piece of 2 lire, or 21 kreutzers (1800)	W. 8 4½	5 10½	1 12 2	35.4	0	4.66	
	Ditto, moneta provinciale	W. 8 3	5 13½	1 11 8	32.8	0	4.58	
	Ditto of 2 lire, 1802 (1/2 and 1/3 in proportion)	W. 8 4	5 6½	1 8 19	30.5	0	4.25	
Rixdollar, specie	W. 1 3	18 1	16 14 4	359.1	4	2.11		
Confuscat	W. 2 4	4 16½	2 16 12	59.8	0	8.35		
EAST INDIES	Rupee piece, coined by the East India Company at Company's or standard	Standard	8 0	8 0 0	175.9	2	0.56	
	Calcutta (1818)	Standard	7 11	7 10 4	164.7	1	1.01	
	Bombay, new, or Surat (1818)	W. 0 9½	1 11	1 11 0	32.9	0	4.5	
	Panani, Cananore	W. 0 13	1 11	1 15 16	35.5	0	4.88	
	Bombay, old	H. 0 5½	1 0½	1 1 2	22.8	0	3.18	
	Pondicherry	W. 0 3	1 18	1 18 2	39.4	0	5.14	
	Ditto, double	W. 0 7½	6 22	6 16 6	148.4	1	8.72	
	Gulden of the Dutch East India Company (1800)	Standard	8 0	8 0 0	175.9	2	0.56	
	* The Prussian coins having been debased at different periods, vary in their reports.							
	† This is the coin which is universally circulated under the name of the Spanish dollar.							
‡ For an account of the new Turkish coins, see CONSTANTINOPLE.								

The sterling value of the foreign coins, in the foregoing tables, has been computed from the assays as follows:—Let it be required to assay the value, in sterling, of a French double Louis d'or coined since 1786, the assay master's report being as follows:—Weight, 9 dwts. 20 grs.; assay, W. 1/3 grs.; t'rial 1/2, car. 1 1/2 grs., worse than the English standard. We proceed as under:—  
From 2 car. 0 gr. the fineness of English standard gold. There remains 21 car. 2 1/2 gr.  
Take 0 car. 1 1/2 gr.  
Then, as 22 car. 21 gr. :: 21 grs. : 9 dwts. 16 grs., the standard gold contained in the Louis d'or; and hence, as 1 car. : 21.172.10 grs. :: 9 dwts. 16 grs. : 11.172.7 1/2 grs., the value of the Louis in sterling money, and so for any of the other coins.

Ancient Coins.—We submit, for the convenience of such of our readers as may at any time have occasion to consult works in which reference is made to ancient coins, the following tables of those that were principally current among the Jews, Greeks, and Romans. They are taken from the essay of the Rev. Robert Hussey, M.A., sometime Professor of Ecclesiastical History in the University of Oxford. This

author is the latest and best authority on the subject:—

Hebrew Money.

	£	s.	d.	grs.
Shekel	0	0	0	1 2/3
1/2 Shekel	0	0	0	7 3/4
1/3 Shekel	0	0	1	3 3/4
1/4 Shekel	0	0	2	7 1/4
1/5 Shekel	0	0	3	1 1/2
1/6 Shekel	0	0	4	1 1/2
1/8 Shekel	0	0	6	1 1/2
1/10 Shekel	0	0	8	1 1/2
1/12 Shekel	0	0	10	1 1/2
1/15 Shekel	0	0	12	1 1/2
1/20 Shekel	0	0	15	1 1/2
1/25 Shekel	0	0	18	1 1/2
1/30 Shekel	0	0	20	1 1/2
1/40 Shekel	0	0	24	1 1/2
1/50 Shekel	0	0	30	1 1/2
1/60 Shekel	0	0	36	1 1/2
1/75 Shekel	0	0	45	1 1/2
1/100 Shekel	0	0	60	1 1/2
1/125 Shekel	0	0	75	1 1/2
1/150 Shekel	0	0	90	1 1/2
1/200 Shekel	0	0	120	1 1/2
1/250 Shekel	0	0	150	1 1/2
1/300 Shekel	0	0	180	1 1/2
1/400 Shekel	0	0	240	1 1/2
1/500 Shekel	0	0	300	1 1/2
1/600 Shekel	0	0	360	1 1/2
1/750 Shekel	0	0	450	1 1/2
1/1000 Shekel	0	0	600	1 1/2

Attic Standard  
Chaques of copper

£	s.	d.	grs.
16	8	4	0
16	8	4	0
16	8	4	0
16	8	4	0
16	8	4	0

Money  
Lepros  
2 Lepros

Byzantine Standard  
Chaques

£	s.	d.	grs.
1200	600	300	0
1200	600	300	0
1200	600	300	0
1200	600	300	0
1200	600	300	0

Roman

Sextula

£	s.	d.	grs.
12	6	3	0
12	6	3	0
12	6	3	0
12	6	3	0
12	6	3	0

Teruncius

£	s.	d.	grs.
16	8	4	0
16	8	4	0
16	8	4	0
16	8	4	0
16	8	4	0

12 Denarii = 1 Aureus  
25 Denarii = 1 Aureus  
Mille nummorum = 1 Aureus  
The last

Roman

£	s.	d.	grs.
3	4	3	0
3	4	3	0
3	4	3	0
3	4	3	0
3	4	3	0

COIR. A species of the husk of cocoon in water, the dry fibres is separated into yarn, and is deemed by some to be the goodness of the filaments, a yellow colour. The following

Greek Coins.

Attic Standard		Chalcus of copper																	
£	s.	d.	grs.	£	s.	d.	grs.	£	s.	d.	grs.	£	s.	d.	grs.	£	s.	d.	grs.
4	2	1		Obolus	-	-	-	-	-	-	-	-	-	-	-	0	0	0	1/2
8	3	2		Obolus	-	-	-	-	-	-	-	-	-	-	-	0	0	0	1/2
16	8	4		Diobolus	-	-	-	-	-	-	-	-	-	-	-	0	0	0	3/4
21	12	6	1/2	Triobolus	-	-	-	-	-	-	-	-	-	-	-	0	0	0	3/4
24	16	8	1	Tetradrachma	-	-	-	-	-	-	-	-	-	-	-	0	0	0	6/4
48	21	12	2	Drachma	-	-	-	-	-	-	-	-	-	-	-	0	0	0	3/2
				1/2 Drachma	-	-	-	-	-	-	-	-	-	-	-	0	0	0	1/2
				1/4 Drachma	-	-	-	-	-	-	-	-	-	-	-	0	0	0	3/4
				1/8 Drachma	-	-	-	-	-	-	-	-	-	-	-	0	0	0	3/8
600	300	300	150	Mina	-	-	-	-	-	-	-	-	-	-	-	4	1	3	
36,000	18,000	12,000	9,000	Talent	-	-	-	-	-	-	-	-	-	-	-	215	15	0	

Money mentioned in the Gospels.

Lepton or mite = 0.484 grs.  
 2 Lepta = 1 quadran or Farthing = 0.488 grs.

Greek Coins.

Ægean Standard		Weight		Value	
£	s.	d.	grs.	£	s.
1/2	0	0	1	Obolus	0.583
1	0	0	2	Obolus	1.166
1	0	0	4	Diobolus	2.332
1	0	0	6	Triobolus	3.498
1	0	0	12	Drachma	6.996
1	0	0	24	Didrachma	13.992
100	600	300	150	Mina	510.5

Talent = 60 Mina = 3511.15s.

Roman Money up to Augustus.

Copper.

Sextula		Weight		Value	
£	s.	d.	grs.	£	s.
1/16	0	0	0.35116	Quadrans	0.35116
1/8	0	0	0.70232	Triens	0.70232
1/4	0	0	1.40464	Semis	1.40464
3/8	0	0	2.10696	As	2.10696
1/2	0	0	4.21392	Dupondius	4.21392
3/4	0	0	6.32088	Sestertius	6.32088
1	0	0	8.42784	Quinarius	8.42784
1	0	0	16.85568	Denarius	16.85568

Silver.

Teruncius		Weight		Value	
£	s.	d.	grs.	£	s.
1/4	0	0	0.51145	Semella	0.51145
1/2	0	0	1.02290	Libella	1.02290
3/4	0	0	1.53435	Sestertius	1.53435
1	0	0	2.04580	Quinarius	2.04580
1	0	0	4.09160	Denarius	4.09160

Gold.

12 1/2 Denarii = Aureus		Weight		Value	
£	s.	d.	grs.	£	s.
12 1/2	0	0	810 1/2	Aureus	810 1/2
25	0	0	1621	Aureus	1621
Mille nummorum = Sesterium			817 1/2		

The last was only a money of account.

Roman Money after Augustus.

Sextula		Weight		Value	
£	s.	d.	grs.	£	s.
1/16	0	0	0.5125	Quadrans	0.5125
1/8	0	0	1.025	Triens	1.025
1/4	0	0	1.5375	Semis	1.5375
3/8	0	0	2.05	As	2.05
1/2	0	0	3.075	Dupondius	3.075
3/4	0	0	4.6125	Sestertius	4.6125
1	0	0	6.15	Quinarius	6.15
1	0	0	12.3	Sestertius	12.3

Aureus = 25 Denarii = 15 7 1/2  
 Mille nummorum = 7 16 3

COIR. A species of yarn manufactured out of the husk of cocoa nuts. The husks being steeped in water, the dry dusty substance mixed with the fibres is separated. These are afterwards spun into yarn, and manufactured into cordage that is deemed by some superior to that made of hemp. The goodness of coir depends on the fineness of the filaments, and on their being of a bright yellow colour.

The following are the exports of coir from

British India, according to the Report on Indian Products in the official Catalogue of the Great Exhibition of 1862:—

Year	Quantity	Value
1850-1	3,595 tons	21,5611
1851-2	3,472	11,699
1852-3	3,907	17,300
1853-4	4,213	25,611
1854-5	3,696	27,038
1855-6	3,393	29,919
1856-7	3,703	25,808
1857-8	4,297	33,181
1858-9	4,375	36,435
1859-60	4,825	41,801
1860-1	5,832	57,284

Coir cables are much used in merchant vessels, the coir rope having been employed in India for ages. The rope is so light that it floats on the water; and according to Dr. Gilchrist a coir hawser ought to be kept in every vessel, since if a small boat is attached to it, and let down when a man falls overboard, it gives him greater facilities for saving life than any other means. Fresh water is said to rot coir, and the rope snaps easily in frosty weather. Coir ropes are therefore unsuitable for low latitudes. The rope, however, in sea water and high latitudes is actually strengthened and rendered more elastic by exposure. Nothing, we are informed, can equal the ease with which a ship rides at anchor whose cables are of coir.

Coir is used in England to a very large extent for matting and coarse brushes.

A cocoa nut sawn in two across the grain of the coir forms an excellent implement for polishing wood, (Ure's Dictionary.)

About 2,500,000 lbs. weight of coir are annually exported from Ceylon, principally to Calcutta and other ports in the East Indies. It is also prepared in the Maldiv Islands, and many other places; and is very extensively used throughout the East. (Bertolacci's Ceylon; Bell's Commerce of Bengal; &c.)

In 1866 we imported, chiefly from India and Ceylon, 10,820 cwt. of coir (fibre), valued at 18,309l. and 12,317 cwt. of cordage and cables of coir, valued at 20,607l.

COLLISION (Fr. abordage), in a general sense, is the act of any two or more bodies coming forcibly together; but in commercial navigation it means the shock of two ships coming into sudden and violent contact at sea, by which one or both may be more or less injured.

From the great increase of navigation, the risk of accidents by collision at sea has been proportionally augmented; and it is, therefore, of much importance, 1, to adopt such measures as may be most likely to prevent their occurrence; and 2, to determine by whom a loss, when it does occur, should be borne.

In regard to the first and most essential of these objects, it is effected in part, at least, by whatever contributes to the general improvement and security of navigation. At common law, every master of a ship is bound to keep a proper watch

at sea, especially in channels much frequented by shipping, and to use every precaution to avoid coming into contact with other vessels. But this matter has been judged too important to be left wholly to depend on the good sense and care of individuals; and with a view to the securing of attention to the subject, and to the obviating of the confusion that would unavoidably arise were shipmasters left to follow their own ideas with respect to it, rules and regulations have been laid down in regard to the courses to be steered when ships are passing each other, the signals to be made during fogs, the number and description of the lights to be exhibited at night, and other particulars. In 1840 the Trinity House promulgated a rule of this sort; and though not in itself a law, masters not complying with its instructions were held to be guilty of unseamanlike conduct, and the owners were made responsible for the consequences. Regulations similar to those contained in the Trinity rule have since been enacted by the Legislature. The existing statute law on the subject is embodied in the Merchant Shipping Act, Amendment Act of 1862, the 25 & 26 Vict.

6. 63. The following are the regulations for preventing collisions at sea, appended to the Order in Council dated January 9, 1863, which apply to all ships belonging to the following countries and places, whether within British jurisdiction or not:—Australia, Argentine Republic, Belgium, Brazil, Bremen, Chile, Denmark Proper, Republic of the Equator, France, Great Britain, Greece, Hamburg, Hanover, Hawaiian Islands, Hayti, Italy, Lubeck, Mecklenburg-Schwerin, Morocco, Netherlands, Norway, Oldenburg, Peru, Portugal, Prussia, Roman States, Russia, Schleswig, Spain, Sweden, Turkey, United States (sea-going ships and inland waters), Uruguay.

*Preliminary.*—Art. 1. In the following rules every steam ship which is under sail and not under steam is to be considered a sailing ship; and every steam ship which is under steam, whether under sail or not, is to be considered a ship under steam.

*Rules concerning Lights.*—Art. 2. The lights mentioned in the following articles, numbered 3, 4, 5, 6, 7, 8, and 9, and no others, shall be carried in all weathers, from sunset to sunrise.

Art. 3. Sea-going steam ships when under weigh shall carry—

*a. At the foremast head,* a bright white light, so fixed as to show an uniform and unbroken light over an arc of the horizon of 20 points of the compass; so fixed as to throw the light 10 points on each side of the ship, viz. from right ahead to 2 points abaft the beam on either side; and of such a character as to be visible on a dark night, with a clear atmosphere, at a distance of at least 5 miles:

*b. On the starboard side,* a green light so constructed as to show an uniform and unbroken light over an arc of the horizon of 10 points of the compass; so fixed as to throw the light from right ahead to 2 points abaft the beam on the starboard side; and of such a character as to be visible on a dark night, with a clear atmosphere, at a distance of at least 2 miles:

*c. On the port side,* a red light, so constructed as to show an uniform and unbroken light over an arc of the horizon of 10 points of the compass; so fixed as to throw the light from right ahead to 2 points abaft the beam on the port side; and of such a character as to be visible on a dark night, with a clear atmosphere, at a distance of at least 2 miles.

*d. The said green and red side lights shall be fitted with inboard screens, projecting at least 3*

feet forward from the light, so as to prevent these lights from being seen across the bow.

Art. 4. Steam ships, when mast-head lights vertically shall carry 2 bright white steam lights, so as to distinguish them from other steam ships. Each of these mast-head lights shall be of the same construction and character as the mast-head lights which other steam ships are required to carry.

Art. 5. Sailing ships under weigh, or being towed, shall carry the same lights as steam ships under weigh, with the exception of the white mast-head lights, which they shall never carry.

Art. 6. Whenever, as in the case of small vessels during bad weather, the green and red lights cannot be fixed, these lights shall be kept on deck, on their respective sides of the vessel, ready for instant exhibition; and shall, on the approach of or to other vessels, be exhibited on their respective sides in sufficient time to prevent collision, in such manner as to make them most visible, and so that the green light shall not be seen on the port side, nor the red light on the starboard side.

To make the use of these portable lights more certain and easy, the lanterns containing them shall each be painted outside with the colour of the light they respectively contain, and shall be provided with suitable screens.

Art. 7. Ships, whether steam ships or sailing ships, when at anchor in roadsteads or fairways shall exhibit, where it can best be seen, but at a height not exceeding 20 feet above the hull, a white light, in a globular lantern of 8 inches in diameter, and so constructed as to show a clear uniform and unbroken light visible all round the horizon, and at a distance of at least 1 mile.

Art. 8. Sailing pilot vessels shall not carry the lights required for other sailing vessels, but shall carry a white light at the mast-head, visible all round the horizon, and shall also exhibit a flare-up light every 15 minutes.

Art. 9. Open fishing boats and other open boats shall not be required to carry the side lights required for other vessels; but shall, if they do not carry such lights, carry a lantern having a green slide on one side and a red slide on the other side; and on the approach of or to other vessels, such lantern shall be exhibited in sufficient time to prevent collision, so that the green light shall not be seen on the port side, nor the red light on the starboard side.

Fishing vessels and open boats when at anchor, or attached to their nets and stationary, shall exhibit a bright white light.

Fishing vessels and open boats shall, however, not be prevented from using a flare-up in addition, if considered expedient.

*Rules concerning Fog Signals.*—Art. 10. Whenever there is fog, whether by day or night, the fog signals described below shall be carried and used, and shall be sounded at least every 5 minutes; viz.:

*a. Steam ships under weigh shall use a steam whistle placed before the funnel, not less than 8 feet from the deck:*

*b. Sailing ships under weigh shall use a fog horn:*

*c. Steam ships and sailing ships when not under weigh shall use a bell.*

*Steering and Sailing Rules.*—Art. 11. If two sailing ships are meeting end on or nearly end on so as to involve risk of collision, the helms of both shall be put to port, so that each may pass on the port side of the other.

Art. 12. When two sailing ships are crossing so as to involve risk of collision, then, if they have the wind on different sides, the ship with the wind on

the port side shall give way to the other; but if they are abreast of one another, the ship which is to windward shall give way to the other.

Art. 13. If two sailing ships are meeting end on or nearly end on, and the risk of collision is such that each may prevent collision, the vessel which is to give way shall take such action as to avoid collision.

Art. 14. If two sailing ships are meeting end on or nearly end on, and the risk of collision is such that each may prevent collision, the vessel which is to give way shall take such action as to avoid collision.

Art. 15. If two sailing ships are meeting end on or nearly end on, and the risk of collision is such that each may prevent collision, the vessel which is to give way shall take such action as to avoid collision.

Art. 16. Ever another ship so slacken her speed as to avoid collision; and every vessel so to moderate her speed.

Art. 17. Ever vessel shall keep her course and speed.

Art. 18. When ships are in such a position that collision is imminent, the vessel which is to give way shall take such action as to avoid collision.

Art. 19. In the event of collision, the vessel which is to give way shall be liable for the damage done.

It may, however, be required to take such action as to avoid collision, so that the green light shall not be seen on the port side, nor the red light on the starboard side.

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the port side shall keep out of the way of the ship with the wind on the starboard side; except in the case in which the ship with the wind on the port side is close hauled and the other ship free, in which case the latter ship shall keep out of the way; but if they have the wind on the same side, or if one of them has the wind aft, the ship which is to windward shall keep out of the way of the ship which is to leeward.

Art. 13. If two ships under steam are meeting end on or nearly end on so as to involve risk of collision, the helms of both shall be put to port, so that each may pass on the port side of the other.

Art. 14. If two ships under steam are crossing so as to involve risk of collision, the ship which has the other on her own starboard side shall keep out of the way of the other.

Art. 15. If two ships, one of which is a sailing ship, and the other a steam ship, are proceeding in such directions as to involve risk of collision, the steam ship shall keep out of the way of the sailing ship.

Art. 16. Every steam ship, when approaching another ship so as to involve risk of collision, shall slacken her speed, or, if necessary, stop and reverse; and every steam ship shall, when in a fog, go at a moderate speed.

Art. 17. Every vessel overtaking any other vessel shall keep out of the way of the said last-mentioned vessel.

Art. 18. Where by the above rules one of two ships is to keep out of the way, the other shall keep her course, subject to the qualifications contained in the following article.

Art. 19. In obeying and construing these rules, due regard must be had to all dangers of navigation; and due regard must also be had to any special circumstances which may exist in any particular case rendering a departure from the above rules necessary in order to avoid immediate danger.

Art. 20. Nothing in these rules shall exonerate any ship, or the owner, or master, or crew thereof, from the consequences of any neglect to carry lights or signals, or of any neglect to keep a proper look-out, or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

It may, however, be proper to state that neither these nor any rules of the sort are to be regarded as inflexible, or to be followed at all hazards. The safety of the ship is the paramount consideration, and no master is justified in abiding by a rule when by doing so he plainly incurs danger. A ship may be in his proper course, but if by pursuing it he will run a great risk of coming into collision with B, who is upon a wrong course, he is bound to alter his course so as to avoid a collision. The fact of one master being ignorant, careless, or in fault, is no reason why another should not use every means in his power to provide for the safety of his ship, and consequently of the lives and property entrusted to his care.

The conditions under which cases of collision take place differ extremely. Thus—1, it may be merely accidental, or be occasioned by circumstances beyond the power of control, as by the violence of the wind or waves dashing or impelling the ships together, without blame being imputable to either party; or 2, it may be owing to the culpable negligence or misconduct of one party; or 3, both parties may be to blame. In adjudicating upon losses growing out of collisions that have taken place under such different circumstances, the conclusions must also be very different.

With respect to the first class of cases there is little apparent difficulty: wherever a loss is occasioned by a storm, a fog, or other accidental

circumstance, without any blame being ascribable to either party, it would appear to be equitable that it should be borne by the sufferer. And this principle having been embodied in the Roman law, was subsequently ingrafted into that of England. (Mershall *On Insurance*, ch. xii., s. 2.) But other authorities, to whom the greatest deference is due, contend that the loss arising from accidental collisions, however it may affect the parties, should be equally divided between them; and this, in fact, is the rule followed in most maritime states. (*Ordonnance* of 1781, lib. iii. tit. xii. art. 10, with the observations of Valin.)

It also is the rule sanctioned by the law of England in cases where both parties are to blame, but where the blame cannot be discriminated. Those cases in which the blame is clearly ascribable to either party present no difficulty.

The leading doctrines of the law of England with regard to collisions have been clearly and succinctly stated by Lord Stowell. 'In the first place,' says his lordship, 'a collision may happen without blame being imputable to either party, as when the loss is occasioned by a storm or any other *vis major*. In that case the misfortune must be borne by the party on whom it happens to light; the other not being responsible to him in any degree. Secondly, a misfortune of this kind may arise where both parties are to blame, where there has been a want of due diligence or of skill on both sides; in such a case the rule of law is, that the loss must be apportioned between them, as having been occasioned by the fault of both of them. Thirdly, it may happen by the misconduct of the suffering party only; and then the rule is, that the sufferer must bear his own burden. Lastly, it may have been the fault of the ship which ran the other down, and in this case the innocent party would be entitled to an entire compensation from the other.' (2 *Dodson's Admiralty Reports*, 83.)

We may add that the rule of the equal division of the damage where both vessels are to blame has been, since Lord Stowell's time, fully recognised and finally established by a decision of the House of Lords on an appeal from Scotland.

Various authorities have spoken disparagingly of the rule now referred to, and have called it a *judicium rusticorum*. And it would, no doubt, be very desirable in cases of collision where both parties are to blame, that the neglect or culpability of each should be accurately determined, and the damages assessed accordingly. But from the obscurity in which such cases are almost always involved, and the conflicting testimony brought forward by the different parties, the difficulties in the way of this being done are usually quite insuperable; and it is better to adopt a rule which, though perhaps less equitable in principle, is fairer in its application than any other that could be adopted. Of its expediency there can, indeed, be no reasonable doubt. The observations of Valin are, in this respect, quite conclusive. 'C'étoit,' says he, 'le moyen le plus propre à rendre les capitaines ou maîtres des navires extrêmement attentifs à éviter tout abordage, surtout ceux des bâtimens faibles et plus susceptibles d'être incommo-dés par le moindre choc, en leur rendant toujours présent la crainte de supporter la moitié du dommage qu'ils en pourroient recevoir. Et si l'on dit qu'il auroit été plus simple et plus court de laisser pour le compte particulier d'un chacun le dommage qu'il auroit reçu, comme provenant d'un cas fortuit; la réponse est qu'alors les capitaines des gros navires n'auroient plus craint de heurter les bâtimens d'une beaucoup moindre force que le leurs: rien donc de plus juste que la contribution par moitié.'

(*Commentaire sur l'Ordonnance de 1681*, li. 179, ed. 1776.)

In apportioning the damage in cases where both parties have been in fault, the question occurs whether the damage done to the cargo shall be taken into account or left out in the estimate on which the apportionment is to be made. This knotty point has been differently decided in different countries. But the rule which limits the liability of owners to the value of the ship and freight applies to cases of damage by collision. [OWNERS.] For further observations on this curious and important subject, in addition to Valin and the other authorities already referred to, the reader may consult the chapter on Collision added by the late Mr. Justice Shee to his edition of Lord Tenterden's work *On the Law of Shipping*, and the chapter on the same subject in Maude and Pollock's *Treatise on the Law of Merchant Shipping*.

*Number of Collisions at Sea.*—A statement has been prepared by Mr. John A. Rucker, underwriter, giving a classification of the number of collisions at sea, reported in Lloyd's Lists during the five years from 1845 to 1849 inclusive. It thence appears that the annual numbers were 603, 564, 639, 533, and 565; so that there was a decrease in 1849, notwithstanding the increased traffic of that year. The total collisions of the five years amounted to 3,064. Of these, 279 were cases in which a vessel was sunk, run down, or abandoned; 189 were cases in which there was serious damage; 686 in which the damage, although less, was still considerable; and 1,910 in which it was only slight. The average of steamers in contact with steamers during each year is about 11; of steamers in contact with sailing vessels about 37; of sailing vessels in contact with steamers 36; and of sailing vessels in contact with sailing vessels 533. [WRECK.]

**COLOCYNTHIS, COLOQUINTIDA, or BITTER CUCUMBER** (Ger. *kolokinten*, *colokinten*; *appel*; Dutch, *bitter-appelen*; Fr. *coloquintes*; Ital. *colocintida*; Span. *coloquintidas*; Arab. and Pers. *Hinnzil*). The produce of an annual plant (*Cucumis colocynthis*, Linn.; Nat. Order *Cucurbitaceae*) growing in Turkey, Nubia, India, and other places, much resembling the cucumber in herbage. When ripe, the fruit is peeled and the pulp is dried in a stove, and in this state is brought to England. It is inodorous, light, spongy, white or yellowish-white, and intensely bitter in taste. It is an exceedingly powerful drastic cathartic. When it is larger than a St. Michael's orange, and has black acute pointed ends, it is not good. (*British Pharmacopœia*, 1867; Ainslie's *Materia Indica*.)

**COLONIES—COLONY TRADE.** Colonies are establishments founded on foreign countries by individuals who either voluntarily emigrate from, or are forcibly sent abroad by, their mother country. The *colony trade* is the trade carried on between colonies and their parent states.

- I. ESTABLISHMENT OF COLONIES.
- II. INFLUENCE OF THE MONOPOLY OF THE COLONY TRADE.
- III. MAGNITUDE, POPULATION, TRADE ETC. OF BRITISH COLONIES.—DISPOSAL OF LAND IN THE COLONIES ETC.
- IV. REGULATIONS UNDER WHICH THE COLONY TRADE IS CONDUCTED.
- V. FOREIGN COLONIES.

#### I. ESTABLISHMENT OF COLONIES.

1. *Greek Colonies.*—Various motives have, in different countries and ages, led to the formation of colonies. Seneca has given, in a few words, a very clear and accurate statement of the different

motives that induced the ancients to found colonies: 'Nec omnibus eadem causa relinquendi quærendique patriam fuit. Alios exçidia urbium suarum, hostilibus armis elapso, in aliena, spoliato suis, expulerunt: Alios domestica seditio submovit: Alios nimia superfluentis populi frequentia, ad exonerandas vires, emisit: Alios pestilentia, ad frequens terrarum hiatus, aut aliqua intoleranda infelicitas soli eçecerunt: Quosdam fertillia oræ, et in majus laudate, fama corrupit: Alios alia causa exçivit domibus suis.' (*Cicero, ad Helviam*, c. 6.) The Greek colonies of antiquity seem to have been chiefly founded by citizens whom the violence and fury of contending factions forced to leave their native land; but they were sometimes formed for the purpose of relieving the mother country of a redundant population, and sometimes also for the purpose of extending the sphere of commercial transactions, or of providing for their security. The relations between the mother country and the colony depended, in a great measure, on the motives which led to the establishment of the latter. When a colony was founded by fugitives forcibly expelled from their ancient homes; or when it was founded, as was frequently the case, by bodies of voluntary emigrants, who received no assistance from, and were in no respect controlled by, the parent state, it was from the first independent; and even in those rarer cases in which the emigration was conducted under the superintendence of the parent city, and when the colony was protected by her power and influence, the dependence was, mostly, far from being absolute and complete. The great bulk of the Greek colonies were really independent states; and though they commonly regarded the land of their forefathers with stillal respect, though they yielded to its civil place of distinction at public games and solemnities, and were expected to assist in time of war, they did so as allies only, on fair and equal terms, and never as subjects. Owing to the freedom of their institutions, and their superiority in the arts of civilised life to the native inhabitants of the countries among whom they were generally placed, these colonies rose, in a comparatively short period, to a high pitch of opulence and refinement; and many among them, as Miletus and Ephesus in Asia Minor, Syracuse and Agrigentum in Sicily, and Tarentum and Locri in Italy, not only equalled, but greatly surpassed, their mother cities in wealth and power.

2. *Roman Colonies.*—The Roman colonies were, for the most part, founded by and under the authority of government; being intended to serve both as outlets for poor and discontented citizens, and as military stations, or garrisons, to secure the subjection of the conquered provinces over which they were scattered. The most intimate political union was always maintained between them and the mother city. Their internal government was modelled on that of Rome; and, while their superior officers were mostly sent from the capital, they were made to contribute their full quota of troops and taxes, to assist in carrying on the contests in which the Republic was almost constantly engaged.

3. *Spanish Colonies.*—The early colonies of most modern nations were founded by private adventurers, influenced either by the hope of gain, or by a desire to escape from religious persecution, without any wish to relieve the mother country of a surplus population or to bridle subjugated provinces. On their first institution, therefore, the modern colonies approached, though with some essential variations, more nearly to the Grecian than the Roman model; but the period of their

freedom was very soon in the measure supposed, those of the founders eagerly part in the view of the most exclusive countries; aboriginal arts of civilisation were

The Spaniards after its discovery the country gold and silver universally prising commodities instead of en which they n only to enrich and defence their possessions the most exas spread through rurers arrived, enquiry was, did, they rem country; if n other quarter, divertit is the porary writer of Grynæus, p Spanish colonies principally be and silver acce soon exhausted successive swar to pour into th to the unproduc of mining. T made in this w inflamed the cu an appearance counts of the ex After the gam actuated the cr side, the coloni agricultural at vast variety of Mexico and th the extreme ri taneous situati ably well gove increase in wea and intolerant and fettered ar abuses and def were transferre The whole pro sidered as veste law or regulat nature, affectin the Council of posed the king stop to describ the colonists w minuteness; b furnish the me and probable capital offence foreigners; an colonies were e each other, un vexations reg

freedom was of very limited duration. They were very soon subjected to laws and regulations framed in the metropolis, and calculated, as was to be supposed, rather to promote its interests than those of the colony. At a somewhat later period the foundation of colonial establishments was eagerly patronised by most European governments, in the view of extending commerce, and of enriching the mother country by securing to her the exclusive possession of the market of distant countries; and where, from the thinness of the aboriginal population, or their inferiority in the arts of civilised life, the colonists were enabled to amass fortunes with comparative rapidity.

The Spaniards who first resorted to America after its discovery had no intention of settling in the country or of colonising it. The idea that gold and silver alone constituted wealth was then universally prevalent; and the bold and enterprising companions and followers of Columbus, instead of engaging in industrious undertakings, which they neither understood nor relished, sought only to enrich themselves by plundering the feeble and defenceless natives of the gold and silver in their possession, and of the abundance of which the most exaggerated accounts were immediately spread throughout Europe. When new adventurers arrived on an unknown coast, their single enquiry was, whether it abounded in gold. If it did, they remained, for some time at least, in the country; if not, they immediately set sail for some other quarter. *Auri rubida sitis a cultura Hispanos divertit* is the expressive statement of a contemporary writer (Petrus Martyrus, in the *Novus Orbis* of Gryneus, p. 511). The slow progress of the Spanish colonies, after their first discovery, must principally be ascribed to this cause. The gold and silver accumulated by the natives were very soon exhausted; and the skill and energy of the successive swarms of adventurers, who continued to pour into the country, were principally directed to the unproductive and generally ruinous trade of mining. The few large fortunes that were made in this way, like the large prizes in a lottery, inflamed the avidity of the multitude, and gave an appearance of credibility to the fabulous accounts of the excessive productiveness of the mines. After the gambling spirit which had exclusively actuated the early adventurers had begun to subside, the colonists gradually betook themselves to agricultural and commercial pursuits; and the vast variety of valuable productions with which Mexico and the other Spanish colonies abound, the extreme richness of the soil, and their advantageous situation, would, had they been only tolerably well governed, have occasioned their rapid increase in wealth and civilisation. But a blind and intolerant despotism paralysed their energies, and fettered and retarded their progress. All the abuses and defects of the government of old Spain were transferred to, and multiplied in, the colonies. The whole property of those vast regions was considered as vested in the crown of Spain; and every law or regulation, whether of a local or general nature, affecting their government, emanated from the Council of the Indies, in which it was supposed the king was always present. We cannot stop to describe the sort of regulations to which the colonists were subjected with any degree of minuteness; but we may notice a few of them, to furnish the means of judging of their general spirit and probable effect. It was, for example, made a capital offence to carry on any intercourse with foreigners; and the inhabitants of the different colonies were even forbidden any intercourse with each other, unless under the strictest and most vexatious regulations. There were several arti-

cles, such as flax, hemp, and wine, which they were not permitted to cultivate; at the same time that the crown reserved to itself the monopoly of salt, tobacco, gunpowder, and some other less important articles. The alcavala, and other oppressive imposts, which had proved destructive of industry in old Spain, were rigorously levied as well on the exports as on the imports of the colonies. No situation of power or emolument could be filled except by a native of old Spain. The Catholic religion was established, to the exclusion of every other; and bishops, tithes, and the Inquisition followed in its train: while, in order still better to consolidate and strengthen the foundations of this monstrous despotism, the government endeavoured to make the colonists insensible of their degradation by procribing every species of instruction, and watchfully opposing the introduction and progress of all useful knowledge!

Under such circumstances we cannot be surprised that the Continental colonists, among whom the monopoly system was maintained in its greatest purity, should have languished for above two centuries in a state of sluggish inactivity. Though surrounded by all the means of producing wealth, they were not generally wealthy. Oppression rendered them indolent, and went far to deprive them not only of the power, but also of the wish, to emerge from poverty. The progress of the colonists who occupied the West India islands was not quite so slow. It is certain, however, that down to the middle of last century Spain reaped no greater advantage from the possession of Cuba, Hispaniola, and Porto Rico than England or France from the smallest of its dependencies. In proof of this we may mention that the noble island of Cuba, which could without difficulty supply all Europe with sugar, did not in 1750 produce a sufficient quantity even for the consumption of old Spain. But the combined influence of an arbitrary and intolerant government and of a degrading superstition could not balance the means of improvement which the fertility of the soil, and the command thence arising over most of the necessaries and many of the conveniences of life, gave to the colonists. Owing also to the total incapacity of old Spain to furnish her Transatlantic provinces with a sufficient supply of the articles she had forced them to import from Europe, and the consequent extension of the contraband trade carried on with them by the other European nations, she had been compelled gradually to relax the severity of her commercial monopoly. A new impulse was thus given to the spirit of industry. The colonists began to be more sensible of the natural advantages of their situation, and less inclined to submit to the blind and bigoted policy of the Spanish court. In 1781 a rebellion broke out in Peru, in consequence of an attempt made by the government to establish a new monopoly in that province, which threatened to end in the total dissolution of the connection between Spain and South America, and was not quelled without great difficulty and much bloodshed. But the spirit of liberty, when once excited, could not be suppressed. It continued to gain ground progressively, until the commencement of the late contest between France and Spain interrupted the communication with the mother country, and gave the colonists an opportunity of proclaiming that independence which, after a lengthened and bloody struggle, they happily succeeded in achieving.

4. *British Colonies.*—The English, who, like all the other nations of Europe, had been impressed with mingled feelings of admiration and envy by the extent and importance of the acquisitions

made by the Spaniards in the New World, speedily entered with enthusiasm and ardour into the career of discovery. Owing, however, to the bull which Ferdinand and Isabella had obtained from the Pope, conveying to them the ample donation of all the countries inhabited by infidels that the Spaniards had discovered, or might discover, the English, to avoid encroaching on the dominions of their rivals, directed their efforts farther to the north. Several attempts to found colonies on the coast of America were made in the reign of Elizabeth by Sir Humphrey Gilbert, Sir Richard Grenville, Sir Walter Raleigh, and others. But in consequence of their ignorance of the country, the deficiency of their supplies of provisions, the loss of time in fruitless searches after gold, and the various difficulties incident to the first settlement of a colony, none of these attempts proved successful; and it was not until 1607 that a small body of adventurers founded the first permanent establishment of the English in America, at James Town in Virginia. Letters patent were granted in 1609 by King James to the principal persons, resident in London, by whom the expense attending the formation of the colony was to be defrayed, incorporating them into a company, and establishing a council in England for the direction of their proceedings, the members of which were to be chosen by, and removable at the pleasure of, the majority of the partners of the company; permitting whatever was necessary for the support and sustenance of the colony for the first seven years to be exported free of duty; declaring that the colonists and their descendants were to be secured in all the rights and privileges of Englishmen, the same as if they had remained at home, or been born in England; and reserving only, as the stipulated price of these concessions, and in imitation of the policy of the Spaniards, *one fifth* part of the gold and silver ore to be found in the colonies, which was to be paid to his Majesty and his successors in all time to come. In virtue of these powers, the company issued in 1621 a charter or ordinance, which gave a legal and permanent form to the constitution of the colony. By this charter the supreme legislative authority was lodged, partly in the governor, who held the place of the sovereign, partly in a council of state named by the company, and partly in a general council or assembly composed of the representatives of the people, in which were vested powers and privileges similar to those of the House of Commons. It was not long, however, before the king and the company quarrelled. The latter were in consequence divested of all their rights, partly by open violence and partly under colour of law, without compensation, after having expended upwards of 150,000*l.* in founding the colony; and a governor and council of state appointed by the king succeeded to the powers of those appointed by the committee. (Robertson's *History of America*, book ix. *passim*; Jefferson's *Notes on Virginia*, p. 179.)

The founders of the colony in Virginia had been actuated solely by the hopes of gain; but the colonies that were soon after established in New England were chiefly planted by men who fled from religious and political persecution. The form of government in the New England colonies, though at first modified a good deal by the peculiar religious opinions entertained by the colonists, was in its leading principles essentially free. For a considerable period the colonists elected their own governors, coined money, and exercised most of the rights of sovereignty; while the English, wholly engrossed with the contest between freedom and prerogative at home, had no leisure to attend to their proceedings. Subse-

quently to the Restoration, however, the governments of most of the New England states were established nearly on the same footing as that of Virginia; which, indeed, became the favourite model, not only for the constitution of the colonies established on the Continent, with the exception of the proprietary governments of Pennsylvania and Maryland, but also for those that were established in the West India islands. But under every vicissitude of government and fortune the New England colonists were distinguished by the same ardent and enthusiastic love of liberty that had first induced them to quit their native land. Every thing relating to the internal regulation and administration of the different colonies was determined, in the colonial assemblies, by representatives freely chosen by the settlers. The personal liberty of the citizens was well secured and vigilantly protected. And, if we except the restraints on their commerce, the monopoly of which was jealously guarded by the mother country, the inhabitants of Virginia, Pennsylvania, and New England enjoyed nearly the same degree of freedom, when colonists of England, that they now enjoy as citizens of the powerful republic of North America. Their progress in wealth and population was in consequence quite unprecedented in the history of the world. The white population of the colonies had increased in 1776, at the commencement of the revolutionary war, to above 2,000,000, and the value of the exports from Great Britain to them amounted to about 1,300,000*l.* a year!

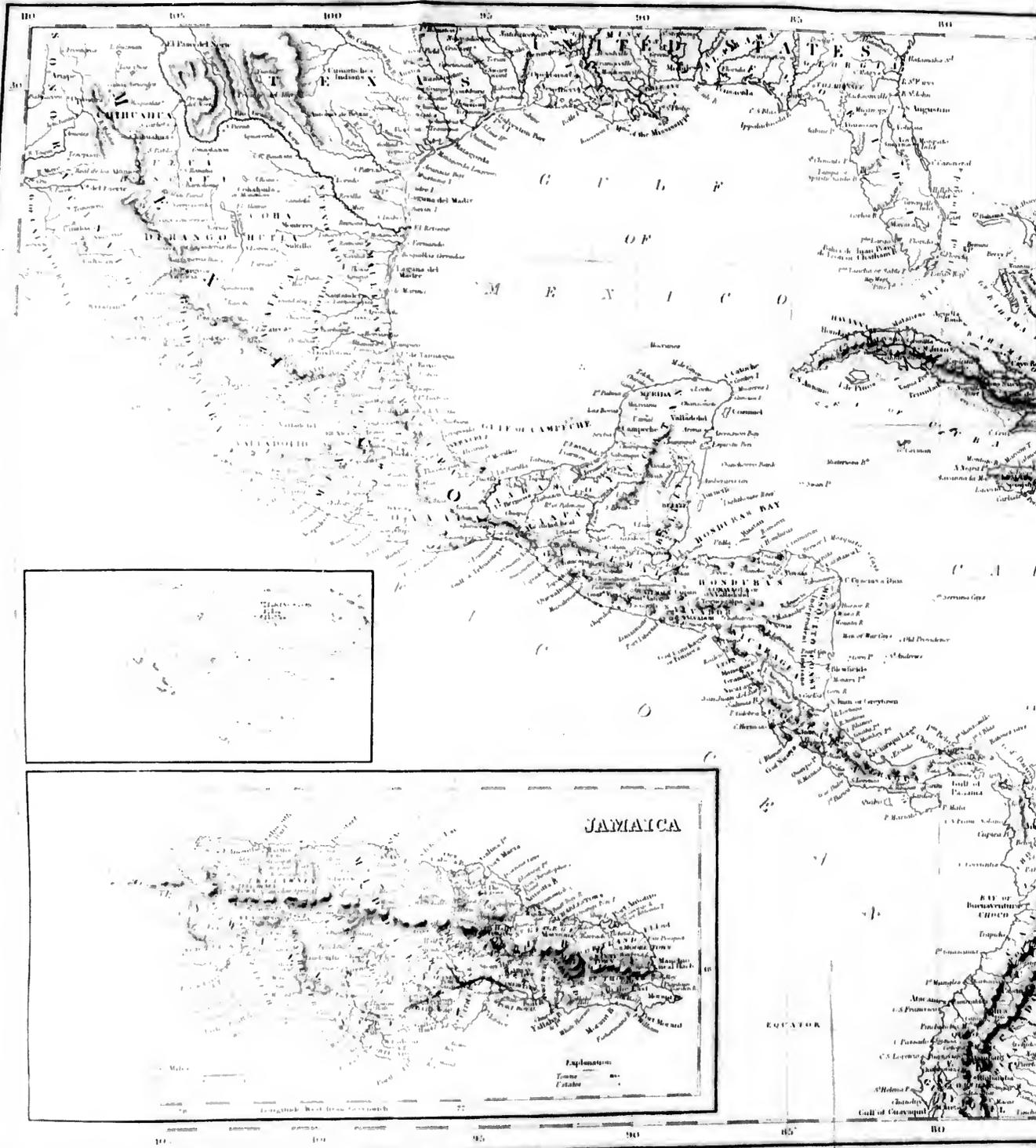
It is not difficult to discover the causes of the unexampled prosperity and rapid growth of our North American colonies, and generally of all colonies placed under similar circumstances. The North American colonists carried with them a knowledge of the arts and sciences practised by a civilised and polished people. They had been trained from their infancy to habits of industry and subordination. They were practically acquainted with the best and wisest form of civil polity that had been established in Europe; and they were placed in a situation that enabled them, without difficulty, to remedy its defects, and to try every institution by the test of utility. But the thinness of the aboriginal population, and the consequent facility of obtaining inexhaustible supplies of fertile and unoccupied land, must certainly be placed at the head of all the causes which have promoted the rapid increase of wealth and population in the United States, and in all the other colonies both of North and South America. On the first foundation of a colony, and for long after, each colonist gets an ample supply of land of the *best quality*; and having no rent, and scarcely any taxes, to pay, his industry necessarily becomes exceedingly productive, and he has every means, and every motive, to amass capital. In consequence he is eager to collect labourers from all quarters, and is both willing and able to reward them with high wages. But these high wages afford the means of accumulation, and, joined to the plenty and cheapness of the land, speedily change the more industrious labourers into proprietors, and enable them, in their turn, to become the employers of fresh labourers; so that every class participates in the general improvement, and capital and population advance with a rapidity hardly conceivable in old settled and fully peopled countries.

It has been frequently said that the establishment of our American and West India colonies was a device of the supporters of the exclusive mercantile system—that they founded them in the view of raising up a vast agricultural population

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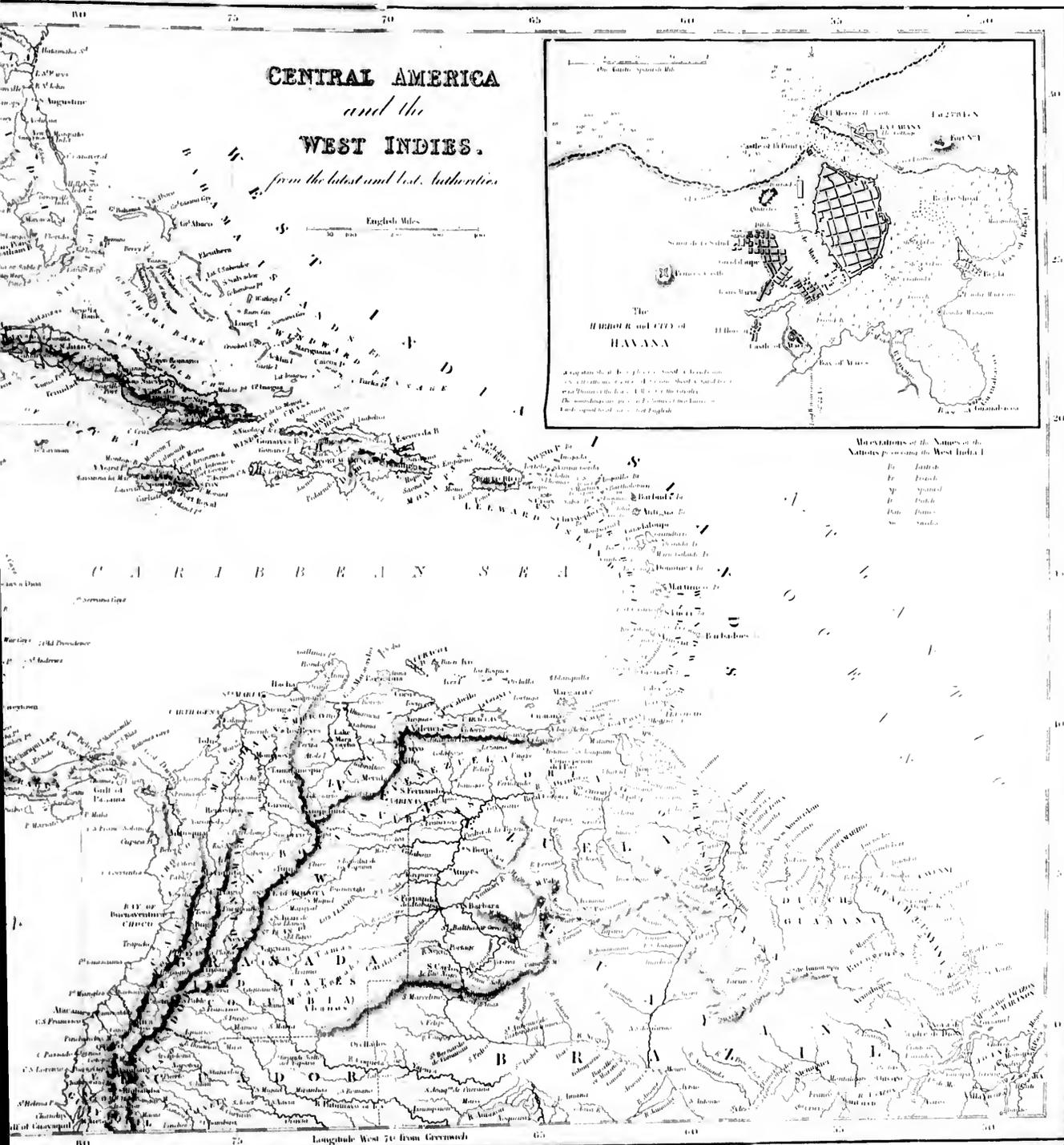
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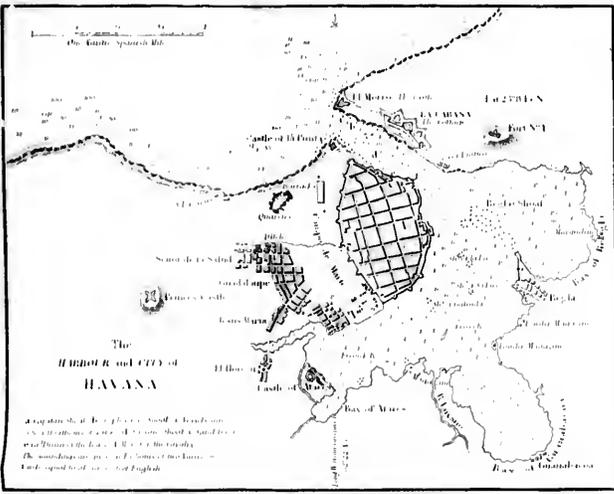
**JAMAICA**

Explanation  
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**CENTRAL AMERICA**  
*and the*  
**WEST INDIES.**  
*from the latest and best Authorities.*

English Miles  
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The  
**HARBOUR and CITY of**  
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Abbreviations of the Names of the Nations pre-occupying the West India I.

- Fr. French
- Sp. Spanish
- En. English
- Port. Portuguese
- Ind. Indian

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whose commerce should be confined entirely to an exchange of their raw products for our manufactured goods. There is, however, no truth in these assertions. On the contrary, the charters granted to the founders of the settlement in Virginia distinctly empower the colonists to carry on a direct intercourse with foreign states. Not were they slow to avail themselves of this permission; for they had, so early as 1620, established tobacco warehouses in Middleburg and Flushing (Robertson's *America*, book ix, p. 104); and the subsequent proceedings of the British Government, depriving them of this freedom of commerce, were the chief cause of those disputes which broke out in 1776, in an open rebellion of ominous and threatening import. (Robertson's *America*, p. 147.) It was not until the colonists had surmounted the difficulties and hardships incident to their first establishment, and had begun to increase rapidly in wealth, that their commerce became an object of importance, and that regulations were framed in the view of restricting its freedom, and of rendering it peculiarly advantageous to the mother country. The Act of 1650, passed by the republican Parliament, laid the first foundations of the monopoly system, by confining the import and export trade of the colonies exclusively

British or colony built ships. But the famous Navigation Act of 1660 (12 Chas. II. c. 18) went much further. It enacted that certain specified articles, the produce of the colonies, and since well known in commerce by the name of *enumerated* articles, should not be exported directly from the colonies to any foreign country, but that they should first be sent to Britain, and there unladen (the words of the Act are, *land upon the shores*), before they could be forwarded to their final destination. Sugar, molasses, ginger, fustic, tobacco, cotton, and indigo were originally enumerated, and the list was subsequently enlarged by the addition of coffee, hides and skins, iron, corn, lumber &c. In 1739 the monopoly system was so far relaxed that sugars were permitted to be carried directly from the British plantations to any port or place southward of Cape Finistere; but the conditions under which this indulgence was granted continued so strict and numerous down to 1803, when they were a good deal simplified, as to render it in a great degree nugatory (Edwards's *West Indies*, vol. ii, p. 152, ed. 1819); and with this exception, the oppressive and vexatious restrictions on their direct exportation to foreign countries were maintained on most of the other *enumerated* commodities of any importance down to a late period.

But besides compelling the colonists to sell their produce exclusively in the English markets, it was next thought advisable to oblige them to buy such foreign articles as they might stand in need of entirely from the merchants and manufacturers of England. For this purpose it was enacted, in 1663, that no commodity of the growth, production, or manufacture of Europe shall be imported into the British plantations but such as are laden and put on board in England, Wales, or Berwick upon Tweed, and in English built shipping, whereof the master and three-fourths of the crew are English. The preamble to this statute, which effectually excluded the colonists from every market for European produce except that of England, assigns the motive for this restriction to be "the maintaining a greater correspondence and kindness between the subjects at home and those in the plantations; keeping the colonies in a firmer dependence on the mother country; making them yet more beneficial to it, in the further employment and increase of English shipping, and the vent of

English manufactures and commodities; rendering the navigation to and from them more safe and cheap; and making this kingdom a staple, not only of the commodities of the plantations, but also of the commodities of other countries and places for their supply; it being the usage of other nations to keep their plantation trade exclusively to themselves."

It was also a leading principle in the system of colonial policy, adopted as well by England as by the other European nations, to discourage all attempts to manufacture such articles in the colonies as could be provided for them by the mother country. The history of our colonial system is full of efforts of this sort; and so essential was this principle deemed to the idea of a colony, that Lord Chatham did not hesitate to declare, in his place in Parliament, that "the British colonists of North America had no right to manufacture even a nail for a horseshoe!" (Edwards's *West Indies*, vol. ii, p. 366.) And when such were the enactments made by the Legislature, and such the avowed sentiments of a great parliamentary leader and a friend to the colonies, we need not be surprised at a declaration of the first Lord Sheffield, who did no more, indeed, than express the opinion of almost all the merchants and politicians of his time, when he affirmed that "THE ONLY USE OF AMERICAN COLONIES OR WEST INDIA ISLANDS IS THE MONOPOLY OF THEIR CONSUMPTION, AND THE CARRIAGE OF THEIR PRODUCE!"

## II. INFLUENCE OF THE MONOPOLY OF THE COLONY TRADE.

1. It is not necessary to enter into any lengthened discussions with respect to this part of our subject. The rules by which we are to form our judgment upon it are unfolded in the article Commerce. Here it is sufficient to observe, in the first place, that, though it could be shown that restrictions on the colony trade were really advantageous to the mother country, that is not enough to prove that they should be adopted. In dealing with a colony, we are not dealing with a foreign country, but with an integral part of our own empire. And hence, in order to show that restrictions on the colony trade are advantageous, it must not merely be shown that they are beneficial to the mother country, but it must further be shown that they are beneficial, or, at all events, not injurious, to the colony. The advantage of one part of the empire is not to be purchased by the depression of some other part. The duty of Government is to promote the prosperity and to maintain the equal rights and privileges of all; not to enrich one class or one province at the expense of others.

This principle is decisive of the whole question. Owing to the identity of language, manners, and religion, the merchants of the mother country must always have very great advantages in the colony markets; and if the commodities which they have to sell be about as suitable for them, and as low priced, as those of others, none else will be imported into them; but if they be not, it would plainly be to the injury of the colony to compel her to buy from the mother country what she might procure cheaper from others. It will immediately be seen that such forced sale could be of no real advantage to the mother country; but whether that were so or not, its mischievous influence upon the colony is manifest. Were Jamaica, for example, obliged to import any article from England which cost her 100,000*l.* a year more than she could procure a similar article for elsewhere, she would manifestly lose this amount; and though it were true that every shilling of this sum found its way as *extra profit* into the pockets

of the merchants or manufacturers of England, that would be no sufficient justification of the policy of such a system. The protection due by a government to its subjects does not depend on the varying degrees of latitude and longitude under which they happen to live. It would not be more glaringly unjust to lay peculiar burthens on the Lothians for the sake of Middlesex, than it is to lay them on Jamaica for the sake of England.

In point of fact, however, the monopoly of the colony trade is of no real use, but the reverse, to the mother country. If, as has been already observed, she can supply her colonists with goods as cheaply as they can be supplied by others, she will have no competitors in their markets; and if she cannot do this, the monopoly is really hostile to her interests. Each country has some natural or acquired capabilities that enable her to carry on certain branches of industry more advantageously than any one else. But the fact of a country being liable to be undersold in the markets of her colonies shows conclusively that, instead of having any superiority, she labours under a disadvantage, as compared with others, in the production of the peculiar articles in demand in them. And hence, in providing a forced market in the colonies for articles that we should not otherwise be able to dispose of, we really engage a portion of the capital and labour of the country in a less advantageous channel than that into which it would naturally have flowed. We impress upon it an artificial direction, and withdraw it from those secure and really beneficial businesses in which it would have been employed, to engage it in businesses the existence of which depends only on the continuance of oppressive regulations, and in which we are surpassed by foreigners.

Even were it conceded that the possession of an outlet in the colonies for goods that could not otherwise be disposed of was an advantage, it is one that can exist in theory only. Practically it can never be realised. The interests of the colonists, and the dexterity and devices of the smuggler, are too much for Custom-house regulations. Cheap goods never fail of making their way through every obstacle. All the tyrannical laws and *guardacostas* of Old Spain did not hinder her colonies from being glutted with prohibited commodities; and we may be assured that the moment a competitor appears in the field capable of supplying the Canadians and people of Jamaica with cottons, woollens, hardware &c. cheaper than we can supply them, that moment will they cease to be our customers. All the revenue officers, and all the ships of England, supposing them to be employed for that purpose, would be unable to avert this result.

The consequences of the American war should have led to sounder opinions than those that are still current as to the value of the monopoly of the colony trade. Has the independence of the United States been in any respect injurious to us? So far from this, it is certain that it has redounded materially to our advantage. We have been relieved from the expense and trouble of governing extensive countries at a great distance from our shores, at the same time that we have continued to reap all the advantage that we previously reaped from our intercourse with them. It is visionary to imagine that we could have succeeded either in preventing them from establishing manufactures at home, or from importing products from abroad, had any one been able to undersell us. Our command of the American market depends, at this moment, on the very same principle—the comparative cheapness of our goods—in which it depended when we had a governor in

every state. So long as we preserve this advantage, we preserve the only means by which the monopoly of any distant market can be maintained, and the only means by which such monopoly is rendered of the least advantage.

Being integral parts of the empire, the trade with the colonies should, as far as circumstances will permit, be conducted on the footing of a coasting trade. The state of the revenue requires that moderate duties should be laid on sugar, coffee, and rum, when imported into Great Britain or Ireland; but the duties on cotton, cocoa, and most other colonial products might be repealed without injury to the revenue, and with advantage to all parties. Unfortunately, however, the system we pursued down to a late period was in most respects the reverse of what it should have been. By excluding the colonists from the cheapest markets for their food and lumber, we artificially raised the cost of their produce; and then, to protect them from the consequences of such shortsighted policy, we gave them a monopoly of the British market! It is thus that one unjust and vicious regulation is sure to give birth to others, and that those who depart from sound principle have nothing left but to endeavour to bolster up one absurdity by another. It is time, surely, that an end were put to every vestige of so ruinous a system. It is as much for the interest as it is the duty of England to remove all restrictions from the colonists, not essential for the sake of revenue, for this is the only means by which she can provide for their real prosperity, by turning their industry into those departments for the prosecution of which they are naturally fitted, and rid herself of those monopolies that form the heaviest drag upon her industry.

We could not, however anxious, exclude manufactured articles, and such foreign goods as are valuable without being very bulky, from our West India islands, provided they were offered cheaply to others. But such is not the case with lumber, provisions &c. They are too bulky to be easily smuggled, and may be, and indeed were very much raised in price by restrictions on their importation. For many years all direct intercourse between our West India colonies and the United States was interdicted; and, in consequence, the planters were compelled either to supply themselves with lumber, staves &c. by a distant voyage from Canada, or, which was by far the most common practice, from the United States, through the circuitous and expensive channel of St. Thomas and other neutral islands! In papers laid by the West India merchants and planters before the House of Commons (No. 129, Session 1831), the estimated increased expense they thus incurred on lumber, staves, flour, shingles, fish &c. at 10 per cent. of the entire value of these articles, or a-187,576*l.* a-year. And it will be observed that a part of this sum went into the pockets of any British merchant—it went wholly to indemnify the Americans and others for being obliged to bring their products round about by St. Thomas instead of direct from the States.

This system grew out of the American war, but it is due to Mr. Pitt to state that it received no countenance from him. On the contrary, he introduced a bill, in 1785, for reviving the beneficial intercourse that existed, previously to the war, between the United States and the West India islands. But being opposed by a powerful party in Parliament, and by the ship-owners and Canada merchants, he was obliged reluctantly to withdraw the bill. The following remarks of Mr. Bryan Edwards on this subject, written in 1794, are too interesting to be omitted:—

'This,' says he, 'is not a business of selfishness or faction; nor (like many of those questions which are daily moved in Parliament merely to agitate and perplex Government) can it be dismissed by a vote. It will come forward again and again, and haunt administration in a thousand hideous shapes, until a more liberal policy shall take place; for so folly can possibly exceed the notion that any measures pursued by Great Britain will prevent the American states from having, some time or other, a commercial intercourse with our West Indian territories on their own terms. With a chain of coast of 20° of latitude, possessing the finest harbours for the purpose in the world, all lying so near the sugar colonies and the track to Europe, with a country abounding in everything the islands have occasion for, and which they can obtain no where else—all these circumstances necessarily and naturally lead to a commercial intercourse between our islands and the United States. It is true we may ruin our sugar colonies, and ourselves also, in the attempt to prevent it; but it is an experiment which God and nature have marked out as impossible to succeed. The present restraining system is forbidding men to help each other; men who, by their necessities, their climate, and their productions, are standing in perpetual need of mutual assistance, and able to supply it.' (*Hist. West Indies*, Preface to 2nd ed.)

We also thought fit to interdict the West Indians from the refining, or, as it is technically termed, the *claying* of sugars. This is one of the few manufactures that might be advantageously set up in the islands. The process adds considerably to the value of sugar; and it might be carried on in the buildings, and by the hands, that are required to boil the cane or to prepare the raw or muscovado sugar. Instead, however, of being allowed to refine their sugars on the spot, and where it might be done for a third part of the expense that is required in England, the planters were prohibited from engaging in this branch of industry, and obliged to export all their sugars, either raw or crushed, to England. Nothing could exceed the oppressiveness of such a regulation; and what is most singular, it has not been enforced, like most regulations of the sort, in order to bolster up any of the leading interests of the country, but merely to give a factitious employment to a very small class—that of the sugar refiners, whose natural residence is in the West Indies. The planters and merchants estimated (in 1830) the loss caused by this preposterous regulation at 75,550*l.* a year; but this prohibition has at length been withdrawn.

The distillation of spirits from sugar, that used to be only occasionally, is now always allowed. The duties having been adjusted so as to give no advantage to the planters over the growers of barley, or to the latter over the former, the distillers have been permitted to distil indiscriminately from sugar, molasses, or grain. It was the business of Government to take care that the duties should be so arranged as to give no unfair advantage to one party over another; but, having done this, it could, with propriety, do nothing more. To prohibit distillation from sugar, that a forced market may be opened for grain; or distillation from grain, that a forced market may be opened for sugar; are interferences with the freedom of industry, for which no good reason has been, nor, we believe, can be assigned.

2. *Relaxation of the Monopoly.*—But though something still remains to be done, it is not to be denied that great progress has been made towards the adoption of a sound system of colonial policy since 1822, when measures for the relaxation of

the monopoly were introduced by Mr. Robinson (afterwards Lord Ripon). These measures were farther followed up by Mr. Huskisson in 1825, by the Act 6 Geo. IV. c. 114; and since his time by the 3 & 4 Wm. IV. c. 59, and more recently by the 5 & 6 Vict. c. 19, which came into operation in the West Indies on April 5, 1843. These Acts repealed several of the prohibitions that formerly existed against the importation of certain articles into the West Indian colonies and the Mauritius, and they also either repealed or very materially reduced the duties that were previously laid on others. For example, the barrel of American or other foreign flour, that down to 1843 paid a duty of 5*s.*, has since been imported on paying in some cases a much lower duty. Most other duties on articles of food have been reduced in the same proportion; and rice, wood, and lumber, articles of great importance in the colonies, which formerly paid high duties, may now be imported duty free. (See *post.*) We believe, indeed, that it would be sound policy to carry still farther this liberal system, by entirely repealing the duties on flour, salt, meat, and all other articles of provision. Jamaica and our other West Indian colonies may be viewed as immense sugar, rum, and coffee manufactories, which, though situated at a distance from England, belong to Englishmen, and are carried on by English capital. But to promote the prosperity of any manufacture without injury to others, there are no means at once so obvious and effectual as to give those engaged in it the means of carrying it on with the least outlay, and to keep the duties on its produce as low as possible. And, how much sorer we may feel in the last of these necessary conditions, we have now but little to reproach ourselves with in regard to the former. It were better, perhaps, that the duties on necessities imported into the colonies should be repealed; but if they are to be retained, those imposed by the late Act are as moderate as can well be desired.

Formerly, though American and other foreign flour could not be imported from a foreign country into the West India Islands without paying a duty of 5*s.* a barrel, it might be imported free of duty into Canada and our other possessions on the continent of N. America, and be thence exported in British ships to the islands free of duty. In consequence of this regulation a large proportion of the flour, lumber, and other articles required for the supply of the islands, instead of being shipped direct for them from New Orleans, Baltimore, and other American ports, was sent in the first instance to Canada, whence it was conveyed in British ships to its final destination. So that the influence of the duty was not so much to raise a revenue, or to open a market for the flour, provisions, and lumber of Canada, as to make the flour and other necessities supplied to the colonists by the United States be carried, at a heavy expense, a roundabout voyage of some 2,000 miles and transhipped, that employment might be found for a few thousand tons of British and colonial shipping! But this preposterous system is happily at an end. American flour is now (1848) charged with a duty of 25 cents per 100 lbs. in Canada; and, independently of this, the duties on foreign articles directly imported into the colonies are too low to give any encouragement to their indirect conveyance.

It was, however, not a little singular, that while the Imperial Legislature had thus endeavoured, by repealing and lowering the duties on most articles of foreign produce, to provide for the future prosperity of the colonies, the Legislature of Jamaica should have passed an Act imposing heavy

duties on the same articles. Luckily, this impolitic Act expired on December 31, 1843, and Government most properly directed the Governor to refuse his assent should it be attempted to renew it, or to propose any similar measure. (*Parl. Paper*, No. 292, Sess. 1843.)

For a lengthened period concession was entirely on the one side; and while we had all but emancipated the trade of the colonies, and allowed them to resort to all the markets of the world, we confined our demand for colonial produce exclusively to their markets. So long, indeed, as the colonists were compelled to take all that they wanted from us, it was but fair that we should be compelled to take the sugar and other articles with which they could supply us exclusively from them. But having liberated them from this obligation and permitted them to resort to whatever markets they thought most advantageous, there was neither justice nor policy in continuing to confine the people of the United Kingdom to their markets. Thus, of all possible cases, is that in which reciprocity would seem to be most desirable. If it be right, as no doubt it is, that the planters of Jamaica should, if they deem it most for their interest, be allowed to draw supplies of flour, provisions, and manufactured goods from New Orleans or Baltimore, on what pretence is the British manufacturer or merchant to be prevented from importing sugar from Rio, the Havannah, or Batavia?

Having done so much to abolish prohibitions on one side, we were bound to do as much for their abolition on the other. Having deprived the merchants and manufacturers of the United Kingdom of the monopoly of the colony market, we could not, without violating every principle of consistency and justice, refuse to deprive the colonists of the monopoly of the British markets. Indeed the ablest and most zealous defenders of the colony system have admitted that one part of it could not be supported independently of the rest, that it is of a piece, and must either stand or fall together. 'The British dominions,' says Lord Sheffield, 'are as much entitled to the markets of the British West Indies as the latter are entitled to those of the former; and whenever that monopoly is given up, it will be the highest absurdity not to open all the British ports to foreign raw sugars.' (*Observations on the Commerce of the American States*, p. 288.) Inasmuch, indeed, as the well-being and prosperity of the people of the United Kingdom is of incomparably more importance than that of the West Indian colonists, every argument that has been or that may be brought forward to show the impolicy of the restraints on the trade of the latter applies with tenfold force to those laid on the trade of the former.

*Influence of the Monopoly on the Sugar, Timber &c. imported into the United Kingdom.*—It appears from the official returns given in the *Parl. Paper* No. 226, Sess. 1843, that during the three years ending with 1842, 3,840,269½ cwt. sugar were annually retained for home consumption in the United Kingdom; and it farther appears, from the same return, that while the average price of British muscovado sugar during that period was 41s. 10½d. per cwt., the average price of Brazil sugar was only 29s. 2d. per cwt. Hence it follows that had the then prohibitory duty of 63s. per cwt. on foreign sugar been reduced to the same level (24s.) as that on British colonial sugar, we might have purchased the same supply of sugar for 29s. 2d. per cwt. that cost us 41s. 10½d., which, on the average quantity consumed during the three years referred to, would have been a total saving in this single

article of no less than 4,168,335s. a-year! But it may, perhaps, be said, that, had our ports been open to the free importation of Cuban and other foreign sugars, the price of the latter would have been raised; and so, probably, it would; though, considering the vast extent and productiveness of the field from which sugar may now be brought, we doubt whether this effect would have been very sensible. But supposing that the opening of our ports had raised the price of foreign sugar from 20s. 2d. to 25s. per cwt., still the saving would have amounted to 3,240,269s. 6s. a-year! [ST. GEORGE.]

We are, however, glad to say that this oppressive system has been abandoned. Foreign sugar is now admitted, without regard to its origin, on payment of reasonable duties, which were reduced in 1834 to the same level with those on limited colonial sugar. Probably, indeed, we have gone, in this case, from one extreme to another, by considering the difficulties under which the British colonists are placed from the want of supplies of compulsory labour, it may be doubted whether they were not entitled to a reasonable discriminating duty in their favour.

The extraordinary preference shown to colonial sugar was, on the whole, probably less objectionable than that shown to colonial timber, the latter having been, for a lengthened period, admitted into our markets at a nominal duty of 1s. per load, while Baltic and other foreign timber was subjected to a duty of 25s. per load! In 1851, however, the duties on foreign timber were reduced to 7s. 6d. per load, and in 1866 all the timber duties were repealed, the colonies and foreign countries having been put on the same level in 1864.

The expense of the colonies is, also, a very heavy item in the national expenditure—far more so than is generally supposed. Not only have we been subjected to discriminating duties on foreign articles, that similar articles from the colonies might enjoy the monopoly of our markets, but we have to defray a very large sum on account of their military and naval expenditure. There is no means by which to estimate the precise amount of this expense; but it is, notwithstanding, abundantly certain that Canada and the islands in the West Indies cost us annually, in military and naval outlays, upwards of a million and a half in time of peace, exclusive of the revenue collected in them; and if to this heavy expense be added the extraordinary sums their defence costs during war, the debtor side of a fairly drawn up colonial budget would attain to a very formidable magnitude, and one which we apprehend could not easily be balanced.

With the exception of the outlet which they afford to emigrants (which, however, is not so great as that afforded by the United States), it would be difficult to specify the peculiar advantage which we derive from our colonies in North America. They furnish but few, if any, articles which we might not import as cheaply, or cheaper, from elsewhere; and if we said that their occupation costs us directly and indirectly the sum of 2,000,000s. a-year, we are pretty confident we should be within rather than beyond the mark. Some, if not all, of our West India colonies are in the same, or nearly the same predicament. As, on the whole, it would appear to be probable that we should gain, rather than lose, by providing under judicious regulations, for the independence of our Transatlantic dominions.

In entertaining this opinion we are not singular. 'If,' said Lord Sheffield, 'we have not purchased our experience sufficiently dear, let us derive a lesson of wisdom from the misfortunes of other nations, who, like us, pursued the phantom of

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foreign conquest and distant colonisation, and who, in the end, found themselves less populous, opulent, and powerful. By the war of 1739, which may be truly called an American contest, we incurred a debt of upwards of 31,000,000*l.*; by the war of 1755 we incurred a further debt of 71,500,000*l.*; and by the war of the revolt we have added to both these debts nearly 100,000,000*l.* more! And thus we have expended a far larger sum in defending and retaining our colonies than the value of all the merchandise we have ever sent them. So egregious has our impolicy been in rearing colonists for the sake of their custom! (*On the Commerce of the American States*, p. 219.)

We hope it will not be supposed, from anything now stated, that we consider the foundation of colonial establishments as, generally speaking, inexpedient. We entertain no such opinion. We do not object to the establishment of colonies, provided they be placed in advantageous situations; but we do object to the trammels that have been laid on their industry, the interference exercised by the mother countries in their domestic concerns, and the attempts to govern and coerce them after they have attained to maturity. Every individual should have full liberty to leave his native country; and occasions very frequently occur when governments may advantageously interfere to settle emigrants in foreign countries, and when the soundest policy dictates the propriety of their supporting and protecting them until they are in a situation to support and protect themselves. There can be no question that Europe has been prodigiously benefited by the colonisation of America. The colonists carried the arts, the sciences, the language, and the religion of the most civilised communities of the Old World to regions of vast extent and great natural fertility, occupied only by a few miserable savages. The empire of civilisation has in consequence been immeasurably extended; and while the experience afforded by the rise and progress of communities placed under such novel circumstances has served to elucidate and establish many most important and fundamental principles in government and legislation, Europe has been enriched by the vast variety of new products America has afforded to stimulate the inventive powers of genius, and to reward the patient hand of industry.

But whatever may have been the advantages hitherto derived from the colonisation of America, they are trifling compared to what they would have been had the European powers left the colonists at liberty to avail themselves of all the advantages of their situation, and avoided encumbering themselves with the government of extensive territories 3,000 miles distant. Fortunately, however, a new era has begun—*Novus sœclorum nascitur ordo!* The monopoly of the trade of America is destroyed, and her independence achieved. From Canada to Cape Horn, every port is ready to receive adventurers from Europe; and a boundless field has, in consequence, been opened for the reception of our surplus population, and for the advantageous employment of European arts, capital, and skill. The few remains of the old colonial system which still exist cannot be of long duration. Their mischievous operation is no longer doubtful, and they will disappear according as the knowledge of sound commercial principles is more generally diffused.

The colonisation of Australia will also contribute in no ordinary degree to extend the blessings of civilisation; and there can be no doubt that this newly discovered portion of the globe, the native inhabitants of which were still fewer in number

and more barbarous than those of America, is destined, at no very remote period, to be the seat of flourishing communities: and while they preserve the language and literature, it is to be hoped that they may also pursue the mild, liberal, and tolerant policy, of the illustrious people from whom it should ever be their proudest boast to have descended.

3. *Slavery.*—Since the publication of the first edition of this work a vast change has been effected in the condition of society in our West India colonies and the Mauritius, by the abolition of slavery, under the provisions of the Act 3 & 4 Wm. IV. c. 73. [SLAVES AND SLAVE TRADE.]

In the second edition of this work, published soon after the Act for the abolition of slavery had been passed, and before its provisions had been carried into effect, we ventured to speculate as follows on its probable results:—

Nothing but vague conjectures can, of course, be indulged in as to the future working of this measure in the colonies. We believe, however, that those who have contended that it will not be productive of any falling off in the industry of the blacks will be found to have taken a very erroneous view of the matter. Field labour in the West Indies has hitherto been always associated with slavery and degradation, and been enforced by the lash. The fair inference, consequently, is, that when the fetters are struck off the slave, and he is left to follow his own inclinations, he will be desirous of escaping from what he cannot fail to consider an ignominious occupation. Necessity, no doubt, will prevent him from becoming altogether indolent; but the effect will in this, as in other instances, be proportioned to its cause; and necessity in the West Indies is very different from necessity in Europe. Most articles that are here deemed indispensable would there be positive incumbrances, and those essential to subsistence may be procured with less, certainly, than half the labour hitherto exacted from the slaves. At some future period, perhaps, when the recollection of their degradation has begun to fade, and a taste for conveniences and gratifications has been introduced amongst them they may become more industrious; but this is a distant and a very uncertain prospect. We therefore look, at first, for a very considerable decline in the industry of the slaves, and a proportional falling off in the exports from the islands.

It will be seen, from the returns given in a subsequent part of this article, that these anticipations have been more than realised, and that there has been a most extraordinary falling off in the imports from these colonies. We confess, also, that we are a good deal more sceptical than formerly in our anticipations of their future increase. Industry, when carried on by free labourers, is presented only as a means by which they may acquire an adequate supply of necessaries and conveniences; and it is all but contradictory and absurd to suppose that a population with few wants, occupying a soil of great natural fertility, lying under a burning sun which unfits for exertion, should voluntarily engage in severe, and, to them, useless labour. We believe, indeed, that it will be found wholly impossible, except under peculiar circumstances, to carry on the culture of sugar on its present plan, in tropical countries, by the agency of *really* free labourers. Hayti, formerly the most important and productive of all the sugar colonies, does not now produce a single cwt. of sugar. Mexico is also fast relapsing into the most deplorable barbarism (*Geographical Dict.* art. 'Mexico'); and experience seems to show that some sort of modified slavery, or, which is the same thing, of

compulsory labour, is indispensable to the successful prosecution of industry in tropical countries. It is to this that the extraordinary increase of produce in Java is to be ascribed, and, how much so ever we may cry out against the slavery of the United States, there cannot, we apprehend, be a doubt that its existence, how objectionable soever in many respects, is necessary to the advantageous cultivation of the Southern States. It is the same in Cuba and Brazil. Were their slaves emancipated, may it not be fairly presumed that they would gradually, and not very slowly, sink into the state of Mexico and Hayti? and that instead of an extensive culture of sugar and other articles for foreign demand, the bulk of the population would be satisfied if they supplied themselves with those necessary for their subsistence? We need not, therefore, wonder that the projects for slave emancipation should have made but tardy progress among the Americans, Brazilians, and Cubans. Whether the West India colonies cease to produce sugar and cotton is a matter of excessively little importance to the people of Britain; but it is a matter of the very last importance to the white people of the Southern States of America, of Brazil, and of Cuba; and though the United States have abolished slavery, the two latter will be much to blame if they do not exercise extreme caution in legislating upon this most delicate matter. Perhaps the better policy will be for them gradually to relax the rigours of servitude, and to endeavour to improve the character and condition of the slaves, so as to fit them the better for emancipation, which may, probably, in the end be forced upon them; but they should carefully eschew all rash or precipitate measures.

### III. MAGNITUDE, POPULATION, TRADE, ETC. OF THE BRITISH COLONIES.

Notwithstanding the loss of the United States, the colonies of Great Britain, exclusive of India, exceed in number, extent, and value those of every other country. Previously, indeed, to the breaking out of the late contests, the colonial dominions of Spain far exceeded in extent and importance those of any other power. But Cuba, Porto Rico, and the Philippine Islands are now all that remain to her. These, indeed, are very valuable possessions, though inferior to those of England.

1. *North American Colonies.*—In North America we possess the provinces of Ontario (formerly Upper or West Canada), Quebec (formerly Lower or East Canada), Nova Scotia, and New Brunswick;—since the Act of 1867 (the Dominion of Canada), Newfoundland with Prince Edward's Island, and their dependencies, all on the east side of the North American continent, and British Columbia, including Vancouver's Island, on the west. The situation and boundaries of these provinces will be more easily learned from the inspection of the accompanying map than they could be from any description. The shores of Nova Scotia and New Brunswick are washed by the Atlantic Ocean; and the noble river St. Lawrence, by its communication with the great American lakes, gives to Canada all the benefits of a most extensive inland navigation; and forms a natural outlet for her surplus produce as well as for the surplus produce of that part of the United States which is washed by the lakes. There is every variety in the soil and climate of these regions. In Lower Canada the winter is very severe; the surface of the country is covered with snow for nearly half the year. From the beginning of December to the middle of April the St. Lawrence is frozen over, and affords

a smooth and convenient passage for the sledges by which it is then covered. But though severe, the climate is far from being unhealthy or disagreeable. The weather is generally clear and bracing; and the labour of artisans at their outdoor employments is rarely suspended for many days in succession. On the breaking up of the ice in the latter end of April or the beginning of May the powers of vegetation almost immediately resume their activity, and bring on the fine season with a rapidity that is astonishing to a stranger. The highest temperature in Lower Canada varies from 80 to 102° of Fahrenheit; but the purity of the atmosphere abates the oppressive heat that is felt in most countries where the mercury ranges so high; and the weather is, on the whole, decidedly pleasant.

That part of the province of Ontario, or Upper or West Canada, which stretches from Lakes Simcoe and the rivers Trent and Severn westward to Lake Huron, and the St. Clair River, and southward to Lake Erie, and part of Lake Ontario, has a soil of extraordinary fertility, capable of producing luxuriant crops of wheat, and every sort of grain. The climate, says Mr. Boicchette, late surveyor general of Lower Canada, 'is so particularly salubrious, that epidemic diseases either among men or cattle are almost entirely unknown. Its influence on the fertility of the soil is more generally perceptible than it is in Lower Canada, and is supposed to be congenial to vegetation in a much superior degree. The winters are shorter, and not always marked with such rigour as in the latter. The duration of frost is always accompanied with a fine clear sky and a dry atmosphere. The sowing opens, and the resumption of agricultural labours takes place, from six weeks to two months earlier than in the neighbourhood of Quebec. The summer heats rarely prevail to excess, and the seasons are usually very friendly to the harvest and favourable for securing all the late crops.'—Boicchette's *Topographical Description of Canada*, p. 393. The ground on the shores of Lake Ontario and Lake Erie, as far west as the junction of the Thames with the St. Clair Lake, is laid out in townships, and partly settled; but the population is still very thin. To the north of the river Thames, along the banks of the St. Clair, and the shores of Lake Huron, round to the river Severn, and thence to the river that joins Lake Nipissing and Lake Huron, is a boundless extent of country that is almost entirely unoccupied. The interior of this space has hitherto been very imperfectly explored, though the banks of the St. Clair and the shores of Lake Huron afford the finest situations for settlements. The soil is in many places of the greatest fertility, the river and lake teem with fish, and every variety of the best timber is found in the greatest profusion.

The winters in the provinces of Nova Scotia, Prince Edward's Island, and New Brunswick are more severe than in Upper Canada, and they are a good deal infested with fogs and mists; but their proximity to England, and their favourable situation for the fishing business, give them considerable advantages.

The province of British Columbia comprises the territory lying between the Rocky Mountains and the Pacific. The average breadth of the territory is 250 miles; its length of coast line is 400. It includes Vancouver's Island (since the Act of 1866) as well as Queen Charlotte's Island &c.

Until 1858 British Columbia formed part of the territory of the Hudson's Bay Company, the license possessed by this company giving the proprietors an exclusive right of trade in the region. But in this year a great discovery of gold was

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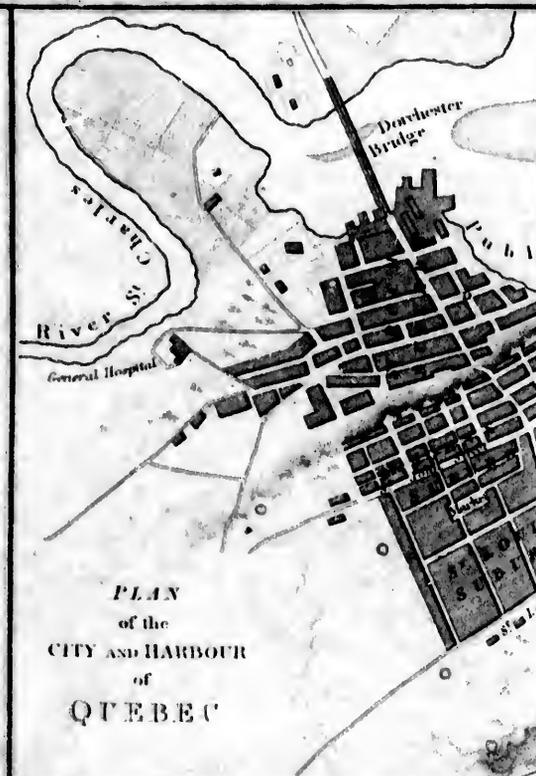
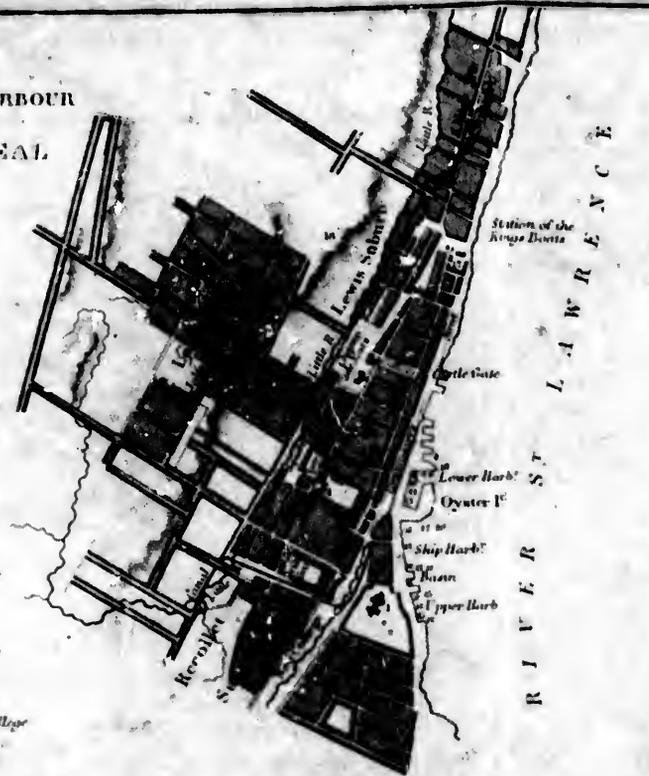
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PLAN  
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References

1. Hospital general
2. Bonseclet Church
3. the Bank
4. Collops
5. Rem. Cat. Cathedral
6. Hotel Dieu
7. Convent Chapel
8. Scotch Church
9. Court House
10. Govt
11. Market
12. Government House
13. Theatre
14. Mansion House
15. Notre Dame Church
16. Ordnance Office
17. Quebec Barracks
18. New Church and College



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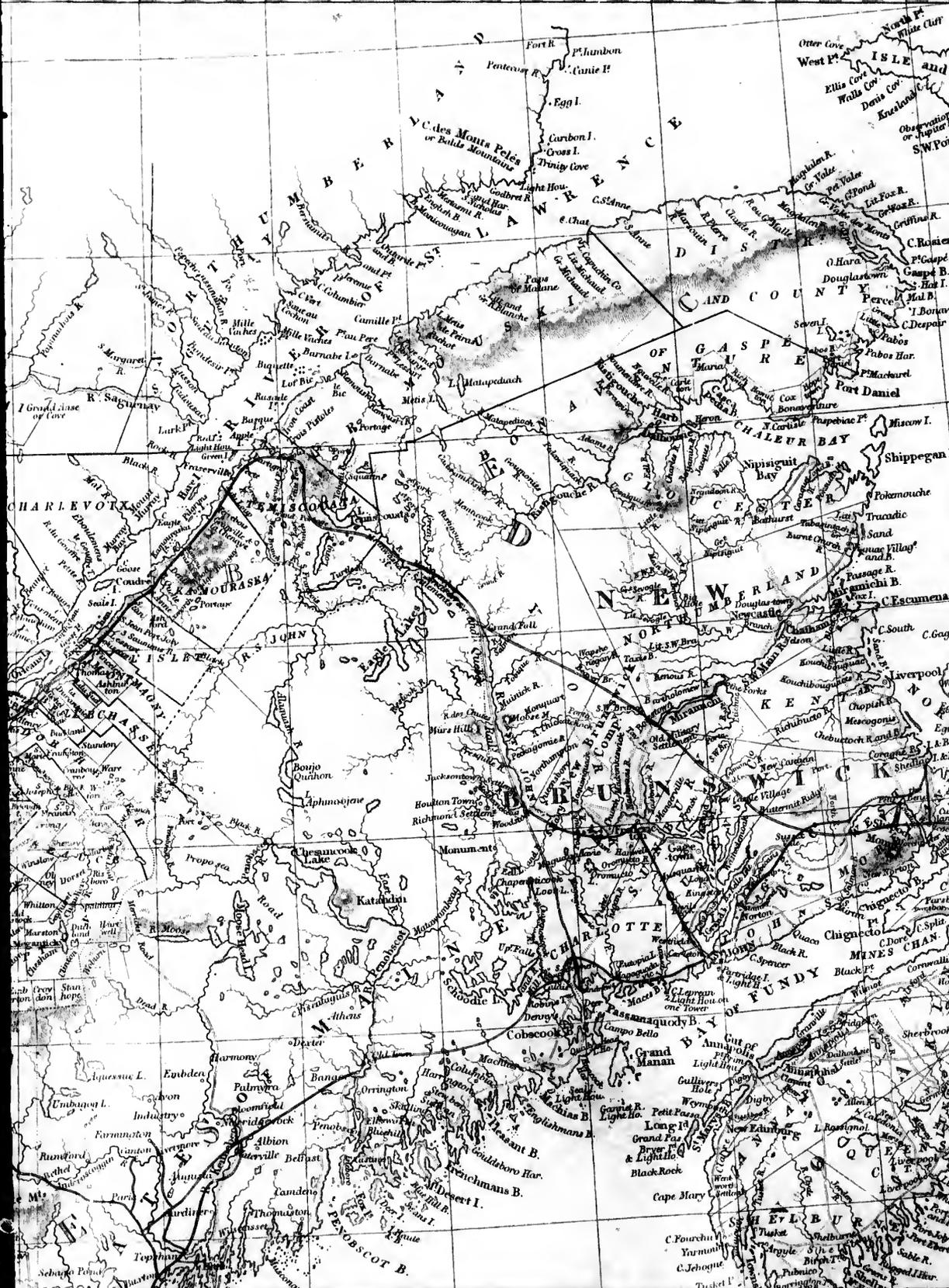
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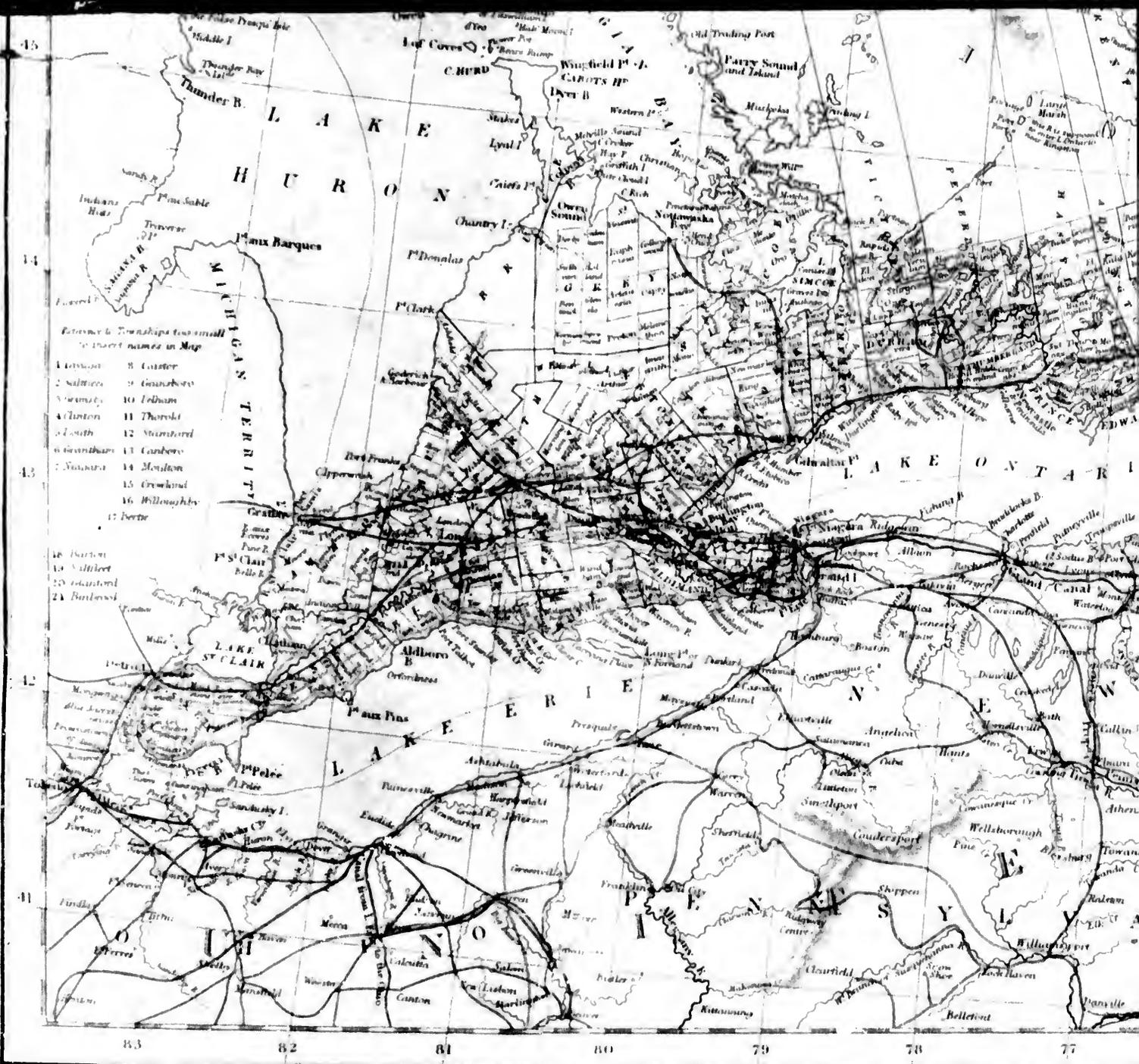
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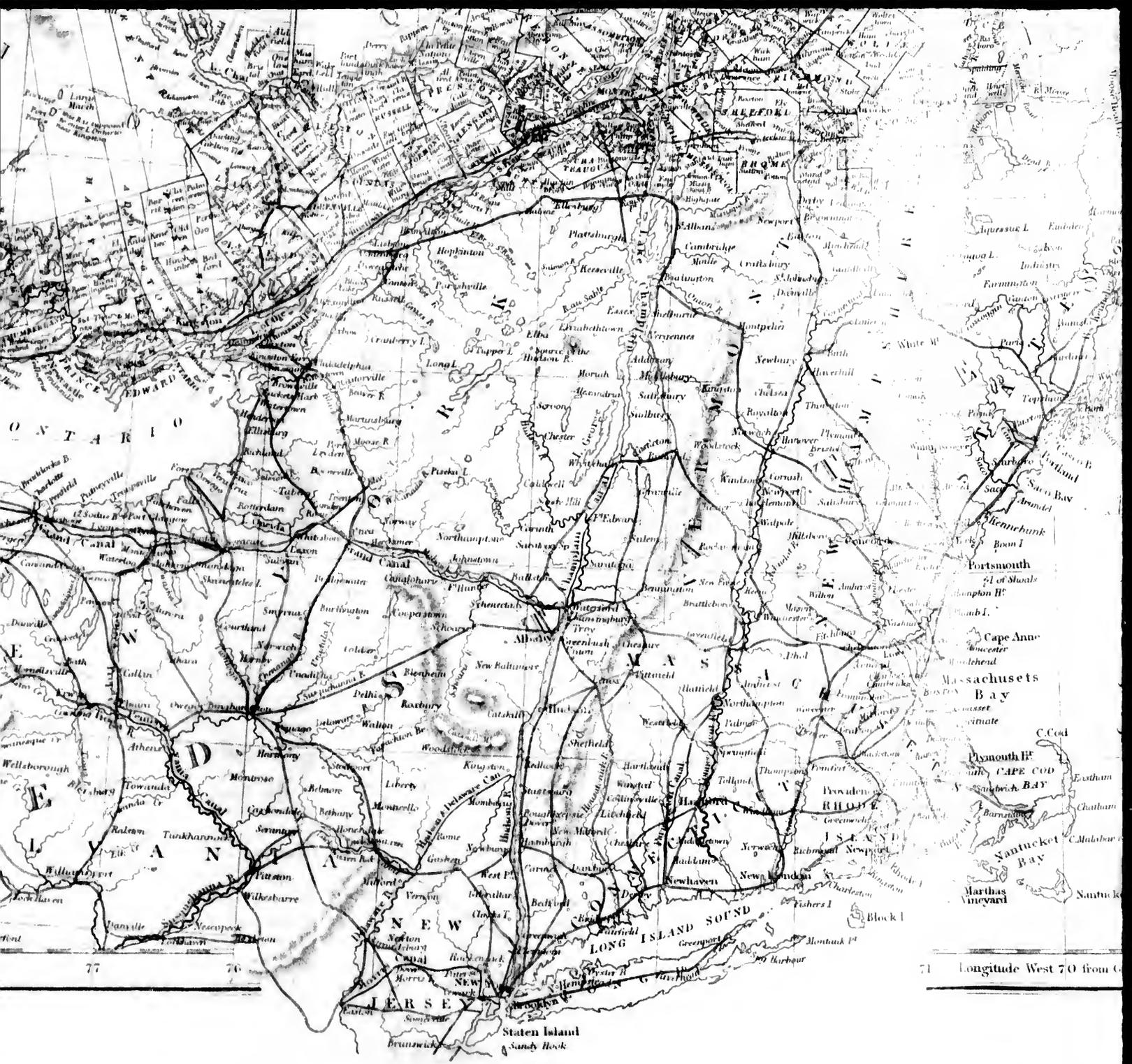


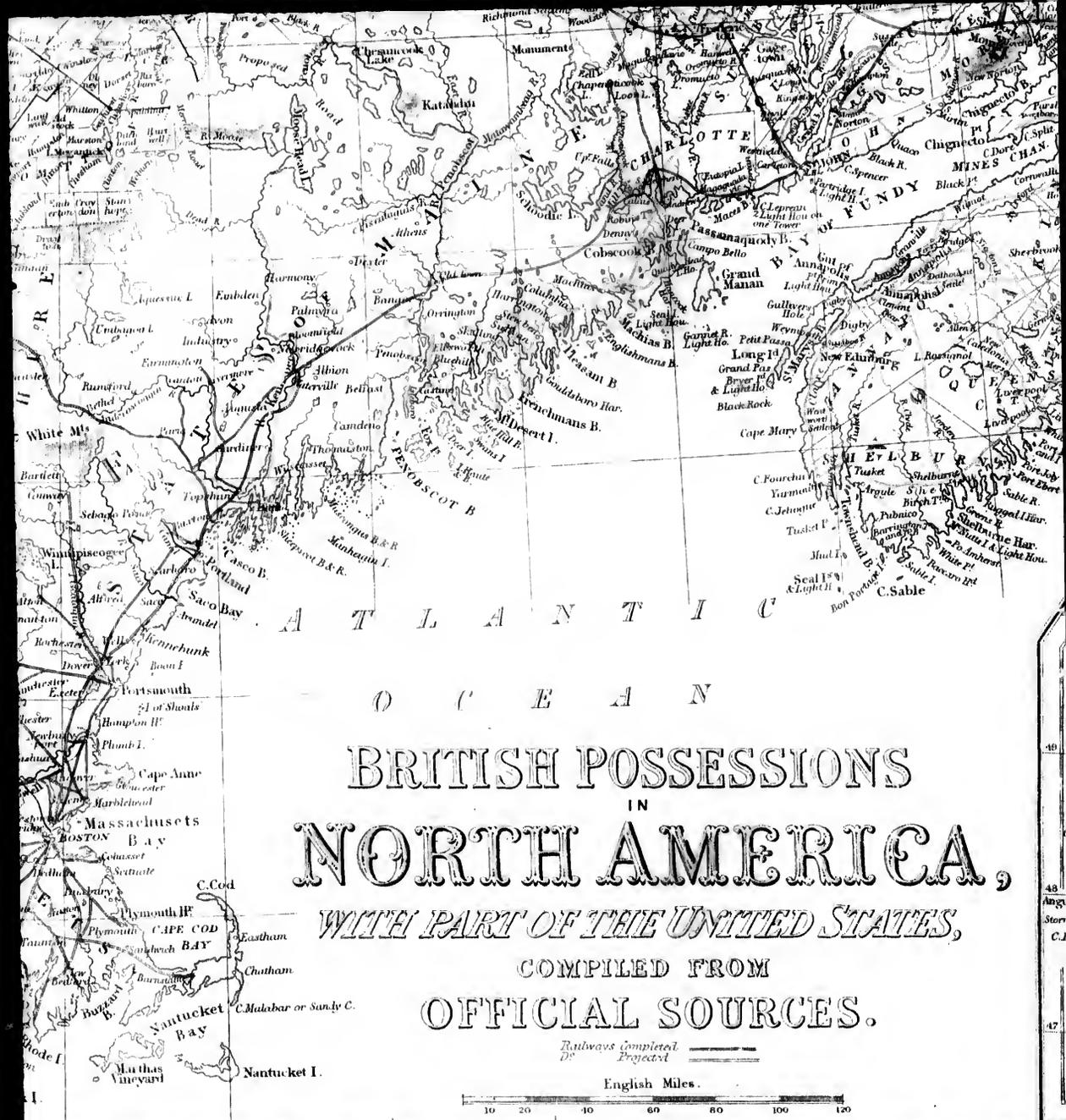












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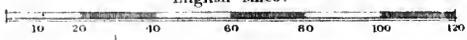
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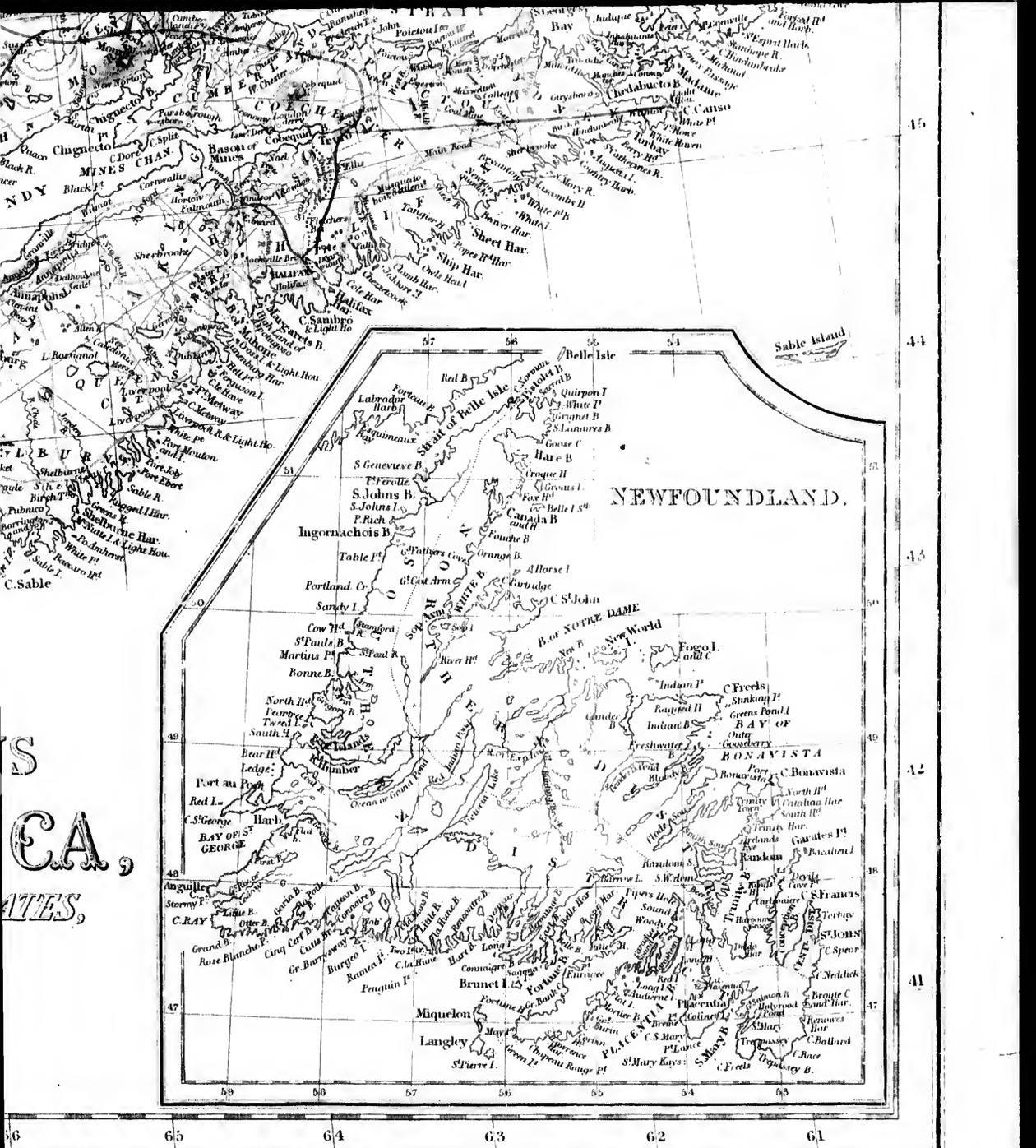
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made here; and as seekers took place, it to protect life and property. The trading Company was revoked under 21 & 22 Vict. c. 10 from 40,000 to 50,000 natives.

Near British Columbia boundary, is Vancouver Island, of extreme length of 275 miles from 40 to 50 miles. The area is estimated at 15,000 square miles. Erected into a British colony, is found here, it is of great significance as Vancouver Island is mountainous, reaching 16,000 feet, the climate, though that of southern England, is favourable with it. In 1865 18,000, of which 10,000 were Indians.

2. *North-west America*. To the above, we possess a tract of vast extent, of a hospitable climate, and fertile soil, as hunting grounds. The islands of Newfoundland, the latter being a dependent territory, their soil is barren, and foggy; so that they are only good for fishing stations.

The following table, *Circular*, exhibits the population of the different North American Colonies.

Colony	Population
Canada	1,800,000
New Brunswick	100,000
Prince Edward's Island	10,000
Newfoundland	100,000
Nova Scotia and Cape Breton	200,000
British Columbia and Vancouver	10,000
Bermuda	10,000

Of the inhabitants of the colonies, fewer than 518,565 were born in the colonies, forming what is called the "native population." In Upper Canada, on the other hand, the population is almost wholly of British origin.

*Number of Emigrants from the British Colonies in North America*

Year	Individuals	Year	Individuals
1845	8,741	1846	12,818
1847	12,818	1848	12,649
1849	12,649	1850	12,081
1851	12,081	1852	13,307
1853	13,307	1854	50,574
1855	50,574	1856	53,967
1857	53,967	1858	66,339
1859	66,339	1860	28,808
1861	28,808	1862	40,669
1863	40,669	1864	15,573
1865	15,573	1866	51,726
1867	51,726	1868	29,884
1869	29,884	1870	45,77
1871	45,77	1872	12,558
1873	12,558	1874	

Total emigration of British subjects to North America

Of these the great majority were sent to Upper Canada. (Circular, p. 10.) From the United Kingdom, the following information for Emigration Commissioners' was appointed. The Emigration Commissioners, whose instructions from the Colonies, and their practice, are under three heads, viz. 1. The superintendence of the emigration of British subjects to the Colonies.

made here; and as a large immigration of gold-seekers took place, it became necessary, in order to protect life and property, to establish a Government. The trading license of the Hudson's Bay Company was revoked, and a colony established under 21 & 22 Vict. c. 99. Estimated population from 40,600 to 50,000, of whom all but 8,360 were natives.

Near British Columbia, and lying off its southern boundary, is Vancouver's Island. It has an extreme length of 275 miles, and a breadth varying from 40 to 50 miles. Its capital is Victoria, a free port. The area is estimated roughly at about 15,000 square miles. Vancouver's Island was erected into a British colony in 1859; and as coal is found here, it is probably destined to be of great significance as a trading station. Vancouver's Island is mountainous, the highest points reaching 16,000 feet. The soil is fertile, and the climate, though of the same character with that of southern England, nevertheless contrasts favourably with it. Estimated population in 1865 18,000, of which 10,000 were aboriginal Indians.

2. *North-west American Colonies.*—In addition to the above, we possess the Hudson's Bay Territory, a tract of vast extent, but situated in an inhospitable climate, and worth very little except as hunting grounds. We also possess the large islands of Newfoundland and Cape Breton, the latter being a dependency of Nova Scotia; but their soil is barren, and the climate severe and foggy; so that they are valuable principally as fishing stations.

The following table, taken from the *Colonisation Circular*, exhibits the estimated population of the different North American colonies in 1867:—

Colony	Population
Canada	3,090,936
New Brunswick	295,081
Prince Edward's Island	91,413
Newfoundland	130,900
Nova Scotia and Cape Breton	368,781
British Columbia and Vancouver's Island	61,761
Bermuda	11,151

Of the inhabitants of Lower Canada in 1844 no fewer than 518,665 were of French extraction, forming what is called the *Nation Canadienne*. In Upper Canada, on the other hand, the population is almost wholly of British origin.

*Number of Emigrants.*—There emigrated to the British Colonies in North America in

Year	Individuals	Year	Individuals	Year	Individuals
1825	8,711	1840	52,205	1855	17,066
1826	12,818	1841	58,164	1856	16,578
1827	12,618	1842	54,123	1857	21,001
1828	12,081	1843	45,518	1858	9,701
1829	15,307	1844	32,924	1859	60,089
1830	20,574	1845	31,803	1860	9,786
1831	55,967	1846	45,159	1861	12,707
1832	66,359	1847	100,080	1862	15,522
1833	28,808	1848	31,065	1863	18,083
1834	40,060	1849	41,567	1864	12,721
1835	15,753	1850	32,961	1865	12,211
1836	31,226	1851	42,605	1866	15,255
1837	29,884	1852	32,876	1867	15,505
1838	4,577	1853	31,225		
1839	12,658	1854	45,761		

Total emigration of the 43 years, 1,501,523.

Of these the great majority have been destined for Upper Canada. (For the total emigration from the United Kingdom, see PASSENGERS.)

*Information for Emigrants.*—In January 1840, a board of Colonial Land and Emigration Commissioners' was appointed. It consists of three commissioners, whose proceedings are guided by instructions from the Secretary of State for the Colonies, and their practical duties may be divided under three heads, viz. the sale of colonial lands; the superintendence and promotion of emigra-

tion; and the diffusion of information in respect of the colonies.

1. The functions of the commissioners under the first head do not extend to the North American colonies. The Crown having placed the revenue derived from the sale of their waste lands at the disposal of the local Legislatures, these lands are, of course, disposed of by the authorities on the spot.

2. The board endeavours, in as far as possible, to protect poor emigrants from imposition, and from the effects of improvident arrangements on their parts, and takes care that the provisions of the Passengers' Acts are duly carried out and enforced.

3. The board publishes from time to time such authentic information as they may receive on matters connected with the settlement of waste lands in the colonies, the prices of the principal articles of colonial produce, the wages of labour, and such other matters as may appear to be useful to persons who propose to settle in the colonies. They likewise answer all applications from individuals, and afford them, as far as may be in their power, such information as may be adapted to their particular cases. The office of the commissioners is at No. 8, Park Street, Westminster.—Assistant-Secretary, R. B. Cooper, Esq.

No pecuniary assistance is afforded by Government to parties desirous of proceeding to the North American colonies; and emigrants after their arrival no longer receive grants of land, that being now wholly disposed of in the way stated below.

But though Government makes no gifts at the public expense to emigrants to North America, it maintains agents at the principal colonial ports, whose business is to protect emigrants from imposition upon their first landing, to acquaint them with the demand for labour in different districts, to point out the most advantageous routes, and to furnish them with useful advice upon the objects which they have had in view in emigrating, without making any charge for the same. Persons newly arrived should not omit to consult these agents, and should avoid detention in the ports, where they are exposed to all kinds of imposition, and pretences for keeping them at taverns till any money they may possess has been expended.

We subjoin a Table, extracted from the *Colonisation Circular* of the Emigration Commissioners, issued in 1868, showing the cost of a passage to the different colonies. (See p. 356.)

The conveyance of emigrants or passengers to parts of Europe is now (1868) regulated by the Passengers' Acts of 1855 and 1863, the 18 & 19 Vict. c. 119, and 26 & 27 Vict. c. 51, of which a full abstract is given under the art. PASSENGERS. The following Order in Council has been issued under the authority of the latter Act.

*Abstract of Order in Council (Jan. 7, 1864) for promoting Order and Health &c. in Passenger Ships to any of her Majesty's Possessions abroad.*

1. Every passenger to rise at 7 A.M., unless otherwise permitted by the surgeon; or, if no surgeon, by the master.
2. Breakfast from 8 to 9 A.M., dinner at 1 P.M., supper at 6 P.M.
3. The passengers to be in their beds at 10 P.M., except under permission of the surgeon, or if no surgeon, of the master.
4. Fires to be lighted by the passengers' cook at 7 A.M., and kept alight by him till 7 P.M.; then to be extinguished, unless otherwise directed by the master, or required for the use of the sick.
5. The master to determine the order in which

Cost of Passages in Sailing Vessels from some of the Principal Ports of the United Kingdom to the British Colonies and the United States.

		Cabin		Intermediate				Steerage				Cost, without Provisions, beyond the legal Allowance	
		Cost, including Provisions		Cost, with Provisions		Cost, without Provisions		Cost, with full Allowance of Provisions		Cost, without Provisions, beyond the legal Allowance			
		From	To	From	To	From	To	From	To	From	To		
QUEBEC	London	£ 15 0	£ 20 0	8 0	12 0	..	..	..	..	..	..	..	..
	Liverpool	15 15	18 18	..	..	..	..	..	..	..	..	..	..
	Plymouth	10 0	..	..	..	..	..	..	..	..	..	..	..
	Ports in the Clyde	13 13*	..	7 7	..	..	..	..	..	..	..	..	..
	Londonderry	10 0	..	4 0	10 0	..	..	..	..	..	..	..	..
NEW BRUNSWICK	Cork	15 15	..	9 0	10 0	..	..	..	..	..	..	..	..
	London	15 0	..	..	..	..	..	..	..	..	..	..	..
	Liverpool	10 0	..	..	..	..	..	..	..	..	..	..	..
	Ports in the Clyde	15 15*	..	..	..	..	..	..	..	..	..	..	..
	Londonderry	10 0	..	..	..	..	..	..	..	..	..	..	..
NEWFOUNDLAND	Galway	20 0	..	..	..	..	..	..	..	..	..	..	..
	London	15 0	..	9 0	10 0	..	..	..	..	..	..	..	..
HALIYAK	Liverpool	10 0	..	..	..	..	..	..	..	..	..	..	..
	Ports in the Clyde	13 13*	..	..	..	..	..	..	..	..	..	..	..
BRITISH COLUMBIA	Southampton (via Panama)	75 9 (about)	..	53 15	..	..	..	..	..	..	..	..	..
	Liverpool	70 0	..	40 0	..	..	..	..	..	..	..	..	..
VANCOUVER ISLAND	London	52 10	..	36 15	..	..	..	..	..	..	..	..	..
	Liverpool	10 0	15 0	5 0	..	..	..	..	..	..	..	..	..
NEW YORK	Liverpool	15 15	22 1	..	..	..	..	..	..	..	..	..	..
	Southampton	20 0	25 0	12 0	14 0	..	..	..	..	..	..	..	..
	Ports in the Clyde	15 0*	..	7 0	..	..	..	..	..	..	..	..	..
	Londonderry	10 0	..	4 0	10 0	..	..	..	..	..	..	..	..
	Cork	15 15*	22 0	18 0	..	..	..	..	..	..	..	..	..
NEW ORLEANS	Galway	10 0	22 0	..	..	..	..	..	..	..	..	..	..
	Liverpool	25 0	..	6 0	..	..	..	..	..	..	..	..	..
PHILADELPHIA	Londonderry	10 0	..	4 10	..	..	..	..	..	..	..	..	..
	Liverpool	25 0	40 0	..	..	..	..	..	..	..	..	..	..
WRETT INDIES	Liverpool	25 0	30 0	..	..	..	..	..	..	..	..	..	..
	Southampton	35 0	44 0	25 0	..	..	..	..	..	..	..	..	..
CAPE OF GOOD HOPE & NATAL	Ports in the Clyde	30 0	..	..	..	..	..	..	..	..	..	..	..
	London	35 0	50 0	20 0	25 0	..	..	..	..	..	..	..	..
	Liverpool	45 0*	..	30 0*	..	..	..	..	..	..	..	..	..
MAURITIUS	Southampton	60 0	75 0	..	..	..	..	..	..	..	..	..	..
	Liverpool	63 0	..	..	..	..	..	..	..	..	..	..	..
	Southampton	85 0*	..	50 0*	..	..	..	..	..	..	..	..	..
CAYENNE	Plymouth	65 0	..	45 0*	..	..	..	..	..	..	..	..	..
	London	75 0	100 0	..	..	..	..	..	..	..	..	..	..
	Liverpool	85 0*	..	50 0*	..	..	..	..	..	..	..	..	..
HONG KONG	Southampton	85 0*	..	50 0*	..	..	..	..	..	..	..	..	..
	London	60 0	80 0	26 0	..	..	..	..	..	..	..	..	..
	Liverpool	90 0*	..	65 0	..	..	..	..	..	..	..	..	..
SYDNEY	Southampton	42 0	80 0	16 0	20 0	..	..	..	..	..	..	..	..
	Liverpool	50 0	..	21 0	..	..	..	..	..	..	..	..	..
	Plymouth	42 0	80 0	16 0	20 0	..	..	..	..	..	..	..	..
QUEENSLAND	Southampton	120 0*	..	75 0	..	..	..	..	..	..	..	..	..
	Ports in the Clyde	35 0	..	18 0	..	..	..	..	..	..	..	..	..
	Cork	45 0	..	..	..	..	..	..	..	..	..	..	..
VICTORIA, LATA & PORT PHILIP	London	42 0	80 0*	16 0	25 0	..	..	..	..	..	..	..	..
	Liverpool	45 0	..	25 0	..	..	..	..	..	..	..	..	..
	Plymouth	42 0	..	..	..	..	..	..	..	..	..	..	..
TASMANIA	Southampton	120 0*	..	75 0	..	..	..	..	..	..	..	..	..
	Ports in the Clyde	30 0	..	..	..	..	..	..	..	..	..	..	..
WESTERN AUSTRALIA	Liverpool	42 0	80 0	16 0	..	..	..	..	..	..	..	..	..
	London	42 0	80 0	22 0	25 0	..	..	..	..	..	..	..	..
SOUTH AUSTRALIA	London	42 0	80 0	16 0	25 0	..	..	..	..	..	..	..	..
	Liverpool	50 0	..	21 0	..	..	..	..	..	..	..	..	..
	Plymouth	42 0	80 0	16 0	25 0	..	..	..	..	..	..	..	..
NEW ZEALAND	London	42 0	80 0	22 0	28 0	..	..	..	..	..	..	..	..
	Liverpool	42 0	80 0	..	..	..	..	..	..	..	..	..	..
	Ports in the Clyde	35 0	..	..	..	..	..	..	..	..	..	..	..
CALIFORNIA	Cork	45 0	50 0	26 0	..	..	..	..	..	..	..	..	..
	London	60 0	80 0	35 0	40 0	..	..	..	..	..	..	..	..
FAIRLAND ISLANDS	Southampton	90 0*	..	60 0	..	..	..	..	..	..	..	..	..
	London	40 0	60 0	30 0	25 0	..	..	..	..	..	..	..	..

Charges for Children.—The general practice in charging for children is, to compute them according to the Passengers' Act, viz., Children from 1 to 12 years of age, half the price of adults; under 1, no charge.  
 \* Ifly Steamer.  
 Caution.—Emigrants to New Brunswick, Prince Edward Island, or Nova Scotia, should not proceed thither by way of Quebec.

each passenger or family of passengers shall be entitled to the use of the fires. The cook to take care that this order is preserved.

6. On each passenger deck 3 safety lamps to be lit at dusk, and kept burning all night, and such further number as shall allow 1 to be placed at each of the hatchways used by the passengers.

7. No naked light between deck or in the hold to be allowed at any time or on any account.

8. The passengers, when dressed, to roll up their beds, to sweep the decks (including the space under the bottom of the berths), and to throw the dirt overboard.

9. Breakfast not to commence till this is done.

10. The sweepers for the day to be taken in rotation from the males above 14, in the proportion of 5 for every 100 passengers.

11. Duties of the sweepers to be to clean the latrines, hospitals, round houses, and water-closets; pump water into the cisterns or tanks for the supply of the water-closets; to sweep the decks after every meal, and to dry, holystone, and scrape them after breakfast.

12. But the occupant of each berth to see that his own berth is well brushed out; and single women are to keep their own compartment clean in ships where a separate compartment is allowed to them.

13. The beds to be well washed and aired on deck, and the bottom boards, if not fixtures, to be removed, and dry-scrubbed and taken on deck at least twice a week.

14. Two days in the week to be appointed by the master as washing days, but no clothes on any account to be washed or dried between decks.

15. The cleaned every with water.  
 16. The sc kept open (w p.m., and the  
 17. On Sun at 10 A.M., v  
 18. No spir board by any covered to be ter till the exp  
 19. No loose  
 20. No smok  
 21. All immo proper liberties  
 22. Five-arms,  
 23. No sailors t  
 24. No passeng  
 without special pe  
 account in the fore  
 account.  
 Besides the sea  
 proceeding to Cana  
 means of paying f  
 have to make after  
 cost of their journe  
 the situation of th  
 may find employe  
 viously formed a wa  
 Commissioners hav  
 ing Hints to Emig  
 Colonies:—

HINTS TO EMIGRANTS  
 Caution to keep  
 to every British col  
 tract tickets, as othe  
 by any accident from  
 the passengers, for at  
 at the place named  
 a difficulty in obtain  
 money, to which, in  
 be entitled.  
 Caution to provide  
 port after arrival.—  
 ively been found to r  
 assistance in the col  
 that they have no ch  
 and that they should  
 efficient means of the  
 conveyance into the  
 they land.  
 In Canada a Colon  
 relief from the Emig  
 in cases of sickness o  
 grants.  
 Tools.—It is not go  
 that agricultural labo  
 ments of husbandry, a  
 in the colonies; but  
 take such tools as th  
 silky.

15. The coppers and cooking vessels to be cleaned every day, and the cisterns kept filled with water.

16. The scuttles and stern ports, if any, to be kept open (weather permitting) from 7 A.M. to 10 P.M., and the hatches at all hours.

17. On Sunday the passengers to be mustered at 10 A.M., when they will be expected to appear in clean and decent apparel. The day to be observed as religiously as circumstances will admit.

18. No spirits or gunpowder to be taken on board by any passenger. Any that may be discovered to be taken into the custody of the master till the expiration of the voyage.

19. No loose hay or straw to be allowed below.

20. No smoking to be allowed between decks.

21. All immoral or indecent acts or conduct, improper liberties or familiarities with the female passengers, blasphemous, obscene, or indecent language, or language tending to a breach of the peace, swearing, gambling, drunkenness, fighting, disorderly, riotous, quarrelsome, or insubordinate conduct, and also all deposits of filth or offensive acts of uncleanness in the between decks, are strictly prohibited.

22. Fire-arms, swords, and other offensive weapons, as soon as the passengers embark, to be placed in the custody of the master.

23. No sailors to remain on the passenger deck among the passengers except on duty.

24. No passenger to go to the ship's cook-house without special permission from the master, nor to remain in the fore-cabin among the sailors on any account.

Besides the sea voyage from England, persons proceeding to Canada should be provided with the means of paying for the journey which they may have to make after their arrival at Quebec. The cost of their journey must, of course, depend upon the situation of the place where the individual may find employment, or where he may have previously formed a wish to settle. The Emigration Commissioners have (1868) published the following Hints to Emigrants to the North American Colonies:—

#### HINTS TO EMIGRANTS TO BRITISH NORTH AMERICA.

**Caution to keep Contract Tickets.**—Emigrants to every British colony ought to keep their contract tickets, as otherwise, if the ship is prevented by any accident from reaching her destination, or if the passengers, for any other reason, are not landed at the place named in the tickets, they may have a difficulty in obtaining a return of their passage money, to which, in that case, they would by law be entitled.

**Caution to provide means for subsistence and transport after arrival.**—Many emigrants having lately been found to rely on public funds for their assistance in the colonies, they are hereby warned that they have no claim of right on such funds, and that they should provide themselves with sufficient means of their own for their subsistence and conveyance into the interior from the port where they land.

In Canada a Colonial Law expressly prohibits relief from the Emigrant Tax Fund, excepting in cases of sickness on the part of destitute emigrants.

**Tools.**—It is not generally considered desirable that agricultural labourers should take out implements of husbandry, as these can be easily procured in the colonies; but artisans are recommended to take such tools as they may possess, if not very bulky.

**Time to arrive in North America.**—The best period is early in May, so as to be in time to take advantage of the spring and summer work, and to get settled before the winter sets in.

#### Average Length of Passage.

To	days
Quebec	26
Prince Edward Island (say)	36
Nova Scotia	34
New Brunswick	36
British Columbia, in a sailing ship round Cape Horn	150
via Panama	50

By the Passengers' Act, provisions and water are, however, required to be laid in for the first 4 colonies for 70 days, and in winter time for 80 days; and for British Columbia for 182 days.

The water of the river St. Lawrence is stated to have a strong tendency to produce bowel complaints in strangers. It should at first, therefore, be drunk as sparingly as possible. Emigrants should also avoid exposure to the great heat of the sun by day, and the dews and noxious vapours by night.

**Maintenance on arrival &c.**—Passengers are entitled by the Imperial Passengers' Act to be maintained on board in the same manner as during the passage for 48 hours after arrival, unless within that time the ship should quit the port in the prosecution of her voyage. As regards those bound to Quebec, the Canadian Passengers' Act, 15 & 16 Vict. c. 86 [1852], imposes a penalty on the master who compels passengers to leave before the expiration of 48 hours (except in cases where the vessel has a mail contract), and provides that they shall be landed free of expense, and between 6 in the morning and 4 in the afternoon.

#### ADVICE TO EMIGRANTS ARRIVING IN CANADA.

All emigrants who wish to know the distance to any part of the province, the way to get there, what it costs, and the best places to find work, should ask the Government Emigration Officer (who will board the ship they arrive in), or else go to the Emigration Office, Old Custom House Buildings, Quebec. Those arriving by steamer will land at Point Levi, where there is also a Government Office. Emigrants should not listen to the opinions or advice of persons hanging about the places of landing, whose business it is to make profit out of them. Many young females and unprotected persons have been deceived and suffered from acting on such advice. For the better protection and convenience of emigrants desiring to wash their clothes and obtain information as to their future journey, temporary accommodation has been provided at the Government Emigration Wharf, Quebec, where they will be allowed to remain for a period not exceeding 48 hours. Emigrants who go out to join friends or relations already settled in the country should go at once to their destination. Farm labourers will get plenty of work in the farming districts. The chief agent will not assist any one who loses his time by staying in the city, unless detained by sickness or other good reason. Any offer of work had better be at once accepted, even if the wages are not as much as the emigrant thought they would be, because, until he gets into the ways of the country, he is not of much use to the farmer, and has a great deal to learn.

The same advice must be given to clerks, shopmen &c., who are very little wanted in Canada, and have but a poor chance of employment, and also to mechanics.

Any complaints of bad treatment on the passage out should be made, upon landing, to the Chief Emigration Agent, who will at once attend to them.

**Caution.**—Newly arrived immigrants are frequently tempted by the promise of high wages held out by agents from the United States to leave Canada for the States. These promises should not be entertained without much caution and enquiry.

The Provincial Passenger Act, 25 Vict. c. 8, provides that no person without a license shall influence passengers in favour of any particular steam-boat, railroad, or tavern. Tavern-keepers are required to have posted in some conspicuous place a list of prices to be charged for board, lodging &c., and they are not allowed to have any lien upon the effects of a passenger for board and lodging beyond five dollars—about one pound sterling.

Emigrants arriving at Quebec, holding through tickets for their inland transport, and desiring to obtain information, may delay their journey for that purpose, as the railway or steamboat company to whom they are addressed will take charge of their luggage until they are ready to proceed.

#### Colonial Tax on Emigrants.

**CANADA.**—By a Colonial Law of June 30, 1858, the capitation tax is 5s. currency, payable by the master, for every passenger over the age of 1 year; and no part of the tax is remitted on emigrants going on to the United States. If embarked, however, without the sanction of her Majesty's Government, ascertained by a certificate from an officer of customs at the port of embarkation, the tax is 7s. 6d. currency for every passenger.

**NOVA SCOTIA.**—The Emigrant Tax Act of 1850 was repealed by an Act (No. 9) passed April 18, 1856. No tax is, therefore, now payable in respect of emigrants arriving in this colony.

**NEW BRUNSWICK.**—The tax imposed on emigrants was for many years 5s. per head; it was then reduced to 2s. 6d.; and in 1861 it was entirely abolished by the Colonial Act, 24 Vict. c. 4.

**PRINCE EDWARD ISLAND.**—The tax now levied under a Colonial Act, passed May 5, 1851, is 12s. currency (equal to about 10s. sterling) on each emigrant passenger arriving in the colony between the 1st of April and the 1st of October, but no payment is required for children under 18 months old. The tax is increased to 18s. currency if the emigrants arrive after the 1st of October. The master of the ship has to pay an additional tax if the vessel is put into quarantine.

In all of the colonies the tax is made payable by the master of the ship.

**NEWFOUNDLAND.**—No emigrants' tax in this colony.

**Personal Effects exempt from Duty.**—By a Canadian Act (8 & 9 Vict. c. 31), 'wearing apparel in actual use, and other personal effects not merchandise, implements and tools of trade of handicraftsmen used in the occupation or employment of persons coming into the province for the purpose of actually settling therein,' are exempt from customs' duties. A similar provision is in force in New Brunswick.

**Expense of erecting a log hut.**—The cost of a log hut, such as settlers usually erect, may be stated at from 5l. to about 12l.; but when the chief part of the work is performed by the emigrant: himself, the cost is much less. These huts, if properly constructed, are very warm and comfortable.

**VANCOUVER ISLAND.**—The expense of erecting a suitable dwelling for an agricultural labourer may be estimated at from 25l. to 30l.

The rent of a town lodging for mechanics and labourers is about 14s. per week.

**BRITISH COLUMBIA.**—The cost of such a building varies according to the rate of wages in the different parts of the colony; but a good hut can be built and fitted up by the immigrant at a cost of 10l., or 15l.

#### Value of the English Coins in Canada.

	Halifax Currency	Dollars	Cents
1 sovereign, sterling	7 4 4	4	85
1 crown	0 6 1	1	24
1 crown	0 3 0	0	60
1 shilling	0 1 3	0	24

In Upper Canada the English sixpence is generally called in retail dealings 'one York shilling' or a shilling; emigrants often believe one shilling sterling or currency is meant.

Emigrants should bring their money in gold, silver, or good Bills of Exchange. Bank notes are liable to heavy discounts.

**Route for Emigrants to Canada.**—Emigrants intending to settle in Canada will find it in all respects more advantageous to proceed by Quebec.

As there is often competition among the steam-boat and railway companies at Quebec and the forwarding companies at Montreal, emigrants should exercise caution before agreeing for their passage, and should avoid those persons who crowd on board ships and steam boats, offering their service to get passages &c.

Emigrants for Upper Canada should not pause at Quebec or Montreal, but proceed at once on their journey. If, however, they require advice or direction, they should apply *only* to the Government Agents, who will furnish gratuitously all requisite information.

**3. West India Colonies.**—In the West Indies we possess Jamaica, Barbadoes, St. Lucia, Antigua, Grenada, Trinidad, and some other islands, exclusive of Demerara and Berbice in South America. Jamaica, by far the largest of our insular possessions, is about 120 miles in length, and 40 in mean breadth, containing about 2,800,000 acres, of which from 1,100,000 to 1,200,000 are supposed to be in cultivation. Being situate within the Tropic of Cancer, the heat in the West Indies is intense, but is moderated by the sea breeze which blows regularly during the greater part of the day. The rains make the only distinction of seasons. They sometimes fall with prodigious impetuosity, giving birth to innumerable torrents, and laying all the low country under water; the trees are green the whole year round; they have no snow, no frost, and but rarely some hail. The climate is very humid; iron rusts and corrodes in a very short time; and it is this, perhaps, that renders the West Indies so unfriendly to European constitutions, and produces those malignant fevers that are so very fatal. The vegetable productions are numerous and valuable; but the sugar cane and the coffee plant are incomparably more important than the others, and constitute the natural riches of the islands.

The West Indies are occasionally assailed by the most dreadful hurricanes, which destroy in a moment the hopes and labours of the planters, and devastate entire islands. Whole fields of sugar canes are sometimes torn up by the roots, houses are either thrown down or unroofed, and even the heavy copper boilers and stills in the works have, in numerous instances, been wrenched from the ground and battered to pieces. The rain pours down in torrents, sweeping before it every-

thing that caused by so produce a very famine; and the severity of been material part of the from the Un Dominica as by a committ 15,000 negroes 1780 and the occasioned by importation from West Indies, v Jamaica was and continued 1655, when it English. Altho than a century Spain, such was colonial system quered it, conta these were imm the many valua after produced it altogether unkn such a supply on for the consump Spanish settlers, sessed none of the acquainted even y which, in civilised to its comfort and polished by social education; but pas gnor, enfeebled by They had been for gressive degenera short time have ex tors by falling victi of their slaves.' (A Sea, ed.)

For a considerabl tained possession o were cocoa, hides, 1772 the exports 11,000 hogs-heads, to 78,000 hogs-heads rum, and 6,517 bags was very injurious t and they may, inde from its effects, as led to the enactmen importation of food very hurtful to the was visited by a m devastation occasio dreadful famine; a in the immediately 1787 a new era of i vastation of St. Domi which broke out in f few years almost cut supply of 115,000 hog and the Continent ha to receive from that supply, by causing a and a consequent rise in the other islands, extension of cultivat respect was its infl at an average of th had produced only 8 in 1801 and 1802, up or 143,000 a-year! The same rise of pri

thing that comes in its way. The destruction caused by such dreadful scourges seldom fails to produce a very great scarcity, and not infrequently famine; and we are grieved to have to add, that the severity of the distress has on several occasions been materially aggravated by a refusal on the part of the authorities to allow importation direct from the United States. This was the case at Dominica as late as 1817. It is stated in a report by a committee of the Assembly of Jamaica, that 15,000 negroes perished between the latter end of 1780 and the beginning of 1787, through famine occasioned by hurricanes and the prohibition of importation from the United States. (Edwards's *West Indies*, vol. ii. p. 515.)

Jamaica was discovered by Columbus in 1494, and continued in possession of the Spaniards till 1655, when it was wrested from them by the English. Although it had thus been for more than a century and a half under the power of Spain, such was the deadening influence of her colonial system, that it did not, when we conquered it, contain 1,500 white inhabitants, and these were immersed in sloth and poverty. Of the many valuable articles which Jamaica soon after produced in such profusion, many were then altogether unknown; and of those that were known such a supply only was cultivated as was required for the consumption of the inhabitants. 'The Spanish settlers,' says Mr. Bryan Edwards, 'possessed none of the elegancies of life; nor were they acquainted even with many of those gratifications which, in civilised states, are considered necessary to its comfort and convenience. They were neither polished by social intercourse, nor improved by education; but passed their days in gloomy languor, enfeebled by sloth, and depressed by poverty. They had been for many years in a state of progressive degeneracy, and would probably in a short time have expiated the guilt of their ancestors by falling victims themselves to the vengeance of their slaves.' (*Hist. West Indies*, vol. i. p. 297, 8vo. ed.)

For a considerable number of years after we obtained possession of Jamaica, the chief exports were cocoa, hides, and indigo. Even so late as 1772 the exports of sugar amounted to only 11,000 hogsheads. In 1774 they had increased to 78,000 hogsheads of sugar, 26,000 puncheons of rum, and 6,547 bags of coffee. The American war was very injurious to the West India settlements; and they may, indeed, be said to be still suffering from its effects, as the independence of America led to the enactment of those restrictions on the importation of food, lumber &c. that were so very hurtful to the planters. In 1780 Jamaica was visited by a most destructive hurricane, the devastation occasioned by which produced a dreadful famine; and other hurricanes followed in the immediately succeeding years. But in 1787 a new era of improvement began. The devastation of St. Domingo by the negro insurrection which broke out in 1792 first diminished, and in a few years almost entirely annihilated, the annual supply of 115,000 hogsheads of sugar which France and the Continent had previously been accustomed to receive from that island. This diminution of supply, by causing a greatly increased demand for, and a consequent rise in the price of, sugar raised in the other islands, occasioned an extraordinary extension of cultivation. So powerful in this respect was its influence, that Jamaica, which, at an average of the 6 years preceding 1799, had produced only 83,000 hogsheads, exported, in 1801 and 1802, upwards of 286,300 hogsheads, or 143,000 a-year!

The same rise of price which operated so power-

fully in Jamaica, occasioned a similar though less rapid extension of cultivation in our other islands, and in Cuba, Porto Rico, and the foreign colonies generally. The vacuum caused by the cessation of the supplies from St. Domingo being thus more than filled up, a reaction commenced. The price of sugar rapidly declined; and, notwithstanding a forced market was for a while opened to it by substituting it for malt in the distillery, prices did not attain to their former elevation. On the opening of the Continental ports, in 1813 and 1814, they, indeed, rose, for a short time, to an extravagant height; but they very soon fell, involving in ruin many of the speculators upon an advance. Prices, however, continued at a pretty high level down to 1818; but they sustained a material fall in the course of the following year, and were comparatively low from that period down to 1835, when the extraordinary falling off in the supplies of sugar consequent on the measures connected with the emancipation of the slaves, again occasioned a considerable rise of price. But, as already seen, this high price was entirely fictitious, being wholly caused by our excluding foreign sugar from our market. Now that the sugar of Brazil, Cuba, and Java is admitted on paying reasonable duties, prices are comparatively low. And from the extraordinary facility with which sugar may be raised in the countries referred to and elsewhere, we have no idea, provided they adopt no rash or ill-advised measure in relation to slaves, that its price in their markets would be likely to sustain any material or permanent increase, even though the demand for it were doubled or more. The imports of sugar from our West Indian colonies, which amounted to 4,103,800 cwts. in 1831, sunk, in 1841, to 2,151,217 cwts. In 1866 they amounted to 3,177,947 do.

The devastation of St. Domingo gave the same powerful stimulus to the growth of coffee in the other West Indian colonies that it did to the growth of sugar; and owing to the extraordinary increase in the demand for coffee in this and other European countries, the supply went on increasing till it was checked by the influence of the measures relating to slavery. In 1752, for example, only 60,000 lbs. of coffee were exported from Jamaica; in 1775 the export amounted to 440,000 lbs.; in 1797 it had increased to 7,931,621 lbs.; and in 1832, when it had attained its maximum, the exports to England only amounted to 19,405,933 lbs. Such, however, and so rapid has been their subsequent decline, that in 1858 the exports to England from Jamaica amounted to only 2,091,607 lbs., and in 1866 to 4,132,222 lbs.

We have already seen that when Jamaica was taken from the Spaniards, it only contained 1,500 white inhabitants. In 1673 the population amounted to 7,768 whites and 9,594 slaves. It would have been well for the island had the races continued to preserve this relation to each other; but, unfortunately, the black population has increased more than 15 times as rapidly as the white; the latter having only increased from 7,768 to 13,816, while the former has increased from 9,594 to about 316,374, exclusive of persons of colour, numbering 81,704.

The real value of the exports to Jamaica amounted in 1866 to 721,471*l.*, being about  $\frac{1}{4}$  of the exports to the West Indian colonies. It was formerly much more; but then a large portion of the articles sent to Jamaica, and some of the other colonies, were only sent there as to an entrepôt; being subsequently exported to the Spanish main. During the ascendancy of the Spanish dominion in Mexico and South America, this trade, which was then contraband, was car-

ried on to a great extent. It is now much fallen off, and is principally carried on from St. Thomas and Honduras.

Barbadoes was the earliest of our possessions in the West Indies. It is the most easterly of the Caribbee Islands; Bridge Town, the capital, being in long. 59° 41' W. Barbadoes is by far the best cultivated of all the West Indian islands. It contains about 105,000 acres, having (in 1861) a population of about 16,000 whites, 15,000 people of colour, and 120,000 blacks. Of late years it has exported from 500,000 to 750,000 cwts. of sugar. Barbadoes had attained the acmé of its prosperity in the latter part of the seventeenth century, when the white population is said to have amounted to about 50,000, though this is probably an exaggeration. But it is only as compared with itself that it can be considered as having fallen off; for, compared with the other West Indian islands, its superiority is manifest. It raises nearly as much food as is adequate for its supply.

The islands next in importance are St. Vincent, Grenada, Trinidad, Antigua &c. It is unnecessary to enter into any special details with respect to them; their population and trade being exhibited in the annexed tables.

During the late war we took from the Dutch the settlements of Demerara, Berbice, and Essequibo, in Guiana, which were definitively ceded to us in 1814. The soil of these settlements is naturally very rich; and they have, in this respect, a decided advantage over most of the West Indian islands. For a time their prosperity seemed to be on the decline. The export of coffee became scanty; that of cotton fell to nothing. Other countries were more favourably situated both as regarded labour and natural capacity for these products. But to compensate these, the supply of sugar increased enormously, and the cultivation of the cane, aided by the importation of coolie labour, became very successful. During the year 1866 the value of the exports of British Guiana to the United Kingdom amounted to 1,689,814*l.*, of which sugar, in quantity 1,233,720 cwt., was worth 1,320,760*l.* and rum, 3,694,171 gallons, was worth 286,354*l.*

Exclusive of the above, we possess the settlement of Belize on the Bay of Honduras. This is of importance, as affording a means of obtaining abundant supplies of mahogany; but it is of more importance as an entrepôt for the supply of Guatemala and Central America with English manufactured goods.

The exports from this country to our West Indian colonies consist of coarse cottons, linens, checks, hats, and other articles of negro clothing; iron and steel, wrought and unwrought; leather, including saddlery and harness; glass; beer and ale; soap and candles; stationery; hardware and earthenware; staves, hoops, coal, lime, paint, lead; Irish provisions, herrings, and other salt fish; along with furniture, wine, beer, medicines, and, indeed, almost every article which a great manufacturing country can supply to one situated in a tropical climate, which has very few mechanics and hardly any manufactures. Since the opening of the ports on the Spanish main to ships from England, the exports to the West Indies have decreased both in quantity and value; this decrease being, however, more than balanced by the increased shipments to Mexico, Columbia &c. The value of our total exports to the British West Indies and Guiana amounted in 1865 to 3,006,584*l.*, and in 1866 to 2,963,670*l.*, while in 1867 the exports of British produce alone to the same colonies were valued at 2,336,900*l.*

*Money.*—What used to be called West India currency was an imaginary money, and had a different value in different colonies. The value it bore, as compared with sterling money, was supposed to represent the corresponding value of the coins in circulation in the different islands at the time the proportion was fixed: these coins being for the most part mutilated and otherwise worn and defaced, currency was in all cases less valuable than sterling. The following are the old values of 100*l.* sterling, and of a dollar, in the currencies of the different islands:—

	Steel. Curr.	Do. Curr.
Jamaica	100 <i>l.</i> = 140 <i>l.</i>	1 <i>l.</i> = 6 <i>s.</i> 9 <i>d.</i>
Barbadoes	100 <i>l.</i> = 135 <i>l.</i>	1 <i>l.</i> = 6 <i>s.</i> 3 <i>d.</i>
Windward Islands (except Barbadoes)	100 <i>l.</i> = 175 <i>l.</i>	1 <i>l.</i> = 8 <i>s.</i> 5 <i>d.</i>
Leward Islands	100 <i>l.</i> = 200 <i>l.</i>	1 <i>l.</i> = 9 <i>s.</i> 6 <i>d.</i>

But latterly these currencies have been in great measure superseded by the introduction of sterling money, current at the same rates as in England, and of the Spanish dollar.

By an order in council of March 23, 1825, British silver money was made legal tender throughout all British colonial possessions, at the same nominal value as in England; and bills for the same are given on the Treasury of London, of 100*l.* each bill for 103*l.* such silver money. By this order, also, the value of the Spanish dollar was fixed at 4*s.* 4*d.* British silver money throughout all the colonies where it is current; but this value was farther reduced on September 21, 1838, to 4*s.* 2*d.* The value of the doubloon was then, also, fixed at 6*s.*

4. *Australian Colonies.*—This group of colonies, though founded in a very distant part of the world, and at a comparatively recent epoch, will, probably, at no very distant period, surpass the others in magnitude and importance. The countries in which they are situated, including the great Australian continent, formerly called New Holland, with Van Diemen's Land or Tasmania, New Zealand &c., are of vast extent, and differ in many respects from each other. The results of recent explorations seem to show that this great division of the globe has no great rivers, or, at least, none that reach the sea. Indeed it seems, speaking generally, to be a law in this new world, that rivers are largest near their source; and that they gradually diminish as they proceed, and most commonly dwindle into insignificance, or lose themselves in marshes, before they reach the ocean.

In consequence, perhaps, of this singular constitution of its river system, it is found that in Australia the best land is not at the mouths, but towards the sources, of the rivers. There are, no doubt, exceptions to this rule; but it appears to hold in the greater number of instances. Generally, also, the extent of fine land appears to be comparatively limited; and in so far as the continental portion of the country has been explored, it appears to be much better adapted for pasturage than for tillage.

*Gold Deposits.*—But the land, the pasturage, the sheep, the copper and other ordinary minerals, which are found in abundance in various parts of Australia, have all been rendered, for the present at least, of no importance compared with the gold deposits with which the continent is so largely endowed. These, which were discovered so late as 1851, are of extraordinary richness. They equalled or exceeded in productiveness not only the gold fields of California, but every thing of which any idea could previously have been entertained. Australia, in consequence, became an object of earnest and universal attention. An almost unparalleled amount of emigration was directed to her

Account of Imports under-

Colonies from

Colonies from	Value
Antigua	...
Barbadoes	...
Dominica	...
Grenada	...
Jamaica	...
Montserrat	...
Nevis	...
St. Christopher	...
St. Lucia	...
St. Vincent	...
Tobago	...
Tortola	...
Trinidad	...
Bahamas	...
Bermudas	...
Demerara	...
Berbice	...
Total	...

Morassa

Antigua	...
Barbadoes	...
Dominica	...
Grenada	...
Jamaica	...
Montserrat	...
Nevis	...
St. Christopher	...
St. Lucia	...
St. Vincent	...
Tobago	...
Tortola	...
Trinidad	...
Bahamas	...
Bermudas	...
Demerara	...
Berbice	...
Total	...

Rev.

Antigua	...
Barbadoes	...
Dominica	...
Grenada	...
Jamaica	...
Montserrat	...
Nevis	...
St. Christopher	...
St. Lucia	...
St. Vincent	...
Tobago	...
Tortola	...
Trinidad	...
Bahamas	...
Bermudas	...
Demerara	...
Berbice	...
Total	...

Coffee.

Antigua	...
Barbadoes	...
Dominica	...
Grenada	...
Jamaica	...
Montserrat	...
Nevis	...
St. Christopher	...
St. Lucia	...
St. Vincent	...
Tobago	...
Tortola	...
Trinidad	...
Bahamas	...
Bermudas	...
Demerara	...
Berbice	...
Total	...

Cocoa.

Antigua	...
Barbadoes	...
Dominica	...
Grenada	...
Jamaica	...
Montserrat	...
Nevis	...
St. Christopher	...
St. Lucia	...
St. Vincent	...
Tobago	...
Tortola	...
Trinidad	...
Bahamas	...
Bermudas	...
Demerara	...
Berbice	...
Total from the above	...

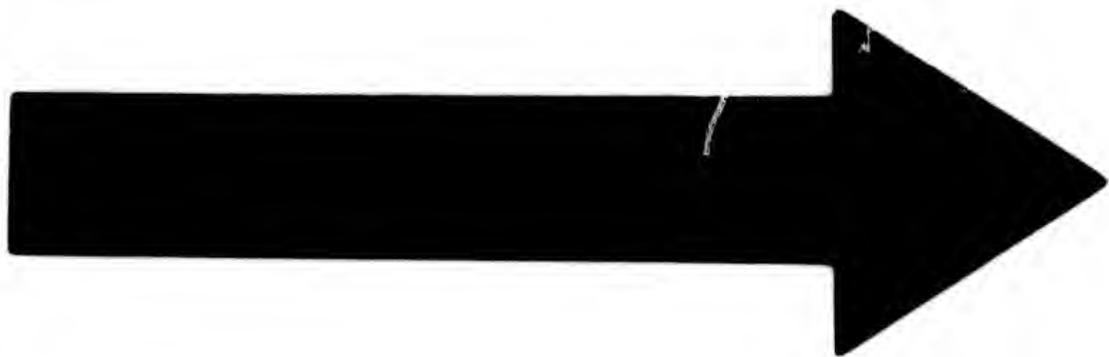
shores. Her population with gigantic strides wages, the prices, an un-  
lised people. [PREC

Account of the Quantities and Computed Real Values of Sugar, Molasses, Rum, Coffee, and Cocoa Imported into the United Kingdom from the West Indies and British Guiana during each of the under-mentioned 5 Years, ending with 1866.

Colonies from which Imported	Quantities					Computed Real Values				
	1862	1863	1864	1865	1866	1862	1863	1864	1865	1866
<b>SUGAR.</b>										
Antigua	cwt. 239,690	cwt. 202,560	cwt. 242,650	cwt. 140,690	cwt. 231,607	£ 280,556	£ 217,311	£ 466,491	£ 151,223	£ 236,002
Barbadoes	701,855	846,969	539,706	664,764	725,145	791,436	693,321	756,116	736,743	786,738
Dominica	57,444	50,568	40,630	55,991	54,756	62,716	32,625	54,761	62,810	53,801
Grenada	38,401	90,181	65,385	74,516	81,594	62,584	93,250	113,889	81,078	82,807
Jamaica	53,719	51,554	471,241	308,305	570,208	619,469	549,454	619,166	469,571	694,875
Montserrat	3,112	6,647	7,961	3,309	19,386	5,887	6,981	9,879	8,041	18,769
Nevis	55,753	36,424	16,149	99,718	59,954	39,133	40,629	36,567	32,011	55,566
St. Christopher	186,073	284,961	96,490	305,791	222,098	387,055	315,969	171,788	227,604	284,444
St. Lucia	97,967	95,711	85,821	99,471	121,992	106,143	101,507	117,466	109,502	121,420
St. Vincent	115,498	136,253	135,316	124,622	170,679	150,157	145,550	170,390	138,096	170,530
Tobago	72,505	47,533	43,537	49,749	79,478	86,091	52,402	61,581	55,254	79,991
Trinidad	1,749	1	1	428	1	2,006	1	1	1	1
Bahamas	691,441	691,030	672,726	558,153	814,911	738,222	608,307	929,029	601,422	770,640
Bermuda	670	361	3	1,086	1	755	429	4	1,159	1
Demerara	875,586	889,087	995,991	1,035,377	1,104,711	985,228	1,026,265	1,305,519	1,159,526	1,184,569
Barbice	130,429	97,939	99,234	97,758	129,009	116,360	112,327	143,566	106,922	134,249
<b>Total</b>	<b>3,865,188</b>	<b>3,622,778</b>	<b>3,261,478</b>	<b>3,569,069</b>	<b>4,110,853</b>	<b>4,297,938</b>	<b>3,911,620</b>	<b>4,530,638</b>	<b>3,925,913</b>	<b>4,507,183</b>
<b>MOLASSES.</b>										
Antigua	cwt. 64,711	cwt. 54,429	cwt. 16,709	cwt. 43,235	cwt. 57,524	£ 31,962	£ 28,110	£ 10,748	£ 26,655	£ 31,991
Barbadoes	28,029	91,665	24,694	37,738	14,259	18,914	10,457	16,369	17,019	7,673
Dominica	3,474	3,397	4,454	3,379	5,347	1,663	1,771	3,039	4,679	2,992
Grenada	637	157	1,032	865	579	305	80	292	519	315
Jamaica	634	638	4,774	1,111	71	274	323	312	57	95
Montserrat	698	930	1,721	698	425	363	487	1,139	438	231
Nevis	531	4,354	4,218	2,629	1,062	318	2,285	2,034	1,699	673
St. Christopher	24,422	15,509	9,118	33,183	19,536	12,233	6,988	6,315	20,667	8,594
St. Lucia	3,622	5,198	2,868	4,354	1,588	1,823	9,862	2,283	4,291	718
St. Vincent	5,397	4,611	4,916	7,541	10,879	1,683	2,419	3,382	4,611	6,089
Tobago	1,717	912	4,269	3,166	2,916	867	506	2,699	2,115	1,623
Trinidad	77,482	88,592	92,219	74,701	50,913	38,085	45,212	61,415	41,611	27,385
Bahamas	1,241	1,150	..	62	..	792	536	..	35	..
Bermuda	9,805	5,362	20,572	20,225	30,218	5,057	5,066	20,317	11,781	18,288
Demerara	3,568	727	733	1,270	832	1,948	383	585	659	457
Barbice	231,723	207,221	199,076	237,399	197,322	116,286	105,510	132,972	140,815	106,793
<b>Total</b>	<b>614,111</b>	<b>544,229</b>	<b>167,009</b>	<b>432,235</b>	<b>575,224</b>	<b>319,662</b>	<b>281,110</b>	<b>107,748</b>	<b>266,655</b>	<b>319,991</b>
<b>RUM.</b>										
Antigua	gallons (including overproof) 106,180	85,189	9,399	62,060	44,927	£ 8,007	£ 6,366	£ 795	£ 5,275	£ 3,465
Barbadoes	53,191	15,810	4,182	8,272	19,059	2,857	1,136	323	731	1,669
Dominica	54,881	45,070	49,979	49,646	4,066	3,870	3,005	2,341	4,291	3,406
Grenada	57,929	88,205	49,215	82,312	91,547	4,269	6,181	5,916	7,035	6,890
Jamaica	2,209,811	1,876,044	1,460,308	1,775,659	2,195,368	239,330	186,300	168,276	210,365	271,751
Montserrat	..	..	..	..	..	..	..	..	..	..
Nevis	5,061	..	15	596	2,912	375	..	1	45	222
St. Christopher	132,734	84,477	23,699	29,518	59,342	10,278	6,267	1,834	7,821	4,313
St. Lucia	2,697	3,225	8,605	11,091	1,980	260	437	62	1,027	383
St. Vincent	227,535	175,469	120,203	186,638	196,750	17,005	13,223	9,831	15,280	11,829
Tobago	151,917	118,466	69,729	91,149	118,619	9,627	8,587	5,015	7,909	9,004
Trinidad	..	..	..	..	..	..	..	..	..	..
Bahamas	282,998	265,297	62,080	95,607	96,136	20,979	19,596	4,901	5,151	7,229
Bermuda	11,453	5,346	..	46,039	6	814	401	..	3,944	..
Demerara	3,211,383	3,179,520	2,816,929	3,709,946	3,597,671	240,869	238,823	227,937	283,901	265,131
Barbice	291,539	246,384	273,473	301,186	290,508	22,712	18,681	22,090	20,059	23,220
<b>Total</b>	<b>6,818,640</b>	<b>6,190,632</b>	<b>4,951,850</b>	<b>6,104,457</b>	<b>6,567,407</b>	<b>392,259</b>	<b>309,506</b>	<b>147,560</b>	<b>177,922</b>	<b>609,555</b>
<b>COFFEE.</b>										
Antigua	lbs. ..	lbs. ..	lbs. ..	lbs. ..	lbs. ..	£ ..	£ ..	£ ..	£ ..	£ ..
Barbadoes	..	..	..	..	..	..	..	..	..	..
Dominica	..	..	..	..	..	..	..	..	..	..
Grenada	..	..	..	..	..	..	..	..	..	..
Jamaica	5,511,174	5,484,212	4,166,816	5,425,511	4,452,222	120,871	192,049	73,515	110,987	143,787
Montserrat	..	..	..	..	..	..	..	..	..	..
Nevis	..	..	..	..	..	..	..	..	..	..
St. Christopher	..	..	..	..	..	..	..	..	..	..
St. Lucia	..	..	..	..	..	..	..	..	..	..
St. Vincent	..	..	3,561	..	..	..	..	118	..	..
Tobago	..	..	..	..	..	..	..	..	..	..
Trinidad	..	..	..	..	..	..	..	..	..	..
Bahamas	32,089	72	161	585,104	61,841	1,173	3	..	19,555	1,963
Bermuda	..	61	161	284,677	221	..	..	..	9,138	7
Demerara	..	..	..	..	..	..	..	..	..	..
Barbice	..	..	..	..	..	..	..	..	..	..
<b>Total</b>	<b>5,545,563</b>	<b>5,484,243</b>	<b>4,166,838</b>	<b>5,425,092</b>	<b>4,494,287</b>	<b>122,071</b>	<b>192,054</b>	<b>73,536</b>	<b>110,987</b>	<b>143,787</b>
<b>COCOA.</b>										
Antigua	lbs. ..	lbs. ..	lbs. ..	lbs. ..	lbs. ..	£ ..	£ ..	£ ..	£ ..	£ ..
Barbadoes	..	..	..	..	..	..	..	..	..	..
Dominica	..	..	..	..	..	..	..	..	..	..
Grenada	..	..	..	..	..	..	..	..	..	..
Jamaica	91,089	55,583	99,638	69,809	40,187	£ 1,161	£ 1,256	£ 2,297	£ 1,532	£ 1,102
Montserrat	1,378,825	1,137,005	883,331	1,191,698	1,511,904	34,832	29,321	22,492	30,003	45,767
Jamaica	..	..	..	..	..	..	..	..	..	..
Montserrat	..	..	..	..	..	..	..	..	..	..
Nevis	..	..	..	..	..	..	..	..	..	..
St. Christopher	..	..	..	..	..	..	..	..	..	..
St. Lucia	..	..	..	..	..	..	..	..	..	..
St. Vincent	151,706	183,177	154,956	166,969	140,162	3,782	4,100	3,544	3,445	3,919
Tobago	..	..	..	..	..	..	..	..	..	..
Trinidad	..	..	..	..	..	..	..	..	..	..
Bahamas	9,930,692	4,369,518	2,769,549	3,510,163	3,619,081	89,138	121,281	85,020	109,662	137,510
Bermuda	..	..	..	..	..	..	..	..	..	..
Demerara	..	..	..	..	..	..	..	..	..	..
Barbice	..	..	..	..	..	..	..	..	..	..
<b>Total from the above colonies</b>	<b>1,531,412</b>	<b>5,245,283</b>	<b>3,907,454</b>	<b>4,692,032</b>	<b>5,211,634</b>	<b>130,315</b>	<b>155,939</b>	<b>113,153</b>	<b>134,642</b>	<b>186,138</b>

shores. Her population and her trade increased with gigantic strides; and her gold influenced the wnges, the prices, and the industry of every civilised people. [PRECIOUS METALS.]

A License Duty of 30s. a month, charged on all individuals who engaged in the search for gold, was much, and we think justly, objected to. We observed in a previous edition of this work, 'that





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license duties are essentially unfair, except when they are proportioned to the extent of business carried on by those who pay them. But the business of the gold diggers is, to all intents and purposes, a lottery. So that while the tax presses with greatest severity on the great bulk of those at the "diggings," it is hardly felt by the few who carry off the great prizes. The better plan would be to make the license duty next to nominal, and to impose a moderate customs' duty on gold when exported. The tax would then cease to be felt as a burden by individuals, while it would yield quite as great a revenue to Government. And we are glad to have to state that this course has been nearly adopted. A duty of 2s. 6d. per oz. laid on gold when exported was in 1867 reduced in Victoria to 6d. per oz., and the export became free in that colony on Jan. 1, 1868; and though the license duty has not been wholly repealed, it has been reduced to the moderate charge of from 5s. to 20s. a-year.

It were idle to indulge in speculations in regard to the period when the exhaustion of the Australian gold fields may be expected; there are no data on which to hazard even a conjecture on such a subject. But whether the supplies from them be destined to be of long or short duration, they have already been, and, no doubt, will continue to be, of great advantage. We do not mean by this to say, or insinuate, that the good resulting from the influx of gold from Australia and California has been unaccompanied by any drawbacks. The gambling and dissipation to which it has given rise are obvious. Yet these, though considerable, are but a trifling deduction from its many advantages; from the powerful stimulus it has given to industry and civilisation, from the new channels it has opened to commerce, and from its greatly ameliorating the condition of the labouring classes in this and most other countries.

The northern portion of Australia, including, perhaps, about a third part of the entire continent, lies between the tropics; the other portion of the continent, with the adjacent islands of Van Diemen's Land and New Zealand, being in the south temperate zone. The climate of the different parts of the continent must therefore, it is obvious, differ very widely. We, however, know but little of the climate of intertropical Australia, except that it is within the range of the Indian monsoon; that the temperature along the coast is rapidly raised by a wind from the south, which has been supposed to afford a strong presumption of the existence of sandy deserts in the interior; and that the air is so very moist that during the season of the dry monsoon iron articles are with the utmost difficulty preserved from rusting.

It is commonly said that the climate of extra-tropical Australia, and especially of New South Wales, assimilates closely to that of Southern Italy. But this statement must be taken with considerable limitation; for, 1st, the atmosphere is very decidedly denser; 2nd, the extremes of temperature are infinitely greater; 3rd, the average heat is rather less; and 4th, the temperature appears to decline more rapidly by increase of elevation. The grand defect in the climate of extra-tropical Australia appears to consist in the periodical recurrence of wet and dry seasons. Sometimes hardly a single drop of rain falls for an entire year or more; and though, happily, dews are in such seasons peculiarly abundant, they form no adequate substitute for rain. During long-continued droughts crops of all kinds are destroyed; and herbage, except in a few favoured spots, suffers severely.

Hence, as already stated, all the eastern parts

of extra-tropical Australia, and perhaps also the southern, would seem to be much better fitted for pasturage than for husbandry. The droughts are exceedingly injurious to the latter, and they would necessarily involve any large population that depended principally on the indigenous products of the soil in extreme privations. Certainly no country seems to be better fitted for grazing, or rather for the growth of sheep and wool. A dry climate is especially suitable to the latter; and though the pastures be far from luxuriant, their boundless extent compensates for every other deficiency. Sheep are not native to the country, a small flock of 29 head having been introduced for the first time by the original English settlers in 1788. For a while, however, their value was not appreciated; but the importance of sheep farming and its suitability to the country having been demonstrated by John M'Arthur, Esq. (to whom the colony is under the greatest obligations), it has since increased with unprecedented rapidity. In proof of this, it is only necessary to mention that while the import of wool from Australia amounted, in 1822, to only 152,880 lbs., it had increased in 1825 to 411,600 lbs., in 1830 to 899,750 lbs., and in 1866 to the enormous amount of 113,772,694 lbs.

Tasmania, or Van Diemen's Land, being less subject to droughts than New South Wales, husbandry is carried on in it to a greater extent, and with more advantage; but there also sheep-farming is the principal and, perhaps, the most advantageous employment. [VAN DIEMEN'S LAND.]

New Zealand, which has only been resorted to by regular colonists since 1840, is better fitted for agriculture than either Australia or Van Diemen's Land, and its climate is more like that of England. The ground in it is, however, rather difficult to clear; the natives are also much more formidable; and it is not so suitable for sheep-farming, though its rich mines have latterly made it very attractive. [AUCKLAND.]

The first of the Australian colonies, that in New South Wales, founded so late as 1788, and that in Van Diemen's Land, founded in 1808, were originally intended to serve as penal settlements; and great numbers of convicts have been carried to them. These colonies had also, notwithstanding their distance, become, even before the discovery of the gold fields, a favourite resort of free settlers, consisting partly of voluntary emigrants, and partly of emigrants carried out at the public expense; and since their discovery the emigration to Australia from this country, China, California &c., has been quite unprecedented. The facility with which supplies of compulsory labour were obtained tended at first to reconcile the free colonies to the abuses of the convict system, but they gradually became such as to occasion the greatest dissatisfaction in New South Wales; and since 1843 no fresh convicts have been sent to it. They still, however, continued to be sent to Van Diemen's Land, but it also has ceased to be a receptacle for them. No convicts have ever been sent to the important and flourishing settlement of South Australia, founded in 1834 [ADELAIDE], nor to New Zealand. The settlements in the latter have recently made a rapid progress, and it promises, at no very remote period, to be a peculiarly thriving colony.

Passage.—The cost of a passage to the Australian colonies, including provisions, is for the

Cabin, from 4*l.* to 5*l.*  
Intermediate, from 1*l.* to 2*l.*  
Steerage, " 14*l.* to 20*l.*

The average length of the voyage is about four months; and at whatever season of the year it

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1867

Channel Islands	-
Gibraltar	-
Malta	-
Ionian Isles, 1814	-
North America	-
Belize	-
West India Is.	-
Australia	-
British India	-
Singapore	-
Ceylon	-
Mauritius	-
Cape of Good Hope	-
Possessions on the Continent	-
Possessions on the Sea	-
Sierra Leone	-
Other Possessions	-
Total of British Possessions	-

Population.—colonies is as follows

Colonies	
New South Wales	-
Queensland	-
Victoria	-
South Australia	-
Western Australia	-
Tasmania	-
New Zealand	-
Total	-

Emigration.—of individuals to the Kingdom to the end of 1867, but

Year	Emigrants
1825	1
1826	1
1827	1
1828	1
1829	1
1830	1
1831	1
1832	1
1833	1
1834	1
1835	1
1836	1
1837	1
1838	1
1839	1
1840	1
1841	1
1842	1
1843	1
1844	1
1845	1
1846	1
1847	1

4. Disposal of Land in old settlements as to the best occupied lands in colonies is one of the most important questions being for the most part possession bringing in and influencing wealth, colonists ar

may be made, the passengers have to pass through both very hot and very cold weather, and should, therefore, be prepared accordingly with suitable clothing. The prices of cabin and intermediate passages to New Zealand are about the same as to the Australian colonies; but a steerage passage is rather higher.

Account of the Declared or Real Value of the Exports of British Produce and Manufactures from the United Kingdom to each British Colony and Possession during each of the 6 Years ending with 1867, and the Imports from each Colony during the same time.

Colonies	1862	1863	1864	1865	1866	1867
<b>BRITISH POSSESSIONS:</b>						
Channel Islands	Imports 615,901	618,508	836,455	411,391	450,700	401,083
Gibraltar	Imports 995,969	1,014,572	1,208,468	892,036	638,229	471,284
Malta	Imports 97,559	69,130	117,059	149,729	192,017	67,729
Ionian Isles, ceded to Greece June 1, 1861.	Imports 1,114,698	1,471,151	1,335,098	1,210,672	1,215,742	729,251
North American Colonies	Imports 110,819	158,265	128,013	83,493	115,658	81,471
Belize	Imports 517,901	726,179	870,509	726,017	747,842	498,909
West India Islands and Guiana	Imports 337,129	458,051	128,255	5,740,498	6,567,563	6,807,281
Australia	Imports 8,499,395	8,165,615	6,850,730	7,129,594	6,375,791	5,877,421
British India	Imports 47,813,353	5,526,932	6,209,616	3,006,584	2,963,670	2,336,900
Singapore	Imports 209,746	291,875	373,223	214,556	239,735	180,610
Ceylon	Imports 118,501	175,451	210,161	172,240	155,630	118,076
Mauritius	Imports 6,285,927	8,605,258	11,073,148	10,275,113	11,423,268	12,880,260
Cape of Good Hope and Natal	Imports 5,335,629	4,915,705	4,611,819	4,169,459	4,030,779	3,637,157
Possessions on the River Gamalia	Imports 7,109,809	7,160,666	10,032,332	37,395,452	36,901,997	25,489,314
Sierra Leone	Imports 12,817,525	13,611,201	12,926,228	18,853,191	20,671,319	21,811,019
Other Possessions	Imports 24,135,551	28,131,740	22,295,509	24,155,931	1,608,863	1,155,839
Total of British Possessions	Imports 65,148,550	85,391,811	90,862,505	72,840,797	72,205,722	60,753,154
	Exports 41,289,736	53,111,758	53,942,591	31,546,754	37,167,576	19,880,201

Population.—The population of the Australian colonies is as follows:—

Colonies	Year	Males	Females	Total
New South Wales	1865	227,196	184,192	411,388
Victoria	1865	55,297	31,478	86,775
Queensland	1865	369,103	281,611	650,714
South Australia	1866	88,272	90,881	179,153
Western Australia	1867	13,953	7,779	21,732
Tasmania	1867	—	—	48,454
New Zealand	1865	118,215	91,659	209,874
Total				1,682,101

Emigration.—We subjoin a return of the number of individuals that have emigrated from the United Kingdom to the Australian colonies from 1825 down to 1867, both inclusive:—

Year	Emigrants	Year	Emigrants
1825	485	1848	23,901
1826	903	1849	32,191
1827	715	1850	16,057
1828	1,056	1851	21,532
1829	2,016	1852	87,424
1830	1,242	1853	61,101
1831	1,501	1854	85,237
1832	3,733	1855	22,309
1833	4,093	1856	41,584
1834	2,800	1857	61,248
1835	1,861	1858	39,295
1836	3,124	1859	51,015
1837	5,054	1860	21,502
1838	11,021	1861	25,738
1839	15,786	1862	41,845
1840	15,850	1863	50,664
1841	24,225	1864	45,412
1842	8,574	1865	37,285
1843	5,478	1866	24,027
1844	2,229	1867	14,166
1845	830		
1846	2,347	Total	816,049
1847	4,919		

A. Disposal of Land in the Colonies.—The question as to the best method of disposing of the unoccupied lands in colonies planted in unsettled countries is one of considerable nicety and difficulty. Land in old settled and fully occupied countries being, for the most part, very valuable, and its possession bringing along with it great consideration and influence, and frequently also great wealth, colonists are very apt, wherever they have

the opportunity, to appropriate a much larger extent of land than they have the means of cultivating, or of turning to any useful account. Not only, however, are settlers disposed to act in this way, but speculators, who have no thought of emigrating, and persons having influence with Government, endeavour to obtain large tracts of land, in the view of holding them till, in consequence of the increase of population in the vicinity, they acquire a considerable value. It has been usual also to reserve large tracts for ecclesiastical and other public purposes. And these extensive tracts of unoccupied and reserved lands being interposed between the settled parts of a colony, render it in all cases more difficult, and sometimes all but impossible, to form roads and other means of communication; so that the settlers are thus frequently cut off from a market for their produce, and are less able to combine for municipal or such like purposes, and for the establishment of schools and churches, and the undertaking of such public works as require co-operation.

The improvident manner in which large tracts of land have been granted in Canada, and the great extent of the clergy and other reserves in that colony, have materially retarded its prosperity; and the same circumstances have had a similar operation in our other North American possessions, in Western Australia, and elsewhere. But there are various ways in which an abuse of this sort might be prevented. One of the most obvious of these is to impose such a moderate price on the land as might, without crippling the means of the settlers, hinder them from seeking unduly to extend their possessions; and making all the land held by individuals, whether occupied or not, contribute according to its extent to the construction of roads and other public works. Perhaps, however, the better plan would be to apportion the land according to the available capital of the settlers, it being stipulated that no individual should obtain above

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a certain number of acres; and that it should revert back to the public unless certain improvements were effected upon it within a specified time after the grant was made.

But, not satisfied with attempting to prevent abuses like those noticed above, we were lately told that all the difficulties incident to colonisation originated in the too great dispersion of the colonists, and that to obviate them, and to insure to all new colonies the acmé of prosperity, we had merely to compel the colonists to keep close together by exacting a high price for the surrounding waste or unoccupied land—in other words, by making the colony as like an old settled country as possible! And this precious nostrum was trumpeted forth as a great discovery. It is obvious, however, that if, on the one hand, the price set on waste land were inconsiderable, it would not (without a limitation of quantity) prevent the purchase of large tracts of land on speculation, and the entailing on the colony all the disadvantages that have resulted from the making of injudicious grants; and if, on the other hand, the price demanded for the land were high, it would go far to oppose an insuperable obstacle to the progress of the colony, at least if it were to be founded by voluntary emigrants. Rich men do not leave their native country to expose themselves to the inconveniences and hardships attending the establishment of new settlements in the wilderness. This, if it be done at all, must be done in time to come, as in time past, by individuals in straitened circumstances, and anxious to improve their fortunes. But to exact a high or considerable price for land from such persons would, by sweeping away the whole or a considerable portion of their capital, deprive them of the means of clearing and cultivating the land, and proportionally retard their progress and that of the colony. The plan of letting lands by fine is admitted by every one who knows anything of agriculture to be one of the worst that can be devised; and this colonisation project was bottomed on the same principle, and has been quite as pernicious.

It is said that, in consequence of the exacting of a price for the land, and the concentration of the colonists, their employments, being more combined and divided, will be prosecuted with a great deal more success than at present. All this, however, proceeds on the false and exploded assumption that the colonists are not, like other individuals, the best judges of what is for their own advantage. Adam Smith says truly, that it is the highest impertinence for kings and ministers to attempt to direct private people *how* they should employ their capitals. But it is, if possible, a still greater impertinence to attempt to direct them *where* they shall employ them. A regard to their own interest will draw people sufficiently together. And to enact regulations in the view of concentrating them still more, is in every respect as contradictory and absurd as it would be to set about increasing the public wealth by regulating the sort of employments to be carried on, and the countries with which, and the commodities in which, to deal.

Of late years the English Government has disposed of all ungranted colonial lands by sale; and though we incline to think, as already stated, that the preferable plan would be to distribute them according to the capital or means of the settlers, still if the price at which land is sold be reasonable, the quantity that may be held by individuals be limited, and the lots put up to sale be of sizes suited to the means of the various classes of purchasers, we do not know that the plan is open to any very good objection. But the price charged

for land in most of our colonies, and especially in Australia, where the minimum (except in Western Australia, Tasmania, and New Zealand) is 20s. an acre, is much too high, and has led to the most mischievous results. At the same time we must bear in mind the distinction between founding a colony with a view principally to the interests of the colonists, and founding it not only with a view to their interests, but in an especial degree for the relief of the mother country. For it is not to be denied that the plan of exacting a pretty high (but not an oppressive) price for colonial lands, and applying that price to defray the cost of carrying out emigrants, may (how injurious soever to voluntary emigrants) be made to assist in relieving the mother country of those who might otherwise have had to be supported at the public expense. Inasmuch, too, as an extraordinary quantity of labour is thus supplied to the colony, the injury done to the capitalists by making land artificially dear is, in some degree at least, compensated by its making labour artificially cheap. The emigration to the Australian colonies in the 4 years ending with 1847 was mainly a consequence of the principle now stated, a very large proportion of the emigrants having been carried out at the public expense. But it is to be borne in mind, that when the revenue derived from the sale of land in the Australian colonies was at its maximum, its price was only 12s. an acre. After it had been raised to 20s., the sales, down to the era of the gold discoveries, were comparatively trifling.

It would obviously be the extreme of folly for an agriculturist intending to emigrate who has a little, but not a great deal of capital, to think of establishing himself in a colony where a high price is set upon land. At all events, he must not expect in such a colony to become a landowner, or to be independent, but must make up his mind to be a hired labourer; whereas, if he emigrate to a colony where land is sold at a low price, or given away on condition of certain improvements being effected upon it within a given time, he may at once acquire an estate, and exchange the condition of a hired servant for that of landowner.

Seeing that the Americans sell the best lands in the valley of the Mississippi at about a dollar an acre, it was not easy to discover the principle on which we proceeded for many years to exact 6s. 7d. an acre for the worst land in Upper Canada. If this regulation were meant to divert the current of voluntary emigration from Canada to the United States, nothing could be found to say against it; but otherwise it was alike contradictory and absurd. At present (1868) in Canada West the minimum price per acre is 2s. 1d., and the maximum 4s. 2d. sterling, while in Canada East the prices range from 10d. to 2s. 6d. Notwithstanding the facilities of getting out to Quebec in timber ships, the direct emigration to the United States greatly exceeds that to British North America, the emigrants to the former being also of a superior description and having a greater command of capital. And there can be no doubt that the United States are in no inconsiderable degree indebted for this influx of comparatively valuable immigrants to the fact of the public lands having for many years been sold at a less price than ours. It is population alone which imparts value to land; and a more effectual method could not be devised for preventing an influx of inhabitants into Upper Canada, and drawing away many of those already settled, than Government adhering to the present prices of land. (See Shireff's valuable *Agricultural Tour through North*

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America, p. 365.) But since Canada has been in great measure self-governed, the price of land has been reduced, as already explained.

*Regulations for the Sale and Management of the Public Lands, approved by his Excellency the Governor General in Council, and dated January 13, 1859.*

1. That the lands in townships which have already been delineated, or shall hereafter be delineated on survey by the exterior lines only, may be offered for sale on block on the following terms, viz. :—

2. That the price shall be one half-dollar per acre, payable at the time of sale.

3. That the purchaser shall cause the lands to be surveyed at his own expense into lots comprising either 100 or 200 acres of land in each lot; and on the north shore of Lake Huron into quarter sections of 160 acres each, except in spots where the configuration of the township may render such exact quantities impracticable, and then as near to those allotments as possible.

4. That such survey shall be made by a duly licensed provincial land surveyor, approved of by the Commissioner of Crown Lands, and acting under his instructions, who shall make his return with field notes &c. in the usual method observed by surveyors, to be also approved of by the Department.

5. That one-third of the quantity of land in the township shall be settled upon within two years from the time of sale; one-third more settled upon within the following five years—that is, seven years from the time of sale; and the residue within the further period of three years—or ten years from the date of sale; the settlement required being that there shall be at least one bona fide settler in authorised occupation for every 200 acres of land; all land not so settled at the expiration of ten years from the time of sale to become forfeited and revert to the Crown absolutely, except such portions thereof as shall be found unfit for settlement, or such portions as are of a very inferior quality, and by reason thereof have remained unoccupied, in respect to which the Governor in Council may, upon application, dispense with the forfeiture, and cause the same to be conveyed to the original purchaser or his assignee.

6. A contract or sale to be made with the purchaser from the Crown subject to the foregoing and following conditions; but patents for the land to issue only to the occupants of the lots purchased deriving claim under the vendee of the Crown, or to the assignees claiming under such purchasers and occupants who shall have complied with the conditions of settlement hereinafter mentioned, upon a certificate or other evidence that they have paid such vendee or his assignee, or complied with the contract with him, for or in regard to such particular lot; and upon evidence that the party applying, or some one under whom he claims, has been a resident on the same lot for at least two years continuously, and that upon the same (not exceeding 200 acres) at least 10 acres for each 100 acres have been cleared and rendered fit for cultivation and crop, and have been actually under crop, and that a habitable house, in dimensions at least 16 by 20 feet, is erected thereon, and upon payment of the sum of 4 dols. as patent fees, to cover expenses &c. The nature and description of proof above referred to to be settled and prescribed by the Commissioner of Crown Lands.

7. All lands which shall under the foregoing conditions revert to the Crown shall be exposed

to sale at public auction at such times and places, and on such upset price, as the Commissioner of Crown Lands shall fix.

8. That in townships which have been surveyed and laid out into lots, and where lands are now offered for sale at 4s. per acre, or where no lands have as yet been offered for sale, and in townships under survey or yet to be surveyed in lots, lands to be sold under the following regulations, to wit :—

9. That lands be sold for cash at 70c. per acre, and on time upon the following terms—viz. 1 dol. per acre; one-fifth to be paid at the time of the sale, and the remaining four-fifths in four equal annual instalments, with interest on the purchase-money unpaid.

10. That when the lands in a township have remained open for sale for one year after public notice thereof, the lands unsold at the expiration of that period shall, at a time to be fixed, and after reasonable notice given by the Commissioner of Crown Lands, be offered for sale by public auction at the upset price fixed for their sale as above, or at such other upset price as under special circumstances may be named by the Commissioner of Crown Lands; and that such public sales of all lands which shall remain unsold in the mean time shall take place semi-annually, at times to be named therefor by the Commissioner of Crown Lands, until the whole of the lands in the township shall have been disposed of; the lands remaining unsold after any such public sale to continue open for private sale at the said upset price until the period of one week next before the time at which the next public sale shall take place.

11. That all lots of land which shall have been offered as 'Free Grants,' and shall not have been located and occupied at the expiration of one year from the time the same shall have been so offered, shall no longer remain as 'Free Grants,' but shall be open for private sale, or shall be exposed to public sale by auction as part of the lands in the township in which the same are situate, and upon the same terms as other lands therein.

12. That all lands (except those now exempt) shall be subject to settlement duties, and no patent in any case (even though the land be paid for in full at the time of purchase) shall issue for any such land to any person who shall not by himself, or the person or persons under whom he claims, have taken possession of such land within six months from the time of sale, and shall from that time continuously have been a bona fide occupant of, and resident on the land for at least two years, and have cleared and rendered fit for cultivation and crop, and had under crop within four years at farthest from the time of sale of the land, a quantity thereof in the proportion of at least 10 acres to every 100 acres, and have erected thereon a house habitable, and of the dimensions at least of 16 by 20 feet.

13. That all other lands not embraced in the foregoing category be exposed to sale by public auction annually, or, in the discretion of the Commissioner of Crown Lands, half-yearly, for cash, at such times and places and at such upset prices as the Commissioner of Crown Lands shall fix.

14. That the lands known as 'Clergy Reserves' be sold on the same terms and in the same manner as other public lands in the townships in which they respectively lie.

15. That prompt payment in all cases be made of the essence of the contract, and any default to be on pain of forfeiture of all previous payments and of all right in the lands.

16. That in the cases of sales already made payment of arrears be required, and that public

notice be given in the 'Official Gazette,' and through the usual channels, that unless such arrears be paid within 12 months from the 1st of January, 1859, the land in respect of which default shall continue will be resumed by the Crown and resold, and that in regard to all purchase moneys and interest hereafter to fall due, prompt payment will be exacted.

#### Squatters.

17. That the system of recognising unauthorised occupation of land, commonly known as 'squattling,' be discontinued, subject to the following provisions, viz. :—

That public and general notice be given by the Crown Lands Department, that no claim to pre-emption by reason of such occupation will be entertained after the 1st day of September next; and that no claim to such pre-emption not now in a state to be admitted can be made good by any act of the party hereafter; and that therefore his labour will be thrown away.

That the prices above fixed for lands shall apply to Upper Canada only.

The prices of lands in Lower Canada shall be regulated by Orders in Council from time to time.

*Nova Scotia.*—The public lands are here also sold at a fixed price, of 1s. 9d. sterling per acre, payable at once. The smallest regular farm lot contains 100 acres. Any less quantity of land may be had, but the cost would be the same as for 100 acres, viz. 8l. 15s., the minimum sum for which a deed of grant is issued.

*New Brunswick.*—There are two modes of selling Crown lands in this province, and it is optional whether the intending settler shall pay for his land in money or in labour. It may be purchased at the auction sales in each county on the first Tuesday of every month, at the upset price of 3s. currency (2s. 6d. sterling) per acre, with an addition of 2½d. sterling for the survey of the same. If the money be paid down at these sales, there is a discount of 20 per cent. Thus those disposed to pay become the possessors of 100 acres of land for 12l. 10s. currency or 10l. 6s. sterling. Another mode is by paying one quarter down, and the remainder by three annual instalments.

In all cases, however, where British subjects of 18 years of age and upwards desire to become settlers, they are entitled to 100 acres of land wherever they may choose the same, for 3s. currency (2s. 6d. sterling) per acre, without competition at auction; and may either pay for it in money, to be expended on the road, or work out the worth of the money in labour, at an estimated rate, and under the direction of Commissioners appointed for the purpose, and will be allowed five years to complete the payment. The sons of emigrants, 18 years of age and upwards, can each secure a lot of 100 acres adjoining the lot held by the father; they are not required to reside on the lot, but will be required to pay the money value of the land in labour on the roads at the rate of 2s. 6d. sterling per acre, with a period of 5 years to complete the same.

In all cases of sales by auction or otherwise grants under the great seal of the province are issued, conveying the land to the purchaser and his heirs and assigns for ever, as soon as may be after payment; but in all cases where Crown lands are sold without competition, either for money or labour on the road, no grant will be issued until the party, in addition to payment, has resided one year on the land, and cleared and cultivated at least 5 acres.

If not less than six persons apply to any of the emigration officers in the United Kingdom, stating

that they wish to obtain land in New Brunswick for actual settlement, and name an agent in the province to select it, such agent, on his name being reported by the emigration officer to the Colonial Government, will be authorised to select not exceeding 100 acres for each of the applicants, and the land will be reserved for them for one year.

*Prince Edward Island.*—With the exception of between 2,000 and 3,000 acres, the whole of the Crown lands in this colony were alienated in one day. But by Colonial Acts of 1853, 16 Vict. c. 18, and of 1857, 20 Vict. c. 20, the local Government is authorised to repurchase from proprietors their unsold lands and to resell them to the present tenants or otherwise. 80,000 acres were thus repurchased in 1854. These may now be obtained at the Land Office at from 4s. to 8s. sterling per acre, according to locality and quality. About 35,000 acres of these lands remained undisposed of in 1866, for which the late proprietors demanded from 10s. to 20s. sterling per acre.

Most of the Crown lands (i. e. those not repurchased under the Act of 1857) have been sold. There is, however, a small number of town lots for sale in Princeton. These lots are chiefly sought for at present as qualifications for electors of members to serve in the General Assembly; but may become valuable hereafter, being situated in front of one of the best harbours in this island, from which the fisheries might be prosecuted.

*Newfoundland.*—By a Colonial law Crown lands are to be sold by auction, at an upset price to be fixed by the Governor at not less than 2s. per acre. Land exposed to auction more than once may afterwards be sold, without further competition, at the last upset price.

*British Columbia.*—That part of British territory on the north-west coast of North America, previously known as New Caledonia, was, by an Act passed August 2, 1858 (21 & 22 Vict. c. 99), erected into a colony, under the name of 'British Columbia.' It is bounded on the south by the frontier of the United States (i. e. the 49th degree of north latitude), on the east by the main chain of the Rocky Mountains, on the north by Simpson's River and the Finlay branch of the Peace River, and on the west by the Pacific Ocean. It includes Queen Charlotte's Island and all other adjacent islands; and Vancouver Island, by the 29 & 30 Vict. c. 67, has been incorporated with British Columbia.

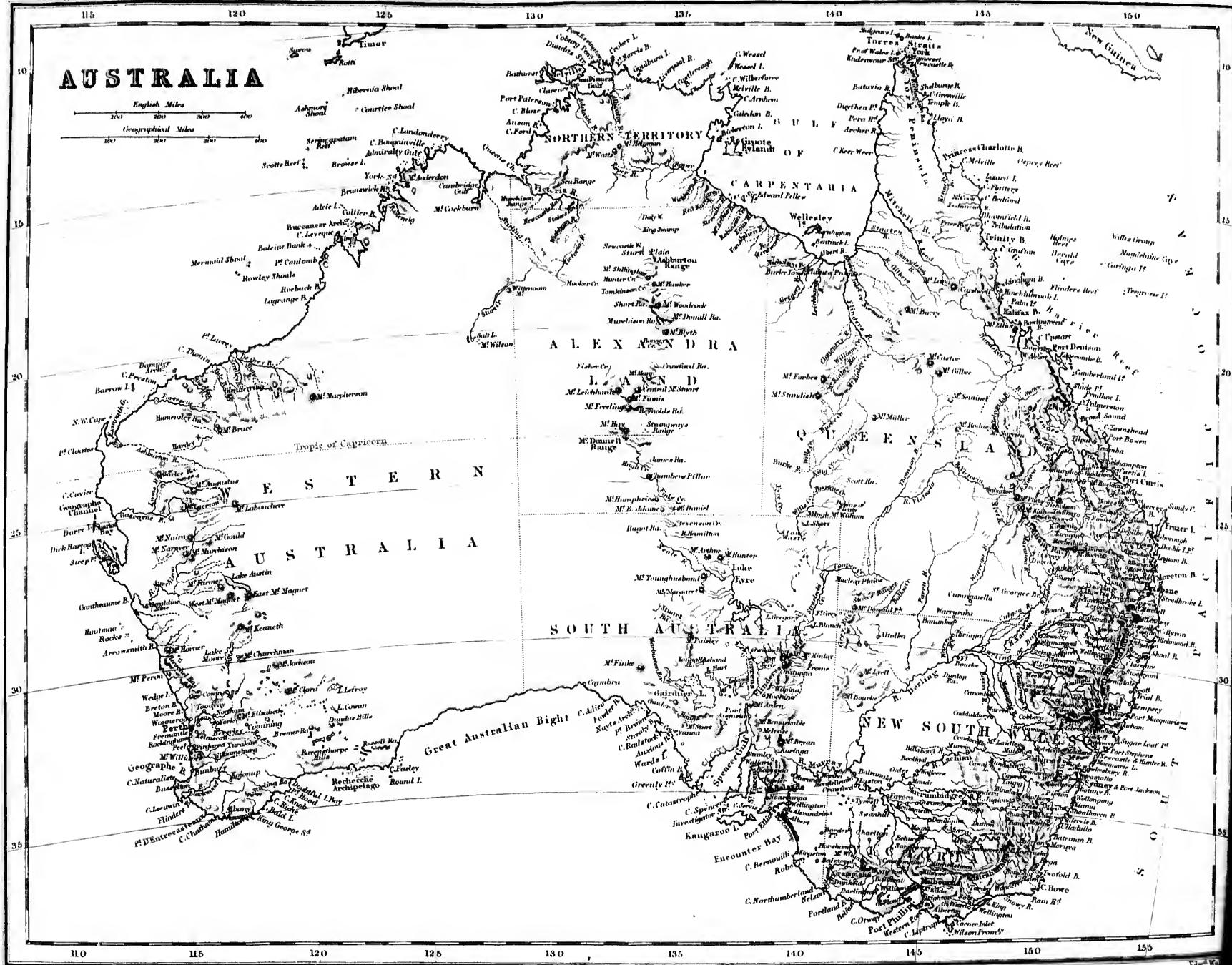
*Extent of Colony.*—British Columbia possesses, exclusive of Vancouver Island, an extent of about 500 miles of sea coast, stretching from the point where the 49th parallel of latitude first strikes the sea coast to the line of the Russian possessions in Portland Canal.

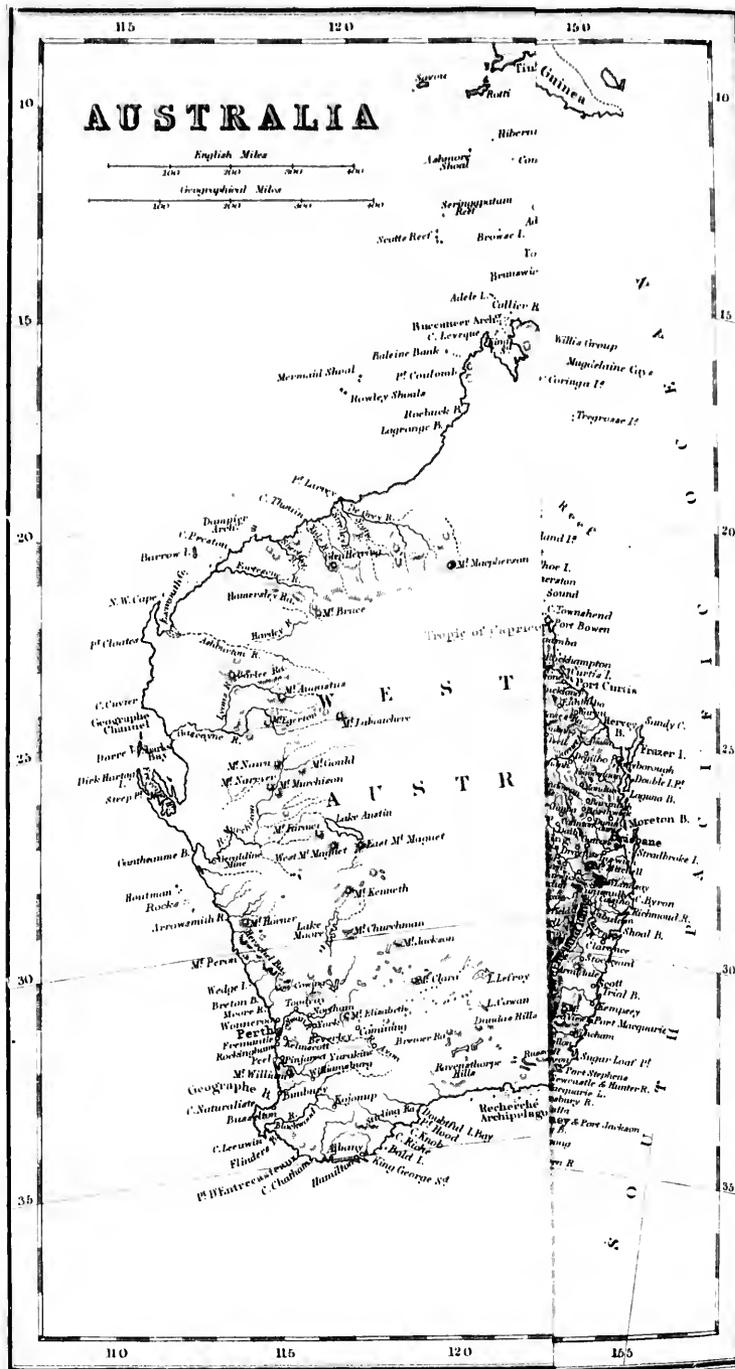
The area of the colony, including Queen Charlotte's Island, is computed by Mr. Arrow-smith to contain about 200,000 square miles.

The disposal of the public lands in this colony is now regulated by Ordinances No. 27 of 1865, and No. 13 of 1866.

Ordinance No. 27 of 1865 makes a difference in the mode of dealing with surveyed and unsurveyed country lands: the former can only be acquired by purchase at auction, or if not sold at auction, by private contract, at the upset price fixed in the Ordinance, viz. 4s. 2d. an acre. The latter may be acquired by what is termed 'pre-emption.' Under this system any person may take possession of any unsurveyed, unoccupied, and unreserved country land, not exceeding 160 acres, and not being the site or proposed site of a town, or auriferous or argentiferous lands, or an Indian reserve, provided he first obtains a license for the purpose from the magistrate of the district.







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Within seven days after, and on payment of fee of 8s. 1d., the magistrate records the claim, and grants a 'record certificate, which is a bar to all previous claims to the same land. When the Government survey extends to the land thus 'pre-empted,' the claimant, his heirs or devisees, or (if he shall have obtained from the stipendiary magistrate of the district a certificate that he has made permanent improvements thereon to the value of 10s. an acre) his assigns, becomes entitled, if there has been a continuous occupation of the land, to purchase it at 4s. 2d. per acre. A pre-emptor may also pre-empt an additional tract not exceeding 480 acres of contiguous land, upon payment down of 2s. 1d. an acre, leaving the remaining 2s. 1d. to be paid when the land is surveyed. Provision is made for the case of disputed claims, and the right to pre-empt is confined to British subjects, and to those aliens who may have taken the oath of allegiance. Aliens who have not taken that oath can purchase, but cannot pre-empt lands.

New provisions are also introduced for regulating the mode in which the right to appropriate water for irrigation and other purposes is required, and for enabling the Governor, in his discretion, to grant pastoral leases to *bonâ fide* pre-emptors or purchasers; and to issue timber-cutting licenses. The Ordinance fixes no limit to the term of the pastoral leases that may be granted, but it makes them subject, without compensation, to the right of reserve, and of pre-emption and purchase by any person during the term, and to the condition of being properly stocked within six months, as the stipendiary magistrate may direct.

By the 55th section the Governor is empowered, on receiving and publishing the assent of her Majesty's Government thereto, to make free or partially free grants of land for the encouragement of immigration, subject to such provisions, restrictions, and privileges as he may think advisable.

The Governor, however, has been instructed not to grant pastoral leases for a longer term than seven years, and not to insert in them any right of renewal. Neither is he to make any free grants under the 55th section except under special circumstances, and with the previous approval of the Secretary of State, or in virtue of general regulations previously approved by the Secretary of State.

The Ordinance of 1865 was amended by Ordinance No. 13 of 1866, which provides that neither chartered nor incorporated companies nor aborigines shall be entitled to pre-empt land without the special written permission of the Governor; and that land pre-empted before the date of the Ordinance may be included when the General Survey comes up to it, although its boundaries may not have been laid out in strict accordance with the requirements of the Land Ordinance of 1865.

*Vancouver Island.*—Under the 29 & 30 Vict. c. 67 it now forms one colony with British Columbia. But the laws of each are to remain in force unless otherwise provided by lawful authority. It has an extreme length of 275 miles, and a breadth varying from 40 to 50 miles. The disposal of the public lands in this colony is now regulated by a proclamation dated September 6, 1862, directing all land for sale, whether town, suburban, or otherwise, to be put up to auction, at an upset price not to exceed, for country land, 4s. 2d. per acre. If not sold at auction, it may be afterwards purchased by private contract at the upset price, and country land forfeited for non-payment of instalments to be sold by auction at upset price of 4s. 2d.

#### AUSTRALIAN COLONIES AND TASMANIA.

By the Imperial Acts 18 & 19 Vict. c. 56 (July 16, 1855), the Land Sales Acts, 5 & 6 Vict. c. 56, and 9 & 10 Vict. c. 104, are repealed, and the Crown in Western Australia and the local Legislatures in the other Australian colonies are left at liberty to alter the land regulations which existed at the time of the passing of the first-mentioned Act, 18 & 19 Vict. c. 56.

New South Wales, Victoria, Queensland, South Australia, Tasmania, and Western Australia have accordingly passed laws to regulate the disposal of their public lands.

#### NEW SOUTH WALES.

The disposal of the public lands in this colony is now regulated by two Acts, Nos. 1 & 2 of 25 Vict. 1861. The first enacts that all Crown lands shall be sold either by way of conditional sale without competition or by auction.

*Classification of Lands.*—Crown lands are divided into four classes, viz.:—'town lands,' being those in or set apart as a site for any city, town, or village; 'suburban lands' (declared in the 'Gazette' to be such); 'first-class settled districts,' and 'second-class settled districts.'

*Auction.*—Town lands and suburban lands without improvements are to be sold by public auction only, at upset prices of not less than 8*l.* per acre for the former and 2*l.* for the latter; the upset price of other Crown lands intended to be sold without conditions of residence and improvement is not to be less than 1*l.* per acre. If no sale is effected at the first auction the lands may again be put up to auction, and, with the exception of town and suburban lands, may in the interim be purchased at the upset price, if not previously withdrawn from sale by the Government. (Secs. 23, 24, 25.)

*Mode of Payment.*—One-fourth of the purchase money is to be paid at the time of sale, and the remainder within three months. (Sec. 26.)

*Conditional Sale.*—By the plan of 'conditional sale' any one may, on certain notified days, make to the land agent of the district a written application for the conditional purchase of not less than 40, nor more than 320 acres, accompanied by a deposit of one-fourth of the purchase money, at the rate of 1*l.* an acre. He will then be declared the conditional purchaser, unless there be more than one application for the same land or any part of it, in which case the successful candidate is to be determined by lot. The lands to be selected under this system must, however, not be town or suburban lands, nor within a proclaimed gold field, unless unoccupied for gold mining purposes, and must not be within certain distances of towns or villages, varying from 10 to 2 miles, according to the population of the place, nor reserved for town sites or other public purposes. (Secs. 13 and 14.)

At the expiration of three years and three months the purchaser has the option of paying the balance of the purchase money, and receiving a conveyance in fee, or of deferring the payment indefinitely by paying interest at the rate of 5 per cent. per annum on the amount, within three months after January 1 in each year. The purchaser, however, must in either case prove to the satisfaction of the Minister of Public Lands that he has made improvements to the extent and value required by the Act, that he has *bonâ fide* resided continuously either by himself or his alliances on the land, and that he has not alienated it until after at least one year's *bonâ fide* residence thereon.

There are some other minor provisions for



One half these premiums are to be given for the common descriptions of cotton. (Sec. 21.)  
*Mineral Lands.*—The Governor in Council may sell not exceeding 640 acres to any one person or company, at 20s. an acre, lands for mining purposes other than for coal or gold. (Sec. 22.)  
*Governor to make Regulations.*—The Governor in Council is authorised to make and alter, and for carrying out the Act, which regulations are to be laid before the Colonial Parliament.

VICTORIA.

The disposal of Crown lands in Victoria is now regulated by two Acts: 25 Vict. No. 145, passed June 18, 1862; and an amending Act, 28 Vict. No. 27, passed March 23, 1865. The former Act consolidates and amends all previous laws relating to the sale and occupation of Crown lands. It combines nearly all the modes of dealing with public lands that have been tried in any colony; will be found the principle of selection at a fixed price (but not before survey) over certain agricultural districts—of auction over other districts—of prompt payments, and payments by instalments—and of settlement duties. It contains provisions for commonage, for meeting the cases of all kinds of industries seeking development in the colony, and for checking monopoly, and the acquisition of land for the purposes of speculation, and promotes immigration by the fixed yearly appropriation of one-fourth of the land revenue.

The amending Act repeals so much of Subdivision 1 in Part II. of the first Act as is comprised in secs. 12 to 37, both inclusive, and in the 39th and 40th sections. It also repeals the 47th section in Part III., and the 68th section in Part IV., and introduces other provisions for those repealed, and introduces other amendments in the law. Its duration is to be co-extensive with that of the principal Act.

The new feature in this law is that leases may now be obtained of land in small quantities for agricultural purposes, as well as in large quantities for pastoral purposes.

The principal Act of 1862 is divided into six parts; and omitting the repealed sections in Part II. which regulate the mode of alienating the lands in the agricultural areas (the amending Act making other provisions on that subject), the following is an abstract of its leading provisions:—

It repeals all former laws (six in number), except the Gold Fields Act, No. 32, and all Orders in Council and regulations affecting public lands, and is itself to expire on December 31, 1870 (secs. 1 and 155). It empowers the Governor in Council to reserve from sale, either temporarily or permanently, any Crown lands for any public purpose whatever (sec. 5), and enables him (sec. 10) to deal with escheated or forfeited lands in favour of persons having a moral though not a legal claim on them.

Part 3 relates to leases and licenses for other than agricultural or pastoral purposes. The Governor may grant mining leases, except for gold, for 50 years without restriction as to number, and with a right of pre-emption, after the first five mining leases are regulated by an Order in Council. The extent of area is not to exceed 640 acres, and the size is to be 2s. an acre, and 2 per cent. on the value of the mineral or metal at the mouth of the

leases of three acres, for a term not exceeding 20 years, may also be granted for various uses and purposes—such as sites for inns, stores,

bakeries, bathing houses, factories, quays, ship building &c. But these leases are voidable at any time if not used for the purposes for which they were granted. (Secs. 50 & 51.)

Annual licenses may also be granted for any of the purposes specified in sec. 58, subject to such fees and conditions as the Governor in Council may prescribe. (Sec. 54.)

Part 4 relates to commons, of which there are to be four classes; viz. municipal commons, gold fields commons, town commons, and farmers' commons.

The commons may be proclaimed by the Governor in Council, in localities within five miles of any municipal district, or gold field, or town (not in a municipal district), or agricultural area, of which one-fourth has been selected. (Sec. 65.) The persons entitled to free commonage are house-holders, holders of 'miners' rights' or business licenses, resident selectors in agricultural areas, and land owners resident within five miles of a commons 'farmers' commons.' (Sec. 67.) The lands in these commons may however be sold, or selected, or time alter or abolish any common; and the right of depasturage (except in the case of farmers' commons) is restricted to four head of cattle for each commoner. (Sec. 77.)

Part 5 relates to pastoral licenses. It is with this branch of the subject that the great difficulty has hitherto been found in dealing with the land question.

The 80th section of the Act empowers the Governor to issue to the licensed occupiers of existing years yearly licenses of their runs for the next eight years only, commencing from January 1, 1863; but it expressly provides that the license is not to prevent the run or any part of it from being sold, leased, proclaimed a common, or otherwise dealt with under the present or any future law.

Instead of an assignment as heretofore on the stock actually fed on the run, a rent is to be paid on the number of cattle (at the rate of 8d. for each sheep, or 2s. for each head of cattle) which the run may be capable of carrying, to be determined by the Board of Land and Works, or, in case their decision is disputed, by arbitration. (sec. 83); but the rent may be increased within the first twelve months if the Board have reason to believe that it has been fixed too low, subject to an appeal on the part of the squatter. (Secs. 96 & 97.)

With regard to new runs, they are to be sold by auction, the rent being fixed by the Board of Land and Works, and the biddings being on the premiums. If there are no bidders at the auctions, the Board may reduce the rent and put up the run again, and so from time to time until it is sold by auction. The purchaser is to receive a license of occupation (which is to be deemed a transferable chattel interest, secs. 107-8) for 14 years, and the size of the run is limited to an extent sufficient in the estimation of the Board to carry all the year round 5,000 sheep, or 1,250 head of cattle (secs. 98, 99, 100, and 101). If the rent, which is payable half-yearly (sec. 113), is suffered to fall into arrear, 2l. a day are to be added to it by way of penalty; and if it continue in arrear more than two months, the run is liable to forfeiture. (Secs. 116-7.)

The Governor in Council may make reserves for sale to the extent of one-fourth of the run, but no more than three months' notice given to the licensee, and the remainder of his run is made subject to being leased or occupied under a 'miners' right' or license for other than pastoral purposes (sec. 102). Runs taken up in 1860 and 1861 under the last Land,



The provisions relating to commonage in the Land Act of 1862 remain unaltered in the amending Act, which, however, provides for the more effectual management of the commons and the expenditure of the surplus fees derivable therefrom in effecting local improvements.

The conditions of the pastoral occupation of the waste lands by the squatters remain unaltered up to December 31, 1870 (the period limited by the Land Act 1862). Under the provisions of that Act, the rental to be charged for the occupation of the Crown lands was assessed by the Board of Land and Works, and published in the Government Gazette of December 1862, the number of runs then in occupation being 1,122.

**Auction.**—By the 32nd section of the amending Act, all Crown lands in Victoria, wherever situated, except those in agricultural areas proclaimed open for selection (sec. 10), are to be sold, in fee simple, by auction, at an upset price of 1*l.* per acre, or such higher upset price and subject to such conditions and reservations, as the Governor in Council may direct.

**Quantity of Country Lands purchased in Victoria up to October 23, 1865.**

	Acres
By Auction up to passing of Land Act, 1860	3,733,566
Auction and selection under Land Act, 1860	798,342
Selection under Land Act, 1862	1,423,235
Selection under amending Land Act of 1865 up to October 23, 1865	1,670,739
<b>Total</b>	<b>7,625,782</b>

**Summary of Rates per Acre obtained for Country Lands in Victoria.**

	£	s.	d.
By Auction up to passing of Land Act, 1860	1	9	0
Auction of special country lands under the Land Act, 1860	1	3	6
Selection and limited auction under the Land Act, 1860	1	0	11
Selection under the Land Act, 1862	0	16	4
Selection under the amending Land Act, 1865	1	4	6

**SOUTH AUSTRALIA.**

The Waste Lands Act for this colony (21 Vict., No. 5, of 1857) was passed on the 19th November of that year. The following is an abstract of the Act:

**Abstract of South Australia Waste Lands Act.** Secs. 1 and 2.—Waste lands of the Crown not to be alienated except by sale as prescribed by Act.

Sec. 3. **Reserves.**—Governor in Council may, however, make reserves for purposes of public safety, convenience, health, or enjoyment (except for churches).

Sec. 4. **Surveys and Size of Lots.**—Except pastoral lands, all lands to be surveyed and mapped in lots not exceeding 640 acres before they are sold.

Sec. 5. **Deed of Grant.**—Governor, on behalf of the Crown, to convey lands sold under the public seal of the province.

Sec. 6. **Auction.**—Except pastoral, all lands to be sold by auction after public notice of not less than 1 nor more than 3 months.

Sec. 7. **Classification of Lands.**—Lands to be classified into town, suburban, and country.

Sec. 8. **Upset Price.**—Lowest upset price, 1*l.* per acre.

Sec. 9. **Government may fix a higher upset price for town lots and for special country lots, and country lots on which improvements may have been lawfully made.**

Sec. 10. **Sale by Private Contract.**—Town lots to be sold only by auction, but country lots which have been exposed to sale at auction may (if withdrawn for future sale by auction) be sold by private contract at the upset price, or if not sold at auction and not sold, then at the price bid.

Sec. 11. **Payment of Purchase Money.**—In the case of private sales, the whole of the purchase money to be paid down. At auctions 20 per cent. down, and the remainder within 1 calendar month.

Sec. 12. **Pasture Leases.**—The Governor may, without auction, grant to the first discoverer or pastoral occupier of waste lands, leases of 14 years for pastoral purposes; but no second lease is to be granted unless first put up to auction; the bidding to be on the rent. Annual leases of land within hundreds may be granted without being put up at auction. By an Act (22 Vict.) No. 20 of 1858, an annual assessment is imposed of 2*l.* a head for each sheep which the demised land is estimated to be capable of grazing.

Sec. 13. **Mineral Leases.**—The Governor may also grant leases of 14 years for mining purposes of lots not exceeding 80 acres, at a rent of 10*s.* an acre, with a right of renewal for 14 years more on paying a fine of not less than 1*l.* an acre, subject to future regulations.

Sec. 14. **Regulations.**—The Governor in Council may make regulations from time to time for pastoral leases, to be officially published.

Sec. 15. All regulations made by Governor under the Act are to be laid before the provincial Parliament within 14 days.

Sec. 16. **Mineral and Timber Licenses.**—The Governor in Council may grant licenses of 12 months' duration to search for gold and other metals, and to cut timber on the unsurveyed waste lands.

By an Act No. 18 of 1858 (22nd Victoria, passed December 24, 1858, to amend the above 'Waste Lands Act') the Governor is empowered, when any lease for pastoral purposes shall have been determined by reason of the land being included in any to the lessee or his assigns during the residue of his term.

The Governor is also empowered to make regulations affecting and defining the issue of depasturing, gold, timber, and mineral licenses; and to fix a higher upset price for suburban land than the lowest upset price fixed for waste lands.

'The Waste Lands Appropriation Act, 1862' (25 & 26 Vict. No. 17 of 1862) repeals sec. 19 of the Waste Lands Act of 1857, and appropriates two-thirds of the gross proceeds of the sale of waste lands to the payment of the principal and interest of the public debt, and to the making of roads, bridges, railways, and other public works, and the remaining third towards defraying the expenses of the passages of immigrants from the United Kingdom under the provisions of the Immigration Act No. 4 of 1857.

By an Act 25 & 26 Vict., No. 24 of 1862, sec. 13 of the 'Waste Lands Act' of 1857 is repealed, and other provisions made for granting mineral leases.

By an Act of 29 Vict., No. 8 of 1865-6, sec. 3 of No. 18 of 1858 is repealed, and penalties are imposed for the unauthorised occupation and use of Crown lands, or for unlawfully depasturing cattle thereon, or for making a false declaration of commonage; and by an Act, No. 10 of the same year, entitled 'The Mineral Leases Act, 1865-6,' the Governor may demise Crown lands for the purpose of mining coal in allotments not exceeding 20 acres, and for a period not exceeding 14 years, and prescribed in regulations which the Governor and Executive Council are therein empowered to lay down.

By an Act, No. 16 of 1865-6, certain pastoral tenants, whose names are specified in three schedules,



Lanncston, and agricultural and pastoral lands unsold at auction, to be advertised in Gazette and sold by private contract at the upset price to the first applicant within one year after auction, and before the lands are again put up to auction, unless there be simultaneous applications for the same lot, when it is to be again put up to auction.

Secs. 19, 20, 21, 22, 25, & 26. *Fixed Price.*—Any person may, on paying the expense of survey, select from unoccupied land not being town lands or lands reserved for sale, or under lease, and purchase by private contract at the fixed price of 1*l.* per acre, 320 acres in one or more adjoining lots of not less than 40 acres each. In the case of what are termed 'unsettled lands' the price is 10*s.* an acre, and the size of the lot not greater than 640 acres. (Sec. 70.) Any land obtained in contravention of this restriction is to be forfeited. The land thus selected to be subject to all rules to be prescribed as to form or figure of such lots, and must be surveyed before grant issued.

Secs. 27 to 34. *Payment of Purchase Money.*—Purchasers may elect at time of purchase to buy on credit, or for prompt payment (i. e. at auctions one-fifth down and the residue within one month; at private sale the whole down). Where *credit* is chosen, whether the purchase be at auction or by private contract, one-fifth of the price is to be added by way of premium, and one-fifth of the aggregate sum is to be paid down, and the residue by annual instalments of one-tenth. On failure in payment of any instalment within 60 days, the land is to be put up again to sale by auction; and if the overdue instalment is not paid 14 days previous to the day fixed for the sale, then the deposit and all previous instalments are to be forfeited, and the land is to revert to the Crown to be sold by auction for not less than the balance due. If sold for more than the balance due and deposit, the excess to be paid to the original purchaser. Instalments may be paid off at any time, and in that case the credit premium is to be proportionately reduced. No land is to be sold on credit where the price is less than 1*l.*

Secs. 36 & 37. *Transfer.*—No purchaser can transfer his land without the written consent of the Commissioner, until the whole purchase money is paid; but it will pass to his devise, or in case of intestacy to his personal representative, i. e. executor or administrator.

Secs. 41 to 49. *Leases.*—The Commissioner must advertise, from time to time, lands for leases not exceeding 14 years, fixing the rent according to the best estimate he is able to form; provided that if the land has been previously let or occupied under a depasturing license within one year prior to such notice, the annual rent is not to be less than 1*l.* per 100 acres; but if the land has not been so occupied, then the annual rent is not to be less than 10*s.* per 100 acres.

*Railways &c.*—The Governor in Council may lease lands for railways or tramways at a peppercorn rent.

*Pastoral Leases.*—The Commissioner may, without advertisement, lease for any term not exceeding 10 years, and at an annual rent of not less than 1*l.* per 100 acres, pastoral lands not previously occupied within a year. The lots are to contain not less than 500 nor more than 2,500 acres. The rent of every lease is to be payable half yearly in advance, and the lease is to be determinable if the rent is not paid within a month, also upon a six months' notice given with the consent of the Governor in Council if the land is required for sale. In this latter case the lessee is to be entitled to compensation (to be fixed by valuation) for

permanent improvements. If the land be not sold, the lessee is to have the option of continuing his lease.

The Amending Act, No. 4 (1867), provides (secs. 3 to 7) for the proclamation and leasing of agricultural areas, for securing their occupation by the lessee or some member of his family, and for raising money by debentures for the construction of roads and bridges within them. It makes provision (secs. 10 to 18) for the lease of lands for mining purposes. It extends (sec. 19) the provisions of the Act of 1863, which appropriates one-fourth of the nett receipts from the sale or lease of land to the construction of roads; (sec. 20) and of other public works also. It fixes (sec. 21) the lowest upset price of land at 20*s.* an acre, subject to a reduction with approval of the Governor in Council to not less than 10*s.* an acre if the land is not sold within three months of the auction. It also makes (sec. 20) provision for the leasing of Crown reserves, and (sec. 26) for the grant of land to municipalities for municipal purposes.

The Act No. 27 of 1867 was passed with reference to a contemplated immigration of Europeans from India, and authorises the Governor to reserve for three years an area not exceeding 50,000 acres at Castra in the county of Devon, and allows a remission of purchase-money to any persons who may arrive as expected. When 5,000 acres have been selected the Governor is to expend a sum not exceeding 10*s.* an acre, to be raised by debentures, in constructing roads and bridges in the tract so selected.

#### NEW ZEALAND.

This colony is divided into nine provinces, with a separate Government in each. There is also a General Government over the whole. In the five provinces of Nelson, Marlborough, Canterbury, Otago, and Southland (formerly part of Otago, but now created a new province), the Crown has extinguished by purchase the native title over all the lands. In the other four provinces, which are situated in the Northern Island, viz. Auckland, Wellington, Taranaki (formerly New Plymouth), and Hawke's Bay, this result has only been partially effected, and the native title still exists over large tracts.

An Act (26 Vict. No. 42) has been passed by the General Assembly, enabling natives to sell their lands to private individuals. Previously they were prohibited from alienating their lands, except to the Crown.

The management of the Crown lands throughout the colony has, by the Imperial Act 15 & 16 Vict. c. 72, granting the colony a Constitution, been vested in the General Assembly. The General Assembly, in its session of 1858, accordingly passed an Act, No. 75, to regulate the disposal and administration of the waste lands of the Crown in New Zealand. This Act (called 'The Waste Lands Act, 1858') gives validity to all regulations for the disposal of the waste lands of the Crown previously in force in the different provinces, except so far as they may be inconsistent with the Act.

The following are two of the principal provisions of this Act:—

Not more than 320 acres shall be put up to sale by auction in one lot, and the upset price shall in no case be less than 5*s.* an acre. After the 1st of August 1860, no land shall be sold upon credit except what may be lawfully set apart for special settlement by expected immigrants. Priority of choice for the same piece of land shall, in no case, be decided by lot, but by auction, at which only

the applicants for the lot shall be allowed to bid. This provision not to extend to applications heard before the Waste Lands Board at Canterbury. (Sec. 1.)

The Governor in Council may, upon the representation of the superintendent and council of any province, augment the price at which the Crown lands in that province shall be offered for sale. (Sec. 2.)

## WEST INDIES.

Crown lands and forests may under Act No. 14 of 1861 be sold by auction at an upset price of not less than 1*l.* per acre.

**Antigua and Dominica.**—The smallest lot sold is 40 acres, except in certain localities for villages.

**British Guiana.**—The disposal of Crown lands is now regulated by Act No. 14 of 1861, which saves the rights of the owners of plantations who, under the old regulations of their High Mightinesses the States of Holland, are entitled to second or other depths of 250 acres as soon as two-thirds of the first grant are in cultivation.

It is not the practice in British Guiana to open on survey any lands for settlement until after application has been made to the Government for some particular tract.

**Trinidad.**—The price of Crown land is 2*l.* per acre. All limitations as to the number of acres have fallen into desuetude. Lagoon or swampy land is sold at a lower rate, and building lots are higher, depending on competition.

**Bahamas.**—The mode of sale is by auction, but the Governor is from time to time to name the upset price, which is never to be less than 6*s.* per acre. Land once exposed to auction may, in the discretion of the Governor, be afterwards sold by private contract, at not less than the upset price of such land. The ordinary size of the lots in the Bahamas is to be 20 acres, but lots of 5 acres may, if thought expedient, be disposed of.

**Jamaica.**—There are no regulations in force in this island for the disposal of public lands, pasture licenses &c.

## CAPE OF GOOD HOPE.

The conditions and regulations relative to the disposal of Crown lands in this colony are contained in Acts No. 2 of 1860, No. 19 of 1864, and Nos. 4 and 12 of 1867; and in future all waste and unappropriated Crown lands will be sold subject to an annual quit rent on each lot, and at a reserved price sufficient to defray the costs of inspection, erection of beacons, survey, and title deed.

**Natal.**—1. The unappropriated Crown lands in this colony are sold in freehold, and by public auction only.

2. Unless it is otherwise notified, the upset price will be 4*s.* per acre, but the Governor for the time being will have the power to fix such higher upset price as the locality or other circumstances may render expedient, of which due notice will always be publicly given. Lands not sold at auction may at any time within three years afterwards be purchased by private contract at the upset price.

## MAURITIUS.

The Crown lands, with the exception of portions reserved for special purposes, shall be sold in perpetuity or leased at the discretion of the Governor, but may not be alienated from the Crown by free grants.

## CEYLON.

Crown lands are sold by auction at an upset price fixed by the Governor, at not less than 1*l.* per acre. They must be previously surveyed by the Government and duly advertised.

## HONG KONG.

The Crown lands are disposed of only on leases by public auction for a premium or bonus at a fixed rental.

## LABUAN.

The method here is similar to that in Hong Kong.

*Summary of Modes of Sale, and Prices, in the Principal Land-Selling Colonies.*

Colony	Mode of Sale	Price per Acre
<b>NORTH AMERICAN COLONIES:—</b>		
Canada (West)	Fixed price for a whole township, and for lots in townships, till public notice of auction; afterwards, and for all other lands, auction.	For a whole township 2 <i>s.</i> 6 <i>d.</i> currency, 2 <i>s.</i> 1 <i>d.</i> sterling. For lots in townships 2 <i>s.</i> 6 <i>d.</i> currency, 2 <i>s.</i> 1 <i>d.</i> sterling. For all other lands upset price 2 <i>s.</i> currency, 2 <i>s.</i> 2 <i>d.</i> sterling.
Canada (East)	Ditto	1 <i>s.</i> 6 <i>d.</i> 3 <i>d.</i> , ditto, according to situation, 10 <i>d.</i> to 2 <i>s.</i> 6 <i>d.</i> sterling.
Nova Scotia	Fixed price	1 <i>s.</i> 6 <i>d.</i> sterling.
New Brunswick	Auction and fixed price for actual settlement.	2 <i>s.</i> 6 <i>d.</i> sterling upset price, with 20 per cent. discount for ready money.
Prince Edward Island	Auction	2 <i>s.</i> 6 <i>d.</i> 3 <i>d.</i> , according to situation.
Newfoundland	Auction. Lands not sold after second auction may be bought at the upset price.	Upset price, 2 <i>s.</i> currency, 1 <i>s.</i> 8 <i>d.</i> sterling.
British Columbia	Auction. Afterwards upset price to be fixed price.	Upset price for country lands, 4 <i>s.</i> 2 <i>d.</i> If town lots (66 by 132 feet) upset price 10 <i>s.</i> Upset price 4 <i>s.</i> 2 <i>d.</i>
Vancouver Island	Ditto	
<b>AUSTRALIAN COLONIES:—</b>		
New South Wales	Auction. Country lands not sold at auction may afterwards be bought at the upset price.	Upset price 1 <i>l.</i> sterling.
Queensland	Ditto	Ditto, in 'Agricultural Reserves' secured without competition.
South Australia	Ditto	Ditto.
Victoria	1. By selection at fixed price. 2. By auction	1. Lots leased for 7 years at 2 <i>s.</i> an acre. Upset price not less than 1 <i>l.</i> an acre. Prompt payment. 10 <i>s.</i>
Western Australia	Fixed price for agricultural lands. Auction for town, suburban, and mineral.	Upset price for town and suburban, to be fixed by Governor, for mineral lands, 20 <i>s.</i>
Tasmania	Auction and private sales at 1 <i>l.</i> per acre.	Upset price to be fixed by Government, but not lower than 10 <i>s.</i> an acre.
New Zealand (Crown lands)	Auction, for town and suburban lands. Fixed price generally for country lands.	Fixed price in 4 provinces 10 <i>s.</i> In the remaining 3 from 5 <i>s.</i> to 40 <i>s.</i>
Falklands	Auction. Country lands not sold at auction may afterwards be bought at the upset price.	Upset price, 5 <i>s.</i> sterling.
Sierra Leone	Ditto	Ditto, 4 <i>s.</i> 2 <i>d.</i>
Bahamas	Ditto	Ditto, 10 <i>s.</i>
Fiji's Island and Calcutta	Ditto	Ditto, 4 <i>s.</i>
British Guiana	Fixed price	10 dollars.
Trinidad	Auction	Upset price, 2 <i>l.</i>
Other West India Colonies.	Ditto	Upset price, 1 <i>l.</i>
Honduras	Ditto	Minimum upset price, 20 <i>s.</i>
Cape of Good Hope	Auction, subject to a quit-rent.	No fixed upset price.
Natal	Auction	Upset price, 4 <i>s.</i> sterling.
Mauritius	Ditto	No fixed upset price.
Ceylon	Ditto	Upset price, to be fixed by Governor, but not to be less than 5 <i>s.</i> sterling.
Hong Kong	Auction. Only leases granted.	The lowest fixed rental for building, not farms, lots is 2 <i>s.</i> per acre. Highest ditto, 100 <i>s.</i>
Labuan	Auction. Leases for 999 years. Fixed rent and bidlings on the premium for the lease.	Upset annual rental of Marine lots, generally 160 dollars per acre. Land unsold at auction not purchasable at upset price.

Table of Colonial Public Lands Alienated and Remaining for Alienation at the Date of the Last Returns.

Colony	Amount Alienated	Estimated Amount remaining for Alienation	Estimated Amount available for Settlement	Surveyed and open for Settlement	Date of Return
<b>NORTH AMERICAN COLONIES.</b>					
Canada, Upper -	21,488,512	56,118,108	..*	} 10,000,000	December 31, 1865
Lower -	19,089,537	115,315,443	..		
British Columbia -	7,000,000	8,000,000	8,000,000	250,000	1866
New Brunswick -	5,405,892	5,641,011	500,000	85,000	1860
New Scotia -	813,543	1,207,438	356,676	777,438	1861
Prince Edward Island -	5,152	5,000	5,000	1,955	1861
Newfoundland -	Say 45,000	Say 2,500,000	Not known	None	1866
Bermuda -	All	None	None	—	1814
<b>AFRICA—AUSTRALIAN COLONIES.</b>					
New South Wales -	9,112,068†	189,514,172	189,514,172	See remarks‡	December 31, 1866
Queensland -	293,054	Above 384,000,000	No accurate return	..	1865
Victoria (the Fort Phillip) -	9,561,496§	46,292,513	32,395,564	5,200,000	June 30, 1867
Tasmania -	7,758,996	15,069,004	Not known	702,194	1867
Western Australia (exclusive of Southern territory) -	1,425,416	624,449,280¶	..	None	December 31, 1867
South Australia -	3,211,170	211,929,858	..	310,960	December 31, 1865
New Zealand -	2,709,275	Varies as the (to-) returns make from time to time large purchases from the natives	48,000,000 in Middle Island, and 6,000,000 in Northern Island	..	1860
<b>WEST INDIES.</b>					
Jamaica -	Not stated	Not known	Not known	Not known	1859
Hibama -	..	1,853,522	Not stated	Not stated	1849
Leeward Islands -	..	Not known	Not known	No survey	1852
Antigua -	..	..	..	..	1852
Dominica -	{Unknown, but the quantity is large}	..	..	..	1852
St. Christopher's -	..	..	..	..	..
Montserrat -	All	None	None	None	..
Nevs -	..	..	..	..	..
Tobago -	All (15,200)	None	None	None	1852
Anguilla -	No return	No return	..	..	..
Windward Islands -	All	None	None	None	1852
Barbados -	74,538	2,000	None	..	1852
St. Vincent -	Say 55,000	Say 2,500	None	..	1852
Trinidad -	Not known	Not known	Not known	None	1852
British Guiana -	27,861	885,000	..	..	1858
Honduras -	Say 2,000,000	Say 45,000,000	Say 45,000,000	None	1858
Turkey Island and Cateva -	No return	No return	No return	..	..
<b>OTHER COLONIES.</b>					
Cape of Good Hope -	56,265,878	61,037,122**	..**	..**	1865
Natal -	7,051,891	4,468,109	3,219,109	..††	1852
Gambia -	Not stated	Not stated	Uncertain	Not stated	1841
Serra Leone -	No return	No return	No return	None	1852
Gold Coast -	None	Uncertain	Uncertain	..	..
St. Helena -	No return	No return	No return	..	..
Ceylon -	391,047	Not known	Not known	Not known	1860
Mauritius -	No return	No return	No return††	..	..
Hong Kong -	780	780	..	..	1867
Labuan -	772	20,228	21,000	..	1852
Auckland Islands -	No return	No return	No return	..	..
Chatham Islands -	300,000‡	3,000,000‡	..	..	1852
Blind -	None	None	None	None	1852
Gibraltar -	..	..	..	..	1852
Malta -	No return	No return	No return	..	..

\* The total area of Upper Canada, within the watershed of the St. Lawrence and the Lakes, is 77,606,450 acres, and of Lower Canada 134,000,000; total area of Canada, 211,606,450.  
 † Includes 1,222,365 acres, sold conditionally. The colony of Queensland having been separated from New South Wales in the year 1859, the area so taken has been deducted in compiling this statement.  
 ‡ The grazing leases extend over 2-3ds of the colony. It is only partially surveyed. Numerous portions of surveyed land are available for immediate purchase.  
 § The estimated area of Victoria is about 55,600,000 acres, or 86,875 square miles.  
 ¶ Within the limits of Western Australia, open to selection.  
 \*\* Boundaries of British Guiana still undefined.  
 †† The second column includes 'loan places,' missionary institutions, commonages, land long since surveyed, the Kat River Settlement, mountain ranges, Karoo (desert) lands &c.; and is given only approximately from the estimated area of the colony, 117,503,000 acres. The 3rd and 4th columns cannot, therefore, be filled in till after a general survey.  
 ‡‡ About 70 lots in different parts of the colony, varying from 15,000 to 25,000 acres.  
 ††† No limit can be placed on the amount of land that can be made available for sale in Kowloon, or in Victoria, by reclamation from the sea.  
 ‡‡‡ Granted at lease.  
 †††† Much of the land is mountainous.

RIGHTS OF COMMONAGE AND LEASES OF PASTURE LANDS IN AUSTRALIA.

New South Wales.—The following is the substance of the principal provisions of the Crown Lands Occupation Act, No. 2 of 25 Vict., 1861. For the purposes of the Act the Crown Lands are divided into three classes; viz. 'First-class Settled Districts,' 'Second-class Settled Districts,' and 'Unsettled Districts.' It repeals the Acts of Council, 11 Vict. No. 61 and 16 Vict. No. 29, and the Orders in Council and Regulations issued under the Imperial Act, 9 and 10 Vict. c. 104, saving all rights already acquired under them. It empowers the Governor, with the advice of the Executive Council, to proclaim any part of the

unsettled districts to be within the Second-class Settled Districts, but so as not to affect existing leases. (Sec. 3.)

It prohibits the renewal of existing leases, except under the provisions of the Act, and enables the Government to withdraw from any runs lands required for town or village sites, for internal communications, or for any public purpose whatever. (Secs. 4 & 5.)

It then provides that Crown lands not comprised within 'old runs' (that is, runs under leases or licenses granted or contracted to be granted before February 22, 1858, in the second-class settled or unsettled districts) or not comprised within certain distances of towns or villages, and not being public reserves, may be leased, subject to the provi-

sions of the Gold Fields Act (20 Vict., No. 29) and without competition, for pastoral purposes, for 1 year if in the first-class settled districts—and for 5 years if within the second-class settled districts or the unsettled districts—or if required for ferries, bridges, wharves, machinery for saw-mills &c.—and for 14 years if for mineral purposes other than gold mining. (Sec. 10.)

Leases of runs in the first-class settled districts are to contain not less than 1 square mile, and are all to expire on December 31, with the right, however, of renewal annually, by payment of a rent for the ensuing year, at the rate of 2*l.* per square mile, or such higher rate as the lessees may be paying, subject nevertheless to the right of the Government to withdraw the lands for sale or for any public purpose. The holders of land in fee simple may also acquire, without competition, at the rent of 2*l.* per square mile, leases of adjoining land to the extent of three times their purchased land. Competitors for the same tract of land are to have it divided between them by arbitration. Crown lands not previously under lease, or subject to a pre-emptive right of lease, are to be sold by auction after 1 month's notice of sale in the 'Gazette,' at an upset price of 1*l.* per square mile, or of 10*s.* if half the current year should have expired, and the whole of the purchase money is to be paid at the time of sale. If not sold at auction, the land may be afterwards purchased by private contract at the upset price; but the sale by the Government of any portion of the land under lease is to cancel so much of the lease as relates to the land sold and to 3 times the adjoining area. (Secs. 2 & 12.)

With regard to lands in the 'Second-class Settled Districts' or in the 'Unsettled Districts,' the Governor, with the advice of the Executive Council, may grant leases, subject to the following conditions:—1. Existing leases of runs may be converted into leases for 5 years under the Act, by payment, within 2 months of the 'Gazette' notice, of a rent to be determined by appraisalment of the fair annual value (exclusive of improvements) of the lands for pastoral purposes; and on such conversion the runs cease to be liable to assessment under the Act 22 Vict. No. 17. 2. Leases of 'old runs' may, on their expiration, be in like manner converted into leases for 5 years. 3. After the first year the rent is to be payable on December 31, with a fine of 8 per cent. if in arrear not more than 3 months, and of 10 per cent. if more than 3 months; and if in arrear 6 months the lease to be forfeited. 4. These leases are not to confer any right to purchase pre-emption. 5. The Crown may resume without compensation (except a return of a proportionate part of the rent) any of the lands under lease required for town or village sites, or for any public purpose whatever; but the lessee has then the option of surrendering the lease if he thinks fit, and obtaining a re-fund of the full balance of the rent. (Sec. 13.)

The additional regulations, dated April 28, 1865, provide more effectually for the appraisalment of the fair annual value of runs prior to their conversion into leases for 5 years under the Act, more particularly as to the mode of making the appraisalments, which are required to be determined in open Court at a place proclaimed for the purpose, upon due enquiry and consideration of any evidence submitted to the appraisers, and taking into account every natural advantage or element of value possessed by a run (exclusive of improvements), whether made available by the lessee or not.

Forfeited leases are disposed of by auction. (Sec. 17.)

Each run is put up at a minimum upset rental, and the lease sold to the person who may offer the highest premium for the purchase thereof. The purchaser is required to pay down at the time of sale a deposit equivalent to 25 per cent. of the premium, if any offered, for the lease, together with the upset rent for the year, and the balance of the purchase money must be paid into the Treasury within three months of the day of sale, or in default the sale becomes void, and the amounts paid by way of deposit are forfeited. Runs of which the leases may remain unsold after having been twice offered for sale at auction may be obtained on application at the rent at which they were last offered.

The Governor, with the advice of the Executive Council, may proclaim pastoral districts in the 'second-class settled' or in the 'unsettled districts,' to be open for the formation of runs. The area of these runs not, in ordinary cases, to exceed 25 square miles, unless that extent be insufficient in average seasons to depasture 4,000 sheep or 800 cattle. In such case the area may be enlarged to not exceeding 100 square miles. The runs are to be tendered for in a form prescribed for the purpose, and, in case of competition, leased to the highest tenderer. If the run be not stocked with not less than 200 head of cattle or 1,000 sheep within 6 months, or where water is to be provided by artificial means within 18 months, the run is to be forfeited, and may then be leased by auction. A receipt from the Colonial Treasurer, showing the deposit of 25 per cent. of the rent offered, must accompany each tender; and the money is to be retained or returned according as the tender is accepted or rejected. Pending appraisalment of the fair annual value of land for pastoral purposes, runs may be held from year to year subject to a rent of 10*l.* per annum, and to assessment under the Act 27 Vict. No. 17. (Sec. 14.)

If a lessee by artificial means increases to a certain extent the permanent depasturing capacity of the land, he will be entitled to an extension of his lease to 10 years. (Sec. 15.)

The owners in fee simple of lands within the unsettled and second-class settled districts have the same right of pre-emptive leases of adjoining Crown lands as are granted to fee simple proprietors of lands in the first-class settled districts; and, as in the case of lands in those districts, a sale cancels a lease as regards the land sold and three times the adjoining area. (Secs. 16 & 18.)

A limited right of depasturing stock, travelling over leased lands, and also the right to duly authorised persons to cut timber or to search for minerals, are reserved. (Secs. 19 & 21.)

**Mining Leases.**—The Government may grant mining leases (except for gold), not exceeding 320 acres for coal, nor exceeding 80 acres for other minerals, for a period not exceeding 14 years, with the right of renewal for another 14 years, subject to a rent of 5*s.* per acre, payable annually in advance; and to the condition of expending at the rate of 5*l.* per acre on the land within the first 3 years. The lessee may determine the lease on giving 3 months' notice, but is not entitled to any refund of the rent. To renew the lease, the lessee must give notice in writing to the Government during the 13th year; and the fine to be paid on renewal is to be determined by appraisalment, but is in no case to be less than 2*l.* 10*s.* per acre. (Sec. 22.)

There are certain other minor and formal provisions in the Act, including those for regulating

the appointment and duties of appraisers and arbitrators; but the foregoing abstract embraces the leading features of the measure.

**Timber Licenses** are granted annually, terminating on December 31, on payment of a fee, for cutting any kind of timber or bark 6*l.*, for cutting land wood or bark only 2*l.*, and for quarrying stone &c. 4*l.*

#### SOUTH AUSTRALIA.

**Depasturing Regulations.**—The holder of any purchased land within any hundred not being within the limits of a District Council is entitled, under the proclamation of April 2, 1862, should there be sufficient commonage available, to a depasturing license over the unappropriated waste lands of the Crown within such hundred, for two head of great cattle or twelve head of small cattle, for every five acres of purchased land.

The license must be applied for to the Commissioners of Crown Lands, not later than 1st June in each year, and has a currency of 12 months from 1st July in each year. The fee payable is 4*s.* for every head of great cattle, or six head of small cattle.

Regulations of District Councils are subordinate to these regulations.

Pastoral leases are also granted, for 14 years, of lands out of hundreds.

By an Act, No. 20, of 22 Vict. (1858), Crown lands for pasturage are to be divided into two classes, the lowest of which is to be assessed at 100 sheep per square mile, and the highest at 250 sheep. But by an Act, No. 20, of 24 & 25 Vict. (1861), this division of land into classes and the fixed standard of grazing capability are done away with, and all land leased for pasture is in future to be assessed according to its grazing capabilities and situation. By a later Act, No. 22, of 1862, the waste lands are divided, for purposes of assessment, into three classes, with certain boundaries: 1st class paying assessment according to valuation under former Act; 2nd class paying one-half such assessment, and exempted from it for 7 instead of 4 years; 3rd class exempted altogether until Parliament shall otherwise direct.

By an Act, No. 13, of 1863, the assessment on pastoral lands may be reduced by the Governor with the consent of the Executive Council on the report of the valuator of runs, if application for the purpose be made within 12 calendar months of the publication of the assessment.

Under Act 20 of 1858 leases are renewable, on expiry of first term of 14 years, for a further period of five years at a valuation; and Act No. 8 of 1864 provides that the value of useful and substantial improvements effected by lessees shall be allowed to them by a reduction in the amount of rent payable under such valuation.

**Timber Licenses** are granted annually, terminable on 31st December, on payment of a fee of 5*l.* Half-yearly licenses are issued on payment of a fee of 3*l.*; quarterly licenses to remove timber 2*l.* Pasture licenses are also granted in Western Australia, Queensland, and New Zealand.

Considering that it may, speaking generally, be laid down that in New South Wales from 3 to 4 acres are required to depasture a single sheep, it is obvious that the plan of selling such land at a *minimum* price of 12*s.* or 20*s.* an acre would effectually prevent its being bought for pastoral purposes; and, in point of fact, incomparably the greater number of the sheep belonging to the colony are depastured on what has been called the *squatting system*. A capitalist intending to become a wool grower formerly took out an annual license, for which he

paid 10*l.*, authorising him to depasture a *run*, or tract of land, of no definite magnitude, but usually varying in size from 3,000 or 4,000 to perhaps 25,000 or 30,000 acres, under the important proviso (which, however, has not been enforced) that he should pay in addition an annual rent of 1*l.* for every head of sheep and of 3*d.* for every head of cattle depastured on the run. This system having been acted upon for a lengthened period, the runs began to be regarded as a sort of *quasi* property; and those in preferable situations were disposed of by one holder to another for considerable sums. In the end, however, Government was forced to interfere with this system; and the Act 9 & 10 Vict. c. 104 empowered the authorities to eject persons unlawfully occupying waste lands, provided they had not held them without interruption for 21 years previously to the passing of the Act. If they had done this, their title was secured. From the passing of this Act, a new and complicated system has been adopted for the disposal of waste lands. Under its operation vast tracts have been let, of what were at the time *unsettled* districts, for 14 years with a right of pre-emption, without competition, at 1*l.* per acre. But, in the mean time, portions of the land so disposed of, being found to contain deposits of gold, have suddenly become of the greatest value; while other and far more extensive portions in the vicinity of the 'diggings' are urgently required for agricultural purposes. Under such circumstances we need not be surprised that the question in regard to the lands held, or alleged to be held, under 14 years' leases with a right of pre-emption should have become of equal importance and difficulty. Owing to the want of surveys and defined boundaries, few of the occupiers of waste lands have obtained leases; and while, on the one hand, they insist on the fulfilment of their contracts, they are opposed, on the other, by the great bulk of the population, who justly object to the waste of the public property, and to the all but irreparable injury that would be done to the colony by handing over to a few individuals a vast extent of what is now become very valuable land. The idea that the leases, if granted, would be effectual, is, in the present state of the colony, quite preposterous. It is, in truth, all but contradictory to suppose that in a country like Australia, with a population increasing in numbers and wealth with unparalleled rapidity, millions of acres of the best situated lands should be engrossed, at a mere nominal rent, by a handful of individuals. If a system of this sort be not put an end to by the interference of Government, it will, no doubt, be forcibly suppressed by the colonists themselves. It is too flagrant an absurdity to be tolerated, and the better way would be to come, while it is yet time, to some sort of compromise; that is, to give some compensation to the lessees for claims which were conceded to them in ignorance, and which they cannot, in the existing state of things, maintain or make good.

**Gold Fields and Miners' Rights.**—Besides their great pastoral and agricultural capabilities, the Australian colonies possess vast mineral resources. South Australia has already become noted for her copper mines, and New South Wales and Victoria (late Port Phillip) and New Zealand for their gold fields.

By law all mines of gold and all gold in its natural place of deposit, whether on the lands of the Crown or of private individuals, belong by prerogative to the Crown; and whoever takes away gold metal or ore containing gold, or digs for or disturbs the soil on the waste lands of the Crown in search of gold metal or ore, without having been first duly authorised so to do, is liable to be pro-

seized both criminally and civilly, and the gold may be seized by the Crown.

In South Australia, however, the Crown has given up its right to minerals.

In Tasmania no gold regulations have been issued, as no profitable gold fields have yet been discovered.

In New South Wales, Victoria, and New Zealand

Acts have been passed by the local Legislatures regulating the right to dig for gold, and imposing a duty on its export.

The following statement, laid on the council table at Sydney May 22, 1849, shows the enormous extent to which the squatting system of which the leasing system is an off-shoot) had been carried :—

	Number of Persons holding Licenses	Number of Licenses	Money paid for Licenses	Land held, in Acres
When less than 25,000 acres are held by each person -	339	317	£ 5,370	4,599,594
Not above 50,000	153	180	1,800	5,300,911
100,000	103	162	1,620	7,141,497
150,000	33	32	320	3,996,199
200,000	16	31	310	2,640,959
250,000	5	16	160	1,091,638
300,000	74	11	110	1,063,905
400,000	13	10	100	1,079,120
450,000	* 1	5	50	408,383
450,000	1	5	50	1,273,000
850,000	1	1	10	815,000
	660	820	8,200	29,161,240

\* Eleven persons holding 1,570,108 acres in a colony under an inflexible specific for preventing the accumulation of land in the hands of a few individuals.

#### NEW SOUTH WALES.

A Colonial Act, 30 Vict. No. 8, 'The Gold Fields Act of 1866,' empowers the Governor to proclaim Crown lands to be gold fields, and to grant 'miners' rights' at a fee of 10s. between January 1 and June 30, and 5s. after that date, subject to certain regulations to be prescribed by the Governor in Council. All miners' rights are to terminate on December 31 in each year. (Sees. 3, 4, & 5.)

The Governor in Council may also grant 'Business Licenses,' which must terminate on December 31 in each year, the fee for which is 1l. if granted between January 1 and June 30, and 10s. if granted after June 30. (Sec. 6.)

Lenses of auriferous lands may be obtained in accordance with the laws in force for the time being. The rent is to be fixed by the Governor in Council. (Sec. 7.)

The escort of gold from the principal gold fields is undertaken by Government, at a charge of 8d. per ounce.

The duty on gold exported from New South Wales, whether by sea or land, is now fixed at 2s. 6d. the troy oz., but the customs duty is not to be leviable on gold which has paid duty at the Mint.

#### QUEENSLAND.

Four gold fields have been already discovered and proclaimed in this colony, viz. at Clermont (on the Peak Downs), at Talgai (on the Darling Downs), near the town of Gladstone (Port Curtis), and near the town of Roehampton.

#### VICTORIA.

Under the 'Mining Statute, 1865,' 29 Vict. No. 291 (passed November 28, 1865), 'Miners' Rights' are issued for any number of years not exceeding 15, at the rate of 5s. for every year. Consolidated 'Miners' Rights' are issued for the like period on the application of the manager, or any trustee or trustees of any company of persons who shall have agreed to work in partnership any claims registered under the Act, on payment of a sum at the prescribed rate, multiplied by the number of 'miners' rights' which the same is to represent.

The 'miners' rights' entitle the holders to take possession for gold mining purposes, and for residence, of so much of the Crown lands as may be prescribed by the bye-laws of the Local Mining Board of the district within which the land is situated.

From June 1, 1855, to December 31, 1865, the number of miners' rights issued was 454,908.

'Business Licenses' are issued at the following rates, entitling the holders to occupy and carry on business on the gold fields on such portions of the Crown lands, not exceeding one quarter of an acre, as may be prescribed by the Local Mining Board :—

For six months -	£ s. d.
For twelve months	2 10 0

Lenses of auriferous lands are granted under the provisions of the 'Mining Statute, 1865,' for any term not exceeding 15 years.

Rent.—The rent fixed is at 1l. per acre per annum.

The total number of auriferous lenses granted down to December 31, 1866, was 3,098 for 50,018 acres.

The Export Duty on Gold during 1867 was 6d. per ounce troy, and on January 1, 1868, the export of gold became duty free.

The Gold Fields of Victoria are divided into six principal districts. These are again divided into mining divisions or sub-districts, as occasion may require, and are each placed under the supervision of a warden. There is also a mining surveyor and registrar for each division or subdivision. The districts now embrace the total area of the colony save a small portion in the immediate vicinity of the city of Melbourne.

This Table is taken as regards New South Wales from the annual Statistical Register of the colony and as regards Victoria from official Colonial reports :—

Year	New South Wales		Victoria	
	Quantity exported	Value	Quantity exported	Value
	oz.	£	oz.	£
1851	144,190	468,336	143,137	434,777
1852	982,973	3,600,175	1,980,696	6,135,719
1853	548,032	1,781,171	2,421,723	8,644,329
1854	237,010	773,009	2,149,689	8,233,549
1855	64,584	209,450	2,751,553	10,944,049
1856	19,463	128,907	2,985,991	11,043,430
1857	253,591	983,850	2,162,460	10,807,201
1858	254,907	991,969	2,508,478	10,076,888
1859	435,995	1,698,073	2,380,950	9,172,037
1860	485,012	1,875,949	2,128,466	8,313,966
1861	486,203	1,890,808	1,678,861	7,013,813
1862	899,566	3,715,037	1,664,419	6,097,016
1863	605,722	2,361,949	1,627,066	6,000,896
1864	731,207	2,951,671	1,545,449	6,068,014
1865	684,521	2,617,668	1,556,137	6,196,306
1866	742,230	2,924,891	1,180,397	5,296,896
1867	461,775	1,170,165	1,833,887	6,728,888
Total	7,828,704	30,185,374	33,498,715	130,028,666

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55,539

44,159

43,454

67,211

67,208

22,271

17,134

21,512

29,776

10,266

106,137

296,546

176,546

7,38,282

428,656





In each of the six mining districts there is a legislative body termed a Mining Board. These boards are empowered to make bye-laws applicable to the district generally, with respect to mining affairs and occupation under business licenses. Each of these boards consists of ten members, four of whom retire from each board annually by rotation.

Each district has its separate Court of Mines, one of the Judges of the Supreme Court is appointed to act as chief judge of the Court.

The quantity of gold produced at the mines in New South Wales cannot be accurately ascertained; but the preceding table shows the quantity and estimated value of gold exported from New South Wales and Victoria since the commencement of discoveries in May and October, 1851.

The establishment of a Mint at Sydney will account for the small amount of gold exported in 1855 and 1856.

The following table shows the quantity of gold obtained in Victoria from the first discovery of the gold fields in 1851 to 1866:—

Year	Per Cent. of.	Exported	Value at 40s. per oz.	Average yearly earnings per man per annum
1851*	104,153	145,116	591,544	4 s. d.
1852	2,272,076	2,078,789	8,275,124	30 11 7-60
1853	2,065,903	2,276,345	9,079,361	29 15 0-91
1854	1,082,607	2,156,730	8,609,261	150 16 4-98
1855	1,132,302	2,731,535	11,006,140	100 7 2-75
1856	9,625,968	2,063,201	11,049,840	83 7 9-50
1857	2,191,090	2,769,460	11,113,912	72 10 11-27
1858	2,371,268	2,200,050	8,809,240	29 9 5
1859	2,009,012	2,156,660	8,669,240	67 14 5-11
1860	2,008,213	1,967,420	7,869,680	70 9 0-32
1861	1,838,867	1,606,267	6,507,488	71 1 2-29
1862	1,590,518	1,616,872	6,476,720	71 4 2-09
1863	1,513,501	1,513,501	6,059,824	80 8 3
1864	1,190,502	1,379,194	5,516,776	—
1865	—	—	—	—
1866	—	—	—	—
Total	—	24,177,265	129,209,660	—

\* 3 months in 1851.

The escorts from Castlemaine, Sandhurst, and Ballarat were discontinued on March 31, 1864, and since that date the only escorts arriving in Melbourne are those from the Beechworth and Woods' Points Districts: therefore the returns being incomplete are omitted.

List of the Principal Gold Mining Districts in Victoria, Sept. 30, 1867.

Ballarat District	Castlemaine Dist.	Maryborough Dist.	Ararat District.	Sandhurst District.	Beechworth Dist.	Gipps Land Dist.
Ballarat. Bun-yong. Siegitz. Smith's Dale. Creek. Blackwood. Gooden. Blue Mt. South.	Castlemaine. Fryer's Creek. Hepton. Maklun. Taradale. Raint. Andrews. Kyneton. Blue Mt. North.	Maryborough. Ararat. Amherst. Dunolly. St. Arnaud N. St. Arnaud S. Redbank. Korong.	Ararat. Pleasant Creek. Barkly. Haglan.	Sandhurst. Hearthouse and Waranga South. Waranga North. Kilmore. Raywood.	Beechworth. Yackandandah. Buchland. Indigo. Jamieson. Stanley. Sandy Creek. Gulliver's Creek. Wool's Point. Blue River. Mitta Mitta.	Omse. Mitchell River. Crooked River. Jericho. Dunnolly's Creek. Stringer's Creek. Russell's Creek.

NEW ZEALAND.

Gold fields exist, and are worked, in the provinces of Auckland, Nelson, and Otago. The law regulating gold fields and gold mining in this colony is contained in 'The Gold Fields Act, 1867' (30 Vict. No. 32), and the two amending Acts (Nos. 68 & 69 of 31 Vict.) of 1867. In their leading features they follow the legislation of Victoria.

The quantity and value of gold exported from New Zealand from April 1, 1857, to September 30, 1867, were as follows:—

Produce of Gold Fields in the Province of	Total exported to September 30, 1867	
	Quantity	Value
Auckland	ozs.	£
Nelson	22,974	67,527
Maitland	437,792	1,784,598
Canterbury	35,717	129,790
Otago	864,933	3,266,632
Southland	2,117,596	8,119,034
Total	3,564,189	13,816,935

Otago.—The area of the proclaimed gold fields has been calculated at 2½ millions of acres, distributed as follows:—

Turepa gold field	acres
Mount Beniger	398,260
Dunstan	18,216
Wairangia	199,680
Nelsons	1,351,680
Mount Ida	281,600
	330,000

CANADA.

Precious Metals.—Mining for the precious metals is regulated by the 'Gold Mines Act,' 27 & 28 Vict. c. 5, passed June 30, 1864; amended by 29 Vict. c. 9 (1865). Under these laws, two gold mining divisions have been established; one called 'Chaudière,' the other 'St. Francis,' in Canada East; but these have not been very productive. The governor may appoint officers; and two inspectors have been appointed, one for each division.

No person to mine without a license. There are two kinds of licenses—one 'Crown lands gold license,' 2 dols. per month, for unsold Crown land, and the other 'private lands gold license,' 1 dol. per month, for private lands, the miner first obtaining the consent of the proprietor.

BRITISH COLUMBIA.

Gold was known to exist in Queen Charlotte's Island in 1850, but it was not until April 1856 that Governor Douglas reported to the Secretary of State that considerable quantities of gold had been found in the Upper Columbia River. It was situated in the districts of Fraser River and of Thompson's River, commonly known as the Quantan, Couteau, and Shuswap countries. Rich and extensive gold fields were in the summer of 1865 discovered in that portion of the Columbia River known as the 'Big Bend,' lying between 51° and 52° North latitude.

The gold mining regulations are contained in an Ordinance, No. 14, March 28, 1865;—an Ordinance to amend and consolidate the Gold Mining Laws.

Mining leases may be granted by the Gold Commissioner for mining purposes only, on payment of a deposit of 25l.; but the lease cannot be assigned or sub-let, and is not, in general, to be for a longer term than 10 years, or for a larger area than:—

- In dry diggings, 10 acres.
  - In bar diggings unworked, ½ mile in length along the high-water mark.
  - Do. worked and abandoned, 1 ½ mile.
  - In quartz reefs unworked, 1 ½ mile.
  - Do. worked and abandoned, ½ mile in length.
- An assay office has been established at New Westminster. A duty on gold was imposed in 1865, amounting to 2s. per oz. But gold which is assayed at the Government office is charged only 1s. 6d. per oz.

Returns enumerating the various Colonies of any Importance belonging to the United Kingdom, the Dates of their Acquisition, their Government, Population, Trade, and Navigation.

Colonies	Date of Capture, Cession, or Settlement	Whether having Legislative Assemblies, or governed by Orders in Council	Population, 1861 or at last Census	Imports from U. Kingdom, 1866	Exports to U. Kingdom, 1866	Tonnage of Vessels, 1865	Clear
				£	£	Entered	tons
<b>North America.</b>							
Canada, East (Quebec)	Capitulation, September 18, 1763	Governor, Council, and Assembly	1,111,666	4,416,332	4,402,992	938,916	1,115,566
Canada, West (Ontario)	Ditto, Sept. 8, 1763, and cession by treaty, 1763	Ditto	237,047	845,591	1,491,445	71,876	807,151
New Brunswick	Fisheries and Settlements established soon after their discovery in 1479	Ditto	80,857	205,530	151,037	162,949	181,936
Prince Edward's Island	Settlement, 1838	Governor and Council	124,638	548,538	411,898	121,462	129,141
Newfoundland	Settlement, 1629	Governor and Council	11,916	6,899,711	259,795	55,385	129,141
British Columbia	Settlement, 1858	Total	3,309,942	7,674,077	6,874,077	2,988,380	3,323,429
<b>West Indies.</b>							
Antigua	Settlement, 1652	Governor and Council	37,123	95,653	530,342	23,451	23,451
Bahama	Settlement, 1649	Governor, Council, and Assembly	152,727	493,093	516,788	159,472	159,472
Dominica	Ceded by France, 1763	Ditto	11,411	11,411	11,411	11,411	11,411
Grenada	Ditto, 1763	Ditto	26,255	56,916	119,955	16,331	16,331
Jamaica	Capitulation, 1655	Governor and Council	441,264	721,471	1,529,110	117,958	153,977
Nevis	Capitulation, 1628	Governor and Council	9,832	312	59,982	7,257	7,257
St. Christopher	Ditto, 1625	Ditto	86,591	92,691	269,851	92,696	92,696
St. Lucia	Ditto, 1625	Ditto	29,519	34,443	135,632	9,361	8,843
St. Vincent	Ceded by France, 1763	Governor, Council, and Assembly	31,756	58,290	231,263	16,033	15,244
Trinidad	Settlement, 1666	Ditto	6,051	1,451	20,211	3,203	3,203
Tobago	Capitulation, 1797	Governor and Council	4,490	4,490	1,154,048	156,749	177,467
British Guiana	Capitulation, 1797	Governor, Council, and Assembly	11,461	46,250	47,480	69,106	75,882
Demerara	Capitulation, 1683	Governor, Council, and Assembly	118,096	789,860	1,686,814	171,065	184,996
Essequibo	Treaty, 1670	Governor, Council, and Assembly	25,283	1,110,360	6,615,280	969,192	926,180
<b>Australia.</b>							
New South Wales	Settlement, 1787	Governor, Council, and Assembly	11,292,111	3,110,360	6,615,280	969,192	926,180
Tasmania	Ditto, 1803	Ditto	378,854	3,152,924	4,783,891	635,888	659,421
Western Australia	Ditto, 1829	Ditto	696,217	6,661,544	4,090,584	1,094,273	1,094,215
South Australia	Ditto, 1839	Ditto	20,260	125,659	75,439	31,741	32,411
Queensland	Ditto, 1842 from New South Wales, 1859	Governor, Council, and Assembly	169,135	1,217,632	1,474,027	137,628	157,153
New Zealand	Settlement, 1839	Ditto	171,231	2,267,434	1,881,648	249,635	265,080
<b>Other Colonies.</b>							
Ascension	Settlement, 1815	Governor	1,580,424	14,626,773	1,581,648	2,025,268	2,075,925
St. Helena	Settlement, 1815	Governor	6,000	10,478	11,110	13,872	13,872
St. John's	Treaty, 1842	Governor and Council	115,099	2,669,159	542,275	1,070,905	1,070,905
Hong Kong	Capitulation, 1842	Governor; but the Laws of England prevail	82,159	1,219,742	102,071	1,114,806	1,114,806
Gibraltar	Ditto, 1704	Governor and Council	6,660	1,460,013	2,719,295	391,435	396,272
Cape of Good Hope and Natal	Ditto, 1805	Governor and Council	41,197	3,358,987	86,617	49,580	49,580
Sierra Leone	Settlement, 1787	Ditto	359,009	201,466	388,590	24,186	24,186
Gold Coast	African Forts, 1618	Ditto	2,049,748	1,146,784	3,236,210	577,022	577,022
Ceylon	Capitulation, 1795	Ditto	1,050,000	585,193	1,250,650	201,556	201,556
Malacca	Ditto, 1817	Ditto	3,296,488	2,042,531	1,629,263	11,995	11,995
Sumatra	Cession, 1846	Ditto	3,296,488	2,042,531	1,629,263	11,995	11,995
British Settlements	Transferred from Government of India, 1857	Total	3,296,488	2,042,531	1,629,263	11,995	11,995
<b>Totals</b>		(North American Colonies)	3,309,942	7,674,077	6,874,077	2,988,380	3,323,429
		(West Indian Colonies)	1,111,666	4,416,332	4,402,992	938,916	1,115,566
		(Other Colonies)	11,292,111	31,103,360	66,152,800	9,691,492	10,399,003
		General Totals	15,713,719	43,193,769	78,229,869	13,618,768	15,837,998

\* No returns since 1861.

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IV. REGULA TR.

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Sugar (not being Kingdom) and m rum, such sugar, produce or manuf within the limits charter (except as of foreign produce o hibited to be import British possessions America or in the Bermuda islands no nitus except to be wa and may also by her prohibited to be imp Bermuda islands; a ported or brought into in America or t the same shall be for it shall be lawful to sessions in the West and into the Mauriti duce of any British of the East India C the importation of s into which foreign su imported, has been such sugar or rum sh master of the import proper officer of custon the hand of the prop the same shall have the name of the dist rum was produced, t strength thereof, as t and denomination of same, and the name were laden, and of th officer giving the sam or rum shall likewise produced a certificate the collector or assist customs revenue of th sugar and rum were importation into such rum, or sugar and rum possession into which can be legally import master shall subscribe

The table on the preceding page embodies within a brief space a good deal of important information respecting our colonies in all parts of the world.

#### VANCOUVER ISLAND.

The discovery in 1864 of a gold field in the district of Sooke, within 18 miles of Victoria, will prove an additional inducement to immigration, more especially when it is known that the cost of living at the mines scarcely exceeds that in Victoria.

#### IV. REGULATIONS UNDER WHICH COLONY TRADE IS CONDUCTED.

These are embodied in the Customs Consolidation Acts, the 16 & 17 Vict. c. 107, 18 & 19 Vict. c. 96, 20 & 21 Vict. c. 62, and 25 & 26 Vict. c. 63, and are as follows; though some, such as those referring to sugar, are virtually superseded by subsequent colonial tariffs [TARIFFS], viz.—

**Absolute Prohibitions, Restrictions &c.**—Gunpowder, ammunition, arms, or utensils of war, except from the United Kingdom or any British possession, and base or counterfeit coin, are hereby absolutely prohibited to be imported or brought, either by sea or inland carriage or navigation, into the British possessions in America and the Mauritius.

Sugar (not being refined in bond in the United Kingdom) and molasses until July 5, 1854, and rum, such sugar, molasses, and rum being the produce or manufacture of any British possession within the limits of the East India Company's charter (except as hereinafter provided), or being of foreign produce or manufacture, are hereby prohibited to be imported or brought into any of the British possessions in the continent of South America or in the West Indies (the Bahama or Bermuda islands not included), or into the Mauritius except to be warehoused for exportation only, and may also by her Majesty's order in council be prohibited to be imported into the Bahama and Bermuda islands; and if any goods shall be imported or brought into any of the British possessions in America or the Mauritius contrary hereto, the same shall be forfeited: provided always, that it shall be lawful to import into any British possessions in the West Indies and South America, and into the Mauritius, any sugar or rum the produce of any British possession within the limits of the East India Company's charter into which the importation of sugar or rum the produce of any foreign country, or of any British possession into which foreign sugar or rum may be legally imported, has been prohibited; provided that no such sugar or rum shall be so entered unless the master of the importing ship shall deliver to the proper officer of customs a *certificate of origin* under the hand of the proper officer at the place where the same shall have been taken on board, stating the name of the district in which such sugar or rum was produced, the quantity and quality or strength thereof, as the case may be, the number and denomination of the packages containing the same, and the name of the ship in which they were laden, and of the master thereof, and of the officer giving the same; the shipper of such sugar or rum shall likewise certify that there had been produced a certificate under the hand and seal of the collector or assistant collector of the land or customs revenue of the district within which such sugar and rum were produced, that such sugar or rum was the produce of such district, and that the importation into such district of foreign sugar and rum, or sugar and rum the growth of any British possession into which any foreign sugar or rum can be legally imported, is prohibited, and the master shall subscribe a declaration that such cer-

tificate was received by him at the place where the goods were taken on board, and that they are the goods therein mentioned.—16 & 17 Vict. c. 107. (Sec. 159.)

The Islands in the *Bay of Honduras* called the *Bay Islands* shall be deemed and taken to be excepted or excluded from the operation of Section 159 of the 'Customs Consolidation Act, 1853,' to the same extent as the *Bahamas* or *Bermuda Islands* are thereby excepted or excluded.—18 & 19 Vict. c. 96 s. 17.

**Foreign Reprints of Books under Copyright prohibited.**—Any books wherein the copyright shall be subsisting, first composed or written or printed in the United Kingdom, and printed or reprinted in any other country, shall be and are hereby absolutely prohibited to be imported into the British possessions abroad: provided always, that no such books shall be prohibited to be imported as aforesaid unless the proprietor of such copyright, or his agent, shall have given notice in writing to the Commissioners of Customs that such copyright subsists, and in such notice shall have stated when the copyright will expire; and the said commissioners shall cause to be made, and to be publicly exposed at the several ports in the British possessions abroad, from time to time, printed lists of books respecting which such notice shall have been duly given, and all books imported contrary thereto shall be forfeited; but nothing herein contained shall be taken to prevent her Majesty from exercising the powers vested in her by the 10 & 11 Vict. c. 93, to suspend in certain cases such prohibition.—16 & 17 Vict. c. 107. (Sec. 160.)

**Foreign Manufactures with British Marks.**—If any articles of foreign manufacture, and any packages of such articles, bearing any names, brands, or marks being or purporting to be the names, brands, or marks of manufacturers resident in the United Kingdom, be imported into any of the British possessions abroad, the same shall be forfeited. (Sec. 161.) [COPYRIGHT.]

**Sugar &c., though British, deemed Foreign in certain Cases.**—All sugar and molasses, until July 5, 1854, and rum (although the same may be of British plantations), exported from any of the British possessions in America into which the like goods of foreign production can be legally imported, shall, upon subsequent importation from thence into any of the British possessions in America or the Mauritius into which such goods being of foreign production cannot be legally imported, or into the United Kingdom, be deemed to be of foreign production, and shall be liable on such importation respectively to the same duties or the same forfeitures as articles of the like description being of foreign production would be liable to, unless the same shall have been duly warehoused, and exported from the warehouse direct to such other British possession, or to the United Kingdom as the case may be. (Sec. 162.)

**Coasting Trade of the British Possessions.**—No goods or passengers shall be carried from one part of any British possession in Asia, Africa, or America to another part of the same possession, except in British ships. (Sec. 163.)

**Ship and Cargo to be reported on Arrival.**—The master of every ship arriving in any of the British possessions in America or the Channel Islands, whether laden or in ballast, shall come directly, and before bulk be broken, to the custom-house for the port or district where he arrives, and there make a report in writing to the proper officer of customs, in the same form and manner as hereinbefore provided on the arrival of any ship in the United Kingdom [IMPORTATION & EXPORTATION] so far as the same may be applicable; and

if any goods be unladen from any ship before such report be made, or if the master fail to make such report, or make an untrue report, or do not truly answer the questions demanded of him, he shall forfeit the sum of 50*l.*; and if any goods be not reported, such goods shall be forfeited. (Sec. 164.)

*Entry outwards of Ship or Cargo.*—The master of every ship bound from any British possessions abroad, except the territories subject to the Government of the presidencies of Bengal, Madras, and Bombay, shall deliver to the proper officer of customs an entry outwards under his hand of such ship, and also subscribe and deliver to such officer a content of the cargo of such ship, if any, or state that she is in ballast, as the case may be, and answer such questions concerning the ship, cargo, if any, and voyage, as shall be demanded of him, in the same manner, as nearly as may be, as is prescribed to be observed on the entry and departure of any ship from the United Kingdom, and thereupon the proper officer shall give to the master a certificate of the clearance of such ship for her intended voyage; and if the ship shall depart without such clearance, or if the master shall deliver a false content, or shall not truly answer the questions demanded of him, he shall forfeit the sum of 50*l.* (Sec. 165.)

*Entry of Goods Inwards and Outwards.*—Any person entering goods shall deliver to the proper officer a bill of entry thereof, containing the name of the ship and of the master, and of the place to or from which bound, and the particulars of the quality and quantity of the goods, and the packages containing the same, stating whether such goods be the produce of the British possessions in America or not, and the proper officer shall thereupon grant his warrant for the lading or unlading of such goods. (Sec. 166.)

*Entry of Goods to be laden or unladen &c.*—No goods shall be laden or water-borne to be laden on board any ship, or unladen from any ship, in any of the British possessions in America or in the Channel Islands, until due entry be made of such goods, and warrant granted for the lading or unlading of the same; and no goods shall be so laden or water-borne or so unladen in the said Channel Islands, except at some place at which an officer of the customs is appointed to attend the lading and unlading of goods, or at some place for which a sufferance shall be granted by the proper officer of customs for the lading and unlading of such goods, and in the presence or with the permission of such officer; but the Commissioners of Customs may make such regulations for the carrying coastwise of any goods, or for the removing of any goods for shipment in the said islands, as to them shall appear expedient; and all goods laden, water-borne, or unladen contrary hereto, or to any regulations to be so made, shall be forfeited. (Sec. 167.)

*Goods not stated to be Produce of British Possession to be deemed of Foreign Production.*—No goods shall be stated in such certificate of clearance of any ship from any British possessions to be the produce of such possession, unless such goods shall have been so expressed in the entry outwards of the same; and all goods not expressly stated in such certificate of clearance to be the produce of such possession shall, at the place of importation in any other such possession, or in the United Kingdom, be deemed to be of foreign production. (Sec. 168.)

*If no Officer of Customs resident at the Port of Shipment &c.*—Where there is no officer of customs, the principal officer in the civil service of her Majesty, or his representative, shall be deemed to be the proper officer for the performance of all such duties with respect to such goods as are hereby re-

quired to be performed by the collector or other officer of customs. (Sec. 169.)

*Dues in Canada on American Boats.*—The same tonnage duties shall be paid upon all ships or boats of the United States of America importing any goods into either of the provinces of Upper or Lower Canada as are or may be for the time being payable in the United States of America on British vessels or boats entering the harbours of the State from whence such goods shall have been imported. (Sec. 173.)

*Certain Produce of the State of Maine to be treated as Produce of New Brunswick.*—The treaty concluded between her Majesty and the United States of America, August 9, 1842, stipulates that all the produce of the forest in logs, lumber, timber, timber boards, staves, or shingles, or of agriculture, not being manufactured, grown on any of those parts of the State of Maine watered by the river St. John or by its tributaries, of which fact reasonable evidence shall, if required, be produced, shall have free access into and through the said river and its said tributaries, having their source within the State of Maine, to and from the seaport at the mouth of the river St. John, and to and round the hills of the said river, either by boats, rafts, or other conveyance, and that within the province of New Brunswick the said produce shall be dealt with as if it were the produce of the said province; and it being the intention of the high contracting parties to the said treaty that the aforesaid produce should be dealt with as if it were the produce of the province of New Brunswick, the produce in the said recited treaty and hereinafter described shall, so far as regards all laws relating to duties, navigation, and customs in force in the United Kingdom or in any of her Majesty's dominions, be deemed and taken to be and be dealt with as the produce of the province of New Brunswick; provided, that in all cases in which declarations and certificates of production or origin and certificates of clearance would be required in respect of such produce if it were the produce of New Brunswick, similar declarations and certificates shall be required in respect of such produce, and shall state the same to be the produce of those parts of the State of Maine which are watered by the river St. John or by its tributaries. (Sec. 174.)

*Newfoundland Fishing Certificates in lieu of Clearance during Fishing Season.*—Whenever a ship shall be cleared out from any port in Newfoundland or in any other part of her Majesty's dominions for the fisheries on the banks or coasts of Newfoundland or Labrador or the dependencies thereof, without having on board an article of traffic (except only such provisions, nets, tackle, and other things as are usually employed in and about the said fishery, and for the conduct and carrying on of the same), the master of any such ship shall be entitled to demand from the principal officer of customs at such port a certificate under his hand that such ship hath been specially cleared out for the Newfoundland fishery, and such certificate shall be in force for the fishing season for the year in which the same may be granted, and no longer; and upon the first arrival in any port in the said colony of Newfoundland or its dependencies of any ship having on board any such certificate as aforesaid, a report thereof shall be made by the master of such ship to the principal officer of customs at such port; and every ship having such certificate which has been so reported, and being actually engaged in the said fishery, or in carrying coastwise, to be landed or put on board any ship engaged in the said fishery, any fish, oil, salt, provisions, or other necessaries for the use and purposes thereof, shall be exempt from all obligation to make an

entry at or obtain house at Newfoundland from any of the ports or its dependencies fishing season for been granted; and hence at the end of of such ports, the up the beforement officer of the custom that in case any during the time th said fishery any g other than fish, sea provisions, and oth or usually employe shall forfeit the sa thenceforth become such and the same tions as ships in g (Sec. 175.)

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entry at or obtain any clearance from any custom house at Newfoundland, upon arrival or departure from any of the ports or harbours of the said colony or its dependencies, during the continuance of the fishing season for which such certificate may have been granted; and previously to obtaining a clearance at the end of such season for any voyage at any of such ports, the master of such ship shall deliver up the beforementioned certificate to the principal officer of the customs of such port: provided always, that in case any such ship shall have on board during the time the same may be engaged in the said fishery any goods, or merchandise whatsoever other than fish, seals, oil made of fish or seals, salt, provisions, and other things, being the produce of or usually employed in the said fishery, such ship shall forfeit the said fishing certificate, and shall thereupon become and be subject and liable to all such and the same rules, restrictions, and regulations as ships in general are subject or liable to. (Sec. 175.)

*Certificate of Production for Sugar or Spirits.*—Before any spirits or sugar, so long as any benefit attach to the distinction, shall be shipped for exportation in any British possession in America, or in the island of Mauritius, as being the produce of such possession or of the said island, the proprietor of the estate on which such goods were produced, or his known agent, shall make and sign a declaration in writing before the proper officer of customs at the port of exportation, or before one of her Majesty's justices of the peace residing in or near the place where such estate is situated, declaring that such goods are the produce of such estate, and such declaration shall set forth the name of the estate, and the description and quantity of the goods, and the packages containing the same, with the marks and numbers thereon, and the name of the person to whose charge at the place of shipment they are to be sent; and any justice of the peace or other officer aforesaid shall subscribe his name to any writing purporting to be such a declaration, unless the person purporting to make the same shall actually appear before him, and shall declare to the truth of the same, such justice of the peace or officer aforesaid shall forfeit and pay for any such offence the sum of 50*l.*; and the person entering and shipping such goods shall deliver such declaration to the proper officer of customs, and shall make and subscribe a declaration before him that the goods which are to be shipped by virtue of such entry are the same as are mentioned in such first-mentioned declaration; and the master of the ship in which such goods shall be laden shall, before clearance, make and subscribe a declaration before the proper officer of customs, that the goods shipped by virtue of such entry are the same as are mentioned and intended in such first-mentioned declaration, to the best of his knowledge and belief; and thereupon the proper officer of customs shall sign and give to the master a certificate of production, stating that proof has been made in manner required by law that such goods (describing the same) are the produce of such British possession or of the said island, and setting forth in such certificate the name of the exporter and of the exporting ship, and of the master thereof, and the destination of the goods; and if any spirits or sugar be imported into any British possession in America as being the produce of some other such possession or of the said island, without such certificate of production, the same shall be forfeited. (Sec. 176.)

*Certificate of Production on re-exportation from another Colony.*—Before any sugar or spirits, so long as any benefit attach to the distinction, shall

be shipped for exportation in any British possession in America as being the produce of some other such possession, the person exporting the same shall in the entry outwards state the place of production, and refer to the entry inwards and landing of such goods, and shall make and subscribe a declaration before the proper officer of customs to the identity of the same; and thereupon, if such goods shall have been duly imported with a certificate of production within 12 months prior to the shipping for exportation, the proper officer of customs shall sign and give to the master a certificate of production founded upon and referring to the certificate of production under which such goods had been so imported, and containing the like particulars, together with the date of such importation. (Sec. 177.)

*Certificate of Production of East India Sugar.*—The shipper of any sugar the produce of some British possession within the limits of the East India Company's charter, about to be exported from any place in such possession, may go before the chief officer of customs at such place, or, if there be no such officer, before the principal officer of such place, or the judge or commercial resident of the district, and make and sign a declaration before him that such sugar was really and bonâ fide the produce of such British possession, to the best of his knowledge and belief; and such officer, judge, or resident is hereby required to grant a certificate thereof, stating therein the name of the ship in which the sugar is to be exported, and the destination of the same. (Sec. 178.)

*Certificate of Production of Wine.*—The shipper of any wine, the produce of any British possession abroad, which is to be exported from thence, may go before the chief officer of customs, and make and sign a declaration before him that such wine was really and bonâ fide the produce of such British possessions; and such officer is hereby required to grant a certificate thereof, stating therein the name of the ship in which the wine is to be exported, and the destination of the same. (Sec. 179.)

*Certificate of Production of Goods in Guernsey &c.*—Any person who is about to export from the Channel Islands to the United Kingdom or to any of the British possessions in America or the Mauritius any goods of the growth or produce of any of those islands, or any goods manufactured from materials which were the growth or produce thereof, of the United Kingdom, or of materials duty free in the United Kingdom, or whereupon the duty has been there paid, and not drawn back, may go before any magistrate of such islands, and make and sign before him a declaration that such goods, describing the same, are of such growth or produce, or of such manufacture, and such magistrate shall administer and sign such declaration; and thereupon the governor, lieutenant-governor, or commander-in-chief of the island from which the goods are to be exported shall, upon the delivery to him of such declaration, grant a certificate under his hand of the proof contained in such declaration, stating the ship in which, and the port to which, the goods are to be exported; and such certificate shall be the proper document to be produced at such port in proof that the goods mentioned therein are of the growth, produce, or manufacture of such island respectively. (Sec. 180.)

*Officers may board Ships.*—The officer of customs may go on board any ship in any port in any British possession in America, and rummage and search such ship for prohibited goods, and if there be any goods on board prohibited to be imported into such possession they shall be forfeited. (Sec. 181.)

*Seized goods, if unclaimed for a Month, to be condemned, and dealt with accordingly.*—All vessels, boats, goods, and other things which shall have been or shall hereafter be seized as forfeited in or near any of the British possessions abroad, under this or any Act relating to the customs, shall be deemed and taken to be condemned, and may be dealt with in the manner directed by law in respect to vessels, boats, goods, and other things seized and condemned for breach of any such Act, unless the person from whom such vessels, boats, goods, and other things shall have been seized, or the owner of them, or some person authorised by him, shall, within one month from the day of seizing the same, give notice in writing to the person or persons seizing the same, or to the chief officer of customs at the nearest port, that he claims the vessel, boat, goods, or other things, or intends to claim them. (Sec. 182.)

*Penalties and Forfeitures, how to be recovered in British Possessions abroad.*—Whenever any penalty or forfeiture shall have been incurred in any of the British possessions abroad, under this or any other Act relating to the customs, such penalty or forfeiture shall and may be sued for, prosecuted, recovered, and disposed of in the Court of Record or of Vice-Admiralty having jurisdiction in any British possession where the same may have been incurred or forfeited; but in case there shall be no such court at such British possession, such penalty or forfeiture shall and may be sued for, prosecuted, recovered, and disposed of in the Court of Record or of Vice-Admiralty having jurisdiction in some British possession near to that where such penalty or forfeiture may have been incurred; and all such penalties and forfeitures shall be deemed to be sterling money of Great Britain, and paid accordingly. (Sec. 183.)

*Application of Penalties.*—All penalties and forfeitures recovered in the Channel Islands or in any of the British possessions abroad under this or any Act relating to the customs shall be paid into the hands of the collector, comptroller, or other proper officer of the port or place where the same shall have been recovered, and shall be divided, paid, and applied as follows; (that is to say,) after deducting the charges of prosecution from the produce thereof,  $\frac{1}{4}$  of the nett produce shall be paid to or for the use of her Majesty,  $\frac{1}{4}$  to the governor or commander-in-chief of the colony or plantation, and the other  $\frac{1}{2}$  to the seizer, informer, and prosecutor; excepting such penalties and forfeitures as are from seizures made at sea by the commanders or officers of her Majesty's ships of war duly authorised to make seizures, one moiety of which, first deducting the charges of prosecution from the gross produce, shall be paid as aforesaid to and for the use of her Majesty, and the other moiety to the seizer, informer, and prosecutor, subject nevertheless to such distribution of the produce of the seizures so made at sea, as well with regard to the moiety hereinbefore granted to her Majesty as with regard to the other moiety given to the seizer, informer, or prosecutor, as her Majesty shall think fit to direct by order in council or by proclamation. (Sec. 184.)

*Bail may be given for Seizures.*—If any goods or any ship or vessel shall be seized as forfeited under this or any Act relating to the customs, and detained in any of the British possessions in America, the judge or judges of any court having jurisdiction to try and determine such seizures may, with the consent of the chief officer of customs, order the delivery thereof, on security by bond, with two sufficient sureties, to be first approved by such officer, to answer double the value of the same in case of condemnation; and

such bond shall be taken to the use of her Majesty in the name of the officer of customs in whose custody the goods or the ship or vessel may be lodged, and such bond shall be delivered and kept in the custody of the officer; and in case the goods or the ship or vessel shall be condemned, the value thereof shall be paid into the hands of such collector or officer, who shall thereupon cancel such bond. (Sec. 185.)

*Suits to be commenced in Name of Officers.*—No suit shall be commenced for the recovery of any penalty or forfeiture in the Channel Islands, or in any of the British possessions abroad, under this or any Act relating to the customs, except in the name of such officer of the customs or navy, or other person employed as hereinbefore mentioned, or of her Majesty's advocate or attorney-general for the place where such suit shall be commenced; and if a question shall arise whether any person is an officer of the customs or navy, or such other person as aforesaid, vivâ voce evidence may be given of such fact, and shall be deemed legal and sufficient evidence. (Sec. 186.)

*Limitation of Appeals.*—No appeal shall be prosecuted from any decree or sentence of any of her Majesty's courts in America touching any penalty or forfeiture imposed by this or any Act relating to the customs, unless the inhibition shall be applied for and decreed within 12 months from the time when such decree or sentence was pronounced. (Sec. 187.)

*Security to abide an Appeal from Vice-Admiralty.*—If any proceedings shall have been or shall hereafter be instituted in any court of Vice-Admiralty or any other competent court in any of her Majesty's possessions abroad against any ship, vessel, boat, goods, or effects for the recovery of any penalty or forfeiture under this or any Act relating to the customs, the execution of any sentence or decree restoring such ship, vessel, boat, goods, or effects to the claimant thereof, which shall be pronounced by the said Vice-Admiralty Court in which such proceedings shall have been had, shall not be suspended by reason of any appeal which shall be prayed and allowed from such sentence; provided that the party or parties appellants shall give sufficient security, to be approved of by the court, to render and deliver the ship, vessel, boat, goods, or effects concerning which such sentence or decree shall be pronounced, or the full value thereof, to be ascertained either by agreement between the parties, or, in case the said parties cannot agree, then by appraisement under the authority of the said court, to the appellant or appellants, in case the sentence or decree so appealed from shall be reversed, and such ship, vessel, boat, goods, or effects be ultimately condemned. (Sec. 188.)

*Persons authorised to seize under 5 Geo. IV. c. 113 to have Benefit of this Act.*—All persons authorised to make seizures under the Act 5 Geo. IV. c. 113 shall, in making and prosecuting any such seizures, have the benefit of all the provisions granted to persons authorised to make seizures under this Act; and all penalties and forfeitures created by the said Act, whether pecuniary or specific, shall (except in cases specially provided for by the said Act) go and belong to such persons as are thereby authorised to make seizures, in such shares, and shall and may be sued for and prosecuted, tried, recovered, distributed, and applied, in such and the like manner, and by the same ways and means, and subject to the same rules and directions, as any penalties and forfeitures incurred in Great Britain and in the British possessions in America respectively now go and belong to, and may be sued, prosecuted, tried, recovered,

and distributed the said possess Act. (Sec. 189.)

*Colonial Laws void.*—All laws, this time or which or endeavoured practice, in any America, which any Act, or to any Act, trade and navigation relate to the said null and void to a ever. (Sec. 190.)

*Trade with the passengers shall be into the United Islands, nor shall perted or carried to the said islands, nor be carried from any other of them, nor from islands to another British ships; and if brought, imported, contrary hereto, all and the muster of the so brought, imported forfeit the sum of 100*

No tobacco, cigars, into the Channel Islands one of the said islands, one part of any of the of the same, unless in fifty tons, except from ships of not less than trading from thence to packages each containing pounds nett weight of silver unless the provision like sort of goods may the United Kingdom of tobacco, cigars, or small island or carried, ship hereto, or which shall have been on board any league of the coasts together with the ship c. 96 s. 18.

*Spirits from and to the of 50 Tons and Casks.*—(except rum of the Islands or any of them one to any other of the coastwise from any one of any one of the said in order to be so removed other than of the bur wards, or in any cask containing liquids not of twenty gallons not to ported, exported, removed water-borne to be so strict, contrary hereto, shall with the ship, and any removing, or carrying that nothing herein contained spirits imported in any as part of the cargo, really intended for the and passengers of such and net being more in for that purpose, nor to exported from the Uni not less than forty ton trailers to those islands

and distributed respectively in Great Britain or in the said possessions, under and by virtue of this Act. (Sec. 189.)

*Colonial Laws repugnant to Acts of Parliament.*—All laws, byelaws, usages, or customs at this time or which hereafter shall be in practice, or endeavoured or pretended to be in force or practice, in any of the British possessions in America, which are in anywise repugnant to this Act, or to any Act relating to the customs or to trade and navigation, so far as the same shall relate to the said possessions, are and shall be null and void to all intents and purposes whatsoever. (Sec. 190.)

*Trade with the Channel Islands.*—No goods or passengers shall be brought, imported, or carried into the United Kingdom from the Channel Islands, nor shall any passengers or goods be exported or carried from the United Kingdom to the said islands, nor shall any goods or passengers be carried from any one of the said islands to any other of them, nor from one part of any of the said islands to another part of the same, except in British ships; and if any goods or passengers be brought, imported, exported, or carried coastwise contrary hereto, all such goods shall be forfeited, and the master of the ship in which the same are so brought, imported, exported, or carried shall forfeit the sum of 100*l.* (Sec. 191.)

No tobacco, cigars, or snuff shall be imported into the Channel Islands, nor be carried from any one of the said islands to another of them, or from one part of any of the said islands to another part of the same, unless in ships of not less burden than fifty tons, except from the United Kingdom in ships of not less than forty tons burden regularly trading from thence to those islands, nor unless in packages each containing not less than eighty pounds net weight of such tobacco, cigars, or snuff, nor unless the provisions in and under which the like sort of goods may be legally imported into the United Kingdom are complied with; and all tobacco, cigars, or snuff imported into the said island or carried, shipped, or removed contrary hereto, or which shall be found or discovered to have been on board any ship or boat within one league of the coasts thereof, shall be forfeited, together with the ship or boat.—18 & 19 Vict. c. 96 s. 18.

*Spirits from and to the Channel Islands in Ships of 50 Tons and Casks of 20 Gallons.*—No spirits (except rum of the British Plantations) shall be imported into or exported from the Channel Islands or any of them, or be removed from any one to any other of the said islands, or be carried coastwise from any one part to any other part of any one of the said islands, or shall be shipped in order to be so removed or carried in any ship other than of the burden of fifty tons or upwards, or in any cask or other vessel capable of containing liquids not being of the size or content of twenty gallons at the least; and all spirits imported, exported, removed, carried, shipped, or water-borne to be so shipped, removed, or carried, contrary hereto, shall be forfeited, together with the ship, and any boat importing, exporting, removing, or carrying the same: provided always, that nothing herein contained shall extend to any spirits imported in any such ship in glass bottles as part of the cargo, nor to any spirits being really intended for the consumption of the seamen and passengers of such ship during their voyage, and not being more in quantity than is necessary for that purpose, nor to any warehoused goods exported from the United Kingdom in ships of not less than forty tons burden, being regular traders to those islands, nor to any boat of less

burden than ten tons for having on board at any one time any foreign spirits of the quantity of ten gallons or under, such boat having a license from the proper officer of Customs at either of the islands of Guernsey or Jersey for the purpose of being employed in carrying commodities for the supply of the island of Sark, which license such officer is hereby required to grant without fee or reward; but if any such boat shall have on board at any one time any greater quantity of spirits than ten gallons, unless in casks or packages of the size and content of twenty gallons at the least, such spirits and boat shall be forfeited.—20 & 21 Vict. c. 92 s. 19, modified by 23 & 24 Vict. c. 129 s. 3.

When any of the terms mentioned in sec. 357 of 'The Customs Consolidation Act, 1853,' are used in this or any other Act relating to the customs, the terms so used shall have the same interpretation and meaning as are given to them in the said section; and the term 'British-built ships' shall be deemed to mean and include any ship built in her Majesty's dominions.—20 & 21 Vict. c. 92 s. 20.

Whereas doubts have arisen whether the several sections of 'The Customs Consolidation Act, 1853,' other than those containing particular provisions relating thereto, as also 'The Supplemental Customs Consolidation Act, 1855,' are applicable to the British possessions abroad: be it enacted, that the said recited Acts and the several clauses therein and in this Act contained shall and the same are hereby declared to extend to and be of full force and effect in the several British possessions abroad, except where otherwise expressly provided for by the said Acts, or limited by express reference to the United Kingdom or the Channel Islands, and except also as to any such possession as shall by local Act or ordinance have provided, or may hereafter, with the sanction and approbation of her Majesty and her successors, make entire provision for the management and regulation of the Customs trade and navigation of any such possession, or make in like manner express provisions in lieu or variation of any of the clauses of the said Act for the purposes of such possession.—20 & 21 Vict. c. 62 s. 1*o*.

*Malta deemed to be in Europe.*—The island of Malta and its dependencies shall be deemed to be in Europe. (Sec. 194.)

*Connection of the Planter and Home Merchant. Mode of transacting Business in England.*—The mode of transacting West India business is as follows: A sugar planter forms a connection with a mercantile house in London, Bristol, Liverpool, or Glasgow; stipulates for an advance of money on their part; grants them a mortgage on his estate; and binds himself to send them annually his crop, allowing them the full rate of mercantile commissions. These commissions are  $2\frac{1}{2}$  per cent. on the amount of sugar sold, and of plantation stores sent out; along with  $\frac{1}{2}$  per cent. on all insurances effected. During the war, when prices were high, the amount of these commissions was large: but, like other high charges, the result has, in nine cases out of ten, been to the injury of those who received them; they led the merchants to undertake too much, and to make too large advances to the planters, for the sake of obtaining their business. At that time it was usual to allow a permanent loan at the rate of 3,000*l.* for the assured consignment of 100 hogsheds of sugar; but that ratio was very often exceeded by the planter, the 3,000*l.* becoming 4,000*l.*, 5,000*l.*, 6,000*l.*, and, in very many cases, still more, in consequence of unforeseen wants and too sanguine calculations on his part.

Persons resident in the West Indies are almost

always bare of capital, and for obvious reasons. A climate of such extreme heat, and a state of society possessing so few attractions to persons of education, offer no inducement to men of substance in Europe to go thither. Those who do go must trust to their personal exertion and the support of others; and when, after a continued residence in the West Indies, they have made some progress in acquiring a competency, and have become accustomed to the climate, they hardly ever consider themselves as settled there for life; their wish and hope is, to carry their acquisitions so far as to be enabled to pass the remainder of their days comfortably at home. The readiest means, in the view of the planter, for accomplishing this, used to be the extension of his undertakings; which he could do only by borrowing money. Hence a continual demand on his mercantile correspondents at home for fresh advances; the consuming effect of heavy commissions, and of the interest on borrowed money, being overlooked in his ardent speculations. But when prices fell, as they have done of late years, to a comparatively low level, the planters found themselves embarrassed with debts contracted under a different state of things, which in but few instances they could expect to discharge; hence their ruin, and hence also the ruin of many of the merchants and mortgagees connected with the planters.

For a number of years the West India trade has been extremely depressed; and it is, perhaps, impossible to point out any means of effectual relief. The planters need not build expectations on such doubtful, or rather improbable, events as the stoppage of distillation from malt, or an insurrection or emancipation of the negroes in rival countries, such as Cuba or Brazil. Of a bounty on exportation it is idle to speak; so that their only rational ground of hope seems to be in the introduction of improved processes, and a reduction in the cost of producing sugar and other staples.

The sale of West India articles takes place through the medium of produce brokers, who in London reside chiefly in Mincing Lane and Tower Street. Samples of sugar and rum are on show in their respective sale rooms during four days of the week, viz. Tuesday, Wednesday, Thursday, and Friday, from 11 to 1 o'clock; during which time the sugar refiners, wholesale grocers, and other dealers in produce, call in, observe the state of the market, and buy what they require. The term of credit is short; only 1 month for coffee and rum, and 2 months for sugar. Coffee is generally sold by public auction, sugar and rum by private contract. The brokers' commission is usually  $\frac{1}{2}$  per cent. on the amount; but in the case of coffee, as they guarantee the buyers, their charge amounts to 1 per cent. The brokers have no correspondence or connection with the planters; they are employed by the merchants; and their sales, though for large amounts, being very simple, a brokerage house of consequence generally does the business of a number of merchants. Neither merchant nor broker see, or are in the least under the necessity of seeing, the bulky packages containing the different articles of produce of which they effect the sales: all is done by sample; the packages remaining in the bonded warehouse from the time of landing till they are sold; after which they pass to the premises of the refiner, wholesale grocer, or whoever may be the purchaser.

The allowances made to the buyer in respect of weight consist, first of the tare, which is the exact weight of the cask; and, in the second place, of a fixed allowance of 5 lbs. per cask in the case of coffee, called tret, and of 2 lbs. per cask on sugar, under

the name of draft. (See *Account Sales* of both, art. BOOKKEEPING.)

The shipping-stores from England to the plantations is also a very simple transaction. West India merchants in London, Liverpool, or Bristol, receive from the planters, in the autumn of each year, a list of the articles required for the respective estates: these lists they divide, arrange, and distribute among different wholesale dealers in the course of September and October, with instructions to get them ready to ship in a few weeks. November and December are the chief months for the despatch of outward-bound West Indianmen, as the plantation stores ought, properly, to arrive about the end of December, or in the course of January. That is a season of activity, and generally of health, in the West Indies; the comparatively cool months of November and December having cleared the air, and the produce of the fields having become ripe and ready to carry. Crop time lasts from January to the end of July, after which the heavy rains put a stop to field work in the islands. Demerara, being so near the Line, experiences less difference in the seasons, and it is customary there to continue making sugar all the year round.

The arrivals of West Indianmen in England with home-ard cargoes begin in April and continue till October; after which, with the exception of occasional vessels from Demerara and Berbice, they cease till the succeeding April. This corresponds with the time of carrying and loading the crops; for it would be quite unadvisable, on the score of health as well as of the interruptions to work from the heavy rains, to attempt loading vessels in the sugar islands during the autumn months.

The unloading of West Indianmen in London usually takes place at the West India Docks; and did so uniformly from the autumn of 1802, when the docks were first opened, till August 1822, when the dock monopoly expired. Cargoes are discharged very speedily, the time seldom exceeding 3 days. The dock dues have been materially reduced of late years; and the whole exhibits a striking example of the advantage attendant on transacting a mass of business on one spot—an advantage which can be enjoyed only in great sea-ports, such as London, Liverpool, or Amsterdam. [Docks.]

The rates of freight during the war were, on sugar from 7s. to 8s. per cwt., and on coffee from 10s. to 11s.; whereas they now amount, the former from 1s. 6d. to 2s. 6d., and the latter from 3s. to 3s. 6d.; the shipowners, from the improvements that have been effected, being better paid now than formerly.

*Selection of Sites for Colonial Establishments.*—Nothing can be more unwise than the plan, if so we may call it, hitherto followed in the selection of places at which to found colonies. The captain of a ship, without any knowledge whatever of the nature of soils or the capacities of a country in an agricultural point of view, falls in after a long cruise with a river or bay, abounding with fish and fresh water, and surrounded with land that looks fertile and is covered with herbage. He forthwith reports all these circumstances, duly embellished, to the Admiralty, strongly recommending the situation as an admirable one at which to found a colony; and, in nine cases out of ten, this is all the information that is required in taking a step of such infinite importance! No wonder, therefore, that many fine schemes of colonisation should have ended only in loss and disappointment, and that situations which the colonists were taught to look upon as a species of paradise have proved to be anything but what they

were represented by Captain Cook world, had to be sent out to instead of being sandy swamp. I attempt would have in so pestilential Leone if the proper make? The colored as another in pure confidence in really without the timote of the vario be attended to in fo

We therefore ho this system—a sys degree injurious to highly criminal to colonists. The four looked upon in its tr national enterprise. entrusted to presump be maturely weighed, nected with it careful the situation in which colony should be mi climate, soil, and caparately enquired into the purpose. ment and the public w able grounds upon whic party would have mu disappointments which followed the exaggerate to whom the important levying situations for col [ADELAIDE; CAPE T KONG; MELBOURNE; TARIFFS, COLONIAL; &

## V. FOREIGN

1. *Spanish Colonies.*—S sessions, previous to 18 frontiers of the United Sta gelhan, is not, at presen ground in the whole Am however, her colonial posse and importance. In the press of Cuba and Porto i the largest and finest of th and the latter also a very the East, Spain is mistress of which, were they in the h people, would speedily be mericial importance. [H Porto Rico.]

2. *Dutch Colonies.*—Java colonial possession, and it is easy to exaggerate the v [BATAVIA.] In the East the Moluccas, Bencoolen on Macassar, and the eastern e etc. They have several fo in Africa; in the West In islands of Curaçao and St. part of St. Martin; and on America they are master Curaçao and St. Eustatius but they have been both hi being very conveniently a contraband traffic w other districts in South Am early a place of great tra war; but since the independ has ceased in great m

were represented. Botany Bay, though described by Captain Cook as one of the finest places in the world, had to be abandoned by the colonists that were sent out to it; as the country round it, instead of being favourable for cultivation, is a mere sandy swamp. Is it possible to suppose that any attempt would have been made to establish a colony in so pestilential a climate as that of Sierra Leone if the proper enquiries had been previously made? The colony on Swan River may be adduced as another instance of misplaced or premature confidence in the reports of those who were really without the means of forming a correct estimate of the various circumstances necessary to be attended to in forming a colony.

We therefore hope that an end may be put to this system—a system which is in no common degree injurious to the public interests, and is highly criminal towards those who embark as colonists. The founding of a colony should be looked upon in its true point of view—as a great national enterprise. It is not an adventure to be entrusted to presumptuous ignorance, but should be maturely weighed, and every circumstance connected with it carefully investigated. Above all, the situation in which it is proposed to found the colony should be minutely surveyed; and its climate, soil, and capacities of production deliberately enquired into by competent persons employed for the purpose. Were this done, Government and the public would have the best attainable grounds upon which to proceed; and neither party would have much reason to fear those disappointments which have hitherto so often followed the exaggerated representations of those to whom the important and difficult task of selecting situations for colonies has been delegated. [ADELAIDE; CAPE TOWN; COLUMBO; HONG KONG; MELBOURNE; PORT LOUIS; QUEBEC; TARIFFS, COLONIAL; &c.]

V. FOREIGN COLONIES.

1. *Spanish Colonies.*—Spain, whose colonial possessions, previous to 1810, extended from the frontiers of the United States to the Straits of Magellan, is not, at present, possessed of a foot of ground in the whole American continent. Still, however, her colonial possessions are of great value and importance. In the West Indies, she is mistress of Cuba and Porto Rico; the former by far the largest and finest of the West Indian Islands, and the latter also a very valuable possession. In the East, Spain is mistress of the Philippine Islands, which, were they in the hands of an enterprising people, would speedily become of very great commercial importance. [HAVANNAH; MANILLA; PORTO RICO.]

2. *Dutch Colonies.*—Java is the principal Dutch colonial possession, and it is one of which it is not easy to exaggerate the value and importance. [BATAVIA.] In the East the Dutch also possess the Moluccas, Bencoolen on the coast of Sumatra, Macassar, and the eastern coast of Celebes, Banda &c. They have several forts on the Gold Coast in Africa; in the West Indies they possess the islands of Curaçao and St. Eustatius, Saba, and part of St. Martin; and on the continent of South America they are masters of Dutch Surinam. Curaçao and St. Eustatius are naturally barren, but they have been both highly improved. From being very conveniently situated for maintaining a contraband traffic with the Caracas and other districts in South America, Curaçao was formerly a place of great trade, particularly during war; but since the independence of South America, it has ceased in great measure to be an em-

trepôt; the goods destined for the continent being now, for the most part, forwarded direct to the places of their destination.

That district of Surinam ceded to the British in 1814, comprising the settlements of Demerara, Berbice, and Essequibo, formed the most valuable portion of Surinam, or Dutch Guiana. The district which still belongs to the Dutch lies to the south of Berbice. It contains about 38,000 square miles, and a population of about 53,000. The value of the exports of sugar from this colony in 1861 was estimated at 2,654,480 florins, and in 1862 at 2,752,683 florins.

3. *French Colonies.*—Previously to the negro insurrection that broke out in 1792, St. Domingo was by far the most valuable colony in the West Indies. But this disastrous event, having first devastated the island, terminated in the establishment of the independent black republic of Hayti. [PORT AU PRINCE.] Having also sold Louisiana to the Americans, and ceded the Mauritius to the English, without making any new acquisition, the colonial dominions of France (for Algeria cannot be reckoned amongst them) are, at this moment, of very limited extent. The most important are Martinique and Guadeloupe in the West Indies, the former with (in 1863) a population of 135,353, and the latter of 138,380. The exports of these islands were in 1863 as follows:—

Articles	Martinique	Guadeloupe	Réunion
Sugar - kilos.	30,115,920	34,588,611	41,687,557
Molasses - litres	3,981,325	1,811,720	4,028,286
Rum - "	3,887,235	2,767,080	3,819,101
Coffee - kilos	208,817	1,227,177	265,072
Cotton - "	4,067	65,836	1,120
Cocoa - "	177,816	101,887	2,300
Tobacco - "	1,200	6,743	449,000
Vanilla - "	—	375	17,663

The emancipation of the slaves was injurious to these islands; but the deficiency of labour thence arising has been, in part at least, supplied by immigrants. The other French colonies consist of the small islands of Marie-Galante and Desada, in the West Indies; Cayenne, in South America; Senegal and Goree, in Africa; the Isle de Réunion (Isle de Bourbon), in the Eastern Ocean, the exports of which are given in the table above; St. Marie, in Madagascar; and Pondicherry and Chandernagore, with a very small surrounding territory, in the East Indies.

Of these the Isle de Réunion is the most important, and the exports from it have latterly increased very rapidly. At an average of 1849 and 1850, for example, she only sent to France 18,681,530 kilogrammes a-year of sugar, whereas, in 1863, she sent thither no fewer than 69,141,663 kilogrammes. This extraordinary increase has been wholly owing to the importation of labourers from India, Africa, and Madagascar, and to the extensive employment of guano as manure.

4. *Danish Colonies.*—In the West Indies, these consist of the islands of St. Croix, St. Thomas, and St. John, having together, in 1860, a population of 38,130. St. Croix contains about 100 square miles, and is fertile and well cultivated. The principal productions were at one time sugar, rum, and coffee. The exports formerly amounted to about 25,000,000 lbs. a-year, but the cultivation of sugar has been abandoned in consequence of the emancipation of the slaves in 1847. St. Thomas, which has about 15,500 inhabitants, has long been, and though latterly much fallen off, still continues to be, one of the principal emporiums in the West Indies. It owes this distinction partly to its convenient situation as a packet station, partly to its spacious and safe harbour at St. Thomas, on the south side of the island, and partly and principally to the moderation of the import duties, which vary

from 1 to 1½ per cent. St. Thomas has, in consequence, become as it were a depôt for the supply of the neighbouring islands; goods being sent to it to be warehoused till opportunity offers for conveying them to their final destination. In the *Consular Report for 1866* it is stated that this branch of trade is likely now to decline gradually, as merchants &c. in the neighbouring islands are making direct importations from the United Kingdom. The great articles of importation are manufactured goods, principally from England, but partly also from other countries of Europe, with provisions, lumber &c. from the United States.

The value of our exports to the 3 islands now referred to, being for St. Thomas, amounted in 1866 to 765,521*l.*, of which cottons made 361,317*l.*, licens 136,982*l.*, coal &c. 51,931*l.*, and iron 40,650*l.* The Danes have, however (1868), sold these islands to the United States.

In India the Danes formerly possessed Tranquebar, near Madras; and Serampore, near Calcutta; but these they sold, in 1845, to the East India Company.

5. *Swedish Colonies.*—The Swedes possess one colony—the small island of St. Bartholomew, in the West Indies. It is only about 25 square miles in extent, but is very fertile. It has no springs, nor fresh water of any sort, except such as is supplied by the rain. Population between 8,000 and 9,000.

COLUMBA or CALUMBA ROOT (Dutch, Colombo wortel; Fr. racine de Colombo; Ger. Colombo-wurzel; Ital. radice di Colombo; Port. raiz di Columba; Span. raiz di Columba; Mosamb. kalumb). The root of the plant of that name; the *Coccolus palmatus* of DeCandolle; Nat. Order, *Menispermaceæ*. It is not cultivated, but grows wild in the forests between Ibo and the Zambesi, and being dug up by the natives, is exported by the Portuguese. It is brought to us dry, in transverse sections from ¼ to ½ in. thick, from 1 to 2½ in. diameter. Bark wrinkled and thick, of a brownish colour without, and a brightish yellow within; pith spongy, yellowish, and slightly striped; when fresh, its smell is rather aromatic; it is disagreeably bitter, and slightly pungent to the taste, somewhat resembling mustard that has been too long kept. Choose the largest pieces, fresh, of a good colour, as free from worms as possible, rejecting that which is small and broken. It is used in the materia medica, and is a valuable tonic. Freight 16 cwt. to a ton. A decoction when cold is blackened by the solution of iodine. (*Pharmacopœia of the Medical Council*, ed. 1867.)

COLUMBO or COLOMBO. The modern capital of Ceylon, on the S.W. coast of the island; lat. 6° 56' 6" N., long. 79° 49' 48" E. It is defended by a very strong fort nearly surrounded by the sea, in which is a lighthouse 97 feet high. Population of the town and fort, in 1865, perhaps 60,000. The houses, generally only 1 storey high, are of stone, clay, and lime; and the town has more of a European appearance than any other in India. The inhabitants are principally Cingalese. The temperature is remarkable for its equality; and though very humid, the climate may, on the whole, be esteemed salubrious and temperate. There is no harbour at Colombo for large vessels, but only an open roadstead. A projecting rock, on which 2 batteries are erected, affords shelter to a small semicircular bay on the north side of the fort, having a wooden quay to facilitate the loading and unloading of boats. The depth of water is not sufficient to allow sloops or large dhonies to come alongside the quay; those exceeding 100 tons burden lying at about a cable's length from it. A bar of sand, on some parts of which the water is not more than 7 feet deep, extends from the pro-

jecting rock across this bay. The channel where it may be crossed by the larger class of ships is liable to shift; and it is only in the fine weather of the safe season that they venture within the bar. The outer road affords secure anchorage for half the year, from the beginning of October to the end of March, during the prevalence of the N.E. monsoon, when the wind blows off the land; during the other, or S.W. monsoon, when the wind blows from the sea on shore, the road is very far from safe; and the ships that frequent it are sometimes obliged to slip their cables and stand out to sea. (*Milburn's Orient. Comm.*; *Hamilton's Gazetteer*; &c.)

As respects its harbour, Colombo is, therefore, very inferior to Trincomalee, the harbour of which is accessible at all times, and one of the best in India, and it is also inferior to the harbour of Point de Galle. The country in the vicinity of Colombo has, no doubt, an extensive internal navigation; but as the cinnamon plantations near the town have lost much of their former importance, and as the central provinces adapted to the growth of coffee, now the great staple of the island, may be as easily reached from the other harbours as from Colombo, the decline of the commercial preponderance of the latter is far from unlikely.

*Monies.*—The six dollar = 1*s.* 6*d.* has become obsolete, and the currency now consists of silver rupees = 2*s.*, in which, or in dollars = 4*s.* 2*d.*, accounts are kept.

*The Bank of Ceylon*, noticed in the last edition of this work, is extinct. There are, however, in Colombo, a branch of the Oriental Bank Corporation, head-office London; and a branch of the Mercantile Bank of India, London, and China, head-office Bombay.

*Weights, Measures &c.*—The weights are divided into ounces, pounds &c., and are the same as in Great Britain. The candy or bahar = 500 lbs. avoirdupois, or 461 lbs. Dutch troy weight. The principal dry measures are *seers* or *parrahs*. The former is a perfect cylinder, of the depth and diameter under-mentioned:—

Seer	depth	diameter
	4.75 inches	4.35 inches

The parrah is a perfect cube, its external dimensions being every way 11.57 inches.

The liquid measure consists of gallons, and their multiple and sub-multiples, 150 gallons = 1 leaguer or legger.

The bale of cinnamon consists of 92½ lbs. very nearly.

#### Native Dry Measures.

4 cut chundoo	= 1 seer
4 4.5 seers	= 1 coornie
2 1.2 coornies	= 1 manaal
2 manaal	= 1 parrah
8 parrahs	= 1 amunam
9.5-8 amunams	= 1 last

The English bushel is equal to 31 seers or 1 parrah and 10 seers.

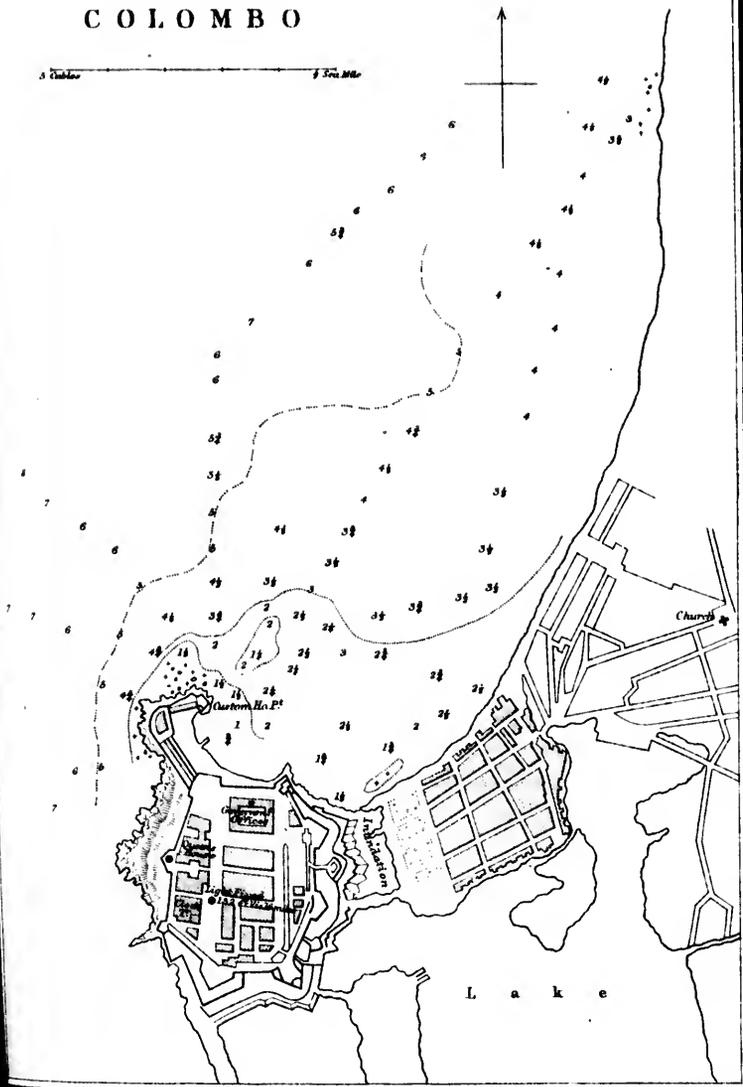
*Ceylon Native Land Measure.*—8 lahar = 1 coornie, 10 coornies = 1 peyla, 4 peylas = 1 amunam.

Among the natives the value of land is fixed by the quantity of seed required to sow it, computed as the amunam and its sub-divisions: thus an amunam of fertile soil will measure, in regard to produce, sometimes twice as much as the same number of square feet of inferior soil.

The great articles of export from Ceylon are coffee, cocoa-nut oil, areca nuts, cinnamon, pepper, bago, coir, arrack, tobacco, pearls, chanks &c. The island is peculiarly suitable for the culture of coffee, the growth of which has rapidly increased since the reduction, in 1835, of the duty on coffee from Ceylon to the same level as that on coffee from the West Indies, the imports into the United

# COLOMBO

Scale 1/250,000



E. Waller Esling

London Longmans & Co.

Kingdom from Ceylon  
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amounted to 81,428,370  
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*Sailing Directions and  
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Kingdom from Ceylon in the former year having been only 1,870,143 lbs., whereas in 1866 they amounted to 81,428,370 lbs., valued at 2,702,352*l.*, of which 21,537,082 lbs. were entered for home consumption, and the supply appears to be susceptible of an indefinite increase. The exports of coconut oil, coir, and arrack might also be greatly increased; and it will be seen in the article CINCINNATI how the growth of that important staple was restricted by the duty laid on its exportation. The total value of our imports from Ceylon in 1867 was 3,224,512*l.*

*Sailing Directions and Remarks on the Port of Colombo, by James Donnan, Esq., Master Attendant.*

The coast of Ceylon about Colombo is low, and not visible from seaward more than 10 miles. About 1 mile to the northward of the fort, near Mutwal, there are some lofty fir trees, which are generally seen when approaching from seaward before the lighthouse or flagstaff. They afford a good landmark for Colombo, as when viewed from seaward they appear considerably elevated above the surrounding cocoonut trees, and seem as one top rather thinly planted. No other part of the coast either north or south of Colombo affords a similar mark to this.

There are some isolated hills at a distance in the country, and the high mountain lying on it is a sharp cone called Adam's Peak bears from Colombo E.  $\frac{1}{2}$  S. distant 46 miles. It rises 7,420 feet above the level of the sea, and in clear weather has been seen at a distance of 30 leagues. In the N.E. monsoon it is generally seen in the morning, and sometimes throughout the day, but is rarely seen in the S.W. monsoon through the humid atmosphere which prevails in that season.

A bright fixed light is exhibited every night from the clock tower, a square grey looking building that is situated in the centre of the fort, in latitude  $6^{\circ} 56' 13''$  N. and longitude  $79^{\circ} 56' 13''$  E. The light is elevated 133 feet above the level of the sea, and may be seen in clear weather from a ship's top 18 to 20 miles.

The only danger in approaching the roadstead from the southward is the Drunken Sailor, a ledge of rocks with only 6 feet water over the shallowest part which bears from the light tower S.  $70^{\circ}$  W. and is distant off shore 800 yards, or say  $\frac{1}{2}$  mile. This danger is clearly defined during the S.W. monsoon by a constant break of the sea, but during the N.E. monsoon with smooth water there is no break; it is then prudent not to come under 9 fathoms water when in the vicinity of these rocks, there are 8 fathoms close outside of them; but more prudent course would be not to approach the shore within  $\frac{1}{2}$  mile until the light tower is brought to bear to the eastward of E. by N., then stand in for the shipping, as no advantage can be gained by steering close to these rocks at any time. The approach from the westward is quite clear, and also from the northward with the exception of a ledge of rocks that stretches along shore to the northward from Mutwal; but this ledge is only about  $\frac{1}{2}$  mile off shore, and so much out of the usual track of shipping that it is scarcely worthy of note as a danger.

Vessels bound to Colombo during the S.W. monsoon from south of the Equator should not cross to the eastward of  $78^{\circ}$ , as between  $3^{\circ}$  north and the west of Ceylon a strong current sets to the eastward, and the wind frequently hangs from west of the Gulf of Manaar is entered, thus making it difficult to fetch the port if not well to windward. The coast for 30 miles south of Colombo may be approached with safety to a distance of 2 miles.

The roadstead of Colombo, although exposed to the S.W. monsoon, is a safe one for vessels well found in ground tackle; vessels generally ride out the monsoon at single anchor with a long scope of chain. A gale of wind may occur about the changes of the monsoon in the months of May, June, and November, and even as late as December; though a gale of wind in the latter month is very rare, and several years sometimes pass away without any beyond a stiff monsoon breeze.

These gales are seldom violent, and it is only during them that casualties occur to the shipping. Only 5 vessels have been wrecked within the last 32 years.

Communication between the shore and shipping is seldom interrupted, although there are occasional spills of squally weather and high sea during the S.W. monsoon, which make the passage over the bar difficult and dangerous, especially for small boats.

A vessel may anchor anywhere in the outer roads with the flagstaff bearing from S.  $5^{\circ}$  E. to S.  $55^{\circ}$  E. in from  $6\frac{1}{2}$  to  $9\frac{1}{2}$  fathoms water, and distant off the north bastion of the fort from  $\frac{1}{2}$  to 1 mile. The best anchorage is with the flagstaff bearing about S.  $30^{\circ}$  E. in 8 fathoms water. Vessels arriving during the S.W. monsoon, or about the changes of the monsoon, should not anchor nearer the north bastion of the fort than  $\frac{1}{2}$  mile, or bring the rocky point at Mutwal (which is about  $\frac{1}{2}$  mile to the northward of the fort) to bear to the northward of N.E.  $\frac{1}{2}$  E.; and they are recommended to ride with not less than 80 fathoms cable to the hawse, and to have all the shackles looked to and the small pins well secured before coming to an anchor. The constant pitching motion which vessels are subjected to causes the cables at some distance from the hawse to beat and chafe on the ground, and the shackle pins frequently work out, if not well secured. The small pins should be of iron with large heads, and the other ends well clinched over a ring; if not clinched, they invariably loosen, and work out.

The inner road or harbour is mostly occupied by the native coasting vessels; it is considerably sheltered from the S.W. monsoon by the north bastion of the fort and bar, and affords good and safe anchorage for vessels drawing not over 11 feet. The bar is a shifting sand-bank extending from the north bastion in a line with Mutwal Point for about  $1\frac{1}{2}$  cable length, on which there is from 7 to 12 feet water beyond it, and inside of it there is  $3\frac{1}{2}$  fathoms. Strangers should not enter the inner roads without a pilot. As the sea sometimes breaks on the bar during the S.W. monsoon, and several lives have been lost by boats being swamped, strangers should not use their own boats in landing, but employ one of the outrigger canoes, which are always available, until they become acquainted with the passage over it.

The ballast ground during the S.W. monsoon is in 15 fathoms water with the flag staff bearing about E., and during the N.E. monsoon in the same depth of water with the flag staff about E.S.E., where vessels may discharge their ballast overboard.

The current of Colombo, and in the Gulf of Manaar, is subject to considerable variation, particularly about the changes of the monsoon, when it is the strongest; but generally speaking it sets with the monsoon, and is never so strong as to inconvenience shipping making the roads. The greatest difference between high and low water recorded at Colombo is not more than 2 feet 10 inches. In the S.W. monsoon, when the mean level of the ocean is the lowest, the difference between high and low water is from 5 to 15 inches.





namon, 800 lbs.; cocoa-nut oil, 17 cwt.; coffee in sapan wood, 20 cwt.; horns and pepper, 16 cwt.; bags, 18 cwt.; ditto in casks, 16 cwt.; coir and cardamoms, 12 cwt.; cotton, 50 cubic feet; ebony and measurement goods, 50 cubic feet; plumbago, 20 cwt.

II. Total Tonnage of Shipping which entered into and cleared from the Ports of Ceylon in the following Years.

Year	From and to United Kingdom	From and to other Countries	Total	British belonging to		Foreign
				United Kingdom	The Colonies	
	tons	tons	tons	tons	tons	tons
1855	66,192	569,290	635,482	265,500	373,980	41,112
1856	61,988	619,083	681,071	270,560	361,857	45,654
1857	103,238	772,825	876,063	341,183	385,651	66,709
1858	119,669	796,180	915,849	465,105	369,199	78,295
1859	76,585	701,809	778,394	375,537	235,561	71,851
1860	101,021	689,228	790,249	372,912	336,083	61,251
1861	75,866	763,755	839,621	367,221	391,145	74,136
1862	92,011	796,081	888,092	462,995	261,506	69,591
1863	125,672	932,612	1,058,284	517,158	405,309	134,117
1864	109,873	968,556	1,078,429	515,757	427,996	134,676
1865	122,832	1,027,998	1,150,830	605,575	419,011	126,224
1866	115,156	1,066,869	1,182,025	578,576	451,352	119,597

III. Imports and Exports from Ceylon in the Years 1855-66.

Year	Imports			Exports		
	From the United Kingdom	From other Countries	Total	To the United Kingdom	To other Countries	Total
	£	£	£	£	£	£
1855	418,195	1,959,696	2,388,191	1,015,071	959,703	1,974,777
1856	557,934	2,176,651	2,734,585	872,474	791,453	1,563,612
1857	631,568	2,175,296	2,806,864	1,318,031	1,239,816	2,558,169
1858	868,951	2,576,295	3,445,246	1,129,553	1,199,638	2,329,191
1859	938,191	2,535,996	3,474,187	1,151,829	1,089,952	2,241,782
1860	1,013,052	2,568,187	3,581,239	1,638,994	911,292	2,550,286
1861	801,191	2,869,259	3,670,450	1,721,710	913,467	2,206,279
1862	856,519	3,305,820	4,162,339	1,705,514	1,499,410	3,204,924
1863	1,011,895	3,421,811	4,433,706	2,197,578	1,179,636	3,377,214
1864	1,051,827	3,875,377	4,927,204	2,015,306	1,096,912	3,112,218
1865	1,011,255	4,117,021	5,128,276	2,320,056	1,135,101	3,455,157
1866	1,329,686	5,070,574	6,400,260	2,385,126	1,201,226	3,586,452

Extent, Population, Revenue &c. of Ceylon.—The area of Ceylon and its dependent isles is estimated at 24,500 square miles. Its population, according to a census taken in 1866, amounted to 2,088,927, of whom about 17,545 were whites. The population has increased very largely since the last census.

The revenue of 1866 was about 962,873*l*. That of 1865 was 978,492*l*. (*Blue Book for 1867*.)

Public Debt.—The public debt of the colony in 1865 amounted to 450,000*l*, raised on debentures bearing 6 per cent. Of this, the sum of 100,000*l*, which is payable on November 15, 1868, is the balance raised for the purpose of paying the debt due by the Ceylon Government to the railway company, and the sum of 350,000*l*, is a part of 1,000,000*l*, proposed to be raised on debentures under ordinances of 1862 and 1864. 46 miles of the Ceylon Railway were open for general traffic on Nov. 1, 1866, and on Aug. 1, 1867, it was opened for passengers to Kandy. The Electric Telegraph established in the island is worked profitably.

COMMANDITE (PARTNERSHIPS EN). [COMPANIES.]

COMMERCE (from *commutatio mercium*). As its name imports, commerce is simply the exchange of commodities for commodities.

I. ORIGIN OF COMMERCE.—MERCANTILE CLASSES.

II. HOME TRADE.

III. FOREIGN TRADE.

IV. RESTRICTIONS ON COMMERCE.

I. ORIGIN OF COMMERCE.—MERCANTILE CLASSES.

(1.) The *Origin of Commerce* is coeval with the first dawn of civilisation. The moment that individuals ceased to supply themselves directly with the various articles and accommodations they made use of, that moment must a commercial intercourse have begun to grow up amongst them. For it is only by exchanging that portion of the

produce raised by ourselves that exceeds our own consumption, for portions of the surplus produce raised by others, that the division of employments can be introduced, or that different individuals can apply themselves in preference to different pursuits.

Not only, however, does commerce enable the inhabitants of the same village or parish to combine their separate efforts to accomplish some common object, but it also enables those of different provinces and kingdoms to apply themselves in an especial manner to those callings for the successful prosecution of which the district or country which they occupy gives them some peculiar advantage. This territorial division of labour has contributed more, perhaps, than anything else to increase the wealth and accelerate the civilisation of mankind. Were it not for this, we should be destitute of a vast number of the necessities, comforts, and enjoyments which we now possess; while the price of the few that would remain would, in most instances, be very greatly increased. But whatever advantages may be derived—and it is hardly possible to exaggerate either their magnitude or importance—from availing ourselves of the peculiar capacities of production enjoyed by others, are wholly to be ascribed to commerce as their real source and origin.

We do not mean to say anything in this article with respect to the practical details connected with the different departments of commerce. These will be found under the various titles to which they refer. Our object, at present, is merely to show the nature and influence of commerce in general, and the restrictions that have sometimes been imposed upon it. We shall begin by endeavouring, first of all, to give some account of the nature of the services performed by the individuals by whom commercial undertakings are usually carried on. In the second place, we shall consider the influence of the home trade, or of the intercourse subsisting amongst individuals of the same country. In the third place, we shall consider the

influence of foreign which subsists different countries discussed, we shall has been termed principles involve different times in government and

(2.) *Mercantile* of different produce themselves, they deal of time, and a Were there no men his crop would be seek for customers, nearly as possible in the demands of the to buy it; and after next be obliged to perhaps, remote places wanted to get in its exposed to a world his attention would be the labours of his fa things, the work of p employment, would b interruptions, and man are successfully earn country; would not be

The establishment of effectively obviates the a set of dealers erect w purchase and sale of d cities, every producer, of seeking customers, where he may at all time products as he requires and energies to his pro renation of merchants gi interrupted motion to d

Were the class of tra springs of industry wo numberless difficulties th effecting exchanges wo family to endeavour to they had occasion for; thrown back into primar man; the divisions of labo and the desire to rise in the condition would decline, a more difficult to gratify, rural management could b who had to manufacture th their own shoes? And wh would those be who wer obliged to leave the shuttl

possible for the anvil? A distinction of employmen resulting from the division of commerce, would be total varieties of any sort. It is individual renders to an neighbours, by every one preference to some peculiar though probably without in with those of others, that c equal to the most gigantic endowed with almost omnip

The mercantile class has g into two subordinate classes—the retail dealers. The various products of art and i where they are produced, o and carry them to those w suitable, or where they are m

later, having purchased the wholesale dealers, or th

influence of *foreign* trade, or of that intercourse which subsists amongst individuals belonging to different countries. After these topics have been discussed, we shall offer a few remarks on what has been termed the restrictive system, or on the principles involved in the regulations enacted at different times in this and other countries for the government and direction of commerce.

(2.) *Mercantile Classes.*—While the exchange of different products is carried on by the producers themselves, they must unavoidably lose a great deal of time, and experience many inconveniences. Were there no merchants, a farmer wishing to sell his crop would be obliged, in the first place, to seek for customers, and to dispose of his corn as nearly as possible in such quantities as might suit the demands of the various individuals inclined to buy it; and after getting its price, he would next be obliged to send to 10 or 20 different and, perhaps, remote places, for the commodities he wanted to get in its stead. So that, besides being exposed to a world of trouble and inconvenience, his attention would be continually diverted from the labours of his farm. Under such a state of things, the work of production, in every different employment, would be meeting with perpetual interruptions, and many branches of industry that are successfully carried on in a commercial country would not be undertaken.

The establishment of a distinct mercantile class effectually obviates these inconveniences. When a set of dealers erect warehouses and shops for the purchase and sale of all descriptions of commodities, every producer, relieved from the necessity of seeking customers, and knowing beforehand where he may at all times be supplied with such products as he requires, devotes his whole time and energies to his proper business. The intervention of merchants gives a continuous and uninterrupted motion to the plough and the loom. Were the class of traders annihilated, all the springs of industry would be paralysed. The numberless difficulties that would then occur in effecting exchanges would lead each particular family to endeavour to produce all the articles they had occasion for: society would thus be thrown back into primeval barbarism and ignorance; the divisions of labour would be relinquished; and the desire to rise in the world and improve our condition would decline, according as it became more difficult to gratify. What sort of agricultural management could be expected from farmers who had to manufacture their own wool, and make their own shoes? And what sort of manufacturers would those be who were every now and then obliged to leave the shuttle for the plough, or the anvil for the anvil? A society without that distinction of employments and professions resulting from the division of labour, that is, *without* commerce, would be totally destitute of arts or sciences of any sort. It is by the assistance each individual renders to and receives from his neighbours, by every one applying himself in preference to some peculiar task, and combining, though probably without intending it, his efforts with those of others, that civilised man becomes equal to the most gigantic efforts, and appears endowed with almost omnipotent power.

The mercantile class has generally been divided into two subordinate classes—the wholesale dealers and the retail dealers. The former purchase the various products of art and industry in the places where they are produced, or are least valuable, and carry them to those where they are more valuable, or where they are more in demand; and the latter, having purchased the commodities of the wholesale dealers, or the producers, collect

them in shops, and sell them in such quantities and at such times as may best suit the public demand. These classes of dealers are alike useful; and the separation that has been effected between their employments is one of the most advantageous divisions of labour. The operations of the wholesale merchant are analogous to those of the miner. Neither the one nor the other makes any change on the bodies which he carries from place to place. All the difference between them consists in this—that the miner carries them from below ground to the surface of the earth, while the merchant carries them from one point to another on its surface. Hence it follows that the value given to commodities by the operations of the wholesale merchant may frequently exceed that given to them by the producers. The labour or expense required to dig a quantity of coal from the mine does not exceed what is required for its conveyance from Newcastle to London; and it is a far more difficult and costly affair to fetch a piece of timber from Canada to England than to cut down the tree. In this respect there is no difference between commerce and agriculture and manufactures. The latter give utility to matter by bestowing on it such a shape as may best fit it for ministering to our wants and comforts; and the former gives additional utility to the products of the agriculturist and manufacturer by bringing them from where they are of comparatively little use, or are in excess, to where they are of comparatively great use, or are deficient.

If the wholesale merchant were himself to retail the goods he has brought from different places, he would require a proportional increase of capital; and it would be impossible for him to give that exclusive attention to any department of his business which is indispensable to its being carried on in the best manner. It is for the interest of each dealer, as of each workman, to confine himself to some one business. By this means each trade is better understood, better cultivated, and carried on in the cheapest possible manner. But whether carried on by a separate class of individuals or not, it is obvious that the retailing of commodities is indispensable. It is not enough that a cargo of tea should be imported from China, or a cargo of sugar from Jamaica. Most individuals have some demand for these articles; but there is not, perhaps, a single private person, even in London, requiring so large a supply for his own consumption. It is clear, therefore, that they must be *retailed*; that is, they must be sold in such quantities and at such times as may be most suitable for all classes of consumers. And since it is admitted, on all hands, that this necessary business will be best conducted by a class of traders distinct from the wholesale dealers, it is impossible to doubt that their employment is equally conducive as that of the others to the public interest, or that it tends equally to augment national wealth and comfort.

## II. HOME TRADE.

The observations already made serve to show the influence of the home trade in allowing individuals to confine their attention to some one employment, and to prosecute it without interruption. But it is not in this respect only that the establishment of the home trade is advantageous. It is so in a still greater degree by its allowing the inhabitants of the different districts of the empire to turn their labour into those channels in which it will be most productive. The different soils, different minerals, and different climates of different districts fit them for being appropriated, in preference, to certain

species of industry. A district like Lancashire, where coal is abundant, which has an easy access to the ocean, and a considerable command of internal navigation, is the natural seat of manufactures. Wheat and other species of grain are the natural products of rich arable soils; and cattle, after being reared in mountainous districts, are most advantageously fattened in meadows and low grounds. Hence it follows that the inhabitants of different districts, by confining themselves to those branches of industry for the successful prosecution of which they have some peculiar capability, and exchanging their surplus produce for that of others, will obtain an incomparably larger supply of all sorts of useful and desirable products than they could do were they to apply themselves indiscriminately to every different business. The territorial division of labour is, if possible, even more advantageous than its division among individuals. A person may be what is commonly called *Jack of all trades*; and though it is next to certain that he will not be well acquainted with any one of them, he may nevertheless make some sort of rude efforts in them all. But it is not possible to apply the same soils or the same minerals to every different purpose. Hence it is that the inhabitants of the richest and most extensive country, provided it were divided into small districts without any intercourse with each other or with foreigners, could not, how well soever labour might be divided among themselves, be otherwise than poor and miserable. Some of them might have a superabundance of corn, at the same time that they were wholly destitute of wine, coal, and iron; while others might have the largest supplies of the latter articles, with but very little grain. But in commercial countries no such anomalies can exist. Opulence and comfort are there universally diffused. The labours of the mercantile classes enable the inhabitants of each district to apply themselves principally to those employments that are naturally best suited to them. This superadding of the division of labour among different provinces to its division among different individuals renders the productive powers of industry immeasurably greater; and augments the mass of necessities, conveniences, and enjoyments in a degree that could not previously have been conceived possible, and which cannot be exceeded except by the introduction of foreign commerce.

'With the benefit of commerce,' says an eloquent and philosophical writer, 'or a ready exchange of commodities, every individual is enabled to avail himself, to the utmost, of the peculiar advantage of his place; to work on the peculiar materials with which nature has furnished him; to humour his genius or disposition, and betake himself to the task in which he is peculiarly qualified to succeed. The inhabitant of the mountain may betake himself to the culture of his woods and the manufacture of his timber; the owner of pasture lands may betake himself to the care of his herds; the owner of the clay-pit to the manufacture of his pottery; and the husbandman to the culture of his fields, or the rearing of his cattle. And any one commodity, however it may form but a small part in the accommodations of human life, may, under the facility of commerce, find a market in which it may be exchanged for what will procure any other part or the whole; so that the owner of the clay-pit, or the industrious potter, without producing any one article immediately fit to supply his own necessities, may obtain possession of all that he wants. And commerce, in which it appears that commodities are merely exchanged and nothing produced, is nevertheless in its effects

very productive, because it ministers a facility and an encouragement to every artist in multiplying the productions of his own art; thus adding greatly to the mass of wealth in the world in being the occasion that much is produced.' (Ferguson's *Principles of Moral Science*, vol. ii. p. 424.)

The roads and canals that intersect a country, and open an easy communication between its remotest extremities, render the greatest service to internal commerce, and also to agriculture and manufactures. A diminution of the expense of carriage has, in fact, the same effect as a diminution of the direct cost of production. If the coals brought into a city sell at 20s. a ton, of which the carriage amounts to a half, or 10s., it is plain that in the event of an improved communication, such as a more level or direct road, a railway, or a canal, being opened for the conveyance of the coals, and that they can, by its means, be imported for half the previous expense, their price will immediately fall to 15s. a ton; just as it would have done had the expense of extracting them from the mine been reduced a half.

Everyone acquainted with the merest elements of political science is aware that employments are more and more subdivided, that more powerful machinery is introduced, and the productive powers of labour increased, according as larger masses of the population congregate together. In a great town like London, Glasgow, or Manchester, the same number of hands will perform much more work than in a small village, where each individual has to perform several operations, and where the scale of employment is not sufficiently large to admit of the introduction of extensive and complicated machinery. But the great towns with which England is studded could not exist without our improved means of communication. These, however, enable their inhabitants to supply themselves with the bulky products of the soil and of the mines almost as cheaply as if they lived in country villages; securing to them all the advantages of concentration, with but few of its inconveniences. Roads and canals are thus productive of a double benefit; for while, by affording comparatively cheap raw materials to the manufacturers, they give them the means of perfecting the divisions of labour, and of supplying proportionally cheap manufactured goods; the latter are conveyed by their means, and at an extremely small expense, to the remotest parts of the country. The direct advantages which they confer on agriculture are not less important. Without roads it would not be possible to carry to a distance sufficient supplies of lime, manure, and other light and heavy articles necessary to give luxuriance to the crops of rich soils, and to render those that are poor productive. Good roads and canals, therefore, by furnishing the agriculturists with cheap and abundant supplies of manure, reduce, at one and the same time, the cost of producing the necessities of life, and the cost of bringing them to market.

In other respects, the advantages resulting from improved communications are probably even more striking. They give the same common interest to every different part of the most widely extended empire; and put down, or rather prevent, any attempt at monopoly on the part of the dealers of particular districts, by bringing them into competition with those of all the others. Nothing is so state enjoying great facilities of communication is separate and unconnected. All is mutual, reciprocal, and dependent. Every man naturally goes into the precise situation that he is best fitted to fill; and each, co-operating with every other, else, contributes to the utmost of his power to

extend the limits [Roads.]

Such being the advantages derivable from the proper encouragement of the duty is rather neglected less in the removal of obstacles in matters that have done too little too much. It will encourage certain producers of certain goods to others has disadvantage. In to observe that the dent and enlighten industry will equally and will be especially every thing that is freedom of commerce to engage in different nations whatever be the to prevent the circulation of the empire to the part of the empire to the of employments and the emulation, and must amount of produce. prompts to open roads canals should lead every statute book every restraints or fetters the open the free disposal of capital the freedom of internal interrupted by impassable or by oppressive tolls the effect is equally per the common law and England are decidedly the granting of powers individuals to furnish duties. Lord Coke distinguished concerning trade the liberty and freedom Charter, and divers others are good commentaries Inst. 63.) And he affirms 'Commercium jure gentium non in monopolium, quæstionem convertendum, mittere, alius inhiere non potest. But, notwithstanding common and statute law of the freedom of industry Crown was by its prerogative with any law to the effect monopolies, became fastidious, and was acted test during the arbitrary house of Tudor. Elizabeth so much dissatisfied Elizabeth as the multiplicity notwithstanding the Crown, and the Court of grievance became at length give rise to the famous statute 13, by which all monopolies, and licenses, for the patent, and making of goods and by an act of the Legislature 'altogether contrary to the and of none effect.' This statute of the greatest advantage, contributed more

extend the limits of production and civilisation.

[Roads.]

Such being the nature and vast extent of the advantages derived from the home trade, it is obviously the duty of the Legislature to give it every proper encouragement and protection. It will be found, however, on a little consideration, that this duty is rather negative than positive; that it consists less in the framing of regulations than in the removal of obstacles. The error of governments in matters of trade has not been that they have done too little, but that they have attempted too much. It will be afterwards shown that the encouragement which has been afforded to the producers of certain species of articles in preference to others has uniformly been productive of disadvantage. In the mean time it is sufficient to observe that the encouragement which a prudent and enlightened government bestows on industry will equally extend to all its branches; and will be especially directed to the removal of every thing that may in any respect fetter the freedom of commerce, and the power of individuals to engage in different employments. All regulations, whatever be their object, that operate either to prevent the circulation of commodities from one part of the empire to another, or the free circulation of labour, necessarily tend to check the division of employments and the spirit of competition and emulation, and must, in consequence, lessen the amount of produce. The same principle that prompts to open roads, to construct bridges and canals, should lead every people to erase from the statute book every regulation which either prevents or fetters the operations of the merchant, and the free disposal of capital and labour. Whether the freedom of internal commerce and industry be interrupted by impassable mountains and swamps, or by oppressive tolls or restrictive regulations, the effect is equally pernicious.

The common law and the ancient statute law of England are decidedly hostile to monopolies, or to the granting of powers to any particular class of individuals to furnish the market with commodities. Lord Coke distinctly states 'that all monopolies concerning trade and traffic are against the liberty and freedom granted by the Great Charter, and divers other Acts of Parliament which are good commentaries upon that charter.' (2 Inst. 63.) And he affirms, in another place, that 'Commercium jure gentium commune esse debet, et non in monopolium et privatum paulhorum questum convertendum. Iniquum est aliis permittere, aliis inhibere mercaturam.'

But, notwithstanding this concurrence of the common and statute law of the country in favour of the freedom of industry, the notion that the Crown was by its prerogative entitled to dispense with any law to the contrary, and to establish monopolies, became fashionable among the court lawyers, and was acted upon to a very great extent during the arbitrary reigns of the princes of the house of Tudor. Few things, indeed, occasioned so much dissatisfaction in the reign of Elizabeth as the multiplication of monopolies; and notwithstanding the opposition made by the Crown, and the Court party in Parliament, the grievance became at length so intolerable as to give rise to the famous statute of 1624 (21 Jas. I. c. 3), by which all monopolies, grants, letters patent, and licenses, for the sole buying, selling, and making of goods and manufactures, not given by an act of the Legislature, are declared to be 'altogether contrary to the laws of this realm, void, and of none effect.' This statute has been productive of the greatest advantage; and has, perhaps, contributed more than any other to the

development of industry, and the accumulation of wealth. With the exception of the monopoly of printing Bibles, and the restraints imposed by the charters of bodies legally incorporated, the freedom of internal industry has ever since been vigilantly protected; full scope has been given to the principle of competition; the whole kingdom has been subjected to the same equal law; no obstacles have been thrown in the way of the freest transfer of commodities from one country or place to another; the home trade has been perfectly unfettered; and though the public have not been supplied with commodities at so low a price as they might have obtained them for, had there been no restrictions on foreign commerce, they have obtained them at the lowest price that would suffice to pay the *home producers* the cost of producing and bringing them to market. It is to this freedom that the comparatively flourishing state of industry in Great Britain is mainly to be ascribed.

### III. FOREIGN TRADE.

What the home trade is to the different provinces of the same country, foreign trade is to all the countries of the world. Particular countries produce only particular commodities, and, were it not for foreign commerce, would be entirely destitute of all but such as are indigenous to their own soil. It is difficult for those who have not reflected on the subject to imagine what a vast deduction would be made, not only from the comforts, but even from the necessities, of every commercial people, were its intercourse with strangers put an end to. It is not, perhaps, too much to say that in Great Britain we owe to our intercourse with others a full half or more of all that we enjoy. We are not only indebted to it for the cotton and silk manufactures, and for supplies of wine, tea, coffee, sugar, the precious metals &c., but we are also indebted to it for most of the fruits and vegetables that we now cultivate. At the same time, too, that foreign commerce supplies us with an immense variety of most important articles, of which we must otherwise have been wholly ignorant, it enables us to employ our industry in the mode in which it is sure to be most productive, and reduces the price of almost every article. We do not misemploy our labour in raising sugar from the beet-root, in cultivating tobacco, or in forcing vines; but we employ ourselves in those departments of manufacturing industry in which our command of coal, of capital, and of improved machinery gives us an advantage; and obtain the articles produced more cheaply by foreigners, in exchange for the surplus produce of those branches in which we have a superiority over them. A commercial nation like England avails herself of all the peculiar facilities of production given by Providence to different countries. To produce claret here is perhaps impossible; and at all events it could not be accomplished unless at more than 100 times the expense required for its production in France. We do not, however, deny ourselves the gratification derivable from its use; and to obtain it, we have only to send to France, or to some country to which France is indebted, some articles in the production of which we have an advantage, and we get claret in exchange at the price which it takes to raise it under the most favourable circumstances. One country has peculiar capacities for raising corn, but is at the same time destitute of wine, silk, and tea; another, again, has peculiar facilities for raising the latter, but is destitute of the former; and it is impossible to point out a single country which is abundantly supplied with any considerable variety of commo-

ilities of domestic growth. '*Non omnis fert omnia tellus.*' Providence, by giving to each particular nation something which the others want, has evidently intended that they should be mutually dependent upon one another. And it is not difficult to see that, ceteris paribus, those must be the richest and most abundantly supplied with every sort of useful and desirable accommodation who cultivate the arts of peace with the greatest success, and deal with all the world on fair and liberal principles.

'The commerce of one country with another is, in fact,' to use the words of an able and profound writer, 'merely an extension of that division of labour by which so many benefits are conferred upon the human race. As the same country is rendered the richer by the trade of one province with another; as its labour becomes thus infinitely more divided and more productive than it could otherwise have been; and as the mutual supply to each other of all the accommodations which one province has, and another wants, multiplies the accommodations of the whole, and the country becomes thus in a wonderful degree more opulent and happy; the same beautiful train of consequences is observable in the world at large—that great empire of which the different kingdoms and tribes of men may be regarded as the provinces. In this magnificent empire, too, one province is favourable to the production of one species of accommodation, and another province to another; by their mutual intercourse they are enabled to sort and distribute their labour as most peculiarly suits the genius of each particular spot. The labour of the human race thus becomes much more productive, and every species of accommodation is afforded in much greater abundance. The same number of labourers, whose efforts might have been expended in producing a very insignificant quantity of home-made luxuries, may thus, in Great Britain, produce a quantity of articles for exportation, accommodated to the wants of other places, and peculiarly suited to the genius of Britain to furnish, which will purchase for her an accumulation of the luxuries of every quarter of the globe. There is not a greater proportion of her population employed in administering to her luxuries in consequence of her commerce; there is probably a good deal less; but their labour is infinitely more productive: the portion of commodities which the people of Great Britain acquire by means of the same labour is vastly greater.' (Mill's *Commerce Defended*, p. 38.)

What has been already stated is sufficient to expose the utter fallacy of the opinion that has sometimes been maintained, that whatever one nation may gain by her foreign commerce must be lost by some one else. It is singular, indeed, how such a notion should ever have originated. Commerce is not directly productive, nor is the good derived from it to be estimated by its immediate effects. What commercial nations give is uniformly the fair equivalent of what they get. In their dealings they do not prey upon each other, but are benefited alike. The advantage of commerce consists in its enabling labour to be divided, and giving each people the power of supplying themselves with the various articles for which they have a demand, at the lowest price required for their production in those countries and places where they are raised with the greatest facility. We import wine from Portugal, and cotton from America, sending in exchange cloth and other species of manufactured goods. By this means we obtain two very important articles, which it would be all but impossible to produce at home, and which we could not, certainly, produce except at an infinitely greater cost. But our gain

is no loss to the foreigners. They derive precisely the same sort of advantage from the transaction that we do. We have very superior facilities for manufacturing, and they get from us cloth, hardware, and other important articles, at the price at which they can be produced in this country, and consequently for far less than their direct production would have cost them. The benefits resulting from an intercourse of this sort are plainly mutual and reciprocal. Commerce gives no advantage to any one people over any other people; but it increases the wealth and enjoyments of all in a degree that could not previously have been conceived possible.

But the influence of foreign commerce in multiplying and cheapening conveniences and enjoyments, vast as it most certainly is, is perhaps inferior to its indirect influence—that is, to its influence on industry, by adding immeasurably to the mass of desirable articles, by inspiring new tastes, and stimulating enterprise and invention by bringing each people into competition with foreigners, and making them acquainted with their arts and institutions.

The apathy and languor that exist in a rude state of society have been universally remarked. But these uniformly give place to activity and enterprise, according as man is rendered familiar with new objects, and is inspired with a desire to obtain them. An individual might, with comparatively little exertion, furnish himself with an abundant supply of the commodities essential to his subsistence; and if he had no desire to obtain others, or if that desire, however strong, could not be gratified, it would be folly to suppose that he should be laborious, inventive, or enterprising. But, when once excited, the wants and desires of man become altogether illimitable; and to excite them, no more is necessary than to bring new products and new modes of enjoyment within his reach. Now, the sure way to do this is to give every facility to the most extensive intercourse with foreigners. The markets of a commercial nation being filled with the various commodities of every country and every climate, the motives and gratifications which stimulate and reward the efforts of the industrious are proportionally augmented. The husbandman and manufacturer exert themselves to increase their supplies of raw and manufactured produce, that they may exchange the surplus for the products imported from abroad; and the merchant, finding a ready demand for such products, is prompted to import a greater variety, to find out cheaper markets, and thus constantly to afford new incentives to the vanity and ambition, and consequently to the enterprise and industry, of his customers. The whole powers of the mind and the body are thus called into action; and the passion for foreign commodities—a passion which has sometimes been ignorantly censured—becomes one of the most efficient causes of wealth and civilisation.

Not only, however, does foreign commerce excite industry, distribute the gifts of nature, and enable them to be turned to the best account, but it also distributes the gifts of science and of art, and gives to each particular country the means of profiting by the inventions and discoveries of others as much as by those of her own citizens. The ingenious machine invented by Mr. Whitney of the United States, for separating cotton wool from the pod, by reducing the cost of the raw material of one of our principal manufactures, has been quite as advantageous to us as to his own countrymen; and the discoveries and inventions of Watt, Arkwright, and Wedgwood, by reducing the cost of the articles we send abroad, have been

as advantageous to ourselves. Commercial civilisation to be the remotest corner, in this respect, making each country supplying a considerable assistance of other anything else to render prejudices, and each other as friendly enemies. The great progress of other nations is now universal as it is illiberal. always to be prepared attack upon their independence it is not to be doubted will be best secured by peace. A commerce with victory or brand prevent another nation industrious than you are industrious they will sell your customers will forsake theirs. This will happen with fleets, and the soldier may lay waste; successful or unsuccessful is the eternal law of Providence the diligent can alone make

Mr. Hume has beautiful and salutary influence and enterprise resulting from of commerce and the are then kept in perpetuation as their reward, the occupations those pleasures which are the The mind acquires new powers and facilities; an honest industry, both satisfied and prevents the growth of commonly spring up when and idleness. Banish the you deprive men both of and, leaving nothing but in you even destroy the religion never is agreeable but when and recruits the spirits, explication and fatigue.

Another advantage of it is that the mechanical arts may produce some refinement can be carried to the same age which produced and politicians, renowned generally abounds with skillful carpenters. We cannot resist of woollen cloth will be a nation which is ignorant are cities are neglected. affects all the arts; and the roused from their lethargy, turn themselves into extraordinary improvements into every profound ignorance is totally the privilege of rational as well as to act, to cultivate and as well as those of the b The more these refined arts do men become; nor are enriched with science, and of conversation, they shall in solitude, or live with

as advantageous to our foreign customers as to ourselves. Commerce has caused the blessings of civilisation to be universally diffused, and the treasures of knowledge and science to be conveyed to the remotest corners. Its humanising influence is, in this respect, most important; while, by making each country depend for the means of supplying a considerable portion of its wants on the assistance of others, it has done more than any thing else to remove a host of the most baleful prejudices, and to man's mankind regard each other as friends and brothers, and not as enemies. The dread, once so prevalent, of the progress of other nations in wealth and civilisation is now universally admitted to be as absurd as it is illiberal. While every people ought always to be prepared to resist and avenge any attack upon their independence or their honour, it is not to be doubted that their real prosperity will be best secured by their endeavouring to live at peace. 'A commercial war, whether crowned with victory or branded with defeat, can never prevent another nation from becoming more industrious than you are; and if they are more industrious they will sell cheaper; and consequently your customers will forsake your shop and go to theirs. This will happen though you covered the ocean with fleets, and the land with armies. The soldier may lay waste; the privateer, whether successful or unsuccessful, will make poor; but it is the eternal law of Providence that "the hand of the diligent can alone make rich."' (Tucker's *Four Tracts*, p. 41, 3rd ed.)

Mr. Hume has beautifully illustrated the powerful and salutary influence of that spirit of industry and enterprise resulting from the eager prosecution of commerce and the arts. 'Men,' says he, 'are then kept in perpetual occupation, and enjoy, as their reward, the occupation itself, as well as those pleasures which are the fruits of their labour. The mind acquires new vigour; enlarges its powers and faculties; and, by an assiduity in honest industry, both satisfies its natural appetites, and prevents the growth of unnatural ones, which commonly spring up when nourished with ease and idleness. Banish those arts from society, you deprive men both of action and of pleasure; and, leaving nothing but indolence in their place, you even destroy the relish of indolence, which never is agreeable but when it succeeds to labour, and recruits the spirits, exhausted by too much application and fatigue.'

Another advantage of industry and of refinements in the mechanical arts is, that they commonly produce some refinements in the liberal; nor can the one be carried to perfection without being accompanied in some degree with the other. The same age which produces great philosophers and politicians, renowned generals and poets, usually abounds with skilful weavers and shipwrights. We cannot reasonably expect that a piece of woollen cloth will be wrought to perfection in a nation which is ignorant of astronomy, or where ethics are neglected. The spirit of the age affects all the arts; and the minds of men, being roused from their lethargy, and put into a fermentation, turn themselves on all sides, and carry improvements into every art and science. Ignorance is totally banished; and men enjoy the privilege of rational creatures, to think as well as to act, to cultivate the pleasures of the mind as well as those of the body.

The more these refined arts advance, the more capable do men become; nor is it possible that a man enriched with science, and possessed of a liberal conversation, they should be contented to remain in solitude, or live with their fellow-citizens

in that distant manner which is peculiar to ignorant and barbarous nations. They flock into cities; love to receive and communicate knowledge; to show their wit on their breeding; their taste in conversation or living, in clothes or furniture. Curiosity allures the wise, vanity the foolish, and pleasure both. Particular clubs and societies are every where formed; both sexes meet in an easy and sociable manner; and the tempers of men, as well as their behaviour, refine apace. So that beside the improvements they receive from knowledge and the liberal arts, it is impossible but they must feel an increase of humanity from the very habit of conversing together, and contributing to each other's pleasure and entertainment. Thus *industry, knowledge, and humanity* are linked together by an indissoluble chain; and are found, from experience as well as reason, to be peculiar to the more polished, and what are commonly denominated the more luxurious ages.' (*Essay of Refinement in the Arts*.)

Most commercial treatises, and most books on political economy, contain lengthened statements as to the comparative advantages derived from the home and foreign trade. But these statements are almost always bottomed on the most erroneous principles. The quantity and value of the commodities which the inhabitants of an extensive country exchange with each other, is far greater than the quantity and value of those they exchange with foreigners; but this is not, as is commonly supposed, enough to show that the home trade is proportionally more advantageous. Commerce, it must be borne in mind, is not a direct but an indirect source of wealth. The mere exchange of commodities adds nothing to the riches of society. The influence of commerce on wealth consists in its allowing employments to be separated and prosecuted without interruption. It gives the means of pushing the divisions of labour to the furthest extent, and supplies mankind with an infinitely greater quantity of necessaries and accommodations of all sorts than could have been produced, had individuals and nations been forced to depend upon their own comparatively feeble efforts for the supply of their wants. And hence, in estimating the comparative advantageousness of the home and foreign trades, the real questions to be decided are, which of them contributes most to the division of labour? and which of them gives the greatest stimulus to invention and industry? These questions do not, perhaps, admit of any very satisfactory answer. The truth is, that both home trade and foreign trade are most prolific sources of wealth. Without the former, no division of labour could be established, and man would for ever remain in a barbarous state. Hence, perhaps, we may say that it is the most indispensable; but the length to which it could carry any particular country in the career of civilisation would be limited indeed. Had Great Britain been cut off from all intercourse with strangers, there is no reason for thinking that we should have been at this day advanced beyond the point to which our ancestors had attained during the Heptarchy! It is to the products and the arts derived from others, and to the emulation inspired by their competition and example, that we are mainly indebted for the extraordinary progress we have already made, as well as for that we are yet destined to make.

Adam Smith, though he has satisfactorily demonstrated the impolicy of all restrictions on the freedom of commerce, has, notwithstanding, endeavoured to show that it is more for the public advantage that capital should be employed in the home trade than in foreign trade, on the ground

that the capitals employed in the former are more frequently returned, and that they set a greater quantity of labour in motion than those employed in the latter. But we have elsewhere endeavoured to show that the ratio of profit which different businesses yield is the only test of their respective advantages. (*Principles of Political Economy*, 3rd ed. pp. 165-181.) Now, it is quite evident that capital will not be employed in foreign trade unless it yield as much profit as could be made by employing it at home. No merchant sends a ship to China, if it be in his power to realise a larger profit by sending her to Dublin or Newcastle; nor would any one build a ship unless he expected that the capital so laid out would be as productive as if it were employed in agriculture or manufactures. The more or less rapid return of capital is a matter of very little importance. If the average rate of profit be 10 per cent., an individual who turns over his capital 10 times a-year will make one per cent. of profit each time; whereas if he turns it only once a-year, he will get the whole 10 per cent. at once. Competition reduces the rate of nett profit to about the same level in all businesses; and we may be quite certain that those who employ themselves in the departments in which capital is most rapidly returned do not, at an average, gain more than those who employ themselves in the departments in which the returns are most distant. No one is a foreign merchant because he would rather deal with foreigners than with his own countrymen, but because he believes he will be able to employ his capital more advantageously in foreign trade than in any other business; and while he does this, he is following that employment which is most beneficial for the public as well as for himself.

#### IV. RESTRICTIONS ON COMMERCE.

The statements already made, by explaining the nature and principles of commercial transactions, are sufficient to evince the inexpediency of subjecting them to any species of restraint. It is obvious, indeed, that restrictions are founded on false principles. When individuals are left to pursue their own interest in their own way, they naturally resort to those branches of industry which they reckon most advantageous for themselves; and as we have just seen, these are the very branches in which it is most for the public interest that they should be employed. Unless, therefore, it could be shown that a Government can judge better as to what sort of transactions are profitable or otherwise than private individuals, its regulations cannot be of the smallest use, and may be exceedingly injurious. But any such pretension on the part of Government would be universally scouted. It is undeniably certain that a regard to our own interest is, if not an unerring guide to direct us in such matters, at least incomparably better than any other. If the trade with a particular country or in a particular commodity be a losing one, or merely a less profitable one than others, it is quite as unnecessary to pass an Act to prevent it from being carried on, as it would be to interfere to prevent individuals from selling their labour or their commodities below the market price. It appears, therefore, that all regulations affecting the freedom of commerce, or of any branch of industry, are either useless or pernicious. They are useless, when they are intended to protect the interest of individuals by preventing them from engaging in disadvantageous businesses; and pernicious, when they prevent them from engaging in those that are advantageous.

The self-interest of the parties concerned is the only safe principle to go by in such matters. When the acts of the Legislature are in unison with it, there is nothing to object to in them save only that they might as well not exist; but whenever they are inconsistent with it—that is, whenever they tend to divert capital and industry into channels into which individuals, if left to their own discretion, would not have carried them—they are decidedly injurious.

No one denies that it is possible to confer, by means of a restrictive regulation, an advantage on a greater or less number of individuals. This, however, is no proof that it is advantageous in a public point of view; and it is by its influence in this respect that we are to decide concerning it. If the exclusion of an article imported from abroad in order to encourage its manufacture at home, raise its price in the home market, that circumstance will, for a while at least, be advantageous to those engaged in its production. But it is not clear that all that is thus gained by them is *lost by those who purchase the article?* To suppose, indeed, that the exclusion of commodities that are comparatively cheap, to make room for those that are comparatively dear, can be a means of enriching a country, is equivalent to supposing that a people's wealth might be increased by destroying their most powerful machines, and throwing their best soils out of cultivation.

But it is contended, that though this might be the case in the instance of commodities produced at home, it is materially different when the commodity excluded came to us from abroad. It is said, that in this case the exclusion of foreign produce increases the demand for that produced at home, and consequently contributes to increase the demand for labour; so that the rise of price it occasions is, in this way, more than balanced by the other advantages which it brings along with it. But the fact is, that though the demand for one species of produce may be increased by a prohibition of importation, the demand for some other species is sure to be at the same time equally diminished. There is no jugglery in commerce. Whether it be carried on between individuals of the same country, or of different countries, it is in all cases bottomed on a fair principle of reciprocity. Those who will not buy need not expect to sell, and conversely. It is impossible to export without making a corresponding importation. We get nothing from the foreigner gratuitously; and hence, when we prevent the importation of produce from abroad, we prevent, by the very same act, the exportation of an equal amount of British produce. All that the exclusion of foreign commodities ever effects is the substitution of one sort of demand for another. It has been said that 'when we drink beer and porter we consume the produce of English industry, whereas when we drink port or claret we consume the produce of the industry of the Portuguese and French, to the obvious advantage of the latter, and the prejudice of our countrymen!' But, how paradoxical soever the assertion may at first sight appear, there is not at bottom any real distinction between the two cases. What is it that induces foreigners to supply us with port and claret? The answer is obvious:—We either send directly to Portugal and France an *equivalent in British produce*, or we send such equivalent, in the first place to South America for bullion and then send that bullion to the continent to pay for the wine. And hence it is as clear as the sun at noon-day, that the Englishman who drinks only French wine, who eats only bread made of Polish wheat, and who wears only Saxon cloth, gives, by occasioning the exportation of a

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corresponding amount of British cotton, hardware, leather, or other produce, the same encouragement to the industry of his countrymen that he would give were he to consume nothing not immediately produced at home. A quantity of port wine and a quantity of Birmingham goods are respectively of the same value; so that whether we directly consume the hardware, or, having exchanged it for the wine, consume the latter, must plainly, in so far as the employment of British labour is concerned, be altogether indifferent.

It is absolutely nugatory, therefore, to attempt to encourage industry at home by restraining importation from abroad. We might as well try to promote it by interdicting the exchange of shoes for hats. We only resort to foreign markets, that we may supply ourselves with articles that cannot be produced at home, or that require more labour to produce them here than is required to produce the equivalent exported to pay for them. It is, if any thing can be, an obvious contradiction and absurdity to attempt to promote wealth or industry by prohibiting an intercourse of this sort. Such prohibition, even when least injurious, is sure to force capital and labour into less productive channels, and cannot fail to diminish the foreign demand for one species of produce quite as much as it extends the home demand for another.

It is but seldom, however, that a restriction on importation from abroad does no more than substitute one sort of employment for another. Its usual effect is both to alter the distribution of capital and to increase the price of commodities. A country rarely imports any commodity from abroad that may be as cheaply produced at home. In the vast majority of instances, the articles bought of the foreigner could not be directly produced at home without a much greater outlay of capital. Suppose that we import 1,000,000*l.* worth of any commodity, that its importation is prohibited, and that the same quantity of produce cannot be raised in this country for less than 1,200,000*l.* or 1,500,000*l.*: in a case of this sort—and this is actually the case in 99 out of every 100 instances in which prohibitions are enacted—the prohibition has the same effect on the consumers of the commodity as if, supposing it not to have existed, they had been burdened with a peculiar tax of 200,000*l.* or 500,000*l.* a-year. But, had such been the case, what the consumers lost would have gone into the coffers of the treasury, and would have afforded the means of repealing an equal amount of other taxes; whereas, under the prohibitory system, the high price, being occasioned by an increased difficulty of production, is to our advantage to any one. So that, instead of gaining any thing by such a measure, the public incurs a dead loss of 200,000*l.* or 500,000*l.* a-year.

We have said that a prohibition of importation may be productive of immediate advantage to the home producers of the prohibited article. It is essential, however, to remark that this advantage cannot continue for any considerable time, and that it must be followed by a period of distress. Were the importation of foreign silks put an end to, that circumstance, by narrowing the supply of silk goods, and raising their prices, would, no doubt, be, in the first instance, advantageous to the manufacturers, by elevating their profits above the common level. But the consequence would be, that those already engaged in the trade would immediately set about extending their concerns; and at the same time that not a few of those engaged in other employments would enter a business which presented such a favourable prospect: nor would this transference of capital to the silk

manufacture be stopped till such an increased supply of silks had been brought to market as to occasion a glut. This reasoning is not founded upon hypothesis, but upon the widest experience. When a business is carried on under the protection of a restriction on importation, it is limited by the extent of the home market, and is incapable of further extension. It is, in consequence, particularly subject to that fluctuation which is the bane of industry. If, owing to a change of fashion, or any other cause, the demand be increased, then, as no supplies can be brought from abroad, prices suddenly rise, and the manufacture is rapidly extended, until a reaction takes place, and prices sink below their usual level; and if the demand decline, then, as there is no outlet abroad for the superfluous goods, their price is ruinously depressed, and the producers are involved in inextricable difficulties. The businesses deepest entrenched behind ramparts of prohibitions and restrictions, such as the silk trade previously to 1825, the West India trade, and agriculture since 1815, have undergone the most extraordinary vicissitudes, and have been at once more hazardous and less profitable than the businesses carried on under a system of fair and free competition.

A prohibition against buying in the cheapest markets is really, also, a prohibition against selling in the dearest markets. There is no test of high or low price except the quantity of other produce for which an article exchanges. Suppose that, by sending a certain quantity of cottons or hardware to Brazil, we might get in exchange 150 hhd*s.* of sugar, and that the same quantity, if sent to Jamaica, would only fetch 100 hhd*s.*, is it not obvious that by preventing the importation of the former, we force our goods to be sold for *two-thirds* of the price they would otherwise have brought? To suppose that a system productive of such results can be a means of increasing wealth is to suppose what is evidently absurd. It is certainly true that a restrictive regulation, which has been long acted upon, and under which a large amount of capital is employed, should not be rashly or capriciously repealed. Every change in the public economy of a great nation ought to be gone about cautiously and gradually. Adequate time should be given to those who carry on businesses that have been protected, either to withdraw from them altogether, or to prepare to withstand the fair competition of foreigners. But this is *all* that such persons can justly claim. To persevere in an erroneous and oppressive system merely because its abandonment might be productive of inconvenience to individuals, would be a proceeding inconsistent with every object for which society is formed, and subversive of all improvement.

It may, perhaps, be supposed that in the event of commodities being imported from abroad, after the abolition of a protecting regulation, that were previously produced at home, the workmen and those engaged in their production would be thrown upon the parish. Such, however, is not the case. We may, by giving freedom to commerce, change the *species* of labour in demand, but it is not possible that we should thereby change its *quantity*. If, in consequence of the abolition of restrictions, our imports were increased 4,000,000*l.* or 5,000,000*l.*, our exports, it is certain, must be augmented to the same extent; so that whatever diminution of the demand for labour might be experienced in certain departments would be balanced by a corresponding increase in others.

The pressure of taxation has often been alleged as an excuse for restrictions on commerce; but it is not more valid than the rest. Taxation may

be heavy, and even oppressive; but so long as it is impartially and fairly assessed, it equally affects all branches of industry carried on at home, and consequently affords no ground whatever for the enactment of regulations intended to protect any particular business. And to propose to protect all branches of industry from foreign competition is, in effect, to propose to put a total stop to commerce; for if nothing is to be imported, nothing can be exported. The imposition of moderate duties on foreign commodities, for the sake of revenue, is quite another thing. Several of these commodities are among the very best subjects of taxation; and when the duties on them are confined within proper bounds—that is, when they are not so high as to exert any injurious influence over trade, or to occasion smuggling and fraud—they cannot fairly be objected to.

It is sometimes contended, by those who assert, on general grounds, that restrictions are inexpedient, that it would be unwise, on the part of any country, to abolish them until she had obtained a security that those imposed by her neighbours would also be abolished. But the reasons that have been alleged in favour of this statement are not entitled to the least weight. It is our business to buy in the cheapest and sell in the dearest markets, without being, in any degree, influenced by the conduct of others. If they consent to repeal the restrictions they have laid on commerce, so much the better. But whatever others may do, the line of policy we ought to follow is clear and well defined. To refuse, for example, to buy claret, brandy &c. from the French, because they lay restrictions on the importation of British hardware, cottons &c., is not to retaliate upon them, but upon ourselves. The fact that we do import French wine and brandy shows that we do export to France, or to some other country to which France is indebted, an equivalent in some sort, of British produce. The fear of being glutted with foreign products, unless we secure beforehand a certain outlet for our own, is the most unfounded that can be imagined. The foreigner who will take nothing of ours, can send as nothing of his. Though our ports were open to the merchants of all the countries of the world, the exports of British produce must always be equal to the imports of foreign produce; and none but those who receive our commodities, either at first or second hand, could continue to send anything to us.

Les étrangers ne peuvent demander ni désirer rien mieux que la liberté de vous acheter et de vous vendre chez vous et dans vos colonies. Il faut la leur accorder, non par foiblesse et par impuissance, mais parcequ'elle est juste en elle-même, et qu'elle vous est utile. Ils ont tort sans doute de la refuser chez eux; mais cette faute d'ignorance, dont, sans le savoir, ils sont punis les premiers, n'est pas une raison qui doive vous porter à vous nuire à vous-même en suivant cet exemple, et à vous exposer aux suites et aux dépenses d'une guerre pour avoir la vaine satisfaction d'user des représailles, dont l'effet ne peut manquer de retomber sur vous, et de rendre votre commerce plus désavantageux.' (Le Trosne, *De l'Ordre Social*, p. 416.)

There are some, however, who contend, that though restrictions on importation from abroad be unfavourable to opulence, and the advancement of individuals and nations in arts and civilisation, they may, notwithstanding, be vindicated on other grounds, as contributing essentially to independence and security. The short and decisive answer to this is to be found in the reciprocity of commerce. It does not enrich one individual or

nation at the expense of others, but confers its favours equally on all. We are under no obligations to the Portuguese, the Russians, or any other people with whom we carry on trade. It is not our advantage, but *their own*, that they have in view in dealing with us. We give them the full value of all that we import; and they would suffer quite as much inconvenience as we should do were this intercourse put an end to. The independence at which those aspire who would promote it by laying restrictions on commerce is the independence of the solitary and unsocial savage; it is not an independence productive of strength, but of weakness. 'The most flourishing states, at the moment of their highest elevation, when they were closely connected with every part of the civilised world by the golden chains of successful commercial enterprise, were, according to this doctrine, in the most perfect state of absolute dependence. It was not till all these connections were dissolved, and they had sunk in the scale of nations, that their true independence commenced! Such statements carry with them their own refutation. There is a natural dependence of nations upon each other, as there is a dependence of individuals upon each other. Some soils, some climates, some situations, are productive exclusively of some peculiar fruits, which cannot elsewhere be profitably produced. Let nations follow this as their guide. In a rich and rising community, the opulent capitalists may be as dependent upon the poor labourers as the poor labourers upon the opulent capitalists. So it is with nations. The mutual dependence of individuals upon each other knits and binds society together, and leads to the most rapid advancement in wealth, in intelligence, and in every kind of improvement. It is the same, but on a far larger scale, with the mutual dependence of nations. To this alone do we owe all the mighty efforts of commerce; and what lights, what generous feelings, and multiplied means of human happiness has it not every where spread!' (*North American Review*, No. 57.)

The principles of commercial freedom, and the injurious influence of restrictive regulations, were set in a very striking point of view by Adam Smith, in his great work; and they have been since repeatedly explained and elucidated. Perhaps, however, the true doctrines upon this subject have seldom been better stated than in the petition presented by the merchants of London to the House of Commons on May 8, 1820. This document afforded a convincing proof of the progress of liberal and enlarged views. It was subscribed by all the principal merchants of the metropolis who expressed their conviction that the repeal of every protective regulation would be for the public advantage. Such an address, confirming, as it did, the conclusions of science, by the approval of the best informed and most extensive merchants of the world, had a powerful influence over the Legislature. It paved the way for the reforms introduced by Mr. Huskisson; and the advantages of which they were found to be productive helped to forward the still greater and more comprehensive reforms carried through Parliament by Sir Robert Peel. These were so very extensive that they left but little for others to accomplish; and little having been since effected, our commercial policy is of the most liberal description. The time anticipated by the poet has already come

When, free as sea or wind,  
Unbound'd Thames shall flow for all mankind,  
Whole nations enter with each swelling tide,  
And seas but join the regions they divide.  
For'st Windsor Forest, &c.

And while this change vast advantage to this the prejudices of others, some extent at least, a course of policy.

The petition now referred to is omitted in a work of the late Thomas Tooke, valuable work on Prices, 'To the Honourable Petition of the Merchant

Sheweth, 'That foreign commerce to the wealth and progress enabling it to import the production of which the industry of other countries and to export, in payment of its own situation is better

'That freedom from give the utmost extension the best direction to the country.

'That the maxim of market, and selling in the every merchant in his strictly applicable as the of the whole nation.

'That a policy founded would render the commutability of mutual advantage increase of wealth and inhabitants of each state.

'That, unfortunately, a of this has been and is acted upon by the Government other country; each trying well-meant design of enclosures; thus inflicting subjects, who are consumed submitting to privations in of commodities; and thus to be the source of mutual among states, a constantly jealousy and hostility.

'That the prevailing protective or restrictive system the erroneous supposition of foreign commodities occur discouragement of our own same extent: whereas it may that although the particular duction which could not stand foreign competition would be no importation could be con of time without a corresp direct or indirect, there would ment, for the purpose of that other production to which o better suited; thus affording probably a greater, ar beneficial, employment to e labour.

'That of the numerous protective duties of our commerce that, while all opera on the community at la any ultimate benefit to the cl were originally instituted ment of the less occasions

'That among the other evi protective system, not the protection of one branch production against foreign ground of claim by other

And while this change has been productive of vast advantage to this country, it has weakened the prejudices of others, and made them enter, to some extent at least, on the same enlightened course of policy.

The petition now referred to is too important to be omitted in a work of this sort. It was written by the late Thomas Tooke, Esq., author of the valuable work on Prices, and is as follows:—

‘To the Honourable the Commons, &c. The Petition of the Merchants of the City of London, ‘Sheweth,

‘That foreign commerce is eminently conducive to the wealth and prosperity of a country, by enabling it to import the commodities for the production of which the soil, climate, capital, and industry of other countries are best calculated, and to export, in payment, those articles for which its own situation is better adapted.

‘That freedom from restraint is calculated to give the utmost extension to foreign trade, and the best direction to the capital and industry of the country.

‘That the maxim of buying in the cheapest market, and selling in the dearest, which regulates every merchant in his individual dealings, is strictly applicable as the best rule for the trade of the whole nation.

‘That a policy founded on these principles would render the commerce of the world an interchange of mutual advantages, and diffuse an increase of wealth and enjoyments among the inhabitants of each state.

‘That, unfortunately, a policy the very reverse of this has been and is more or less adopted and acted upon by the Government of this and every other country; each trying to exclude the productions of other countries, with the specious and well-meant design of encouraging its own productions; thus inflicting on the bulk of its subjects, who are consumers, the necessity of submitting to privations in the quantity or quality of commodities; and thus rendering what ought to be the source of mutual benefit and of harmony among states, a constantly recurring occasion of jealousy and hostility.

‘That the prevailing prejudices in favour of the protective or restrictive system may be traced to the erroneous supposition that every importation of foreign commodities occasions a diminution or discouragement of our own productions to the same extent: whereas it may be clearly shown, that although the particular description of production which could not stand against unrestrained foreign competition would be discouraged, yet, as no importation could be continued for any length of time without a corresponding exportation, direct or indirect, there would be an encouragement, for the purpose of that exportation, of some other production to which our situation might be better suited; thus affording at least an equal, and probably a greater, and certainly a more beneficial, employment to our own capital and labour.

‘That of the numerous protective and prohibitory duties of our commercial code, it may be proved that, while all operate as a very heavy tax on the community at large, very few are of any ultimate benefit to the classes in whose favour they were originally instituted, and none to the extent of the loss occasioned by them to other classes.

‘That among the other evils of the restrictive or protective system, not the least is, that the artificial protection of one branch of industry or source of production against foreign competition is set up on the ground of claim by other branches for similar

protection; so that if the reasoning upon which these restrictive or prohibitory regulations are founded were followed out consistently, it would not stop short of excluding us from all foreign commerce whatsoever. And the same train of argument, which, with corresponding prohibitions and protective duties, should exclude us from foreign trade, might be brought forward to justify the re-enactment of restrictions upon the interchange of productions (unconnected with public revenue) among the kingdoms composing the union, or among the counties of the same kingdom.

‘That an investigation of the effects of the restrictive system at this time is peculiarly called for, as it may, in the opinion of your petitioners, lead to a strong presumption that the distress which now so generally prevails is considerably aggravated by that system, and that some relief may be obtained by the earliest practicable removal of such of the restraints as may be shown to be most injurious to the capital and industry of the community, and to be attended with no compensating benefit to the public revenue.

‘That a declaration against the anti-commercial principles of our restrictive system is of the more importance at the present juncture, inasmuch as, in several instances of recent occurrence, the merchants and manufacturers of foreign countries have assailed their respective Governments with applications for further protective or prohibitory duties and regulations, urging the example and authority of this country, against which they are almost exclusively directed, as a sanction for the policy of such measures. And certainly, if the reasoning upon which our restrictions have been defended is worth any thing, it will apply in behalf of the regulations of foreign states against us. They insist upon our superiority in capital and machinery, as we do upon their comparative exemption from taxation, and with equal foundation.

‘That nothing would tend more to counteract the commercial hostility of foreign states than the adoption of a more enlightened and more conciliatory policy on the part of this country.

‘That although, as a matter of mere diplomacy, it may sometimes answer to hold the removal of particular prohibitions, or high duties, as depending upon corresponding concessions by other states in our favour, it does not follow that we should maintain our restrictions in cases where the desired concessions on their part cannot be obtained. Our restrictions would not be the less prejudicial to our own capital and industry because other Governments persisted in preserving impolitic regulations.

‘That, upon the whole, the most liberal would prove to be the most politic course on such occasions.

‘That independent of the direct benefit to be derived by this country on every occasion of such concession or relaxation, a great incidental object would be gained, by the recognition of a sound principle or standard, to which all subsequent arrangements might be referred; and by the salutary influence which a promulgation of such just views, by the Legislature and by the nation at large, could not fail to have on the policy of other states.

‘That in thus declaring, as your petitioners do, their conviction of the *impolicy and injustice of the restrictive system*, and in desiring every practicable relaxation of it, they have in view only such parts of it as are not connected, or are only subordinated, so, with the public revenue. As long as the necessity for the present amount of revenue subsists, your petitioners cannot expect so important a branch of it as the customs to be given up

nor to be materially diminished, unless some substitute less objectionable be suggested. But it is against every restrictive regulation of trade not essential to the revenue, against all duties merely protective from foreign competition, and against the excess of such duties as are partly for the purpose of revenue and partly for that of protection, that the prayer of the present petition is respectfully submitted to the wisdom of Parliament.

‘May it therefore, &c.

For an account of the doctrines with respect to the *balance of trade*, and the importation and exportation of the precious metals, see **BALANCE OF TRADE, and EXCHANGE.**

For an account of the articles imported into and exported from Great Britain, see **IMPORTS AND EXPORTS.**

**COMPANIES.** In Commerce or the Arts, a company is a number of persons associated for the purpose of carrying on some commercial or industrial undertaking. When there are only a few individuals associated, it is most commonly called a *copartnership*; the term company being usually applied to large associations, like the East India Company, the Bank of England, the Railway Companies &c., who conduct their operations by means of agents acting under the orders of a board of directors.

Companies have generally been divided into two great classes—exclusive or joint-stock companies, and open and regulated companies.

1. *Exclusive or Joint-Stock Companies.*—By an institution of this sort is meant a company having a certain amount of capital, divided into a greater or smaller number of transferable shares, managed for the common advantage of the shareholders by a body of directors chosen by and responsible to them. After the stock of a company of this sort has been subscribed, no one can enter it without previously purchasing one or more shares belonging to some of the existing members. The partners do nothing individually; all their resolutions are taken in common, and are carried into effect by the directors and those whom they employ.

According to the common law of England, all the partners in a joint-stock company are jointly and individually liable, to the whole extent of their fortunes, for the debts of the company. They may make arrangements amongst themselves, limiting their obligations with respect to each other; but unless established by an authority competent to set aside the general rule, they are all indefinitely responsible to the public. Parliament sometimes limits the responsibility of the shareholders in joint-stock companies established by statute, to the amount of the shares they respectively hold; and the 6 Geo. IV. c. 96 empowers the Crown to grant charters of incorporation by which the members of corporate bodies are made individually liable, to such extent, and subject to such regulations and restrictions, as may be deemed expedient. Hence charters are now frequently granted for the purpose merely of enabling companies to sue and be sued in courts of law, under the names of some of their office-bearers, without in any respect limiting the responsibility of the shareholders to the public. This limitation cannot be implied in a charter any more than in an Act of Parliament, and is held not to exist unless it be distinctly set forth.

In a private copartnership, no partner, without the consent of the company, can transfer his share to another person, or introduce a new member into the company. Each member, however, may, upon proper warning, withdraw from the copartnership, and demand payment from them of his share of the common stock. In a joint-stock company,

on the contrary, no member can demand payment of his share from the company; but each member may, without their consent, transfer his share to another person, and thereby introduce a new member. The value of a share in a joint-stock is always the price which it will bring in the market; and this may be either greater or less, in any proportion, than the sum which its owner stands credited for in the stock of the company. (*Wealth of Nations*, p. 333.)

The law in regard to the formation and constitution of joint-stock companies was for many years principally determined by the 7 & 8 Vict. c. 119; the 7 & 8 Vict. c. 111 having been passed at the same time to facilitate their dissolution and winding up. These Acts and others were repealed by the 25 & 26 Vict. c. 89 (except sec. 47 of 7 and 8 Vict. c. 113, and part of sec. 12 of 20 & 21 Vict. c. 49), which is now (1868) the governing statute in regard to these companies. The powers given to different associations, though in some respects the same, differ widely in others, according to the special purposes for which they are organised. But it would be idle to attempt to specify in this place the peculiar rules and regulations affecting these institutions. Full information respecting most questions connected with the constitution and working of joint-stock companies may, however, be found in Thring's treatise on the law relating to these associations; and to it we beg to refer the reader.

2. *Utility of Joint-Stock Companies.*—Whenever the capital required to carry on any undertaking exceeds what may be furnished by an individual, it is indispensable, in order to the prosecution of the undertaking, that an association should be formed. In all those cases, too, in which the chances of success are doubtful, or where a lengthened period must necessarily elapse before an undertaking can be completed, an individual, though ready enough to contribute a small sum in connection with others, would, generally speaking, be very little inclined, even if he had the means, to encounter the whole responsibility of such enterprises. Hence the necessity and advantage of companies or associations. It is to them that we are indebted for the canals and railways by which every part of the country is intersected, for the formation of so many noble docks and warehouses, for the institution of our principal banks and insurance offices, and for many other establishments of great public utility carried on by the combined capital and energies of large bodies of individuals.

3. *Branches of Industry for the prosecution of which Joint-Stock Companies may be advantageously established.*—In order to ensure a rational prospect of success to a company, the undertaking should admit of being carried on according to a regular systematic plan. The reason of this is sufficiently obvious. The business of a great association must be conducted by factors or agents; and unless it be of such a nature as to admit of their duties being clearly pointed out and defined, the association would cease to have any effectual control of them, and would be, in great measure, at the mercy. An individual who manages his own affairs reaps all the advantage derivable from superior skill, industry, and economy; but agents, and even directors, of joint-stock companies, labour, in most cases, entirely or partially for the advantage of others; and can, therefore, however conscientious, have the same powerful motives to act with energy, prudence, and economy. ‘Like,’ says Adam Smith, ‘stewards of a rich man, they are apt to condescend to small matters as not for their most

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honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail more or less in the management of the affairs of such a company.' It also not infrequently happens that they suffer from the bad faith as well as the carelessness and extravagance of their servants; the latter having in many instances endeavoured to advance their own interests at the expense of their employers. Hence the different success of companies whose business may be conducted according to a nearly uniform system—such as dock, canal, railway, insurance, and banking, companies—and those whose business does not admit of being reduced to any regular plan, and where much must always be left to the sagacity and enterprise of those employed. All purely commercial companies, trading upon a joint-stock, belong to the latter class. Not one of them has ever been able to withstand the competition of private adventurers; they cannot subject the agents they employ to buy and sell commodities in distant countries to any effectual responsibility; and from this circumstance, and the abuses that usually insinuate themselves into every department of their management, no such company has ever succeeded, unless when it has obtained some exclusive privilege, or been protected from competition.

And even with these advantages, such is the negligence, profusion, and peculation inseparable from the management of great commercial companies, that those that have had the monopoly of the most advantageous branches of commerce have rarely been able to keep out of debt. It will be shown in the article EAST INDIA COMPANY, that that association lost by its trade; and that, had it not been for the aid derived from the revenues of India, it would long since have ceased to exist. To buy in one market; to sell with profit in another; to watch over the perpetually occurring variations in the prices, and in the supply and demand of commodities; to suit with dexterity and judgment the quantity and quality of goods to the wants of each market; and to conduct each operation in the best and cheapest manner; requires a degree of unremitting vigilance and attention which it would be visionary to expect from the directors or servants of a great joint-stock association. Hence it has happened, over and over again, that branches of commerce which proved ruinous to companies have become exceedingly profitable when carried on by individuals.

'The spirit of monopolists,' to borrow the just and forcible language of Gibbon, 'is narrow, lazy, and oppressive. The work is more costly and less productive than that of independent artists; and the new improvements so eagerly grasped by the competition of freedom are admitted with slow and sullen reluctance in those proud corporations, above the fear of a rival, and below the confession of an error.' (*Memoirs of his own Life, Miscellaneous Works*, i. p. 49, ed. 1814.)

We stated in the first edition of this work that the circumstances now mentioned opposed all but insuperable obstacles to the success of the companies established in this country for the prosecution of mining in America. 'This business does not admit of being reduced to a regular routine system. Much must always depend on the skill and probability of the agents employed at the mines; and it must plainly be very difficult, if not quite impossible, for directors resident in London to exercise any effectual surveillance over the proceedings of those who are at so great a distance. Hence it is not at all likely that these establishments will ever be so productive to the undertakers

as if they had been managed by the parties themselves.' And every one knows that the history of the undertakings has more than verified the truth of these statements.

The Abbé Morellet has given in a tract published in 1789 (*Examen de la Réponse de M. A.*, pp. 35–38) a list of 65 joint-stock companies, for the prosecution of various branches of foreign trade, established in different parts of Europe subsequently to 1600, every one of which had failed, though most of them had exclusive privileges. Most of those that have been established since the publication of Morellet's tract have had a similar fate.

But notwithstanding both principle and experience concur in showing how very ill fitted a large association is for the purpose of prosecuting commercial undertakings, there are cases in which they cannot be prosecuted except by associations of this sort, and when it may be expedient to grant them certain peculiar privileges. When, owing either to the disinclination or inability of Government to afford protection to those engaged in any particular department of trade, they are obliged to provide for their own defence and security, it is obviously necessary that they should have power to exclude such individuals as may refuse to submit to the measures, or to bear their due share of the expense, required for the common protection of all. The Russian Company, the East India Company, the Levant or Turkey Company, and most of the other great trading companies which have existed in this country, seem principally to have grown out of a real or supposed necessity of this sort. It was not believed that any safe or advantageous intercourse could be carried on with barbarous countries without the aid of ships of war, factories, interpreters &c.; and as Government was not always able or willing to afford this assistance, the traders were formed into companies or associations, and vested with such peculiar privileges as appeared to be necessary for enabling them to prosecute the trade without any extrinsic support. 'When,' says Smith, 'a company of merchants undertake, at their own risk and expense, to establish a new trade with some remote and barbarous nation, it may not be unreasonable to incorporate them into a joint-stock company, and to grant them, in case of success, a monopoly of the trade for a certain number of years. It is the easiest and most natural way in which the state can recompense them for hazarding a dangerous and expensive experiment, of which the public is afterwards to reap the benefit. A temporary monopoly of this kind may be vindicated upon the same principles upon which a like monopoly of a new machine is granted to its inventor, and that of a new book to its author. But upon the expiration of the term, the monopoly ought certainly to determine; the forts and garrisons, if it was found necessary to establish any, to be taken into the hands of Government, their value to be paid to the company, and the trade to be laid open to all the subjects of the state.' (*Wealth of Nations*, p. 339.)

It may be doubt-ly, however, whether it be really necessary, even in such a case as that now mentioned, to establish a joint-stock company with peculiar privileges, and whether the same thing might not be more advantageously effected by the establishment of an open or regulated company.

4. *Open or Regulated Companies.*—The affairs of such companies or associations are managed by directors appointed by the members. They do not, however, possess a common or joint stock. Each individual pays a fine upon entering into the

company, and most commonly an annual contribution: a duty applicable to the business of the company is also sometimes charged upon the goods imported and exported from and to the countries with which they trade. The sums so collected are applied by the directors to fit out ambassadors, consuls, and such public functionaries as may be required to facilitate commercial dealings, or to build factories, maintain cruisers &c. The members of such companies trade upon their own stock, and at their own risk. So that when the time, or sum payable on admission into a regulated company, is moderate, it is impossible for its members to form any combination that would have the effect of raising their profits above the common level; of raising the same keen and close competition amongst them that there is amongst other classes of traders. A regulated company is, in fact, a device for making those engaged in a particular branch of trade bear the public or political expenses incident to it, at the same time that it leaves them to conduct their own business with their own capital, and in their own way.

Should, therefore, Government at any time refuse, or be unable to afford, that protection to those engaged in any branch of trade which is necessary to enable them to carry it on, their formation into a regulated company would seem to be the most judicious measure that could be adopted, inasmuch as it would obtain for them that protection which is indispensable without encroaching on the freedom of individual enterprise.

The African, the Levant, and some other branches of trade were for a long time conducted by open or regulated companies. These, however, have been abolished; the African Company by the Act 1 & 2 Geo. IV. c. 28; and the Levant Company by the Act 6 Geo. IV. c. 33. The Russia Company still exists. [RUSSIA COMPANY.]

5. *Constitution of Companies.*—When application is made to Parliament for an Act to incorporate a number of individuals into a joint-stock company for the prosecution of any useful undertaking, care should be taken not to concede to them any privileges that may be rendered injurious to the public. If a company be formed for the construction of a dock, a road, or a canal, it may be necessary, in order to stimulate individuals to engage in the undertaking, to give them some peculiar privileges for a certain number of years; but if other persons be permanently hindered from constructing new docks, or opening new lines of communication, a lasting injury may be done to the public. It may be highly expedient to incorporate a company for the purpose of bringing water into a city; but supposing there were no springs in the vicinity other than those to which this company has acquired a right, they might, unless restrained by the Act incorporating them, raise the price of water to an exorbitant height, and make large profits for themselves at the expense and to the injury of the public. In all cases of this sort, and in the case, indeed, of all joint-stock companies established for the formation of canals, railways &c., it would be sound policy not only to limit the rates charged for their services, or on account of the water, ships, goods &c. conveyed by their means, but also to limit the dividends, or to fix a maximum beyond which they should not be augmented; enacting that if the rates charged by the company produce more than sufficient to pay the maximum rate of dividend, and to defray the wear and tear of the aqueduct, canal &c., they should be allowed to reduce them till they only yield this much; and, in the event of their declining to do so, that the whole surplus above paying the dividend shall be applied to purchase up the stock of

the association, so that ultimately the charges on account of dividends may be entirely abolished. Had this principle been acted upon when canals first began to be formed in England, the carriage of goods conveyed by some of the most important lines of communication would now have cost almost nothing; and this desirable result might have been accomplished in the way now suggested, without, we believe, diminishing in any degree the number of those undertakings. Probably, however, the better way in such cases would be for the Legislature to reserve to itself, when it institutes such companies, power periodically to revise their rates of charge, or to purchase up the undertakings. There are few who, at the time they engage in such enterprises, suppose that they will yield more than 10 or 12 per cent.; and vast numbers will always be disposed to engage in them if there be any reasonable prospect of their yielding this much. Now when such is the case, is it not the duty of Government to provide, in the event of the undertaking becoming in an unexpected and unusual degree profitable, that the public should derive some advantage from it? This is not a case in which competition can reduce profits to the common level. The best, perhaps the only practicable, line for a canal or railway between any two places will be appointed by those who are first in the field; who thus, in fact, obtain a natural monopoly of which they cannot be deprived: and hence the advantage of limiting the charges and dividends. Without discouraging enterprise, it affords a security that private individuals shall not reap an unusual and unlooked-for profit at the expense of the public.

In all those cases in which companies are formed for the prosecution of undertakings that may be carried on with equal advantage to the public by individuals; or where there are no very considerable difficulties to overcome, or risks to encounter; they ought to enjoy no privileges whatever, but should be regarded, in every point of view, as if they were mere individuals.

For accounts of the principal joint-stock and regulated companies established in this country see BANK OF ENGLAND; DOCKS; EAST INDIA COMPANY; ISSUANCE; RUSSIA COMPANY; &c.

6. *Companies with Limited Liability.*—These which are denominated by the French partnership *en commandite*, may be constituted in a great variety of ways. Thus, the liability may be limited to the amount of the sums which each partner has contributed to the capital of the partnership; or it may extend to some multiple of such sum; or the liability of the manager (*Fr. gérant*) of the concern is usually unlimited; but this, of course, may or may not be the case.

It is said that the establishment of such companies would be productive of many advantages at present the principle of association is obstructed, and that many important undertakings are neglected from the extreme risk which attaches to joint-stock speculations; and that the capital of a partnership with limited responsibility would be publicly declared, there would be no risk of bankruptcy and fraud in dealing with partnerships as now constituted, and similar arguments are entitled to much, or, indeed, to great weight. There are, as already seen (2d ed. of this article), certain classes of undertakings which admit of being systematically carried on, and the construction and management of docks, ways, gas and waterworks, banks and insurance offices on a large scale, and other concerns of the same kind, which may be and are advantageously carried on by companies with limited liability.

And there can be no good of a company being organized to give them a charter, in the responsibility of the directors of their shares. But this does not concern this classification to others of a total, that is, to partnerships for or department of manufacturing industry, or of domestic cases the cost of articles which they are supplied, and a thousand other circumstances constantly changing, so that it cannot be conducted on the most vigilant and adopted measures suited to the case. Now the question is, how prudently and skillfully *all* is responsible for those whose responsibility (perhaps a small one) of whom, consequently, their matter of comparative indistinctly evidently admits but a too obvious to require being doubt, that notwithstanding liability under which the partnerships or partnerships not display an inexcusable degree. But if parties will do this, they have it staked on the they not do if they could speculate, or it may be, gamely without any fear of the result, certain, and our experience that, under such circumstances, and bankruptcy would extraordinary degree; and that the intensity of those motives which are productive of so many very largely augmented.

But we have been assured that, in the case, inasmuch as the *en commandite* is public, it may be made to deceive and mislead, and a partnership begins business to amount to 10,000. security have we that such a side paid in and will be had supposing that we have s applicable only to the outcasts a year or a couple of years, if they be so disposed, to file among themselves some, when, perhaps, they have? And yet the association of the public with such a nature, continue to enjoy the credit that it did at the beginning it is true, no doubt, that it is companies with limited liability; prohibit the partners or carrying any share in their management exclusively in the matter the policy of such prohibitions, is very questionable. question into which we need nobody knows that the prohibition, unless it be to make the and underhand manner which be done publicly and openly do this without, in so far as, and weakening their sensibility and rectitude.

And there can be no good objection, in the event of a company being organised for any such object, to give them a charter, if they require it, limiting the responsibility of the partners to the amount of their shares. But the question now before us does not concern this class of companies, but has relation to others of a totally different description, that is, to partnerships for carrying on some branch or department of manufacturing or agricultural industry, or of domestic or foreign trade. In these cases the cost of articles, the conditions under which they are supplied, the extent of the demand, and a thousand other circumstances, are perpetually changing, so that their production and sale cannot be conducted on a routine system, but require the most vigilant attention to vary and adopt measures suited to emergencies as they arise. Now the question is, will such partnerships be more prudently and skillfully managed by those whose *all* is responsible for their proceedings, or by those whose responsibility is limited to some part (perhaps a small one) of their fortune, and to whom, consequently, their success or failure is a matter of comparative indifference? Such a question evidently admits but of one answer, which is too obvious to require being stated. It is true, no doubt, that notwithstanding the heavy responsibility under which the partners in ordinary associations or partnerships now act, they too often display an inexcusable degree of foolhardiness. But if parties will do this when everything that they have is staked on the result, what would they not do if they could limit their liabilities and speculate, or it may be, gamble on a great scale without any fear of the result? It was all but certain, and our experience in 1866 has proved, that, under such circumstances, reckless speculation and bankruptcy would be increased in an extraordinary degree; and that the numbers and the intensity of those mercantile convulsions which are productive of so much misery would be very largely augmented.

But we have been assured that such would not be the case, inasmuch as the capital of all societies *en commandite* is publicly notified! But we take leave to say that such notification merely operates to deceive and mislead the public. Suppose a partnership begins business with a capital of amount to 10,000, or 100,000, what security have we that such capital has been paid in and will be really available? And supposing that we have such security, it can be applicable only to the outset of the enterprise, for a year or a couple of years the capital may be wholly dissipated. What is to hinder the partners, if they be so disposed, from conspiring to divide among themselves some 10 or 20 per cent. each, when, perhaps, they have not made sixpence? And yet the association may, from the ignorance of the public with respect to its real situation, continue to enjoy the same degree of credit that it did at the beginning.

It is true, no doubt, that it is customary, where companies with limited liability are established, to prohibit the partners or *commanditaires* from having any share in their management, which rests exclusively in the manager or *gérant*. The policy of such prohibition, were it made general, is very questionable. This, however, is a question into which we need not enter; for everybody knows that the prohibition is good for nothing, unless it be to make that be done in a secret and underhand manner which would otherwise be done publicly and openly. And it can be done thus without, in so far, corrupting the partners, and weakening their sense of honour and rectitude.

Let it not be supposed that it is possible to obviate these abuses of partnerships *en commandite* by obliging them to publish an annual balance sheet. Such a return would be worse than useless. Even if a partnership intended to make an honest return, it would frequently make one that was false, from its inability to calculate the debts owing to it at their just value; and if it wished to dress up a return, to make a rickety or bankrupt concern appear to be flourishing and wealthy, it would have every means and facility for doing so. The fraud might or might not be eventually detected; but if it were, it would not be till it had served its purpose, and enabled a concern, destitute alike of character and stock, to enter into speculations that could hardly fail to ruin many unsuspecting parties.

A system of this sort enables a man to escape from that responsibility which naturally attaches to all his actions, and is the grand security for their being fair and honourable. It tempts him to engage in desperate adventures, of which, if successful, he reaps all the advantage, and of which, if unsuccessful, he eludes most part of the loss. It is not easy to see how such a system can be productive of any good result. Something, perhaps, might be found to say in its favour if individuals were with difficulty found to engage in partnerships accompanied with the usual risks. But there is no such difficulty. On the contrary, every outlet, whatever may be the hazard attending it, that opens any field for the employment of capital with the prospect of even a moderate return is immediately filled up. Why, then, should we offer such parties a bonus? Why relieve them of their natural responsibility to make them engage in pursuits into which they are ready and willing to engage without any extraordinary stimulus?

But it is said that it is unjust to interfere to hinder A, B, and C from engaging in a partnership with limited liability; that the terms on which the partnership is to be conducted being declared, everybody is put on his guard; and that there can be no more risk in dealing with it than with any other association. But in cases of this sort justice is identical with public or general utility, and not with any abstract or imagined right. Society is founded on the principle that every man and set of men shall be responsible, in the widest sense of the term, for his or their proceedings. And this principle should be enforced in all cases, unless when it can be clearly shown that the public interests would be promoted by its suspension. But we deny that this has been or can be shown by the advocates for the general introduction of partnerships *en commandite*; for we have seen, 1st, that in all ordinary cases such partnerships are wholly unnecessary; and, 2nd, that, when organised, they unavoidably occasion a vast increase of fraud and of reckless speculation. There was consequently no ground for their introduction; but, on the contrary, now that they have been introduced, there are sufficient grounds why they should be suppressed forthwith.

It is sometimes said that by making the manager or *gérant* act under an unlimited responsibility, we should secure the advantages of both systems, that is, of unlimited liability, and of the new system of limited liability introduced by the 19 & 20 Vict. c. 47 and subsequent Acts. But it is plain that it would do nothing of the sort. If the security of the public is to be augmented by making the manager indefinitely responsible, that security would, it is obvious, be still further augmented by extending the same indefinite responsibility to all the members of the association. Under the proposed plan the *gérant* may be a man of straw.

He may be, and the probability is that whenever it is thought desirable he will be, selected, not because he deserves the confidence of the public, but because he may be depended upon for carrying out the secret objects of the association oring into his leaders. Do what you will, it is impossible to hinder him from combining with his partners to defraud the public. Provided they keep their own counsel, how is the fraud to be discovered? And supposing it to be ultimately discovered, what advantage will thence result to those who have in the mean time been swindled out of their property?

In dealing with firms or associations constituted on the principle of unlimited liability, people trust, or believe they may trust, to the reputation for skill and integrity, and to the presumed wealth, of one or more of the parties. Such parties have a character to lose; and as they at the same time act under the heaviest responsibility, the chances are ten to one that they will act discreetly, fairly, and honorably. But a partner in a society *en commandite* has no such guarantees for his conduct. Instead of being responsible, he is all but irresponsible. And it would be contradictory alike of principle and common sense to suppose that the one association should be as carefully and as honestly conducted as the other.

These reasonings might be indefinitely extended, but they have already encroached too much on our limits. And yet, though brief, we incline to think that they are enough to show, even if the ruinous experience of 1866 had not put it beyond all doubt, that the establishment of very great *en commandite* would be productive of very great disadvantages unaccompanied by a single countervailing advantage. (See further under PARTNERSHIPS WITH LIMITED LIABILITY.)

7. *Civic Companies, or Corporations.*—Exclusive of the companies previously mentioned, a number of ancient companies or corporations exist in this and most other European countries, the members of which enjoy certain political as well as commercial privileges. When the feudal system began to be subverted by the establishment of good order and regular government in the towns, the inhabitants were divided into certain trades or corporations, by which the magistrates and other functionaries were chosen. The members of these trades or corporations, partly to enhance the value of their privileges, and partly to provide a resource, in case of adversity, for themselves, acquired or usurped the power of enacting by-laws regulating the admission of new members, and at the same time set about providing a fund for the support of such as accident or misfortune might reduce to a state of indigence. Hence the origin of apprenticeships, the refusal to allow any one not a member of a corporation to carry on any business within the precincts of any town or borough, and the various regulations that had to be submitted to, and the fees that had to be paid, by the claimants for enrolment in corporations. For a lengthened period these privileges and regulations were very oppressive; but within the last century their influence has been progressively diminishing. In France, where the abuses inseparable from the system had attained to a very great height, it was entirely swept off by the Revolution; and though corporations still exist in this country, they have been stripped of several of their peculiar franchises; and should now, for the most part, be regarded more, perhaps, in the light of charitable than of political institutions. It would be well were they reduced entirely to the former character; and were the few political and commercial privileges

which they still enjoy, communicated to the rest of the citizens. At their first institution, and for some time after, corporations, considered as political bodies, were probably useful; but such is no longer the case; and in so far as they now possess any special immunities, they tend to obstruct that free competition which is so advantageous.

The following extract from a *Report on the Commerce and Manufactures of the United States*, then secretary drawn up by Albert Gallatin, Esq., then secretary to the Treasury, and laid before Congress in 1816, sets the superior advantages resulting from the unrestricted freedom of industry in a very striking point of view. 'No cause,' says he, 'has, perhaps, more promoted in every respect the general improvement of the United States than the absence of those systems of internal restriction and monopoly which continue to disfigure the state of society in other countries. No laws exist here, directly or indirectly, confining men to a particular occupation or place, or excluding any citizen from any branch he may, at any time, think proper to pursue. Industry is, in every respect, free and unfettered; every species of trade, commerce, and manufacture, being equally open to all, without requiring any regular apprenticeship, admission, or license. Hence the improvement of America has not been confined to the improvement of her agriculture, and to the rapid formation and settlement of new states in the wilderness; but her citizens have extended their commerce to every part of the globe, and carry on with complete success even those branches for which a monopoly had heretofore been considered essentially necessary.'

There is in Rees's *Cyclopaedia*, article 'Company,' a list of the different civic companies belonging to the city of London, in which the periods of their incorporation, and various other particulars with respect to several of them, are specified.

COMPASS (Ger. ein kompass; Dutch, zee-compass; Dan. søekompass; Fr. boussole, compas de mer; Ital. bussola; Span. aguja de marcar; Port. compasso de marcar; Russ. kompass korabelnii) or MARINER'S COMPASS. An instrument composed of a needle and card, by which the ship's course is directed. The needle, with little variation, always points towards the north; and hence the mode of steering by the compass.

The common opinion is that the compass was invented by Flavio Gioia, a citizen of the famous republic of Amalfi, very near the beginning of the fourteenth century. Dr. Robertson has adopted this opinion, and regrets that contemporary historians furnish no details as to the life of a man to whose genius society is so deeply indebted. (*History of America*, vol. i. p. 47, was indebted.) But though Gioia may have made improvements on the compass, it has been shown that he has no claim to be considered as its discoverer. Passages have been produced from writers who flourished more than a century before Gioia, in which the polarity of the needle when touched by the magnet is distinctly pointed out. Not only, however, had this singular property been discovered, but also its application to the purposes of navigation, long previously to the fourteenth century. Old French writers have been quoted (Macpherson's *Annals of Commerce*, anno 1300) as establishing the fact. But whatever doubts may exist with respect to them cannot affect the passages which the learned Spanish antiquary, Don Antonio de Capmany (*Questiones Criticas*, p. 73-132), has

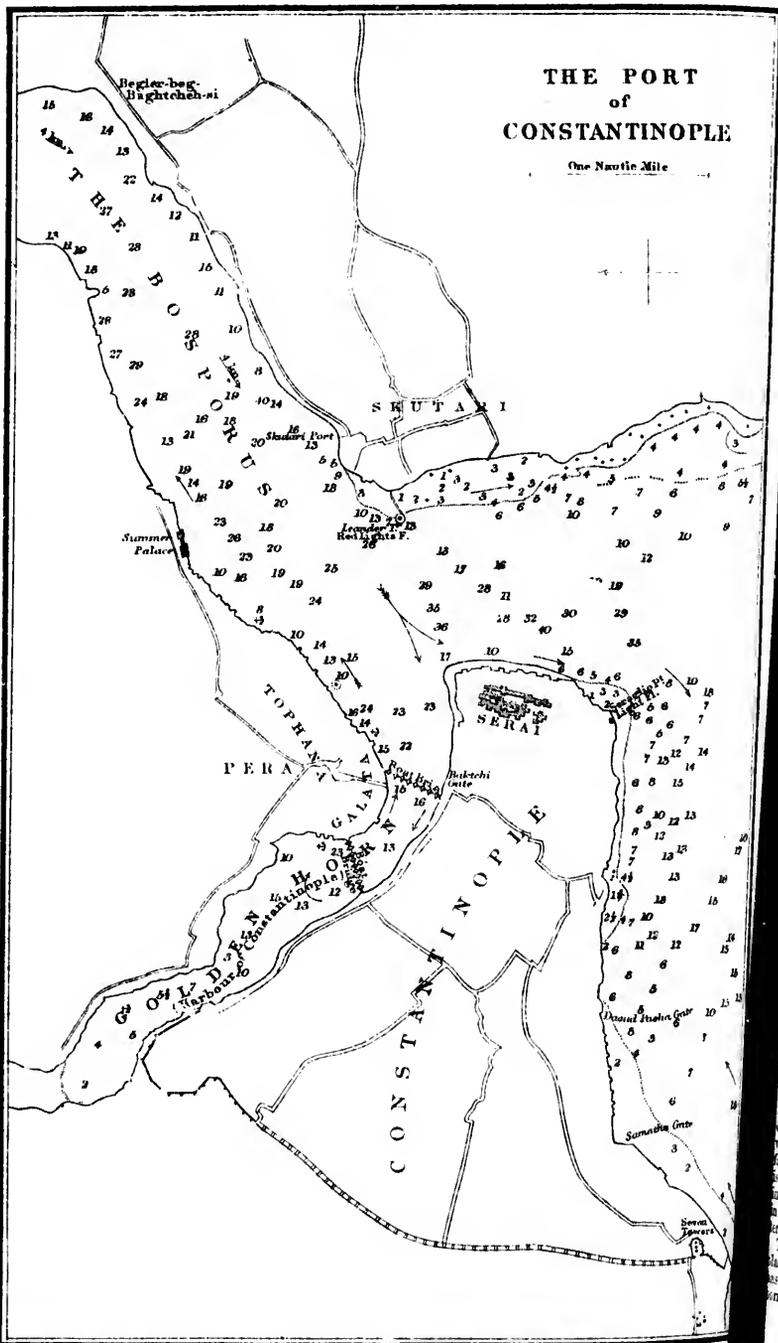
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given from a work of the famous Raymond Lully (*De Contemplatione*) published in 1272. In one place Lully says, 'as the needle when touched by the magnet naturally turns to the north' (*sicut acus per naturam vertitur ad septentrionem dum sit tacta a magnetē*). This is conclusive as to the author's acquaintance with the polarity of the needle; and the following passage from the same work—'as the nautical needle directs mariners in their navigation' (*sicut acus nautica dirigit marinarios in sua navigatione, &c.*) is no less conclusive as to its being used by sailors in regulating their course. There are no means of ascertaining the mode in which the needle Raymond Lully had in view was made use of. It has been sufficiently established (see the authorities already referred to, and Azuni, *Dissertation sur l'Origine de la Boussole*) that it was used to float the needle, by means of a straw, on the surface of a basin of water; and Capmany contends that we are indebted to Gioia for the card and the method now followed of suspending the needle—improvements which have given to the compass all its convenience, and a very large portion of its utility. But this part of his *Dissertation*, though equally learned and ingenious, is by no means so satisfactory as the other. It is difficult to conceive how mariners at sea could have availed themselves of a floating needle; but, however this may be, it seems most probable that Gioia had considerably improved the construction of the compass; and that, the Amalitanians having been the first to introduce it to general use, he was with excusable partiality, represented by them, and subsequently regarded by others, as its inventor.

The statements which have sometimes been put forward in regard to the antiquity of the Chinese compass have been treated with very little respect by some great authorities, and are much too questionable to warrant any stress being laid on them. (Capmany, p. 76 &c.) The learned Mr. Forster, who is any thing but inclined to underrate the obligations we are under to the Arabs, admits that they were ignorant of the compass. (*Machometanism Unveiled, &c.* ii. 223.) The Chinese have never been in the habit of making distant voyages; but had the needle been used in their trading vessels, the Indians, with whom they came in contact, would no doubt have eagerly availed themselves of so valuable an invention; and they would, in all probability, have communicated it to the Arabs; but there is no evidence to show that the compass was used by the Indians previously to the voyage of De Gama. (Azuni, *De la Boussole*, pp. 118—122.) And there are no good grounds for thinking that the Arabs had any knowledge of the instrument, or that it was ever used by them, till after the period when they might have learned it from the Venetians, the Amalitanians, and other European traders. The notion that we are indebted to them for the compass appears, indeed, to have little to recommend it, except that it began to become known when the Saracens became powerful in the Mediterranean. Still this is to weak a ground on which to found a claim. And though it be impossible to speak with perfect confidence on such a subject, the fair conclusion seems to be that the compass was a European invention; that it was discovered in the 12th or 13th century, and brought into use in some of the countries bordering on the Mediterranean.

The reader will not consider these details out of place in a work on commerce, which the compass has done so much to extend. 'Its discovery,' says the language of Mr. Macpherson, 'has

given birth to a new era in the history of commerce and navigation. The former it has extended to every shore of the globe, and increased and multiplied its operations and beneficial effects in a degree which was not conceivable by those who lived in the earlier ages. The latter it has rendered expeditious, and comparatively safe, by enabling the navigator to launch out upon the ocean free from the danger of rocks and shoals. By the use of this noble instrument the whole world has become one vast commercial commonwealth, the most distant inhabitants of the earth are brought together for their mutual advantage, ancient prejudices are obliterated, and mankind are civilised and enlightened.' (Vol. i. p. 366.)

COMPOSITION. In Commerce, commonly implies the divided or sum paid by an insolvent debtor to his creditors, and accepted by them in payment for their debts. [BANKRUPTCY; INSOLVENCY AND BANKRUPTCY.]

CONEY WOOL (Ger. kaninchenwolle; Dutch, konynhair; Fr. poil de lapin; Ital. pelo di coniglio; Span. conejuna). The fur of rabbits. This article is extensively used in the hat manufacture; and besides the large supplies raised at home, a great deal is imported. The imports in 1866 amounted to 34,715 lbs., valued at 14,754*l.* These are exclusive of 841,334 coney skins, furs, and pelts imported in the same year.

CONFECTIONERY (Lat. bellaria; Fr. bonbons; Ital. confittura; Span. confitura; Germ. confect). Sweetmeats. In 1866 we imported 1,135,681 lbs. of foreign confectionery, valued at 42,588*l.*, of which 231,019 lbs. were entered for home consumption, while we exported 1,850,992 lbs. of British and 956,109 lbs. of foreign confectionery; the whole being valued at 118,406*l.* Australia was our chief market. For an account of the confectionery of the ancients we refer the reader to Apicius; and as an authority on the sweetmeats of the old English we would cite Warner's *Antiquitates Culinarie*.

CONSTANTINOPLE (Turk. STAMBOL). A famous city of South-eastern Europe, formerly the metropolis of the Eastern, as it still is of the Turkish empire, on a triangular point of land, on the European side of the Sea of Marmara (Propontis), at the point where it unites with the Bosphorus, or channel leading to the Black Sea, lat. 41° 0' 12" N., long. 28° 59' 2" E. Population variously estimated at from 650,000 to 1,075,000, but believed, by the best authorities, to be about 750,000. The situation of this renowned city is, in a commercial point of view, one of the finest imaginable. Standing on the narrow straits uniting the Mediterranean and Euxine Seas, she at once commands, and is the entrepôt for, the commerce between them. The harbour is most excellent. It consists of an extensive inlet, or arm of the sea, stretching along the north-east side of the city, which it divides from the suburbs of Galata and Pera. It has sufficient depth of water to float the largest ships, and can accommodate more than 1,000 sail. The strong current that sets through the Bosphorus into the Sea of Marmara strikes against Seraglio Point (see plan); a part of the water, being in consequence forced into the harbour, runs along its south-western side in the direction marked by the arrows—(see plan), till, arriving at its extremity, it escapes by the opposite side. In the middle the water is still. On leaving the port, it is necessary to keep well over to the northern side; for otherwise the ship might be taken by the current, and driven on Seraglio Point. It may be worth while, however, to remark, that notwith-



from its situation and population. The imports consist of corn, timber, tallow, and furs, principally from the Black Sea; and of cotton stuffs and yarn, iron, coal, tin, tin plates, woollens, silks, cutlery, watches and jewellery, paper, glass, furniture, indigo, cochineal &c. from England and other European countries. Corn and coffee are imported from Alexandria; but considerable quantities of Brazil and West India coffee are also imported, particularly in British and American bottoms. Sugar is partly imported from the East, but principally from the West Indies. The exports consist of silk from Brussa, which is much the most important article, carpets, hides, wool, Angola goats' hair, yellow berries, copper, box-wood, opium, galls, leeches, specie, and a few other articles. But the exports are always very much less than the imports; and ships carrying goods to Constantinople either return in ballast, or get return cargoes at the ports on the Black Sea, or at Smyrna, Salonica &c., on which places they frequently procure bills at Constantinople. By far the largest proportion of the trade of this city, and of the Levant generally, is in the hands of Greek merchants, who by their superior skill, industry, and knowledge of those with whom they have to deal, have completely distanced their English, French, and other European competitors (denominated Franks). The Armenians only have been able to withstand the competition of the Greeks. Bargains are negotiated by Jew brokers, some of whom are rich.

If we formed an estimate of the trade of Constantinople from the number of vessels by which its port is visited, it would appear to be much greater than it really is. This arises from the circumstance of almost all the vessels passing from the Mediterranean to the Black Sea, and from the latter to the former, calling here, where they sometimes discharge and take on board part of their cargoes. We subjoin

An Account of the Number and Tonnage of the Foreign Ships that entered at, and cleared out from, Constantinople, in 1864, specifying the Countries to which they belonged, and the Number and Tonnage of those belonging to each.

Flags	Entered		Cleared	
	Ships	Tons	Ships	Tons
British	1,607	571,554	1,594	564,419
Lanian	211	40,163	251	41,646
American	9	5,911	8	5,568
Austrian	1,700	472,919	1,927	471,882
Belgian	27	9,137	27	9,137
Danish	2	815	2	815
Dutch	41	7,731	43	7,841
French	557	212,675	532	210,655
Greek	4,628	753,848	4,590	750,115
Hanseatic	32	5,565	53	5,515
Italian	7	1,514	6	1,334
Japanese	2	430	2	430
Russian	2,989	615,410	2,306	562,350
Saxony	208	51,365	259	51,269
Newgrain	189	53,586	189	53,586
Swedish	5	854	5	854
Olinburgh	94	1,892	84	1,882
Prussian	179	51,195	181	52,067
Rouman	727	238,577	741	232,395
Portuguese	2	528	2	528
Turkish	15,504	635,592	15,312	572,709
Molavian	160	15,220	159	15,152
Wallachian	4	484	5	821
Serbian	4	484	5	821
Samanian	244	14,878	257	16,043
Other countries				
Total	25,069	3,758,422	23,270	3,644,611

Steam Navigation. — Constantinople is now visited by steamers from London, Liverpool, Marseilles, Trieste, Odessa, the Danube, Smyrna, and other places, and its commerce, as well as that of the empire, has in consequence been materially promoted. The steamers belonging to the *Lloyd*

*Austriaco* at Trieste, and the Danube Steam Company, are said to reflect great credit on these associations.

*Commercial Policy of the Turks.*—It is singular that as respects commerce, the policy of the Turkish Government, whether originating in design or carelessness, is entit'ed to the highest praise. 'No restrictions,' says Mr. Thornton, 'are laid on commerce, except in the instance of a general prohibition of exporting the articles necessary for the support of human life to foreign countries, especially from the capital, where alone it is rigorously enforced; and this impolitic restraint will no doubt be removed when the Turkish Government shall become sensible that what is intended as the means of securing abundance is in fact the sole cause of that scarcity which is sometimes experienced. With this one exception, commerce is perfectly free and unfettered. Every article of foreign or domestic growth or manufacture is conveyed into every port, and over every province, without any interference on the part of the magistrates, after payment of the duties. On this subject I speak from actual experience, and may appeal to every foreign or native merchant in Turkey for its general truth.' (*Present State of Turkey*, vol. i. p. 82.)

The duties on importation are extremely moderate, being only 5 per cent., viz. 3 per cent. on goods when landed, and 2 per cent. on their being admitted to consumption. But the duties on exports of native produce amount to 12 per cent., whereof 9 per cent. is paid when the goods arrive at the port whence they are to be exported, and 3 per cent. on their being shipped. This 3 per cent. is not unfrequently represented as being the entire duty on exports. (*Ubcieni sur la Turquie*, i. 281.) It is needless to dwell on the impolicy of a general export duty of this amount; and the better plan would be to raise the duty on imports to 10 or 12 per cent., and to reduce the duty on exports to the 3 per cent. paid on embarkation. But despite the 12 per cent. charged on exports, Turkey is entitled, in all that relates to trade, to read a lesson to most European powers, and this she did in a very able manner, in an official paper published in the *Moniteur Ottoman*, in September 1832. We extract a few paragraphs from this interesting document.

'Good sense, tolerance, and hospitality have long ago done for the Ottoman empire what the other states of Europe are endeavouring to effect by more or less happy political combinations. Since the throne of the sultans has been elevated at Constantinople, commercial prohibitions have been unknown; they opened all the ports of their empire to the commerce, to the manufactures, to the territorial produce of the Occident, or to say better of the whole world. Liberty of commerce has reigned here without limits, as large, as extended as it was possible to be.

'Here every object of exchange is admitted, and circulates without meeting any obstacle other than the payment of an infinitely small portion of the value to the Custom-house. The chimera of a balance of trade never entered into heads sensible enough not to dream of calculating whether there was most profit in buying or selling. Thus the markets of Turkey, supplied from all countries, refusing no objects which mercantile spirit puts into circulation, and imposing no charge on the vessels that transport them, are seldom or never the scenes of those disordered movements occasioned by the sudden deficiency of such or such merchandise, which, exorbitantly raising prices, are the scourges of the lower orders, by unset-



In Account of the Quantities and Values of the principal Articles of British and Irish Produce and Manufacture exported from the United Kingdom to Turkey, ex Moldavia and Wallachia, in each of the 3 Years ending with 1866.

Principal and other Articles	Quantities			Declared Real Value		
	1864	1865	1866	1864	1865	1866
Apparel and haberdashery - value	—	—	—	£ 57,600	£ 66,115	£ 101,252
Coats, cutlers, and culms - tons	148,814	144,752	178,231	72,900	73,291	95,161
Eye, wrought and unwrought - cwts.	28,718	16,659	16,563	156,000	75,936	504,753
Cotton yarn - lbs.	5,515,733	6,865,393	5,585,075	637,435	577,559	609,011
Cottons, entered by the yard - yards	118,193,100	135,058,166	161,681,218	5,990,826	5,312,747	5,355,512
at value - value	—	—	—	16,013	13,127	27,030
Earthenware and porcelain - value	—	—	—	19,405	14,647	11,614
to manufactures - value	—	—	—	19,835	10,543	10,882
Hardware and cutlery, unenumerated - cwts.	15,115	8,917	8,009	54,870	39,310	51,592
Iron, wrought and unwrought - tons	159,425	159,086	14,419	119,269	139,125	124,762
Linen, entered by the yard - yards	1,877,084	2,318,598	1,613,953	64,536	81,861	66,423
at value - value	—	—	—	2,649	5,445	25,137
Machinery and millwork - value	—	—	—	46,599	96,084	35,611
Woods - value	—	—	—	29,948	2,370	206
Slight, refined - cwts.	280,507	20,268	1,540	1,808	11,351	2,864
Raw, unwrought - cwts.	5,327	3,869	5,086	98,332	18,951	16,036
at value - value	—	—	—	22,649	11,063	11,273
Woolens, entered by the yard - yards	2,850,525	2,128,482	2,106,991	202,927	156,659	135,159
at value - value	—	—	—	9,436	8,219	15,246
Other articles - value	—	—	—	195,183	259,704	128,749
Total	—	—	—	1,881,222	4,961,731	5,395,987

Account of the Quantities and Computed Values of the Principal Articles imported into the United Kingdom from Turkey, ex Moldavia and Wallachia, during each of the 5 Years ending with 1866.

Principal and other Articles	Quantities					Computed Real Value				
	1862	1863	1864	1865	1866	1862	1863	1864	1865	1866
Wool, yellow - cwts.	1,230	1,691	995	1,659	2,918	£ 2,595	£ 4,675	£ 3,404	£ 9,513	£ 16,080
Wool of animals and skins (except wethers) - tons	1,310	1,718	2,306	2,145	1,056	6,900	9,662	12,719	12,470	5,199
Beeswax - cwts.	3,203	3,698	5,879	6,040	3,966	32,436	38,006	59,689	44,253	27,210
Cam. shot - cwts.	1,142,105	277,218	355,353	286,142	387,252	56,832	124,322	111,066	165,826	199,104
Cam. shot - lbs.	9,266,532	4,081,164	981,690	2,022,638	1,108,395	325,200	746,058	304,314	554,729	389,459
Wheat (including corn) - cwts.	1,606,930	4,376,389	3,640,583	3,157,197	1,767,164	539,079	1,099,244	1,148,136	987,559	1,500,132
Other kinds of corn and grain - (Not computed.)	—	—	46,215	81,703	73,774	1,016	8,359	15,929	25,467	27,185
Cotton, raw - cwts.	27,70	12,180	19,150	32,466	7,108	16,787	112,373	191,280	161,081	42,513
Grain, small - bushels	3,936	19,091	6,628	12,455	19,509	2,271	8,471	5,280	6,740	10,033
Peas - cwts.	4,921	4,061	2,412	3	9,314	7,082	6,258	3,568	5	12,591
Fruit - cwts.	603	369	104	1,076	1,834	2,189	4,801	795	8,593	12,516
Wool, unmanufactured - cwts.	280	134	53	107	151	4,301	1,256	479	819	1,229
Wool, dragee - cwts.	1,309	4,816	1,415	2,541	673	2,600	11,577	5,122	8,352	1,591
Wool, dye - tons	490	132	271	—	125	27,155	7,260	15,131	—	6,531
Wool, or other of roses - lbs.	1,163	5,5	861	—	686	1,406	6,667	15,242	10,427	18,393
Wool, or other of roses - value	26,500	34,277	15,785	59,150	20,006	24,743	31,468	11,228	42,611	16,611
Wool and other material for making paper - tons	—	15	672	428	166	527	112	11,096	6,591	2,169
Wool, raw - lbs.	—	8,436	4,628	1,289	—	—	11,699	7,211	1,418	—
Wool, raw - value	—	5,505	2,501	1,048	1,835	2,167	5,576	4,411	1,540	3,795
Wool, raw and lincsed - cwts.	—	10	1,611	2,422	49	6,331	49	4,825	6,138	116
Wool, raw - value	—	18,598	307,188	—	189,070	26,315	6,806	9,130	—	45,923
Wool, raw - value	—	209,921	175,234	188,428	83,880	31,697	138,118	132,878	165,510	88,011
Wool, raw, or husks - cwts.	—	3,389	2,176	2,886	1,770	1,655	49,886	21,369	56,104	39,168
Wool, raw, undressed - cwts.	—	198,001	212,684	159,250	8,651	97,718	11,987	32,151	7,015	4,292
Wool, raw, undressed - value	—	112,510	176,294	174,657	124,035	237,550	11,251	17,629	12,919	9,732
Wool, unmanufactured - lbs.	—	935,112	1,152,004	1,085,718	1,218,351	4,296,614	25,799	32,530	29,650	28,054
Wool, unmanufactured - value	—	2,067,874	1,661,271	3,455,111	4,652,537	1,109,499	510,939	285,943	474,679	720,946
Wool, raw, or husks - value	—	2,154,028	3,516,295	4,116,258	3,286,499	1,724,078	93,312	136,771	190,900	132,221
Woolen yarn, torn up, to be used as wool - tons	—	104,608	151,781	1,260,224	418,896	606,141	1,744	2,863	27,651	9,072
Woolen yarn, torn up, to be used as wool - value	—	—	—	—	—	—	36,393	39,039	62,329	40,152
All other articles - value	—	—	—	—	—	—	2,161,852	2,842,758	2,961,273	3,149,600
Total	—	—	—	—	—	—	7,161,852	2,842,758	2,961,273	3,149,600

We extract from the Report of Mr. Secre- the Capital, the Annual Charge &c. of the Na-  
 tional Funded Debt of Turkey for the year  
 the following statement of the Component Parts, 1867-68 :-

Loan	Rate of Interest	Rate of Issue	Nominal Capital			Annual Charge		
			Inscribed	Redeemed	Un-redeemed	Interest	Amortiza- tion	Total
1851	Per cent.	80	£ 3,000,000	£ 395,100	£ 2,604,900	£ 157,034	£ 56,930	£ 210,004
1853	4	102 1/2	5,000,000	291,900	4,708,100	180,204	68,400	248,604
1855	6	85 in 69	5,000,000	419,600	4,580,400	270,312	79,700	350,012
1860	6	62 1/2	2,077,220	111,100	1,866,120	114,817	25,900	158,717
1862	6	68	8,000,000	612,300	7,387,700	451,280	205,700	656,980
1863	6	72	6,000,000	217,000	5,783,000	350,511	149,000	479,511
1864	6	68	2,000,000	86,500	1,913,500	111,710	50,500	161,710
1865	6	67	6,000,000	75,000	5,925,000	318,747	157,500	506,247
1866	5	50	56,363,630	—	56,363,630	1,787,270	315,434	2,072,704
General	—	—	75,300,850	2,110,100	69,112,750	5,079,258	1,137,104	4,807,342

But Mr. Barron states significantly in page Induce sheet of the Ottoman Treasury is an im-  
 to that to give anything like a trustworthy possibility.

*Regulations of the Port of Constantinople.*—1. Such ships as arrive and anchor at an improper place, on being advised by their respective harbour-masters to heave anchor, or loosen their cables, and proceed to another anchorage, will be bound to weigh, and move in the space of 3 hours.

2, 3, 4. Such as remain after the expiration of the allotted time will have to pay 1 gold medjidie for every day they remain, counting from the first.

5. The captains of such ships as require to throw a plank ladder on shore in order to discharge coals or anything else, or to receive a cargo from the shore, will bestow great care to see that such plank ladder is well fastened at both its ends, on board their ship as well as on shore.

6. Such captains as take their ships through the Bridge of Karakeny without procuring a Teskeré from the Liman Oglasy will have to pay the penalty of 10 gold medjidies.

7. As the authorities of the bridge will be present without fail whenever it opens for the purpose of admitting or letting out ships, such captains as do not exhibit to these authorities their Teskerés of admission or exit will have to pay the penalty of 1½ gold medjidies.

8. All steam tugs or steamers carrying passengers either into the Golden Horn or in the Bosphorus are forbidden to move from 1 hour after sunset up to ½ hour before sunrise.

9. Such as disregard this regulation will have to pay the penalty of 20 gold medjidies; and moreover, should they, whilst thus disregarding this regulation, damage any other ship, or a lighter, or boat, or anything else, they will have to give compensation for that damage according to its evaluation. In any case instituted for the recovery of damages done whilst running after hours, no plea of manœvre or rule will be admitted. The hour of the occurrence alone will be considered.

10. Ships bound for the Black Sea on coming to the Kavak of Anatoli will send their boat for the special purpose of exhibiting to the authorities their firman and lighthouse ticket. The ship will halt as long as is necessary; such captains as do not observe this rule will have to pay 3 gold medjidies as fine. Likewise all ships going through the Dardanelles will have to show their lighthouse ticket in the same way that they show their other papers. Such as do not will have to pay the above fine.

11. Such ships as arrive laden with gunpowder exceeding 15 oke, after having anchored at the place pointed out by the harbour-masters, will have to report to the Custom-house the quantity of gunpowder on board, and they will have to hoist on their foremast a red signal in order that they may be known. They will fly this signal until the discharge of the gunpowder or their departure for some other place. Such as do not observe this rule will have to pay 10 piastres for every oke of gunpowder they have on board, and suffer confiscation of their gunpowder. This rule will be observed in all ports.

*Quarantine.*—Vessels arriving in Turkish ports from foreign ports are bound to produce a bill of health from the authorities of the last port of departure. No consular bills of health are recognised. Any irregularity connected with bills of health is visited with a fine amounting to 10*l.* 16*s.* on steamers, and 9*l.* on sailing vessels.

Vessels bound to Constantinople must take pratique either at Tchanak-Kalassi (town of the Dardanelles) or at Gallipoli, and again on their

arrival at Constantinople or at Buyukdéré, Vessels proceeding from one Turkish port to another must be provided with a Turkish bill of health.

Vessels arriving from the Black Sea are bound to take pratique at Kavak or Buyukdéré under the same penalty as mentioned above.

The following is the quarantine tariff:—

#### 1. License Fees.

Ships	1 kilo. to	1,000	-	-	piastres	viza
1,001	"	3,000	-	-	2	3
3,001	"	5,000	-	-	6	5
5,001	"	7,000	-	-	12	8
7,001	"	10,000	-	-	16	8
10,001	"	12,000	-	-	20	10
above this amount	"	"	-	-	24	12

#### 2. Examination Fees.

	1 kilo. to	3,000	-	-	piastres
3,001	"	8,000	-	-	2
8,001	"	10,000	-	-	1½
10,001	"	and above	-	-	2½

#### 3. Fees from Ships in Quarantine.

	1 kilo. to	1,000	per day	-	-	-
1,001	"	3,000	"	-	-	8
3,001	"	5,000	"	-	-	10
5,001	"	7,000	"	-	-	15
7,001	"	10,000	"	-	-	20
10,001	"	12,000	"	-	-	25
above	"	"	"	-	-	35

#### 4. Fees from Travellers.

Each garde de santé, besides his food, per day	-	10
Lodging for disinfectants	-	40

#### 5. Disinfecting Goods.

Hales from 1 oke to 20, each	-	1
41 " 80 "	-	2
81 " 120 "	-	3
121 and upwards	-	4
Animals, large	"	2
small	"	1
poultry	"	90 pars
1 part	"	1 part

All ships arriving at Constantinople are liable to the 2nd of these charges. Captains of vessels are liable to the charges. All ships except of war, whether Turkish or foreign, are liable to the condition of quarantine, and the fees payable.

#### Harbour and other Dues at Constantinople.

Anchorage dues	-	-	pres.
Health office fee	-	-	10
Firman fee (if bound to Black Sea)	-	-	20
Kavak fee (if bound to Black Sea)	-	-	75
Turkish bill of health (if bound to a Turkish port):	-	-	25
For sailing vessels	-	-	10
For steamers	-	-	20
Light dues for vessels arriving from the Mediterranean and discharging or receiving cargo at Constantinople, and vice versa, per ton	-	-	1
Light dues for vessels bound from the Mediterranean to the Black Sea in ballast, and vice versa, per ton	-	-	1
Light dues for vessels bound from Constantinople to the Black Sea, and vice versa	-	-	0

The above light rates are applied to vessels under 800 tons burden; beyond that size ½ the above rates are charged.

These dues are levied both on entrance and clearance of a ship.

There are no pilotage regulations at Constantinople.

*Exchange.*—110 piastres = 1*l.*; 1 piastre = 2*d.* We are indebted for these particulars to private information, kindly afforded by Mr. Legie, Majesty's Consul-General, Constantinople.

*CONSUL.* In Commerce, an officer appointed by competent authority to reside in foreign countries, in the view of facilitating and extending commerce carried on between the subjects of the country which appoints him, and those of the country or place in which he is to reside.

*Origin and Appointment of Consuls.*—The office of consul appears to have originated in Spain about the middle of the 12th century. Since that time, the French and other Christian nations

trading to the liberty to appoint frequently by the ever the interest and determine commercial affairs practice was gradually, and in the established all over *Droit des Gens*, see Crown, upon the companies, or of the trade with a part they are now direct without requiring though it, of course, made.

The right of sending countries depends either in different states. In extensive jurisdiction state which appoints jurisdiction is not disputed cases, be regulated either between the state appointing the consul, or the British Government with other powers for its consuls. Turkey to this remark. English country several peculiar ancient treaties, and at the Dardanelles in 1840 and agreed upon—

'That if there happen any dispute, among the decision thereof shall be referred to the judge or other government settling therein.

'That if an Englishman that nation, shall be involved in any affair connected with the judge shall not hear the ambassador, consul, or present; and all suits excepters shall be heard at some other place.

'That the consuls appointed by their merchants, shall not be imprisoned, nor taken for themselves sent away; and in which they may be presented to our Sublime Majesty's ambassador will answer for them.

'That in case any Englishman, should happen to die in any city and other officers of its not being known to the consuls, interpose any opposition or seizing the effects of the deceased, they shall be obliged to leave them to the heirs, or if they have died intestate, then to the next of kin, or to the representative who may be there; there be no consul or consuls, they shall be registered by the delivering up the who shall be sent by the consuls.

'That the consuls appointed by their merchants, shall not be imprisoned, nor taken for themselves sent away; and in which they may be presented to our Sublime Majesty's ambassador will answer for them.

trading to the Levant began to stipulate for liberty to appoint consuls to reside in the ports frequented by their ships, that they might watch over the interests of their subjects, and judge and determine such differences with respect to commercial affairs as arose amongst them. The practice was gradually extended to other countries, and in the 16th century was generally established all over Europe. (Martens, *Précis du Droit des Gens*, sec. 147.)

British consuls were formerly appointed by the Crown, upon the recommendation of great trading companies, or of the merchants engaged in the trade with a particular country or place; but they are now directly appointed by Government, without requiring any such recommendation, though it, of course, is always attended to when made.

The right of sending consuls to reside in foreign countries depends either upon a tacit or express convention. Hence their powers differ very widely in different states. In some they exercise a very extensive jurisdiction over the subjects of the state which appoints them; but the extent of this jurisdiction is not discretionary, and must, in all cases, be regulated either by an express convention between the state appointing and the state requiring the consul, or by custom. Consuls established in England have no judicial power; and the British Government has rarely stipulated with other powers for much judicial authority for its consuls. Turkey, however, is an exception to this remark. English consuls enjoy in that country several peculiar privileges conferred by ancient treaties, and confirmed by that signed at the Dardanelles in 1809. It is there stipulated and agreed upon—

'That if there happen any suit, or other difference or dispute, among the English themselves, the decision thereof shall be left to their own ambassador or consul, according to their custom, without the judge or other governors, our slaves, intermeddling therein.

'That if an Englishman, or other subject of that nation, shall be involved in any lawsuit, or other affair connected with law (with a Turk), the judge shall not hear nor decide thereon until the ambassador, consul, or interpreter shall be present; and all suits exceeding the value of 4,000 aspers shall be heard at the Sublime Porte, and nowhere else.

'That the consuls appointed by the English ambassadors in our sacred dominions, for the protection of their merchants, shall never, under any pretence, be imprisoned, nor their houses sealed up, nor themselves sent away; but all suits or differences in which they may be involved shall be represented to our Sublime Porte, where their ambassador will answer for them.

'That in case any Englishman or other person subject to that nation, or navigating under its flag, should happen to die in our sacred dominions, our fiscal and other officers shall not, upon pretence of its not being known to whom the property belongs, interpose any opposition or violence, by taking or seizing the effects that may be found at his death, but they shall be delivered up to such Englishman, whoever he may be, to whom the deceased may have left them by his will; and should he have died intestate, then the property shall be delivered up to the English consul, or his representative who may be then present; and in case there be no consul or consular representative, they shall be registered by the judge, in order to be delivered up the whole thereof whenever any ship shall be sent by the ambassador to receive them.'

Conformably to these capitulations, and the by-laws of the Levant Company, Nos. 39, 40, and 41, the consuls were authorised to administer justice in all cases of contention amongst British subjects within the Turkish dominions; and they were further authorised to send to England, in safe custody, any British subject resident in Turkey who should decline their jurisdiction, or appeal from them to the courts of the Grand Signior or of any other potentate. And the Act 6 Geo. IV. c. 33 s. 4 (slightly modified by the 6 & 7 Vict. c. 94), for the abolition of the Levant Company, expressly provides for the continuance to the consuls appointed by his Majesty of the same rights and duties of jurisdiction over British subjects in Turkey that were enjoyed by the consuls appointed by the company.

At present, therefore, consuls in Turkey enjoy extensive judicial powers; but owing to the freedom of Turkish commerce, and the simplicity of the regulations under which it is carried on, their other functions, with the exception of furnishing statistical details, are not very onerous. Mr. Urquhart, whose opinion as to all that respects Turkey is deservedly of considerable weight, seems to think that the judicial powers enjoyed by the European consuls in that country have been productive of much mischief. Still, however, we doubt whether they could be entirely dispensed with in a country so peculiarly situated. But there can be no doubt that it is highly necessary that the greatest care should be taken in the selection of the individuals to whom such powers are intrusted.

Other States have occasionally given to consuls similar powers to those conceded to them in Turkey. Thus, in the treaty between Sweden and the United States of America, ratified July 24, 1818, it is stipulated that the consuls appointed by either Government to reside within the dominions of the other, or their substitutes, 'shall, as such, have the right of acting as judges or arbiters in all cases of differences which may arise between the captains and crews of the vessels of the nation whose affairs are intrusted to their care. The respective Governments shall have no right to interfere in these sorts of affairs, except in the case of the conduct of the crews disturbing public order and tranquillity, in the country in which the vessel may happen to be, or in which the consul of the place may be obliged to call for the intervention and support of the executive power in order to cause his decision to be respected; it being, however, well understood that this sort of judgment or arbitration cannot deprive the contending parties of their rights of appealing on their return to the judicial authorities of their country.'

*Duties of Consuls.*—The duties of a consul, even in the confined sense in which they are commonly understood, are important and multifarious. It is his business to be always on the spot, to watch over the commercial interests of the subjects of the state whose servant he is; to be ready to assist them with advice on all doubtful occasions; to see that the conditions in commercial treaties are properly observed; that those he is appointed to protect are subjected to no unnecessary or unjustifiable demands in conducting their business; to represent their grievances to the authorities at the place where they reside, or to the ambassador of the sovereign appointing him at the court on which the consulship depends, or to the Government at home; in a word, to exert himself to render the condition of the subjects of the country employing him, within the limits of his consulship, as comfortable, and their transactions as advantageous and secure, as possible.

The following more detailed exposition of the general duties of a British consul is taken from Mr. Chitty's work *On Commercial Law*—

'A British consul, in order to be properly qualified for his employment, should take care to make himself master of the language used by the court and the magistracy of the country where he resides, so as to converse with ease upon subjects relating to his duties. If the common people of the port use another, he must acquire that also, that he may be able to settle little differences without troubling the magistracy of the place for the interposition of their authority; such as accidents happening in the harbour by the ships of his nation running foul of and doing damage to each other.

'He is to make himself acquainted, if he be not already, with the law of nations and treaties, with the tariff or specification of duties on articles imported or exported, and with all the municipal ordinances and laws.

'It is also his duty to protect from insult or imposition British subjects of every description within his jurisdiction. If redress for injury suffered is not obtained, he is to carry his complaint by memorial to the British minister residing at the court on which the consularship depends. If there be none, he is to address himself directly to the court; and he is, in an important case, his complaint be not answered, he is to transmit the memorial to his Majesty's secretary of state. (Beawes, *Warden*, &c.)

'When insult or outrage is offered by a British subject to a native of the place, and the magistrate thereof complains to the consul, he should summon and in case of disobedience may by armed force and in case of disobedience may by armed force and order him to bring before him the offender, and order him to give immediate satisfaction; and if he refuse, he resigns him to the civil jurisdiction of the magistrate, or to the military law of the garrison; nevertheless always acting as *counsellor or advocate at his trial*, when there is question of life or property.

'But if a British subject be accused of an offence alleged to have been committed at sea, within the dominion or jurisdiction of his sovereign, it is then the duty of the consul to claim cognisance of the cause for his sovereign, and to require the release of the parties, if detained in prison by the magistracy of the place on any such accusation brought before them, and that all judicial proceedings against them do instantly cease; and he may demand the aid of the power of the country, civil and military, to enable him to secure and put the accused parties on board such British ship as he shall think fit, that they may be conveyed to Great Britain, to be tried by their proper judges. If, contrary to this requisition, the magistrates of the country persist in proceeding to try the offence, the consul should then draw up and transmit a memorial to the British minister at the court of that country; and if that court give an evasive answer, the consul should, if it be a sea offence, apply to the Board of Admiralty at London, stating the case; and upon their representation the matter before the king, who will cause the ambassador of the foreign state, resident in England, to write to his court abroad, desiring that orders may immediately be given by that Government that all judicial proceedings against the prisoner be stayed, and that he be released. (Case of *Horseman and his Crew*, Beawes, vol. ii. p. 422.)

'It is the duty also of a British consul to relieve all distressed British mariners, to allow them the daily for their support, to send them home in the first British vessels that sail for England, and to

keep a regular account of his disbursements, which he is to transmit yearly, or oftener if required, to the Navy Office, attested by two British merchants of the place: this is provided for by positive enactment. (1 Geo. II. s. 2, c. 11 s. 12.) He is also to give free passes to all poor British subjects wishing to return home, directed to the captains of the king's packet boats or ships of war, requiring them to take them on board.

[SEAMEN.]

'The consul is not to permit a British merchant ship to leave the port where he resides without his passport, which he is not to grant until the master and crew thereof have satisfied all just demands upon them; and for this purpose he ought to see the governor's pass of a garrisoned town, or the burgomaster's; unless the merchant or factor to whom the ship was consigned will make himself responsible. (Beawes, *Lee Merc.* vol. ii. p. 423.)

'It is also his duty to claim and recover all wrecks, cables, and anchors, belonging to British ships, found at sea by fishermen or other persons, to pay the usual salvage, and to communicate a report thereof to the Navy Board.

'The consuls and vice consuls of his Majesty are, by express enactment (46 Geo. III. c. 39 s. 9) empowered to administer oaths in all cases respecting quarantine, in like manner as if they were magistrates of the several towns or places where they respectively reside. It is also laid down that a consul is to attend, if requested, all arbitrations where property is concerned between masters of British ships and the freighters, being inhabitants of the place where he resides.' (Chitty *On Commercial Law*, vol. i. pp. 58-61, and the numerous authorities there quoted.)

Any individual, whether he be a subject of the state by which he is appointed or of another, may be selected to fill the office of consul, provided he be approved and admitted by the Government in whose territory he is to reside. In most instances, but not always, consuls are the subjects of the state appointing them.

Much, however, of the peculiar duties of a consul must always depend on the nature of the intercourse with the country to which he is sent, and of the instructions given him. British consuls are regularly supplied with copies of all Acts relating to trade and navigation, quarantine, slave trade suppression, emigration, &c., and with the treaties between this and other countries, and must of course shape their conduct accordingly. They are strictly forbidden from corresponding with private parties on public matters. We subjoin an extract from the *General Instructions for British*

*Consuls* :—

'He will bear in mind that it is his principal duty to protect and promote the lawful trade and trading interests of Great Britain by every fair and proper means, taking care to conform to the laws and regulations in question; and whilst he is supporting the lawful trade of Great Britain, he will take special notice of all prohibitions with respect to the export or import of specified articles, as well on the part of the state in which he resides as of the Government of Great Britain, so that he may caution all British subjects against carrying on an illicit commerce to the detriment of the revenue, and in violation of the laws and regulations, of either country; and he will not fail to give to this department immediate notice of any attempt to contravene those laws and regulations.

'The consul will give his best advice and assistance, when called upon, to his Majesty's trading subjects, quieting their differences, promoting peace, harmony, and good-will amongst them, and

conciliating as much as possible the two countries upon which may fall under the event of any attempt being made, either in their right or wrong, to uphold their rights, or to secure to them by the same time, be careful in the proper office of mildness and moderation with the public authorities, and to urge claims, or to defend, if redress cannot be obtained, or if it be not within their jurisdiction, to his Majesty's minister, if the country wherein he resides may make a representative claim, or take such other steps as may be thought proper; and the consul is to be governed by the instructions written by the minister or consul-general.

*Emoluments of Consuls.*

The emoluments of these few years, principal fees, depending on the voyages &c. of the British vessels; out of the limits of the mode of remuneration, as changed by the Act of 1802, but the deficit, at least, compensated by Government.

At present British consuls are permitted to exercise other duties which are interdicted to do with it. The principle of distinction made does not seem to be in the least at the great ports, and ports, principally in the agents, from trading; and sufficient wholly to engage their attention as of such a kind as would be sufficient for those employed in mercantile pursuits; in the class of ports, but little frequent, and where the consuls have functions to discharge, the necessity for prohibiting trade on their own account, however, we are clearly of opinion in all cases be better not to engage, either directly or indirectly, in any industrial undertaking, the purpose of their institution is to interfere with the nation in the furtherance of such objects, on occasions to communicate information in their power, matters, not only to the Government, but to such of its subjects as their advice and assistance, and advantageous publicity may be necessary ways be extremely of the consul considered important; and when his public duty are set in opposition to discover which way. Hence the fair practice of a consul will rather be peculiar information his

conciliating as much as possible the subjects of the two countries upon all points of difference which may fall under his cognisance. In the event of any attempt being made to injure British subjects, either in their persons or property, he will uphold their rightful interests, and the privileges secured to them by treaty, by due representation in the proper official quarter. He will, at the same time, be careful to conduct himself with mildness and moderation in all his transactions with the public authorities, and he will not upon any account urge claims, on behalf of his Majesty's subjects, to which they are not justly and fairly entitled. If redress cannot be obtained from the local administration, or if the matter of complaint be not within their jurisdiction, the consul will apply to his Majesty's consul-general, or to his Majesty's minister, if there be no consul-general in the country wherein he resides, in order that he may make a representation to the higher authorities or take such other steps in the case as he may think proper; and the consul will pay strict attention to the instructions which he may receive from the minister or consul-general.

*Emoluments of Consuls. Prohibition of Trading.*—The emoluments of our consuls were, until these few years, principally derived from certain fees, depending on the tonnage, length of the voyages &c. of the British ships entering and clearing out of the limits of their consulships. But this mode of remunerating them was materially changed by the Act of 6 Geo. IV. c. 87. The fees payable under this Act (see *post*) are inconsiderable; but the deficiency has been, partly at least, compensated by salaries allowed by Government.

At present British consuls are in some instances permitted to carry on trade, while in others they are interdicted from having anything to do with it. The principle on which the distinctions made does not seem very obvious. But if this distinction must be kept up, the preferable plan would seem to be to interdict all consuls resident at the great ports, and those resident at other ports, principally in the character of political agents, from trading; and to permit it to others. The public duties of the former are either quite sufficient wholly to engross their attention, or they are of such a kind as would make it very inexpedient for those employed in them to be occupied in mercantile pursuits; in the case of the smaller class of ports, but little frequented by British ships, and where the consuls have no peculiar political functions to discharge, there is a less urgent necessity for prohibiting them from carrying on business on their own account. At the same time, however, we are clearly of opinion that it would in all cases be better not to allow consuls to engage, either directly or indirectly, in any sort of industrious undertaking. The main end and purpose of their institution is the facilitating of commerce with the nation in which they reside; and the furtherance of such object they ought on all occasions to communicate the fullest and earliest information in their power touching commercial matters, not only to the Government that appoints them, but to such of its subjects as may apply for their advice and assistance. But, however advantageous publicity may be to others, it may in various ways be extremely hostile to the interests of the consul considered in his capacity of a merchant; and when his own advantage and his public duty are set in opposition, it requires little sagacity to discover which will have the ascendancy. Hence the fair presumption is, that a trading consul will rather endeavour to profit by the peculiar information his situation may enable

him to obtain than to communicate it to others. His interests as a merchant must frequently also, even when such is not really the case, appear to be in opposition to those of the parties for whose benefit he is said to be appointed; and under such circumstances his proceedings, however fair, will always be liable to the suspicion of partiality. It is material also to observe that mercantile consuls labour under peculiar disadvantages in the obtaining of information. If a consul, not engaged in business, make a proper application to a public functionary or merchant for information as to any subject with which they may be acquainted, he will, in most instances, learn all that they know; but it is obvious on general principles, and we have been assured of the fact by some of the most intelligent officers of the class, that if a trading consul make the same application, the chances are 10 to 1 he will either learn nothing, or nothing that is not false or misleading. The enquiries of the former excite no jealousy, those of the latter invariably do. The former is known to be actuated only by a feeling of liberal curiosity, or by a wish properly to discharge his public duties; but the latter, being engaged in business, gets credit only for selfish and interested motives, and is believed to be seeking the information merely that he may turn it to his own account. A mercantile consul is, therefore, uniformly the object of the suspicions of all parties, both of his countrymen and of the foreigners amongst whom he resides. Instead of being, as he ought to be, an independent public functionary, he necessarily gets entangled in the cabals and intrigues of those whose differences it is his province to conciliate. He is tempted also to engage in smuggling adventures, contrary to his duty, and highly injurious to the character of his nation. And though he should be proof against temptations of this sort, he is, like all other individuals, subject to misfortune and bankruptcy; and may, in this way, bring discredit and embarrassment on the Government that appoints him. These reasons seem to be far more than sufficient to vindicate the policy of interdicting consuls from trading. But were it otherwise, it is enough to decide the question to state, that if they be made properly to perform the functions of their office, it will occupy every moment of their time. To the argument in favour of the existing system derived from economical considerations we do not attach the smallest weight. To attempt to save a few thousand pounds by allowing an important class of public functionaries to engage in avocations inconsistent with their duty, and destructive of their utility, would be something the very reverse of economy.

*Cost of the Establishment. Improvements made in it.*—We had occasion, in the former edition of this work, to complain of the cost and inadequacy of our consular establishment. But its expense has since been very much, and, in some instances perhaps, too much, reduced; at the same time that measure have been taken for increasing the duties of the consuls by making them furnish details as to the trade, manufactures, duties, prices &c. of the districts in which their consulships are situated. Hitherto this important department of what ought to be the peculiar duty of a consul has been most strangely neglected; but if it be properly attended to, it will occupy a large portion of the consul's time, and will be a field for the display of superior talents. Some of the answers made by the consuls to the *Circular Queries* prepared for the former edition of this work were drawn up with great care and intelligence, and reflected much credit on their

authors. There were a good many certainly of a very inferior description; but this is not to be wondered at—it being hardly possible for those who have not given a good deal of their time to such subjects, to make a proper reply to queries relating to them. And if the system is to be perfected to the degree of which it is susceptible, the salaries allowed to the consuls ought to be such as to afford a sufficient remuneration for the services of gentlemen of character, familiar with the principles of public law, commerce, and statistics; and such only ought to be nominated to consular situations. We subjoin that part of the *General Instructions for the Consuls* that has reference to statistical enquiries:—

‘The consul will forward to the Secretary of State, in duplicate, so soon as the information he can collect will enable him so to do, but at any rate within a period of 6 months from the date of his arrival at his residence, a general report on the commerce of the place and district, specifying the commodities, as well of the export as import trade, and the countries which supply the latter, together with the increase or decline in late years, and the probable increase or decline to be expected, and the causes in both cases. He will state the general regulations with respect to trade at the place where he is resident, and their effects. He will give the average market prices within the year of the several articles of export and import; he will particularise what articles, if any, are absolutely prohibited to be imported into the country wherein he resides; what articles are prohibited to be imported from any other place than from the place of their growth or production; whether there be any privileges of importation, and what those privileges are, in favour of ships and that are of the build of, or belonging to, the country wherein he resides; whether there be any difference in the duty on goods when imported into that country in a foreign ship, and if so, whether it be general, or applicable only to particular articles; what are the rates of duty payable on goods imported into the said country; whether there be any tonnage duty or other port dues, and what payable on shipping entering at, or clearing from, the ports of that country; whether there be any (and, if so, what) ports in that country wherein goods may be warehoused on importation, and afterwards exported with or without payment of any duties, and under what regulations.’

He is also to transmit an annual statement of the trade with the principal ports of his consularship, and quarterly returns of the prices of corn &c. Mr. Macgregor's Tariffs have been mostly compiled from these returns.

The following are the provisions of the Act 6 Geo. IV. c. 87 (modified by 4 & 5 Wm. IV. c. 24) with respect to the salaries and charges of consuls:—

**Salaries to Consuls.**—‘Whereas the provision which hath hitherto been made for the maintenance and support of the consuls general and consuls appointed by his Majesty to reside within the dominions of sovereigns and foreign States in amity with his Majesty is inadequate to the maintenance and support of such consuls general and consuls, and it is expedient to make further and due provisions for that purpose; it is therefore enacted, that it shall be lawful for his Majesty, by any orders to be issued by his Majesty's privy council, to grant to all or any of his consuls general or consuls appointed by his Majesty to reside within any of the dominions of any sovereign or foreign state or power in amity with his Majesty, such reasonable salaries as to his Majesty shall seem meet, and by such advice

from time to time to alter, increase, or diminish any such salaries or salary as occasion may require. (6 Geo. IV. c. 87 s. 1.)

**Terms on which Salaries shall be granted. Leave of Absence.**—Such salaries shall be issued and paid to such consuls general and consuls without fee or deduction; provided that all such salaries shall be granted during his Majesty's pleasure, and not otherwise, and be held and enjoyed by such consuls general and consuls so long only as they shall be actually resident at the places at which they may be so appointed to reside, and discharging the duties of such their offices: provided nevertheless, that in case his Majesty shall, by any order to be for that purpose issued through one of his principal Secretaries of State, grant to any such consul general or consul leave of absence from the place to which he may be so appointed, such consul general or consul shall be entitled to receive the whole, or such part as to his Majesty shall seem meet, of the salary accruing during such period of absence. (Sec. 2.)

**Salaries in lieu of Fees formerly paid. Consuls not to take other than the Fees hereinafter mentioned.**

—The salaries so to be granted shall be taken by the consuls general and consuls as a compensation for all salaries heretofore granted, and all fees of office and gratuities heretofore taken by them from the masters or commanders of British vessels, or from any other person, for any duties or services by such consuls general or consuls done or performed for any such persons; and no such consul general or consul shall from January 1, 1826, be entitled, on account of anything by them done in the execution of such their office, or for any service by them rendered to any masters or commanders of British vessels, or to any other person in the execution of such their office, to ask or take any fees, recompense, gratuity, compensation, or reward, or any sum of money, save as hereinafter is excepted. (Sec. 3.)

**Certain Fees still allowed to be taken.**—It shall be lawful for all consuls general and consuls appointed by his Majesty, and resident within the dominions of any sovereign, or any foreign state in amity with his Majesty, to accept of the several fees particularly mentioned in the tables to this present Act annexed, marked with the letters A and B, for the several things and official duties and deeds particularly mentioned in the said schedules; and it shall be lawful for his Majesty, by any orders to be by him made by the advice of his Majesty's privy council, from time to time as occasion may require, to diminish or wholly to abolish all or any of the fees aforesaid, and to establish and authorise the payment of any greater or smaller or new or additional fees for the several things mentioned in the said schedules, or for any other thing to be done by any such consul general or consul done in the execution of such his office. (Sec. 4.)

**Penalty on Consuls demanding more Fees than specified in the Schedule.**—In case any consul general or consul appointed by his Majesty aforesaid shall, by himself or deputy, or by any person authorised thereto in his behalf, ask or accept, for anything by him done in the execution of such his office, or for any service or duty by him rendered or performed in such his office, for any remuneration than is specified in the schedule, more than shall be sanctioned and specified in or by such order in council, the person so offending shall be liable to pay to his Majesty's privy council the sum of sterling British money, not exceeding the amount of the salary of such person for 1 year, less than the 12th part of such annual salary, as the discretion of the court in which such person

may be recovered; and no person shall be liable to any conviction for any offence under this Act, or for ever answering his Majesty in the court. (Sec. 5.)

**Table of Fees to be exacted.**—A printed copy of the schedule to this Act, or which may be made in pursuance of any order to be made in pursuance of this Act, his Majesty in council, shall be deposited in the Custom-houses in the several ports, harbours, and inland navigation of the United Kingdom and Ireland; and printed copies of the same shall be deposited in the Custom-houses in all such ports and harbours, and in the offices of the collector or other chief officers of the Customs in all such ports and harbours, and in the offices of the master of any vessel clearing out of port or harbour, and demurrage. (Sec. 6.)

**Table of Fees to be exacted.**

—A copy of the schedule to this Act annexed, or which may be made in pursuance of any order to be made in pursuance of this Act, his Majesty in council, shall be deposited in the Custom-houses in the several ports, harbours, and inland navigation of the United Kingdom and Ireland; and printed copies of the same shall be deposited in the Custom-houses in all such ports and harbours, and in the offices of the collector or other chief officers of the Customs in all such ports and harbours, and in the offices of the master of any vessel clearing out of port or harbour, and demurrage. (Sec. 6.)

**Superannuation.**—‘And whereas it is expedient that his Majesty should be enabled to grant to any consul general and consul appointed by his Majesty, and resident within the dominions of any sovereign, or any foreign state in amity with his Majesty, a pension or gratuity, or other allowance, in consideration of his services, it is enacted, that all such consuls general and consuls, who shall have served in the said offices for a period of not less than 12 years, shall be entitled to such pension or gratuity, or other allowance, as the discretion of his Majesty shall see fit to award. (Sec. 7.)’

**Superannuation Act of 4 & 5 Wm. IV. c. 24.**—‘And whereas it is expedient that his Majesty should be enabled to grant to any consul general and consul appointed by his Majesty, and resident within the dominions of any sovereign, or any foreign state in amity with his Majesty, a pension or gratuity, or other allowance, in consideration of his services, it is enacted, that all such consuls general and consuls, who shall have served in the said offices for a period of not less than 10 years next preceding the commencement of any such war, shall be entitled to such pension or gratuity, or other allowance, as the discretion of his Majesty shall see fit to award. (Sec. 8.)’

**Superannuation Act of 3 Geo. IV. c. 101.**—‘And whereas it is expedient that his Majesty should be enabled to grant to any consul general and consul appointed by his Majesty, and resident within the dominions of any sovereign, or any foreign state in amity with his Majesty, a pension or gratuity, or other allowance, in consideration of his services, it is enacted, that all such consuls general and consuls, who shall have served in the said offices for a period of not less than 15 years, shall be entitled to such pension or gratuity, or other allowance, as the discretion of his Majesty shall see fit to award. (Sec. 9.)’

may be recovered; and shall moreover upon a second conviction for any such offence forfeit such his office, and for ever become incapable of serving his Majesty in the same or the like capacity. (Sec. 5.)

**Table of Fees to be exhibited at Custom-houses.**  
—A printed copy of the table of fees allowed by this Act, or which may be sanctioned or allowed by any order to be made in pursuance of this Act by his Majesty in council, shall be exhibited in a conspicuous manner, for the inspection of all persons, in the Custom-house in the port of London, and in all other Custom-houses in the several ports and harbours of the United Kingdom of Great Britain and Ireland; and printed copies thereof shall, by the collector or other chief officer of customs in all such ports and harbours, be delivered gratuitously, and without fee or reward, to every master of any vessel clearing out of any such port or harbour, and demanding a copy thereof. (Sec. 6.)

**Table of Fees to be exhibited at Consuls' Offices.**  
—A copy of the schedule or table of fees to this present Act annexed, or which may be established and authorised by any such order in council, shall be hung up and exhibited in a conspicuous place in the public offices of all consuls general or consuls appointed by his Majesty, in the foreign places to which they may be so appointed, for the inspection of all persons interested therein; and any consul general or consul omitting or neglecting to exhibit any such copy of the schedules in such his public office, or refusing to permit the same to be inspected by any person interested therein, shall for every such offence forfeit and pay a sum of British sterling money not exceeding one half the amount of the salary of such person for 1 year, or less than the 12th part of such annual salary, at the discretion of the court in which such penalty may be recovered. (Sec. 7.)

**Superannuation.**—And whereas it is expedient that his Majesty should be enabled to grant to the said consuls general and consuls, appointed as aforesaid, allowances in the nature of superannuation or reward for meritorious public services; it is further enacted, that all the regulations contained in 39 Geo. III. c. 117, 3 Geo. IV. c. 113, 6 Geo. IV. c. 104, respecting superannuation allowances, are hereby extended to the said consuls general and consuls, so far as such regulations can be applied to the cases of such several persons respectively, as fully to all intents and purposes as if the same were repeated and enacted in this present Act. (Sec. 8.) This is modified by the superannuation Act of 4 & 5 Wm. IV. c. 21.

**Allowances during War.**—If it shall at any time happen that by reason of any war which may hereafter arise between his Majesty and any sovereign, or foreign state or power, within the dominions of whom any such consul general or consul shall be appointed to reside, he shall be prevented from residing, and shall in fact cease to reside, at the place to which he may be so appointed, it shall be lawful for his Majesty, by any order to be issued by the advice of his privy council, to grant to any such consul general or consul, who may have served his Majesty in that capacity for any period not less than 3 years, nor more than 10 years next preceding the commencement of any such war, a special allowance not exceeding the proportion of their respective salaries to which such consuls general and consuls should be entitled under the provisions of the said Act of 3 Geo. IV. in case the period of their respective service had exceeded 10 years and had not exceeded 15 years: provided that in case any such consul general or consul shall have served

in such his office for the space of 10 years and more, it shall be lawful for his Majesty, by any such order in council as aforesaid, to grant to him such a proportion of his salary, which by the said Act is authorised to be granted, as a superannuation allowance, according to the several periods of service exceeding 10 years, in the said Act. (6 Geo. IV. c. 87 s. 9.)

**Tables of Fees allowed to be taken by Consuls General and Consuls, substituted by Orders in Council of May 1, 1855, and July 27, 1863, for those appended to the Act of 6 Geo. IV. c. 87.**

**PART I.**

**Fees to be taken in respect of matters in which the Consul's interposition is required by Law.**

	£	s.	d.
For every declaration made before the consul in Forms B, C, F, G, H, and I, in the Schedule to the Merchant Shipping Act 1851, with a view to the registry, transfers, and transmission of ships, interests in ships, or mortgages on ships	0	5	0
For endorsing a memorandum of change of master upon the certificate of registry	0	3	0
For granting a provisional certificate of registry (this fee to be exclusive of fees on declarations)	0	10	0
For recording a mortgage of a ship or shares in a ship made under a certificate of mortgage	0	10	0
For recording the transfer of a mortgage of a ship or shares in a ship made under a certificate of mortgage	0	7	0
For recording the discharge of a mortgage of a ship or shares in a ship made under a certificate of mortgage	0	7	6
For every sale of a ship or shares in a ship made before the consul under a certificate of sale	0	10	0
For inspection of the register book of transactions in ships	0	1	0
For every seaman engaged before the consul	0	2	0
For every alteration in agreements with seamen made before the consul	0	2	0
For every seaman discharged or left behind with the consul's sanction	0	2	0
For every desertion certified by the consul	0	2	0
For attesting a seaman's will	0	2	0
For examination of provisions or water, to be paid by the party who proves to be in default	0	10	0
For every salvage bond made in pursuance of 17 & 18 Vict. c. 101, sec. 18, to be paid by the master or owner of the property saved	2	0	0
On disbursements in respect of distressed seamen, a commission of			24 per cent.

**PART II.**

**Fees to be taken in respect of matters in which the Consul's interposition is to be given only when required by the parties interested.**

	£	s.	d.
For noting a protest with certified copy if required	0	5	0
For order of survey	0	5	0
For extending a protest or survey	1	0	0
And if it exceeds 200 words, for every additional 100 words	0	2	6
For preparing and attesting bottomry or arbitration bond	1	0	0
For attesting bottomry or arbitration bond not prepared by consul	0	5	0
For attendance out of consular office at a shipwreck, or for the purpose of assisting a ship in distress, or of saving wrecked goods or property, over and above travelling expenses, per diem	1	1	0
For attending valuation of goods if under 200 <i>l.</i> in value	0	10	6
For attending valuation of goods if 200 <i>l.</i> and upwards in value, for every day's attendance during which the valuation continues	1	1	0
For attending sale of goods if the purchase money is under 200 <i>l.</i>	1	1	0
For attending the sale of goods if the purchase money is 200 <i>l.</i> or upwards, for every day during which the sale continues	2	2	0
Certificate of due landing of goods exported from the United Kingdom	0	9	0
Bill of health	0	10	0
Visé of passport	0	2	0
Obtainment of bill of a British subject not being a seaman	1	1	0
Management of property of a British subject not being a seaman dying intestate, a commission of			24 per cent.
Registration of documents or other matters	0	2	6
And if exceeding 100 words, for every additional 100 words	0	0	6
For every certified copy of a document not before mentioned	0	2	6
And if it exceeds 100 words, for every additional 100 words	0	0	6
For administering an oath or declaration, including attestation of signature if required	0	2	0
For attesting a signature	0	2	0
For annexing the seal of office and signature to any document not mentioned in or otherwise provided for by this table	0	5	0

**Note 1.**—No fee is to be taken for the custody of or enforcement on ships' articles and papers deposited with the consul in pursuance of the Merchant Shipping Act 1851, sec. 373.

**Note 2.**—Where any fee is fixed by the foregoing tables for any particular act or transaction, no additional fee is to be demanded for signature, attestation, or annexing seal of office.

**Note 3.**—The above fees, if not paid in English money, are to be calculated at the current rate of exchange.  
\* Abolished, so far as regards the Ottoman dominions, by Order in Council of July 27, 1863, and the following fees substituted in lieu thereof:—In respect of every British ship on each occasion of her entering or clearing at any port in the Ottoman dominions, viz. on her entry inwards 5*s.*, and on her clearance outwards (including a bill of health if required) 5*s.*



of each, which is pretty distinct to a practised eye, the solubility in alcohol furnishes a useful test—the animé being readily soluble in this fluid, while the copal is hardly affected by it; copal is also brittle between the teeth, whereas animé softens in the mouth. (Rees's *Cyclopaedia*; Ure's *Dictionary*; &c.)

Gum copal is dug from the earth on the coast of Africa, a few miles inland, opposite the island of Zanzibar; an inferior sort is also found on the island. The supply is supposed to be inexhaustible, and the production only limited by the indolence of the negroes, who will merely dig up enough to supply their daily wants. It is purchased from the diggers by the Indian Banians residing on the coast. Colonel Pelly in his *Report on Mascat* for 1860, published in 1863, states the export from Zanzibar to amount to 875,875 lbs., valued at 37,166*l*. It is usually sold by the *harachah*, equal to about 55 lbs. avoirdupois. That dug during the dry season is inferior to that obtained in the wet.

In 1866 the imports of gum copal were 12,911 cwt., valued at 37,250*l*. The chief sources are the Philippine Islands, Sierra Leone, the Straits Settlements, and Portugal. The average price of copal from the Philippines is only 1*l*. 12*s*. 7*d*. per cwt.; that from other sources is about 3*l*. 10*s*. The best comes from Bombay, and is worth 5*l*. the cwt.

**COPENHAGEN.** The capital of Denmark, on the E. coast of the island of Zealand, in the channel of the Baltic called the Sound; lat. 55° 41' 31" N, long. 12° 35' 46" E. Population, according to census of 1860, 155,143; estimated in 1866 at 165,000. It is a well-built, handsome city. In going into Copenhagen, the course is between the bay on the Stubbén Bank to the left, and the bay on the Middle-grounds, and those in advance of the three Crowns batteries on the right, W.S.W. by compass. From the three Crowns to the rolets the course is S.S.W. The water in the channel is from 6 to 4 fathoms deep; but it is narrow, and the navigation rather difficult. There is no obligation to take a pilot on board; but if a vessel wish for one, she may leave to abreast of the battery, when he will come to her. Vessels not intending to come into harbour bring up in the shoals at from ½ to ¾ mile from shore, in about 4 fathoms, the town bearing S.S.W. In the harbour, within the boom, the water is from 17 to 18 fms deep. Vessels in harbour load and unload alongside the quay. The anchorage in the roads is good and safe.

**Money.**—Accounts are kept in rixdollars of 6 marks, or 96 skillings; the rixdollar being formerly worth about 4*s*. 1*d*. sterling. But in 1813 a new monetary system was adopted, according to which the new or *Rigsbank* dollar is worth 3*l* 10*s*, being half the value of the old specie dollar, and ½ of the old current dollar. The new is generally used in commercial transactions as bank money. The *par* of exchange, estimated at the Rigsbank dollar, would be 8 dollars 7*6* skillings per pound sterling.

**Weights & Measures.**—The commercial weights are 16 pounds = 1 hispound; 20 hispounds = 1 ship-pound; 100 lbs. = 110½ lbs. avoirdupois = 134 lbs. = 100 lbs. of Amsterdam = 103 of Hamburg. The liquid measures are, 4 ankers = 1 alm or alm; ½ alm = 1 hogshcad; 2 hogshcads = 1 alm; 2 pipes = 1 quarter. The anker = 10 (very nearly) English wine gallons. A *Fuder* of wine = 120 pots; and 100 pots = 25½ wine gallons. The dry measures are, 4 viertels = 1 scheffel; 8 scheffels = 1 fünde or ton; 12 tons = 1 last = 17½ bushels. The last of oil, butter, her-

rings, and other oily substances should weigh 221 lbs. nett.

The measure of length is the Rhineland foot = 12½ inches very nearly. The Danish ell = 2 feet; 100 ells = 68¾ English yards.

The following comparative table of Danish and English Weights and Measures is given in a *Report* of Jan. 25, 1868, by Mr. Strachey, our Chargé d'Affaires at Copenhagen:—

Danish.	English.
Pond . . . . .	1.1025 lbs. avoirdupois.
Qsint (1. 100 lb.) . . . . .	0.9110 "
Ott (1. 1000 lb.) . . . . .	0.90011 "
Cwtier (100 lbs.) . . . . .	110.2312 "
Tünde:—	
Of corn . . . . .	5.8270 bushels.
Beer . . . . .	0.80159 gallons.
Butter . . . . .	2.69179 lbs. avoirdupois.
Coal . . . . .	4.6775 bushels.
Put . . . . .	0.7126 gallons.
Viertel . . . . .	1.5011 "
Alm (ell) . . . . .	0.6864 yard.
Fod (foot) . . . . .	1.0237 feet.
Cubikfod . . . . .	1.0915 cubic feet.
Commerechest . . . . .	2 tons.
Rigsdaler = 6 marks = 96 skillings . . . . .	2 <i>s</i> . 2 <i>d</i> .

A new law has just (1868) passed the Rigsdag enacting that in future the French 'gramme' system of weights shall be used by the Danish medical faculty and veterinary doctors in prescribing medicines, and likewise by apothecaries in retailing drugs for medical purposes.

**Trade of Copenhagen.**—This is not very considerable; nor is it rapidly increasing—a result mainly of the late war, and the consequent diminution of the territory and resources of Denmark. But it is to be hoped that the stationary state of her trade may not last long. The improvement of agriculture, occasioned in part by the formation of railways, but far more by the repeal of our corn laws and of the prohibition against importing live stock, by insuring to the Danes a convenient and advantageous market for all sorts of produce, has been and should continue to be nearly as advantageous to them as to ourselves. Timber, pitch, and tar are chiefly imported from Sweden and Norway; flax, hemp, masts, sail-cloth, and cordage from Russia; sugar chiefly from the West Indies and South America; coffee and tobacco from America; wines and brandy from France; coal, iron and machinery, cotton-twist, tea, hardware and earthenware, are the principal articles of direct importation from England. Of coal, we sent to Denmark (principally to Copenhagen), in 1866, 529,565 tons, and of iron about 20,000 ditto. Owing to the erroneous policy of the Danish Government, which has attempted, at a great public loss, to raise and bolster up manufactures, the direct imports of woollens and cottons are inconsiderable. These articles are not, however, prohibited. Down to 1811 they were admitted on condition of their being stamped and put up to auction by the custom-house, which, after retaining 30 per cent. of the gross produce of the sale, paid over the surplus to the importer. In the above year, the duty, in imitation of the German plan, was ordered to be assessed, partly according to the description of the goods and partly according to their weight; so that the existing duty varies on cotton goods, from 3*l*. 15*s*. to 2*l*. 10*s*. per 100 lbs. Danish (equal to 110 lbs. English); on finer woollens, from 3*l*. 15*s*. to 5*l*. 16*s*. 8*d*. per 100 lbs. Danish; and on white silks, 4*s*. 6*d*. per lb. But, though disadvantageous in some respects, this change was mischievous in others; for while it facilitated the collection of the duties, and reduced those on the finer descriptions, it added materially to those on the coarser and most essential fabrics. Hence we need not be surprised that there is an extensive illicit importation of these articles by the Elbe and Holstein frontier. The exports con-

dist principally of the produce of the soil, as corn, rape-seed, butter and cheese, beef and pork, horses and cattle, wool, hides and skins, bones, corn-brandy &c. At an average of the 3 years ending with 1866-7 the annual exports of corn (exclusive of meal and flour) from Denmark were — wheat, 410,517 barrels (2 1/10 of which are equal to 1 imp. qr.); rye, 410,517 barrels; barley, 1,398,564 do.; and oats, 650,169 do. In 1866 we imported from Denmark 506,236 cwts. wheat, 37,192 do. wheat-flour, 1,146,376 do. barley, 396,888 do. oats, and 35,678 do. peas and beans. [CORN LAWS.]

**Customs Tariff.**—In 1838 new valuations were fixed, as well as more moderate and more uniform

rates of entry. In 1814, 1847, 1851, and 1853, the Tariff of 1838 was revised, and in 1863 a new Customs Law passed, which, completed by the enactments of 1864 and 1865, is the existing legislation. The Tariff is still complicated, but all export and transit duties have ceased, and most of the rates of entry are moderate. Since 1813 with lower duties the Customs revenue has increased 170 per cent. Another step in advance has been made by the admission of foreign ships to the coasting trade of Iceland &c.

In the official year 1866-7 the import duties, in Denmark amounted to 5,446,000 rix dollars, of which Copenhagen contributed 3,530,000.

Account of the Quantities and Computed Values of the Principal Articles imported into the United Kingdom from Denmark in the 5 Years 1862-6.

Principal and other Articles	Quantities					Computed Real Values				
	1862	1863	1864	1865	1866	1862	1863	1864	1865	1866
Animals: oxen and bulls - no. cows and calves - sheep and lambs - swine and pigs - horses -	564	21	9	6,792	7,091	£ 5,245	£ 47	£ 167	115,296	134,049
Bacon -	1	5	727	27,294	11,531	..	2	5	1,218	28,881
Bones of animals and fish (except whales) -	1,190	1,111	2,018	2,231	2,986	7,881	5,957	11,265	12,410	14,901
Butter -	30,281	41,536	64,729	65,555	67,303	156,519	210,034	351,852	365,440	319,248
Corn: wheat -	416,429	372,103	712,026	641,273	506,236	248,219	182,179	325,808	284,534	275,885
barley -	1,116,904	1,176,093	1,283,379	1,615,301	1,446,376	410,597	470,440	449,091	540,491	478,814
oats -	798,548	1,124,998	619,069	1,065,386	596,888	298,755	485,517	215,346	36,487	167,249
peas and beans -	15,587	53,147	57,065	32,538	35,678	6,261	12,478	22,372	15,026	17,578
other kinds of corn -	(Not Computed)					1,425	921	5,508	3,222	4,837
wheat flour -	2,147	10,255	93,279	57,192	45,417	17,535	7,619	14,687	25,729	40,472
Fish -	4,214	6,379	13,767	29,280	25,221	5,029	7,310	11,391	17,016	24,166
Hams -	67	19	224	5,751	8,283	206	60	637	17,463	24,528
Hides, not tanned -	1,289	4,586	11,508	24,725	25,351	3,988	9,539	31,911	45,728	44,686
Oil: train or lubber - sperm -	68	251	75	211	634	2,446	11,638	5,618	12,001	5,859
Oil seed cake -	4,082	5,541	5,269	5,575	3,067	35,341	23,418	35,789	25,201	17,563
Pork, salted -	1,076	2,927	9,285	18,769	20,770	2,246	7,000	24,019	60,148	8,825
Seeds, rape -	8,128	15,105	17,788	4,522	1,299	30,713	41,692	51,159	15,113	3,400
rates -	2,895	2,810	2,781	1,478	71	4,561	4,257	4,171	2,576	1,278
Skins, seal -	1,595	15,775	12,210	12,096	13,475	281	2,768	1,816	1,846	3,708
Tallow -	17,911	2,55	4,978	549	2,275	39,118	517	10,440	1,229	5,039
Whaleins -	11	6	..	116	366	219	146	2,980	9,825	3,783
Wool, sheep and lambs -	1,635,174	1,711,755	2,229,504	2,341,550	2,261,250	80,747	89,391	119,718	129,749	115,567
Woolen rags, torn up, to be used as wool -	1,908,528	1,317,904	1,114,128	1,170,512	1,865,920	25,112	21,185	31,531	23,210	35,707
All other articles -	..	..	..	..	..	26,001	29,224	52,519	48,153	52,310
Total -	..	..	..	..	..	1,431,171	1,626,293	1,748,203	2,294,267	2,150,946

Account of the Quantities and Declared Values of the Principal Articles of the Produce and Manufactures of the United Kingdom exported to Denmark in the 3 Years 1864-6.

Principal and other Articles	Quantities			Declared Real Values		
	1864	1865	1866	1864	1865	1866
Alkali, soda -	41,153	98,710	71,087	£ 15,567	£ 37,817	£ 20,240
Apparel and haberdashery -	..	..	..	19,812	10,099	7,501
Cement -	455,739	641,680	771,140	8,526	9,713	9,595
Coals, culm, and culm -	8,128	51,353	549,200	202,865	24,673	3,267
Copper, wrought and unwrought -	691	2,071	2,081	5,391	9,562	11,440
Cotton yarn -	526,263	1,582,010	1,872,252	53,361	110,593	137,598
Cottons, entered by the yard -	5,177,568	4,284,424	5,373,632	33,376	105,610	150,000
at value -	..	..	..	10,668	11,287	25,046
Earthenware and porcelain -	..	..	..	9,617	18,401	16,590
Fish, herrings -	408,575	594,929	266,099	2,307	6,322	12,500
Hardware and cutlery, unenumerated -	4,769	4,647	21,191	5,200	22,186	29,338
Iron, wrought and unwrought -	18,411	56,862	21,875	17,040	211,899	14,272
Iron manufactures -	601,149	431,225	515,065	12,458	9,579	10,867
Lead and shot -	178	213	97	5,955	4,561	2,001
White -	9,255	2,122	2,668	2,889	5,538	3,753
Linens, yarn -	65,486	667,904	477,715	41,175	46,370	52,621
at value -	1,736,912	1,117,142	1,096,554	69,852	46,091	42,630
Machinery: steam engines -	..	..	..	12,671	15,017	12,310
all other sorts -	..	..	..	10,542	15,911	11,301
Painters' colours (not otherwise described) -	..	..	..	3,173	16,831	13,929
Salt -	11,619	9,730	13,955	2,247	2,865	3,321
Tin plates -	..	..	..	6,150	5,02	4,702
Woolen and worsted yarn -	..	..	..	4,944	4,650	3,882
Woolens, entered by the yard -	57,721	50,937	58,229	5,676	5,146	6,391
at value -	1,157,634	1,098,059	898,160	207,169	107,818	107,818
All other articles -	..	..	..	5,185	6,511	5,321
Total -	..	..	..	1,132,767	1,413,2	1,210,807

N.B.—The average annual value of the foreign and colonial produce exported from this country to Denmark in the 5 years ending 1866 was 290,882£.

**Commercial Marine.**—The Danish merchant with 8,812 tons, and 4,233 horse-power. Of the marine, in 1867, consisted of 3,736 ships, of an above, 988 vessels of 49,640 tons, including the burden of 172,462 tons, of which 82 were steamers, the steam fleet, belonged to Copenhagen

Statement of the S of Copenhagen

Sailing ships -	..
Steamers -	..
Total -	..

The above figures steamers that only

The number of British ships, of a total of 28 ships, of a total of 1,000 tons, had the Danish trade at this

The Danish Parliament laws which came

1867. One relates to the qualifications

and the qualifications of the merchant

under which they may be employed in foreign ports. The measurement of tonnage for the Merchant Ship

family to the method consequent case to the

ports in port charges &c. at the same weight an

register ton, of 100 Danish cubic feet = 1

the ship available for determined on exactly

adopted in the measures

It is now (1868) proposed that British vessels from

ports in such wise that cases of registry (meas-

sure validity as similar dues will be paid in Dani-

denation deputed theoretic of C. Crowe's Reports for

Port Charges.—The charge port are as follows:—48

per commercial last (3,20 discharged. In no case

more than the actual tonnage; and allowance is

visions for ship's use, and room, machinery &c.

40 skillings for harbour dues and for goods discharged

8 skillings per commercial ton for ship for export, but

the ship lies in the roads, 16 skillings per commercial

dues, on ships which are

Wharfe is charged for the fairway as follows, for

draught:—

Up to 10 feet -	..
11 10 -	..
12 10 -	..
13 10 -	..
14 10 -	..
15 10 -	..
16 10 -	..
17 10 -	..
18 10 -	..
19 10 -	..

which includes all charges Lights &c.—For a long new lights, marks, and Danish coast and waters Crowe's Report for Denmark, published in 1818, established in 1818,

Statement of the Shipping that cleared in and out of Copenhagen in the official Year 1866-7.

	Cleared in		Cleared out	
	Ships	Tons	Ships	Tons
Sailing ships	7,606	317,706	7,191	75,088
Steamers	4,774	106,511	3,276	85,192
Total	10,580	424,217	10,477	160,280

The above figures do not include the numerous steamers that only call for coaling or other purposes.

The number of British vessels that entered and left the port of Copenhagen during that year was 78 ships, of a total tonnage of 181,579 tons: thus Great Britain had the most important share of the foreign trade at this port.

The Danish Parliament has passed two important laws which came into operation in October 1867. One relates to the registration of vessels, and the qualifications which will enable them to sail under Danish colours, and the conditions under which they may maintain their nationality in foreign ports. The second, relating to the measurement of tonnage, is in effect the adoption of our Merchant Shipping Act, and so gives uniformity to the method of ship measurements, and consequent ease to the reckoning and payment of port charges &c. Thus, the tonnage is taken at the same weight and capacity as the English register ton, i. e. 100 English cubic feet = 91.50 Danish cubic feet = 1 register ton; the parts of the ship available for mercantile purposes being determined on exactly the same principles as those adopted in the measurement of British ships.

It is now (1868) proposed at once to exempt British vessels from re-measurement in Danish ports, in such wise that in future British certificates of registry (measure bills) will have the same validity as similar Danish documents; and dues will be paid in Danish ports according to the tonnage denoted therein. (Mr. Vice-Consul A. de C. Crowe's Reports for 1866 and 1867.)

**Port Charges.**—The charges on shipping at this port are as follows:—48 skillings (about 1s. 1½d.) per commercial last (5,200 lbs.) of goods actually discharged. In no case can dues be levied on more than the actual registered tonnage of the ship; and allowance is made for coals and provisions for ship's use, and deductions for engine-room, machinery &c.

40 skillings for harbour dues on each commercial last of goods discharged.

8 skillings per commercial last on goods loaded in harbour for export, but double that sum when the ship lies in the roads.

16 skillings per commercial last for bulwark or pier dues, on ships which only put in for coaling.

Pilotage is charged from the inner roads to the fairway as follows, according to the ship's draught:—

	Summer		Winter	
	Rigsdol.	skil.	Rigsdol.	skil.
8 to 10 feet	7	72	7	51
11 15 "	7	10	9	35
11 15 "	8	41	11	16
16 "	9	78	12	95
17 18 "	11	16	14	75
19 20 "	12	50	16	54

which includes all charges for landing pilot &c.

**Lights &c.**—For a long and most valuable list of new lights, marks, and buoys placed on the Danish coast and waters in 1867, see Mr. Vice-Consul Crowe's Report for that year.

**Banks, Banking.**—The National Bank of Denmark, established in 1818, has its head office in

Copenhagen, with branches at Odensee and Flensburg. It issues notes of 100, 50, 20, and 5 rix-dollars, payable in specie on demand, and transacts all sorts of banking business. In 1856 a private joint-stock bank was established, with a capital of 2,000,000 rix dollars. It is to the credit of the Danish merchants that they passed through the crises of 1857 and 1866 with comparatively few failures of any importance.

**Colonial Trade.**—In the West Indies, the Danes possess still (August 1868) the islands of St. Croix, St. Thomas, and St. John, which, though small, are fertile and well cultivated. But a treaty for selling these islands to the United States of America has been concluded, and only now (see Times, July 23, 1868) waits for ratification at the next meeting of Congress.

St. Thomas has been selected as a mail packet station for the West India mails. It owes this distinction to its port, which is one of the best in the region, being landlocked, easy of egress and ingress, and at once central to the West Indies and near Europe. In the year 1866, 628 British vessels visited St. Thomas, the tonnage being 100,950. Besides these, ships of war and mail packets, the latter to the amount of 25,000 tons annually, visit this harbour. It has one drawback, that it is not very healthy.

The port charges at St. Thomas are as follows: Vessels in ballast 4 dols. 8 cents per 100 tons register. Those bringing and taking cargo pay 57 dols. 12 cents per 100 tons register. Those bringing only coals for the steam packet companies or merchants' account, and leaving in ballast, pay 32 dols. 61 cents per 100 tons register. Vessels with entire cargoes of coals for the Royal Mail Steam Packet Company are by Royal grant and charterparty free of port charges. No charges are levied on vessels arriving in distress. There is a fixed fee on all vessels in ballast or loaded, called the 'port pass,' of 80 cents for schooners, 1 dol. 28 cents for brigs; 2 dols. 56 cents for barques or ships. The import duties are 14 per cent. on the invoice value of importation, coals being admitted duty free.

Lighters without men are from 3 to 5 dols., labour 1 dol. 25 cents per diem; water for shipping 1 to 2 cents per 9 gallons from water boats, free alongside of vessel. Stone ballast, 75 cents to 1 dol. per ton of 2,210 lbs. British weight, free alongside of vessel. Pilotage not compulsory, but vessels signalling for a pilot pay by draught of water, 10 dols. for 16 feet. In 1866 the cargoes from Great Britain to St. Thomas were worth 2,707,404 dols., besides coals to the value of 221,985 dols., equal to 600,000l. The consumption of coal is very considerable, having amounted in the year 1866 to 90,251 tons. A floating dock is in process of construction, and will be capable of taking up vessels of 3,000 tons burden. (Mr. Consul James's Report, 1867.)

Since 1833, when the restrictions on the colonial trade were abolished, St. Croix has sometimes sent considerable quantities of sugar to the United States; but latterly these have decreased, and the produce is now mostly brought to Denmark. The entire imports of sugar, the foreign as well as colonial, into Copenhagen amounted in 1866 to 32,313,400 lbs.—about 90 per cent. of the whole Danish imports. The imports of coffee into Copenhagen are considerable: in 1866 they amounted to 13,250,400 lbs. About three-fourths of the trade with the West Indies is engrossed by Copenhagen, and the rest by Flensburg. The settlements of Tranquebar and Serampore in the East Indies were sold, in 1845, to the East India Company.

The trade to India and China, formerly a monopoly in the hands of a joint-stock company, was opened to the public in 1810. Several vessels have since been fitted out for the trade; but it is doubtful, from the want of produce suitable for the Eastern markets, whether it can ever attain to any considerable importance.

**Credit.**—Goods imported into Copenhagen are commonly sold on credit; 3 months is the term generally allowed on most sorts of goods, and in a few instances 6 months. The discount for ready money is 4 per cent. Bankruptcy is of rare occurrence.

**Commission** on purchases is generally 2 per cent., and on sales 3 per cent., including 1 per cent. *del credere*.

**Insurance.**—Marine assurance is effected, on liberal terms, by a company established in 1746. A good many risks are, however, insured at Amsterdam and Hamburg.

**Careening, Ship's Stores &c.**—Copenhagen has good building-yards, and is in all respects an eligible place for the repair of small ships, and for supplying provisions.

**Repairs.**—The want of a dry dock suitable for repairing vessels of large tonnage has been much felt in Copenhagen, for hitherto this class of vessels has been forced to go over to Sweden or elsewhere to have their repairs effected, with loss to the port and great inconvenience to shipowners. It has now, however, been decided to give up the old Government Dock at Christianshavn; and it is proposed to spend 218,000 rix-dollars to turn it into a suitable slip for commercial vessels.

**General Remarks.**—As already stated, the Danish Government exerted itself for a lengthened period to bolster up a manufacturing interest by laying oppressive duties on most species of manufactured articles. Even under the most favourable circumstances, such conduct, though it may benefit a few individuals, is sure to be productive of great national loss. But in the case of Denmark, the circumstances were such as to render the restrictive system peculiarly injurious. All, or nearly all, the branches of industry carried on in the kingdom were subject to the government of guilds or corporations; no person could engage in any line of business until he was authorised by its peculiar guild; and as the sanction of this body was rarely obtained without a considerable sacrifice, the real effect of the system was to fetter competition and improvement, and to perpetuate monopoly and routine. Even the Danish writers acknowledge that such was the influence of the late regulations. 'Nos ouvriers,' say they, 'sont chers, travaillent lentement, et souvent mal et sans goût; leur éducation est négligée. On ne les forme point à penser, et l'apprenti suit machinalement ce qu'il voit faire au maître.' (Catteneau, *Tabl. des Etats Danois*, tome ii, p. 260.) Within the last few years this system has been quite changed. Industry has been emancipated from many troublesome regulations, and moderate duties have been substituted for prohibitions. Still, however favourably situated in other respects, it would be idle to expect that a country without waterfalls, and without coal, should be able to manufacture cottons, woollens &c. at so cheap a rate as they may be imported from others enjoying greater natural facilities for their production. The staple business of Denmark, her agricultural and rural economy, has been most materially improved of late years; and, as already seen, her exports of raw produce are now of great value and importance. (We are indebted for much of the valuable information in this article to the *Report* for 1868 of

Mr. Strachey, our Chargé d'affaires, and those of Mr. Vice-Consul Crowe for 1867 and 1868.)

**COPPER** (Ger. Kupfer; Dutch, koper; Dan. kobber; Swed. koppar; Fr. cuivre; Ital. rame; Span. cobre; Port. cobre; Russ. мѣд, krasnoi мѣд; Pol. miedz; Lat. cuprum; Arab. nehass; Sans. tamra). A well-known metal, so called from its having been first discovered, or at least wrought to any extent, in the island of Cyprus. It is of a fine red colour, and has a great deal of brilliancy. Its taste is styptic and nauseous; and the hands, when rubbed for some time on it, acquire a peculiar and disagreeable odour. It is harder than silver; its specific gravity varies according to its state, being, when quite pure, near 9-000. Its malleability is great; it may be hammered out into leaves so thin as to be blown about by the slightest breeze. Its ductility is also considerable. Its tenacity is so great, that a copper wire 0-078 of an inch in diameter is capable of supporting 302-25 lbs. avoirdupois without breaking. Its liability to oxidation from exposure to air or damp is its greatest defect. The rust with which it is then covered is known by the name of verdigris, and is one of the most active poisons. (Thomson's *Chemistry*.)

If we except gold and silver, copper seems to have been more early known than any other metal. In the first ages of the world, before the method of working iron was discovered, copper was the principal ingredient in all domestic utensils, and instruments of war. Even now it is applied to so many purposes as to rank next, in point of utility, to iron.

**Alloys of Copper** are numerous and of great value. Those of tin are of most importance. Tin added to copper makes it more fusible, less liable to rust, or to be corroded by the air, and other common substances harder, denser, and more sonorous. In these respects the alloy has a real advantage over unmixed copper: but this is in many cases more than counterbalanced by the great brittleness which even a moderate portion of tin imparts; and which is a singular circumstance, considering that both metals are separately very malleable.

Copper alloyed with from 1 to 5 per cent. of tin is rendered harder than before; its colour is yellow, with a cast of red, and its fracture granular: it has considerable malleability. This appears to have been the usual composition of many of the ancient edged tools and weapons, before the method of working iron was brought to perfection. The χαλκός of the Greeks, and perhaps the *as* of the Romans, was nothing else. Even their copper coins contain a mixture of tin. The ancients did not, in fact, possess (as has been often contended) any peculiar process for hardening copper, except by adding to it a small quantity of tin. An alloy in which the tin is from 0-1 to  $\frac{1}{4}$  of the whole is hard, brittle, but still a little malleable, close grained, and yellowish white. When the tin is as much as  $\frac{1}{2}$  of the mass, it is entirely brittle, and continues so in every higher proportion. The yellowness of the alloy is not entirely lost till the tin amounts to 0-3 of the whole.

Copper (or sometimes copper with a little zinc) alloyed with as much tin as will make from about 0-1 to  $\frac{1}{2}$  of the whole, forms an alloy, which is principally employed for bells, brass cannon, bronze statues, and various other purposes. Hence it is called *bronz* or *bell metal*; and is excellently fitted for the uses to which it is applied, by its hardness, density, sonorousness, and fusibility. For cannon, a lower proportion of tin is commonly used. According to Dr. Watson, the metal employed at Woolwich consists of 100 parts of copper

and from 8 to little malleability it would be well alloy being more give a louder resonance for bell metal: some artists antimony, and some which add to the [BELL METAL: When, in an metal amounts to a beautiful composition steel, and susceptible well adapted for purposes, and is the idea the above a little arsenic, zinc an alloy similar to of mirrors, is of great Pliney, who says they were reckoned copper mixed (see the xxxiii, s. 9.) For the alloys articles BRASS, PING Chemistry; Rees's Chemical Essays, vol. iv. British Copper Trade copper mines, in &c., but particularly long before, the Corn wrought with much 1720 to 1733 they produced 2-73 of pure copper from 1506 to 1775 the 2,650 tons. In 1798 tons; and in 1836 anno

#### Account of the Quantities

plates, cakes, and slabs  
in sheets, nails, bars, rods  
and of yellow metal  
there sent

During 1865 the price market rose from 86l. a ton, to 116l., per ton. In 1866 it fell from 10 January 1, to 80l. on August 1866 were, to British 4,730 tons, Egypt 2,276 tons, Italy 2,423 tons, Hanse in consequence of the thus obtained, England, nearly dependent on foreign supplies of this metal. In 1793, one of the supply of others the vastly increased demand for the sheathing purposes, the exports of the imports to diminish to balance the increase made up for the falling price.

**Foreign Copper.**—Copper is produced in Sweden, Russia, Japan, Bolivia &c. Near Falun in Sweden, in the same name,

and from 8 to 12 of tin; hence it retains some little malleability, and, therefore, is tougher than it would be with a larger portion of tin. This alloy being more sonorous than iron, brass guns give a louder report than iron guns. A common alloy for bell metal is 80 parts of copper and 20 of tin; some artists add to these ingredients zinc, antimony, and silver, in small proportions; all of which add to the sonorosity of the compound. [Bell Metal; Bronze.]

When, in an alloy of copper and tin, the latter metal amounts to about  $\frac{1}{4}$  of the mass, the result is a beautiful compound, very hard, of the colour of steel, and susceptible of a very fine polish. It is well adapted for the reflection of light for optical purposes, and is therefore called *speculum metal*. Besides the above ingredients, it usually contains a little arsenic, zinc, or silver. The application of an alloy similar to the above, to the construction of mirrors, is of great antiquity, being mentioned by Pliny, who says that formerly the best mirrors were reckoned those of Brundisium, of tin and copper mixed (*stanno et are mistis*). (*Hist. Nat. lib. xxxvii. s. 9.*)

For the alloys of copper with zinc, see the articles BRASS, PISCHEBECK. See also Thomson's *Chemistry*; Rees's *Cyclopædia*; Dr. Watson's *Chemical Essays*, vol. iv.; &c.

**British Copper Trade.**—Great Britain has various copper mines, in Cornwall, Devonshire, Wales &c., but particularly in the first. Though known long before, the Cornish copper mines were not wrought with much spirit till last century. From 1726 to 1755 they produced at an average about 700 tons a-year of pure copper. During the ten years from 1766 to 1775 they produced at an average 2,559 tons. In 1798 the produce exceeded 5,000 tons; and in 1866 amounted to 6,551½ tons, worth

600,770*l.* In 1768 the famous mines in the Parys mountains, near Amlweb, in Anglesea, were discovered. The supplies of ore furnished by them were for a long time abundant beyond all precedent; but for many years past the productiveness of the mines has been declining, and they are now almost exhausted. In 1866 the mines of Anglesea, and other parts of Wales, did not furnish 650 tons of copper. Those of Devonshire yielded 2,248 tons; the quantity produced in the other parts of England being quite inconsiderable. The Irish mines produced in 1866 above 1,335 tons. Those of Scotland never were productive, and have been almost entirely abandoned. Owing to the want of coal in Cornwall, the ores are not smelted on the spot, but are all sent to Swansea; it being found cheaper to carry the ores to the coal than the contrary.

We subjoin an account, compiled by Mr. Robert Hunt of the Mining Record Office, on which every dependence may be placed, of the quantities and values of the copper ore and copper produced in the United Kingdom in 1866:—

	No. of Mines	Ore tons	Copper tons	Value of Ore	Value of Copper
				£	£
England and Wales	165	1,060,010	9,218	661,223	907,731
Ireland	8	11,568	1,335	91,893	117,151
<b>Total</b>	<b>173</b>	<b>1,071,578</b>	<b>11,153</b>	<b>753,116</b>	<b>1,024,882</b>

*Production of Copper for 5 Years ending 1866.*

Year	No. of Mines	Ore tons	Copper tons	Value of Ore £	Value of Copper £
1862	228	224,171	11,813	1,216,775	1,495,241
1863	222	210,917	11,247	1,100,511	1,109,698
1864	291	214,001	15,502	1,155,471	1,590,699
1865	293	198,298	11,888	927,958	1,151,661
1866	173	180,378	11,153	753,118	1,019,168

*Account of the Quantities and Values of the different Descriptions of Copper exported from the United Kingdom during each of the 3 Years ending with 1866.*

	Quantities			Values		
	1864	1865	1866	1864	1865	1866
	cwt.	cwt.	cwt.	£	£	£
Ingot, cakes, and slabs	120,211	111,386	119,561	586,117	496,118	535,031
Wrought sheets, nails, bars, rods	401,411	300,527	211,579	2,110,576	1,180,450	1,174,532
Wire or yellow metal	185,365	199,001	191,295	801,761	816,610	771,036
Other sorts	27,516	21,160	15,037	167,256	156,992	87,816

During 1865 the price of copper in the London market rose from 86*l.*, at which it stood in September, to 116*l.*, per ton, the value in November. In 1866 it fell from 106*l.*, at which it stood on January 1, to 80*l.* on August 1. The chief exports in 1866 were, to British India 9,319 tons, France 4,730 tons, Egypt 2,276 tons, Holland 2,047 tons, Italy 2,423 tons, Hanse Towns 1,158 tons.

In consequence of the larger supplies of copper thus obtained, England, instead of being, as formerly, dependent on foreigners for the greater part of her supplies of this valuable metal, became, previously to 1793, one of the principal markets for the supply of others; and notwithstanding the vastly increased demand for copper during the war for the sheathing of ships and other purposes, the exports continued to increase and the imports to diminish: the greater productiveness of the Cornish mines has sufficed not only to balance the increased demand, but also to make up for the falling off in the supplies from Anglesea.

**Foreign Copper.**—Copper ores are abundant in Sweden, Russia, Japan, Australia, Chili, Cuba, Bolivia &c. Near Fahlun, in the province of Dalecarlia, in Sweden, is the celebrated copper mine of the same name, supposed to have been

wrought nearly 1,000 years. For a long time it was extremely productive, yielding, towards the beginning of the seventeenth century, an annual produce of about 8,000,000 lbs. of pure metal; but it has since greatly declined; and it is most probable that at no distant period it will be wholly abandoned. (Thomson's *Travels in Sweden*, p. 221.) There are copper mines in other parts of Sweden; but the entire export of copper from that country did not in 1866 exceed 2,100 tons, of a quality inferior to that of England. The produce of the copper mines of Russia has been estimated at 250,000 pounds, or 4,661 tons (Eng.) a-year. (Tegoborski, *Forces Productives de la Russie*, i. 300.) The copper mines of Japan are said to be among the richest in the world. The Dutch and Chinese export considerable quantities of their produce, which is spread all over the East, and is regularly quoted in the price currents of Canton, Calcutta, and Singapore. It is uniformly met with in the shape of bars or ingots; and when the copper of South America is worth in the Canton market from 15 to 16 dollars per picul, that of Japan is worth from 18 to 20 per ditto. Copper the produce of the Persian mines is imported into Bombay and Calcutta from Bashire and Bussorah.

But, in a commercial point of view, the copper

mines of Chili, Cuba, Spain, and Australia are, after those of England, by far the most important. The working of the mines of Cuba, which had been abandoned for a lengthened period, has been resumed successfully. Large quantities both of Chilian and Cuban ore are brought to Swansea to be smelted.

The imports of copper ore and regulus, in 1866, were principally derived as follows, viz. :—

Countries	Ore	Regulus
	tons	tons
Sweden	2,995	—
Norway	1,634	—
France	1,879	—
Portugal	1,621	—
Spain	1,635	—
Italy	1,109	—
Cuba	11,234	612
United States	8,679	—
Peru	2,016	1,119
Botcha	7,597	1,991
Chili	21,795	30,829
South Africa	1,138	—
Australia	12,571	—
Other parts	4,888	966
Total	91,660	31,887

The price of ore rose from 5*l.* per ton to 17*l.* 15*s.* 7*d.*, that of regulus from 5*l.* 15*s.* 8*d.* to 3*l.* 7*s.* 8*d.*

There was a very extraordinary increase in the supplies of copper from Australia during the 4 or 5 years preceding the discovery of the gold fields. The produce of the Barra Barra mine, for example, which in 1816 was 6,359½ tons ore, had swelled in 1850 to 18,692 tons. But since then some of the mines have been abandoned, and the progress of the others checked, so that, as seen above, the again increasing imports from Australia amounted in 1866 to only 17,311 tons. Foreign copper imported into this country, and the copper obtained from the smelting of foreign ore, were, previously to 1842, wholly, or almost wholly, re-exported; the duty on the copper ore when it was taken or smelted for home use being so very heavy as to make it be altogether exported in an unwrought state. But in 1842 the duty on copper ores and unwrought copper was very materially reduced; and it was wholly repealed in 1853. Hence the great increase in the imports of ore for smelting, and the application of the copper thence derived indifferently to home use or exportation.

Copper is in extensive demand all over India, being largely used in the dockyards, in the manufacture of cooking utensils, in alloying spelter and tin &c. The funeral of every Hindoo brings an accession to the demand, according to his station; the relatives of the deceased giving a brass cup to every Brahmin present at the ceremony: so that 5, 10, 50, 100, 1,000, and sometimes more than 10 times this last number, are dispensed upon such occasions. (Bell's *Commerce of Bengal*.)

**COPPERAIS.** The kernels of the cocoa nut. [COCOA NUTS.]

**COPPERAS.** A term employed by the older chemists, and popularly as synonymous with vitriol. There are three sorts of copperas: the green, or sulphate of iron; the blue, or sulphate of copper; and the white, or sulphate of zinc. Of these, the first is the most important.

Sulphate of iron is distinguished in common by a variety of names, as Martial vitriol, English vitriol &c. When pure, it possesses considerable transparency, and has a fine bright, though not very deep, grass-green colour, and a nauseous astringent taste, accompanied with a kind of sweetness. Its specific gravity is 1.834. It uniformly reddens the vegetable blues. This salt was well known to the ancients; and is mentioned by Pliny (*Hist. Nat.* lib. xxxiv. sec. 12) under the names of *misgorsory*, and *calchantum*. It is not made in the direct way, because it can be obtained at less charge from the decomposition of pyrites on a large scale

in the neighbourhood of collieries. It exists in two states; one containing oxide of iron, with 0.22 of oxygen, which is of a pale green, not nitro-red by gallic acid, and giving a white precipitate with prussiate of potass. The other, in which the iron is combined with 0.30 of oxygen, is red, not crystallisable, and gives a black precipitate with gallic acid, and a blue with prussiate of potass. In the common sulphate, these two are often mixed in various proportions.

Sulphate of iron is of great importance in the arts. It is a principal ingredient in dyeing; in the manufacture of ink, and of prussian blue: it is also used in tanning, painting, medicine &c. Sulphuric acid, or oil of vitriol, was always manufactured from sulphate of iron. Now only one kind is produced in this way, viz. the fuming acid, or acid of Nordhausen.

Sulphate of copper, or blue vitriol, is commonly called Roman or Cyprian vitriol, is a crystalline salt of an elegant sapphire blue colour, hard, compact, and semitransparent; when perfectly crystallised, of a lattish, rhomboidal, decahedral figure; its taste is extremely nauseous, styptic, and acrid; its specific gravity is 2.1913. It is used for various purposes in the arts, and also in medicine.

Sulphate of zinc or white vitriol is found native in the mines of Goslar and other places. Sometimes it is met with in transparent pieces, but more commonly in white efflorescences. These are dissolved in water, and crystallised into large irregular masses, somewhat resembling fine sugar, having a sweetish, nauseous, styptic taste. Its specific gravity, when crystallised, is 1.912; when in the state in which it commonly occurs in commerce, it is 1.3275. Sulphate of zinc is prepared in the large way from some varieties of the native sulphuret. The ore is roasted, wetted with water, and exposed to the air. The sulphur attracts oxygen, and is converted into sulphuric acid; and the metal, being at the same time oxidised, combines with the acid. After some time the sulphate is extracted by solution in water; and the solution being evaporated to dryness, the mass is run into moulds. Thus, the white vitriol of the shops generally contains a small portion of iron, and often of copper and lead. (*British Pharmacopœia*, 1867; Lewis's *Materia Medica*; Ure's *Dictionary*; Rees's *Cyclopædia*; Thomson's *Chemistry*; &c.)

**COPROLITES.** Organic remains discovered in the upper green sand. They were first commented on by Professor Henslow and Dr. Buckland. They are of great value as manures, in consequence of the phosphates which they contain. The deposit is so considerable in some parts of Cambridgeshire, that a sum equal in value to the fee simple of the land has been paid for the privilege of digging them, the person renting the right stipulating to restore the surface.

*Quantities and Values of Coprolites raised in the Years 1860, 1861.*

Cambridge	Tons	Value
Hertford	1860 30,000	£100,000
Suffolk	1861 37,500	75,000

**COPYRIGHT.** *Copyright in Books.* [BOOKS.] *Copyright in Dramas and Musical Compositions.*—This form of copyright rests on 3 & 4 Wm. IV. c. 15, and 5 & 6 Vict. c. 45. The right may be assigned, but must be in writing. The assignment need not be attested, though formerly, it seems, two witnesses were necessary to the instrument.

*Copyright in Engravings.*—The earliest Act in favour of these works of art was that of 8 Geo. II. c. 13. The Act is called Hogarth's Act, for this artist obtained it for his own protection. The

protection of the Act person complaining, which he had also been refused Justice Keating the Act was not to pavers, but to vest

The Act 8 Geo. I. c. 38; by 17 Geo. I. c. 12. An assignee piracy. Photographic processes for multiplying however, of paintings had no copyright in sculpture 28 Geo. III. c. 71, and the latest Act being 38ll. though these there are no decisions

*Copyright in Designs.* ornament is maintained 7 Vict. c. 65; 13 & 14 c. 20; 21 & 25 Vict. are protected by 6 & 7 c. 14; and 21 & 22 V. The law defines the material is metal, terms to three years, case of which it lasts months.

The designs must be signed by a particular remedy for piracy by 1 to 20*l.*, recoverable by proceedings, provided that they do not exceed 100*l.*; an act and an injunction in equity.

There is a registrar of designs for registration before Parliament, making rules and regulations with registration and the persons effecting registration c. 104, designs may be for a very trifling fee, which for a year from its registration

*Copyright in Trade-Marks.* to denote the workman's mark is very ancient Herentiaunum have supplied practice in bakers' and of civilisation similar marks

for instance in textile fabrics extant are those of paper invention of paper from watermarks were introduced designs serving, no doubt, to try from which the paper time the process has become mark has become a recognition of trade, by which a purchaser, and a legitimate manufacturer.

Nor is relative to the individual consumer, but it affects country; for it has been a great many occasions destroyed commerce altogether. The fraudulent consignment of the Western States of America were found to be worthless such importations, and them a local manufacture.

protection of the Act was ruled not to extend to a person complaining of piracy of a drawing or design which he had merely procured to be made. It has also been ruled by Chief Justice Erle and Justice Keating that the object of this and similar Acts was not to protect the reputation of engravers, but to vest a commercial property in them.

The Act 8 Geo. II. was extended by 7 Geo. III. c. 38; by 17 Geo. III. c. 57; and 15 & 16 Vict. c. 12. An assignee may maintain an action for piracy. Photographic copies of an engraving are piracies, and indeed all mechanical and scientific processes for multiplying engravings. Authors, however, of paintings, drawings, and photographs had no copyright prior to July 29, 1862. Copyright in sculpture has its beginning in 51 Geo. III. c. 71, amended by 51 Geo. III. c. 56; the latest Act being that of 13 & 14 Vict. c. 101. Still, though these provisions have been made, there are no decisions on the subject.

**Copyright in Designs.**—The right in designs for ornament is maintained by 5 & 6 Vict. c. 100; 6 & 7 Vict. c. 65; 13 & 14 Vict. c. 104; 21 & 22 Vict. c. 70; 21 & 25 Vict. c. 73. Those for utility are protected by 6 & 7 Vict. c. 65; 13 & 14 Vict. c. 104; and 21 & 22 Vict. c. 70.

The law defines the duration of the right, when the material is metal, to five years, in other materials to three years, with some exceptions, in the case of which it lasts from two years to nine months.

The designs must be registered, and may be assigned by a particular form. The Act provides remedies for piracy by penalties varying from 30*l.* to 50*l.*, recoverable by action or summary proceedings, provided that the aggregate penalty does not exceed 100*l.*: an action for damages also lies, and an injunction in equity.

There is a registrar of *useful* designs, and directions for registration have been issued by the Board of Trade, who may, after laying the same before Parliament, make, alter, or revoke the rules and regulations with respect to the mode of registration and the particulars to be furnished by persons effecting registration. By 13 & 14 Vict. c. 104, designs may be *provisionally* registered, for a very trifling fee, which secures the copyright for a year from its registry.

**Copyright in Trade-Marks.**—The use of marks to denote the workmanship of certain manufacturers is very ancient, for the discoveries at Merculaneum have supplied examples of the practice in bakers' and other shops. In modern civilisation similar marks have been adopted, as for instance in textile fabrics—though the earliest extant are those of paper. Very soon after the invention of paper from the pulp of linen rags, watermarks were introduced into the fabric, such designs serving, no doubt, to denote the manufactory from which the paper was issued. Since this time the process has become general, and the trade-mark has become a recognised part of the system of trade, by which a guarantee is given to the purchaser, and a legitimate protection afforded to the manufacturer. Nor is the trade-mark system relative to the individual only, be he producer or consumer, but it affects the commerce of the country; for it has been often found that fraudulent imitations of goods in demand have not only seriously injured the honest dealer, but have on many occasions destroyed some branches of commerce altogether. Thus, for example, a fraudulent consignment of axes from Sheffield to the Western States of America, when the articles were found to be worthless, completely put a stop to such importations, and developed in place of them a local manufacture.

The mischievous effects of permitting an unchecked imitation of trade-marks were often commented on by chambers of commerce in manufacturing towns. At last the attention of the Legislature was effectually called to the practice, and during the session of 1861 two bills were introduced into the House of Commons—the Merchandise Marks Bill, by Mr. Milner Gibson (then President of the Board of Trade), and the Trades-Marks Bill, by Messrs. Roebuck and Haughton. After these bills had both been referred to a select committee, the former, with certain modifications, was accepted. The Act contains 26 sections.

1. The definition and construction of words. The word person to include individuals, companies, and bodies corporate; mark, any name, signature, word, letter, device, emblem, figure, sign, seal, stamp, diagram, label, ticket, or other mark of any other description; and trade-mark to include any such symbol lawfully used to denote any chattel, or in Scotland any article of trade, manufacture, or merchandise; and the word misdemeanor to include crime and offence in Scotland.

The trade-mark must be lawfully used. It has been held that the use of the word 'patent' when the article is not patented takes the article out of the protection of the court.

2. Forging a trade-mark is a misdemeanor.

3. Applying a forged or counterfeit trade-mark a misdemeanor, or a genuine mark &c. to a counterfeit article.

4. Penalties after December 31, 1863, to be equal in value to the article sold, with a further fine of not more than 5*l.* or less than 10*l.*

5. Alterations and additions to trade-marks with intent to defraud treated as forging and counterfeiting.

6. Persons selling articles having false trade-marks are bound to give information as to the place at which they were procured. Penalty on refusal 5*l.*

7. False indication of quantity with intent to defraud. Same penalties as in Sec. 4. This section does not prevent a person being indicted also, if he has committed an offence punishable by law as it at present stands.

8. Same penalties on sellers of false quantities.

9. Provision that it shall not be construed as an offence under the Act if a person applies to any chattel a word generally used to indicate such chattel or article to be of some particular class or description of manufacture only (as for instance Brussels carpet, Meeldin lace &c.), where the goods have a name which, though not strictly accurate, is one of reputation.

10. The trade-mark and forged mark to be described in the indictment.

11. Conviction not to affect any right or civil remedy.

12. Attempt to defraud any particular person need not be alleged or proved in the indictment.

13. Persons aiding or abetting to be guilty.

14. Punishment of misdemeanors under the Act may be imprisonment with or without hard labour for not more than two years, or fine, or both, or imprisonment till the fine, if any, be paid or satisfied.

15. Process for recovering penalties.

16. Summary proceedings before justices under 11 & 12 Vict. c. 43.

17. In actions, penalties to be accounted for as other moneys payable to the Crown, and plaintiffs to recover full costs of suit.

18. Limitation of actions.

19. After Dec. 31, 1863, the vendor of an article with a trade-mark to be deemed to contract that the mark is genuine.



official buttons and beads. The inferior kind is mostly manufactured into ear and finger rings. Its price varies from 20 dols. to 100 dols. per picul, according to quality. The finer sorts range from 1,500 dols. to 3,300 dols. per picul. Fine red Mediterranean coral also obtains a good market in China. The use of false coral beads in China is very considerable; they are made from resinous matters mixed with red colouring dyes surrounding a core of tin foil and gum. The price is about 10 dols. per canty. (Dr. Williams's *Chinese Guide*, (2d. ed.)

The manner of fishing coral is nearly the same every where. That which is most commonly practised in the Mediterranean is as follows:—7 or 8 men go in a boat, commanded by the proprietor; the master throws his net, if we may so call the machine which he uses to tear up the coral from the bottom of the sea; and the rest work the boat, and help to draw in the net. This is composed of two beams of wood tied crosswise, with leads fixed to them to sink them; to these beams is fastened a quantity of hemp, twisted closely round, and intermingled with some loose netting. In this condition the machine is let down into the sea; and when the coral is pretty strongly entwined in the hemp and nets, they draw it up with a rope, which they unwind according to the depth, and which it sometimes requires half a dozen boats to draw. If this rope happens to break, the fishermen run the hazard of being lost. Before the fishers go to sea, they agree for the price of the coral; and the produce of the fishery is divided, at the end of the season, into 13 parts; of which the proprietor has 4, the master 2, and the other 6 men 1 each; the 13th belongs to the company for payment of boat-hire, &c. (Ainslie's *Materia Indica*; Rees's *Cyclopædia*; *Encyclopædia Metropolitana*; Bell's *Commerce of Bengal*; Prunaudais, *Commerce de l'Inde*.)

(CORDAGE (Ger. tauwerk; Dutch, touwwerk; Fr. manœuvres, cordage; Ital. caulame; Span. jarcia, cordaje). A term used to denote all manner of cords or ropes, how much soever they may differ in size, but especially those used in the rigging of ships. The term *cord* is usually employed to distinguish cordage of small size, that is, of small circumference; *rope*, to distinguish the larger descriptions of cordage; and *cable*, to distinguish the largest of all, or the cordage used in the anchoring of ships.

Cordage may be made of an infinite variety of materials—of every thing, in fact, which is slender, flexible, and moderately tenacious, such as the fibres of various descriptions of vegetables; hair, wool, and silk; leathern thongs, wire &c. In Europe it has been mostly formed of the fibres of hemp and flax, particularly the former. But in some parts of the East, coir, or the fibres of the husk of the cocoa nut, is extensively used in the manufacture of the larger descriptions of cordage. (Cours, &c.)

The best cordage is that, of course, which is made of the best material and in the most approved manner. It must neither be too much nor too little twisted. Ropes consist of more or fewer strands according to their thickness. At an average the fibres of hemp used in making ropes lose about one-third of their length by twisting; but in the case of cables the loss is greater.

Ropes are sometimes made of iron wire; and when properly manufactured they have been found to answer much better than might have been anticipated. Chains are now also frequently substituted for various descriptions of ropes; and every body knows that hempen cables have

been all but wholly superseded by iron chains. [CABLES.]

The use of foreign cordage in English ships was formerly prohibited except under peculiar circumstances, but this prohibition has latterly been repealed; and our ship-owners and ship-builders may now use either native or foreign cordage, whichever they prefer. In 1866, 149,222 cwt. of cordage, valued at 412,729*l.*, were exported from the United Kingdom, chiefly to Australia and British North America.

According to Professor Robinson, if you square the circumference of a rope in inches,  $\frac{1}{4}$  the product will be the number of tons weight which it will bear. Very little dependence can, however, be placed on a rule of this sort; for the strength of a rope will depend as much on the material of which it is made, and on its make, as on its circumference. (Rees's *Cyclopædia*; *Penny Cyclopædia*; &c.)

CORIANDEE (Fr. coriandre; Ger. koriander; Ital. coriandro; Span. cilantro). The fruit of the *Coriandrum sativum*, Nat. Order *Apiaceæ*. It is an annual plant, a native of Italy; but is cultivated in Britain and many other countries. The seed when dried is nearly as large as white pepper, is yellowish-brown, and has an agreeable aromatic odour and flavour. Coriander seeds are used in medicine and confectionary. (*British Pharmacopœia*, 1867.)

CORK (Ger. kork; Dutch, kork, kurk, vlothout; Fr. liège; Ital. sughero, suvero; Span. corcho; Port. cortica (de Soveriro); Russ. korkowoe derewo; Lat. suber). The thick and spongy bark of a species of oak (*Quercus Suber*, Linn.), abundant in dry mountainous districts in the south of France, and in Spain, Portugal, Italy, and Barbary. The tree grows to the height of 30 feet or more, has a striking resemblance to the *Quercus Ilex*, or evergreen oak, and attains to a great age. After arriving at a certain state of maturity, it periodically sheds its bark; but this valuable product is found to be of a much better quality when it is artificially removed from the tree, which may be effected without any injury to the latter. After a tree has attained to the age of from 26 to 30 years, it may be barked; and the operation may be subsequently repeated once every 8 or 10 years, the quality of the cork improving with the increasing age of the tree. The bark is taken off in July and August; and trees that are regularly stripped are said to live for 150 years or more. Beckmann (vol. ii. p. 115, Eng. ed.) says that 'when the tree is 15 years old it may be barked, and this can be done successively for 8 years.' This erroneous statement having been copied into the article 'Cork' in Rees's *Cyclopædia*, has thence been translated to a multitude of other works. (Poiret, *Hist. Philosophique des Plantes*, tom. vii. 419.)

Cork is light, porous, readily compressible, and wonderfully elastic. It may be cut into any sort of figure, and, notwithstanding its porosity, is nearly impervious to any common liquor. These qualities make it superior to all other substances for stoppers for bottles, in the manufacture of which it is principally made use of. It is also employed as buoys to float nets, in the construction of life-boats, the making of water-proof shoes, and in various other ways. It was imported into England in order to be used as floats to nets, as early as the beginning of the fourteenth century. Before being manufactured into stoppers, the cork is charred on each side; this makes it contract, lessens its porosity, and consequently fits it the better for cutting off all communication between the external air and the liquid

## CORK

in the bottle. Spanish black is made of calcined cork.

The Greeks and Romans were both well acquainted with cork. They seem also to have occasionally used it as stoppers for vessels (*Cadurum obturamentis*, *Plin. Hist. Nat.* xvi. 8); but it was not extensively employed for this purpose till the seventeenth century, when glass bottles, of which no mention is made before the fifteenth century, began to be generally introduced. (*Beckmann's Hist. Invent.* vol. ii. pp. 114-127, Eng. ed.)

Cork trees abound in various parts of Algeria, particularly in the province of Constantine and in Kabylia. In the latter the bark is used as a covering for houses. The Government of Algiers has made special concessions of land to encourage the cultivation of cork trees.

The manufacture of bottle corks is a considerable source of wealth in the province of Gironde, which produces annually about 125,000 quintals of cork. To supply the demand of the manufacture, which annually consumes 155,000 quintals, 30,000 quintals of rough cork are imported, principally from Andalusia, Estramadura, and the district of Arenys de Mar in the province of Barcelona. The annual production amounts to 1,283,000,000 bottle corks, valued at about 15,500,000 francs. The value of the raw material may be estimated at 3,000,000 francs. Corks are made chiefly in San Felice

## CORN LAWS AND CORN TRADE

de Guixois, Palafurgell, Palajos, Darnius, and Junquera. In Catalonia the annual manufacture of bottle corks varies from 15,000 to 20,000 hales, of from 25,000 to 30,000 corks each.

The chief seats of the production of cork in Portugal are the provinces of Alentejo and Algarve. The exportations are chiefly to Great Britain, Belgium, Holland, &c.

The British import duty on unmanufactured cork was abolished in the year 1815, and in the year 1860 the duties on corks ready made and cork squared for rounding, which had been fixed in 1853 at 6d. per lb. and 8s. per cwt. respectively, were repealed. The policy of the abolition of these duties was questioned, as export duties were levied on cork in Spain and Portugal, the producing countries. The result, as was anticipated, has been that the trade in the manufactured article has very materially increased, whilst the imports of the raw material have remained comparatively stationary. We extract from the annual statement of Trade and Navigation the following figures of the imports of both kinds in 1859 and 1866:—

Year	Cork, unmanufactured		Corks, ready made	
	Quantities	Values	Quantities	Values
1859	tons 5,717	£ 185,115	hls. 537,682	£ 35,601
1866	6,211	203,516	2,681,128	147,599

Quantities and Value of Rough Cork, and of Corks cut, exported from Spain in each Year from 1860 to 1865, distinguishing the Exportations to France and the United Kingdom.

Year	Cork, Rough			Corks, Cut		
	Total	France	United Kingdom	Total	France	United Kingdom
	Quantities					
	quintals	quintals	quintals	mille	mille	mille
1860	25,801	12,709	7,746	492,522	291,092	6,280
1861	35,017	16,538	9,763	595,191	531,833	5,013
1862	28,860	8,821	9,081	498,158	425,141	7,053
1863	kilog. 1,269,218	kilog. 607,662	kilog. 381,121	176,055	378,318	95,116
Value						
	reales	reales	reales	reales	reales	reales
1860	4,281,360	2,335,000	1,590,000	22,550,052	18,119,132	553,600
1861	6,308,460	2,976,810	1,577,510	33,112,401	29,757,118	2,609,780
1862	5,039,928	1,587,780	1,800,418	28,119,816	21,131,997	1,609,993
1863	5,059,545	2,327,772	1,099,251	26,165,300	22,709,880	1,997,360

CORN (Ger. corn, getreide; Dutch, graanen, koren; Dan. korn; Swed. and, spanmal; Fr. blés, grains; Ital. biade, grani; Span. granos; Russ. chjeb; Pol. zboze). The grain or seed of plants separated from the spica or ear, and used for making bread &c. Such are—BARLEY; MAIZE; OATS; PEAS; RYE; WHEAT; &c.

CORNELIAN. [CARNELIAN.]  
CORN LAWS AND CORN TRADE. From the circumstance of corn forming, in this and the most other countries, the principal part of the food of the people, the trade in it, and the laws by which the trade is regulated, are justly looked upon as of the highest importance. But this is upon as the highest importance. But this is upon as the highest importance that renders it necessary to enter at some length into the discussion of this subject. Its difficulty is at least equal to its interest. The enactments made at different periods with respect to the corn trade, and the opinions advanced as to their policy, have been so various and contradictory, that it is indispensable to submit them to some examination, and, if possible, to ascertain the principles which ought to pervade this department of commercial legislation.

I. HISTORICAL SKETCH OF THE CORN LAWS.  
II. PRINCIPLES OF THE CORN LAWS.  
III. FOREIGN CORN TRADE.  
IV. FOREIGN CORN TRADE.

I. HISTORICAL SKETCH OF THE CORN LAWS.

For a long time the regulations with respect to the corn trade were principally intended to promote abundance and low prices. But though the purpose was laudable, the means adopted for accomplishing it had, for the most part, a directly opposite effect. When a country exports corn, it seems, at first sight, as if nothing could do so much to increase her supplies as the prevention of exportation; and even in countries that do not export, its prohibition seems to be a prudent measure, and calculated to prevent the supply from being diminished, upon any emergency below its natural level. These are the conclusions that immediately suggest themselves upon the subject; and it requires a pretty extensive experience, an attention to facts, and a habit of reasoning upon such topics, to perceive the fallacy. These, however, were altogether wanting

when the regulations began to be introduced in other countries. They were with what were supposed to be common sense; and the large supply of the possible, its exportation, or forbidden above certain limits.

The principle of abundance has been steadily a turbulence of the period. Conquest to the year VI.; but at the last was passed, authorising, whenever the home price (equal in amount to present money) per quarter home price did not exceed additional benefit was agriculture by prohibiting home price exceeded a case. But the effect prevented these regulations into full effect, and, in great measure inoperant.

In addition to the fact, it has been common attempt to increase the home price by holding out encouragement to the import, however, been common. During the 500 years in which importation was means; and during the last, for the most part, restrictions.

Besides attempting to exportation, our success then by proscribing the dealers. This most successful upon with suspicious agriculturists concluded to sell their produce at summer, were the corn while the consumers could the dealers were made ascribed the dearths that entirely to the practices buying up corn and winter. These notions, which degree of influence, led particularly in the reign which the freedom of trade entirely suppressed, the buying of it in one it again in another, was able by imprisonment one was allowed to carry another without a license which was confided by the quarter sessions, commerce came to be the policy of these restraints more obvious. They were in 1621; and in 1663 the declared to be legal so exceed 48s. per quarter which, as Adam Smith with all its imperfections twenty than any other in 1773 the last remnants restraining the corn dealers was entirely grossing of corn had

when the regulations affecting the corn trade began to be introduced into Great Britain and other countries. They were framed in accordance with what were supposed to be the dictates of common sense; and their object being to procure as large a supply of the prime necessary of life as possible, its exportation was either totally forbidden, or forbidden when the home price was above certain limits.

The principle of absolute prohibition seems to have been steadily acted upon, as far as the turbulence of the period would admit, from the Conquest to the year 1436, in the reign of Henry VI.; but at the last-mentioned period an Act was passed, authorising the exportation of wheat whenever the home price did not exceed 6s. 8d. (equal in amount of pure silver to 12s. 10½d. present money) per quarter, and barley when the home price did not exceed 3s. 4d. In 1463 an additional benefit was intended to be conferred on agriculture by prohibiting importation until the home price exceeded that at which exportation ceased. But the fluctuating policy of the times prevented these regulations from being carried into full effect, and, indeed, rendered them in a great measure inoperative.

In addition to the restraints laid on exportation, it has been common in most countries to attempt to increase the supply of corn, not only by admitting its unrestrained importation from abroad, but by holding out extraordinary encouragement to the importers. This policy has not, however, been much followed in England. During the 500 years immediately posterior to the Conquest, importation was substantially free; but it was seldom or never promoted by artificial means; and during the last century and a half it has, for the most part, been subjected to severe restrictions.

Besides attempting to lower prices by prohibiting exportation, our ancestors attempted to lower them by proscribing the trade carried on by corn dealers. This most useful class of persons were looked upon with suspicion by every one. The agriculturists concluded that they would be able to sell their produce at higher prices to the consumers, were the corn dealers out of the way; while the consumers concluded that the profits of the dealers were made at their expense; and ascribed the dearths that were then very prevalent entirely to the practices of the dealers, or to their buying up corn and withholding it from market. These notions, which have still a considerable degree of influence, led to various enactments, particularly in the reign of Edward VI., by which the freedom of the internal corn trade was entirely suppressed. The *engrossing* of corn, or the buying of it in one market with intent to sell it again in another, was made an offence punishable by imprisonment and the pillory; and no one was allowed to carry corn from one part to another without a license, the privilege of granting which was confided by a statute of Elizabeth to the quarter sessions. But as the principles of commerce came to be better understood, the impolicy of these restraints gradually grew more and more obvious. They were considerably modified in 1624; and in 1663 the engrossing of corn was declared to be legal so long as the price did not exceed 48s. per quarter (15 Ch. II. c. 7); an Act which, as Adam Smith has justly observed, has with all its imperfections done more to promote plenty than any other law in the statute book. In 1773 the last remnant of the legislative enactments restraining the freedom of the internal corn dealers was entirely repealed. But the engrossing of corn has, notwithstanding, been

since held to be an offence at common law; and, so late as 1800, a corn dealer was convicted of this imaginary crime. He was not, however, brought up for judgment; and it is not very likely that any similar case will ever again occupy the attention of the courts.

The Acts of 1436 and 1463, regulating the prices when exportation was allowed and when importation was to cease, continued, nominally at least, in force till 1562, when the prices at which exportation might take place were extended to 10s. for wheat and 6s. 8d. for barley. But a new principle—that of imposing duties on exportation—was soon after introduced; and in 1571 it was enacted that wheat might be exported, paying a duty of 2s. per quarter, and barley and other grain a duty of 1s. 4d., whenever the home price of wheat did not exceed 20s. per quarter, and barley and malt 12s. At the Restoration the limit at which exportation might take place was very much extended; but as the duty on exportation was, at the same time, so very high as to be almost prohibitory, the extension was of little or no service to the agriculturists. This view of the matter seems to have been speedily taken by the Legislature; for in 1663 the high duties on exportation were taken off, and an ad valorem duty imposed in their stead, at the same time that the limit of exportation was extended. In 1670 a still more decided step was taken in favour of agriculture; an Act being then passed which extended the exportation price to 53s. 4d. per quarter for wheat, and other grain in proportion, imposing at the same time prohibitory duties on the importation of wheat till the price rose to 53s. 4d., and a duty of 8s. between that price and 80s. But the real effects of this Act were not so great as might have been anticipated. The extension of the limit of exportation was rendered comparatively nugatory in consequence of the continuance of the duties on exportation caused by the necessities of the Crown; while the want of any proper method for the determination of prices went far to nullify the prohibition of importation.

At the accession of William III. a new system was adopted. The interests of agriculture were then looked upon as of paramount importance; and to promote them, not only were the duties on exportation totally abolished, but it was encouraged by the grant of a *bounty* of 5s. on every quarter of wheat exported, while the price continued at or below 48s.; of 2s. 6d. on every quarter of barley or malt, while their respective prices did not exceed 24s.; and of 3s. 6d. on every quarter of rye, when its price did not exceed 32s. (1 Wm. & Mary c. 12.) A bounty of 2s. 6d. per quarter was subsequently given upon the exportation of oats and oatmeal, when the price of the former did not exceed 15s. per quarter. Importation continued to be regulated by the Act of 1670.

Much diversity of opinion has been entertained with respect to the policy of the bounty. That it was intended to raise the price of corn is clear, from the words of the statute, which states 'that the exportation of corn and grain into foreign parts, when the price thereof is at a low rate in this kingdom, hath been a great advantage not only to the owners of land, but to the trade of the kingdom in general; therefore, &c. But admitting this to have been its object it has been contended that the low prices which prevailed during the first half of last century show that its real effect was precisely the reverse; and that, by extending tillage, it contributed to reduce prices. It will be afterwards shown that this could not really be the case; and the fall of prices may be sufficiently

accounted for by the improved state of agriculture, the gradual consolidation of farms, the diminution of sheep husbandry &c., combined with the slow increase of the population. In point of fact, too, prices had begun to give way 30 years before the bounty was granted; and the fall was equally great in France, where, instead of exportation being encouraged by a bounty, it was almost entirely prohibited; and in most other continental states. (For proofs of what is now stated, see the article 'Corn Laws' in the new edition of the *Encyc. Brit.*)

The Tables annexed to this article show that, with some few exceptions, there was, during the first 66 years of last century, a large export of corn from England. In 1750 the wheat exported amounted to 917,000 quarters; and the total bounties paid during the 10 years from 1740 to 1751 reached the sum of 1,515,000*l.* But the rapid increase of population subsequently to 1760, and particularly after the Peace of Paris, in 1763, when the commerce and manufactures of the country were extended in an unprecedented degree, gradually reduced this excess of exportation, and occasionally, indeed, inclined the balance the other way. This led to several suspensions of the restrictions on importation; and at length, in 1773, a new Act was framed, by which foreign wheat was allowed to be imported on paying a nominal duty of 6*d.* whenever the home price was at or above 48*s.* per quarter, and the bounty and exportation were together to cease when the price was at or above 4*s.* The bounty amounted to 5*s.* on every quarter of wheat; 2*s.* 6*d.* on every quarter of barley; 3*s.* 6*d.* on every quarter of rye; and 2*s.* 6*d.* on every quarter of oats. This statute also permitted the importation of corn at any price, duty free, in order to be again exported, provided it were in the mean time lodged under the joint locks of the king and the importer.

The prices when exportation was to cease by this Act seem to have been fixed too low; and, as Adam Smith has observed, there appears a good deal of impropriety in prohibiting exportation altogether the moment it attained the limit when the bounty given to force it was withdrawn; yet, with all these defects, the Act of 1773 was a material improvement on the former system, and ought not to have been altered unless to give greater freedom to the trade.

The idea that this law must, when enacted, have been injurious to the agriculturists, seems altogether illusory; the permission to import foreign grain, when the home price rose to a moderate height, certainly prevented their realising exorbitant profits in dear years, at the expense of the other classes; and prevented an unnatural proportion of the capital of the country from being turned towards agriculture. But as the limit at which importation at a nominal duty was allowed was fixed a good deal above the average price of the reign of George II., it cannot be maintained that it had any tendency to reduce previous prices, which is the only thing that could have discouraged agriculture; and, in fact, no such reduction took place.

It is indeed true that but for this Act we should not have imported so much foreign grain in the interval between 1773 and 1791. This importation, however, was not a consequence of the decline of agriculture; for it is admitted that every branch of rural economy was more improved in that period than in the whole of the preceding century; but arose entirely from a still more rapid increase of the manufacturing population, and hence of the effective demand for corn.

By referring to the Tables annexed to this

article, it will be seen that in 1772 the balance on the side of wheat imported amounted to 18,515 quarters; and in 1773, 1774, and 1775, all years of great prosperity, the balance was very much increased. That the loss of a great part of our colonial possessions, the stagnation of commerce, and difficulty of obtaining employment, occasioned by the American war, diminished the consumption; and this, combined with unusually productive harvests, rendered the balance high on the side of exportation in 1778, 1779, and 1780. In 1783 and 1784 the crops were unusually deficient, and considerable importations took place; but in 1785, 1786, and 1787 the exports again exceeded the imports; and it was not till 1788, when the country had fully recovered from the effects of the American war, and when manufacturing improvements were carried on with extraordinary spirit, that the imports permanently overbalanced the exports.

The growing wealth and commercial prosperity of the country had thus, by increasing the population and enabling individuals to consume additional quantities of food, caused the home supply of corn to fall somewhat short of the demand; but it must not therefore be concluded that agriculture had not at the same time been very greatly meliorated. 'The average annual produce of wheat,' says Mr. Comber, 'at the beginning of the reign of George III. (1760), was about 3,800,000 quarters, of which about 300,000 had been sent out of the kingdom, leaving about 3,500,000 for home consumption. In 1773 the produce of wheat was stated in the House of Commons to be 4,000,000 quarters, of which the whole, and above 100,000 imported, were consumed in the kingdom. In 1796 the consumption was stated by Lord Hawkesbury to be 500,000 quarters per month, or 6,000,000 quarters annually, of which about 180,000 were imported; showing an increased produce in about 20 years of 1,820,000 quarters. It is evident, therefore, not only that no defalcation of produce had taken place in consequence of the cessation of exportation, as has been too lightly assumed from the occasional necessity of importation, but that it had increased with the augmentation of our commerce and manufactures.' (Comber *On National Subsistence*, p. 189.)

These estimates are, no doubt, very loose and unsatisfactory; but the fact of a great increase of produce having taken place is unquestionable. In a report by a committee of the House of Commons on the state of the *waste lands*, drawn up in 1797, the number of Acts passed for enclosing, and the number of acres enclosed, in the following reigns, are thus stated:—

	No. of Acts	No. of Acres
In the reign of Queen Anne	-	149
George I.	-	16
George II.	-	296
George III. to 1797	1,552	2,991,075

It deserves particular notice, that from 1771 to 1791, both inclusive, the period during which the greater number of these improvements were effected, there was no rise of prices.

The landholders, however, could not but consider the liberty of importation granted by the Act of 1773 as injurious to their interests, inasmuch as it prevented prices from rising with the increased demand. A clamour, therefore, was raised against that law; and in addition to this interested feeling, a dread of becoming habitually dependent on foreign supplies operated on many, and produced a pretty general acquiescence in the Act of 1791. By this Act the price when importation could take place from abroad at the low duty of 6*d.* was raised to 5*s.*; under 5*s.* and above 50*s.* a middle duty of 2*s.* 6*d.*; and under

50*s.* a prohibitory duty. The bounty without being enacted the stored under tree of duty became liable addition to time of sale.

In 1797 the importation from foreign countries, consequent facility of command of the efficacy of which the scarcity of wheat, inasmuch, however, not allow the price had been broken, continued, a new set of farmers, and prohibitory duty on wheat imported below 63*s.*; but of 2*s.* 6*d.* was paid of 6*d.* The price of exportation without bounty into 12 districts being regulated by the Act of England, by the districts, and in average of the 4 years was divided. The year, so that the price for less than 3 months, retaining prices was, following session; it was regulated by the average price of the districts of England.

In 1805 the crop was and the average price per quarter above that was allowed by the 2 million of paper compensation only four per cent year must have been law preventing importation home price was high, operations, and to the war threw in the 1806, 1807, and 1808 was nearly 3 per cent those years being getting importations were by restraints had been the free importation between Great Britain wholly abolished in 1 year (16 Geo. III. c. 9) in corn between the two price was not only a war itself, but has powerfull general advantage. In 1814 the depreciation usually great; and so very being likewise deficient, by both causes, rose to that time no vessel could port for England, and the freight was five times as high as the time of Napoleon's return in the autumn of 1815.

50s. a prohibiting duty of 24s. 3d. was exigible. The bounty continued as before, and exportation without bounty was allowed to 46s. It was also enacted that foreign wheat might be imported, stored under the king's lock, and again exported free of duty; but if sold for home consumption, it became liable to a warehouse duty of 2s. 6d. in addition to the ordinary duties payable at the time of sale.

In 1797, the Bank of England obtained an exemption from paying in specie; and the consequent facility of obtaining discounts and getting a command of capital, which this measure occasioned, gave a fresh stimulus to agriculture, the efficacy of which was most powerfully assisted by the scarcity and high prices of 1800 and 1801. Inasmuch, however, as the prices of 1804 would not allow the cultivation of the poor soils, which had been broken up in the dear years, to be continued, a new corn law was loudly called for by the farmers, and passed in 1804. This law imposed a prohibitory duty of 24s. 3d. per quarter on all wheat imported when the home price was at or below 63s.; between 63s. and 66s. a middle duty of 2s. 6d. was paid, and above 66s. a nominal duty of 6d. The price at which the bounty was allowed on exportation was extended to 50s., and exportation without bounty to 54s. By the Act of 1791 the maritime counties of England were divided into 12 districts, importation and exportation being regulated by the particular prices of each; but by the Act of 1804 they were regulated, in England, by the aggregate average of the maritime districts, and in Scotland by the aggregate average of the 4 maritime districts into which it was divided. The averages were taken 4 times a year, so that the ports could not be open or shut for less than 3 months. This manner of ascertaining prices was, however, modified in the following session; it being then fixed that importation, both in England and Scotland, should be regulated by the average price of the 12 maritime districts of England.

In 1805 the crop was very considerably deficient, and the average price of that year was about 22s. per quarter above the price at which importation was allowed by the Act of 1804. As the depreciation of paper compared with bullion was at that time only four per cent., the high price of that year must have been principally owing to the new law preventing importation from abroad till the home price was high, and then fettering mercantile operations, and to the formidable obstacles which the war threw in the way of importation. In 1806, 1807, and 1808, the depreciation of paper was nearly 3 per cent.; and the price of wheat in those years being generally from 66s. to 75s., the importations were but small. Several impolitic restraints had been for a long time imposed on the free importation and exportation of corn between Great Britain and Ireland, but they were wholly abolished in 1806; and the Act of that year (46 Geo. III. c. 97), establishing a free trade in corn between the two great divisions of the empire, was not only a wise and proper measure in itself, but has powerfully contributed to promote the general advantage. From autumn 1808, to spring 1811, the depreciation of the currency was unusually great; and several crops in that interval being likewise deficient, the price of corn, influenced by both causes, rose to a surprising height. At that time no vessel could be laden in any continental port for England without purchasing a license, and the freight and insurance were at least five times as high as during peace. But the detection of Napoleon's anti-commercial system, in the autumn of 1813, having increased the

facilities of importation, a large quantity of corn was poured into the kingdom; and in 1811 its *bullion* price fell below the price at which importation was allowed.

Before this fall of price, a committee of the House of Commons had been appointed to enquire into the state of the laws affecting the corn trade, and recommended in their Report (dated May 11, 1813) a very great increase of the prices at which exportation was allowable, and when importation free of duty might take place. This recommendation was not, however, adopted by the House; but the fact of its having been made when the home price was at least 112s. per quarter displayed a surprising solicitude to exclude foreigners from all competition with the home growers.

The wish to lessen the dependence of the country on foreign supplies formed the sole ostensible motive by which the committee of 1813 had been actuated in proposing an alteration in the Act of 1804. But after the fall of price in autumn 1813, and in the early part of 1814, it became obvious, on comparing our previous prices with those of the continent, that without an alteration of the law in question this dependence would be a good deal increased; that a considerable extent of such poor lands as had been brought into cultivation during the high prices would be again thrown into pasture; and that rents would be lowered. These consequences alarmed the landlords and occupiers; and in the early part of the session of 1814 a series of resolutions were voted by the House of Commons, declaring that it was expedient to repeal the bounty, to permit the free exportation of corn whatever might be the home price, and to impose a graduated scale of duties on the importation of foreign corn. Thus, foreign wheat imported when the home price was at or under 61s. was to pay a duty of 24s.; when at or under 65s. a duty of 23s.; and so on till the home price should reach 86s., when the duty was reduced to 1s., at which sum it became stationary. Corn imported from Canada, or from the other British colonies in North America, was to pay  $\frac{1}{2}$  the duties on other corn. As soon as these resolutions had been agreed to, two bills founded on them—one for regulating the importation of foreign corn, and another for the repeal of the bounty, and for permitting unrestricted exportation—were introduced. Very little attention was paid to the last of these bills; but the one imposing fresh duties on importation encountered a very keen opposition. The manufacturers, and every class not directly supported by agriculture, stigmatised it as an unjustifiable attempt artificially to keep up the price of food, and to secure excessive rents and large profits to the landlords and farmers at the expense of the consumers. Meetings were very generally held, and resolutions entered into strongly expressive of this sentiment, and dwelling on the fatal consequences which, it was affirmed, a continuance of the high prices would have on manufactures and commerce. This determined opposition, coupled with the indecision of ministers, and perhaps, too, with an expectation on the part of some of the landholders that prices would rise without any legislative interference, caused the miscarriage of this bill. The other bill, repealing the bounty, and allowing an unlimited freedom of exportation, was passed into a law.

Committees had been appointed in 1814, by both Houses of Parliament, to examine evidence and report on the state of the corn trade; and, in consequence, a number of the most eminent agriculturists were examined. The witnesses were unanimous in this only: that the protecting prices in the Act of 1804 were insufficient to enable the farmers to make good the engagements into which



creasing by 1s. 6d. for every 1s. when the price fell below that limit. The limit at which the constant duty of 1s. per quarter was to take place in the case of oats was originally fixed at 28s.; but it was subsequently raised to 33s., the duty increasing at the rate of 1s. per quarter for every shilling that the price fell below that limit. The duty on colonial wheat was fixed at 6d. per quarter when the home price was above 65s.; and when the price was under that sum the duty was constant at 5s.; the duties on other descriptions of colonial grain were similar. These resolutions were agreed to by a large majority; and a bill founded on them was subsequently carried through the House of Commons. Owing, however, to the change of ministers, which took place in the interim, several peers, originally favourable to the bill, and some, even, who assisted in its preparation, saw reason to become amongst its most violent opponents; and a clause moved by the Duke of Wellington, interdicting all importation of foreign corn until the home price exceeded 66s., having been carried in the Lords, ministers gave up the bill, justly considering that such a clause was entirely subversive of its principle.

A new set of resolutions with respect to the corn trade were brought forward in 1828 by Mr. Charles Grant (afterwards Lord Glenelg). They were founded on the same principles as those which had been rejected during the previous session, but the duty was not made to vary equally, as in Mr. Canning's resolutions, with every equal variation of price; it being 23s. 8d. when the home price was 61s. the Imperial quarter, 16s. 8d. when it was 69s., and 1s. only when it was at or above 80s. After a good deal of debate, Mr. Grant's resolutions were carried, and embodied in the Act Geo. IV. c. 60.

The crops having been deficient in 1829 and 1830, there was a large importation of corn in these years, its average price being at the same time about 65s. per quarter. But the crops from 1831 to 1836 having been more than usually abundant, importation almost wholly ceased, and the price of wheat sunk in 1835 to 39s. 4d. per quarter, less than it had been in any previous year since 1776. In consequence of this succession of low harvests and low prices, the corn laws ceased to attract any considerable portion of public attention, and an impression began to prevail that the improvement of agriculture was proceeding so very rapid, that, despite the increase of population, and the existence of the corn laws, the price would fall to about the level of those of the Continent. But the cycle of favourable seasons having terminated in 1837, the crops of that and the succeeding 5 years were considerably deficient, so much so that prices rose in 1839 to 70s. per quarter, the importations in that and the following years being also very large. This increase in the price of corn, combined with the depressed state of the commerce of the country, arising in the pecuniary revulsion in the United States and other causes, again attracted a great attention to the corn laws; and the oppressive and injurious operation of the duties were very strongly animadverted upon at public meetings in the manufacturing towns and elsewhere. An association, denominated the Anti-Corn Law League, originally founded in Lancashire, which subsequently extended its ramifications to most parts of the country, was set on foot for the express purpose of keeping up an agitation against the corn laws, which, in consequence of these concurring circumstances, proceeded with greater bitterness than ever. The persistence of the subject at length forced it

on the attention of Government, and in 1841 ministers, actuated partly by a sense of the mischievous influence of the sliding scale, and partly also by a wish to strengthen their declining popularity, brought forward a plan for remodelling the corn laws, by repealing the sliding scale and imposing in its stead a constant duty of 8s. per quarter on wheat, and in proportion on other grain. But, having no majority in Parliament, ministers were obliged to resort to a dissolution; and their proposal having, notwithstanding its moderation, excited the greatest apprehensions among the agriculturists, without being very warmly supported by the other classes, a new Parliament was returned, which gave a decided majority to the opposition. It was, nevertheless, felt on all hands to be necessary to make some considerable change in the existing law, and in 1842 a measure was introduced in that view by Sir Robert Peel, which was subsequently passed into a law, 5 Vict. 2nd sess. c. 14.

Unfortunately, however, this measure, like that by which it was preceded, was bottomed on the principle of making the duties vary with the variations in the price of corn; and though the duties were decidedly less oppressive than those imposed by the 9 Geo. IV. c. 60, still they were in no ordinary degree objectionable, as well from their too great magnitude as from their adding to the natural insecurity of the corn trade, and increasing the chances and severity of fluctuations. It is not, therefore, to be wondered at that the new measure gave but little satisfaction. Instead of being abated, the agitation and clamour against the corn laws continued progressively to gain strength; and the conviction began at the same time gradually to extend itself among many of those by whom these laws had hitherto been supported, that farther modifications would have to be made in them, and that they might be made without inflicting any very serious injury upon agriculture.

This conviction was greatly strengthened by the result of the important changes made by Sir Robert Peel in the tariff in 1842, and more especially by those which had reference to the importation of live cattle and fresh provisions. These had previously been prohibited; but the minister proposed that this prohibition should be repealed, and that their importation should be permitted under reasonable duties. This proposal, when first brought forward, excited the greatest apprehensions among the farmers and graziers, and was followed by an immediate fall in the price of cattle. Happily, however, the measure was carried, and it was speedily discovered that there was no such difference between the prices of cattle of the same quality here and in the adjacent parts of the continent as had been supposed; and that the fears entertained by the agriculturists of the approaching ruin of the businesses of breeding and grazing were altogether visionary and unfounded. The experience afforded by the reduction and subsequent abolition of the duty on wool was exactly similar. Instead of being injured, the interests of the British sheep farmers have been most materially promoted by these measures; the demand for home-grown wool having been rendered comparatively steady, and its price considerably increased by the powerful stimulus which the change in the duty on foreign wool gave to the woollen manufacture.

In the following year, that is, in 1843, a measure was adopted which made a wide breach in the corn laws. In 1842 the Legislature of Canada passed a law imposing a duty of 3s. per quarter on all wheat imported into the province, unless from

the United Kingdom, stating in the preamble to this Act that it was passed in the expectation and belief that a corresponding reduction would be made in the duties on wheat and wheat-flour imported into the United Kingdom from Canada. And conformably to this anticipation, the Act 6 & 7 Vict. c. 29, passed in the course of 1843, reduced the duty on wheat imported from Canada to 1s. per quarter, and proportionally on wheat-flour. This Act met with much opposition from a part of the agricultural interest in this country, who contended that it would lead to the introduction of unlimited supplies of corn from the United States at a duty of only 4s. per quarter, or, allowing for smuggling, at perhaps only  $\frac{1}{2}$  that amount. But experience showed that these anticipations were not likely to be realised; for, though the imports from Canada were materially increased, the obstacles in the way of the importation of corn from the United States into Canada, and the danger and expense of the voyage from Montreal or Quebec to England, must necessarily have prevented the importation through this channel from ever becoming of much importance. Still, however, the measure was in so far an abandonment of the corn laws; and if we were justified in admitting the produce of the United States to our markets in this indirect way, it was not easy to discover satisfactory grounds on which to exclude the produce of other states.

The success of the measures adopted in 1842 encouraged Sir Robert Peel to attempt still more considerable changes in 1845, when he totally abolished the customs duties on a few (not 420 different articles, some of which were of very considerable importance. The measures then adopted were equivalent, in fact, to the virtual abandonment of the protective system; and under such circumstances it could not be expected that the corn laws, on which so serious an inroad had been made by the Canada Act, would be able to maintain their place on the statute book for any very lengthened period.

They might, however, have been continued for some time longer, had not the unsatisfactory corn harvest, and the failure of the potato crop of 1845, made it necessary to adopt measures for averting the anticipated deficiency in the supplies of food. Under the critical circumstances in which the population was then believed to be placed, the temporary suspension of the corn laws could hardly have been avoided; but if once suspended, their re-enactment would have been all but impossible, and it was better by at once providing for their repeal to make an end of the system, and of the dissatisfaction and agitation to which it had given birth. It is not necessary to endeavour to continue it in any modified shape. Such was the view of the matter taken by Sir Robert Peel, and he fortunately succeeded, despite difficulties that none else could have overcome, in carrying the Act 9 & 10 Vict. c. 22, for the immediate modification of the corn laws, and for their total repeal at the end of 3 years, or on February 1, 1849. (See *post*.)

## II. PRINCIPLES OF THE CORN LAWS.

1. *Internal Corn Trade.*—It is needless to take up the reader's time by endeavouring to prove by argument the advantage of allowing the free conveyance of corn from one province to another. Every one sees that this is indispensable, not only to the equal distribution of the supplies of food over the country, but to enable the inhabitants of those districts that are best fitted for the raising and fattening of cattle, sheep &c. to add themselves to these or other necessary occupations not

directly connected with the production of corn. We shall, therefore, confine the few remarks we have to make on this subject to the consideration of the influence of the speculations of the corn merchants in buying up corn in anticipation of an advance. Their proceedings in this respect, though of the greatest public utility, have been the principal causes of that odium to which they have been long exposed.

Were the harvests always equally productive, nothing would be gained by storing up supplies of corn; and all that would be necessary would be to distribute the crop equally throughout the country and throughout the year. But such is not the order of nature. The variations in the aggregate produce of a country in different seasons, though not perhaps so great as are commonly supposed, are still very considerable; and experience has shown that two or three unusually luxuriant harvests seldom take place in succession; or that when they do, they are invariably followed by those that are deficient. The speculators in corn anticipate this result. Whenever prices begin to give way in consequence of an unusually luxuriant harvest, speculation is at work. The more opulent farmers withhold either the whole or a part of their produce from market; and the more opulent dealers purchase largely of the corn brought to market and store it up in expectation of a future advance. And thus, without intending to promote any one's interest but their own, speculators in corn become the benefactors of the public. They provide a reserve stock against those years of scarcity which are sure at no distant period to recur; while, by withdrawing a portion of the redundant supply from immediate consumption, prices are prevented from falling so low as to be injurious to the farmers, or at least are maintained at a higher level than they would otherwise have reached; provident habits are maintained amongst the people; and that waste and extravagance are checked which always take place in plentiful years, but which would be carried to a much greater extent if the whole produce of an abundant crop were to be consumed within the season.

It is, however, in scarce years that the speculations of the corn merchants are principally advantageous. Even in the richest countries, a very large proportion of the individuals engaged in the business of agriculture are comparatively poor, and are totally without the means of withholding their produce from market in order to speculate upon any future advance. In consequence the markets are always most abundantly supplied with produce immediately after harvest; and in countries where the merchants engaged in the corn trade are not possessed of large capitals, or where their proceedings are fettered and restricted, there is then, almost invariably, a heavy fall of prices. But as the vast majority of the people buy their food in small quantities, or from day to day, as they want it, their consumption is necessarily extended or contracted according to the price at the time. Their views do not extend to the future; they have no means of judging whether the crop is or is not deficient. The live, as the phrase is, from hand to mouth, are satisfied if, in the mean time, they obtain abundant supplies at a cheap rate. But it is obvious, that were there nothing to counteract this improvidence, the consequence would very often be fatal in the extreme. The crop of one harvest must support the population till the crop of the other harvest has been gathered in; and if that crop should be deficient—in, for instance, it should only be adequate to afford

the usual rate of 10 months' provision, that, unless the price after harvest as to were the whole most dreadful famine, to the examination of the account of the grain in England, Fleetwood and Sir abundant proofs of have been stated. In the farmers were generally withholding their corn from the trade of a corn almost improvidence—consumption of grain.

few years in which a experienced immediately in which there was an enormous price excess can now form an idea of other grain being 4 or 5 July as in September or even, to the increase of large farmers and dealers to the operations of the lower exposed to speculation. Whenever the dealers, who are the means of information with the real state of the of years find the harvest they raise the price of the lowest, and bid against which the farmers are the consequence of this rise orders, but especially the consumers of corn, find greater economy, and to and wasteful consumption, this immediately put under the pressure of the scarcity throughout the year; and was formerly the case, in the case, in seasons of it became altogether deficient, and without resource to and pestilence, the speculators warn us of our danger against it.

It is not easy to suppose of the corn merchants should the public. It has been shown they are not disposed to buy purchased to market until a without price, and that the price is thus often very much advanced no real ground for any such measure amount of capital required which it is liable, render most as soon as they can real every extensive country in which it is to be formed amongst were formed, it could not be formed. A large proportion of the small holders of corn are in circumstances, more particularly has not occurred so soon as they are consequently anxious to sell as soon as prices rise, and to get out of their hands. Occasional individuals are found who retain their corn a period, or until a rise begins to decline. But

the usual rate of consumption, a supply of 9 or 10 months' provisions instead of 12—it is plain that, unless the price were so raised immediately after harvest as to enforce economy, and put, as it were, the whole nation on short allowance, the most dreadful famine would be experienced previously to the ensuing harvest. Those who examine the accounts of the prices of wheat and other grain in England, collected by Bishop Fleetwood and Sir F. M. Eden, will meet with abundant proofs of the accuracy of what has now been stated. In those remote periods when the farmers were generally without the means of withholding their crops from market, and when the trade of a corn dealer was proscribed, the utmost improvidence was exhibited in the consumption of grain. There were then, indeed, very few years in which a considerable scarcity was not experienced immediately before harvest, and many in which there was an absolute famine. The fluctuations of price exceeded every thing of which we can now form an idea; the price of wheat and other grain being 4 or 5 times as high in June and July as in September and October. Thanks, however, to the increase of capital in the hands of the large farmers and dealers, and to the freedom given to the operations of the corn merchants, we are no longer exposed to such ruinous vicissitudes. Whenever the dealers, who, in consequence of their superabundance of information, are better acquainted with the real state of the crops than any other class of persons, find the harvest likely to be deficient, they raise the price of the corn they have warehoused, and bid against each other for the corn which the farmers are bringing to market. In consequence of this rise of prices, all ranks and orders, but especially the lower, who are the great consumers of corn, find it indispensable to use greater economy, and to check all improvident and wasteful consumption. Every class being thus immediately put upon short allowance, the pressure of the scarcity is distributed equally throughout the year; and instead of indulging, as was formerly the case, in the same scale of consumption as in seasons of plenty, until the supply became altogether deficient, and then being exposed without resource to the attacks of famine and pestilence, the speculations of the corn merchants warn us of our danger, and compel us to provide against it.

It is not easy to suppose that these proceedings of the corn merchants should ever be injurious to the public. It has been said that in scarce years they are not disposed to bring the corn they have purchased to market until it has attained an exorbitant price, and that the pressure of the scarcity is thus often very much aggravated; but there is no real ground for any such statement. The immense amount of capital required to store up any considerable quantity of corn, and the waste to which it is liable, render most holders disposed to sell as soon as they can realise a fair profit. In every extensive country in which the corn trade is free, there are infinitely too many persons engaged in it to enable any sort of combination or concert to be formed amongst them; and though it were formed, it could not be maintained for an instant. A large proportion of the farmers and other small holders of corn are always in straitened circumstances, more particularly if a scarce year has not occurred so soon as they expected; and they are consequently anxious to relieve themselves, as soon as prices rise, of a portion of the stock on their hands. Occasionally, indeed, individuals are found who retain their stocks for a long period, or until a reaction takes place, and prices begin to decline. But instead of joining

in the popular cry against such persons, every one who takes a dispassionate view of the matter will perceive that, inasmuch as their miscalculation must, under the circumstances supposed, be exceedingly injurious to themselves, we have the best security against its being carried to such an extent as to be productive of any material injury or even inconvenience to the public. It should also be borne in mind that it is rarely, if ever, possible to determine beforehand when a scarcity is to abate in consequence of new supplies being brought to market; and had it continued a little longer, there would have been no miscalculation on the part of the holders. At all events, it is plain that by declining to bring their corn to market, they preserved a resource on which, in the event of the harvest being longer delayed than usual, or of any unfavourable contingency taking place, the public could have fallen back; so that, instead of deserving abuse, these speculators are most justly entitled to every fair encouragement and protection. A country in which there is no considerable stock of grain in the barn-yards of the farmers, or in the warehouses of the merchants, is in the most perilous situation that can easily be imagined, and may be exposed to the severest privations, or even famine. But so long as the sagacity, the miscalculation, or the avarice of merchants and dealers retain a stock of grain in the warehouses, this last extremity cannot take place. By refusing to sell it till it has reached a very high price, they put an effectual stop to all sorts of waste, and husband for the public those supplies which they could not have so frugally husbanded for themselves.

We have already remarked that the last remnant of the shackles imposed by statute on the freedom of the internal corn dealer was abolished in 1773. It is true that engrossing, forestalling, and regrating [*Engrossing &c.*] are still held to be offences at common law; but there is very little probability of any one being in future made to answer for such ideal offences.

2. *Exportation to Foreign Countries.*—The fallacy of the notion so long entertained, that the prevention of exportation was the surest method of increasing plenty at home, is obvious to every one who has reflected upon such subjects. The markets of no country can ever be steadily and plentifully supplied with corn unless her merchants have power to export the surplus supplies with which they may be occasionally furnished. When a country without the means of exporting grows nearly her own average supplies of corn, an abundant crop, by causing a great overloading of the market and a heavy fall of price, is as injurious to the farmer as a scarcity. It may be thought, perhaps, that the greater quantity of produce in abundant seasons will compensate for its lower price; but this is not the case. It is uniformly found that variations in the quantity of corn exert a much greater influence over prices than equal variations in the quantity of almost any thing else offered for sale. Being the principal necessary of life, when the supply of corn happens to be less than ordinary the mass of the people make very great, though unavailing, exertions, by diminishing their consumption of other and less indispensable articles, to obtain their accustomed supplies of this prime necessary: so that its price rises much more than in proportion to the deficiency. On the other hand, when the supply is unusually large, the consumption is not proportionally extended. In ordinary years the bulk of the population is about adequately fed; and though the consumption of all classes be somewhat greater in unusually plentiful years, the extension is consi-

derable only among the lowest classes, and in the feeding of horses. Hence it is that the increased supply at market, in such years, goes principally to cause a glut, and consequently a ruinous decline of prices. These statements are corroborated by the widest experience. Whenever there is an inability to export, from whatever cause it may arise, an unusually luxuriant crop is uniformly accompanied by a very heavy fall of price, and severe agricultural distress; and when two or three such crops happen to follow in succession, the ruin of a large proportion of the farmers is completed.

If the mischiefs resulting from the want of power to export stopped here, they might, though very great, be borne; but they do not stop here. It is idle to suppose that a system ruinous to the producers can be otherwise to the consumers. A glut of the market, occasioned by luxuriant harvests and the want of power to export, cannot be of long continuance; for, while it continues, it can hardly fail, by distressing all classes of farmers and causing the ruin of many, to give a check to every species of agricultural improvement, and to lessen the extent of land in tillage. When, therefore, an unfavourable season recurs, the reaction is, for the most part, appalling. The supply, being lessened, not only by the badness of the season, but also by a diminution of the quantity of land in crop, falls very far below an average; and a severe scarcity, if not an absolute famine, is most commonly experienced. It is therefore clear, that if a country would render herself secure against famine and injurious fluctuations of price, she must give every possible facility to exportation in years of unusual plenty. If she act upon a different system—if her policy make exportation in such years impracticable or very difficult—she will infallibly render the bounty of Providence an injury to her agriculturists; and two or three abundant harvests in succession will be the forerunners of scarcity and famine.

3. *Bounty on the Exportation of Corn.*—In Great Britain, as already observed, we have not only been allowed to export for a long series of years, but from the Revolution down to 1815 a bounty was given on exportation whenever the home prices were depressed below certain limits. This policy, however, erred as much on the one hand as a restriction on exportation errs on the other. It causes, it is true, an extension of the demand for corn: but this greater demand is not caused by natural, but by artificial means; it is not a consequence of any really increased demand on the part of the foreigner, but of our furnishing the exporters of corn with a *bounty*, in order that they may sell it abroad below its natural price! To suppose that a proceeding of this sort can be a public advantage is equivalent to supposing that a shopkeeper may get rich by selling his goods below what they cost. [BOUNTY.]

4. *Importation from Foreign Countries.*—If a country were, like Poland or Russia, uniformly in the habit of exporting corn to other countries, a restriction on importation would be of no material consequence: because, though such restriction did not exist, no foreign corn would be imported unless its ports were so situated as to serve for an entrepôt. A restriction on importation is sensibly felt only when it is enforced in a country which, owing to the greater density of its population, the limited extent of its fertile land, or any other cause, would either occasionally or uniformly import. It is familiar to the observation of every one, that a total failure of the crops is a calamity that but rarely occurs in an extensive kingdom;

that the weather which is unfavourable to one description of soil is generally favourable to some other description; and that, except in anomalous cases, the total produce is not very different. But what is thus generally true of single countries, is always true of the world at large. History furnishes no single instance of a universal scarcity; but it is uniformly found that when the crops in a particular country are unusually deficient, they are proportionally abundant in some other quarter. It is clear, however, that a prohibition of importation excludes the country which enacts it from profiting by this beneficial arrangement. She is thrown entirely on her own resources. Under the circumstances supposed, she has nothing to trust to for relief but the reserves in her warehouses; and should these be inadequate to meet the exigency of the crisis, there are apparently no means by which she can escape experiencing all the evils of scarcity, or, it may be, of famine. A country deprived of the power to import is unable to supply the deficiencies of her harvests by the surplus produce of other countries; so that her inhabitants may starve amidst surrounding plenty, and suffer the extreme of scarcity when, but for the restrictions on importation, they might enjoy the greatest abundance. If the prohibition be not absolute, but conditional—if, instead of absolutely excluding foreign corn from the home markets, it be merely loaded with a duty, the degree in which scarcity will depend on its magnitude. If the duty be constant and moderate, it may not have any very considerable effect in discouraging importation; but if it be fluctuating and heavy, it will, by falsifying the speculations of the merchants, and making a corresponding addition to the price of the corn imported, be proportionally injurious. In whatever degree foreign corn may be excluded in years of deficient crops, to the same extent must prices be artificially raised, and the pressure of the scarcity rendered so much the more severe.

Such would be the disastrous influence of a restriction on importation in a country which, were there no such obstruction in the way, would sometimes import and sometimes export. But its operation would be infinitely more injurious in a country which, under a free system, would uniformly import a portion of her supplies. The restriction in this case has a twofold operation. By preventing importation from abroad, and forcing the population to depend for subsistence on corn raised at home, it compels recourse to comparatively inferior soils; and thus, by increasing the cost of producing corn above its cost in other countries, adds proportionally to its average price. The causes of fluctuation are, in this way, increased in a geometrical proportion; for, while the prevention of importation exposes the population to the pressure of want whenever the harvest happens to be less productive than usual, it is sure, at the same time, by raising average prices, to hinder exportation in a year of unusual plenty, until the home prices fall ruinously low. It is obvious, therefore, that a restriction of this sort must be alternately destructive of the interests of the consumers and producers. It injures the former by making them pay, at an average, an artificially increased price for their food, and by exposing them to scarcity and famine whenever the home crop proves deficient; and it injures the latter by depriving them of the power to export in years of unusual plenty, and by overloading the market with produce, when, under a free system, would have met with the advantageous sale abroad.

The principle of impossibility of prices by means of the same time may trace the natural distress experience. The real was to keep up a quarter; but to be able not only that when prices were markets should be produced at home principle already should in ordinary population, it may year, be more than when, in such a case, the market, it can average prices being of those of the ruinous depression, situation of this country partly to the difficulties in the depreciation of the extraordinary elevated price such a stimulus in 1812 and 1813, supply. And such being our ports had been importation from abroad crop must have over prices. It is the excel of foreign corn that this exclusion that has in this country, in scarce unnatural level, and the exportation in favourable out such a fall of prices farmer. It may be men now stated, that the England and Wales in 1 and in 1815 it had fallen prices would not indeed poorest lands brought previous high prices, the quishing their cultivation of them had been conveyed had been generally reduced to decline; but the Legislative restrictions on the corn, the operation of the adjustment was unfortunate price of 1816 rose to 78s. 6d. insufficient to occasion and as foreign corn was tracts of bad land had been the supply was so notwithstanding the increase money, prices rose in the consequence of the bad year, to 96s. 11d.; and in high prices had their nature the drooping spirits of the that the Corn Law was, produce the effects anticipated the golden days of 1812. 1800, 6d. per quarter, were this prosperity carried in future mischief. The increase occasioned a fresh extension was again applied to the and this increase of the favourable seasons and importation, sunk prices to s

The principle thus briefly explained shows the impossibility of permanently keeping up the home prices by means of restrictions on importation, at the same time that it affords a clue by which we may trace the causes of most part of the agricultural distress experienced in this country since the peace. The real object of the corn law of 1815 was to keep up the price of corn at about 80s. per quarter; but to succeed in this, it was indispensable not only that foreign corn should be excluded when prices were under this limit, but that the markets should never be overloaded with corn produced at home: for it is clear, according to the principle already explained, that if the supply should in ordinary years be sufficient to feed the population, it must, in an unusually abundant year, be more than sufficient for that purpose; and when, in such a case, the surplus is thrown upon the market, it cannot fail, in the event of our average prices being considerably above the level of those of the surrounding countries, to cause a ruinous depression. Now, this was the precise situation of this country at the end of the war. Owing partly to the Act of 1804, but far more to the difficulties in the way of importation, and the depreciation of the currency, prices attained to an extraordinary elevation from 1809 to 1811, and gave such a stimulus to agriculture, that we grew, in 1812 and 1813, sufficient corn for our own supply. And, such being the case, it is clear, though our ports had been hermetically sealed against importation from abroad, that the first luxuriant crop must have occasioned a ruinous decline of prices. It is the exclusion, not the introduction, of foreign corn that has caused the occasional distress of the agriculturists since 1815; for it is this exclusion that has forced up the price of corn in this country, in scarce and average years, to an unnatural level, and that, consequently, renders exportation in favourable seasons impossible without such a fall of prices as is most disastrous to the farmer. It may be mentioned, in proof of what is now stated, that the average price of wheat in England and Wales in 1814 was 71s. 4d. per quarter, and in 1815 it had fallen to 65s. 7d. But as these prices would not indemnify the occupiers of the poorest lands brought under tillage during the previous high prices, they were gradually relinquishing their cultivation. A considerable portion of them had been converted into pasture; rents had been generally reduced, and wages had begun to decline; but the Legislature having laid additional restrictions on the importation of foreign corn, the operation of this natural principle of adjustment was unfortunately counteracted, and the price of 1816 rose to 78s. 6d. This rise was, however, insufficient to occasion any new improvement; and as foreign corn was now excluded, and large tracts of bad land had been thrown out of cultivation, the supply was so much diminished that, notwithstanding the increase in the value of money, prices rose in 1817, partly, no doubt, in consequence of the bad harvest of the previous year, to 96s. 11d.; and in 1818 to 86s. 3d. These high prices had their natural effect. They revived the drooping spirits of the farmers, who imagined that the Corn Law was, at length, beginning to produce the effects anticipated from it, and that the golden days of 1812, when wheat sold for 126s. 6d. per quarter, were about to return! But this prosperity carried in its bosom the seeds of future mischief. The increased prices necessarily occasioned a fresh extension of tillage; capital was again applied to the improvement of the soil; and this increase of tillage, conspiring with favourable seasons and the impossibility of exportation, sunk prices to such a degree, that they

fell, in October, 1822, so low as 38s. 1d., the average price of that year being only 41s. 7d.

It is thus demonstrably certain that the recurrence of periods of distress, similar to those which have been experienced by the agriculturists of this country since the peace, cannot be warded off by restricting or prohibiting importation. A free corn trade is the only system that can give them that security against fluctuations that is so indispensable. The increased importation that necessarily takes place, under a free system, as soon as any considerable deficiency in the crops is apprehended, prevents prices from rising to an oppressive height; while, on the other hand, when the crops are unusually luxuriant, a ready outlet is found for the surplus in foreign countries, without its occasioning any very heavy fall. To expect to combine steadiness of prices with restrictions on importation is to expect to reconcile what is contradictory and absurd. The higher the limit at which the importation of foreign corn into a country like England is fixed, the greater is the oscillation of prices. If we would secure for ourselves abundance, and avoid fluctuation, we must renounce all attempts at exclusion, and be ready to deal in corn, as we ought to be in every thing else, on fair and liberal principles.

That the restrictions imposed on the foreign corn trade down to 1816 should not have been productive of more disastrous consequences than those that have actually resulted from them, is partly and principally to be ascribed to the unparalleled improvement of tillage in Great Britain during that period, and partly also to the great increase that has taken place in the imports from Ireland. Previously to 1806, when a perfectly free corn trade between Great Britain and Ireland was for the first time established, the yearly imports did not amount to 400,000 quarters, whereas in 1806 they amounted to 1,523,460; and any one who has ever been in Ireland, or is aware of the wretched state of its agriculture, and of the fertility of the soil, must be satisfied that a slight improvement would occasion a great increase in the imports from that country; and it is not improbable that the check that has been given to the pernicious practice of splitting farms, to the potato culture, and consequently to the increase of a pauper population, may eventually lead to material improvements. Hence it is by no means improbable, seeing the fall that has already taken place, that the rapid spread of improvement at home, and the growing imports from Ireland, may, at no distant period, reduce our prices to the level of those of the Continent, and even render us an occasionally exporting country. These, however, are contingent and uncertain results; and supposing them to be ultimately realised, the corn laws, had they been maintained on their old footing, would, in the mean time, have been productive of great inconvenience, and would have materially aggravated the misery inseparable from bad harvests.

Nothing but the great importance of the subject could excuse us for dwelling so long on what is so very plain. To facilitate production, and to make commodities cheaper and more easily obtained, are the grand motives which stimulate the inventive powers, and which lead to the discovery and improvement of machines and processes for saving labour and diminishing cost; and it is plain that no system of commercial legislation deserves to be supported which does not conspire to promote the same objects; but a restriction on the importation of corn into a country like England, which has made a great comparative advance in population and manufacturing industry, is diametrically

opposed to these principles. The density of our population is such, that the exclusion of foreign corn has obliged us to resort to soils of less fertility than those that are under cultivation in the surrounding countries; and, in consequence, our average prices are comparatively high. The impolicy of this conduct is obvious. If we could, by laying out 1,000,000, on the manufacture of cottons or hardware, produce a quantity of these articles that would exchange for 500 quarters of American or Polish wheat; and if the same sum, were it expended in cultivation in this country, would not produce more than 400 quarters; the prevention of importation occasions an obvious sacrifice of 100 out of every 500 quarters consumed in the Empire: or, which is the same thing, it occasions an artificial advance of 20 per cent. in the price of corn. We do not mean to say that this statement exactly represents the amount of injury that was inflicted by the late corn laws: but, at all events, it clearly illustrates the principles which they embodied. But though plainly injurious to the public, it may seem, at first sight, as if this system were advantageous to the landlords. The advantage is, however, merely apparent; at bottom there is no real difference between the interests of the landlords and those of the rest of the community. It would be ridiculous, indeed, to imagine for a moment that the landlords could be benefited by a system in which those fluctuations of prices, so subservive of all agricultural prosperity, were inherent: but though these could have been got rid of, the result would have been the same. The prosperity of agriculture must always depend upon, and be determined by, the prosperity of other branches of industry; and any system which, like the corn laws, is injurious to the latter, cannot but be injurious to the former. Instead of being publicly advantageous, high prices are in every case distinctly and completely the reverse. The smaller the sacrifice for which any commodity can be obtained, so much the better. When the labour required to produce, or the money required to purchase, a sufficient supply of corn is diminished, it is as clear as the sun at noon-day that more labour or money must remain to produce or purchase the other necessities, conveniences, and amusements of human life, and that the sum of national wealth and comforts must be proportionally augmented. Those who suppose that a rise of prices can ever be a means of improving the condition of a country might, with equal reason, suppose that it would be improved by throwing its best soils out of cultivation, and destroying its most powerful machines. The opinions of such persons are not only opposed to the plainest and best established principles, but they are opposed to the obvious conclusions of common sense, and the universal experience of mankind.

It would, however, be unjust not to mention that there has always been a large and respectable party amongst the landlords, opposed to all restrictions on the trade in corn, and who have uniformly thought that their interests, being identified with those of the public, would be best promoted by the abolition of restrictions on importation. A protest expressive of this opinion, subscribed by 10 peers, was entered on the Journals of the House of Lords, against the corn law of 1815. It is said to have been written by the late Lord Grenville, distinguished as an enlightened advocate of sound commercial principles. His reasoning is so clear and satisfactory, that we are sure we shall gratify our readers, as well as strengthen the statements previously made, by laying it before them.

*Dissentient.*—I. Because we are adverse in principle to all new restraints on commerce. We think it certain that public prosperity is best promoted by leaving uncontrolled the free course of national industry; and we wish rather, by well-considered steps, to bring back our commercial legislation to the straight and simple line of wisdom than to increase the deviation by subjecting additional and extensive branches of the public interest to fresh systems of artificial and injurious restrictions.

II. Because we think that the great practical rule, of leaving all commerce uncontrolled, applies more peculiarly, and on still stronger grounds of justice as well as policy, to the corn trade than to any other. Irresistible indeed must be that necessity which could, in our judgment, authorise the Legislature to tamper with the satisfaction of the people, and to impede the free purchase of that article on which depends the existence of so large a portion of the community.

III. Because we think that the expectations of ultimate benefit from this measure are founded on a delusive theory. We cannot persuade ourselves that this law will ever contribute to plenitude, cheapness, or steadiness of price, so long as it operates at all, its effects must be the opposite of these. *Monopoly is the parent of scarcity, of dearth, and of uncertainty.* To cut off any of the sources of supply can only tend to lessen the abundance; to close against ourselves the cheap market for any commodity must enhance the price at which we purchase it; and to confine the consumer of corn to the produce of his own country is to refuse to ourselves the benefit of the provision which Providence itself has made for equalising to man the variations of climate and seasons.

IV. But whatever may be the future consequences of this law at some distant and uncertain period, we see with pain that these hopes must be purchased at the expense of a great and present evil. To compel the consumer to purchase dearer at home than it might be imported from abroad is the immediate practical effect of this law. In this way alone can it operate. Its present protection, its promised extension of agriculture, must result (if at all) from the profits which it creates by keeping up the price of corn to an artificial level. These future benefits or the consequences expected, but, as we confidently believe, erroneously expected, from this bounty to the grower of corn by a tax laid on its consumer.

V. Because we think the adoption of any permanent law for such a purpose required the fullest and most laborious investigation. Nor would it have been sufficient for our satisfaction, could we have been convinced of the general policy of a hazardous experiment. A still further enquiry would have been necessary to persuade us that the present moment is fit for its adoption. In such an enquiry we must have had the means of satisfying ourselves what its immediate operation will be, as connected with the various and pressing circumstances of public difficulty and distress with which the country is surrounded; with the state of our circulation and currency, of our agriculture and manufactures, of our internal and external commerce, and above all with the condition and reward of the industrious and labouring classes of our community.

On all these particulars, as they respect the question, we think that Parliament is almost wholly uninformed; on all we see reason for the utmost anxiety and alarm from the operation of this law.

Lastly, Because we think that the principle and policy of the law is not sufficient for the evidence before us. The evidence before us is, that the price of corn is set as it is, seen to support the price of the standard commodity by which it is sold. And on all these points our dissent from the course, and, as we think, the consequences.

Attempts have been made to state the pecuniary consequences of importation on the country. This, in respect to which it is stated, that the amount annually produced is to amount to 50,000,000, added to its price by a tax on corn of the average rise on 1816 at 3s. per quarter, 7,500,000. So greater, consumed by the people, in seed, the more than a half, per cent. produced is brought to market in this hypothesis, it will follow that the classes not engaged in agriculture, a year, exclusive consequences, probably, or 750,000,000. And this is all that is said to have gained by the additional price received for a portion of the produce was no more than the capital and labour. It is of all other capitalists, by this system, were, though, nominally at least, the rents of the landlord, abundantly certain the advantages to themselves, a larger sum to have by fluctuations of price, and the damage done by the cropping when prices are derived from the restriction.

*Duties on Imports.* Equitably imposed on the objects; that is, either to balance any excess of agriculturists over the classes. (*Treatise on Taxes*, this work, 2nd ed. pp. 11, 12.) However, to a duty it is, however, it may be done, proper subject for taxation. It would be most inexpedient, largely to the revenue by the prime necessary of it, if it be really true, heavily taxed than any other duty be laid on foreign goods corresponding to the extent of them. It has been done, they are in this predicament, it is not quite free, the easy to show, were the enquiries, that, owing to other direct and indirect

'Lastly. Because, if we could approve of the principle and purpose of this law, we think that no sufficient foundation has been laid for its details. The evidence before us, unsatisfactory and imperfect as it is, seems to us rather to disprove than to support the propriety of the high price adopted as the standard of importation, and the fallacious mode by which that price is to be ascertained. And on all these grounds we are anxious to record our dissent from a measure so precipitate in its course, and, as we fear, so injurious in its consequences.'

Attempts have sometimes been made to estimate the pecuniary burden which the restrictions on importation entailed in ordinary years upon the country. This, undoubtedly, is a subject with respect to which it is not possible to obtain any accurate data. But supposing the total quantity of corn annually produced in Great Britain and Ireland to amount to 50,000,000 quarters, every shilling added to its price by the corn laws was equivalent to a tax on corn of 2,500,000*l.*; and estimating the average rise on all sorts of grain previously to 1846 at 3*s.* per quarter, the total rise would be 750,000*l.* So great a quantity of corn is, however, consumed by the agriculturists themselves, as feed in seed, the keep of horses &c., that not more than a half, perhaps, of the whole quantity produced is brought to market. If we are nearly right in this hypothesis, and in the previous estimates, it will follow that the restrictions cost the classes not engaged in agriculture no less than 375,000*l.* a-year, exclusive of their other pernicious consequences. Of this sum a fifth, probably, or 75,000*l.*, went to the landlords as rent; and this is all that the agriculturists can be said to have gained by the system, for the additional price received by the farmer on that portion of the produce which is exclusive of rent was no more than the ordinary return for his capital and labour. His profits, indeed, like those of all other capitalists, instead of being increased by this system, were diminished by it; and though, nominally at least, it somewhat increased the rents of the landlords, it is, notwithstanding, abundantly certain that it was anything but advantageous to them. It would require a far larger sum to have balanced the injury which fluctuations of price occasioned to their tenants, and the damage done to their estates by overcropping when prices were high, than all they derived from the restrictions.

3. *Duties on Importation.*—A duty may be equitably imposed on imported corn, for two objects; that is, either for the sake of revenue, or to balance any excess of taxes laid on the agriculturists over those laid on the other classes. (*Treatise on Taxation* by the author of this work, 2nd ed. pp. 193-203.) With respect, however, to a duty imposed for the sake of revenue, it may be doubted whether corn be a proper subject for taxation. At all events, a duty on such an object should be exceedingly moderate. It would be most inexpedient to attempt to add largely to the revenue by laying heavy duties on the prime necessary of life.

If it be really true that agriculture is more heavily taxed than any other branch of industry, the agriculturists are entitled to demand that a duty be laid on foreign corn when imported corresponding to the excess of burdens affecting them. It has been doubted, however, whether they are in this predicament. But though the question be not quite free from difficulty, it would be easy to show, were this a proper place for such enquiries, that, owing to the various local and other direct and indirect burdens laid on the

land, those occupying it are really subjected to heavier taxes than any other class. It is difficult, or rather, perhaps, impossible, to estimate with any degree of precision what the excess of taxes laid on the agriculturists beyond those laid on manufacturers and merchants may amount to; but we have elsewhere shown, that if we estimate it as making an addition of 5*s.* or 6*s.* to the quarter of wheat, we shall probably be beyond the mark. (*Treatise on Taxation*, ubi supra.)

When a duty is laid on the importation of foreign corn, for the equitable purpose of countervailing the peculiar duties laid on the corn raised at home, an *equivalent drawback* should be allowed on its exportation. 'In allowing this drawback, we are merely returning to the farmer a tax which he has already paid, and which he must have, to place him in a fair state of competition in the foreign market, not only with the foreign producer, but with his own countrymen who are producing other commodities. It is essentially different from a bounty on exportation, in the sense in which the word bounty is usually understood; for by a bounty is generally meant a tax levied on the people for the purpose of rendering corn unnaturally cheap to the foreign consumer; whereas what I propose is, to sell our corn at the price at which we can really afford to produce it, and not to add to its price a tax which shall induce the foreigner rather to purchase it from some other country, and deprive us of a trade which, under a system of free competition, we might have selected.' (*Ricardo On Protection to Agriculture*, p. 53.)

A duty accompanied with a drawback, as now stated, would not only, under the circumstances supposed, have been an equitable arrangement, but it would have been highly for the advantage of the farmers, without being injurious to any one else. The radical defect, as already shown, of the system followed from 1815 down to 1846, in so far, at least, as respected agriculture, was, that it forced up prices in years when the harvest was deficient, while it left the market to be glutted when it was abundant. But while a constant duty of 5*s.* would have secured to the home growers all the increase of price which the regard due to the interests of others should allow them to realise in a bad year, the drawback of 5*s.*, by enabling them to export in an unusually plentiful year, would have prevented the markets from being overloaded, and prices from falling to the ruinous extent that they have occasionally done. Such a plan would have rendered the businesses of the dealers in and growers of corn comparatively secure, and would, therefore, have provided for the continued prosperity of both. It is surprising the agriculturists did not take this view of the matter. If they were really entitled to a duty on foreign corn on account of their being more heavily taxed than the other classes of their fellow-citizens (and they had no title to it on any other ground), they were also entitled to a corresponding drawback. And it admits of demonstration, that *their* interests, as well as those of the community, would have been better promoted by such a duty and drawback than they ever could have been by any system of mere duties, how high soever they might be carried.

### III. BRITISH CORN TRADE.

1. *Quantity of Corn consumed in Great Britain.*—Attempts have sometimes been made to estimate the quantity of corn raised in a country from calculations founded on the number of acres in tillage, and on the average produce per acre; but

it is plain that no perfectly accurate account can ever be framed of the extent of land under cultivation. It is perpetually changing from year to year; and the amount of produce varies not only with the differences of seasons, but also with every improvement of agriculture. This method, therefore, is now rarely resorted to, and the growth of corn is generally estimated from the consumption. The conclusions deduced from this criterion must indeed be subject to error, as well from variations in the consumption occasioned by variations in the price of corn as from the varying extent to which other food is used. But supposing the prices of corn to be reduced to an average, if the consumption of a considerable number of persons, of all ranks and orders, and of all ages and sexes, were accurately determined, we should be able, supposing the census of the population to be nearly correct, to make a pretty close approximation to the total consumption of the country. Mr. Charles Smith, the well-informed and intelligent author of the *Tracts on the Corn Trade*, made many curious investigations with a view to discover the mean annual consumption of corn; and reducing it to the standard of wheat, he found it to be at the rate of about a quarter for each individual, young and old. This estimate has been confirmed by a variety of subsequent researches; and among others, by enquiries made during the scarcity of 1795 and 1796, by the magistrates of Suffolk, in 42 different parishes, in the view of ascertaining the average consumption of each family, which they found to correspond very closely with Mr. Smith's estimate. It is also worthy of remark, that M. Faucet, the intelligent author of the *Métrologie*, estimates the mean annual average consumption, in France, when reduced to the standard of wheat, at about 10 bushels for each individual; and as the French consume me more bread and less animal food than the English, this estimate affords a strong proof of the correctness of that of Mr. Smith.

Having taken the population of England and Wales in 1765 at 6,000,000, Mr. Smith reckoned

the consumers of each kind of grain, the quantity consumed by each individual, and hence the whole consumed by man, to be as follows:—

Estimated Population of England and Wales	Average Consumption of each Person	Consumed by Man
3,750,000	consumers of wheat, at 1 quarter each	3,750,000
739,000	" barley, at 1 1/2 "	1,108,500
888,000	" rye, at 1 1/2 "	999,000
625,000	" oats, at 2 1/2 "	1,562,500
	Consumed by man	7,558,500
	In addition to this, Mr. Smith estimated the wheat &c. (illud, made into starch &c.	90,000
	Barley used in malting &c.	5,417,000
	Rye for hogs &c.	4,170,000
	Oats for horses &c.	2,467,500
	Total of home consumption	13,553,500
	Add excess of exports over imports	598,624
	Add seed (one tenth)	1,500,175
	Total growth of all kinds of grain in England and Wales in 1765	15,652,300

This estimate, it will be observed, does not include either Scotland or Ireland; and later enquiries have rendered it probable that Mr. Smith underrated the population of England and Wales by nearly 1,000,000. The most eminent agriculturists seem also to be of opinion that the allowance for seed ought to be stated as high as a sixth or a seventh.

Mr. Chalmers, availing himself of the information respecting the numbers of the people furnished under the Population Act of 1800, estimated the total consumption of the different kinds of grain in Great Britain at that epoch at 27,185,300 qrs., whereof wheat constituted 7,676,100 qrs. The crops of 1800 and 1801 being unusually deficient, the importation in these years was proportionally great; but excluding these scarcities, the total average excess of all sorts of grain imported from Ireland and foreign countries into Great Britain over the exports had previously amounted to about 1,000,000 qrs., which, deducted from 27,185,300, leaves 26,185,300, to which if we add one sixth as seed, we shall have 30,519,516 qrs. as the average growth of Great Britain in 1800.

According to Dr. Colquhoun, the consumption of corn in Great Britain and Ireland in 1814

Species of Grain	Estimated Average of the Population of Great Britain and Ireland	Each Person averaged	Consumed by Man	Consumed by Animals	Used in Beer and Spirits	Used in various Manufactures	Total Quarters
Wheat	5,000,000	1	5,000,000	—	—	—	5,000,000
Barley	4,500,000	1 1/2	6,750,000	210,000	4,250,000	17,000	11,210,000
Oats	4,500,000	2 1/2	11,250,000	10,200,000	—	—	21,450,000
Rye	500,000	1 1/2	750,000	50,000	—	1,000	801,000
Beans and peas	500,000	1	500,000	1,500,000	—	—	2,000,000
Total	16,000,000	—	18,750,000	11,260,000	4,250,000	18,000	34,308,000

amounted to about 35,000,000 quarters. We give his estimate.

But though this estimate be compiled with greater care and is entitled to more confidence than most of those put forth by its author, it is in some respects extremely inaccurate. There can, for example, be no manner of doubt that the consumption of oats is underrated by at least 2,250,000 quarters, or by 1/2 quarter in the quantity assigned to each of the 4,500,000 individuals Dr. Colquhoun supposed were fed on them. And besides underrating the consumption of oats, Dr. Colquhoun has made no allowance for seed, though it be unnecessary to say that the expenditure of corn as seed is as indispensable, and its consumption as effectual, as if it were employed in the feeding of men or of horses. Adding, therefore, to the 37,250,000 quarters which Colquhoun's estimate should have amounted to, 1/2 for seed, we have on his data 43,458,000 quarters for the total consumption of corn in the United Kingdom in 1814.

But instead of a population of 16,000,000, which is assumed as the basis of the above estimate, the United Kingdom had, in 1861, a population of above 29,000,000. If, therefore, the estimate of Dr. Colquhoun were accurate, and the consumption, as compared with the population, were about the same as in 1814, it should now amount to above 78,000,000 quarters. But during the last 30 years the proportion of wheat used as food has been materially increased; and at present the consumers of barley certainly amount to nothing like 1,500,000 individuals; probably to not more than 500,000. The consumption of oats has also increased very materially, partly and principally from the great increase in the number of horses and their better keep, and partly also from the increase of population in Ireland; but it is abundantly certain that the expenditure of corn on the lower animals, and in breweries, distilleries &c., does not now amount to anything like twice the quantity at which it was estimated by Colquhoun.

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*Agricultural Statistics.*—In a former edition the following opinion of these statistics was stated: "Perhaps we may be excused for adding that the advantages to be derived from what are called 'Agricultural Statistics' have been ridiculously exaggerated. The extent of land under different crops may be learned with tolerable precision; but it is the merest hallucination to imagine that the producer of any harvest can ever be known with anything approximating to accuracy till it be thrashed out. Supposing, however, that it were otherwise, and that it was officially announced in September that the wheat crop was (say) 2,000,000 quarters under an average; the first effect of this announcement would be to raise the price of wheat in every foreign port; and where is the gain to set off against this disadvantage? The return would give no additional security to the speculations of the importers; for, though A knows that 2,000,000 quarters are required to make up the stated deficiency, he cannot know how much has been or may be ordered by B, C, D, and his 10,000 other competitors here and abroad. The existing system is in all respects preferable. At present the great merchants are in the habit of sending intelligent agents through the country to examine into and report on the state of the crops. If they see reason to apprehend an unusual deficiency, their principals purchase accordingly. But they are not such simpletons as to communicate their peculiar information to the public. That might be a very generous, but it would at the same time be a very foolish proceeding. And yet this communication of information useful to the producer would be the first and principal result of such official statements as to the state of the crops as were of any authority."

Since the above was written the Government has collected the facts, both as regards the amount of live stock and the cultivation of the soil. The value of the statistics, however, which have been supplied for corn and green crops must be exaggerated or misunderstood. It is manifest that no certain inference can be obtained as to the quantity produced, however exact may be the reckoning of the acres under tillage; and in the absence of any materials for the former infer-

ence, the attempt to reduce the acreage to quantities of corn would be an arithmetical fallacy. But as successive annual accounts are given, there is an inference of some importance, in the comparison between the amount of corn sown and in the quantities imported for consumption, which will enable persons to arrive at an estimate of the average annual deficiency in the supply of home-grown corn. We do not think that agricultural statistics will enable farmers and corn dealers to determine future prices, but they will be of some aid to such a result, and will certainly supply the public with some information as to the measure of its dependence on the growth of foreign countries.

The largest imports of foreign corn and meal hitherto introduced into this country were those of 1862, when 70,987,228 cwts., equal to more than 27,000,000 quarters, were imported. Of this quantity a very small amount was re-exported. The wheat and flour alone amounted to more than 11,500,000 quarters. In the seven years 1859-1865 inclusive, the total entries of foreign wheat and flour amounted to 51,759,296 quarters, giving an average of 7,392,899 quarters as the amount of wheat and flour needed for the inhabitants of Great Britain and Ireland, as estimated for the seven years in question. During the seven years ending with the year 1858, the average annual consumption of foreign grain was 4,595,801 quarters. During the seven years ending with the year 1850, the average annual consumption was 3,073,053 quarters. These facts are of the highest significance, showing as they do the increasing dependence of this country on foreign supplies of wheat and flour, and indicating what on an average estimate is the general demand of this country on the bread-stuffs of foreign regions—a demand which has more than doubled during the space of fourteen years only.

Returns as to the acreage under corn and other crops have been made from Ireland and Scotland for some years past, but no such return was obtainable from England and Wales till 1866. In this year, however, such an account was published by the Board of Trade. The most important facts of this return are printed below.

Total Number of Acres under Each Description of Corn Crop, 1866.

Divisions	Wheat	Barley or Rye	Oats	Rye	Beans	Pens	Total of Corn Crops
England	3,161,171	1,877,587	1,505,000	50,570	192,586	311,206	7,000,170
Wales	115,862	146,525	251,895	2,452	3,831	5,010	521,075
Scotland	110,101	215,619	1,661,013	7,055	28,527	5,198	1,366,510
Ireland	3,385,391	2,237,529	2,759,953	60,077	521,657	3,091,101	6,987,781
Grand Total	300,171	152,777	1,697,618	7,553	12,175	2,605	2,173,435
Grand Total	8,075	7,756	11,010	9	599	116	27,266
Wales	2,702	111	288	15	15	15	3,112
Scotland	990	532	428	27	45	21	2,011
Grand Total Kingdom	3,697,635	2,398,185	4,169,197	67,829	557,210	325,160	11,935,666

Total Number of Acres under Each Description of Green Crop, 1866.

Divisions	Potatoes	Turnips and Swedes	Mangold	Carrots	Cabbage, Kohl Rabi, and Rape	Yetches, Lucerne, and any other Crop, except Clover or Grass	Total of Green Crops
England	311,151	1,680,706	251,081	15,598	159,259	408,055	2,750,000
Wales	41,966	62,412	5,861	295	1,329	22,069	133,265
Scotland	145,426	478,990	832	916	5,075	53,398	665,257
Ireland	498,815	2,142,138	258,797	16,809	165,915	470,000	3,552,550
Grand Total	1,050,119	317,191	20,218	3,781	50,532	40,200	1,482,091
Grand Total	4,302	7,216	55	226	69	310	12,208
Wales	1,568	1,812	701	1,015	171	158	5,253
Scotland	677	217	216	202	75	1,521	2,938
Grand Total Kingdom	1,555,609	2,168,561	279,987	22,661	216,610	51,289	5,055,029

Total Number of Acres under Hops, Bare Fallow, and Grass.

Divisions	Hops	Bare Fallow, or uncropped Arable Land	Clover and Artificial and other Grasses under rotation	Permanent Pasture, Meadow or Grass, not broken up for sowing (exclusive of Hill Pastures)	Total Number of Acres under all kinds of Hops, Bare Fallow, and Grass
England - - - - -	36,562	269,379	5,296,087	8,998,027	22,861,055
Wales - - - - -	11	109,878	2,367,722	1,257,721	4,846,532
Scotland - - - - -	—	91,080	1,111,111	895,966	3,158,257
Total for Great Britain - - - - -	36,573	961,337	5,691,241	11,151,814	28,701,065
Ireland - - - - -	—	28,069	1,600,195	10,092,058*	15,599,702
Isle of Man - - - - -	—	8,357	25,769	9,762	43,928
Channel Islands: - - - - -	—	—	—	—	—
Jersey - - - - -	—	2,552	3,605	6,005	12,162
Guernsey &c. - - - - -	—	572	886	5,762	7,220
Total for United Kingdom - - - - -	36,573	1,001,278	5,701,119	11,163,583	28,772,573

\* The returns of the acreage under Permanent Pasture in Great Britain and in Ireland are not comparable, as Hill Pastures are excluded in Great Britain and included in Ireland. Totals omitted in places marked thus (\*), cannot, therefore, be given.

Percentage Proportions of each kind of Corn Crop to Total of Corn Crops.

Divisions	Wheat	Barley or Oat	Oats	Rye	Beans	Peas	Total of Corn Crops
England - - - - -	17.7	25.1	20.5	7	6.7	4.2	100
Wales - - - - -	21.8	28.1	18.5	5	7	6	100
Scotland - - - - -	8.1	15.6	75.5	5	2.1	2	100
Total for Great Britain - - - - -	36.1	24.1	29.7	7	5.7	3.1	100
Ireland - - - - -	15.8	7.0	78.1	1	9.6	1	100
Isle of Man - - - - -	29.6	28.4	49.4	—	12	1	100
Channel Islands: - - - - -	—	—	—	—	—	—	—
Jersey - - - - -	86.0	3.5	9.2	1.7	1.5	1.5	100
Guernsey &c. - - - - -	48.5	26.1	21.0	4.1	1.1	4.1	100
Total for United Kingdom - - - - -	52.2	30.9	58.8	6	17	28	100

Percentage Proportions of each kind of Green Crop to Total of Green Crops.

Divisions	Potatoes	Turnips and Swedes	Mangel	Carrots	Cabbage, Kohl, and Rape	Vetches, Lucerne, and any other Crops, except Clover or Grass	Total of Green Crops
England - - - - -	11.5	58.2	9.2	6	5.8	11.9	100
Wales - - - - -	31.8	11.8	2.8	2	1.9	19.1	100
Scotland - - - - -	21.6	79.2	1	2	8	5.1	100
Total for Great Britain - - - - -	11.0	69.3	7.5	5	17	15.2	100
Ireland - - - - -	70.9	21.4	1.1	2	5.1	2.7	100
Isle of Man - - - - -	35.2	59.1	5	1.8	6	2.5	100
Channel Islands: - - - - -	—	—	—	—	—	—	—
Jersey - - - - -	26.0	71.5	15.7	1.9	3.5	5.0	100
Guernsey &c. - - - - -	25.0	8.1	7.5	6.9	2.6	51.8	100
Total for United Kingdom - - - - -	30.5	48.8	5.6	4	15	10.1	100

If we assume the acreage of each kind of grain to be an average of the amount annually under cultivation, and take 30 bushels an acre as the average produce of wheat, the amount of wheat produced annually in the United Kingdom will reach nearly 14,000,000 quarters. Taking again barley and oats at 40 bushels to the acre, the produce of these two kinds of grain will be about 31,000,000. Rye, beans, and peas, reckoned at 30 bushels, will produce about 3,480,000 quarters; and the total produce 51,380,000 quarters of different kinds of corn. It may be observed that the Author in previous calculations, based chiefly upon hypothetical premises, estimated the total annual average growth of the United Kingdom at about 50,000,000 quarters, an amount which pretty closely agrees with the estimate taken from the returns elaborated by the Board of Trade.

Regulations under which the Corn Trade of the United Kingdom was conducted previously to 1816. — These regulations were embodied in the Act 5 Vict. 2 sess. c. 14, some clauses of which still continue in force (see post). This Act imposed a scale of duties on wheat and other descriptions of corn when imported from a foreign country, which varied inversely according to their prices, being greatest when prices were lowest, and least when prices were highest. (See a Table of the duties in the former editions of this work.)

From the extreme difficulty of forming anything like correct conclusions in regard to the state of the crops at any given period in an extensive country, and still more of estimating the

supply and probable price of corn at any future period, though but a little remote, the risk attending the corn trade is proverbially great. Under such circumstances, if Government interfere at all, it should certainly be to lessen such hazards; and, at all events, it should take especial care to do nothing to increase them. Hence, if a duty be imposed on importation, it should be constant, so that its influence may always be estimated beforehand; for if the amount of duty depend on accidental circumstances, or on anything so fluctuating and incapable of precise estimation as the prices in the home market, it must necessarily, by increasing the hazard of all speculations in corn, tend to augment those inequalities in its supply and price that should, in as far as possible, be diminished. To show the direct influence of such duties, it may suffice to mention that if, under the above law, a merchant had commissioned a quantity of wheat when the home price was between 64s. and 65s. per quarter he would, in the event of the price falling to 60s. before the importation took place, have lost 10s. per quarter by the transaction, viz. 4s. per quarter by the fall of price, and 6s. per quarter by an increase of duty.

It may, perhaps, be said that if, on the other hand, the late scale of duties was injurious to the merchant when prices were falling, and when importation was consequently either unnecessary or of less advantage, it was, on the other hand, equally advantageous to him when prices were rising, and when the public interests required that

importation: on the view of the order are always a fair profit: an supposing the trade such an extent, his importation possible to devise the losses incurred by making a profit of such a nature, perhaps, might, and the system would be quite opposed to diminish risk, and to the speculation!

There are other pernicious operations still more striking in the nature of unfavourable harvest, and a deterioration, and the duty for the purpose, suppose that the anticipation and observe what the operation of the prices immediately consequent increase of corn warehoused in every contiguous foreign market, and for consumption, and for exportation. With no duty, merchants distribute the best estimate they can of a shilling-scale of speculation. Besides trade, it tempts merchants to hold back, in the other hand, a fall in the market, as already seen, is not to be pressed by it to escape the increase of prices, and to be injurious to the agricultural classes; and, on the former, withhold their corn from the market, by making the market which is already low prices of 1821 and 1835, were, no doubt, the excess of the foreign market, and the circulation of the corn. Now that our ports are open, it is not clear whether of native or foreign corn, and when necessary; and when a large proportion of the corn is expected, no doubt, for meeting such sudden demands; and prices rose, and our presence in the market, and to have on hand stocks that a commerce conducted

importation could be encouraged; but the prices in the view of the merchant when he gives an order are always such as he supposes will yield a fair profit; and if they rise, this rise will, supposing the trade free or the duty constant, yield such an extra profit as will make him increase his imports to the utmost. If it were possible to devise a system that should diminish the losses incurred in unfavourable speculations by making a proportional deduction from the profits of such as were unusually successful, something, perhaps, might be found to say in its favour. But the system we acted upon of late years proceeded on quite opposite principles: its effect was not to diminish risks, but to increase them; it added to the loss resulting from an unsuccessful, and to the profit resulting from a successful speculation!

There are other considerations that serve to set the pernicious operation of a fluctuating duty in a still more striking point of view. Should a continuance of unfavourable weather occur before harvest, and a deficient crop be anticipated, prices rise, and the duty falls to next to nothing. But now suppose that the weather becomes fine, and that the anticipations of a short crop are dispelled, and observe what, under such circumstances, is the operation of the sliding-scale. In such a case prices immediately give way, and, to avoid the consequent increase of duty, every bushel of foreign corn warehoused in the country, and, indeed, in every contiguous foreign port, is forthwith entered for consumption, and thrown upon a falling market! With no duty, or with a fixed duty, merchants distribute the supply of corn according to the best estimate they can form of the real wants and necessities of the people. But the operation of a sliding-scale goes far to exclude such considerations. Besides doubling the hazards of the trade, it tempts merchants, when prices are rising, to hold back, in the expectation of being able to enter their corn at a reduced duty; and when, on the other hand, a fall of prices is anticipated, the market, as already seen, is overloaded, and prices ruinously depressed by the supplies forced upon it to escape the increase of duty! It is thus alternately injurious to the manufacturing and the agricultural classes; entailing the severest privations on the former, by making the importers withhold their corn from market till the price attains to a ruinously high level; and on the latter, by making the same parties throw it on a market which is already depressed. The extreme low prices of 1821 and 1822, and of 1833, 1831, and 1835, were, no doubt, in part occasioned by the excess of the foreign entries for consumption arising out of the circumstances now mentioned.

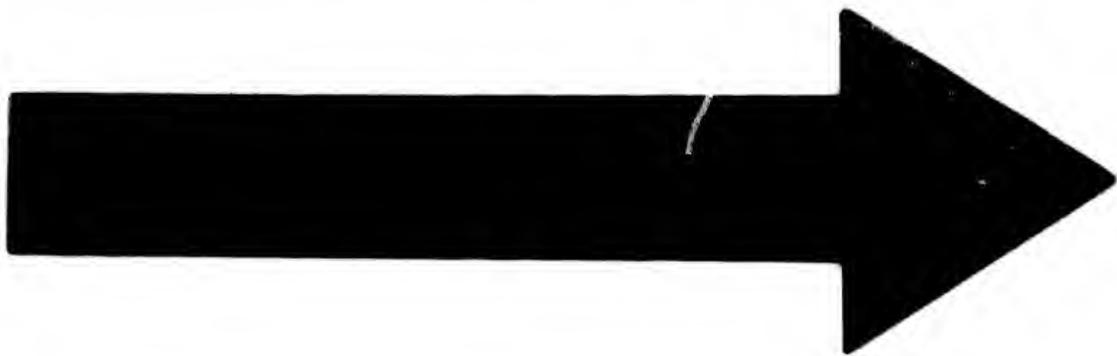
Now that our ports are constantly open, supplies, whether of native or of foreign growth, are only furnished when necessary, and are limited by the necessity; and when prices are low, or falling, a large proportion of the imports are warehoused in anticipation of a future rise. But formerly there was no room for consideration or combination; everything had to be done on the moment, and by the end starts. We might not have brought a bushel of wheat from the Baltic for a year or two; but our prices having risen, and the duty having fallen still more rapidly, we had an instantaneous demand for all the corn that could be had! Not being expected, no provision could be made for meeting such sudden and capricious demands; and prices rose to such a degree as to make our presence in the foreign markets hateful to every one, except the few who might happen to have on hand stocks of corn. It is plain, too, that a commerce conducted in this way could not

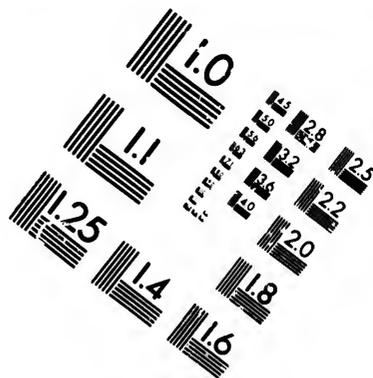
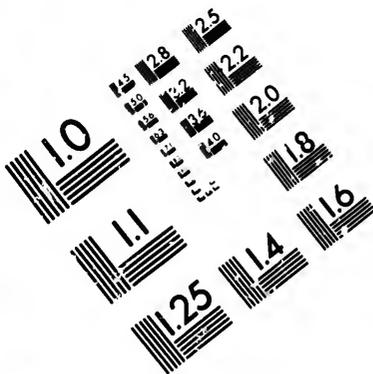
be carried on by an interchange of goods for corn, as it would have been had the ports been constantly open. We had a demand one year for perhaps ten times the quantity of Polish corn that we required another year; but the Poles could not reciprocate by taking off corresponding quantities of our cottons, woollens, and hardware. Under ordinary circumstances an increase of imports is always accompanied by a corresponding increase of exports; but, to bring this about, the increase must neither be sudden nor excessive; for, if so, the chances are ten to one that the foreign demand for our products will not increase to an equal extent. Corn is the principal means which the Poles and Russians have of paying for English goods; and, as we frequently shut it wholly out, their imports from England were unavoidably below even the average amount of their exports; so that when we have had an extraordinary demand for corn, the greater part of the excess had to be paid for in bullion; and, instead of being benefited by its occurrence, our commercial and manufacturing interests were deeply injured.

But it is unnecessary to dwell on what is so well known. Fortunately we did not require to import any foreign corn in 1835 and 1836; for no one, either in the Bank of England or out of it, acquainted with the circumstances, can doubt that, had it been then necessary to make the same payments for foreign corn we had to make in 1830 and 1831, and in 1838 and 1839, the Bank must have stopped payments; and a shock would have been given to the credit and financial interests of the country from which they would not easily have recovered. The severe pressure on the money market in 1839 mainly originated in the same circumstances; and that pressure was productive of far greater loss and inconvenience to the agriculturists than any advantage they gained by the rise of prices in that year.

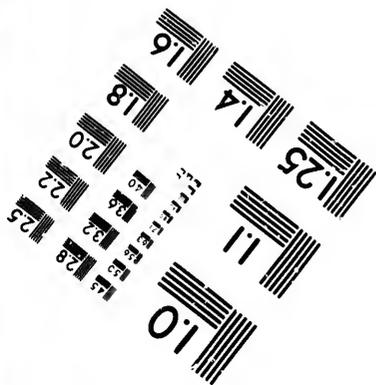
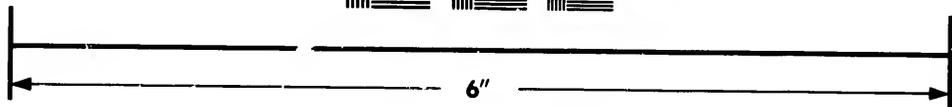
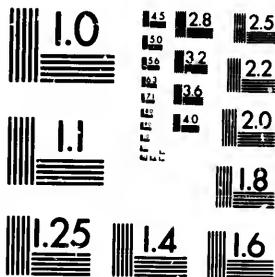
It must not, however, be supposed, from anything now said, that we mean to state or insinuate that it is possible, by any contrivance, or by the utmost possible degree of freedom, to avert all fluctuations in the supply and price of corn. Any such idea would be alike chimerical and absurd. Variations of the harvests, in so rich and populous a country as Great Britain, must always, and under any circumstances, have a powerful influence over prices, not only here, but also in those foreign markets whence we are in the habit of drawing a portion of our supplies. But it admits of demonstration, that importation without any, or with constant duties, is the best means by which to mitigate the influence of variations of harvests, and to secure the greatest steadiness of price. Under the existing system, the merchants of this and other countries are able to form their plans without the fear of their being overturned by accidental or contingent circumstances; and the fact that we every now and then require a large supply of foreign corn makes capitalists, here and elsewhere, warehouse, in abundant years, large supplies, in anticipation of the demand when a deficiency occurs. The merchant has now to deal only with real wants and necessities; and these it is comparatively easy to provide against.

Besides its mischievous operation in other respects, the late corn law was highly inimical to the public interests from the convenient handle which it afforded for all sorts of agitation, misrepresentation, and abuse. Its deleterious influence was greatly exaggerated; and it seemed to be supposed that its repeal would be a sovereign panacea for all sorts of grievances. But though, for the reasons previously stated, the new system has given us greater steadiness of prices, and has, in





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consequence, been of much public advantage, its influence in the reduction of prices has not been so great as has been expected, both by the agriculturists and by the other classes. The extraordinarily favourable seasons and productive harvests that prevailed, both in Europe and America, in 1848 and 1849, led to an unusually large importation, and consequently, also, to a considerable fall of prices. But this fall not having been by any means so great as might have been anticipated from the magnitude of the imports, shows that the greater portion, at least, of the latter had been required to meet the increased demand of the country. In 1852 the price of wheat amounted to 40s. 9d. per quarter; and we incline to think that this will prove to be about the lowest point in the descending scale, and that the probability is that prices will be considerably higher. There must, no doubt, be in all cases much uncertainty in prospective estimates of prices. We are still, however, disposed to abide by our former conclusion, that the probable future average price of wheat in this country, under the new system, may be estimated at about 48s. or 50s. per quarter; and if so, agriculture will not be affected by the change.

Should it turn out differently, and should there be at any time so very abundant a season in this country and in the north of Europe as to threaten such a fall of prices as might give a serious shock to the industry of the husbandman, the crisis may be averted or mitigated by some temporary expedient. But it is not very probable that it will be necessary to interpose in this way. Instead of being unfavourable to the agriculturists, they have already gained, and the chances are that they will continue to gain, by the new system; they have greater capital, skill, and industry than those of any other country; and being aware that they must now wholly rely on them to preserve their place in society, and not on Custom-house regulations and parliamentary majorities, the continued improvement of agriculture may be confidently expected; and, apart from this powerful stimulus, the existing system has the further advantage that it gives the agriculturists increased security, and identifies their interests in opinion, as well as in fact, with those of the public.

At the same time we are ready to admit that, had it been practicable, we should have preferred seeing this great question settled by the adoption of a measure for opening the ports, under a fixed duty of 5s. or 7s. per quarter on wheat, accompanied with a corresponding drawback. We make this statement on general grounds, and without any reference to the peculiar burdens that affect the agriculturists, though these should neither be forgotten nor overlooked. It would be easy to show that in scarce years a duty of this amount would fall wholly on the foreigner, without affecting prices or narrowing importation; while, in years of unusual plenty, the drawback would facilitate exportation, and would, consequently, tend to hinder prices from falling so low as to injure the farmer and obstruct improvement. And in a matter of such immense importance it is the part of a wise Government to be cautious how they take any step, of the consequences of which they are not fully assured, or which may expose any great interest to serious vicissitudes. But, even if our limits permitted, it would be to little purpose to insist on these or any similar considerations. The pertinacity with which the agriculturists opposed every approach to a more liberal system roused a spirit which would not be satisfied with anything short of a complete abandonment of restrictions. The time for compromise and arrangement being allowed to go by, Government had to deal with an

unreasonable necessity: 'Cum ventre humano nihil negotium est, nec rationem patitur, nec equitatem mitigatur, nec ulla prece floctitur equitatis' (Seneca, de Brev. Vitæ, c. 18.) What was practicable became of more consequence than what was either just or proper. And even had it been possible to effect an arrangement of the question in the way now stated, the pernicious trade of agitation would most likely have continued to flourish; the object and influence of the duty would have been misrepresented; and neither landlords nor farmers would have felt any confidence in the permanency of the new arrangements. Under these circumstances, their unconditional repeal was, if not really, at all events practically, the best, or rather the only safe course that could be adopted in dealing with the corn laws.

*Duties payable down to Feb. 1, 1849, under the Act 9 & 10 Viet. c. 22.*—On all corn, grain, meal, and flour imported into the United Kingdom or the Isle of Man from parts beyond the seas, and entered for home consumption, viz.—

*If imported from any Foreign Country.*

*Wheat.*

Whenever the average price of wheat, made up and published in the manner required by law, shall be under 48s. the duty shall be	per qr.
48s. and under 49s. . . . .	10 0
49s. " 50s. . . . .	9 0
50s. " 51s. . . . .	7 0
51s. " 52s. . . . .	6 0
52s. " 53s. . . . .	5 0
53s. and upwards . . . . .	4 0

*Barley, Bear, or Bigg.*

Whenever the average price of barley, made up and published in the manner required by law, shall be under 26s. the duty shall be	per qr.
26s. and under 27s. . . . .	5 0
27s. " 28s. . . . .	4 0
28s. " 29s. . . . .	3 6
29s. " 30s. . . . .	3 0
30s. " 31s. . . . .	2 6
31s. and upwards . . . . .	2 0

*Oats.*

Whenever the average price of oats, made up and published in the manner required by law, shall be under 18s. the duty shall be	per qr.
18s. and under 19s. . . . .	4 0
19s. " 20s. . . . .	3 6
20s. " 21s. . . . .	2 6
21s. " 22s. . . . .	2 0
22s. and upwards . . . . .	1 6

*Rye, Pease, and Beans.*

For every quarter a duty equal in amount to the duty payable on a quarter of barley.

*Wheat Meal and Flour.*

For every barrel being 196 lbs. a duty equal in amount to the duty payable on 40 gallons of wheat.

*Barley Meal.*

For every quantity of 217½ lbs. a duty equal in amount to the duty payable on a quarter of barley.

*Oatmeal and Groats.*

For every quantity of 181½ lbs. a duty equal in amount to the duty payable upon a quarter of oats.

*Rye Meal and Flour.*

For every barrel being 196 lbs. a duty equal in amount to the duty payable upon 40 gallons of rye.

*Pea Meal and Bean Meal.*

For every quantity of 272 lbs. a duty equal in amount to the duty payable on a quarter of pease and beans.

*If the Produce of, and imported from, any British Possession out of Europe.*

Wheat, barley, bear or bigg, oats, rye, pease, and beans, the duty shall be, per qr. . . . .	1 0
Wheat meal, barley meal, oatmeal, rye meal, pea meal, and bean meal, the duty shall be, per cwt. . . . .	0 4

But the above duties ceased on February 1, 1849; and on, from, and after the said February 1,

1849, the following 1, 1861) charge viz.—

Upon all wheat, bar, &c. per qr. And in proportion to all wheat meal and flour, per cwt. and so in proportion

Regulations embodied in the United Kingdom & 28 Vict. c. 1

Clause 4 of the average prices according to 5 & the duties thereby.

Clause 5 repeals c. 14 which prohibits United Kingdom corn ground.

At present (1861) of 3d. per cwt. is in rate of 1s. per quart to be equivalent to the We subjoin an a 5 & 6 Vict. 2 sess in the 8 & 9 Vict force.

Regulations to be any British Possession 1, 1861) charge viz.—

any such possession or shipper thereof before the collector at the port of shipment specifying the quantity of grain, meal, or flour, produce of some British owner or proprietor of from the collector of customs of the said signature, of the quantity of flour so declared to be corn, grain, meal, or the port or place in the produce of any British the master of the ship produce and deliver to officer of customs of a true and accurate copy of the collector and other the port of shipment made, together with the said collector, or other the quantity of corn so and such master shall before the collector or at the place of importation that the several meal, or flour on board entered under the authority are the same that are in the declaration and certificate without any admixture person shall in any such quantity make any fals place of which any such was the produce, or respectively corn, grain, meal, or flour, and become liable the sum of 100l., and the to such persons belonging





each notice shall be so delivered shall, and he or she is hereby required to comply therewith, and to declare and set forth in such his or her return, or in a separate statement in writing, the several particulars aforesaid. (Sec. 25.)

**Inspectors to enter Returns made to them in a Book &c.**—The inspector of corn returns for the city of London, the city of Oxford, and the town of Cambridge, and every officer of excise acting as inspector of corn returns for the several other cities and towns aforesaid, and every continuing inspector of corn returns for any of such other cities or towns as aforesaid, shall duly and regularly enter in a book, to be by him provided and kept for that purpose, the several accounts of the quantities and prices of corn returned to him by such persons respectively as aforesaid; and every inspector of corn returns for any of the cities and towns enumerated in the said schedule shall in each and every week return to the comptroller of corn returns an account of the weekly quantities and prices of the several sorts of British corn sold in the city of London, or in the city or town for which he shall be or act as inspector, according to the returns so made to him as aforesaid, and in such form as shall be from time to time prescribed and directed by the said comptroller of corn returns; and the said returns shall be so made to the said comptroller by the inspector of corn returns for the city of London on Friday in each week, and by the respective inspectors of corn returns for the city of Oxford and the town of Cambridge, and by the respective officers of excise acting as inspectors of corn returns, and by the respective continuing inspectors of corn returns for the several other cities and towns aforesaid, within three days next after the first market day holden in each and every week in any such city or town. (Sec. 26.)

Sec. 27 enacts that inspectors shall not include returns until they have ascertained that the persons making them have taken the declaration required.

**Average Prices to be made up and published every Week.**—The average prices of all British corn by which the rate and amount of the said duties shall be regulated, shall be made up and computed on Thursday in each week, in manner following; (that is to say,) the said comptroller of corn returns shall on such Thursday in each week, from such returns as shall be received by him during the week next preceding, ending on and including the Saturday in such preceding week, add together the total quantities of each sort of British corn respectively appearing by such returns to have been sold, and the total prices for each the same shall thereby appear to have been paid, and shall divide the amount of such total prices respectively by the amount of such total quantities of each sort of British corn respectively, and the sum produced thereby shall be added to the sums in like manner produced in the 5 weeks immediately preceding the same, and the amount of such sums so added shall be divided by 6, and the sum thereby given shall be deemed and taken to be the aggregate average price of each such sort of British corn respectively, for the purpose of regulating and ascertaining the rate and amount of the said duties; and the said comptroller of corn returns shall cause such aggregate weekly averages to be published in the next succeeding Gazette, and shall on Thursday in each week transmit a certificate of such aggregate average prices of each sort of British corn to the collector or other chief officer of the customs at each of the several ports of the United Kingdom, and to the said functionary at the port of Douglas in the Isle of Man; and shall also cause the rate and amount of the duties to be paid under

the provisions of this Act shall from time to time be regulated and governed at each of the ports of the United Kingdom by the aggregate average prices of British corn at the time of the entry for home consumption of any corn, grain, meal, or flour chargeable with any such duty, as such aggregate average prices shall appear and be stated in the last of such certificates received by the collector or other chief officer of customs at such port. (Sec. 28.)

**How Quantities of Corn are to be computed.**—In the returns to be made as aforesaid to the comptroller of corn returns, and in the publications to be made from time to time in the London Gazette, and in the certificate to be transmitted by the said comptroller of corn returns to collectors or other chief officers of customs, the quantities of each sort of British corn respectively shall be computed and set forth by, according, and with reference to the imperial standard gallon, as the same is declared and established by the Act 5 Geo. IV. c. 74, amended or altered by the Act 6 Geo. IV. c. 12, and by the Act 5 & 6 Wm. IV. c. 63. (Sec. 29.)

**Until sufficient Number of Returns are made, Comptroller may use the present Averages.**—Until a sufficient number of weekly returns have been received by the said comptroller of corn returns under this Act to afford such aggregate average prices of British corn as aforesaid, the weekly average prices of British corn published by him immediately before the passing of this Act shall be used and referred to in making such calculations as aforesaid, in such manner as if the same had been made up and taken under this Act. (Sec. 30.)

**What shall be deemed British Corn.**—All corn or grain the produce of the United Kingdom shall be deemed and taken to be British corn for the purposes of this Act. (Sec. 31.)

**Any Corn Returns believed fraudulent may be omitted in the Computation.**—If the said comptroller of corn returns shall at any time see cause to believe that any return made to any inspector of corn returns is fraudulent or untrue, the said comptroller is hereby required, with all convenient expedition, to lay before the Lords of the Committee of Privy Council (for Trade) a statement of the grounds of such his belief; and if upon consideration of any such statement the said Lords of said Committee shall direct the comptroller to omit any such return in the computation of such aggregate weekly average price, then and in that case, but not otherwise, the said comptroller of corn returns shall be authorised to omit such return in the computation of such aggregate weekly average price. (Sec. 32.)

Sec. 33 enacts that corn dealers having made the declaration previous to this Act shall transmit returns, and comply with the rules hereby required.

**Comptroller to issue Directions respecting the Inspection of Books of Inspectors.**—The comptroller of corn returns is hereby authorised from time to time, in pursuance of any instructions which he shall receive in that behalf from the Lords of the Committee of Privy Council (for Trade), to issue to the inspectors of corn returns for the city of London, the city of Oxford, and the town of Cambridge respectively, any general or special directions respecting the inspection by any person or persons of the books so directed as aforesaid to be kept by such inspector of corn returns; and no such inspectors for the city of London, the city of Oxford, or the town of Cambridge shall permit or suffer any person to inspect any such book, or to peruse or transcribe any entry therein, except in compliance with some such general or special di-

rections from the said comptroller of corn returns. (Sec. 34.)

*Copy of last Return to be affixed on Market Place on each Market Day.*—The inspector of corn returns for every city or town other than the city of London shall and is hereby required, on each and every market day, to put up or cause to be put up in the market place of the city or town for which he shall act as inspector, or if there shall be no market place, then in some other conspicuous place therein near to where the corn market is usually held, a copy of the last return made by him to the comptroller of corn returns, omitting the names of the parties who may have sold and bought the said corn; and every such officer or inspector shall also again put up such account on the market day immediately following that on which it shall first have been put up, in case the same shall from accident or any other cause have been removed, and shall take due care that the same shall remain up for public inspection until a new account for the ensuing week shall have been prepared and set up. (Sec. 35.)

Secs. 36, 37, 38 relate to the payment of comptrollers and inspectors.

Sec. 39 imposes a penalty on corn dealers who do not make declarations or returns.

Sec. 40 relates to the recovery and application of penalties.

Secs. 41, 42 relate to the penalties to be imposed on witnesses for non-attendance, and the punishment to be inflicted on those who make false returns.

Sec. 43 declares that the Act shall not affect the practice of measuring or privileges of the city of London.

*Substitution of Wheat Flour or Biscuit for bonded Wheat.*—Our readers are, no doubt, generally aware that of late years efforts were occasionally made in the House of Commons to get a law enacted authorising the delivery of bonded wheat from the warehouse, on the substitution in its stead of a proportional quantity of wheat flour or biscuit. But this proposal encountered the hostility of the more zealous partisans of the corn laws, principally on the alleged ground that it would open a door to fraud, and lead to the clandestine introduction of large quantities of foreign wheat. In the course, however, of 1842, the project was again introduced by Mr. Gladstone, and, having been supported by Government, was passed into a law, 5 & 6 Vict. c. 92. It enabled millers, bakers, and others in this country to take advantage of such openings in the home and foreign markets as may offer for the manufacture and sale of flour and biscuit, and to make such changes in the nature of their stocks as may be thought most advantageous. There do not seem to be any very good grounds for thinking that it afforded any considerable facilities for the commission of fraud by the introduction of wheat without a counter-weighing deposit of flour; but supposing it did, no one was injured by such introduction. We subjoin an abstract of the Act now referred to.

*Warehoused Wheat to be delivered Duty Free upon substituting an equivalent Quantity of Wheat Flour or Biscuit.*—Whereas it will be of advantage to the trade and commerce of the country that wheat may be delivered duty-free from the warehouse or from the vessel, upon the deposit in the warehouse, or due exportation therefrom, of an equivalent quantity of wheat flour and biscuit: be it therefore enacted, that it shall be lawful for the principal officer of customs having charge of any warehouse in which wheat may be warehoused without payment of duty upon the first entry thereof, to deliver any quantity thereof

duty-free upon there being deposited in warehouse in lieu thereof fine wheat flour or biscuit, as under:—

For every 96 lbs. of kiln-dried wheat, or for every 100 lbs. of wheat not being kiln-dried, not less than 78 lbs. of fine wheat flour, or 68 lbs. of captain's biscuit, or 80 lbs. of biscuit of the standard of the biscuit supplied to her Majesty's navy, or 118 lbs. of common ship's biscuit: and so in proportion for any less quantity than 96 lbs. of kiln-dried wheat, or 100 lbs. of wheat not kiln-dried; such flour or biscuit having been manufactured in the United Kingdom, or such flour having been duly imported and the duty thereon having been paid. (Sec. 1.)

Sec. 2 enacts that fine wheat flour and biscuit may be deposited in warehouse, and certificate of such deposit granted, to entitle the holder to an equivalent quantity of warehoused wheat duty-free any time within six weeks of the date thereof.

Sec. 3 enacts that persons making deposits of flour and biscuit be entitled to have equivalent quantities of wheat entered duty-free from the vessel.

Sec. 4 orders that three days' notice in writing be given to the collector of the quantity of wheat required to be delivered from the warehouse and of the day of delivery.

Sec. 5 orders that no wheat shall be delivered duty-free until the substituted article has been deposited and the certificate duly examined.

Sec. 6 enacts that substituted flour and biscuit shall be subject to the warehousing laws, but shall not be taken out for home consumption.

The relative values of wheat, barley, and oats are found to subsist with slight variation through a long period of years. Thus during the 13th and 14th centuries the prices of barley and oats, wheat being taken at 100, are represented by the numbers 73-14 and 42-05 respectively. In the ten years ending with 1864, the same numbers being taken for wheat, the relative quantities are 70 and 45-95.

In the following tables of the price of wheat &c., the first table gives the prices of wheat in the ancient Winchester bushel, as found in the work of Mr. Rogers *On Agriculture and Prices in England*, between 1209 and 1400.

I. Prices of Wheat per Winchester Bushel.

Year	Price	Year	Price	Year	Price	Year	Price
1259	5 9 2	1295	6 9	1331	7 1 11	1367	6 8
1260	4 9	1296	6 9 2	1332	4 8	1368	8
1261	4 7 5	1297	5 8 2	1333	4 2 2	1369	6
1262	6 1	1298	5 2 2	1334	4 0	1370	11
1263	3 1 11	1299	6 0 2	1335	5 2 3	1371	9
1264	4 4	1300	4 9	1336	4 1 1	1372	7
1266	4 5 2	1302	4 1 1 1	1338	5 2 2	1373	3
1267	4 5 2	1303	4 1 1	1339	5 10 2	1374	1
1268	5 2 2	1304	5 6 2	1340	5 6 2	1375	7
1269	5 0	1305	4 10 2	1341	3 9 2	1376	6
1270	6 4 2	1306	5 1 1 1	1342	4 1 2	1377	3
1271	6 10 2	1307	5 6 2	1343	5 7 2	1378	8
1272	6 4 2	1308	6 1 1 1	1344	3 6 2	1379	9
1273	5 5 2	1309	7 9 2	1345	5 9 2	1380	9
1274	6 9 2	1310	7 3 2	1346	6 10 2	1381	3
1275	5 0 2	1311	4 5 2	1347	6 7 2	1382	1
1276	6 2 2	1312	4 1 1 1	1348	4 2 2	1383	1
1277	5 1 2	1313	5 6 2	1349	5 6 2	1384	7
1278	4 4 2	1314	8 4 2	1350	8 2 2	1385	3
1279	5 1 2	1315	1 10 2	1351	10 2 2	1386	6
1280	4 1 2	1316	13 1 2	1352	7 2 2	1387	7
1281	6 0 2	1317	8 3 2	1353	5 7 2	1388	3
1282	5 1 2	1318	4 6 2	1354	5 3 2	1389	9
1283	6 1 2	1319	5 9 2	1355	5 1 2	1390	1
1284	4 1 2	1320	6 2 2	1356	6 0 2	1391	3
1285	5 3 2	1321	1 7 2	1357	6 10 2	1392	2
1286	4 9 2	1322	8 1 2	1358	5 6 2	1393	3
1287	2 10 2	1323	7 6 2	1359	5 1 2	1394	3
1288	3 0 2	1324	7 4 2	1360	6 3 2	1395	5
1289	4 3 2	1325	5 8 2	1361	5 4 2	1396	7
1290	6 5 2	1326	8 3 2	1362	7 6 2	1397	7
1291	5 7 2	1327	3 1 2	1363	8 6 2	1398	8
1292	5 4 2	1328	6 5 2	1364	7 5 2	1399	9
1293	8 3 2	1329	6 6 2	1365	6 0 2	1400	9
1294	9 1 2	1330	7 8 2				

The second table contains the Winchester bushel, from the first portion, from the data from the Oxford...

II. Account of the Prices obtained by the Act

Year	Prices	Average of 10 years
1850	£ s. d.	£ s. d.
1851	0 18 2	0 12 2
1852	0 12 2	0 12 2
1853	0 15 8	0 11 8
1854	1 1 0	1 1 0
1855	1 12 0	1 12 0
1856	1 7 10	1 7 10
1857	0 11 2	0 11 2
1858	0 19 4	0 19 4
1859	1 3 1	1 3 1
1860	1 0 16 7	1 0 16 7
1861	1 10 7	1 10 7
1862	0 18 4	0 18 4
1863	1 12 0	1 12 0
1864	1 18 6	1 18 6
1865	2 2 3	2 2 3
1866	2 16 10 1	2 16 10 1
1867	1 9 0 2	1 9 0 2
1868	1 5 8 1	1 5 8 1
1869	1 1 1 1	1 1 1 1
1870	1 6 8 3	1 6 8 3
1871	1 10 7	1 10 7
1872	1 5 7 2	1 5 7 2
1873	1 6 10 0	1 6 10 0
1874	1 10 3	1 10 3
1875	2 0 4 3	2 0 4 3
1876	1 10 3	1 10 3
1877	1 16 9 2	1 16 9 2
1878	1 19 10 2	1 19 10 2
1879	1 12 11 2	1 12 11 2
1880	1 11 11 2	1 11 11 2
1881	1 19 8 2	1 19 8 2
1882	1 17 5 2	1 17 5 2
1883	1 6 4 1	1 6 4 1
1884	1 5 9 2	1 5 9 2
1885	1 18 6 2	1 18 6 2
1886	2 5 2 2	2 5 2 2
1887	1 19 5 2	1 19 5 2
1888	1 10 6 2	1 10 6 2
1889	2 6 2 2	2 6 2 2
1890	1 11 3 2	1 11 3 2
1891	2 12 1 2	2 12 1 2
1892	2 10 1 2	2 10 1 2
1893	2 3 10 1	2 3 10 1
1894	3 3 7	3 3 7
1895	2 5 10	2 5 10
1896	2 5 3 2	2 5 3 2
1897	2 7 5 2	2 7 5 2
1898	1 15 7 2	1 15 7 2
1899	1 16 2 2	1 16 2 2
1900	2 0 3 1	2 0 3 1
1901	1 13 9 2	1 13 9 2
1902	0 0 3 2	0 0 3 2

From this year inclusive the account of the Act, c. 30 s. 82.

The following account of prices corrects the accuracy of the returns in the table above, be so implicitly corrected above. Bishop Fleetwood

Quantities of Wheat and Y

Countries	1850
Northern Ports	687,500
Southern Ports	885,000
Wales and the Duchies	2,951,800
France	1,531,800
Germany	3,345,500
Other parts	660,500
Total	5,555,600
Spain and Moldavia	8,124,900
Other countries, not otherwise specified	10,150,000
Total	131,531,000
1851	191,200
1852	1,631,500
1853	7,400,000
1854	430,500
1855	1,072,900
1856	21,497,700

The second table contains the price of wheat the Winchester bushel for 1582 to 1826. The first portion, from 1582 to 1645 inclusive, is taken from the Oxford Register of Corn Prices,

the last portion from the audit books of Eton; the Windsor bushel of nine gallons in the original being reduced to that of Winchester, containing eight.

II. Account of the Prices of Middling or Mealing Wheat per Quarter, at Windsor Market, as ascertained by the Audit-books of Eton College, reduced to Winchester Bushels of 8 Gallons.

Year	Prices														
	£	s.	d.												
1582	0	18	2	1611	1	13	2	1705	1	6	8	1766	2	3	11
1583	0	17	2	1612	1	18	7	1706	1	5	11	1767	2	17	4
1584	0	15	8	1613	2	2	8	1707	1	5	4	1768	2	13	2
1585	1	1	0	1614	3	5	5	1708	1	16	10	1769	2	0	7
1586	1	12	0	1615	3	15	6	1709	3	9	9	1770	2	5	6
1587	1	7	10	1616	3	11	11	1710	3	9	4	1771	2	10	8
1588	0	11	2	1617	3	8	13	1711	2	8	0	1772	2	18	8
1589	0	19	6	1618	3	5	24	1712	2	1	2	1773	2	19	1
1590	0	13	1	1619	2	4	8	1713	2	5	4	1774	2	15	1
1591	0	11	2	1620	1	11	6	1714	2	3	9	1775	2	11	3
1592	0	16	7	1621	1	5	12	1715	1	18	2	1776	2	2	8
1593	0	10	2	1622	1	9	2	1716	2	2	8	1777	2	8	10
1594	0	16	7	1623	1	18	9	1717	2	0	7	1778	2	4	0
1595	0	12	0	1624	2	1	5	1718	1	11	6	1779	1	16	12
1596	0	18	3	1625	2	17	1	1719	1	11	6	1780	2	3	11
1597	0	12	0	1626	2	18	8	1720	1	12	10	1781	2	12	5
1598	0	26	10	1627	2	10	9	1721	1	15	11	1782	2	17	9
1599	1	17	11	1628	3	2	0	1722	1	12	0	1783	2	14	5
1600	1	9	0	1629	3	5	12	1723	1	10	10	1784	2	13	9
1601	1	6	8	1630	2	10	8	1724	1	12	10	1785	2	8	0
1602	1	18	3	1631	1	16	0	1725	2	5	11	1786	2	16	12
1603	1	6	4	1632	2	5	14	1726	2	0	10	1787	2	5	9
1604	1	4	5	1633	1	12	0	1727	1	17	2	1788	2	9	4
1605	1	5	7	1634	2	5	11	1728	2	8	11	1789	2	16	13
1606	1	9	0	1635	1	15	6	1729	2	1	7	1790	2	16	13
1607	1	17	5	1636	1	19	5	1730	1	12	5	1791	2	9	4
1608	1	10	3	1637	1	12	14	1731	1	9	2	1792	2	13	0
1609	1	7	3	1638	1	17	4	1732	1	3	8	1793	2	15	8
1610	1	2	1	1639	1	16	5	1733	4	14	6	1794	2	11	0
1611	1	10	3	1640	1	15	6	1734	1	18	2	1795	2	19	8
1612	1	18	4	1641	2	17	5	1735	1	18	2	1796	3	2	0
1613	1	19	2	1642	2	17	5	1736	1	15	10	1797	3	2	0
1614	1	19	1	1643	2	17	5	1737	2	12	9	1798	2	14	0
1615	1	17	5	1644	1	17	6	1738	1	11	6	1799	3	15	8
1616	1	19	1	1645	2	12	5	1739	1	11	2	1800	6	7	0
1617	1	19	8	1646	2	12	5	1740	2	5	14	1801	6	6	0
1618	1	19	8	1647	2	12	5	1741	2	1	5	1802	3	7	2
1619	1	19	8	1648	2	12	5	1742	1	10	5	1803	3	0	0
1620	1	16	4	1649	1	12	1	1743	1	9	6	1804	3	9	6
1621	1	6	4	1650	1	15	5	1744	2	2	1	1805	4	8	0
1622	1	5	9	1651	1	19	1	1745	1	14	5	1806	4	3	0
1623	1	7	3	1652	1	16	5	1746	1	14	8	1807	3	19	0
1624	1	2	5	1653	1	10	2	1747	1	10	11	1808	5	10	0
1625	1	2	1	1654	1	2	4	1748	1	12	10	1809	5	6	0
1626	1	19	5	1655	2	0	10	1749	1	12	10	1810	5	12	0
1627	1	19	5	1656	1	6	8	1750	1	8	10	1811	8	8	0
1628	1	19	5	1657	1	10	9	1751	1	11	2	1812	6	8	0
1629	1	19	5	1658	1	10	2	1752	1	17	2	1813	6	0	0
1630	1	19	5	1659	1	10	2	1753	4	15	8	1814	4	6	0
1631	1	19	5	1660	1	10	2	1754	1	10	9	1815	3	16	0
1632	1	19	5	1661	2	16	10	1755	1	10	1	1816	4	12	0
1633	1	19	5	1662	2	16	10	1756	2	0	1	1817	4	2	0
1634	1	19	5	1663	3	3	11	1757	2	13	4	1818	4	18	0
1635	1	19	5	1664	2	13	4	1758	2	4	5	1819	3	18	0
1636	1	19	5	1665	1	6	8	1759	3	0	9	1820	2	16	0
1637	1	19	5	1666	1	10	9	1760	1	12	5	1821	3	11	0
1638	1	19	5	1667	1	10	2	1761	1	16	9	1822	2	13	0
1639	1	19	5	1668	1	10	2	1762	1	13	6	1823	4	17	4
1640	1	19	5	1669	1	10	2	1763	1	16	13	1824	3	12	0
1641	1	19	5	1670	1	6	2	1764	2	1	5	1825	4	4	0
1642	1	19	5	1671	1	12	0	1765	2	8	0	1826	5	13	0
1643	1	19	5	1672	1	16	5								
1644	1	19	5	1673	2	1	4								
1645	1	19	5	1674	3	1	0								
1646	1	19	5	1675	2	17	5								
1647	1	19	5	1676	1	17	6								
1648	1	19	5	1677	1	17	6								
1649	1	19	5	1678	2	12	5								
1650	1	19	5	1679	2	13	4								
1651	1	19	5	1680	2	0	0								
1652	1	19	5	1681	2	0	0								
1653	1	19	5	1682	1	12	1								
1654	1	19	5	1683	1	15	5								
1655	1	19	5	1684	1	19	1								
1656	1	19	5	1685	2	1	5								
1657	1	19	5	1686	1	10	2								
1658	1	19	5	1687	1	2	4								
1659	1	19	5	1688	2	0	10								
1660	1	19	5	1689	1	6	8								
1661	1	19	5	1690	1	10	9								
1662	1	19	5	1691	1	10	2								
1663	1	19	5	1692	4	2	1								
1664	1	19	5	1693	3	0	14								
1665	1	19	5	1694	2	16	10								
1666	1	19	5	1695	3	3	11								
1667	1	19	5	1696	3	3	11								
1668	1	19	5	1697	2	13	4								
1669	1	19	5	1698	3	0	9								
1670	1	19	5	1699	2	16	10								
1671	1	19	5	1700	1	15	6								
1672	1	19	5	1701	1	13	6								
1673	1	19	5	1702	1	6	2								
1674	1	19	5	1703	1	12	0								
1675	1	19	5	1704	2	1	4								

From this year inclusive the account at Eton College has been kept according to the bushel of 8 gallons, under the provisions of the Statute, III. c. 30 s. 2.

The account of prices commenced in 1595: the accuracy of the returns in the first years cannot however, be so implicitly relied on as those above. Bishop Fleetwood and Sir F. M. Eden have collected with great industry almost all the existing information respecting the state of prices in England during

IV. Account of the Average Prices of British Wheat, Barley, and Oats, per Imperial Quarter, in England and Wales since 1775, as ascertained by the Receiver of Corn Returns.

Years	Wheat			Barley			Oats			Years	Wheat			Barley			Oats		
	£	s.	d.	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.	£	s.	d.
1775	2	9	10	1	6	9	0	17	0	1822	2	4	7	1	1	10	0	18	0
1776	2	19	4	1	0	9	0	15	5	1823	2	13	4	1	1	6	0	18	11
1777	2	6	11	1	0	1	0	16	4	1824	3	5	11	1	1	6	4	1	8
1778	2	3	3	1	3	4	0	15	7	1825	3	8	6	1	1	0	0	1	5
1779	1	14	8	1	0	1	0	11	11	1826	2	18	8	1	1	1	4	1	8
1780	1	16	9	0	17	6	0	13	5	1827	2	18	6	1	1	7	8	1	2
1781	2	6	0	0	17	8	0	11	1	1828	3	0	5	1	1	2	10	1	2
1782	2	9	3	1	3	2	0	15	7	1829	3	6	3	1	1	2	6	1	2
1783	2	14	3	1	11	3	0	0	6	1830	3	10	3	1	1	2	7	1	5
1784	2	10	4	1	8	8	0	15	10	1831	3	6	4	1	1	8	0	1	5
1785	2	3	1	1	4	9	0	17	8	1832	2	16	4	1	1	3	1	0	5
1786	2	0	0	0	0	0	0	18	1	1833	2	12	11	1	1	7	0	0	18
1787	2	2	5	1	3	4	0	17	2	1834	2	6	2	1	1	9	0	0	11
1788	2	6	4	1	2	8	0	16	1	1835	1	19	4	1	1	9	11	1	1
1789	2	12	9	1	3	6	0	16	6	1836	2	8	6	1	1	2	10	1	5
1790	2	14	9	1	6	3	0	19	5	1837	2	15	10	1	1	10	4	1	3
1791	2	8	7	1	6	10	0	18	1	1838	3	4	7	1	1	11	5	1	2
1792	2	0	0	0	0	0	0	16	0	1839	3	0	0	1	1	19	6	1	1
1793	2	9	3	1	11	1	0	1	0	1840	3	6	4	1	1	16	5	1	5
1794	2	12	3	1	11	9	5	1	3	1841	3	5	4	1	1	12	10	1	5
1795	3	15	9	1	12	0	0	1	6	1842	2	17	8	1	1	7	6	1	1
1796	3	18	7	1	15	4	0	1	10	1843	2	10	1	1	1	9	6	0	18
1797	2	13	9	1	7	2	0	16	3	1844	2	11	3	1	1	15	8	1	1
1798	2	11	10	1	9	0	0	19	5	1845	2	10	10	1	1	11	8	1	1
1799	3	9	0	1	16	2	0	1	7	1846	2	14	8	1	1	12	8	1	3
1800	5	15	10	2	19	10	0	19	4	1847	2	13	9	2	2	4	2	1	8
1801	5	19	6	3	8	6	0	19	5	1848	2	10	6	1	1	10	6	1	8
1802	3	9	10	1	13	4	0	1	0	1849	2	4	3	1	1	7	9	0	17
1803	2	18	10	1	5	4	0	1	6	1850	2	0	3	1	1	5	5	0	16
1804	3	2	3	1	11	0	0	1	1	1851	3	18	9	1	1	7	0	0	18
1805	4	9	9	1	2	4	6	1	8	1852	2	0	9	1	1	8	6	0	19
1806	3	19	1	1	18	8	0	2	7	1853	2	13	5	1	1	13	24	1	1
1807	3	15	4	1	19	4	0	1	9	1854	3	12	4	1	1	11	11	1	1
1808	4	1	4	—	—	—	—	1	3	1855	5	11	23	1	1	14	9	1	1
1809	4	17	1	2	7	0	0	1	11	1856	5	9	2	2	2	1	14	1	1
1810	5	6	6	2	8	6	0	1	7	1857	3	16	7	1	1	15	11	1	1
1811	4	15	3	2	2	3	0	1	7	1858	2	4	23	1	1	11	81	1	1
1812	6	6	6	2	6	9	0	2	4	1859	2	3	9	1	1	15	6	1	3
1813	5	9	9	2	8	6	0	1	8	1860	2	13	7	1	1	12	1	1	1
1814	3	11	4	1	17	1	0	1	5	1861	2	12	4	1	1	16	1	1	1
1815	3	5	7	1	10	5	0	1	3	1862	2	15	5	1	1	15	1	1	1
1816	3	18	6	1	15	11	0	1	8	1863	2	13	7	1	1	13	11	1	1
1817	4	16	11	2	9	1	0	1	2	1864	2	0	2	1	1	11	1	1	1
1818	4	6	3	2	13	10	0	1	2	1865	2	1	10	1	1	9	9	1	1
1819	3	11	16	2	2	3	0	1	8	1866	2	1	1	1	1	17	5	1	1
1820	3	7	10	1	15	10	0	1	2	1867	2	1	5	1	1	2	0	1	6
1821	2	16	1	1	6	0	0	19	6										

N.B.—The Imperial bushel contains 2218.192 cubic inches; the Winchester bushel 2150.12 cubic inches, the former being 1.32 part larger than the latter. [DUSHER; WEIGHTS AND MEASURES.]

V. Account of the Quantities of Grain, Flour, Meal, and Malt of Irish Growth, annually imported into Great Britain from Ireland, from 1814 to 1866, both inclusive.

Year	Wheat and Wheat Flour		Barley, Including Bear or Hogg		Oats and Oatmeal		Rye	Peas	Beans	Malt	Total
	qrs.	cts.	qrs.	cts.	qrs.	cts.					
1814	225,478	16,779	4	561,010	4	369	6,373	—	—	—	—
1815	189,544	37,108	—	607	4	425	5,271	—	—	—	—
1816	121,631	62,251	—	683,714	43	239	5,981	—	—	—	—
1817	55,381	26,766	—	611,117	—	12	2,275	—	—	—	—
1818	105,729	1,009,287	—	1,009,287	—	4	10	—	—	—	—
1819	153,850	90,311	—	789,615	2	—	3,901	—	—	—	—
1820	305,307	87,995	—	916,251	151	439	8,336	—	—	—	—
1821	369,700	189,814	—	1,192,219	550	1,371	4,959	—	—	—	—
1822	463,001	22,532	—	3,629,237	353	728	7,255	—	—	—	—
1823	490,068	19,327	—	1,192,187	198	586	5,510	—	—	—	—
1824	556,384	64,699	—	1,225,085	112	756	5,291	—	—	—	—
1825	296,018	154,256	—	1,629,806	220	1,431	11,555	—	—	—	—
1826	31,851	64,985	—	1,303,731	77	1,192	7,190	—	—	—	—
1827	40,925	67,791	—	1,335,867	256	1,282	10,037	—	—	—	—
1828	65,284	81,201	—	2,075,631	1,124	4,826	7,068	—	—	—	—
1829	619,017	97,140	—	1,673,628	568	4,435	10,415	—	—	—	—
1830	589,717	189,145	—	1,471,652	414	3,580	19,053	—	—	—	—
1831	557,198	185,029	—	1,655,701	515	4,142	19,029	—	—	—	—
1832	790,215	125,639	—	2,051,867	291	1,915	14,530	—	—	—	—
1833	814,211	101,767	—	1,762,520	105	3,616	19,113	—	—	—	—
1834	773,505	217,865	—	1,769,305	983	2,176	18,771	—	—	—	—
1835	661,776	186,242	—	1,822,767	611	3,447	21,235	—	—	—	—
1836	598,757	184,156	—	2,132,138	483	3,920	17,601	—	—	—	—
1837	551,465	187,475	—	2,274,675	1,016	68	21,575	—	—	—	—
1838	528,583	156,467	—	2,742,807	628	5,232	21,581	—	—	—	—
1839	219,331	61,676	—	1,901,933	2,351	1,381	11,535	—	—	—	—
1840	174,430	95,951	—	2,037,835	122	1,403	14,673	—	—	—	—
1841	218,708	75,366	—	2,539,380	172	855	15,907	—	—	—	—
1842	301,398	60,297	—	2,461,435	76	1,551	19,853	—	—	—	—
1843	413,406	62,848	—	2,638,032	57	1,492	16,469	—	—	—	—
1844	410,152	90,656	—	2,642,308	261	1,091	18,580	—	—	—	—
1845	779,113	95,095	—	2,353,985	165	1,434	12,745	—	—	—	—
1846	295,468	121,111	—	2,311,333	—	2,227	11,809	—	—	—	—
1847	181,021	47,327	—	705,165	1,198	4,659	22,361	—	—	—	—
1848	301,873	79,885	—	1,516,568	15	2,572	12,311	—	—	—	—
1849	431,699	46,469	—	1,425,669	414	3,759	14,569	—	—	—	—
1850	176,566	40,779	—	1,675,388	350	4,260	21,560	—	—	—	—
1851	95,116	44,479	—	1,111,976	—	3,781	25,092	—	—	—	—
1852	36,966	107,155	—	1,650,515	—	5,318	27,661	—	—	—	—
1853	174,197	124,492	—	1,424,929	600	2,489	22,809	—	—	—	—
1854	138,159	81,239	—	1,181,169	360	1,987	23,157	—	—	—	—
1855	171,020	58,628	—	1,961,655	540	1,734	24,178	—	—	—	—
1856	156,377	74,080	—	1,901,355	709	1,307	26,286	—	—	—	—
1857	185,331	—	—	1,724,438	—	—	—	—	—	—	—
1858	165,023	—	—	1,510,794	—	—	—	—	—	—	—
1859	153,976	61,978	—	1,766,636	180	1,018	26,001	—	—	—	—
1860	374,886	225,354	—	4,075,293	1,989	951	54,493	—	—	—	—
1861	475,983	166,991	—	3,461,191	1,481	1,491	10,169	—	—	—	—
1862	349,143	240,509	—	3,851,227	—	587	101,267				

VI. Account of the Quantities of Foreign and Colonial Wheat and Wheat Flour, Barley and Barley Meal, and Oats and Outmeal Imported into the United Kingdom, Re-exported, and retained for Consumption in Great Britain from 1800, in Imperial Quarters, down to 1866.

Year	Wheat &c.			Barley &c.			Oats &c.		
	Imports	Re-Exports	Retained or Entered for Home Consumption	Imports	Re-Exports	Retained for Home Consumption	Imports	Re-Exports	Retained for Home Consumption
1800	1,225,466	1,122,469	102,997	1,149,955	4	114,022	515,133	200	200
1801	1,122,469	7,255	1,115,214	8,136	1,311	6,825	583,279	500	500
1802	1,122,469	131,089	991,380	1,105	355	750	242,090	2,007	1,719
1803	31,140	51,105	20,000	1,105	355	750	25,502	1,719	1,719
1804	391,264	31,001	360,263	2,711	2,698	13	500,319	4,240	4,240
1805	837,315	56,559	780,756	27,911	2,698	25,213	27,416	760	760
1806	208,954	8,580	200,374	4,058	370	3,688	183,219	—	—
1807	365,293	5,583	359,710	4,268	3	4,265	429,909	—	—
1808	41,910	15,913	25,997	4,305	211	4,094	3,312	1,118	1,118
1809	391,514	2,737	388,777	13,466	1,064	12,402	296,355	315	315
1810	1,430,277	64,281	1,366,000	3,614	3,614	—	119,208	671	671
1811	188,786	71,315	117,471	40,121	25,491	14,630	11,696	2,386	2,386
1812	131,615	18,204	113,411	39,884	28,942	10,942	1,479	5,259	5,259
1813	309,181	—	309,181	13,029	—	13,029	169,110	—	—
1814	625,760	25,163	599,597	29,530	8,290	21,240	248,050	926	218,055
1815	191,632	56,561	135,071	11,335	4,118	7,217	129,775	119	117,555
1816	209,639	51,105	158,534	18,653	19,478	3,175	75,277	1,751	76,295
1817	1,061,031	44,800	1,016,231	10,532	3,902	6,630	483,086	560	479,492
1818	1,293,839	17,295	1,276,544	696,280	11	696,269	987,409	36	991,560
1819	472,005	24,432	447,573	375,337	5,001	370,336	680,478	2,411	525,551
1820	585,125	87,829	497,296	31,275	28,671	2,604	681,779	3,951	747,115
1821	123,612	193,210	69,402	15,516	8,617	6,899	104,517	15,627	88
1822	45,113	118,271	73,158	2	19,018	18,996	65,002	18,889	18,889
1823	15,216	119,735	104,519	11	5,175	5,164	27,631	13,131	165
1824	82,667	34,031	48,636	26,596	2,528	24,068	488,921	11,211	619,850
1825	351,003	35,091	315,912	49,858	24,581	25,277	24,686	1,117	1,117
1826	576,888	14,225	562,663	278,079	4,676	273,403	1,125,410	9,103	1,186,222
1827	201,205	48,966	152,239	207,966	18,814	189,152	1,711,206	1,229	1,893,355
1828	711,111	74,174	636,937	166,363	4,117	162,246	917,515	161,578	1,177,1
1829	1,653,311	74,377	1,578,934	277,109	10,303	266,806	203,144	5,009	195,666
1830	1,661,817	24,098	1,637,719	158,659	1,285	157,374	506,899	36,327	900,321
1831	229,975	32,432	197,543	149,646	5,013	144,633	562,514	5,674	555,850
1832	417,102	288,190	128,912	375,789	95,839	280,950	74,674	28,073	83,879
1833	297,465	95,767	201,698	85,714	8,221	77,493	1,225	25,299	19,544
1834	176,224	59,199	117,025	85,652	9,665	75,987	13,299	15,026	15,026
1835	66,005	132,223	66,218	67,292	41,265	26,027	113,487	30,915	173,232
1836	211,742	255,037	56,295	83,853	18,219	65,634	131,466	56,556	66,894
1837	539,019	308,949	230,070	106,007	87,535	18,472	418,884	49,466	352,267
1838	1,171,058	156,105	1,014,953	1,831,135	4,203	1,826,932	59,513	56,145	56,145
1839	287,527	38,899	248,628	279,496	621	278,875	670,543	40,405	855,811
1840	2,132,766	83,717	2,049,049	2,380,731	4,379	2,376,352	515,081	516,265	769,979
1841	2,776,647	27,574	2,749,073	2,616,052	2,115	2,613,937	2,029,918	84,391	27,175
1842	3,040,269	66,261	2,974,008	7,355	13,755	40,021	313,406	55,167	288,513
1843	1,061,422	69,260	992,162	178,280	1,445	176,835	87,477	34,707	111,490
1844	1,379,022	56,989	1,322,033	1,018,315	1,012	1,017,303	304,116	2,271	291,198
1845	1,111,057	67,262	1,043,795	368,531	23,390	345,141	592,109	29,251	584,518
1846	2,511,142	135,111	2,376,031	37,869	5,619	32,250	736,143	17,991	722,996
1847	1,984,557	185,272	1,799,285	77,122	16,847	60,275	1,712,512	9,887	1,798,121
1848	3,082,211	10,967	3,071,244	1,054,293	5	1,054,288	974,253	7,822	872,553
1849	1,835,280	—	1,835,280	1,381,073	—	1,381,073	1,224,707	—	1,224,707
1850	1,835,280	—	1,835,280	1,418,564	—	1,418,564	1,158,290	—	1,158,290
1851	2,530,412	—	2,530,412	829,574	—	829,574	1,200,136	—	1,195,566
1852	1,161,692	—	1,161,692	631,692	—	631,692	593,578	—	593,578
1853	625,560	125,856	500,000	825,853	20	825,833	1,028,533	16,773	1,045,169
1854	4,173,085	102,574	4,070,511	552,994	4,016	548,978	1,016,239	7,102	1,007,837
1855	3,381,386	77,113	3,304,273	319,305	—	319,305	359,070	1,034,002	1,014,475
1856	5,661,631	136,269	5,525,362	771,464	—	771,464	1,148,877	—	1,148,877
1857	8,214,662	97,915	8,116,747	1,701,471	—	1,701,471	1,720,536	—	1,720,536
1858	5,687,767	10,996	5,676,771	1,661,086	—	1,661,086	1,872,238	—	1,872,238
1859	2,249,043	15,006	2,234,037	1,729,590	—	1,729,590	1,677,641	—	1,677,641
1860	2,788,291	—	2,788,291	2,114,666	—	2,114,666	2,307,164	—	2,307,164
1861	5,220,167	585,954	4,634,213	1,400,411	—	1,400,411	1,891,883	—	1,891,883
1862	1,171,937	9,318	1,162,619	1,554,914	—	1,554,914	1,614,222	—	1,614,222
1863	2,739,017	—	2,739,017	2,069,290	—	2,069,290	2,502,222	—	2,502,222
1864	27,759,105	80,228	27,678,877	4,921,361	—	4,921,361	2,899,988	5,563,114	5,532,262
1865	81,867,131	48,186	81,818,945	7,818,108	—	7,818,108	7,818,011	—	7,712,131
1866	88,128,609	65,178	88,063,431	8,431,095	—	8,431,095	8,134,016	—	8,280,665

VII. An Account of the Quantities of Wheat and Wheat-flour, Barley, Oats, Beans, Peas, and Maize, specifying the Countries from which they were brought, the Quantities (in Cwts.) imported during 1865 from each Country, and the Average Price per Cwt. of each.

Countries	Wheat		Wheat Flour		Barley		Oats		Peas		Beans		Maize		
	Quantity	Average price	Quantity	Average price	Quantity	Average price	Quantity	Average price	Quantity	Average price	Quantity	Average price	Quantity	Average price	
Russia	8,160,241	8 8d	—	—	864,187	6 6d	1,963,379	7 6d	54,062	8 3d	—	—	1,103,977	6 1d	
Sweden	—	—	—	—	174,744	7 4d	3,090,654	7 1d	—	—	—	—	—	—	
Denmark	617,057	8 9d	37,203	12 9d	1,350,492	6 11d	1,071,538	6 10d	32,081	8 0d	—	—	—	—	
Norway	—	—	—	—	—	—	181,838	—	—	—	—	—	—	—	
Schleswig Holstein	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Lausburg	109,761	8 6d	—	—	—	—	—	—	—	—	21,092	8 8d	—	—	
Hannover	5,426,500	10 5d	66,267	13 2d	770,369	7 7d	65,695	7 6d	541,891	8 9d	26,200	8 8d	—	—	
Blackenburg Schw. Pr.	—	—	—	—	—	—	—	—	—	—	93,789	8 0d	—	—	
Hamburg	619,771	10 5d	—	—	—	—	—	—	—	—	—	—	—	—	
Bremen	476,959	9 1d	217,406	12 10d	399,840	7 6d	50,708	7 0d	24,173	8 1d	120,368	8 4d	—	—	
France	2,966,471	9 4d	7,008,287	13 7d	30,939	7 10d	725,831	7 0d	—	—	86,691	8 11d	—	—	
Spain	123,261	9 10d	—	—	1,583,474	7 4d	71,190	7 1d	—	—	200,447	8 9d	—	—	
Ionian Territories	582,071	8 11d	—	—	—	—	—	—	—	—	—	—	—	—	
Canary Islands	287,870	8 11d	—	—	—	—	—	—	—	—	—	—	—	—	
Wallachia & Moldavia	188,043	7 6d	—	—	2,097,405	5 3d	—	—	—	—	—	—	35,117	5 11d	
Spain	—	—	—	—	253,827	5 2d	—	—	—	—	—	—	—	514,950	6 4d
United States	1,183,690	9 7d	262,874	12 3d	—	—	—	—	—	—	49,000	8 2d	—	—	
France	141,861	9 4d	20,001	13 4d	—	—	—	—	—	—	149,278	8 4d	41,581	6 4d	
Spain	—	—	—	—	—	—	—	—	—	—	—	—	1,761,923	6 5d	
North America	107,516	9 0d	181,489	12 0d	—	—	161,723	7 4d	289,093	8 0d	175,516	7 11d	309,177	6 6d	
Other parts	290,597	9 2d	32,266	13 2d	40,156	6 3d	125,534	6 11d	24,192	8 0d	—	—	171	6 3d	
Total	21,899,141	—	3,932,788	—	7,860,541	—									

CORN LAWS AND CORN TRADE

IV. FOREIGN CORN TRADE.

*Polish Corn Trade.*—Dantzie has hitherto supplied us with large quantities of the finest wheat; and as it will most probably continue to be one of the principal sources of our imports in time to come, it is of importance to ascertain the cost of wheat in that emporium, and the expense of its importation into this country.

According to the data collected by Mr. Jacob in his *Report on the Agriculture and Corn Trade of the North of Europe*, the ordinary price of wheat at Dantzie free on board would amount to about 40s. per quarter, made up as follows:—

	Per quarter	s. d.
Cost of wheat at Wars.w		28 0
Conveyance to the boats, and charges for loading and stowing, and securing it with mats		0 6
Freight to Dantzie		5 0
Loss on the passage by pilfering, rain &c.		5 0
Expenses at Dantzie in turning, drying, screening, warehousing, and loss of measure		2 0
Profit or commission, as the case may be, to the merchant in Dantzie		1 6
Cost at Dantzie, exclusive of shipping charges, which amount to about 10d. per quarter		40 0

Now, if to this we add 7s. or 10s. per quarter for the expense of importing the wheat into England, including the profit of the importer, it is plain that it could not, supposing Mr. Jacob's estimate that it could be nearly accurate, be sold in London, free of duty, for less than 47s. or 50s. per quarter.

It has, no doubt, been alleged that the cost of wheat in Dantzie is overrated in the above estimate; and in seasons when there is little or no demand for corn from abroad, this allegation is not certainly well founded. But this estimate is not meant to apply to such years, but to those when there is some considerable foreign demand; and whenever this is the case, it will be found, though some of the items which go to make up the cost may vary, that the result is nearly correct; and that there are really no good grounds for supposing that corn could, in the seasons in question, be shipped from Dantzie for less than about 40s. per quarter.

In further corroboration of this statement we may mention that owing to the deficient harvest of 1845, the average price of wheat in January 1846, in Warsaw, exceeded 40s. per quarter, and it is stated in a despatch from the consul in that city, that at an average of the 20 years ending with 1845 prices had been as follows, viz.: wheat with 1845 prices had been as follows, viz.: wheat from 26s. 6d. to 30s. per imp. quarter; barley from 17s. 10d. to 20s. 6d. per do.; and oats 8s. 6d. to 10s. per do. It is plain, therefore, that Mr. Jacob's estimate of the cost of wheat at Warsaw is but little, if it be in any degree, overstated; and we are well assured that this also is the case with his estimate of the expense of conveying it down the Vistula to Dantzie.

Mr. Grade, of Dantzie, furnished the Agricultural Committee of 1831 with the following Table of the average prices of corn in that city, free on board, in decennial periods from 1770 to 1820.

*Average Price from Ten to Ten Years of the different Species of Corn, free on board, per Quarter, in Sterling Money, at Dantzie.*

	Wheat		Rye		Barley		Oats	
	s. d.	s. d.	s. d.	s. d.				
From 1770 to 1779	33 9	24 8	16 1	11 1	12 4	12 4	12 4	12 4
1780 — 1789	35 10	22 1	17 11	12 6	13 1	13 1	13 1	13 1
1790 — 1799	43 8	26 3	19 5	13 0	14 0	14 0	14 0	14 0
1800 — 1809	60 0	31 10	25 1	20 4	15 10	15 10	15 10	15 10
1810 — 1819	55 4	31 1	26 0	20 4	15 10	15 10	15 10	15 10
Aggregate average price of 50 years	45 4	27 2	20 10	15 10	15 10	15 10	15 10	15 10

It appears from this table that at an average of the 20 years ending with 1819 the price of corn

in Dantzie was no less than 57s. 8d. per quarter. But it is to be observed that these prices were powerfully influenced by the scarcity and high price in this country in 1800 and 1801, and by the obstructions which the war threw in the way of agriculture, and of the conveyance of corn to Dantzie. But the prices of wheat at this great emporium have not since 1819 been subject to any such disturbing influences. The countries whence Dantzie draws her supplies of corn have enjoyed an all but uninterrupted tranquillity during the last 40 or 50 years; and though during some of these years we have made large importations, we have not, in others, brought away a single bushel of corn; so that the average prices of the period of 11 years stated below may be taken as pretty correctly representing the prices of corn in Dantzie in seasons when the export is rather under a medium.

*Account exhibiting the Lowest, the Highest, and the Average Prices of Wheat in Dantzie, in each Sterling Money, per Imperial Quarter, in each of the Eleven Years from 1831 to 1841, both inclusive, with the Averages for the whole Period.*

Year	Lowest prices per quarter		Highest prices per quarter		Average price per quarter
	s. d.	s. d.	s. d.	s. d.	
1831	41 1	45 7	51 6	57 2	46 3
1832	32 5	32 9	49 11	50 7	42 6
1833	25 1	29 11	35 7	43 8	35 0
1834	21 0	26 2	31 7	38 11	29 8
1835	22 5	21 5	31 5	37 11	29 8
1836	21 9	21 9	31 7	37 11	29 8
1837	26 6	26 6	31 7	37 11	29 8
1838	21 9	21 9	31 7	37 11	29 8
1839	20 0	20 0	31 7	37 11	29 8
1840	45 9	45 9	57 0	62 9	54 3
1841	45 9	45 9	57 0	62 9	54 3
Average of 11 Years from 1831 to 1841	30 8	35 2	45 2	57 2	37 2

It appears from this table that the average price of wheat in Dantzie during the 11 years ending with 1841 was 37s. 11d. per quarter; making, with the addition of 10d. per quarter for shipping charges, its average price, free on board, 38s. 11d. per quarter. Now if to this last sum we add 7s. 10s. for the expense of its importation and delivery to the millers in London, it is plain, judging from the experience of these 11 years, that the average cost of Dantzie wheat in England, independent of duty, may be estimated, in round numbers, from 45s. to 50s. per quarter.

It is material, however, to bear in mind that a very large quantity could be shipped at the above prices. They represent only average years; and whenever there is any unusual demand for corn or when from 200,000 to 300,000 quarters are wanted for this country, the price immediately rises, as seen above, to from 45s. to 50s. per quarter and upwards. During the course of 1846 the average prices of the wheat shipped at Dantzie exceeded 48s. per quarter.

That the charges on importation into England, warehousing here, and then delivering to the millers, exclusive of duty and profit, would amount to about 10s. per quarter, appears from the following statements. The first was furnished by Messrs. Richard Birkett and Sons to the Agricultural Committee of 1827 by the price of foreign corn the other was obligingly furnished by Mr. Ingleton, in 1841.

According to the statement for 1868, the cost of importation at Dantzie being 50s., the cost of importation would be 6s. 11d. per quarter; but to this has been added an allowance for waste and for profit.

We are well convinced that it is not possible to successfully controvert these statements; and such being the case, we are entitled to say

Account of the Ordinary

One hundred quarters fine high  
10s. per quarter.  
Sound dues, 6d. per quarter  
Freight, at present, 3s. 3d., but  
insurance 12s. 6d. per cent., but  
Policy, 3s. 6d.

Account of the Ordinary

One hundred quarters, supposed  
right at 2s. 6d. per quarter, an  
average ex ship &c., 5s. per last  
lighterage and landing, 9d. per q  
insurance on 3000, including im  
quarry rent and insurance for o  
turning and trimming, about  
belonging from granary, 3d. per c  
Village dues, ex granary, 2s. per h  
commission on sale, 1s. per quar  
In dreders, 1 per cent. on, suppe

N.B.—Loss on remain  
Freight and insurance

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Account of the Ordinary Charges on 100 Quarters of Wheat imported from Dantzie for Sale on Consignment in London, in May, 1841.

	£	s.	d.	£	s.	d.
One hundred quarters fine high mixed wheat, weighing about 61 lbs. per bushel, would cost				200	0	0
Sea-does, 6d. per quarter			2	10	0	
Freight, at present, 5s. 3d., but, on an average, supposed 5s. 6d.			22	10	0	
Insurance, 12s. 6d. per cent., but on an average 5s.	£2	5	0			
Policy, 2s. 6d.	0	7	6			
Wage and dues ex ship, 6s. 8d. per ten quarters			3	12	6	
Lighterage and landing, 9d.			3	15	0	
Fire and marine insurance for three weeks, at 5s. per one hundred quarters per week			0	15	0	
Turnage and trimming, same period			0	4	6	
Wage of men ex granary, 2s. per ten quarters			1	0	0	
Devolving from granary, 3d.			1	5	0	
Commission or brokerage on sale, 1s. per quarter			5	0	0	
By crockers, 1 per cent. (on 55s.) 2s. 5d.			2	15	0	
				45	15	4
				245	15	4

Account of the Ordinary Charges on 100 Quarters of Wheat shipped from Dantzie on Consignment, landed in London Aug. 1868.

	£	s.	d.	£	s.	d.
One hundred quarters, supposed cost at Dantzie, free on board, 50s.				250	0	0
Freight ex ship, 10 per quarter, and 10 per cent.			12	10	0	
Insurance ex ship 4s., 5s. per last			2	10	0	
Lighterage and landing, 9d. per quarter			3	15	0	
Insurance on 300%, including imaginary profit, at 35s. per cent.; policy 3d. per cent.			5	5	9	
Fire and marine insurance for one week			0	5	0	
Turnage and trimming, about			0	1	0	
Wage of men ex granary, 2s. per quarter			1	0	0	
Devolving from granary, 3d.			1	5	0	
Wage ex granary, 2s. per last			1	0	0	
Commission on sale, 1s. per quarter			5	0	0	
By crockers, 1 per cent. on, suppose, 60s.			3	0	0	
				31	12	3
Total cost to importer if sold in bond				281	12	3
Imaginary profit				28	9	3
				313	1	6
Would produce, at 65s. 7d. per quarter				312	18	4

N.B.—Loss on re-measuring not considered. Freight and insurance are taken in this statement at an average, being sometimes higher and sometimes lower.

machine can be more perfectly unfounded than the... so prevalent in this country as to the... extreme cheapness of corn in Dantzie. The... truth is, that no considerable quantity of corn can... be derived from her without resorting to Galicia... and other provinces from 500 to 700 miles inland... The corn is thence conveyed to the city in boats... related to the navigation of the rivers; but, owing... to the uncertain supply of water in the latter, the... communication is sometimes entirely broken off... and it is always very tedious and expensive. In... proof of this, we may mention that, in November... 1838 when wheat sold in Dantzie for 41s. 6d. per... quarter, it was selling in Lemberg, the principal... corn market of Galicia, for 15s.; the difference... amounting to 26s. 6d., being the measure of the... cost and risk of conveyance from Lemberg to... Dantzie! It is, in fact, quite nugatory to suppose... that any large supplies should be furnished by... Dantzie, were the shipping price under 30s. or 40s... per quarter, supposing that we could in ordinary years... ship considerable supplies for 34s., still it is pretty... obvious it could not be sold in London, with a... profit, for less than 45s. or 47s., or perhaps 48s. per... quarter.

It is difficult to draw any conclusions on which... would be safe to place much reliance as to the... supplies of corn that may be obtained from... Dantzie and Prussia generally, now that our... ports are constantly open under a nominal duty... Mr. Jacob states that the lengthened period of... 7 years ending with 1825 gives an 'annual... report of what and rye of 279,794 quarters.'... This surplus may, he thinks, be 'fairly con-... sidered as the nearest approach that can be made... to the existing materials, to what is the usual... quantity of the produce of bread corn above the... ordinary circumstances occur to excite or check... variation.' (Report, p. 49.)... But there can be no doubt that Mr. Jacob... has underrated the capabilities of improvement... in the countries traversed by the Vistula, the... &c. And while our ports are open with a

duty of 1s., we may, supposing our average prices... not to fall below 45s. or 55s. per quarter, safely... reckon upon getting from Dantzie an annual... supply of from 250,000 to 350,000 quarters. It... should, however, be observed that Mr. Meek, who... visited the north of Europe in the latter part of... 1841 and early in 1842, concurs with Mr. Jacob in... thinking it improbable that any considerable... increase of exportation would take place from... Dantzie under any modification of our corn laws... (Parl. Paper No. 7, Sess. 1842, p. 31.) It was... difficult to believe that such should be the case... Down to a comparatively late period, owing to the... fluctuating and capricious nature of our demand... it proved of little advantage to the Polish culti-... vators; nor was much corn raised in the expecta-... tion of its finding its way to England. Now that... our ports are always open, it is quite a different... matter. The supply of our markets has become an... object of importance to the Polish agriculturists... who are endeavouring to extend and improve their... tillage, and the means of bringing corn to market... At the same time it is right to observe that the... stimulus given to Polish agriculture, and to the till-... age of foreign countries generally, by the change in... our corn laws, must wholly depend on the extent... of our demand; and if it should, in ordinary seasons... be more limited than is commonly supposed, it will... have proportionally less influence. We subjoin an

Account exhibiting the Quantities of the different Varieties of Corn and the Quantities of Flour shipped from Dantzie during each of the 7 Years ending with 1840, with the Prices of Wheat in Dantzie during the same Period.

Years	Wheat		Rye		Barley		Oats		Flour		Average Price of Wheat	
	qrs.	qrs.	qrs.	qrs.	qrs.	barrels	qrs.	barrels	£	s.	d.	
1834	71,015	21,811	3,246	1,522	33,863	1	7	6				
1835	45,129	13,860	35	2,938	28,592	1	3	8				
1836	129,055	70,812	7,512	7,224	58,891	1	8	11				
1837	511,601	109,999	2,757	8,085	67,612	1	9	83				
1838	458,410	51,290	2,608	1,206	75,274	2	4	12				
1839	419,055	131,253	65,919	8,579	45,251	2	8	5				
1840	496,776	131,880	37,054	2,755	21,809	2	10	104				
Total	1,934,079	518,195	117,297	51,749	334,092	1	17	104				



from Hamburg amounted, at an average of the 11 years ending with 1841, to 210,871 quarters a-year. The price of wheat, as already stated, is frequently less in Hamburg than in Dantzic; but this lowness of price is altogether ascribable to the inferiority of the Holstein and Hanover wheats, which are generally met with in great abundance in Hamburg. Wheat from the Upper Elbe is of a better quality; Bohemian wheat is occasionally forwarded by the river to Hamburg; but the heavy charges attend-

ing its conveyance from Prague prevent its being sent down, except when the price is comparatively high. In 1849 the shipments of wheat from Hamburg amounted to 286,209 quarters, of which 226,864 were for England. The supply for export in 1866 was 30,025 lasts or 324,600 quarters, and in 1867 it was 43,819 lasts or 473,727 quarters; the price per last being, in 1866, 152 Hamburg dollars of 3 marks cur.; and in 1867, 212½ dols. We subjoin an

Account of the Quantities of Wheat and other Varieties of Corn and Wheat Flour imported from the Hanse Towns (principally from Hamburg) into the United Kingdom during each of the 5 Years ending with 1866.

Articles	1862	1863	1864	1865	1866
Wheat - - - - - cwts.	679,038	516,390	491,107	486,009	878,912
Barley - - - - - "	575,611	612,005	442,116	397,615	717,571
Oats - - - - - "	154,985	61,075	50,791	74,285	123,795
Peas and beans - - - - - "	74,447	101,816	107,291	191,776	309,304
Other kinds of corn and grain - - - - - "	"	(Not computed)	"	1,430	6,525
Wheatmeal and flour - - - - - "	256,972	506,217	550,770	217,796	347,012

**Dutch Corn Trade.**—Amsterdam is an important depot for foreign corn, every variety of which may be found there. Only a small part of its consumption is supplied by corn of native growth; so that the prices in it are for the most part dependent on those at which corn may be brought from Dantzic, Kiel, Hamburg, and other shipping ports. The corn trade of Holland was formerly conducted under a low fixed duty. In 1835, however, a sliding scale of duties, varying inversely according to the fluctuations of the home prices, was adopted. This scale continued in force till 1845, when the potato rot, which made its appearance here as well as in Ireland, occasioned its repeal, and the imposition of fixed duties of 1.5d. per quarter on wheat, 1s. 1d. per quarter on rye, 10d. per quarter on barley, and 9d. per quarter on oats. It was provided, in 1847, that this scale should be revised in 1850-51. And its practical operation having been found to be highly satisfactory, Government introduced a bill by which it has been perpetuated. At an average of the 3 years ending with 1850 the prices in the Netherlands were, wheat 86s. 11d., rye 23s. 10d., barley 18s. 4d., oats 12s. 10d., and buck-wheat 8s. 3d. per imp. quarter.

Rotterdam is a very advantageous port for purchasing foreign corn, being conveniently situated, and the warehouse-rent low, not exceeding 2d. or 2½d. per quarter per month. We subjoin an

Account of the Quantities of Wheat and of the other Varieties of Corn imported from the Netherlands into the United Kingdom in each of the 5 Years ending with 1866.

Articles	1862	1863	1864	1865	1866
Wheat - - - - - cwts.	8,495	11,002	14,311	49,240	82,802
Barley - - - - - "	46,189	85,636	15,176	50,719	125,212
Oats - - - - - "	406,119	355,068	298,112	721,073	599,708
Peas and beans - - - - - "	29,457	30,322	34,479	92,760	38,258

**French Corn Trade.**—It appears, from the reports given by Garnier in the last edition of his translation of the *Wealth of Nations*, that the price of the hectolitre of wheat in the market of Paris amounted, at an average of the 19 years ending with 1819, to 20 fr. 53 cents. And Chaptal, in his valuable work *Sur l'Industrie Française* (l. p. 226) published in 1819, estimated the average price of wheat throughout France at 18 fr. the hectolitre. But it is seen in the subjoined table that the price of wheat in France, at an average of the half century ending with 1850, amounted to 20 fr. 20 cents, the

hectolitre, equivalent to 45s. 7d. the imperial quarter. The hectolitre is equal to 2.7512 imperial bushels, and the quarter to 2.82 hectolitres.

Average Price per Hectolitre of Wheat in France in each Year from 1800 to 1850, both inclusive.

Year	Fr.	Ct.	Year	Fr.	Ct.
1800	21	50	1836	11	81
1801	21	59	1837	18	51
1802	21	16	1838	22	05
1803	18	81	1839	22	99
1804	20	18	1840	21	17
1805	20	19	1841	22	09
1806	20	18	1842	22	53
1807	18	60	1843	16	51
1808	16	67	1844	11	72
1809	15	18	1845	11	80
1810	19	61	1846	16	57
1811	26	15	1847	17	37
1812	51	54	1848	19	51
1813	22	58	1849	22	49
1814	17	50	1850	21	98
1815	19	53	1811	18	51
1816	28	51	1812	19	65
1817	26	16	1813	29	17
1818	21	65	1814	19	04
1819	18	42	1815	18	95
1820	19	15	1816	45	86
1821	17	80	1817	29	58
1822	15	80	1818	16	56
1823	17	52	1819	15	25
1824	16	52	1820	14	26
1825	15	71			

Average price of the entire period, 20 francs 20 cents. the hectolitre.

Owing to the deficient harvest of 1846, prices were occasionally higher in France than in England; and considerable quantities of wheat were taken out of bond in London and other British ports for shipment to France. The various expenses attending the importation of a quarter of French wheat into London and its delivery to the millers may be taken, at a medium, at about 7s. per quarter. France had formerly but little surplus produce to dispose of; so that it would have been impossible for us to import any considerable quantity of French corn without occasioning a great advance of price; but, as will be immediately seen, a decided change has taken place in this respect of late years, and when the harvests are abundant, France has latterly sent us large supplies.

The mean of the different estimates framed by Vauban, Quesnay, Expilly, Lavoisier, and Arthur Young, gives 61,519,672 septiers, or 32,810,000 quarters, as the total average growth of the different kinds of grain in France. (Pecher, *Statistique Elémentaire*, p. 290.) We, however, took occasion formerly to observe (*Supp. to Encey. Brit. art. 'Corn Laws'*) that there could not be a doubt that this estimate was a great deal too low; and the more careful investigations of late French statisticians fully confirm this

remark. The annual produce of the harvest of France was estimated in 1843, from returns obtained under official authority, at 69,558,000 hectolitres of wheat, and 112,958,000 hectolitres of other sorts of grain; making in all 182,517,000 hectolitres, or 62,740,000 imperial quarters. Of this quantity it was supposed that about 16 per cent. was consumed as seed, 19 per cent. in the feeding of different species of animals, and 2 per cent. in distilleries and breweries.

The reader will not fail to observe that, according to this statement, the consumption of corn in France, which had in 1862 a population of about 37,382,225, is not more than equal to that of the United Kingdom, the population of which may be taken at 29,000,000. And we have no doubt that such is the fact; for, though the consumption of corn in France materially exceeds its proportional consumption in Ireland, it is far below the proportional consumption of Great Britain. The corn expended in this country in the keep of horses and in distilleries would, of itself, suffice to feed a third part of the people of France.

The foreign corn trade of France was formerly regulated by a law which forbade exportation, except when the home prices were below certain limits, and which restrained and absolutely forbade importation except when they were above certain other limits. The prices regulating importation and exportation differed in the different districts into which the kingdom was divided. Latterly, however, importation was at all times allowed under graduated duties, which, like those recently existing in this country, became prohibitory when the prices sank to a certain level. The frontier departments were divided into 4 separate districts, the prices in each district governing the duties on importation into it, so that it sometimes happened that corn warehoused in a particular port, where it was not admissible except under a high duty, was carried to another port in another district, and admitted at a low duty. An official announcement was usually issued on the last day of each month, of what the duties were to be in each district during the succeeding month. But the law was sometimes suspended for longer or shorter periods. At present (1868) the French import duty on wheat till December 31 next is 50 cents.

per 100 kilogrammes; barley, oats, rye, buckwheat, and maize being free.

Account of the Quantities of Wheat and Wheat Flour respectively imported from France into the United Kingdom during each of the 36 Years ending with 1866.

Year	Wheat	Wheat Flour	Year	Wheat	Wheat Flour
1831	101,076	9,186	1850	295,355	27,517
1832	478	—	1851	£10,100	2,250,666
1833	692	—	1852	907,741	880,873
1834	—	—	1853	37,035	814,750
1835	—	32	1854	145,078	219,781
1836	—	14	1855	26,159	54,196
1837	746	883	1856	10,007	49,911
1838	25,191	26,749	1857	37,179	36,117
1839	278,182	115,592	1858	618,231	1,638,248
1840	46,350	1,070	1859	1,006,572	3,751,013
1841	147,966	161,071	1860	559,692	2,029,186
1842	469,707	164,680	1861	180,993	460,722
1843	3,118	48	1862	224,875	1,762,089
1844	44,871	13	1863	34,931	—
1845	32,173	12,866			
1846	71,615	7,508	1864	587,105	1,615,814
1847	141,913	190,912	1865	2,292,873	3,048,861
1848	216,324	362,292	1866	3,475,139	3,619,529
1849	451,331	1,066,258			

The increase in the interval between 1818 and 1866 of the imports of wheat and flour, but more especially the latter, is quite unprecedented. It was occasioned, at first, in part at least, by the superior quality of French flour; for, how singular soever it may appear, the business of grinding corn was then better understood and in a more advanced state in France than in England. This may, perhaps, be accounted for by the mill-stones of La Brie, which are in common use in France, being better suited to their work than those commonly employed in England, and by the greater hardness of the French wheat, and the greater care taken in the sorting of the flour into various qualities. Latterly, however, very great improvements have been effected in the English mills.

But by far the greater part of the extraordinary increase in the imports of French wheat and flour in the period referred to is, no doubt, to be ascribed to the very low prices that they ruled in France. And the regular succession in this country for many years past of cycles of 3 or 6 years of scarcity and abundance is a very striking phenomenon. In proof of this, we beg to subjoin the following

Account, compiled from Official Documents, of the Excess of the Imports over the Exports, and of its Exports over the Imports, of Wheat into and from France, and of its Price per Hectolitre, in Periods of Scarcity and Abundance, from 1816 to 1856 inclusive.\*

	Excess of Imports over Exports		Excess of Exports over Imports		Average Price per Hectolitre
	hect.	fr. cts.	hect.	fr. cts.	
6 years of scarcity (1816-21)	6,218,000	—	—	—	25 22
6 " abundance (1822-27)	—	—	1,250,000	—	15 65
5 " scarcity (1828-32)	—	—	—	—	22 11
5 " abundance (1833-37)	2,528,000	—	915,000	—	15 33
5 " medium (1838-42)	—	—	—	—	20 85
5 " scarcity (1843-47)	—	—	18,696,000	—	22 73
5 " abundance (1848-52)	—	—	16,257,000	—	15 45
4 " scarcity (1853-56)	—	—	20,207,000	—	27 54
41 years	55,805,000	—	18,432,000	—	—

\* From the *Revue Commerciale* of Messrs. Cominck of Havre for 1858: a valuable and trustworthy publication.

Hence, in these 41 years, here have been imported 55,805,000 hectolitres, and exported 18,432,000; leaving an excess of imports of 37,373,000 hectolitres.

Inasmuch, however, as the imports are made when prices are high, and the exports when they are low, the excess of the value of the former over that of the latter is greater than in proportion to the difference of their quantities, and is estimated, for the above period, at 1,160,000,000 frs. And this deficit in the amount of the harvests will not certainly be filled up by clinging to the worst parts of the protective system, that is, by allowing

importation, and preventing or fettering exportation, and such like expedients. But it will speedily get rid of when a really free trade in corn is established, and the agriculturists permitted to buy their tools and implements wherever they find them cheapest and of the best quality. No doubt, also, a modification of the existing law of succession would be very desirable; for, in addition to the stimulus which it gives to subdivision, the obstructions which it throws in the way of the consolidation of properties and the increase of farms make it a formidable barrier to the progress of agriculture.

According to the bakers in a are bound to flour equal to consumption, an Act of this it will either f into a mere inst Spanish Corn from Spain were severest penalties were both allowed 1823 this privi dictations (*frutos*) is now, in fact, in expense of carrying the sea-ports, and however, to the principally situated extreme badness carriage to the con the exports are th narrow limits: th frequently gives ri the prices in mark only a few leagu only system wide ex communication im security given to th in no long time, I exporting countries Leon, Estremadura, to the south and eas finest corn countries made to yield increa the disturbed state o of a market for their said to be at all culti natural fertility, that only reap those fields The imports of whea country from Spain i 1856 have been—

Articles	1856
Wheat	255,317
Wheat and flour	2,250,666

Corn Trade of Odessa. Sea is one of the princ Southern Europe. Inas of the corn sent from province of Kherson i exports depend in greo comparatively high pri the cost of conveying chief, whence only large to the port. The nav which intersects these p rise be a most import tion, is unlookily inte of its course by catara tion of the corn brou conveyed to it in ear the supply depends almo cattle that may be en on the productive on also, though b applies for Odessa is l the Sea of Azof, and fr the Black Sea. The following table s rease that took place i corn brought to Odess counted to 2,016,672 e the largest quanti a single season from a

According to a law passed in November 1858, the bakers in all the principal towns of the empire are bound to keep on hand a stock of grain or flour equal to three months of their ordinary consumption. But it is not to be supposed that an Act of this sort should be really carried out: it will either fall into desuetude, or degenerate into a mere instrument of abuse.

**Spanish Corn Trade.**—The exportation of corn from Spain was formerly prohibited under the severest penalties. But in 1820 grain and flour were both allowed to be freely exported; and in 1823 this privilege was extended to all productions (*frutos*) the growth of the soil. There is now, in fact, no obstacle whatever, except the expense of carriage, to the conveyance of corn to the sea-ports, and thence to the foreigner. Owing, however, to the corn-growing provinces being principally situated in the interior, and to the extreme badness of the roads, which renders carriage to the coast both expensive and difficult, the exports are reduced within comparatively narrow limits: the same difficulty of carriage frequently gives rise to very great differences in the prices in markets, in all parts of the country, only a few leagues distant. Were the railway system widely extended, and other means of communication improved, and anything like security given to the husbandman, Spain would, in no long time, become one of the principal exporting countries of Europe. Old Castille, Leon, Estremadura, and that part of Andalusia to the south and east of Seville, are among the finest corn countries of Europe, and might be made to yield immense supplies. But owing to the disturbed state of the country, and the want of a market for their produce, they can hardly be said to be at all cultivated. And yet such is their natural fertility, that in good seasons the peasants not only reap those fields nearest to the villages!

The imports of wheat and wheat-flour into this country from Spain in the 5 years ending with 1856 have been—

Articles	1852	1853	1854	1855	1856
Wheat	cwt. 9	cwt. 1,821	cwt. 127,561	cwt. 572,035	cwt. 572,035
Wheat and flour	255,498	9,111	125	8,395	253,195

**Corn Trade of Odessa.**—Odessa, on the Black Sea, is one of the principal corn shipping ports of Southern Europe. Inasmuch, however, as but little of the corn sent from Odessa is raised in the province of Kherson in her neighbourhood, the exports depend in great degree on the price; a comparatively high price being necessary to pay the cost of conveying corn from Podolia and Galicia, whence only large supplies can be derived to the port. The navigation of the Dnieper, which intersects these provinces, and would otherwise be a most important channel of communication, is unluckily interrupted in the lower part of its course by cataracts, so that a very large portion of the corn brought at present to Odessa is conveyed to it in carts drawn by oxen; and the supply depends almost as much on the number of cattle that may be employed for this purpose as on the productiveness of the harvests. A portion also, though but a small one, of the supplies for Odessa is brought by coasters from the Sea of Azof, and from some of the smaller ports on the Black Sea.

The following table shows the extraordinary increase that took place in 1834-49 in the supplies of corn brought to Odessa. The exports in 1847 amounted to 2,016,672 quarters, being, we believe, the largest quantity of wheat ever shipped in a single season from a single port.

It appears from an official statement published in Odessa, that the total quantity of wheat brought to the town in the undermentioned years was—

Year	Chets.*	Year	Chets.	Year	Chets.
1833	691,000	1840	690,430	1847	1,981,920
1835	378,700	1841	720,372	1848	2,281,385
1836	878,700	1842	865,422	1849	2,575,857
1837	950,498	1843	1,170,215	1848	2,039,097
1838	1,841,000	1844	1,315,500	1849	1,714,744
1839	1,150,000				

\* A chetwert is about 5½ bushels.

During the three years ending with 1840, the average price of the best Odessa wheat, which, however, is inferior to English, was 34s. 6d. on the spot; and the better samples only are fitted for distant voyages, and for our markets. The crops for 1865 were generally bad and poor. Owing to the length and tediousness of the voyage from Odessa, and the risk of the grain heating on the passage, the charges attending its importation, including insurance &c., amount to from 14s. to 15s. per quarter. It is plain, therefore, that the Odessa wheat brought to England during the above three years must, speaking generally, have cost the importer about 50s. per quarter, exclusive of profit; and, supposing the price of the best wheat in Odessa to be reduced under a system of free intercourse to from 25s. to 30s. per quarter (its price in 1849), it could not be sold in London for less than from 40s. to 45s. per quarter. And though in 1853 the imports of wheat from Southern Russia amounted to 818,930 quarters, they are usually much less. In 1857 they were only 409,469 quarters. Constantinople, Genoa, Marseilles, and other Mediterranean ports are the great markets for the wheat of the Black Sea.

The shipments of grain, other than wheat, from Odessa, are generally inconsiderable. In 1847, 210,390 quarters of rye were exported. Indian corn is raised in Bessarabia, but not in quantities to admit of any great exportation.

From Taganrog also the shipments of grain are very considerable, as is apparent from the following extract from a table given in Mr. Consul Carruthers' *Report* for 1866, which shows the exports of the 5 years ending with 1866—

	1862	1863	1864	1865	1866
Wheat	qrs. 1,058,962	qrs. 1,019,557	qrs. 953,295	qrs. 961,386	qrs. 1,183,888
Rye	121,761	20,651	1,751	3,753	91,492
Barley	115,104	40,439	54,553	16,218	70,511
Oats	—	—	15,121	15,552	75,584

For farther details as to the corn trade of Southern Russia, and of the countries on the Lower Danube, see the articles GALATZ; ODESSA; TAGANROG.

Both soft and hard wheat are exported from Odessa; but the former, which is by far the most abundant, is only brought to England. Despite the preference given to English wheat in this country, in the Mediterranean Odessa wheat is more esteemed, and fetches a higher price.

The hard wheat brought from the Black Sea comes principally from Taganrog. It is a very fine species of grain, being full 10 per cent. heavier than British wheat, with not more than half the bran; latterly, however, 'ghirka' or soft wheat has been exported both to France and this country, the price per quarter, free on board, being from 33s. to 34s. 9d. The hard wheat is used in Italy for making macaroni and vermicelli, and things of that sort; very little of it has found its way to England.

The voyage from Odessa to Britain is of uncertain duration, but generally very long. It is essential to the importation of the wheat in a

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good condition that it should be made during the winter months. When the voyage is made in summer, unless the wheat be very superior, and be shipped in exceedingly good order, it is almost sure to heat; and has sometimes, indeed, been injured to such a degree as to require to be dug from the hold with pickaxes. Unless, therefore,

means be devised for lessening the risk of damage during the voyage, there is little reason to think that Odessa wheat will ever be largely imported in ordinary seasons into Britain. (See the evidence of J. H. Lander, Esq., and J. Schneider, Esq., before the Lords' Committee of 1827, on the price of foreign corn.) We subjoin a

*Statement of the Probable Cost of Importing 2,000 Chetwerts or 1,453 Quarters of Wheat from Odessa to London. (1868.)*

	£	s.	d.	£	s.	d.
<i>Charges in London</i>	78	7	6			
Insurance				78	15	6
Policy duty						
Commission do. $\frac{1}{2}$ per cent.	508	11	0			
Freight on 1,453 quarters wheat at 7s. per quarter				519	1	0
Primage, 10 per cent.				11	10	0
Gratification				21	4	4
Charterparty, 11; custom-house entries, 10s.				51	9	4
Metage, dilage, and lading, 1s. 7d. per last				11	17	10
Lighthouse dues of 1,453 quarters at 1d.				12	2	2
Landing, unloading, hoisting, and delivering, at 6d.				78	11	1
Rent, insurance, and turning, 4 weeks, at 5s. 6d. per 100 quarters per week						
Metage &c. ex granary at 2s. per qr.				£795	4	7
Duty about 1s. 10. per qr.						
Or per quarter						0 10 11
And in addition to the above, the charge for probable damage on the voyage may be estimated at 1s. per quarter						0 2 0
And the factorage in London at 1s. per quarter						0 12 11

*American Corn Trade.*—The prices of wheat at New York and Philadelphia may be taken, at an average, at from 35s. to 40s. per quarter; and as the cost of importing a quarter of wheat from the United States into England amounts to from 10s. to 12s., it is seen that no considerable supply could be obtained from thence, were our prices under 45s. or 50s. It should also be remarked that prices in America are usually higher than in the Baltic; so that but little can be brought in from the former except when the demand is sufficient previously to take off the cheaper wheats of the Northern ports.

Formerly the exports of wheat from the United States were comparatively trifling; it being in the shape of flour that most of their exports of that grain were made. From the annexed table it will be seen that in 1863 upwards of 36,000,000

bushels of wheat were exported from the United States, and upwards of 4,000,000 barrels of wheat flour. The shipments of this important article from Baltimore, Philadelphia, New York, New Orleans, and other ports, have occasionally been very large, though down to 1839 they had been for some years rather decreasing. In a few instances, indeed, considerable quantities of corn and flour have been sent from Europe to the United States. In 1837, for example, 3,921,259 bushels of foreign wheat were imported into the United States, of which 792,675 bushels were from England. This, however, was a rare occurrence; and in years when there is at once an extraordinarily abundant crop in the States and an unusually large demand, the exports are very large, especially if prices in Europe be high.

*Account showing the Quantities of Wheat, Wheat-Flour, Indian Corn, and Indian Meal Exported from the United States during the Years 1863-4, specifying the Countries to which they were sent, and the Quantities and Values of the Supplies sent to each.*

Principal Articles	Principal Countries	1863		1864	
		Quantities	Value	Quantities	Value
Wheat	Total - bushels	36,160,414	46,734,195	25,681,712	31,434,133
	To United Kingdom	27,325,739	36,754,307	18,078,999	21,949,884
	Canada and British North America	6,583,625	6,827,125	4,116,513	5,006,629
Wheat Flour	Total - barrels	4,390,055	28,366,069	3,557,317	23,588,819
	To United Kingdom	1,791,496	11,074,906	979,754	6,872,490
	Canada and British North America	964,518	5,925,919	865,896	5,886,326
Indian Corn	Total - bushels	16,119,476	10,592,704	4,096,594	5,535,889
	To United Kingdom	10,782,707	7,067,359	2,248,801	1,667,383
	Canada and British North America	4,383,881	1,754,377	1,307,175	1,020,000
Indian Meal	Total - barrels	257,948	1,013,272	262,557	1,346,743
	To United Kingdom	114,532	443,261	127,981	638,541
	Canada and British North America	13,912	311,759	43,517	235,600
Rye and other small grains	Total - value	—	1,833,757	—	92,740
	To Mexico	—	250,619	—	49,304
	Canada and British North America	—	265,150	—	208,436
United Kingdom	Total - value	—	254,915	—	119,333
	United Kingdom	—	135,228	—	119,333
	Canada and British North America	—	119,687	—	—
Brazil	Total - value	—	339,035	—	86,700
	United Kingdom	—	—	—	—
	Canada and British North America	—	—	—	—
Brazil	Total - value	—	339,035	—	86,700
	United Kingdom	—	—	—	—
	Canada and British North America	—	—	—	—
Brazil	Total - value	—	339,035	—	86,700
	United Kingdom	—	—	—	—
	Canada and British North America	—	—	—	—

It has been doubted whether this exportation can be maintained. Speaking generally, agriculture is little known as a science in any part of America, and but imperfectly understood as an

art; and it could not rationally be expected that it should be otherwise. In all those countries which, as in the greater part of America, part of fertile and uncultivated land may be obtained

little more than a no practice is, after clearing of land, to subject it to cropping; and when in some other tract of which has been abandoned of the *vis medicata* parts of the Eastern or been long settled, and scourging system can be followed: and there, of agriculture has been tion of crops, and the tised sometimes with r less success. Still, it is best farmed districts agri sate; and, except where a very superior quality, deal, compared with w country. In illustration leg to subjoin an

*Account of the Average Corn Crops in the States, taken in a Report by the Society, in Contrast with the Produce of similar*

	Produce
Wheat	- bushels per acre
Rye	" "
Indian corn	" "

Results from this statement are about twice as great as in New York, which has some of the best land in the Union. In the most productive results are similar, the production in being respectively 1 bushel. It is true, no doubt, that the increase; but this cannot be compared with the employment of greater culture of the land. And in New York farmers and those states have to withstand their neighbours in the north, the Mississippi and Missouri subjected to the scourging of the soil. But in these states are cheap, the produce is very small. In Michigan, for example, in 1849, that the average did not exceed 1 bushel per acre, which would further appear to be information on the subject. In the New York, 16 bushels per imperial bushel but beyond the margin very difficult and, perhaps, to cope with any degree of the ultimate result in what degree it may be by future discoveries and in the mean time, disperse Johnston in thinking of the powers of the United States exaggerated; but we are able to exaggerate their produce of Indian corn. (Notes on Agricultural, Economical, and Social, see also Mr. Russell's *U.S. Agriculture and Statistics* &c. The latter is a valuable work that has 1

little more than a nominal price, the invariable practice is, after clearing and breaking up a piece of land, to subject it to a course of continuous cropping; and when it is exhausted, to resort to some other tract of new ground, leaving that which has been abandoned to recover itself by the aid of the *vis medicatrix nature!* But in those parts of the Eastern or Atlantic States that have been long settled, and are fully occupied, this scourging system can no longer be advantageously followed: and there, consequently, a better system of agriculture has been introduced; and a rotation of crops, and the manuring of land, are practiced sometimes with more and sometimes with less success. Still, it is certain that even in the best farmed districts agriculture is in a backward state; and, except where the land is naturally of a very superior quality, the produce is scanty indeed, compared with what is obtained in this country. In illustration of what is now stated we beg to subjoin an

Account of the Average Produce per Acre of the Corn Crops in the State of New York, as published in a Report by the State Agricultural Society, in Contrast with what is believed to be the Produce of similar Crops in this Country.

Produce	New York	England
Wheat - bushels per acre	11	30 or 32
Barley - "	16	32
Oats - "	26	40
Indian corn - "	25	--

Results from this statement that the returns per acre are about twice as great in this country as in New York, which has some of the best corn growing land in the Union. In Ohio, which is supposed to be the most productive of all the States, the results are similar, the produce of wheat and barley in it being respectively 15½ and 24 bushels per acre. It is true, no doubt, that these returns may be increased; but this can only be done by the employment of greater capital and skill in the culture of the land. And in the mean time the New York farmers and those of the other Atlantic States have to withstand the competition of their neighbours in the newly-formed States on the Mississippi and Missouri, where the best land is subjected to the scourging treatment already referred to. But in these States, though the land is cheap, the produce per acre is, in most cases, very small. In Michigan, for example, it appears, from a return published by the State Legislature in 1849, that the average produce of wheat per acre did not exceed 10½ bushels, being less than 9 bushels per acre when seed is deducted! It would further appear from the best attainable information on the subject, that if we take the produce of the new States generally at 15 to 16 bushels per imperial acre, we shall not be far from the mark. And though it is very difficult and, perhaps, impossible, to argue with any degree of confidence what will be the ultimate result of this infertility, yet in what degree it may be defeated or modified by future discoveries and improvements, we leave to the mean time, disposed to concur with Mr. Johnston in thinking that the wheat-producing powers of the United States have been exaggerated; but we doubt whether it be possible to exaggerate their capacities for producing Indian corn. (*Notes on North America, Agricultural, Economical, and Social*, i. 172, ii. 40; see also Mr. Russell's work on *North America, its Agriculture and Climate*, pp. 92, 123, 150 &c. The latter is the most important and valuable work that has hitherto appeared on

that continent. The statements it embodies with regard to slavery have shed a new and powerful light on all that relates to that momentous and difficult subject.)

In the course of 20 years from this date (1868) the population of the Union will most likely amount to or exceed 60,000,000; and what with this enormous increase in the demand for corn, and the unwise treatment to which the land is subjected, the fears so generally entertained in regard to the injury to be inflicted on the agriculture of Europe, and especially on that of England, by the importation of American corn, have, perhaps, no good foundation. The importations of maize or Indian corn from America have decidedly increased, that for 1866 nearly reaching 7,000,000 of cwts.; the only other important source of supply being European Turkey, which furnished over 4,500,000 cwts. in the same year. The presumption is that it will rarely be imported in large quantities for food except when the potato is deficient, or to supply those who have no means of obtaining the higher-priced varieties of corn. But a great demand has arisen for it to be used in distilleries, and there seems a probability of a growing increase in the use of Indian corn for that purpose. In no other country can Indian corn be produced at less cost or with greater certainty than in the United States, and there is a far greater probability of a rapid increase in the importations of that grain to this country than of any other kind of corn. Chicago on Lake Michigan, from its ready means of communicating with the Mississippi and St. Lawrence, has naturally become the great storehouse of the western or corn-producing States of the Union. It contains huge warehouses capable of holding millions of bushels of grain, and its extraordinary advance in population is worthy of remark. In 1840 it had but 4,853 inhabitants; in 1860, 109,260; and now (1868) their number may be estimated at from 140,000 to 150,000.

All sorts of flour, whether made of wheat, rye, Indian corn &c., exported from the United States, must previously be submitted to the inspection of officers appointed for that purpose. The law further directs that the barrels in which it is shipped shall be of certain dimensions, and that each barrel shall contain 196 lbs. of flour, and each half barrel 98 lbs. The inspector, having ascertained that the barrels correspond with the regulations as to size, weights &c., decides as to the quality of the flour, and brands it accordingly. Flour for home consumption is not subjected to inspection. The inspection must take place at the time and place of exportation, under a penalty of 5 dols. per barrel. Persons altering or counterfeiting marks or brands forfeit 100 dols.; and persons putting fresh flour into barrels already marked or branded, or offering adulterated wheat flour for sale, forfeit in either case 5 dols. for each barrel. Every barrel of wheat flour imported is deemed equivalent to 38½ gallons of wheat, and, under the old law, was charged with a corresponding duty.

The usual price of wheat in Canada, when there is a demand for the English market, is about 30s. per quarter; and adding to this 10s. per quarter for the expenses of carriage and warehousing, it will make its price in Liverpool, when delivered to the consumer, 40s.; and being spring wheat, it is not so valuable by 5s. per quarter as English wheat.

Mr. Reuss (p. 120) gives the following *pro forma* account of the expense of importing a cargo of 5,000 bushels of wheat from New York, supposing it to cost 1 dol. 12 cents per bushel:—

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The manufacture of cotton has been carried on in Hindostan from the remotest antiquity. Herodotus mentions (iii. 106) that in India there are wild trees that produce a sort of wool superior to that of sheep, and that the natives dress themselves in cloth made of it. Similar statements are made by Strabo (lib. xv. sec. 10), Arrian (*Zoile*. c. xvi.), and Mela (lib. iii. c. viii.). But though certainly referring to cotton, it is evident that the authors of these statements had no very distinct ideas either in regard to the wool itself or its manufacture. The latter obtained no footing worth mentioning in Europe till last century. The plant was, it appears, introduced into southern Europe before the conclusion of the thirteenth century, and the wool was used in the first instance for the manufacture of paper. Its employment for textile fabrics is, as far as Europe is concerned, of not much more than a century's growth.

**I. Rise and Progress of the British Cotton Manufacture.**—The rapid growth and prodigious magnitude of the cotton manufacture of Great Britain are, beyond all question, the most extraordinary phenomena in the history of industry. Our command of the finest wool naturally attracted our attention to the woollen manufacture, and paved the way for that superiority in it which we long since attained; but when we undertook the cotton manufacture, we had comparatively few facilities for its prosecution, and had to struggle with the greatest difficulties. The raw material was produced at an immense distance from our shores; and in Hindostan and China the inhabitants had arrived at such perfection in the arts of spinning and weaving, that the lightness and delicacy of their finest cloths emulated the web of the gossamer, and seemed to set competition at defiance. Such, however, has been the influence of the stupendous discoveries and inventions of Hargreaves, Arkwright, Crompton, Cartwright, and others, that we have overcome all these difficulties—that neither the extreme cheapness of labour in Hindostan, nor the excellence to which the natives had attained, has enabled them to withstand the competition of those who buy their cotton, and who, after carrying it 5,000 miles to be manufactured, carry back the goods to them. This is the greatest triumph of mechanical genius; and what perhaps is most extraordinary, our superiority is not the late result of a long series of successive discoveries and inventions: on the contrary, it has been accomplished in a very few years. Little more than a century has elapsed since the British cotton manufacture was in its infancy; and it now forms the principal business carried on in the country, affording an advantageous field for the accumulation and employment of millions upon millions of capital, and of thousands upon thousands of workmen! The skill and genius by which these astonishing results have been achieved have been one of the main sources of our power: they have contributed in common degree to raise the British nation to the high and conspicuous place she now occupies. Nor is it too much to say that the skill and energy derived from the cotton manufacture powerfully assisted in carrying us triumphantly through the tremendous struggle with revolutionary France, at the same time that it generally contributes to that strength by which we are able, without difficulty, to sustain burdens which would have crushed our fathers, and could be supported by any other people.

The precise period when the manufacture was introduced into England is not known; but it is probable that it was some time in the early

part of the 17th century. The first authentic mention of it is made by Lewis Roberts, in his *Treasure of Traffic*, published in 1641, where it is stated: 'The town of Manchester, in Lancashire, must be also herein remembered, and worthily for their encouragement commended, who buy the yarne of the Irish in great quantity, and weaving it, returne the same again into Ireland to sell. Neither doth their industry rest here; for they buy cotton wool in London that comes first from Cyprus and Smyrna, and at home worke the same, and perfect it into fustians, vermillions, dimities, and other such stufles, and then return it to London, where the same is vented and sold, and not seldom sent into foreign parts, who have means, at far easier termes, to provide themselves of the said first materials.' (Orig. ed. p. 32.) It is true, indeed, that mention is frequently made by previous writers, and in Acts of the Legislature passed at a much earlier period, of 'Manchester cottons,' 'cotton velvets,' 'fustians' &c.; but it is certain that these articles were wholly composed of wool, and had most probably been denominated cottons from their having been prepared in imitation of some of the cotton fabrics imported from India and Italy. In an Act of 5 & 6 Edw. VI. (1552), entitled 'For the true making of WOOLEN cloth,' it is ordered, 'That all cottons called Manchester, Lancashire, and Cheshire cottons, full wrought for sale, shall be in length' &c. This proves incontestably that what were then called cottons were made wholly of wool.

From the first introduction of the cotton manufacture into Great Britain down to 1773, the warp or transverse threads of the web, only, were of cotton; the warp, or longitudinal threads, consisting wholly of linen yarn, principally imported from Germany and Ireland. In the first stage of the manufacture the weavers, dispersed in cottages throughout the country, furnished themselves as well as they could with the warp and weft for their webs, and carried them to market when they were finished; but about 1760 a new system was introduced. The Manchester merchants began about that time to send agents into the country, who employed weavers, whom they supplied with foreign or Irish linen yarn for warp, and with raw cotton, which being carded and spun, by means of a common spindle or distaff, in the weaver's own family, was then used for weft. A system of domestic manufacture was thus established; the junior branches of the family being employed in the carding and spinning of the cotton, while its head was employed in weaving the linen and cotton yarn into cloth. This system, by relieving the weaver from the necessity of providing himself with linen yarn for warp and raw cotton for weft, and of seeking customers for his cloth when finished, and enabling him to prosecute his employment with greater regularity, was an obvious improvement on the system that had been previously followed; but it is at the same time clear that the impossibility of making any considerable division among the different branches of a manufacture so conducted, or of prosecuting them on a large scale, added to the interruption given to the proper business of the weavers by the necessity of attending to the cultivation of the patches of ground which they generally occupied, opposed invincible obstacles to its progress, so long as it was conducted in this mode.

It appears from the Custom House returns that the total quantity of cotton wool annually imported into Great Britain at an average of the five years ending with 1705 amounted to only 1,170,881 lbs. The accounts of the imports of cotton from 1705 to 1770 have been imperfectly preserved;

but until the last half-dozen years of that period the manufacture increased very slowly, and was of very trifling amount. Dr. Percival, of Manchester, who had the best means of being accurately informed on the subject, states that the entire value of the cotton goods manufactured in Great Britain, at the accession of George III. in 1760, was estimated to amount to only 200,000*l.* a-year, and the number of persons employed was quite inconsiderable; but in 1767 James Hargreaves, a carpenter of Blackburn in Lancashire, invented the *spinning-jenny*. At first this admirable machine enabled sixteen to thirty threads to be spun with the same facility as one; and it was subsequently brought to such perfection, that a little girl was able to work no fewer than from eighty to one hundred and twenty spindles.

The jenny was applicable only to the spinning of cotton for weft, being unable to give to the yarn that degree of firmness and hardness which is required for the longitudinal threads or warp; but this deficiency was soon after supplied by the introduction of the *spinning-frame*—that wonderful piece of machinery which spins a vast number of threads of any degree of fineness and hardness, leaving to man merely to feed the machine with cotton, and to join the threads when they happen to break. It is not difficult to understand the principle on which this machine is constructed, and the mode of its operation. It consists of two pairs of rollers, turned by means of machinery. The lower roller of each pair is furrowed or fluted longitudinally, and the upper one is covered with leather, to make them take a hold of the cotton. If there were only one pair of rollers, it is clear that a carding of cotton passed between them would be drawn forward by the revolution of the rollers, but it would merely undergo a certain degree of compression from their action. No sooner, however, has the carding, or *roving* as it is technically termed, begun to pass through the first pair of rollers, than it is received by the second pair, which are made to revolve with (as the case may be) 3, 4, or 5 times the velocity of the first pair. By this admirable contrivance the roving is drawn out into a thread of the desired degree of tenacity; a twist being given to it by the adaptation of the spindle and fly of the common flax-wheel to the machinery. Arkwright gave his machine the name of 'water-frame.'

Such is the principle on which Sir Richard Arkwright constructed his famous spinning-frame. It is obvious that it is radically and completely different from the previous methods of spinning, either by the common hand-wheel or distaff, or by the jenny, which is only a modification of the common wheel. Spinning by rollers was an entirely original idea; and it is difficult which to admire most—the profound and fortunate sagacity which led to so great a discovery, or the consummate skill and address by which it was so speedily perfected and reduced to practice.

The question as to the merit of Arkwright as an original discoverer is still undecided. Recently, however, it has been ascertained that a patent for spinning by rollers, revolving with different degrees of velocity, was taken out by Messrs. Wyatt and Paul, so early as 1738. (*History of the Cotton Manufacture*, by Edward Baines, Esq.) But it does not appear that the inventors had been able to give effect to their happy idea, and all traces of the invention seem to have been lost. The statements in the case printed by Sir Richard Arkwright and his partners in 1782 show that he was aware of the attempts made in the reign of George II. to spin by machinery; but there is no evidence to prove that he was ac-

quainted with the principle on which these attempts had been made, or that he had seen the patent referred to. The probability seems to be that he had. But admitting this to be the case, it detracts very little from the substantial merit of Sir Richard Arkwright. If the idea of spinning by rollers did not spring up spontaneously in his mind, he was, at all events, the first who made it available in practice, and showed how it might be rendered a most prolific source of wealth.

Since the dissolution of Sir Richard Arkwright's patent, in 1785, the progress of discovery and improvement in every department of the manufacture has been most rapid. The *mule-jenny*—so called from its being a compound of the jenny and the spinning-frame—invented by Mr. Crompton, and the *power-loom*, invented by the Rev. Mr. Cartwright, are machines that have had the most powerful influence over the manufacture; and in consequence of their introduction, and of innumerable other inventions and improvements, the prices of cotton cloth and yarn have gone on progressively diminishing. But as the demand for cottons has been, owing to their extraordinary cheapness, extended in a still greater degree, the value of the goods produced, and the number of persons employed in the manufacture, are now decidedly greater than at any previous period.

2. *Imports of Cotton Wool. Countries whence it is Imported. Prices, Duties &c.*—The following Tables have been partly taken from official documents, and partly from the accounts of merchants of great experience. We believe they may be relied on as approaching as near to accuracy as is possible to attain to in such matters.

Cotton Wool Imported into, Exported from, and Entered for Consumption in the United Kingdom from 1820 to 1811, stated in lbs.

Year	Quantity Imported lbs.	Quantity Exported lbs.	Quantity Entered for Consumption lbs.
1820	151,672,675	6,021,038	157,693,713
1821	132,539,650	14,589,197	147,950,453
1822	112,837,628	18,267,776	131,105,404
1823	191,402,503	9,318,492	200,721,000
1824	119,200,122	15,209,205	134,409,327
1825	228,005,291	18,091,953	246,097,244
1826	177,607,101	21,171,929	198,779,030
1827	279,418,009	18,151,171	297,569,180
1828	227,650,612	17,206,776	244,857,388
1829	222,767,311	30,889,115	253,656,426
1830	263,061,422	8,234,976	271,296,398
1831	288,674,853	22,308,555	310,983,408
1832	286,852,925	18,627,910	305,480,835
1833	305,630,837	17,365,882	322,996,719
1834	326,875,125	24,461,963	351,337,088
1835	363,709,063	32,719,751	396,428,814
1836	406,259,057	31,739,763	437,998,820
1837	407,286,783	39,722,651	447,009,434
1838	507,830,577	50,611,169	558,441,746
1839	589,206,559	38,783,278	627,990,837
1840	592,488,010	38,675,229	631,163,239
1841	487,992,555	—	487,992,555

Cotton Wool Imported into, and Exported from the United Kingdom, from 1853-67, stated in cwt.

Year	Quantity Imported cwt.	Quantity Exported cwt.	Year	Quantity Imported cwt.	Quantity Exported cwt.
1853	7,923,560	1,396,515	1863	11,225,078	1,462,533
1854	7,922,617	1,461,126	1864	10,728,373	1,462,533
1855	7,662,071	1,110,150	1865	9,978,122	1,462,533
1856	9,014,919	1,309,472	1866	7,978,373	1,462,533
1857	8,654,633	1,117,023	1867	8,519,910	1,462,533
1858	9,255,198	1,335,800	1868	12,235,903	1,462,533
1859	10,916,531	1,563,778	1869	11,872,431	1,462,533
1860	15,419,099	2,335,379			

Previously to 1790 North America did not supply us with a single pound weight of raw cotton. A little had, indeed, been raised in some Southern States, for domestic use, before the commencement of the revolutionary war, but the quantity was quite inconsiderable. In 1791 it began, for the first time, to be exported; the tripling quantity of 1890,

having been shipped and 138,328 lbs. in feeble beginning. There is nothing in the growth of the man-

Account of the Trade in Cotton Wool into and from the United Kingdom from 1819.

Year	Imports lbs.
1819	1,976,559
1820	1,985,868
(Average)	1,170,881
1821	715,008
1822	1,078,805
1823	1,515,172
1824	1,843,051
1825	2,276,410
1826	3,870,592
(Average)	4,761,589
1827	6,766,613
1828	3,198,730
1829	11,828,030
1830	9,735,663
1831	11,482,061
1832	18,400,381
1833	19,475,020
1834	23,260,000
1835	20,467,426
1836	27,076,023
1837	31,471,603
1838	28,706,675
1839	31,307,497
1840	19,004,929
1841	1,171,171

American cotton, which generally known by the name of *upland*. The first, which is exported into Great Britain, is from the islands and along the coast of South Carolina, Georgia, a

Account specifying the Quantities of Cotton Wool Imported into the United Kingdom during the

Tons	United States of America
1819	573,738,590
1820	517,218,622
1821	606,630,412
1822	401,919,393
1823	361,599,291
1824	602,417,488
1825	671,504,488
1826	393,153,132
1827	206,638,502
1828	785,630,511
1829	638,451,796
1830	722,151,101
1831	681,625,101
1832	651,738,016
1833	780,010,016
1834	651,738,018
1835	835,237,476
1836	961,707,264
1837	1,145,600,608
1838	1,352,122,412
1839	1,650,010,980
1840	1,114,801,261
1841	135,832,189
1842	209,057,440

It was for many years the only cotton wool imported into this country, and it is indispensable that it should be kept at a low rate. It was previously to 1831 it amounted to 6 per cent. ad valorem, in part at least, for the repeal of the duty. Such a duty would have the effect of raising the price of coarse goods, and would be justly objected to as being 2s. 11*d.* per cwt. Bu

having been shipped in the course of that year, and 138,328 lbs. in 1792. Such was the late and feeble beginning of the American cotton trade. There is nothing in the history of industry to compare with its subsequent increase unless it be the growth of the manufacture in this country.

Account of the Imports and Exports of Cotton Wool into and from Great Britain, from 1697 to 1819.

Year	Imports	Exports	Year	Imports	Exports
1697	1,475,350	—	1791	24,258,267	1,219,930
1701	1,295,868	—	1795	26,401,310	1,193,237
1705 to 1705	—	—	1799	32,126,357	691,662
(Average)	1,170,881	—	1803	37,574,271	609,908
1710	715,008	—	1798	31,880,644	601,159
1720	1,072,805	—	1799	43,379,278	844,671
1730	1,515,172	—	1800	46,010,732	4,110,610
1741	1,615,951	—	1801	56,001,265	1,860,872
1751	2,076,610	—	1802	60,315,660	5,730,180
1761	3,870,932	—	1803	81,812,284	1,561,854
1770 to 1775	—	—	1804	61,867,329	505,171
(Average)	4,761,589	—	1805	59,682,106	801,215
1776 to 1785	—	—	1806	48,676,283	1,561,867
(Average)	6,766,615	—	1807	74,925,306	2,176,883
1781	3,198,778	96,788	1808	43,605,982	1,611,867
1782	11,808,139	441,229	1809	92,412,282	4,115,105
1783	9,235,663	177,626	1810	132,188,933	8,787,109
1784	11,482,087	201,815	1811	91,576,535	1,266,967
1785	18,406,023	407,496	1812	63,025,256	1,105,912
1786	19,475,020	323,133	1813	50,966,000	—
1787	23,250,268	1,073,381	1814	60,000,239	6,282,437
1788	20,467,151	853,146	1815	80,366,343	6,789,969
1789	22,576,023	297,837	1816	95,930,055	7,105,031
1790	31,447,605	814,154	1817	121,912,968	8,155,142
1791	198,106,974	368,442	1818	138,191,282	15,159,353
1792	71,907,397	1,485,165	1819	149,739,820	16,624,969
1793	13,040,929	1,171,566			

American cotton, which is of two kinds, is generally known by the names of *sea-island* and *upland*. The first, which is the finest cotton imported into Great Britain, grows on the small sandy islands and along the low sandy shores of South Carolina, Georgia, and Florida. It is long

in the staple, of an even, silky texture, and is easily separated from the seed. Unluckily, it can be raised only in certain situations; so that its quantity is limited, and has not, in fact, been increased since 1805. The upland, of which the supply may be considered as unlimited, though of varying qualities, is all short-stapled; and its separation from the seed is so very difficult, that if it be done by the hand, the cotton is hardly worth the labour. This, however, was the only way in which it could be made available for home use, or exportation, previously to 1793; and had anyone then ventured to predict that 10,000,000 lbs. of upland cotton would ever be exported, he would have been looked upon as a visionary dreamer. But the genius of Eli Whitney did for the planters of the Southern States what the genius of Arkwright and Watt did for the manufacturers of England. He invented a machine by which the wool of the upland cotton is separated from the seed with the greatest facility and expedition, and by so doing laid the foundation of a new and most important branch of industry, and doubled the wealth and means of employment of his countrymen! (Pittkin's *Statistics of the United States*, p. 109, ed. 1835.) Whitney's invention came into operation in 1793; and in 1794, 1,601,760 lbs. and in 1795, 5,276,300 lbs. of cotton were exported. And so astonishing has been its growth in the interval, that the exports of cotton from the United States in 1858 amounted to the prodigious aggregate of 1,118,624,012 lbs. of which only 12,101,058 lbs. were Sea-Island. The value of this vast quantity is estimated in the official accounts at 131,386,661 dol. being nearly half the entire exports (293,758,279 dol.) of the United States during the same year.

Account specifying the Quantities of Cotton Wool Imported from different Countries into the United Kingdom during the 24 Years ending with 1856, and the Total Quantities Imported.

Year	United States of America	Brazil	The Mediterranean, including Egypt	British Possessions in the East Indies	British West Indies and British Guiana	Other parts	All parts
1832	574,738,520	18,673,183	9,671,076	65,709,739	1,260,144	5,335,224	633,193,116
1833	217,213,622	51,081,714	12,106,737	89,639,756	1,707,194	2,064,041	616,111,561
1834	626,650,412	20,157,533	14,614,699	58,437,126	1,391,417	725,336	721,079,933
1835	401,949,393	17,146,321	14,278,817	34,540,443	1,201,857	1,140,113	467,856,271
1836	264,599,291	19,066,922	4,814,263	83,533,613	793,933	398,687	474,707,615
1837	600,241,388	19,971,378	7,231,861	84,101,961	640,437	827,036	713,024,161
1838	631,304,059	20,738,153	17,369,813	70,838,915	944,507	1,074,164	735,169,012
1839	903,153,412	20,299,292	18,931,414	118,872,712	228,913	2,090,698	665,576,866
1840	596,636,962	19,339,104	16,950,225	122,626,976	416,529	1,377,653	757,379,749
1841	765,639,541	26,306,144	48,098,810	81,922,432	703,696	3,969,392	929,782,448
1842	638,431,706	24,190,628	28,535,775	181,848,160	370,428	2,084,162	805,278,734
1843	722,151,101	19,035,600	23,505,003	119,836,009	409,110	1,230,981	887,335,901
1844	681,620,421	21,577,252	32,091,153	145,179,216	468,432	6,992,755	891,751,902
1845	280,040,016	21,830,701	24,616,118	169,066,634	462,781	6,430,328	1,063,886,504
1846	651,758,018	29,040,832	24,882,144	250,333,411	1,443,568	7,986,160	969,318,866
1847	833,227,776	18,617,872	38,222,700	152,722,576	367,808	11,148,032	1,034,332,176
1848	961,797,294	22,178,961	38,106,096	192,230,880	592,256	10,767,120	1,225,080,072
1849	1,115,800,608	17,286,864	41,036,608	201,111,168	461,800	8,303,680	1,390,938,752
1850	819,500,528	17,299,336	41,479,400	369,049,418	485,320	9,022,914	1,266,084,736
1851	13,291,221	45,330,908	65,238,209	391,654,598	727,736	17,022,656	523,973,296
1852	6,910,080	22,603,168	107,358,914	434,420,744	2,556,848	13,008,576	669,983,264
1853	11,116,061	35,017,304	147,098,488	506,327,392	1,222,261	16,881,010	803,303,720
1854	133,851,189	55,403,152	204,019,984	415,917,600	2,030,106	26,737,696	977,074,280
1855	520,057,411	68,252,496	128,751,080	611,218,384	3,600,352	41,777,181	1,377,129,836

was for many years the practice to levy a duty on cotton wool when imported. The policy which a duty is, however, very questionable; it is indispensable that, if imposed at all, it will be kept at a low rate. For a number of years previously to 1831 it amounted (on foreign wool) to 6 per cent. ad valorem; but, in order to save, in part at least, for the loss of revenue by the repeal of the duty on printed cottons (which it was raised in that year to 5s. 10d. per cwt.) a duty would have materially affected the imports of the inferior species of cotton of the price of coarse goods; and being, in appearance, justly objected to, it was reduced to 2s. 11d. per cwt. But the imposition of

any duty on the raw material of so important a manufacture being deemed objectionable, it was finally abolished in 1845. It had previously produced between 600,000l. and 700,000l. a-year. The subjoined table shows in a very striking manner the progress of the manufacture in this country, and the fall in the price of cotton wool. The manufacture declined in 1847, but that was wholly owing to the decrease in the supplies of raw cotton from the United States in 1846-47, and the consequent rise in its price. The decline during the Civil War was still more remarkable. We are glad to find that under 31 & 32 Vict. c. 33 (1868) provision is made for the collection and periodical publication by the Board

Statement of the Imports into, the Exports from, and of the Consumption, Prices &c. of Cotton Wool in, Great Britain, in different Years, from 1825 to 1866, both inclusive.

Average Weekly Consumption	1825	1830	1835	1840	1845	1850	1855	1858	1866
Upland	3,715	5,432	5,896	5,316	7,945	14,150	7,809	6,415	
Gilens and Alabama	2,212	4,736	7,275	13,851	17,169	15,788	21,919	24,102	17,912
Sea Island	360	460	351	392	292	529	550	635	
Total United States	6,515	10,668	14,073	19,592	21,801	20,677	30,278	31,152	
Brazil	2,502	3,602	4,339	1,414	2,192	3,510	4,198	2,192	3,581
EGYPT	801	508	416	549	1,062	1,542	2,539	1,729	2,625
East India	1,609	910	1,069	827	1,888	3,285	3,783	6,210	7,528
Demerara, West India &c.	527	281	121	560	531	141	185	201	1,997
Total	11,551	16,002	18,318	21,063	30,477	29,125	40,103	41,517	46,813
Packages annually consumed	599,600	832,100	954,100	1,251,300	1,574,100	1,314,500	2,101,000	2,174,500	3,109,000
Average weight of packages consumed, in lbs.	278	298	333	367	383	388	399	417	376
Weekly consumption in packages, average 417 lbs.	9,788	13,311	11,996	21,175	27,955	27,099	38,558	41,817	42,456
Average weight of packages imported, in lbs.	270	700	531	365	386	292	306	430	361
Packages exported	72,900	35,000	104,900	119,700	122,800	271,900	316,900	348,700	1,156,625
Lbs. weight annually imported in millions and tenths	222.4	261.2	561.7	583.4	716.5	683.6	901.1	1,025.5	1,356.9
Lbs. weight consumed in millions and tenths	166.8	247.6	318.1	435.9	606.6	588.2	839.1	905.6	915.7
Lbs. weight in ports, Dec. 31, in millions and tenths	107.0	91.4	73.3	162.9	400.8	194.1	177.4	152.1	209.8
Lbs. weight in Great Britain, in millions and tenths	115.5	118.8	89.6	307.0	453.5	231.6	208.9	189.9	49.1
Average price per lb. of Uplands in Liverpool	11.6d.	6.9d.	10.4d.	6d.	4.375d.	7d.	5d.	6d.	10d.
Average price per lb. of Fernams in Liverpool	15.1d.	8.4d.	14.1d.	9d.	6.375d.	7d.	7d.	8.4d.	17d.
Average price per lb. of Surats in Liverpool	6.9d.	5d.	7d.	4.625d.	5d.	5d.	3.4d.	4.2d.	12d.

N.B.—Messrs. Holt and Co. estimate the average weight of the packages imported in 1858 at 466 lbs. per bag Upland; 452 lbs. Orleans and Alabama; 350 lbs. Sea Island; 181 lbs. Brazil; 355 lbs. Egyptian; 387 lbs. East Indian; and 180 lbs. West Indian. In 1856, according to Messrs. Edlison and Haywood, the average weight of bales was as follows:—American, 111 lbs.; Brazil, 174 lbs.; Egypt, 190 lbs.; 1,000 lbs.; West India, 180 lbs.; Surats, 365 lbs.; Madras, 300 lbs.; Bengal, 298 lbs.; China and Japan, 326 lbs.

Trade of statistics as to the quantity of cotton imported into the United Kingdom, and the quantity removed by sea or land from and to, and held in stock at the several ports.

An Account of the Quantity of Cotton Exported from the United States in each Year from 1821 to 1861 (both inclusive) and in 1866-7; showing its Average Price per lb., and its Gross Value.

Year	Exports	Average Price per lb.	Total Value
1821	121,893,105	cents	dols.
1822	111,675,095	16.6	24,035,958
1823	175,728,270	11.8	20,815,530
1824	112,769,653	13.9	21,917,401
1825	176,119,207	20.9	36,816,649
1826	201,535,415	12.2	24,592,211
1827	297,110,115	10.5	29,359,415
1828	210,590,463	10.7	22,187,229
1829	261,837,186	10	26,575,311
1830	298,459,102	9.9	29,671,883
1831	276,979,784	9.1	25,289,492
1832	322,215,122	9.6	31,721,682
1833	324,638,601	11.1	36,101,105
1834	381,717,607	12.8	49,438,402
1835	387,538,692	16.8	64,961,302
1836	425,531,207	16.8	71,284,923
1837	441,211,537	14.2	62,640,402
1838	595,952,267	10.3	61,556,811
1839	413,524,212	11.8	61,238,082
1840	713,911,061	8.5	60,820,307
1841	530,204,109	10.2	54,335,311
1842	581,717,017	8.1	47,523,651
1843	792,927,106	6.2	49,119,806
1844	665,635,455	8.1	54,063,501
1845	874,005,996	5.92	51,729,613
1846	647,528,055	7.81	50,757,311
1847	527,219,958	10.34	54,415,848
1848	814,224,131	7.613	61,998,291
1849	1,026,696,269	6.6	66,764,674
1850	635,381,604	11.5	71,981,616
1851	927,237,089	14.11	112,315,317
1852	1,093,930,539	8.95	97,890,779
1853	1,111,570,370	9.85	109,436,041
1854	987,833,106	9.47	93,596,220
1855	1,008,961,601	8.74	88,143,514
1856	1,251,431,701	9.19	128,328,251
1857	1,048,282,175	12.55	131,275,759
1858	1,118,566,611	11.70	130,866,661
1859	1,386,468,556	12.72	161,434,925
1860	1,767,686,338	10.85	191,806,555
1861	3,015,616,989	11.07	311,516,989
1866-7	686,609,811	27	185,308,419

3. Proportion of Coarse to Fine Goods.—During the 20 years ending with 1816 the cotton manufacture underwent a singular change in respect of the average fineness of its products. As successive improvements were made in the construction and management of machinery, and in the ex-

perience and manual skill of the work-people, the proportion of fine to coarse yarns and fabrics might have been expected to make a corresponding increase, whereas it was, on the contrary, very greatly diminished. During the period referred to the consumption of cotton increased nearly four-fold; but the quantity of fine yarn produced (i.e. of yarn above sixty hanks to the pound), instead of keeping pace with the increased consumption of cotton, really underwent a positive and by no means inconsiderable reduction. For a number of years no new establishments for the production of fine yarns were formed: but in Manchester alone about 20 mills that had been employed chiefly or entirely in fine spinning were given up, or devoted to the production of coarse yarns. To some extent, no doubt, the diminution of producing from this cause was counterbalanced by an increase in the speed of the machinery at work; but after making all reasonable allowances on that score, there can be no doubt that the total produce of fine yarn was materially decreased. This conclusion is strengthened by the falling off which took place in the imports of Sea Island cotton, which is used almost exclusively in the production of very fine yarn.

Account of the Produce of the Cotton Crops of the United States in the United Yeared Years, from 1827-8, downwards.

Year	Total Crop	Year	Total Crop	Year	Total Crop
1827-28	bales	1844-45	bales	1856-57	bales
1829-30	1,038,448	1845-46	2,100,537	1857-58	3,115,317
1831-32	1,254,328	1846-47	1,778,651	1858-59	4,202,285
1833-34	1,360,725	1847-48	2,537,654	1860-61	2,562,918
1835-36	1,822,930	1848-49	3,728,596	1861-62	4,500,000
1837-38	1,801,197	1849-50	3,036,707	1862-63	1,500,000
1839-40	1,560,552	1850-51	3,555,257	1863-64	3,000,000
1841-42	2,177,855	1851-52	3,015,029	1864-65	3,000,000
1843-44	1,673,915	1852-53	3,932,883	1865-66	2,110,000
1845-46	1,683,574	1853-54	4,930,027	1866-67	1,500,000
1847-48	2,578,875	1854-55	2,847,393		
1849-50	2,030,409	1855-56	3,597,815		

\* Estimates. This change in the average fineness of cotton fabrics could not be ascribed to foreign competition, for fine spinning is precisely that branch of the trade in which English cotton-spinners most

excel their rival foreign countries. In the United Kingdom, including coarse sometimes attended with changes of taste, and operate disadvantageously to the manufacturing pursuits, and proceeded to do so accounted for that powerful operation, otherwise could not have had the fineness of the yarn by no means obviated that the reduction in price of silk, and some of the worsted fabrics which have the influence in cottons. The main reason to be found in the greater price of raw ending with 1816, cheapness of stout this conclusion has since 1816, The same in 1850 were at once decided. The cost of obtain comparatively less subsequently rose in a proportion. The spinners effects, partly by coarser fabrics, and partly the fineness of their yarn, what an extent they rise of prices. It is a price of 1d. per pound, and invariably 5 hanks in the average the yarn per pound.

4. Value of the British Cotton in different periods. Amount of Persons employed in the cotton trade, and the quantity of the present value of the number of persons in the departments; but the decrease founded being necessary to arrive at any stage, however the following very wide of the market. In 1817 Mr. Kennedy, in a paper published in the Transactions, estimated the value in the spinning of 110,763; the aid of the lines as equal to the present number of spindles. Mr. Kennedy further estimated that the quantity of cotton in the United Kingdom was 500,179 tons. Statement for the year 1866-7.

Amount converted into yarn in the United Kingdom, and the quantity of cotton in spinning estimated at 1,000,000 spindles.

Quantity of yarn produced in the United Kingdom, taking the average number of spindles employed, and supposing to produce 2 hanks per spindle in the year.

Number of persons employed in the cotton trade in the United Kingdom, equal in number of cost estimated to produce 1 lb. of cotton equal to 1 horse power.

But the cotton manufacture has since 1817. Mr.

excel their rivals abroad; and the tariffs of most foreign countries are framed in the view of excluding coarse rather than fine fabrics. It was sometimes attributed to one of those capricious changes of taste and fashion which frequently operate disadvantageously on particular manufacturing pursuits; but it was too long in operation, and proceeded too gradually and uniformly, to be so accounted for; and it is abundantly certain that powerful natural causes must have been in operation, otherwise so extensive an alteration could not have been brought about in the average fineness of the yarn produced. These causes are by no means obvious; but we incline to think that the reduction which has taken place in the price of silk, and still more the prodigious improvements which have been made in various descriptions of worsted fabrics, have had no inconsiderable influence in lessening the demand for fine cottons. The main cause, however, will, no doubt, be found in the great reduction which took place in the price of raw cotton during the 10 years ending with 1816, and the consequent greater cheapness of stout and servicable fabrics. And this conclusion has been fully verified by the circumstances under which the trade has been placed since 1816. The supplies of cotton in 1817 and 1850 were at once deficient in quantity and high-priced. The cost of the heavier fabrics, which contain comparatively large quantities of cotton, consequently rose in a nearly corresponding proportion. The spinners endeavoured to obviate these effects, partly by ceasing to produce some of the coarsest fabrics, and partly by generally increasing the fineness of their yarn; and it is astonishing to what an extent they are thus able to countervail a rise of prices. It is found, in fact, that an advance of 1d. per pound in the price of the material speedily and invariably causes an increase of 2 or 3 hanks in the average produce and fineness of the yarn per pound.

4. *Value of the British Cotton Manufacture at different periods. Amount of Capital and Number of Persons employed in it.*—It would be very desirable to be able to form a tolerably accurate estimate of the present value of the cotton manufacture, and of the number of persons employed in its different departments; but the data on which such estimates are founded being necessarily very loose, it is impossible to arrive at anything like precision. Perhaps, however, the following calculations may not be very wide of the mark.

In 1817 Mr. Kennedy, a well-informed manufacturer, in a paper published in the *Manchester Transactions*, estimated the number of persons employed in the spinning of cotton in Great Britain at 110,763; the aid they derived from steam engines as equal to the power of 20,768 horses; and the number of spindles in motion at 6,615,833. Mr. Kennedy further estimated the number of hanks of yarn annually produced at 3,987,500,000, and the quantity of coal consumed in their production at 500,479 tons. We subjoin Mr. Kennedy's statement for the year 1817:—

Total	4,662,250
Wales	2,439,310
England	3,113,940
Scotland	1,090,000
Ireland	469,000
Spain	52,878
Portugal	4,800,000
France	1,500,000
Prussia	500,000
Sweden	2,112,250
Denmark	1,500,000

But the cotton manufacture has increased immensely since 1817. Mr. Huskisson stated in his

place in the House of Commons, in March 1821, that the total value of the cotton goods and yarn then annually manufactured in Great Britain amounted to 33,500,000*l.* sterling! But there can be no manner of doubt that this estimate was greatly overrated; and we do not think we should be warranted in estimating the whole annual value of the products in question in 1857 and 1858 at much more than 52,000,000*l.* sterling. If, indeed, we took the increase in the imports of the raw material as any test of the increase in the value of the manufacture, we should estimate it a great deal higher. But the improvements that have been made in the different processes, and the fall in the normal price of raw cotton—for the prices produced by the cotton famine must, while we are taking a general view, be held to be quite exceptional—have had so powerful an influence in reducing the price of the goods brought to market, that, notwithstanding the increase of their quantity, it is probable that their total value has increased but little for a considerable time past. It would appear from the annexed table (IV.) that the value of the total exports of cotton manufactures and yarn amounted in 1867 to 70,843,692*l.*

*Value in 1858.*—In the last edition we offered the following statement: The average annual quantity of cotton wool imported, after deducting the exports, may be taken at about 850,000,000 lbs. weight. It is supposed that of this quantity about 100,000,000 lbs. are used in a raw or half-manufactured state, leaving a balance of 750,000,000 lbs. for the purposes of manufacturing, the cost of which may be taken, at an average, at 6*d.* per lb. Deducting, therefore, from the total value of the manufactured goods, or 52,000,000*l.*, the value of the raw material, amounting to about 18,750,000*l.*, there remains 33,250,000*l.*; which, of course, forms the fund whence the wages of the persons employed in the various departments of the manufacture, the profits of the capitalists, the sums required to repair the wear and tear of buildings, machinery &c., the expense of coals, oil, flour for dressing &c. must all be derived. If, then, we had any means of ascertaining how this fund is distributed, we should be able, by taking the average of wages and profits, to form a pretty accurate estimate of the number of labourers and the quantity of capital employed. But here, unfortunately, we have only probabilities and analogies to guide us. It may, however, be confidently assumed, in the first place, that in consequence of the extensive employment of highly valuable machinery in all the departments of the cotton manufacture, the proportion which the profits of capital, and the sum to be set aside to replace its wear and tear, bear to the whole value of the manufacture, must be much larger than in almost any other department of industry. We have heard this proportion variously estimated, at from  $\frac{1}{3}$  to  $\frac{2}{3}$  of the total value of the manufactured goods, exclusive of the raw material; and as the weight of authority seems to be pretty much divided on the subject, we shall take an intermediate proportion. Assuming, therefore, that the profits of the capital employed in the cotton manufacture, the wages of superintendence &c., the sum required to replace the wear and tear of machinery, buildings &c., and to furnish flour, coals &c., amount together to  $\frac{1}{3}$  the value of the manufactured goods, exclusive of the raw material, or to 16,625,000*l.*, a sum of 16,625,000*l.* will remain as the wages of the spinners, weavers, bleachers &c. engaged in the manufacture; and taking, inasmuch as a large proportion of women, and children under 18 years of age, are employed, the average rate of wages at only 32*d.* a-year, we

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shall have (dividing 16,625,000 by 32) nearly 520,000 as the total number of persons directly employed in the different departments of the manufacture.

We should mistake, however, if we supposed that this number, great as it certainly is, comprised the whole number of persons to whom the cotton manufacture furnishes subsistence, excluding the capitalists, and the sum set apart as the profit of the capitalists, and the wear required to furnish coal, and to defray the wear of machinery &c., a large proportion of which must annually be laid out in paying the wages of miners, masons, bricklayers &c. It is not easy to say what this proportion may amount to; but taking it at 3,000,000*l.*, and supposing the rate of wages of each individual to average 50*l.* a-year, the total number employed in the various capacities alluded to will be (3,000,000 divided by 50) 60,000; and a sum of 13,625,000*l.* will remain to cover the profits of the capital employed in the various branches of the manufacture, to repair the different parts of the machinery and buildings as they wear out, and to buy coal, flour, drugs &c. This is a much more important item than might be at first supposed. Flour is indispensable in the dressing of webs; and we are well assured that its consumption in this way is not less than 300,000 barrels a-year! The account will, therefore, stand as under:—

Total value of every description of cotton goods annually manufactured in Great Britain	£ 52,000,000
Raw material, 750,000,000 lbs. at 6 <i>d.</i> per lb.	18,750,000
Wages of 520,000 weavers, spinners, bleachers &c. at 5 <i>l.</i> a-year each	16,625,000
Wages of 60,000 engineers, machine makers, smiths, masons, joiners &c. at 50 <i>l.</i> a-year each	5,000,000
Profits of the manufacturers, wages of superintendents, sums to purchase the materials of machinery, coals &c.	13,625,000
	£ 52,000,000
The capital employed may be estimated as follows:—	4,000,000
Capital employed in the purchase of the raw material	8,000,000
Payment of wages	49,000,000
Invested in spinning-mills, power and hand-looms, workshops, warehouses, stocks on hand &c.	£52,000,000

Now, this sum of 52,000,000*l.*, supposing the interest of capital, inclusive of the wages of superintendence &c., to amount to 10 per cent., will yield a sum of 5,200,000*l.*; which being deducted from the 13,625,000*l.* profits &c., leaves 8,425,000*l.* to defray the waste of capital, the flour required for dressing, the coals necessary in the employment of the steam engines, to effect insurances, to purchase printing, dyeing, and bleaching drugs, and to meet all other outgoings.

The aggregate amount of wages, according to

I. Estimate of the Quantities of Raw Cotton consumed in the chief Manufacturing Countries from 1850 to 1857 inclusive.

Countries	1850	1852	1853	1851	1855	1856
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Great Britain	581,000,000	715,000,000	731,000,000	780,000,000	835,000,000	923,000,000
Russia, Germany, Holland, and Belgium	135,000,000	172,000,000	185,000,000	190,000,000	144,000,000	256,000,000
France	142,000,000	193,000,000	191,000,000	201,000,000	191,000,000	211,000,000
Spain	29,000,000	41,000,000	42,000,000	43,000,000	45,000,000	48,000,000
Countries bordering on the Adriatic	55,000,000	55,000,000	45,000,000	45,000,000	31,000,000	59,000,000
United States of North America	45,000,000	55,000,000	265,000,000	215,000,000	236,000,000	265,000,000
Sundries, Mediterranean &c.	185,000,000	257,000,000	250,000,000	37,000,000	62,000,000	56,000,000
Total	1,152,000,000	1,411,000,000	1,503,000,000	1,539,000,000	1,553,000,000	1,795,000,000

It is seen from this table that Great Britain continued to maintain her customary ascendancy in this department with little variation from 1850 to 1857. In truth and reality, however, our progress was a good deal greater in that period than it appears to have been from the above

statement, is 19,625,000*l.*; but there are not many departments of the business in which wages have to be advanced more than 6 months before the article is sold. We therefore incline to think that 8,000,000*l.* is a sufficient (perhaps too great) allowance for the capital employed in the payment of wages.

It may be said by some that this estimate is under, and by others that it is overated; but we believe it will be found to be nearly correct, though, if anything, it may, perhaps, be a little in excess. Mised by Mr. Huskisson's authority, we estimated in a former edition of this work, the value of the cotton stuffs and yarn produced in the United Kingdom in 1834, at 31,000,000*l.*; but farther enquiry has convinced us that that estimate was beyond the mark; and it is to be borne in mind, that though the consumption of raw cotton has vastly increased since 1834, there has been in the interval a very considerable fall in its price, and in the value of the manufactured articles. The declared value of the cotton goods and yarn exported in 1857 amounted to 39,073,420*l.*; and deducting this (52,000,000*l.*), we have 13,000,000*l.* for the value of the cottons consumed at home. And we are inclined to think that this is pretty near the mark. It has been said that the value of the home consumption does not amount to 1/4 of the exports; and though, if we refer only to the weight of cotton exported and retained at home, this assertion may be nearly correct, it is to be borne in mind that the great bulk of the goods for home use are of a superior fabric, and more costly than those sent abroad. On the whole, therefore, we are disposed to believe that in estimating the present (1858) value of the products of the British cotton manufacture at 52,000,000*l.* a-year, which leaves 13,000,000*l.* for the value of those consumed at home, we shall not commit any serious error; and moderate as this estimate may appear, as compared with others put forth on the same subject, it strikingly evinces the value and importance of the manufacture, (in a paper read before the British Association in 1858, by M.P., of Manchester, estimated at 1858) the value of the cottons consumed at home 24,000,000*l.*, making the entire value of the manufacture 68,000,000*l.* or 64,000,000*l.* But, despite the deference due to such an authority, we have no doubt that this in 1858 was a great aggragation.

We borrow from a circular of Messrs. B. and Co., of Manchester, one of the most valuable published in the empire, the following statement in regard to the cotton trade of this and other countries.

statement, for the object of our manufacture in late years has very generally been to produce those of a coarser description, and a larger quantity of the raw material in proportion to their value.

Annexed is a table of the consumption of cotton

II. Consumption

Consumption	1846-50	1846-50
Great Britain	1,152,000,000	1,152,000,000
France	142,000,000	142,000,000
Rest of Europe	421,000,000	421,000,000
Total	2,515,000,000	2,515,000,000

Sources of Supply	1846-50
America	1,711,000,000
India	131,000,000
West India &c.	24,000,000
East India &c.	235,000,000
Egypt &c.	129,000,000
Total	2,531,000,000

Value in 1867.—M

wool, the well-known calculations as the value of the manufacture. These calculations certainly element all the cotton imported, all the yarn and piece goods

III. An Estimate of the Profits, for the Year

Cotton consumed	9
Loss waste in spinning	9
Yarn produced	8
Exported in yarn	16
Home piece goods, apparel &c.	56
Waste for home consumption and stock	18
Total produced	87
Declared value of yarn exported	43
Home piece goods, apparel &c.	43
Estimated value of home consumption &c.	13
Total value of goods produced	73
Cost of cotton consumed	27
Cost in wages and other expenses	37
Total expenditure	70
Balance left for interest of capital and profits	11

Allowance being made for children &c., dependent on the various departments of the manufacture, and in the construction of machinery and buildings required to furnish, on the above scale from 1,000,000 to 1,200,000, this new and most prolific element partly and primarily to the extraordinary growth of individuals; but in a general security of property and industry give confidence and encourage in industrious undertakings and diffusion of intelligence necessary on any work to produce into their service, and to the productive capacities of which it would be wholly ignorant of the effect that the sudden and profitable field for the employment of labour has had on the population of Lancashire and other towns where the cotton manufacture has been most strikingly the townships of Manchester estimated to contain 27,240

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Annexed is a table stating the average annual quantities derived from each source of supply, during the four quinquennial periods from 1846 to 1865.

II. Consumption of Cotton in Europe, and Sources whence the Supplies were derived.

Consumption:	1846-50	1851-55	1856-60	1861-65	1846-50	1851-55	1856-60	1861-65
	bales	bales	bales	bales	lbs.	lbs.	lbs.	lbs.
Great Britain	1,128,000	1,835,000	2,265,000	1,965,000	569,000,000	750,100,000	917,500,000	629,000,000
France	535,000	412,000	327,000	410,000	172,100,000	178,100,000	225,500,000	169,500,000
Rest of Europe	421,000	698,000	365,000	756,000	158,000,000	325,500,000	401,900,000	276,100,000
Total	2,074,000	3,045,000	3,756,000	3,865,000	1,201,500,000	1,201,500,000	1,571,700,000	1,075,000,000
Sources of Supply:								
America	1,711,000	2,290,000	2,865,000	2,935,000	723,700,000	973,300,000	1,271,900,000	358,000,000
India	151,000	119,000	153,000	293,000	723,700,000	27,100,000	27,700,000	31,800,000
West India &c.	20,000	30,000	35,000	75,000	23,800,000	37,100,000	53,000,000	71,800,000
East India &c.	253,000	354,000	340,000	1,380,000	6,500,000	6,300,000	6,300,000	14,100,000
Europe &c.	129,000	141,000	162,000	415,000	86,700,000	151,800,000	207,000,000	451,800,000
Total	2,273,000	3,035,000	3,756,000	3,865,000	1,201,500,000	1,201,500,000	1,571,700,000	1,075,000,000

Value in 1866-7.—Messrs. Ellison and Haywood, the well-known cotton brokers of Liverpool, have made, for the years 1859-66, the following calculations as the value of the British cotton manufacture. These calculations are based upon liberally certain elements. We know the cost of all the cotton imported. We know the value of all the yarn and piece goods exported. The pro-

portion of waste to raw material is a matter of easy estimate with those who are familiar with the quality of different staples. Nor is it difficult to arrive at a very close estimate of the home consumption. The weight of exports is known, the remainder must, on an average of years, represent the home consumption.

III. An Estimate of the Weight and Value of the Total Production of Cotton Manufactures in Great Britain, with the Cost of Production, and the Balance Remaining for Interest of Capital and Profits, for the Years 1859-66.

	1859	1860	1861	1862	1865	1864	1865	1866
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Cotton consumed	977,635,000	1,079,521,000	1,005,177,000	119,821,000	176,415,000	561,196,000	718,651,000	890,721,000
Waste in spinning	102,631,000	113,289,000	105,575,000	79,469,000	71,106,000	78,567,000	100,611,000	115,753,000
Yarn produced	874,994,000	965,933,000	899,502,000	899,502,000	101,979,000	482,629,000	618,040,000	774,968,000
Exported in yarn	192,206,000	197,543,000	177,818,000	88,551,000	70,678,000	71,951,000	98,563,000	134,828,000
Home use of goods, apparel &c.	608,866,000	642,770,000	496,284,000	324,128,000	321,561,000	354,016,000	377,557,000	430,715,000
Home stock	181,910,000	225,890,000	225,770,000	39,530,000	12,740,000	78,630,000	142,120,000	149,526,000
Total produced	874,994,000	965,933,000	899,502,000	3,352,000	401,975,000	482,629,000	618,040,000	774,968,000
Defined value of yarn exported	9,458,000	9,870,000	9,292,000	7,523,000	6,679,000	6,679,000	8,811,000	11,111,000
Home use of goods, apparel &c.	43,059,000	46,218,000	41,514,000	38,616,000	49,016,000	55,100,000	61,005,000	66,115,000
Total value of goods produced	19,706,000	24,470,000	23,525,000	23,525,000	23,525,000	23,525,000	23,525,000	23,525,000
Cost of cotton consumed	77,223,000	80,288,000	74,331,000	34,413,000	2,070,000	13,710,000	21,910,000	25,020,000
Cost in wages and other expenses	47,577,000	28,910,000	34,305,000	42,729,000	59,795,000	76,507,000	83,366,000	102,765,000
Total expenditure	50,350,000	35,600,000	31,569,000	14,520,000	15,690,000	18,680,000	47,257,000	51,958,000
Balance left for interest of capital and profits	11,516,000	18,078,000	10,766,000	1,172,000	3,416,000	5,165,000	12,159,000	19,517,000

Allowance being made for old and infirm persons, children &c., dependent on those actually employed in the various departments of the cotton manufacture, and in the construction, repair &c. of machinery and buildings required to carry it on, we find from 1,000,000 to 1,200,000 persons! And this new and most prolific source of wealth we imputed partly and principally, as already mentioned, to the extraordinary genius and talent of individuals; but in a great degree, also, to the security of property and freedom of industry which give confidence and energy to all who employ their talents in the prosecution of any industrial or mercantile undertakings, and to that universal diffusion of intelligence which enables those engaged in any work to press every power of their minds into their service, and to avail themselves of the capacities of which a less instructed generation would be wholly ignorant.

The effect that the sudden opening of so vast a field for the employment of capital labour has had on the population of the districts of Lancashire and Lanarkshire, the two where the cotton manufacture is principally carried on, has been most striking. In 1771, for example, the townships of Manchester and Salford were estimated to contain 27,216 inhabitants—a

number which was swelled in 1831 to 182,812; the entire population of the boroughs of Manchester and Salford having amounted in that year to 227,808, and in 1861 to 460,428. The population of Preston, in 1780, is said not to have exceeded 6,000; whereas it amounted in 1861 to 82,985. In like manner the population of Blackburn increased from 11,980 in 1801, to 63,126 in 1861; that of Bolton increased in the same period from 17,416 to 70,395; that of Wigan from 10,989 to 37,658 &c. But the progress of Liverpool is most extraordinary, and can be matched only by the progress of one or two cities in the United States. Liverpool is not properly one of the seats of the cotton manufacture; but she is, notwithstanding, mainly indebted to it for the unparalleled rapidity of her growth. She is the grand emporium of the cotton district—the port where almost all the raw cotton, and the various foreign articles required for the employment and subsistence of the persons engaged in the manufacture, are imported, and whence the finished goods are exported to other countries. She has, therefore, become a place of vast trade, and is now, in that respect, superior even to London. In 1700, according to the best accounts that can be obtained, the population of Liverpool amounted to only 5,145; in 1750 it had increased



lines the embroidery to be executed, and they are then sent to agents, who distribute them among the peasantry, who are paid by the piece or job. It is not easy to exaggerate the advantages resulting to the female part of the population from this employment. After being embroidered, the webs are returned to Glasgow, where they are bleached and dressed, and sometimes made up into different articles. A large proportion of the goods are exported to the United States and Canada.

**3. Exports of Cotton Goods and Yarn.** *Fall of Prices &c.*—Down to 1750 the exportation of cotton goods, or rather of goods consisting partially of cotton, was so very inconsiderable that they hardly attracted the least attention from any of our commercial writers. But after the invention of Arkwright began to come into general operation, the exports increased with unreceding rapidity. At the commencement of the present century they were nearly as large as the exports of woollens, the produce of the old and staple manufacture of the country. But though the export of woollen goods has increased considerably since 1800, that of cotton goods and yarn has increased so much more that it was in 1865 about three times the amount of the other; and constitutes, indeed, above one-third part of the total exports of the United Kingdom.

Nothing can set in a clearer light than this table the astonishing fall that has taken place in the price of cotton goods since 1820. In that year our exports of wove cotton fabrics amounted to \$5,000,000 yards, their declared value being \$3,200,000; whereas in 1866 the exports of wove fabrics had increased to 2,575,698,458 yards, and their declared value to 57,903,200! It appears, therefore, that while the exports of wove cottons are more than 10 times as great—having increased 80 per cent.—their value has only increased in the ratio of about 13·2 to 57·9, that is, about 338 per cent. Hence, supposing 100 yards calico to have cost 13s. 2d. in 1820, 250 yards may now be had for little more than 13s. 6d.

This extraordinary reduction—which, however, was more striking before the cotton famine—has been brought about partly by the heavy fall that has taken place in the price of cotton wool (the price of the famine being abnormal and exceptional), partly by the public taste setting more in favour of coarser fabrics, and partly and principally by the wonderful improvements made in the manufacture. In consequence of these concurring circumstances, cotton goods are now so cheap, that there is hardly an individual so very poor as to be unable to supply himself or herself abundantly with them. This has improved the dress and added to the comfort of the great mass of the female part of the population, not only of this, but also of other countries, in proportion to the extent and to an extent not easily to be imagined that cotton goods are not only readily procurable by the people of this country, but are exported to countries where no European had till now ever been seen. In the interior of Africa, the most common cotton cloth form, according to the accounts of Speke and Livingstone, a kind of currency, in which values are expressed, and means made.

It should farther be borne in mind that it is to be observed in the price of its products that the unimpeded extension of the manufacture in this country is to be ascribed; and it is satisfactory to know that, notwithstanding the fall of prices, the wages and profits of those engaged in the business have been diminished, while their means have been prodigiously augmented.

**V. Account of the Official Value of the Cotton Manufactures exported, in different Years, from Great Britain, from 1697 to 1797.**

Year	Official Value of Exports	Year	Official Value of Exports
1697	£ 5,915	1786	915,016
1701	23,453	1787	1,101,177
1710	5,698	1788	1,452,240
1720	16,200	1789	1,331,537
1730	13,524	1790	1,662,509
1741	29,709	1791	1,875,010
1751	45,986	1792	2,021,768
1761	59,754	1793	1,735,807
1765	218,318	1794	2,576,027
1766	290,759	1795	2,435,531
1780	553,000	1796	3,211,000
1785	863,710	1797	2,036,568

The following table (VI.), compiled from the returns of the Board of Trade, shows the distribution of British cotton manufactures over the world, the total quantity of such manufactures reckoned when possible by the yard, and the total value of all cotton goods, including twist and yarn. The quantity, though not materially different from that stated in the preceding edition of this work, is largely increased in value, owing to the for a time greatly enhanced price of the raw material. This is still more manifest in the case of cotton twist and yarn, the quantity of which was 158,801,538 lbs. in 1866, as compared with 181,565,805 lbs. in 1856, while the value of the first-named quantity is returned at 13,685,627*l.*, though the greater amount of 1856 is reckoned at 7,988,575*l.* only.

Such being the vast extent and importance of the cotton manufacture, the probability of our preserving our ascendancy in it becomes a very interesting topic of enquiry. But it is obvious that a great deal of conjecture must always insinuate itself into our reasonings with respect to the future state of any branch of manufacturing industry. They are all liable to be affected by so many contingent and unforeseen circumstances, that it is impossible to predicate, with anything like certainty, what may be their condition a few years hence. It is not to be denied that a business which depends in so great a degree on foreign demand, and which may, consequently, be materially influenced, not only by foreign legislation and foreign discoveries and inventions, but also by the mutations of fashion at home and abroad, is in rather a perilous situation; and that those dependent on it must necessarily be exposed to the most trying vicissitudes. These, no doubt, are natural to all businesses of this description, and may not be of a kind to shake the stability of the manufacture, or to endanger our superiority in it, provided they do not disturb tranquillity at home. But when a vast number of persons depend on a manufacture, the privations to which many of them are not unfrequently exposed, and the efforts that are made to inflame their prejudices by representing their sufferings (which in nine out of ten instances spring from accidental or uncontrollable causes) as the result of vicious legislation, the tyranny or selfishness of their masters, and bad institutions, may easily lead them to commit outrages. And if that feeling of security which has led to the investment of such immense sums in mills and machinery should once be seriously impaired, the fall of the manufacture might be even more rapid than its rise. Anything that tends to keep alive and encourage disaffection and agitation is the bane of every country, but especially of one so deeply engaged in manufactures as this; and while, therefore, it is the bounden duty of Government to endeavour, by modifying or suppressing prohibitions, and

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VI. An Account of the Quantities and Declared Value of British Cotton, Manufactured Goods, and Yarn, exported from the United Kingdom, distinguishing the Description of Goods and the various Countries whereto the same were exported, in the Year 1865.

Countries to which Exported	Heavy Cottons, Plain		Heavy Cottons, Printed		Light Cottons, Plain		Light Cottons, Printed	
	Yards	Value	Yards	Value	Yards	Value	Yards	Value
Russia	611,115	17,308	316,009	17,389	1,201,732	24,175	..	..
Sweden	1,565,210	37,719	1,318,589	36,351	..	..	1,626,583	29,997
Norway	4,673,716	109,229	1,105,801	23,298	..	..	3,210,219	86,599
Denmark	16,666,597	53,277	5,271,112	142,292	1,750,515	40,887	3,406,941	66,337
Hamburg	10,397,876	281,471	12,751,170	351,582	..	..	710,609	20,229
Holland	2,667,873	67,556	1,297,589	37,178	1,087,897	28,199	..	..
Belgium	2,916,788	71,074	1,257,221	37,194	1,087,897	28,199	55,087	2,241,676
France	21,215,216	411,244	12,574,633	275,271	2,809,287	71,037	..	..
Portugal, Azores, and Madeira	2,471,671	63,981	2,151,971	71,037	..	..	..	..
Spain and Canaries	2,821,159	61,617	3,025,111	93,798	1,669,128	35,559	..	..
Italy: Sardinian States	8,115,512	170,846	5,079,672	122,542	1,423,493	31,718	..	..
Tuscan	11,095,603	211,846	10,004,008	31,829	..	..	..	..
Naples and Sicily	2,008,325	46,268	2,306,014	51,829	1,731,773	37,276	..	..
Adriatic Ports	5,936,510	124,241	3,538,256	77,777	..	..	..	..
Austrian Territories	7,236,917	160,357	5,026,829	78,128	6,255,153	142,166	..	..
Greece	74,950,123	1,699,908	65,686,293	1,808,918	2,417,733	55,488	1,605,812	11,118
Ionian Islands	29,431,129	660,561	12,485,180	222,106	9,625,318	197,051	..	..
Turkey Proper	90,698,676	1,865,278	..	..	..	..	..	..
Syria and Palestine	1,356,296	30,690	..	..	..	..	..	..
Egypt	8,656,169	201,690	..	..	..	..	..	..
Tunis	1,669,200	37,253	..	..	..	..	..	..
Morocco	..	..	8,765,965	188,618	..	..	925,189	18,719
Western Africa (native)	18,885,810	288,853	8,111,399	199,268	3,007,694	75,622	2,131,176	136,961
Eastern Africa (foreign)	11,462,784	211,606	9,265,165	212,889	2,235,353	51,881	5,255,911	119,269
Java	80,369,423	1,714,206	8,151,117	219,702	..	..	..	..
Philippine Islands	24,114,733	461,718	3,761,913	118,831	..	..	2,550,824	55,500
China (except Hong Kong)	5,263,219	125,338	7,213,110	169,712	1,750,205	45,000	..	..
Japan	1,631,632	37,301	1,217,941	27,675	1,500,974	..	..	..
Cuba	..	..	6,400,000	130,989	1,151,691	29,311	1,530,157	31,299
Porto Rico	3,287,188	63,002	6,400,000	130,989	..	..	769,164	17,388
Caracoo	1,897,661	40,473	8,991,138	237,532	8,051,979	219,386	12,929,149	300,000
St. Thomas	45,154,112	969,735	59,821,031	935,226	112,971	1,117,251	1,411,198	29,269
Haiti	201,883	9,168	6,818,107	162,175	1,153,839	27,129	1,411,198	29,269
United States, North Atlantic	315,611	9,129	1,316,112	28,133	5,263,837	85,528	5,939,121	118,269
South ditto	15,798,822	338,537	17,923,589	499,278	..	..	..	..
Pacific Ports	1,631,632	37,301	1,189,220	29,972	6,177,529	128,887	8,371,220	167,000
Mexico	22,099,898	419,063	30,611,839	655,016	..	..	..	..
Central America	2,109,122	59,613	4,133,664	112,607	2,198,659	44,573	2,198,659	44,573
New Granada	7,865,069	174,461	7,113,220	149,588	..	..	1,181,539	26,268
Venezuela	19,617,087	378,292	2,999,954	201,069	1,111,751	21,225	5,003,619	106,000
Peru	52,960,563	1,178,121	56,891,209	1,361,119	..	..	691,869	15,000
Chili	5,019,071	129,891	7,139,834	116,229	..	..	1,011,669	21,225
Brazil	13,091,777	289,291	1,161,731	191,115	3,210,719	77,562	1,119,996	24,225
Uruguay	9,399,291	205,911	4,876,938	69,074	..	..	..	..
Argentine Confederation	4,631,191	177,640	2,216,503	177,195	1,286,056	37,995	..	..
Gibraltar	1,997,218	41,561	2,312,879	60,074	..	..	..	..
Malta	5,157,685	117,428	3,719,507	78,675	..	..	966,264	19,000
Western Africa, British	4,919,349	81,888	12,496,107	255,224	33,701,968	652,535	17,438,268	349,000
South ditto	99,723,318	1,867,888	8,131,274	179,591	..	..	958,123	22,717,738
Mauritius	218,737,519	4,355,810	2,872,413	51,022	51,687,828	1,031,571	2,689,052	66,718
British India: Bombay and Sind	51,772,962	916,575	5,139,716	124,179	5,590,660	..	..	..
Malabar	11,475,071	269,829	3,750,781	109,145	..	..	1,279,053	28,269
Bengal and Pegu	33,559,728	713,272	5,305,813	133,929	3,510,058	108,236	5,427,290	113,000
Straits Settlements	11,922,619	391,254	8,887,065	261,973	2,959,537	53,313	2,771,963	57,000
Ceylon	10,661,698	281,581	10,47,295	267,275	1,778,599	33,718	1,45,163	15,000
Hong Kong	8,816,136	189,130	11,765,993	295,770	1,092,961	19,436	5,981,111	124,000
British North America	..	..	..	..	..	..	..	..
British W. Indies and British Guiana	..	..	..	..	..	..	..	..
Honduras	..	..	..	..	..	..	..	..
Other countries	..	..	..	..	..	..	..	..
Total	1,107,961,822	23,399,882	532,179,115	13,331,881	181,232,360	3,737,163	1,284,708,396	376,576

Total yards, 1,970,581,991; add handkerchiefs &c. mixed goods and fustians, 45,921,523=2,016,503,516  
 Total value, £45,136,966 Value - - - - - 2,119,397= 41,876,563  
 Add value of lace and net, hosiery, thread, tape, and small wares .. .. . 46,925,841  
 Total value of cotton manufactures .. .. . 19,521,019  
 Add cotton yarn, value .. .. . 257,271,433  
 Gross total .. .. . 257,271,433

repealing all unjust or partial laws, to give freedom to industry, and to take away all good cause for agitation, every individual interested in the public welfare should endeavour, by every means in his power, to discourage the efforts of those who, to advance their own unworthy ends, endeavour to keep alive a spirit of discontent among the labouring classes, that cannot fail, in the long run, to be subversive alike of good order, industry, and prosperity.

But, abstracting from the influence of such considerations, and of national struggles and commotions, which can neither be foreseen nor estimated, we do not think that there is anything in our state, or in that of the different commercial and manufacturing countries of the world, to justify the gloomy forebodings of those who contend that the cotton manufacture of England has reached its zenith, and that it must now begin to decline. The natural capabilities we possess for carrying on the business of manufacturing are, of all things considered, decidedly superior to those of any other people. But the superiority to which we have already arrived is, perhaps, the greatest

advantage in our favour. Our master manufacturers, engineers, and artisans are more intelligent, skilful, and enterprising than any other country; and the extraordinary improvements they have already made, and their familiarity with all the principles and details of the business, will not only enable them to perfect the processes already in use, but can hardly fail to lead to the discovery of others. Our establishments for spinning, weaving, printing, bleaching &c. are infinitely more complete and perfect than any that exist elsewhere; the division of labour in them is carried to an incomparably greater extent; the workmen are trained from infancy in industrious habits, and have attained the dexterity and sleight of hand in the performance of the separate tasks, that can only be acquired by long and unremitting application to these employments. Why, then, having all these advantages on our side, should we not keep abreast we have already gained? Every other people that attempt to set up manufactures must obviously labour under the greatest difficulties compared with us. Their establishments cannot

at first, be sufficient of employments to the extent, at the manipulation and processes, can only such new beginning competition of the a very high degree be immediately difficult accessible to both the aid derived the prohibitions will destruction of their where they are seen

The cotton man lately passed, as through a period probable, indeed, war in the Unit weavers were over not occurred, the nation in the trade that, therefore, it not felt so fully the labourers, on crushing weight. the preceding tal American cotton of the raw mate 12,500,000 cwts. in 4,000,000 cwts. in cotton famine, as called, was inflictio who were engaged

This is not the circumstances It is sufficient to operatives, and the those suffering, w which they had n all. The manufac district acted wit nation came forwa great sums were g The people of the colonies, gave the Lancashire distress to nearly 1,500,000 The losses con were thus estimat in his work on the

Employer's losses, 3 1/2  
 Workpeople's do, at 1  
 Do. on half employes  
 Total loss ca 2

Messrs. Ellison Circular for Janu losses at from 65, 0/0 The scarcity m ise in the price of cotton, valued at 3 1/2 to 12/ 5s. 3d. in 18 from 3/ 0s. 4d. to 12s. 10d. to 12/ 1/2 India from 1/ 17s 6d. as when a serio upon scarcity, the which was cheap Wide-spand and which ensued on us yet not entire manufacturers had tion for the supp ticle produced in tion of Sea Isl

at first, be sufficiently large to enable the division of employments to be carried to any considerable extent, at the same time that expertness in manipulation and in the details of the various processes, can only be attained by slow degrees. It appears, therefore, reasonable to conclude that such new beginners, having to withstand the competition of those who have already arrived at a very high degree of perfection in the art, must be immediately driven out of every market equally accessible to both parties; and that nothing but the aid derived from restrictive regulations and prohibitions will be effectual to prevent the total destruction of their establishments in the countries where they are set up.

The cotton manufacture of this country has lately passed, as our readers are well aware, through a period of great depression. It is probable, indeed, that at the outbreak of the civil war in the United States both spinners and weavers were over-stocked, and that had this event not occurred, there would have been some stagnation in the trade, due to over production, and that, therefore, the severity of the pressure was not felt so fully by the employers as it was by the labourers, on whom the calamity fell with crushing weight. It is sufficient to point to one of the preceding tables in which the deficiency of American cotton is to be recognised. The imports of the raw material, which had been nearly 12,500,000 cwts. in 1860, fell to little more than 4,500,000 cwts. in 1862, the period in which the cotton famine, as it was naturally and strikingly called, was inflicting its heaviest miseries on those who were engaged in the manufacture.

This is not the place in which to comment on the circumstances which attended this calamity. It is sufficient to observe that the patience of the operatives, and the courage with which they bore those sufferings, which were due to causes over which they had no control, were acknowledged by all. The manufacturers and landowners in the district acted with energy in the crisis. The nation came forward also to aid the suffering, and great sums were gathered throughout the kingdom. The people of the United States, too, and of our colonies, gave their contributions to lighten the Lancashire distress. The subscriptions amounted to nearly 1,500,000*l.*

The losses consequent on the cotton famine were thus estimated by Dr. Watts of Manchester, in his work on the *Facts of the Cotton Famine* :—

Employers' losses, 3 years at 9,500,000 <i>l.</i>	- - -	98,500,000
Workpeople's do. at 11,000,000 <i>l.</i>	- - -	33,000,000
Shoekers' do. on wages at 10 per cent.	- - -	5,300,000
Do. on half employers' profits	- - -	1,225,000
Total loss ca 3 years	- - -	£148,025,000

Messrs. Ellison and Haywood, in their *Cotton Circular* for January 1866, set down the money losses at from 65,000,000*l.* to 70,000,000*l.*

The scarcity may be estimated again by the rise in the price of the raw material. Egyptian cotton, valued at 3*l.* 15*s.* 6*d.* per cwt. in 1860, rose to 12*l.* 5*s.* 3*d.* in 1864; that of the United States from 3*l.* 0*s.* 4*d.* to 13*l.* 11*s.*; and that of British India from 1*l.* 17*s.* to 12*l.* 18*s.* 1*d.*; and that of British India from 1*l.* 17*s.* to 8*l.* 9*s.* As is always the case when a serious exaltation of prices ensues upon scarcity, the greatest rise is found in that which was cheapest before the dearth.

Wide-spread and alarming as the distress was which ensued on the cotton famine, the result was yet not entirely without its benefits. The manufacturers had been forced to depend on one source for the supply of the raw material. The article produced in this region was, with the exception of Sea Island, of no better quality than

that procurable from Egypt and some other countries. It could not of course be expected that those who were purchasers of raw material should take into account the contingency which few observers failed to predict would at no remote period ensue—the occurrence, namely, of an attempted disruption between the Northern and Southern States of the American Union. But the manufacturers always looked anxiously at the course of American politics, and welcomed any promised supply of cotton from other countries. The urgent demand for the article did produce the effect of developing the exports of the fibre from new localities. Thus China, Japan, and Mexico appear among the countries which contributed to the supply after the dearth commenced. A great impetus was given to exports from Egypt, the Mediterranean, the British West and East Indies, though of course these enlarged imports from certain places were far from filling up the deficiency.

There is no plant perhaps which has a wider geographical range than cotton. It can be grown in the tropics as a perennial, and it can be cultivated as an annual over an area as far north as the basin of the Mediterranean. Practically the field for its produce is boundless. The cultivation of the plant, though requiring some care in its early growth, is by no means toilsome, the chief demand for labour arising when the crop has to be gathered, and the wool has to be cleansed from the seeds which it envelops. But notwithstanding the width of the area of production, competition against the American producer, in the period preceding the war, though it was anxiously desired was all but hopeless, and the deficiency could not be supplied to any satisfactory extent when the dearth in America first occurred.

The absence of any ready response to the urgent demand for cotton during this crisis was the effect of several causes. In the first place, the influential classes in this and some other European countries miscalculated the future of the civil war in America. It was predicted that the war would be speedily ended, and that the suspension of supply must be of very short duration; it being assumed erroneously that the Southern States possessed large stores of cotton, and that these would be poured into the market when their independence was established. There can be no doubt that this checked the disposition to engage in the cotton culture. Again, among the inhabitants of those countries in which cotton can be grown, the necessary capital for production on so large a scale is wanting. These countries are poor, or misgoverned, or barbarous—generally affected by all these untoward conditions. Cotton might be produced in almost unlimited quantities in Turkey and Asia Minor; but these regions are cursed by a Government which has made the fairest part of the earth sterile and unproductive. Still it will be seen that even under these adverse circumstances a great impulse was given to production in Egypt and India.

The Lancashire spinners for a long time had devoted their attention to the matter, and the Cotton Supply Association especially had done its best to further the ends of its establishment. It collected samples, employed agents, and welcomed intelligence of every kind, as far as lay in its power.

*Prospects of the Cotton Manufacture.*—The events of the five years previous to 1866 have been a serious trial of the powers possessed by this branch of British industry. Nothing could have tested its vigour, its elasticity, its continuance more effectually. It is not too much to say that it has passed through the trial with much less injury than could have been anticipated. The markets



Chamber of Commerce, embodies (pp. 22-3) a memorial to Congress protesting against the tax on cotton, which is calculated (Dec. 1867) to be 20 per cent. on its gross value. The abolition of the tax is called for on the grounds of its injustice, its oppressiveness, its discouragement of native and encouragement of foreign productions, and because it is a detriment to the shipping, commercial, and trading interests, and an obstruction to the cultivation of land and the employment of labour.

Little as we have to fear from American, we have still less to fear from Swiss or Saxon competition. America has some advantage over England in the greater cheapness of the raw material; but Switzerland and Saxony, situated almost in the centre of Europe, can only draw their supplies of raw cotton by a distant land carriage, by way of Hamburg, Marseilles, and Genoa; and we have the best authority for affirming that a bale of cotton may be conveyed at a less expense from Charleston to Manchester, than from Genoa, Amsterdam, or Hamburg to Switzerland or Saxony. Switzerland is altogether destitute of coal: all that she does is done by water-power, and that is said to be nearly exhausted. It is not, however, to be wondered at that the Swiss and Saxons should have succeeded in supplying their own markets, and some of those immediately contiguous, with certain species of yarn; or that they should export hosiery and such other articles as they can manufacture on a small scale, at their outposts; but it is idle to suppose that they should ever be able to do much more than

It was stated before a committee of the House of Commons in 1833 that the French cotton manufacture had increased, between 1812 and 1826, in the ratio of 310 per cent., while in England its increase was only 270 per cent. This statement was, we believe, accurate as far as it went; and yet it was hastily calculated, though, no doubt, without any so intended, to mislead. In 1812, and for many years previously, it was hardly possible to export cotton wool into France, and its price was excessive. When, therefore, the manufacturers got wool after the return of peace at an ordinary price, it was impossible, seeing that foreign cottons are excluded from France, but the manufacture should increase with extraordinary rapidity, until the home demand was well supplied. An advance of this sort is hardly no proof of the capacity of any country to prosecute the manufacture with advantage, or to export cottons without the aid of a bounty. The manufacture gone on increasing in the ratio down to the present time, the circumstances might have justly excited attention; but it has not been the case. No doubt it has made considerable progress in the interval; but not so as might have been expected, seeing the increase of wealth and population in France, and the peculiar facilities which the French enjoy for smuggling cotton stuffs and prohibited products across the Pyrenees mountains, where they are taken off in large quantities. The truth is, that until the French Government reduces or repeals the duties on iron and other articles indispensable to the cheap construction of cotton factories, it is idle to suppose that the French should be formidable competitors in the production of

It is supposed by some that the competition will be to fear from the Continent does not exist so much in the spinning as in the weaving; and that the probability is that our exports will increase, and our exports of manu-

factured goods will diminish. We do not, however, imagine there is much in this. Our power-looms are superior to those of any other country; and there is not, in fact, with the exception of the dyes, a single particular connected with the cotton manufacture in which we have not a manifest superiority over the Swiss, Saxons, French, Prussians, and every continental nation. Certainly, however, we are inferior to some of them in the brilliancy and durability of their dyes; and this circumstance has occasioned a considerable demand for German and Swiss printed cottons in many parts of the East, where vivid colours are held in the highest estimation. But even there the greater cheapness of our goods is proving an overmatch for the greater brilliancy of those of our rivals.

Mr. Fane, Secretary of the British Embassy at Paris, in his *Report* No. 1 of 1867 gives the following table, showing the value of the exports of French cotton manufactures in the 6 years 1859-64:—

France		France	
1859 -	- 67,200,000	1862 -	- 63,300,000
1860 -	- 69,600,000	1863 -	- 88,200,000
1861 -	- 56,100,000	1864 -	- 95,700,000

Thus, the cotton exports of France during the year 1864 amounted to less than 4,000,000*l.* in value. Those of any other country were absolutely trivial. Many countries of course import cotton yarn which is used for home manufacture, and there is some Eastern trade possessed by Russia; but the total amount of foreign cotton stuffs competing with British produce is quite unimportant. Again, in sunnier climates, more brilliant colours can be imparted to cotton cloth; but the great element in production is cheapness in the fabric, and as yet the industry of this country, to judge from results, is practically without a rival.

On the whole, therefore, we see no reason to think that the British cotton manufacture has reached, much less passed, its zenith. But it can hardly be necessary to observe, considering the vast importance of the trade, that while, on the one hand, nothing should be left undone that may serve to strengthen its foundations and to promote its prosperity, on the other nothing should be attempted that may, by possibility, have an opposite effect. The subsistence of more than a million of people is not to be endangered on slight grounds. The abuses even of such a business must be cautiously dealt with, lest, in eradicating them, we shake or disorder the whole fabric. No doubt the state of children employed in the cotton factories called fairly for legislative interference; and we believe that the regulations that have been enacted, carried out, as they have been, under the superintendence of the inspectors, have been productive of much good.

#### 7. STATUTORY REGULATIONS IN REGARD TO THE EMPLOYMENT OF CHILDREN IN FACTORIES.

No statutory restrictions respecting the employment of children in the mills and factories of the United Kingdom existed until 1802, when the 42 Geo. III. was passed for the preservation of the health and morals of apprentices and others employed in cotton and other factories, and directing the local magistrates to report whether the factories were conducted according to law, and to adopt such sanitary regulations as they might think fit. This Act was followed, in 1816, by the Act generally called Sir Robert Peel's Act, imposing various regulations on the employment of children in cotton-mills.

Both of these Acts were repealed in 1831 by the 1 & 2 Wm. IV. c. 39, commonly called Sir

John Hobhouse's Act, which provided that in cotton factories, to which it alone related, no child could legally be employed till it had attained the age of 9 years; that no person under 18 years should be permitted to remain in the factories more than 12 hours in one day; and that on Saturdays they should only be employed in the factories for 9 hours.

Sir John Hobhouse's Act was repealed in 1833 by the 3 & 4 Wm. IV. c. 103; and this last-mentioned statute, with the 7 & 8 Vict. c. 15, the 10 & 11 Vict. c. 29 (commonly called the Ten Hours Act), 13 & 14 Vict. c. 54, 16 & 17 Vict. c. 104, 19 & 20 Vict. c. 83, enact the following provisions relative to persons employed in all processes incident to the manufacture of cotton, wool, hair, silk, flax, hemp, jute, or tow, separately or mixed together, or mixed with any other material, or any fabric made thereof, with the exception of factories used solely for the manufacture of lace, hats, or paper, or solely for bleaching, dyeing, printing, or calendering.

1. That no person under 18 years of age shall be allowed to work in the night, i.e. from  $\frac{1}{2}$  past 8 in the evening to  $\frac{1}{2}$  past 5 in the morning, nor on Saturday for any purpose after  $\frac{1}{2}$  past 4 in the afternoon, the hours to be regulated by a public clock, specified in a notice put up in each factory.

2. That no child under 8 years of age shall be employed, and that no child between 8 and 13 years old shall be employed more than 6 hours and 30 minutes in any one day, unless the dinner-time of the young persons from 13 to 18 years old in the factory shall begin at 1 o'clock; in which case the children beginning to work in the morning may work for 7 hours; but any child above 11 years of age employed solely in the winding and throwing of silk may work for 10 hours a day. And any occupier of a factory restricting the labour of young persons between 13 and 18 years old to 10 hours a day, may, on certain conditions, employ any child 10 hours on 3 alternate days of every week, provided that such child shall not be employed in any manner in the same or any other factory on 2 successive days.

3. That no child under 13 years of age shall work in the night for any purpose.

4. That every child under 13 years of age must have a surgical certificate of age, and must attend some school on 5 days of every week for certain specified periods, and obtain a weekly certificate of attendance from the schoolmaster, which may be annulled by the inspector on account of the infirmity of the schoolmaster.

5. That no young person of the age of 13, and under the age of 18, shall be allowed to work for more than 10 hours in any one day, nor more than 58 hours in any one week.

6. That every young person under 16 years of age must have a surgical certificate of age.

7. That no female above the age of 18 years shall be employed in any factory save for the same time and in the same manner as young persons in factories, i.e. for 10 hours in the day and 58 hours in the week, and under the above conditions as to night work, certificates of age not, however, being necessary for females above 18 years of age.

8. That in factories in which any part of the machinery is moved by water, and time lost by stoppages from want of water or too much water, children or young persons may, under certain conditions, be employed one hour additional, except on Saturday; and that when from the same causes any part of the manufacturing machinery driven by the water-wheel has been during any part of a day stopped, the young persons who would have

been employed at such machinery may under certain conditions recover such lost time during the night following the said day, unless the said day be Saturday.

9. That the inspector of the district, one of the four inspectors appointed under the Acts, shall have power to appoint a sufficient number of certifying surgeons to examine the children and young persons, and to give certificates of age to children and young persons under 16 years of age according to certain forms and directions, but which certificate may be annulled by the inspectors or sub-inspectors appointed under the Acts, provided they believe the real age of the persons mentioned in the certificates to be less than that mentioned in them, or provided the certifying surgeon of the district deems such persons to be of deficient health or strength at the time when the certificates are annulled.

10. That not less than  $\frac{1}{2}$  hour shall be allowed every day for meals to every young person, to be taken between  $\frac{1}{2}$  past 7 A.M. and  $\frac{1}{2}$  past 7 P.M., and 1 hour at least before 3 P.M.; and that no child or young person shall be employed more than 9 hours before 1 P.M. without an interval for meal-time of at least 30 minutes, and that all the young persons shall have the meal-times at the same period of the day.

11. That all children and young persons shall have not fewer than 8 half-holidays in the year of such half-holidays between March 15 and October 1, and that no child or young person shall be allowed to work in any factory on Christmas Day or Good Friday in England or Ireland, and in Scotland on any day the whole of which is apart by the Church of Scotland for the observance of the sacramental fast in the parish in which the factory is situated.

By 21 & 25 Vict. lace manufactories were included under the Factory Acts, but youths may be employed in lace factories between 4 A.M. and 10 P.M. provided the youths be not employed more than 6 hours a day.

By 27 & 28 Vict. the Factory Acts were extended to persons engaged in fusian cutting, manufacturing cartridges, and paper staining, also to persons engaged in the manufacture of earthenware, except bricks, and tiles not being ornamental tiles, lucifer matches, and percussion caps.

The Factories Act Extension Act of 1864 (30 & 31 Vict. c. 103), applies almost exclusively to those factories unconnected with the manufacture of cotton.

The Factory Acts embody other regulations respecting the appointment of inspectors to enforce these provisions &c.; but these, though of importance to the parties interested, by whom they must be carefully attended to, being of little public importance, need not be inserted in this place.

**COTTON SEED OIL CAKE.** Considerable quantities of oil cake from cotton seeds are annually imported into this country, the substance being used, like other kinds of oil cake, for feeding cattle. In the year 1866, 10,528 tons were imported, chiefly from Belgium, the average being a little less than 57, the ton. In the year 1867, 93,957 tons of cotton seeds were imported, the value being about 77, 13s. the ton.

**COWHAGE or COWITCH** (Hm. kiwao; pois à grater; Ger. kuh krütze). The fruit of a perennial climbing plant (*Dolichos pinnatus* Linn.). It is a native of India, as well as of other Eastern countries, and of America. The pod is about 4 or 5 inches long, a little flattened, and contains from 3 to 5 oval and flattened seeds. The outside is thickly covered with short, brown hairs, which, if incautiously touched

to the skin, and (Annie's *Materia* (COWRIES (Ger. cauris, bouges, habo zimbo). The small univalve shells of the Maldives, the Eastern Archipelago, and Africa. They have been used as a currency in the chief countries which inhabit the island. The nominal exchange rate is at the rate of 640 r. This rupee is the single cowry is worth. In Siam they value is far higher—at of course these rates of the cowry shells used in the trade in a gamb since the abolition of of cowries has become a small importance. In 18 valued at 14,691/10. (CRANBERRIES, or BERRIES. The fruit of a mo species of *Limeum*. That the size of current in different parts of Scotland; they were once common in the northern parts of Scotland. They have been drained and met with. Cranberries, and a sharp, acid, and easily preserved, and are used in tarts. They are very common in the northern part being of a superior quality every time ones have been in New South Wales. In imported, valued at 1,77. (CRÈPE (Fr. crêpe; Ger. fl. spanilla, sopillo; Russ. fl. transparent stuff, in many silk gammed and twisted without crossing. It is a fine fabric. Crêpe was originally made superior to any manufacture is said to have been by one Jacques Dupré in the seventeenth century. It is chiefly manufactured at Lyons (called, according to M. (Thomas), crêpe au lisse. China silk, was originally manufactured by the process for a long time in the East. The secret was discovered by M. Dugas. In 1816, 1816 kilogrammes of French. The British exports of CRÈPE. [The term used to denote placed by one individual assigns him money, or without stipulating for the party who lend and the party who borrow. This arises partly from of society; credit is in a little capital being then from Government not hav

to the skin, and occasion intolerable itching. (Linnaeus's *Materia Indica*.)

**COWRIES** (Ger. *kauris*; Dutch, *kauris*; Fr. *coques*, *kauris*, *boques*; Ital. *cori*, *porcellane*; Span. *coques*, *zimbos*). The shell of the *Cypræa moneta*, a small univalve found abundantly on the shores of the Maldives, Borneo, and the various islets of the Eastern Archipelago, as also on the eastern coasts of Africa. For many ages this shell has been used as a currency in parts of Hindostan and Africa, and the cowry fishery was and perhaps still is the chief occupation of most of the natives who inhabit the islands where it is found.

The nominal exchange of the cowry in Bengal is at the rate of 640 to the anna, or 3,840 to the rupee. This rupee is worth 22-2/3d. sterling, and the single cowry is worth about 26-10,000ths of a farthing. In Siam they are still cheaper. But their value is far higher—at least ten times—in Africa. Of course these rates are variable, and the delay of the cowry ships used in India to raise the price greatly, so that occasion was taken to turn the cowry trade into a gambling transaction.

Since the abolition of the slave trade the supply of cowries has become a matter of comparatively small importance. In 1865, 7,789 cwts. were imported, valued at 14,691*l*.

**CRANBERRIES** or **RED WHORTLEBERRIES**. The fruit of a moss plant, the *Vaccinium oxococcos* of Linnaeus. The berries are globular, about the size of currants; are found in mossy bogs in different parts of Scotland, but not in great numbers: they were once common in Lincolnshire and the northern parts of Norfolk; but since the bogs have been drained and cultivated, they are rarely met with. Cranberries have a peculiar sour, and a sharp, acid, agreeable taste; they are easily preserved, and are extensively used in making tarts. They are very abundant in North America and in the northern parts of Russia; the best being of a superior quality. It is said that the very fine ones have recently been brought from New South Wales. In 1866, 33,433 gallons were imported, valued at 1,702*l*.

**CRAPE** (Fr. *crêpe*; Ger. *flohr*, *krausflohr*; Ital. *vevillia*, *sopillo*; Russ. *flor*; Span. *respon*). A transparent stuff, in manner of gauze, made of fine silk gummed and twisted on the mill and woven without crossing. It is principally used in making. Crape was originally manufactured in Lyons; but that made in this country is now considered superior to any made in Italy. The manufacture is said to have been introduced into France, by one Jacques Dupuis, at or about the middle of the seventeenth century. French crapes are chiefly manufactured at Lyons, and are of two kinds called, according to M. Bezon (*Dictionnaire de France*), *crêpe an lisse*. China crape, as its name implies, was originally manufactured in China, the process for a long time baffled all attempts at imitation. The secret was, however, at last discovered by M. Dugas. In 1864 France exported 48,816 kilogrammes of French manufactured crape. The British exports of crape seem to be of great importance.

**TEAM OF TARTAR.** [ARGAL.]

**CREDIT.** The term used to express the trust or confidence placed by one individual in another, who assigns him money, or other property in advance, or without stipulating for its immediate return. The party who lends is said to give credit, and the party who borrows to obtain credit. *Origin and Nature of Credit.*—In the earlier ages of society, credit is in a great measure unnecessary. This arises partly from the circumstance that little capital being then accumulated, and the Government not having the means, or

not being sufficiently careful, to enforce that punctual attention to engagements so indispensable to the existence of confidence and credit. But as society advances, capital is gradually accumulated, and the observance of contracts is enforced by public authority. Credit then begins to grow up. On the one hand, those individuals who have more capital than they can conveniently employ, or who are desirous of withdrawing from business, are disposed to lend, or to transfer, a part or the whole of their capital to others, on condition of their obtaining a certain stipulated premium or interest for its use, and what they consider sufficient security for its repayment; and, on the other hand, there are always individuals to be met with, disposed to borrow, partly (and among merchants principally) in order to extend their business beyond the limits to which they can carry it by means of their own capital, or to purchase commodities on speculation, and partly to defray debts already contracted. These different classes of individuals mutually accommodate each other. Those desirous of being relieved from the fatigues of business find it very convenient to lend their capital to others, while such as are anxious to enlarge their businesses obtain the means of prosecuting them to a greater extent.

It is plain that to whatever extent the power of the borrower of a quantity of produce or a sum of money, to extend his business, may be increased, that of the lender must be equally diminished. The same portion of capital cannot be employed by two individuals at the same time. If A transfer his capital to B, he necessarily, by so doing, deprives himself of a power or capacity of production which B acquires. It is most probable, indeed, that this capital will be more productively employed in the hands of B than of A; for the fact of A having lent it shows that he either had no means of employing it advantageously, or was disinclined to take the trouble; while the fact of B having borrowed it shows that he conceives he can advantageously employ it, or that he can invest it so as to make it yield an interest to the lender, and a profit to himself. It is obvious, however, that except in so far as credit contributes, in the way now mentioned, to bring capital into the possession of those who, it may be fairly presumed, will employ it most beneficially, it conduces nothing to the increase of wealth.

The most common method of making a loan is by selling commodities on credit, or on condition that they shall be paid for at some future period. The price is increased proportionally to the length of credit given; and if any doubt be entertained with respect to the punctuality or solvency of the buyer, a further sum is added to the price, in order to cover the risk: that the seller or lender runs of not receiving payment, or of not receiving it at the stipulated period. This is the usual method of transacting where capital is abundant, and confidence general; and there can be no manner of doubt that the amount of property lent in Great Britain, the Netherlands, and most other commercial countries, in this way, is infinitely greater than all that is lent in every other way.

When produce is sold in the way now described, it is usual for the buyers to give their bills to the sellers for the price, payable at the period when the credit is to expire; and it is in the effects consequent on the negotiation of such bills that much of that magical influence that has sometimes been ascribed to credit is believed to consist. Suppose, to illustrate this, that a paper-maker, A, sells to a printer, B, a quantity of paper, and that he gets his bill for the sum, payable at 12 months after date: B could not have entered into the transac-

tion had he been obliged to pay ready money; but A, notwithstanding he has occasion for the money, is enabled, by the facility of negotiating or discounting bills, to give the requisite credit without disabling himself from prosecuting his business. In a case like this, both parties are said to be supported by credit; and as cases of this sort are exceedingly common, it is contended that half the business of the country is carried on by its means. All, however, that such statements really amount to is, that a large proportion of those engaged in industrious undertakings do not employ their own capital, but that of others. In the case in question, the printer employs the capital of the paper-maker, and the latter employs that of the banker or broker who discounted the bill. This person had most likely the amount in spare cash lying beside him, which he might not well know how to invest; but the individual into whose hands it has now come will immediately apply it to useful purposes, or to the purchase of the materials, or the payment of the wages of the workmen employed in his establishment. It is next to certain, therefore, that the transaction will have been advantageous. But still it is essential to bear in mind that it will have been so, not because credit is of itself a means of production, or because it can give birth to capital not already in existence; but because, through its agency, capital finds its way into those channels in which it has the best chance of being profitably employed.

The real advantage derived from the use of bills and bank notes as money consists, as has been already shown, in their substituting so cheap a medium of exchange as paper, in the place of one so expensive as gold, and in the facilities which they give to the transacting of commercial affairs. If a banker lend A a note for 100*l.* or 1,000*l.*, the latter will be able to obtain an equivalent portion of the land or produce of the country in exchange for it; but that land or produce was already in existence. The issue of the note did not give it birth. It was previously in some one's possession; and it will depend wholly on the circumstance of A's employing it more or less advantageously than it was previously employed, whether the transaction will, in a public point of view, be profitable or not. On analysing any case of this kind, we shall invariably find that all that the highest degree of credit or confidence can do is merely to change the distribution of capital—to transfer it from one class to another. These transfers are occasionally, too, productive of injurious results, by bringing capital into the hands of spendthrifts: this, however, is not, except in the case of the credit given by shopkeepers, a very common effect; and there can be no doubt that the vast majority of regular loans are decidedly beneficial.

*Abuses of the present Credit System in Great Britain. Means of obviating them.*—The previous observations refer rather to the credit given to individuals engaged in business, who mean to employ the capital which they borrow in industrious

undertakings, than to that which is given to individuals not so engaged, and who employ the advances made to them in supporting themselves and their families. In neither case is credit of advantage unless it be granted with due discrimination, and with reference to the character, condition, and prospects of those receiving it. In this country, however, these considerations have been in a great measure lost sight of, in the granting of credit by shopkeepers and tradesmen of all descriptions. Owing to the competition of such persons, their extreme eagerness to secure customers, and the general indolence of opulent persons, which disinclines them to satisfy every small debt when it is contracted, the system of selling upon credit has become almost universal. Few among us think of paying ready money for anything; seven tenths of the community are in the constant practice of anticipating their incomes; and there is hardly one so bankrupt in character and fortune as to be unable to find grocers, bakers, butchers, tailors &c. ready to furnish him upon credit with supplies of the articles in which they respectively deal. We look upon this facility of obtaining accommodations as a very great evil. They are not, in one case out of five, of any real advantage to the parties receiving them, while they are productive of very pernicious results. The system tempts very many, and sometimes even the most considerate individuals, to indulge in expenses beyond their means; and thus becomes the most fruitful source of bankruptcy, insolvency, and bad faith. To guarantee themselves from the extraordinary risk to which such proceedings expose them, tradesmen are obliged to advance the price of their goods to a most exorbitant height; so that those who are able, and really mean, to pay the debts they contract, are in fact, obliged to pay those of the hosts of solvents and swindlers maintained by the present system. Many tradesmen consider themselves fortunate if they recover from two-thirds to three-fourths of the sums standing in their books, at the distance of several years.

The extraordinary extent to which the practice is carried may be learned from the reports of the Parliamentary Committee on National Debts. It appears from them, that hatters, shoemakers &c. in the metropolis have often 40*l.* and upwards on their books in debts below value, and that five sixths of their book debts are irrecoverable; but owing to the artificial enhancement of prices, those that are good are sufficient to indemnify the traders for the loss of the bad.

It is not easy, we think, to imagine any system better fitted to generate improvidence and fraud. The vast majority of those who become insolvent or are imprisoned for debt, consist of labouring artisans, half-pay officers, clerks in public offices, annuitants &c.—persons who prudent shopkeeper would ever allow to get immanently into his debt. The following exhibits some of the effects resulting from the present system:—

In consequence of a prison for debt, 21 & 25 Vict. c. 131 imprisoned has been put an end to that system that sent 1,929 debtors under 20*l.* to insulate that credit given to the labouring classes; but it is of its being indiscriminate to those whom it encounters of idleness and decay of these industrious and deserving individuals, to secure the advantages of the enormous evils that are an object of the high offices, we believe, would be the taking from credit and imprisonment for debt.

It was stated in the February 19, 1827 that in 2000 persons were arrested at an expense to the parties of between 150,000*l.* and 200,000*l.* in the metropolis and two adjacencies to arrest were granted processes were executed and concluded that in this sin above limits, no fewer than 1000 persons without any proof of their guilt. Well might Lord Brougham say, "What is the use of a permission to imprison and inhumanity to the poor?" and that the expense would not be attended to the country.

The following table, which was presented to the House of Commons in 1812, for debts, and the number of persons committed to prison, being more than 2*l.* 3*s.* 8*d.* each, for debts which had previously been paid, and in respect to the law of arrest and imprisonment, whatever else might be the fact that thousands of persons that personal liberty is not only cheap.

The following is a return of the number of persons committed to prison, on process out of the year ending January 1827, showing, in classes, the number of persons committed for less than 10 days, for 10 to 20 days, for 20 to 30 days, for 30 to 40 days, for 40 to 50 days, for 50 to 60 days, for 60 to 70 days, for 70 to 80 days, for 80 to 90 days, for 90 to 100 days, for 100 days and more.

paid out of the county rate for the maintenance and support of such prisoners. The estimate share of expenses of the officers, bedding, fuel, &c. &c.

Number of Persons committed for Debt to the several Prisons of the Metropolis in the Year 1812, and the Sums for which they were committed.

	For Sums above 100 <i>l.</i>	For Sums between 50 <i>l.</i> and 100 <i>l.</i>	For Sums between 20 <i>l.</i> and 50 <i>l.</i>	For Sums under 20 <i>l.</i>	Total	In Custody Jan 1812
Queen's Bench Prison	132	72	96	160	460	28
Fleet Prison	59	23	96	12	190	28
Marshalsea Prison	2	5	29	70	106	28
Whitcross Street Prison	183	255	570	1,929	2,937	28
Horsemaner Lane Prison	28	55	127	146	356	28
Total	404	410	818	2,517	3,929	128

In consequence of alterations in the law of imprisonment for debt, such as 22 & 23 Vict. c. 57, 24 & 25 Vict. c. 134 &c., the number of persons imprisoned has been greatly reduced. It was time, certainly, that something effectual was done to put an end to such flagrant abuses — to a system that sent 1,929 persons to a single prison for debts under 20*l*.! We do not mean to say or insinuate that credit may not frequently be given to the labouring classes with the best effects; but it is of its abuse that we complain — of its being indiscriminately granted to every one; to those whom it encourages to continue in a course of idleness and profligacy, as well as to those industrious and deserving persons to whom it may occasionally be of the greatest service. To secure the advantages of credit to the public, free from the enormous evils that result from its abuse, is an object of the highest importance; and few states, we believe, would do so much to secure it as the taking from creditors the power to arrest and imprison for debt. [BANKRUPTCY.]

It was stated in the House of Commons (February 19, 1827) that in the space of 2½ years 20,000 persons were arrested in and about London, at an expense to the parties, it may be estimated, of between 150,000*l*. and 200,000*l*.! In 1827, in the metropolis and two adjoining counties, 23,515 warrants to arrest were granted, and 11,317 bailiwick processes were executed. Hence it may be concluded that in this single year, within the above limits, no fewer than 12,000 persons were deprived of their liberty, on the mere allegation of debts without any proof that they owed them a farthing! Well might Lord Eldon say that 'the law of arrest is a permission to commit acts of greater oppression and inhumanity than are to be met with in slavery itself,' and that the redress of such a grievance would not be attended with any fatal consequences to the country.\*

The following table, which shows that 1,078 persons were committed to Horsemonger Lane Prison, in 1842, for debts, amounting in all to only 232*l*. 16*s*. 9*d*., being at an average no more than 2*l*. 3*s*. 8*d*., each, proves that the dispositions which had previously taken place with respect to the law of arrest and imprisonment had, in any material degree, lessened its mischievous operation. Whatever else might be dear in England, the fact that thousands of people were annually imprisoned for such miserable trifles shows that personal liberty was at all events not so cheaply obtained.

The following is a return from Horsemonger Lane Gaol of the number of debtors committed to the said gaol, on process out of courts of request, during the year ending January 1, 1843; stating the aggregate amount of debts and the period of confinement, in classes, the number confined for less than 10 days, for 10 days and less than 20, 30, 70, and 100 days; and stating also the amount paid out of the county or other rates for the maintenance and support of such prisoners, as far as possible.

Persons committed in the year	1,078
Aggregate amount of debts	£ 2,321 16 9
Costs	618 12 11
Persons confined from 1 to less than 10 days	423
for 10 and " 30	402
50 " 50	160
70 " 70	44
70 " 100	15
100 days and more	34
Amount paid out of the county rate for the maintenance and support of such prisoners, including	£ 256 17 0
Proportionate share of expenses of the gaol (salaries of officers, bedding, fuel, water, &c. &c.)	506 3 1

We defy anyone to show that the law of arrest and imprisonment has a single good consequence to be placed as a set-off against the evils of which it is productive. Tradesmen depend, as is clearly evinced by the above statements, upon the despotical power which it puts in their hands, to get them out of scrapes; and believe that the fear of being subjected to arrest will stimulate even the most suspicious portion of their debtors to make payment of their accounts. The records of our prisons, and of our insolvent and other courts, show how miserably these expectations are disappointed. We believe, indeed, that we are warranted in affirming that the more respectable classes of shopkeepers and tradesmen are now generally satisfied that the system required some very material modifications. The law of arrest and imprisonment is, in fact, advantageous to none but knaves and swindlers, and the lowest class of attorneys, who frequently buy up small accounts and bills, that they may bring actions upon them, and enrich themselves at the expense of the poor, by the magnitude of their charges. Such oppressive proceedings are a disgrace to a civilised country. Were the law in question repealed, credit would be granted to those only who deserved it; for, generally speaking, tradesmen, supposing they had nothing to trust to but their own discretion, would not deal, except for ready money, with those of whose character and situation they were not perfectly informed; and the difficulty under which all idle and improvident persons would thus be placed of obtaining loans would do much to wean them from their vicious courses, and to render them industrious and honest. 'Those,' says Dr. Johnson, 'who have made the laws, have apparently considered that every deficiency of payment is the crime of the debtor. But the truth is, that the creditor always shares the act, and often more than shares the guilt, of improper trust. It seldom happens that any man imprisons another but for debts which he suffered to be contracted in hope of advantage to himself, and for bargains in which he proportioned his profit to his own opinion of the hazard; and there is no reason why one should punish another for a contract in which both concurred.'

The power of taking goods in execution for debts is also one that requires to be materially modified. It seems to us quite clear that some limits should be set to this power; and that such articles as are indispensable either to the subsistence or the business of any poor man ought to be exempted from execution, and, perhaps, distress. The present practice, by stripping its victims of the means of support and employment, drives them to despair, and is productive only of crimes and disorders.

A petition against imprisonment for small debts, subscribed by many of the most eminent merchants, manufacturers, bankers &c. of the city of Glasgow, was presented to the House of Commons in 1833. It contains so brief, and at the same time so forcible an exposition of the evils resulting from the system, that we shall take the liberty of laying it before our readers.

'Your petitioners have been long and seriously impressed with the belief that very great evils have arisen and do arise from the imprisonment of debtors in Scotland, especially for small sums.

'The petitioners will not here question the policy of the existing laws which authorise the imprisonment of debtors for considerable sums, nor do they intend to object to the creditor retaining the fullest power over the property and effects of his debtor; but they are humbly of opinion that, in so far as these laws give creditors

the power to imprison debtors for small sums, such as for 8*l.* and under, they are not only injurious to the public, and ruinous to the debtor, but even hurtful to the creditor himself.

It would be a waste of time to dwell upon the hardship of subjecting debtors to imprisonment for small debts, contracted sometimes certainly under circumstances of real distress, but more frequently from the improper use of credit, with which they are too readily supplied. The creditor takes care that his profit shall be commensurate with his risk; and the debtor is induced to purchase freely, and at any price, that which he is not immediately called upon to pay: the creditor coolly and cruelly calculates upon the power which the law has granted him over the person of his debtor if he fail to discharge his debt to him, while the debtor forgets that, by the credit so imprudently afforded him, he is preparing the way for his own ruin, and that of all who have any dependence upon him.

The total number of debtors imprisoned in the gaol of Glasgow alone, for debts of 8*l.* and under, was in the year 1830, 353; in 1831, 419; and in 1832, 437; while the whole number of incarcerations in that gaol for sums of every description were, in the year 1830, 557; in 1831, 630; and in 1832, 696; the proportion of sums of 8*l.* and under being nearly  $\frac{1}{3}$  of the whole on the average of these 3 years.

To remedy these evils, your petitioners humbly submit that means should be adopted for the repeal of the laws at present in force, in so far as they sanction the recovery of small debts by imprisonment; reserving their effect in every other respect; the result of which would be, that credit for small sums would be greatly limited, if not entirely extinguished, and the poorer classes rendered more provident; and by purchasing with money at a cheaper rate what they now buy at an extravagant price, they would be enabled to procure for themselves additional comforts, from the more economical employment of their small incomes.

May it therefore please your Honourable House to take this matter into your consideration, and to adopt such means as you in your wisdom shall see proper, to prevent the incarceration of debtors for sums under 8*l.*, and thereby remove or greatly mitigate the evils of improvidence on the part of the debtor, and of oppression on the part of the creditor, which necessarily arise under the present system.

So reasonable a proposal, supported by such conclusive statements, could not fail to make a deep impression; and a bill was soon after introduced, and passed into a law (stat. 6 & 7 Wm. IV. c. 70), taking away the power of imprisonment in Scotland for debts under 8*l.* 6*s.* 8*d.* and above interest and expenses, except in cases of fraud. This bill is admitted to have been eminently beneficial; and it is to be hoped that the advantages of which it has been productive may lead to the extension and general application of its principle.

*Propriety of placing all small Debts beyond the Pale of the Law.*—The taking away the power of arrest and imprisonment, except in the case of fraudulent bankruptcy, would certainly be a material improvement upon the existing system. But we are satisfied that it does not go far enough; and that by far the most desirable and beneficial reform that could be effected in this department would be to take away all action for debts under a given sum, as 50*l.* or 100*l.* The only exception to this rule should be in the case of claims for wages, or labour done under executory contracts. To prevent the measure from being defeated, no

action should be granted on bills under 50*l.* or 100*l.*, except upon those drawn by or upon regular bankers. This would be a radical change certainly; but we are fully satisfied that it would be highly advantageous to every class of the community, and most of all to labourers, retail dealers, and small tradesmen. It would protect the former from oppression, at the same time that it would tend powerfully to render them more provident and considerate; it would teach the latter to exercise that discretion in the granting of credit which is indispensable; and it would be publicly beneficial, by strengthening the moral principle, and making the contraction of debts for small sums, without the means of paying them, at once difficult and disgraceful.

We agree entirely in opinion with those who think that it is to no purpose to attempt to remedy the defects now pointed out, by multiplying courts and other devices for facilitating the speedy recovery of small debts. This is beginning at the wrong end; or rather it is attempting to obviate the influence of one abuse by instituting another. No wise statesman will ever be easily persuaded to fill the country with petty local courts; for these, when not absolutely necessary, are the merest nuisances imaginable; and he would, at all events, exert himself, in the first instance, to do away, in so far as possible, with the circumstances that make individuals resort to them. But it is certain that  $\frac{2}{3}$  of the cases in county courts originate in questions as to simple contract debts under 50*l.*; and were such debts placed, as they ought to be, beyond the pale of the law, the courts would be wholly unnecessary. Our object ought not to be to provide means for enforcing the payment of trifling debts, but to prevent their contraction. We believe, indeed, that, instead of lessening the multiplication of district courts will materially aggravate, all the evils of the present credit system. The belief that they may readily enforce their claims by resorting to them will make shopkeepers and tradesmen still more disposed than at present to give credit, while the unprincipled, the inconsiderate, and the necessitous will eagerly grasp at this increased facility. What there is of caution amongst our retail dealers is in no inconsiderable degree owing to the want of those petty tribunals so many are anxious to have universally established. The more they are increased, the less will caution prevail. But instead of diminishing this virtue, for such it really is, it cannot be too much increased. Nothing will ever deter those who ought not to obtain credit from taking it while in their power; but those who give it may be made to exercise greater discretion; they may be made to know that it is a private transaction between themselves and those to whom they grant it; and that in the case of petty debts they have only their own sagacity to look to, such transactions not being cognisable by law. The measure of the sort here proposed would not, some appear to imagine, annihilate credit. It would, no doubt, annihilate that spurious, and discriminating species of credit that is as readily granted to the spendthrift and prodigal as to the frugal and industrious individual; but to the extent that it deprived the former of the means of obtaining accommodation, it would extend to the latter. Nothing short of this, nothing but placing all small debts beyond the pale of the law, will ever fully impress tradesmen with a caution of the vast advantages that would result to themselves from their withdrawing their confidence from courts and prisons, and preventing everyone from getting upon their books of who, and, under the Natur

aware; nor will to eradicate the present credit system; neither it a publi

One of the w system is the so thousands of la whom the impro originally led in have the shops to they dare not the goods offered to Dr. Johnson has once owes more th to bribe his credit debt. Worse and higher price a punished by comp whelmed in the con debts which, witho malated on his henc of action upon s. all but substantial coe The tradesman wou first instance, upon h ing articles upon hin with any unless he fi ing his payments; w credit was of import only chance of obtain his character and repu abuses of the sort now what has been denom justly occasioned its trifling compared with the bringing of petty d law. (See a pamphlet, published in 1823; and the *Metropolis*, by the A per, pp. 114-134.)

(CREW. The compan any ship or vessel, Ed could be navigated exc were British subjects, l every ship of 80 tons b neary to sea a certain n proportion to her tonna have been abandoned. The crews of British wholly of Englishmen, o they may be mixed tog and it is no longer nec single apprentice. The e men are explained unde and MERCANTILE MARI ready obedience to the more, ability to dischar by in their performance, the most perilous circum sisting characteristics of CROTON OIL. The seeds of the *Croton tiglium* Hindostan, Ceylon, and ing to the Natural Ori the plant contains an ac seeds have been kno of the 17th cent *Mabecca* and *granda* ess fixed oils, croton oil i used in medicine. It is wash yellow, taste acri *Pharmacopoeia* of the BEBS (Ger. *kubeb* *bebi*; Span. *cubebas*; *beeb*; Javan. *kumunku* produce of a plant, the and, under the Natur

aware; nor will anything else be able completely to eradicate the flagrant abuses inherent in the present credit system, and which have gone far to render it a public nuisance.

One of the worst consequences of the present system is the sort of thralldom in which it keeps thousands of labourers and other individuals, whom the improper facilities for obtaining credit originally led into debt. Such persons dare not leave the shops to which they owe accounts; and they dare neither object to the quality of the goods offered to them, nor to the prices charged. Dr. Johnson has truly observed, that 'he that once owes more than he can pay, is often obliged to bribe his creditor to patience by increasing his debt. Worse and worse commodities at a higher and higher price are forced upon him; he is impoverished by compulsive traffic; and at last overwhelmed in the common receptacles of misery by debts which, without his own consent, were accumulated on his head.' By taking away all right of action upon s. and debts, this system of invisible but substantial coercion would be put an end to. The tradesman would take care who got, in the first instance, upon his books; and instead of forcing articles upon him, would cease to furnish him with any unless he found he was regular in making his payments; while the customer to whom credit was of importance would know that his only chance of obtaining it would depend upon his character and reputation for punctuality. The abuses of the sort now alluded to, that grow out of what has been denominated the truck system, justly occasioned its abolition; but these were trifling compared with those that originate in the banking of petty debts within the pale of the law. (See a pamphlet, entitled *Credit Pernicious*, published in 1823; and *Treatise on the Police &c. of the Metropolis*, by the Author of the *Cabinet Lawyer*, pp. 114-134.)

(CREW. The company of sailors belonging to any ship or vessel. Formerly no British ship could be navigated except by a crew  $\frac{3}{4}$  of which were British subjects, besides the master; and every ship of 80 tons burden and upwards had to carry to sea a certain number of apprentices in proportion to her tonnage. But these regulations have been abandoned. [NAVIGATION LAWS.] The crews of British ships may now consist wholly of Englishmen, or wholly of foreigners, or they may be mixed together in any proportion; and it is no longer necessary to carry to sea a single apprentice. The duties and rights of sailors are explained under the articles SEAMEN and MERCANTILE MARINE ACT in this work. Ready obedience to the lawful orders of their superiors, ability to discharge their duties, and alacrity in their performance, at all times and under the most perilous circumstances, are the distinguishing characteristics of good seamen.

(CROTON OIL. The expressed oil from the seeds of the *Croton tiglium*, a small tree growing in Hindostan, Ceylon, and the Moluccas, and belonging to the Natural Order *Euphorbiaceae*. The plant contains an acrid, purgative principle. These seeds have been known in Europe from the beginning of the 17th century, under the name of *Molucca* and *grana tiglia*. Unlike most fixed oils, croton oil is soluble in alcohol. It is used in medicine. It is slightly viscid; colour brownish yellow, taste acrid, odour faintly nauseous. (Pharmacopœia of the Medical Council.)

(CUBEBS (Ger. kubeben; Fr. cubèbes; Ital. cubebi; Span. cubebas; Russ. kubcbit; Arab. kubeh; Javan. kumunkus; Hin. cubab-chinie). The produce of a plant, the *Piper cubeba* of Linnaeus, and, under the Natural System, a species of

*Piperavea*. It is cultivated in Java, and grows also in Penang and other parts of the East Indies. Specimens of cubebs from Ceylon were shown in the Exhibition of 1862. It is a small urripe fruit, dried like a pepper-corn, but somewhat longer. Cubebs have a hot, pungent, aromatic, slightly bitter taste, and a characteristic odour. They should be chosen large, fresh, sound, and the heaviest that can be procured. When cubebs have been kept long, especially in powder, they lose a portion of their volatile oil, on which, it appears, their medicinal properties depend. They are said to be adulterated with Guinea grains and pimento. A duty on their importation, after being reduced in 1842 from 6d. to 1d. per lb., was repealed in 1845. Of 222,931 lbs. of cubebs imported into the United Kingdom in 1866, 89,721 lbs. came from Holland, i.e. was the produce of the Dutch East India colonies; 128,394 lbs. from the Straits Settlements, and 4,816 lbs. from other localities. The price varied from 3*l.* 10*s.* 4*d.* to 4*l.* 1*s.* 10*d.* per cwt. (Pharmacopœia of the Medical Council.)

(CUCUMBER. A tropical plant, of which there are many varieties, largely cultivated in hothouses in England.

(CUDBEAR. A purple or violet coloured powder used in dyeing violet, purple, and crimson, prepared from a species of lichen (*Lecanora tartarea*), or crustaceous moss, growing commonly on limestone rocks in Sweden, Scotland, the north of England &c. About 130 tons of this lichen are annually exported from Sweden. It commonly sells in the port of London for about 20*l.* per ton; but to prepare it for use, it must be washed and dried; and by these operations the weight is commonly diminished a half, and the price, in effect, doubled. Though possessing great beauty and lustre at first, the colours obtained from cudbear are so fugitive that they ought never to be employed but in aid of some other more permanent dye, to which they may give body and vivacity. In this country it is chiefly used to give strength and brilliancy to the blues dyed with indigo, and to produce a saving in that article; it is also used as a ground for madder reds, which commonly incline too much to yellow, and are made rosy by this addition. The name cudbear was given to this powder by Dr. Cuthbert Gorlon, who, having obtained a patent for the preparation, chose in this way to connect it with his own name. (Bancroft, *Philosophy of Permanent Colours*, vol. i. pp. 300-304.)

(CUMMIN SEED (Ger. kumin; Fr. cumin; Ital. comino, cumino; Span. comino; Arab. kumun). The seeds of an annual plant (*Cuminum Cuminum*, Linn.), a native of Egypt, but extensively cultivated in Sicily and Malta. They have a strong, peculiar, heavy odour, and a warm, bitterish, disagreeable taste. This seed, which formed a favourite ingredient in the cookery of our forefathers, has been supplanted by more agreeable condiments. It was employed in medicine, is still used in farriery, and is reported to enter into the composition of artificial food for cattle.

(CURRANTS (Fr. raisins de Corinthe; Ger. korinthen; Ital. uve passe di Corinto; Lat. passule Corinthiæ; Russ. korinka, oppek; Span. pasas de Corinto). A small species of grape, largely cultivated in Zante, Cephalonia, and Ithaca, of which islands they form the staple produce; and in the Morea, in the vicinity of Patras. The plant is delicate; and as 6 or 7 years must elapse, after a plantation has been formed, before it begins to produce, its cultivation requires a considerable outlay of capital. The crop is particularly liable to injury from rains in harvest, and is altogether

CURRENTS

of a very precarious description. After being dried in the sun, the currants are exported packed in large butts. They are in extensive demand in this country; and, when mixed with flour and suet, make a dish peculiarly acceptable to the lower classes. But, as if it had been intended to put them beyond the reach of all except the richest individuals, they were burdened down to 1831, with the exorbitant duty of 41s. *d.* per cwt. In that year, however, the duty was reduced a half, or to 22s. 2*d.* per cwt., and their importation was in consequence very materially increased. We observed in a former edition of this work that as the price of currants in bond varied from 20s. to 35s. per cwt., a duty of 22s. 2*d.* per cwt. was a great deal too high; and that it was, no doubt, owing to its amount that the consumption of currants was not materially greater. Sir Robert Peel took this view of the matter, and in 1841 reduced the duty to 15s. per cwt. The result was such as might have been anticipated. At an average of the 3 years ending with 1842, 183,836 cwt. currants were annually entered for consumption, producing an annual revenue of 212,894*l.* But at an average of the years 1849 and 1850 no fewer than 419,846 cwt. were entered for consumption, while the annual revenue was increased to 330,247*l.* and notwithstanding the farther great reduction of the duty to 7s. in 1860, 758,399 cwt. entered for consumption in 1866, 758,399 cwt. This, therefore, is one of the most memorable instances of the advantage of a judicious reduction of an excessive duty on an article in extensive demand. Besides increasing the comforts of the public and the amount of the revenue, it has given a considerable stimulus to the trade with Greece and the Ionian Islands, the currants being the principal product which they export.

In 1867, 1,002,366 cwt. were imported, valued at 909,578*l.* The price of currants in 1866 varied from 17s. 6*d.* to 20s. 2*d.*, the best as well as the largest quantity having been exported from Greece.

Currants are subject to an ad valorem export duty, which varies according to the crop. The average is about 13 per cent. By far the largest part of the currants exported are consigned to this country for home consumption.

Currants, like other kinds of grape, suffered severely by the oidium.

Imports and Price of Currants for Twelve Years ending 1866.

Year	Cwt.	Per cwt. exclusive of duty	Year	Cwt.	Per cwt. exclusive of duty
1855	165,729	61 3	1861	832,757	22 5
1856	551,725	55 4	1862	875,329	20 0
1857	398,819	57 6	1863	920,142	21 4
1858	582,500	26 8	1864	761,192	19 7
1859	557,861	50 9	1865	937,251	17 5
1860	755,112	22 6	1866	755,182	20 2

Account of the Shipment of Currants from the Morea during the Three Years 1864-66.

	1864	1865	1866
To United Kingdom	Tons 51,535	Tons 51,799	Tons 50,283
America	74	1,170	2,707
the Continent	4,185	4,825	7,768
For Orders	1,006	811	—
Total	37,117	41,595	41,093

No abatement of duties is made on account of any damage received by currants. A Treasury letter of March 30, 1816, directs the following rates to be allowed, with liberty to the

merchant and officers to take the actual rate when either party is dissatisfied.—Currants in casks from Zante 13 per cent., Leghorn 10 per cent., Trieste 10 per cent.

**CUSTOM HOUSE.** The house or office where commodities are entered for importation or exportation; where the duties, bounties, or drawbacks payable or receivable upon such importation or exportation are paid or received; and where ships are cleared out &c.

For information as to the proceedings necessary at the Custom House on importing or exporting commodities, see the article IMPORTATION AND EXPORTATION.

The principal British Custom House is in London; but there are Custom Houses subordinate to the latter in all considerable sea-port and a few inland towns.

**CUSTOMS.** Duties charged upon commodities on their being imported into or exported from a country.

Customs duties seem to have existed in every commercial country. The Athenians laid a tax of 10 per cent. on the corn and other merchandise imported from foreign countries, and also on several of the commodities exported from Attica. The *portoria*, or customs payable on the commodities imported into, and exported from, the different ports in the Roman empire, formed a very ancient and important part of the public revenue. The rates at which they were charged were fluctuating and various, and little is now known respecting them. Cicero informs us that the duties on corn exported from the ports of Sicily were, in his time, 5 per cent. Under the Imperial Government, the amount of the *portoria* depended as much on the caprice of the prince as on the real exigencies of the state. Though sometimes diminished, they were never entirely remitted, and were much more frequently increased. Under the Byzantine emperors they were as high as 12½ per cent.

Customs duties existed in England previously to the Conquest. They appear to have derived their name from having been immemorably or customarily charged on certain articles, as within the principal ferries, bridges &c. within the kingdom, and on these and other articles of national and foreign produce when exported from or imported into the kingdom. In 1206 the customs revenue of England, including that derived from tolls and fairs, was only 1,958*l.* 7s. 3*d.* It is not, therefore, true, as has sometimes been stated, that the king's first claim to the customs was established in the reign of Edward I; but that able and politic prince, by rendering the levy of the old duties more effectual, and procuring the sanction of Parliament to the imposition of new duties, was the first who made the customs revenue of any material importance. The duties were, at first, principally laid on wool, woollen (sheep-skins), and leather when exported by sea; were also extraordinary *parva customa*, to which were denominated *parva customa*, to distinguish them from the former, or *magna customa*. The duties of tonnage and poundage, as they are mentioned is so frequently made in English history, were customs duties; the first being paid on every customs duty; latter being an ad valorem duty of so much a pound on all other merchandise. When these duties were granted to the crown they were denominated *subsidies*; and as the duty of poundage had continued for a length of time at the rate of 1s. a pound, or 5 per cent., it came, in the language of the customs, to be denominated *ad valorem* duty of 5 per cent. The new duties granted in the reign of William III were denominated of 5 per cent. to the duties on mer-

ported commodities. (2) the author of this work, &c. The various customs of the first time, in a book of reign of Charles II.; a new again published in the reign exclusive of the duties on many more had been imposed by the accumulation of comp. and regulations to more productive of the state. The evil was increased by which new duties were added, being sometimes as well as at other times the contrary new standard of bulk, weight, and charged with an additional reference to the duties formerly arising from these sources augmented by the special duties, and the consequent calculation for each, fashion inseparable from a spread a serious injury to many frauds and abuses. The Customs Consolidation Act in 1787, did much to reform the existing duties on all a trade in their stead one single equivalent to the aggregate by which it had previously simple and uniform system introduced into the business. These alterations were productive. But the many changes and regulations which to a protracted struggle terminated in a great deal of the business of the Customs. Consolidation was effected in 1801, and relates relating to the customs. The existing parts of statutes, to be repealed and compressed into a code of a reasonable bulk, and of a commendable degree of perspicuity. The numerous reforms effected occasioned further changes. The various reforms effected made it necessary again to consolidate. This was accomplished by the Consolidation Act of 1853, the 16th statute, which was drawn up by the late James Wilson, Esq. Treasury, is at once brief, clear as to be level to the comprehension of those acquainted with such matters. Called by various subsequent Acts, the Customs Consolidation Act, 1853, comprises the whole of the law relating to importation, exportation, and the duties on goods, with the regulations in the coasting and inland trade. However, is only a partial consolidation, and still remains laws, it introduced some improvements. It, for instance, at least as the customs is regulated by the payment of costs, obligations on the commissioners, especially his own expenses. It is also, on the allegation of the proper duty, from seizing the amount claimed, the point should be enquired into, when, if the customs were

ported commodities. (*Treatise on Taxation*, by the author of this work, 2nd ed. p. 231.)

The various customs duties were collected, for the first time, in a book of rates published in the reign of Charles II.; a new book of rates being again published in the reign of George I. But, exclusive of the duties entered in these two books, many more had been imposed at different times; so that the accumulation of the duties, and the complex and regulations to which they gave rise, were productive of the greatest embarrassment. The evil was increased by the careless manner in which new duties were added to the old; a percentage being sometimes added to the original tax; while at other times the commodity was estimated by a new standard of bulk, weight, number, or value, and charged with an additional impost, without any reference to the duties formerly imposed. The confusion arising from these sources was still further augmented by the special appropriation of each of the duties, and the consequent necessity of a separate calculation for each. The intricacy and confusion inseparable from such a state of things proved a serious injury to commerce, and led to many frauds and abuses.

The Customs Consolidation Act, introduced by Mr. Pitt in 1787, did much to remedy these inconveniences. The method adopted was, to abolish the existing duties on all articles, and to substitute in their stead one single duty on each article, equivalent to the aggregate of the various duties by which it had previously been loaded. A more simple and uniform system was, at the same time, introduced into the business of the Custom House. These alterations were productive of the best effects. But the many changes in the customs duties and regulations which took place during the strengthened struggle terminated in 1815 having again introduced a great deal of complexity into the business of the Custom House, a new consolidation was effected in 1825. The numerous statutes relating to the customs, amounting, including parts of statutes, to about 450, were re-arranged and compressed into some half dozen statutes of a reasonable bulk, and drawn up with a commendable degree of perspicuity.

The numerous reforms effected by Sir Robert Peel occasioned further changes; and these, and the various reforms effected by Mr. Gladstone, made it necessary again to consolidate the customs laws. This was accomplished by the Customs Consolidation Act of 1853, the 16 & 17 Viet. c. 107. This statute, which was drawn up under the direction of the late James Wilson, Esq., Secretary to the Treasury, is at once brief, comprehensive, and clear as to be level to the comprehension of those not acquainted with such matters. This, though repealed by various subsequent Acts and especially the Customs Consolidation Act of 23 & 24 Viet. c. 110, comprises the whole law respecting importation, exportation, warehousing, smuggling, &c. of goods, with the regulations to be observed in the coasting and colonial trades &c. This, however, is only a part of its merit; for, by condensing and simplifying the various customs laws, it introduced some most important improvements. It, for instance, made an end, in at least as the customs is concerned, of the most vexatious regulation which, by exempting the Crown from the payment of costs, obliged a party in a suit with the commissioners, even when successful, to pay his own expenses. It also relieved all parties from the allegation of their not having paid the proper duty, from seizure on the importer's behalf, and from the amount claimed by the customs authorities should be enquired into and properly paid, when, if the customs were found to have

made an overcharge, a corresponding part of the sum deposited should be returned to the merchant, with interest at the rate of 5 per cent., and the expenses of suit. The Act further provided that an importer who considered himself aggrieved by a decision of the Board of Customs might, if he chose, have the case enquired into in open court before a commissioner, where he might meet the officer making the accusation face to face, and learn by examination and otherwise the nature of the evidence by which it was supported, and the real facts of the case. The commissioner who conducts an enquiry of this sort reports the evidence so taken to the Board, who may, thereupon, confirm or modify their decision; it being optional with the merchant either to abide by it or to carry the case before a competent tribunal. And in the event of the duty or penalty claimed being under 100*l.*, or of the case being of a simple kind, it may be tried before magistrates, county courts, and other inferior tribunals, so that the public will no longer be debarred from asserting their rights by the heavy expense attending trials in the Exchequer Court and at the assizes. The most important portions of this statute are given under the various heads to which it refers (COASTING TRADE; COLONIES AND COLONY TRADE; IMPORTATION AND EXPORTATION; SMUGGLING; &c.); but every merchant will do well to supply himself with the statute, and to make its provisions the subject of careful study.

Customs duties, like all duties on particular commodities, though advanced in the first instance by the merchant, are ultimately paid by those by whom they are consumed. When a Government lays a duty on the foreign commodities which enter its ports, the duty falls entirely on such of its own subjects as purchase these commodities; for the foreigners would cease supplying its markets with them if they did not get the full price of the commodities exclusive of the tax; and for the same reason, when a Government lays a duty on the commodities which its subjects are about to export, the duty does not fall on them, but on the foreigners by whom they are bought. If, therefore, it were possible for a country to raise a sufficient revenue by laying duties on exported commodities, such revenue would be wholly derived from others, and it would be totally relieved from the burden of taxation except in so far as duties might be imposed by foreigners on the goods it imports from them. Care, however, must be taken, in imposing duties on exportation, not to lay them on commodities that may be produced at the same, or nearly the same, cost by foreigners; for the effect of the duty would then be to make the market be supplied by others, and to put an entire stop to their exportation. But in the event of a country possessing any decided natural or acquired advantage in the production of any sort of commodities, a duty on their exportation would seem to be the most unexceptionable of all taxes. If the Chinese chose to act on this principle, and had the power, they might derive a considerable revenue from a duty on exported teas, which would fall entirely on the English and other foreigners who buy them. The coal and tin, and perhaps also some of the manufactured goods produced in this country, seem to be in this predicament.

The revenue derived from the customs duties in 1590, in the reign of Elizabeth, amounted to no more than 50,000*l.* In 1613 it had increased to 148,075*l.*; of which no less than 109,572*l.* were collected in London. In 1660, at the Restoration, the customs produced 421,582*l.*; and at the Re-

olution, in 1688, they produced 781,987*l*. During the reigns of William III. and Anne the customs revenue was considerably augmented, the net revenue was considerably augmented in 1712 being payments into the exchequer by the Peace of Paris in 1763, the net produce of the customs revenue of Great Britain amounted to nearly 2,000,000*l*.; in 1792 it amounted to 4,407,000*l*.; in 1815, at the close of the war, it amounted to 11,360,000*l*.; and in 1852 it amounted to 20,048,744*l*. 1*l*. 4*d*., and including Ireland, to 22,137,120*l*. 1*l*. 11*d*.

Within the years 1851-1865 customs duties reported to produce more than 14,000,000*l*. have been repealed, and others, reckoned at about 3,250,000*l*., have been imposed. But the customs revenue has fairly kept pace with the reductions—the amount received within this period varying from 21,000,000*l*. to 24,000,000*l*. And though, when great reductions have been made, the revenue has doubtlessly lost on some particular article, it has gained on the general consumption of duty-paying articles.

Astonishing, however, as the increase of the customs revenue has certainly been, it is not quite so great as it appears. Formerly the duties on some considerable articles, such as sugar, brandy, wine &c. imported from abroad, were divided partly into customs duties charged on their importation and partly into excise duties on their being taken into consumption. But these duties have since been wholly transferred to the customs; the facilities afforded by means of the warehousing system, for paying the duties in the way most convenient for the merchant, having obviated the necessity of dividing them into different portions.

It will be seen from various articles in this work [BRANDY; GENEVA; SMUGGLING; TEA; TOBACCO; &c.] that the exorbitant amount of the duties which have been laid on various articles imported from abroad leads to much smuggling and fraud; and requires, besides an extraordinary expens in many departments of the customs service, which might be avoided were these duties reduced within more reasonable limits. This, however, is the business of Government, and not of those intrusted with the management of the customs; and it would be unjust to the latter not to mention that this department has been essentially improved, during the present century, in respect of economy; whatever may be thought of its efficiency. The following extracts from a letter to the Right Hon. H. Goulburn, from a former chairman of the Board of Customs (R. B. Dorr, Esq.), give a brief but satisfactory view of the improvements that have been effected:—

As regards the department of customs in 1792, the principal officers engaged in the receipt of the duties in the port of London were patent officers.

The first Earl of Liverpool was collector inwards.

The late Duke of Manchester, collector outwards.

The Duke of Newcastle, and afterwards the Earl of Guilford, comptroller inwards and outwards.

Lord Stowell, surveyor of subsidies and petty customs.

These noblemen took no part in the official duties, but merely exercised the right of appointing deputies and clerks.

Both principals and deputies were remunerated by fees. The patentees received the fees denominated patent, and the deputies retained the fees

called the fees of usage for their own use. In addition to these fees, both deputies and clerks received fees for despatch.

The same system prevailed throughout the whole department. The salaries of the officers were nominal; and the principal proportion of all official income was derived from fees. These fees were constantly varying both in rate and amount, and formed a continual source of dispute and complaint between the merchant and the officer.

This system (after having been repeatedly objected to by various commissions of enquiry, and finally by the Committee of Finance in 1797) was put an end to in the year 1812 by the Act 5*t* Geo. III. c. 71, by which all patent offices and fees were abolished, and compensation allowances granted to the patent officers, and fixed salaries established.

The additional salaries granted under this arrangement amounted to about 200,000*l*., and the temporary compensation allowances to about 40,000*l*. per annum.

The fees abolished, and from which the public were relieved, amounted to about 160,000*l*. per annum.

In addition to the amount of fees from which the public were relieved, various allowances made by the Crown to officers for quarantine, seal poundage, poundage on seizures, and many other incidental allowances, which did not appear on the establishment, were also abolished, and the salaries of every officer placed at one view upon the establishment.

The effect of these salutary measures has been to give a great apparent increase to officers' salaries since 1791; and, upon a mere comparison of the establishment of 1792 with 1890, without the above explanation, it would appear that the pay of the officers had been most materially augmented. Whereas, in point of fact, the difference is in the mode of payment; and the incomes of the officers at the present period (as compared with 1792) are in general less; and, consequently, the public are less taxed for the performance of the same duties now than in 1792.

In the year 1792 the warehousing system had not been established. Officers were admitted of all ages, and there was no system of classification or promotion. The officers at the out-ports and in London were generally appointed through influence, and were too often persons who had failed in trade, or had been in menial services, who regarded their situations rather as a comfortable provision for their families than as offices for which efficient services were required. The superintendence and powers of the Board were cramped and interfered with by circumstances and considerations which prevented the enforcement of wholesome regulation. The whole system was so imperfect, so far back only as 1818, that a special commission was appointed to enquire into the department; and, upon the recommendation of that commission, various regulations have been adopted.

The age of admission has been limited, a system of classification and promotion of officers and a graduated scale of salaries, established throughout the whole department; and by means local interference in the promotion of officers has been abolished; the attendance of officers increased, regulated, and strictly confined; holidays reduced from 46 in the year to 35; Good Friday, the King's birthday, and Christmas day; useless oaths, and bonds, and forms of payments of various kinds discontinued; increased facility and despatch afforded to the merchant

business; and the accounts and returns of all kind reduced; and various establishments; the whole remoulded, and the commerce of the country.

In Ireland the number of the ports in the year 1818; and within that number and expense a rate and complaint between the merchant and the officer. Ireland have been reduced in 1818, and within that number and expense a rate and complaint between the merchant and the officer. Ireland have been reduced in 1818, and within that number and expense a rate and complaint between the merchant and the officer.

and in many cases was cured, and in which the ment might have been been at once abandoned to arrangements by which very intelligent and whose offices had been a rendered available with public.

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Defects and Improvements.—The above and reflect credit alike c the Board of Customs, withstanding, been less e been expected. Some y that extensive frauds had port of London, for a len tury of silks, gloves, an articles, through the con officers. The origin, no most similar frauds, may tancy of the then exist sequent temptation wi ngling on the part of rruption of the officers.

at the same time, abun tything like an efficient exercised by the co prior officers, these fra tried on so long, or to mmissioners could not b no common magnitude x ty of goods in the Th assured them that su dependently of this, the blished to the convicti son by comparing the h custom-house of t rys &c. from France ies of the same in our as the duty of the cor extraordinary discrepar adially entered into a origin, and not to have

business; the accounts kept in the different offices, and returns of all kinds, revised, simplified, and reduced; and various minor regulations of detail established; the whole machinery of the department remodelled, and adapted to the trade and commerce of the country.

In Ireland the number of officers employed at all the ports in the year ended Jan. 5, 1830, and the salaries and charges, did not much exceed the number and expense at the port of Dublin alone in 1818; and within the space of 11 years nearly two thirds of the officers employed at the ports in Ireland have been discontinued; the number having been, in 1818, 1,755; in 1829, 514, and an annual reduction in salaries and charges has been effected to the extent of 173,724*l.*; the amount having been, in 1818, 285,115*l.*; in 1829, 111,391*l.* (103,313*l.* of that amount having been reduced between the years 1823 and 1829), upon an expenditure of 285,115*l.*; and the receipts were nearly equal, in 1827, to those of 1818 and 1823, notwithstanding the total repeal of the cross Channel duties, amounting to about 340,000*l.* per annum, subsequent to the latter period.

Influence is no longer allowed to prevail; and in many cases which have recently occurred, and in which the patronage of Government might have been fairly exercised, it has been at once abandoned in order to give way to arrangements by which the services of some very intelligent and highly respectable officers, whose offices had been abolished, could be again rendered available with a material saving to the public.

By an order from the Lords of the Treasury, of February 20, 1830, the salaries of the commissioners, and of other officers, have been prospectively reduced, and directions given to revise the whole establishment in the spirit of that order, with a view to every possible reduction.

**Defects and Improvement of the Customs Establishment.**—The above are great improvements, and reflect credit alike on the Government and the Board of Customs. But the latter has, notwithstanding, been less efficient than might have been expected. Some years ago it was found that extensive frauds had been carried on in the port of London, for a lengthened period, in the case of silks, gloves, and other highly taxed articles, through the connivance of the customs officers. The origin, no doubt, of these, as of most similar frauds, may be traced to the exorbitance of the then existing duties, and to the consequent temptation which they held out to smuggling on the part of the importers and the corruption of the officers. But, admitting this, it is at the same time, abundantly clear that had anything like an efficient supervision and check been exercised by the commissioners and their inferior officers, these frauds could not have been carried on so long, or to such an extent. The commissioners could not but be aware that frauds of so common magnitude were taking place in the case of goods in the Thames. Private parties assured them that such was the case; and, independently of this, the fact must have been established to the conviction of every reasonable person by comparing the accounts given by the Board of Customs of the exportation of silks, gloves &c. from France for England, with the returns of the same in our customs returns. And as the duty of the commissioners, on seeing this extraordinary discrepancy, to have themselves immediately entered into a searching enquiry into the origin, and not to have devolved that duty on

others, or waited till the frauds were discovered by the confessions of some of those engaged in carrying them on.

We hope it will not be supposed, from anything now stated, that we have any wish to extenuate the guilt of the officers who participate in the plunder of the revenue; but, how much and how deservedly soever we may blame them, we need not be surprised, considering their situation in life, the smallness of their salaries, and the carelessness of their superiors, that they should sometimes yield to the powerful temptations to which they are exposed.

In 1851 the Commissioners of Customs were so ill-advised as to institute numerous actions, some of them of a very paltry description, against two of the principal London Dock Companies. We mentioned in a former edition of this work that these actions, even if the Commissioners were successful, would most probably do little more than establish some irregularity or neglect of duty on the part of the Dock Companies, whose interests, in as far as the collection of the revenue is concerned, are, in effect, identical with those of the Government. The result has more than justified these anticipations. The proceedings against the Companies, which were of a most vexatious, costly, and oppressive character, terminated in their substantial acquittal. The irregularities (for they amounted to nothing more) of which they were convicted were venial in the extreme, and, in truth, quite unworthy of public notice.

This, however, is a case in which good was educed out of evil. The extraordinary proceedings now referred to, coupled with the delays and other annoyances experienced by merchants in transacting business with the Customs, rendered that department extremely unpopular. A very general demand was in consequence made for an effectual reform of the practices followed in the Custom House, and for a reconstruction of the Board. The subject was carefully investigated by a committee of the House of Commons; and the most important object, or the simplification of the business conducted by the Customs, and the placing it on a more equitable footing, was in great measure effected by the Consolidation Act to which we have already referred. The Board was not indeed amended; but there are fewer Commissioners now than formerly, so that the responsibility attaching to each is increased, though the general opinion seems to be that they are still too numerous. It is believed that in future, when new Commissioners are appointed, they will be selected, more frequently than hitherto, from among the officers of the establishment, and the mercantile body; and this, notwithstanding the contrary opinion of the Commissioners, would probably be an improvement.

It is possible that smuggling is still carried on to some extent, and if so, that the articles of tobacco and spirits are the chief objects of this illicit trade. But we are persuaded that the practice is declining, and that it is looked on as dishonest and disreputable by almost all classes of the community, not only to break the revenue laws, but to deal with those who do so. [SMUGGLING.]

For Tariff of the United Kingdom, see **TARIFF**.

The following table gives an account of the Customs duties received on various duty-paying articles in the year 1865. Since this time, however, the duties on pepper and timber have been repealed, and that on tea has been reduced. The duties also on wines in bottle have been equalised to those on wine in wood.



for such purpose, shall be deemed to be done at the particular place so required by law; and all commissions, deputations, and appointments granted to any officers of the Customs in force at the commencement of this Act shall continue in force as if the same had been granted under the authority

of this Act, and all bonds or other securities which shall have been given by or for any such officers and their respective sureties for good conduct or otherwise shall remain in full force. (Sec. 2.)

Clause 3rd enacts that any officer taking fee or reward not authorised by law shall be dismissed.

An Account, showing the Annual Gross Receipt and Nett Produce of the Customs Revenue of the United Kingdom from 1807 to 1867, with the Charges of Collection thereon, and the Rate per Cent. of Collection on the Gross Receipt and Nett Produce respectively.

Year	Gross Receipt	Nett Produce, after Deducting Drawbacks &c.	Charges of Collection	Rate per Cent. of Collection	
				On Gross Receipt	On Nett Produce
	£	£	£	£ s. d.	£ s. d.
1807	15,091,771	12,720,373	1,020,341	6 15 3	8 0 5
1808	14,584,001	12,897,798	1,083,718	7 10 0	8 9 7
1809	16,911,909	11,714,671	1,250,777	7 5 3	8 7 2
1810	16,886,655	11,287,471	1,330,253	7 16 4	9 4 9
1811	15,110,159	13,135,673	1,403,163	9 5 9	10 13 8
1812	16,675,566	13,371,771	1,460,606	9 5 2	10 13 9
1813	16,922,891	14,477,989	1,625,515	9 12 1	11 1 7
1814	17,025,253	15,025,691	1,641,117	9 12 9	10 18 5
1815	16,325,371	13,371,690	1,659,010	10 1 3	11 5 9
1816	14,013,215	11,891,563	1,729,574	12 6 4	11 10 11
1817	15,866,613	13,745,987	1,596,159	10 1 2	11 12 3
1818	15,915,716	13,028,881	1,668,738	10 12 9	12 4 0
1819	14,765,959	12,963,273	1,699,095	10 19 6	13 8 8
1820	14,400,591	11,969,390	1,591,713	10 9 10	13 6 0
1821	14,789,705	12,654,324	1,584,825	10 0 1	12 12 1
1822	14,381,711	12,493,420	1,517,492	10 15 2	11 19 6
1823	15,504,869	13,966,154	1,567,279	10 2 3	11 4 6
1824	15,491,159	13,551,033	1,462,096	9 8 9	10 15 9
1825	20,362,653	18,915,298	1,591,793	7 7 7	7 18 0
1826	20,582,925	19,562,973	1,537,108	7 9 4	7 17 2
1827	21,099,053	19,593,393	1,490,170	7 1 10	7 9 6
1828	20,608,511	18,917,181	1,454,000	7 1 1	7 9 9
1829	20,571,837	19,298,336	1,375,573	6 13 9	7 2 6
1830	21,094,525	19,527,101	1,295,189	6 2 10	6 12 8
1831	19,634,900	18,927,017	1,315,859	6 14 2	6 13 0
1832	19,681,574	18,467,891	1,376,365	6 19 10	7 9 1
1833	18,575,183	17,809,353	1,386,361	7 9 3	7 15 8
1834	21,118,200	20,108,733	1,338,923	6 6 9	6 13 0
1835	23,148,899	22,146,018	1,356,725	5 17 2	6 2 6
1836	23,959,957	23,045,668	1,311,467	5 9 6	5 12 0
1837	22,307,616	20,865,119	1,294,816	5 13 0	5 17 4
1838	23,410,891	22,465,340	1,299,807	5 12 1	5 16 4
1839	23,508,681	23,184,082	1,290,672	5 9 9	5 11 4
1840	23,657,913	23,511,913	1,266,353	5 8 9	5 10 3
1841	23,821,406	23,515,373	1,266,510	5 6 4	5 7 9
1842	22,771,315	22,525,513	1,294,590	5 10 2	5 11 5
1843	22,830,169	22,647,200	1,251,136	5 9 6	5 10 9
1844	23,277,477	23,107,548	1,269,396	5 4 2	5 16 7
1845	22,007,578	21,706,197	1,279,914	5 16 4	5 18 0
1846	22,611,708	22,278,317	1,261,273	5 11 10	5 13 6
1847	21,928,010	21,655,662	1,309,173	6 19 6	6 0 8
1848	22,785,912	22,593,977	1,312,709	5 13 3	5 16 2
1849	22,183,956	22,268,864	1,301,727	5 15 9	5 16 11
1850	22,139,142	22,019,781	1,285,803	5 15 8	5 16 7
1851	22,373,662	22,197,075	1,299,756	5 15 4	5 16 4
1852	22,312,514	22,137,120	1,268,422	5 13 8	5 11 7
1853	22,737,284	22,515,913	1,302,721	5 11 7	5 15 9
Term ending March 31					
1855	22,215,118	21,991,675	1,256,135	5 12 11	5 11 3
1856	23,481,018	23,248,118	1,315,150	5 12 0	5 13 1
1857	23,950,528	23,489,136	1,107,554	4 12 5	4 11 8
1858	23,903,770	23,275,743	813,757	3 11 6	3 12 6
1859	24,376,189	23,998,380	938,203	3 8 9	3 9 10
1860	24,789,723	24,591,084	823,284	3 6 5	3 7 6
1861	23,516,821	23,278,250	769,063	3 5 5	3 6 1
1862	23,637,772	23,629,355	733,208	3 1 5	3 1 11
1863	24,339,083	24,038,893	726,517	2 19 8	3 0 5
1864	23,569,101	23,231,356	741,791	3 2 11	3 2 10
1865	23,084,762	22,775,662	759,207	3 6 0	3 5 8
1866	22,891,690	22,076,157	772,888	3 9 4	3 10 0
1867	23,670,593	23,107,350	781,153	3 6 3	3 7 0

Summary Account, showing the Amount of Revenue Collected by the Customs in London, Liverpool, Bristol, and the Outports of England, Scotland, and Ireland respectively in the Years ended December 31, 1861-67.

Ports	1861	1862	1863	1864	1865	1866	1867
	£	£	£	£	£	£	£
London	11,509,555	12,156,115	11,971,597	11,491,412	10,942,913	10,530,063	10,819,711
Liverpool	3,300,297	3,239,767	3,135,401	2,895,315	2,797,511	2,867,601	3,040,501
Bristol	1,336,253	1,317,177	1,150,569	1,105,910	1,174,181	1,174,181	1,110,887
Other Ports	2,078,339	2,116,984	2,128,962	2,136,692	2,193,839	2,259,065	2,184,161
Sub Ports	2,677,158	2,905,819	3,017,974	3,226,827	2,709,175	3,068,817	3,429,964
Sea Ports	2,281,671	2,299,304	2,151,599	2,047,332	2,011,603	2,086,664	2,121,539
Total	23,657,513	23,993,516	23,588,932	22,428,211	21,792,924	21,996,251	22,684,283

Declaration on Admission to Office.—Every person who shall be appointed to any office or employment in the Customs, under the control and direction of the Commissioners of Customs, shall on his admission thereto make the following declaration.

I, A. B. do declare that I will be true and faithful in the execution, to the best of my knowledge and power, of the trust committed to me, and in and inspection in the service of her Ma-

jesty's Customs; and that I will not require, take, or receive any fee, perquisite, gratuity, or reward, whether pecuniary or of any sort or description whatever, either directly or indirectly, for any service, act, duty, matter, or thing done or performed or to be done or performed in the execution or discharge of any of the duties of my office or employment, on any account whatever, other than my salary and what is or shall be allowed me by law, or by any special order of the Com-

missioners of her Majesty's Treasury, or the Commissioners of her Majesty's Customs for the time being.' (Sec. 4.)

*Hours of Attendance &c.*—The Commissioners of the Treasury may by their warrant from time to time appoint the hours of attendance of the Commissioners and officers of Customs, and of other persons in the Customs service; and the Commissioners of Customs may appoint the times during such hours at which any particular parts shall be performed. (Sec. 5.)

*Holidays.*—No day shall be kept as a public holiday by the Customs except Christmas Day and Good Friday, and such other days as may be appointed to be so kept by authority of the General Assembly, and also such days as shall have been or may be appointed for the celebration of the birthdays of her Majesty and her successors, and such days shall be kept as public holidays by the officers and servants of the dock companies in the United Kingdom. (Sec. 6.)

*Officers of Customs not to serve in public Offices.*—No commissioner, officer, clerk, or other person acting in the management or collection of the Customs shall be compelled to serve in the militia or on any jury or inquest, or to assume the office of a mayor or sheriff, or to act in any corporate, parochial, or other public office. (Sec. 7.)

*Office of Inspector General of Imports and Exports.*—The office of inspector general of imports and exports was established in 1696. The accounts of the trade and navigation of the country, annually laid before Parliament, are furnished by this office; and from the ability of the officers, and the improved manner in which these accounts are now made out, they have become of great public importance. Their accuracy must, of course, depend on the accuracy of the entries; but as respects articles on which the duties are reasonable or low, and in which, consequently, there is no great temptation to clandestine importation, they may be regarded as nearly accurate. It is now usual to give statements of the quantities of the principal articles exported and imported, as well as of their declared or real values; which is a great improvement.

**CUTLERY.** A term used to designate all manner of sharp and cutting instruments made of iron or steel, as knives, forks, scissors, razors, shears, and scythes &c. Sheffield is the principal seat of cutlery manufacture; but the small quantity of knives and other articles made in London are said to be of superior quality.

The Act 59 Geo. III. c. 7 gives the manufacturers of cutlery made of wrought steel the privilege of marking or stamping them with the figure of a hammer; and prohibits the manufacturers of any articles of cutlery, edge tools, or hardware, cast or formed in a mould, or manufactured otherwise than by means of a hammer, from marking or impressing upon them the figure of a hammer, or any symbol or device resembling it, on pain of forfeiting all such articles, and 5*l.* for every dozen. A penalty of 10*l.* per dozen, exclusive of forfeiture, is also imposed upon every person having articles of cutlery in his possession for the purpose of sale marked with the words *London* or *London made*,

unless the article so marked have been really manufactured within the city of London or a distance of 20 miles from it.

Cutlery is included in the customs returns under the same head as hardware, which comprises stoves, fenders, fire-irons, with a long list of other articles. The declared value of the exports of both descriptions of articles amounted in 1866 to 4,366,300*l.*, and in 1867 to 3,933,734*l.*

**CYPRESS.** A forest tree of which there are many varieties, the species denominated the evergreen cypress (*Cupressus sempervirens*) and the white cedar (*Cupressus Thyoides*) being the most celebrated.

The cypress is indigenous to the southern parts of Europe, and several parts of Asia, and to America. It grows to a great size, and is a most valuable species of timber. It is never attacked by worms, and exceeds all other trees, even the cedar, in durability. Hence the Athenians, when desirous to preserve the remains of their heroes and other great men, had them enclosed in cypress coffins, and hence, also, the external covering of the Egyptian mummies is made of the same enduring material. The cypress is said to live to a great age; and this circumstance, combined with its thick dark green foliage, has made it be regarded as the emblem of death and the grave.

In his *Geography and History of the Western States of America*, Mr. Timothy Flint has given the following account of the cypress trees found in the southern parts of the valley of the Mississippi:—'These noble trees rise their straight columns from a large cone-shaped buttress, whose circumference at the ground is, perhaps, 3 times that of the regular shaft of the tree. This cone rises from 6 to 10 feet, with a regular and slender taper, and from the apex of the cone towers a perpendicular column, with little taper after it. The left the cone, from 60 to 80 feet clear shaft. Near the top it begins to throw out multitudinous horizontal branches, which interlace with those of the adjoining trees, and when bare of leaves has the appearance of desolation and death, more easily than described. In the season of vegetation the leaves are short, fine, and of a verdure so deep almost to seem brown, giving an indescribable air of funeral solemnity to this singular tree. The cypress forest, when viewed from the adjacent hills, with its numberless interlaced arms covered with this dark brown foliage, has the appearance of a scaffolding of verdure in the air. It grows in deep and sickly swamps, the haunts of loathsome and ferocious animals, that are far from the abodes of man, and seems a common cause with nature against him. The cypress loves the deepest, most gloomy, and inaccessible swamps; and south of 33° is generally found covered with sable festoons of long hanging, like shrouds of mourning, almost to the ground. It seems to flourish when water covers its roots for half the year. Unpromising as are the places and circumstances of its growth, no tree of the country where it is found is so extensively useful. It is free-knots, is easily wrought, and makes excellent planks, shingles, and timber of all sorts, very durable, and incomparably the most valuable tree in the southern country of this valley.' (p. 62.)

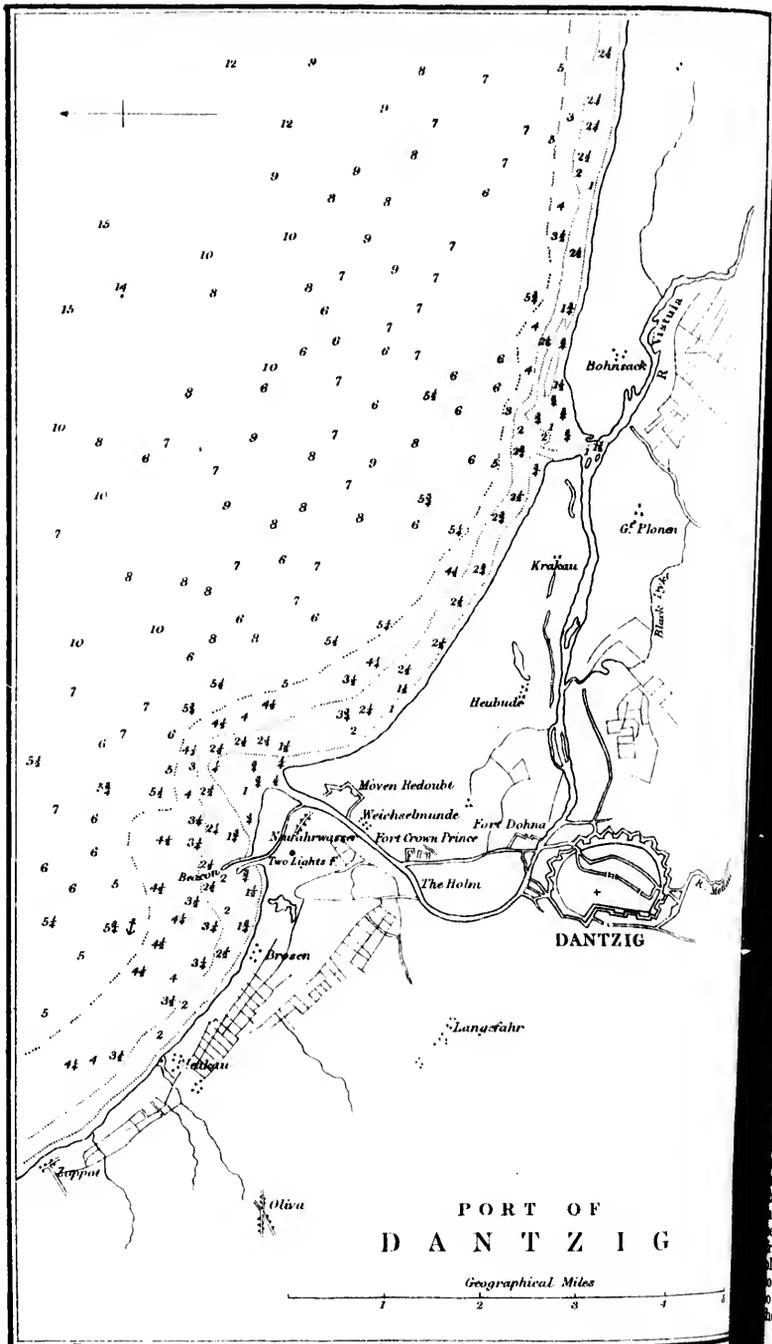
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**DAMAGED GOODS.** In the language of the Customs, goods, subject to duties, that have received some injury either in the voyage home or in the bonded warehouses.

It is enacted by the 16 & 17 Vict. c. 107 that no claim for any abatement of duty in respect of any goods imported into the United Kingdom shall be allowed on account of damage unless such claim be made on the first examination thereof, and in such form and manner as the Commissioners of Customs shall direct, nor unless it be proved to the satisfaction of the Commissioners of Customs or their officers that such damage was sustained after such goods had been shipped in the importing ship, and before the landing thereof in the United Kingdom; and all goods derelict, jetsam, flotsam, and wreck brought or coming into the United Kingdom, and all droits of admiralty sold in the United Kingdom, shall at all times be subject to the same duties as goods of the like kind on importation into the same part of the United Kingdom are subject to, unless it shall be shown to the satisfaction of the Commissioners of Customs that such goods are the growth, produce, or manufacture of any country or place by virtue whereof the same may be entitled to be admitted at less than the foreign duty, or duty free, or that the same, if liable to duty, are entitled to an abatement in respect of such damage; and the damage sustained by such goods, whether so imported or derelict, jetsam, flotsam, or wreck as aforesaid, shall be assessed by the officers of the Customs, if competent thereto, but if not, or if the Commissioners of Customs, or the collector or comptroller of the port into which the same shall be imported or brought as aforesaid, shall entertain doubt as to the amount of such damage, they may call upon two indifferent merchants to examine the goods, and certify to what extent, in their judgment, the same are lessened in value by such damage, whereupon the officers of the customs may make an abatement not exceeding  $\frac{1}{3}$  of the duty originally chargeable thereon; but no allowance shall be made for damage on cocculus indicus, auz vomica, rice, guinea grains, lemons, spirits, corn, grain, meal and flour, opium, sugar, cocoa, oranges, tea, coffee, pepper, tobacco, currants, raisins, wine, and figs. (Sec. 76.)

**DAMAR.** A kind of indurated pitch or turpentine exuding spontaneously from various trees indigenous to most of the Indian islands. Different trees produce different species of resin, which are designated according to their colour and consistence. One is called *Damar-batu* in Malay, or *Damar-selo* in Javanese, which means hard or stony resin; and another in common use, *Damar-Pitch*, or white resin, which is softer. The trees which produce the damar yield it in amazing quantity, and generally without the necessity of making incisions. It exudes through the bark; and is either found adhering to the trunk or branches in large lumps, or in masses on the ground under the trees. As these often grow near the sea-side, or on the banks of rivers, the damar is frequently floated away, and collected in distant places as drift. It is exported in large quantities to Bengal and China, and is used for the purposes to which we apply pitch, but principally in paying the bottoms of ships. By a previous arrangement

almost any quantity may be procured at Borneo, at the low rate of  $\frac{1}{2}$  dollar per picul. (Crawford, *East. Archip.* vol. i. p. 455; vol. iii. p. 420.)

**DAMASK** (Ger. damasten tafelzeug; Dutch, damaskwerk; Fr. venise, damas; Ital. tela damaschina; Span. tela damascada; Russ. Камчатнүүт салфики). A species of table linen. [LINEN.]

**DANGEROUS GOODS.** By sec. 329 Merchant Shipping Act, 17 & 18 Vict. c. 104, it is enacted that no person shall be entitled to carry in any ship, or to require the master or owner of any ship to carry therein, any aqua fortis, oil of vitriol, gunpowder, or any other goods which, in the judgment of the master or owner, shall be of a dangerous nature, and provides that notice shall be given of the character of such goods under a penalty not exceeding 100*l.* (Stevens *On Stowage*, 186 seq.)

**DANTZIC.** One of the principal emporiums of the north of Europe, in West Prussia, lat. 51° 20' 48" N., long. 18° 38' E. Population, according to census of 1864, 90,334. [GERMANY.] It is situated on the left or western bank of the Vistula, about 4 miles from its embouchure. The harbour, Neufahrwasser, at the mouth of the river, is defended on each side by pretty strong forts. The town is traversed by the small river Motlau, which has been rendered navigable for vessels drawing 8 or 9 feet water.

**Roads, Port &c.**—The road or bay of Dantzic is covered on the west side by a long, narrow, low, sandy tongue of land, extending from Reserhoff Point (on which is a light-house), in lat. 54° 50½', long. 8° 23' 15", upwards of 20 miles in an east by south direction, having the small town of Hecla, or Heel, near its termination. A light-house, elevated 123 feet (Eng.) above the level of the sea, has been erected within about  $\frac{1}{2}$  mile of the extremity of this point. The flashes of the light, which is a revolving one, succeed each other every  $\frac{1}{2}$  minute. Dantzic lies about S.  $\frac{1}{2}$  W. from the Heel; its port being distant about 4 leagues. There is good anchorage in the roads for ships of any burden; but they are exposed, except immediately under the Heel, to the north and north-easterly winds. There are harbour lights at the entrance to the port. All ships entering the Vistula must heave to about a mile off the port, and take a pilot on board; and pilots must always be employed in moving ships in the harbour, or in going up and down the river. The usual depth of water at the mouth of the river is from 12 to 13 feet (Eng.); in the harbour, from 12 to 14 feet; at the confluence of the Motlau with the Vistula, from 9 to 9½ feet; and in town, from 8 to 9 feet. Moles have been erected on both sides of the entrance to the harbour: that on the eastern side, which is most exposed, is constructed of granite; the other is partly of stone and partly of timber.

**Trade of Dantzic.**—Next to Petersburg and Stettin, Dantzic is the most important commercial city in the north of Europe. The average annual value (1862-65) of its exports is 3,063,460*l.*, and of its imports 808,174*l.* It owes its distinction in this respect to its situation; the Vistula, with its important tributaries the Bug, Narwe &c., giving it the command of a great internal navi-

gation, and rendering it the entrepôt where the surplus products of West Prussia, Poland as far as Hungary, and part of Lithuania, are exchanged for those imported from the foreigner. The exports of wheat from Dantzic are generally greater than from any other port, Odessa excepted. There are four sorts of wheat distinguished here; viz. *white, high-mixed, mixed, and red*, according as the white or red predominates. The quality of Dantzic wheat is for the most part excellent; for, though small in the seed, and not so heavy as many other sorts, it is remarkably thin skinned, and yields the finest flour. The white Polish wheat exported here is the best in the Baltic. Rye is also very superior, being both clean and heavy: the exports are comparatively inconsiderable, and the qualities but indifferent. Very fine white peas are exported. Next to grain, timber is the most important article of export from Dantzic, but latterly the supply has been diminishing, and the quality is said not to be so good as formerly. (Meek.) The principal supply of fir timber, masts &c. is brought by the river Narew, which, with its branches, rises in Old Prussia and Lithuania, and falls into the Bug near the confluence of the latter with the Vistula. Oak planks, staves &c. are brought down from the higher parts of the Vistula, and the tributary streams of Dunajetz, Wapiez &c. Salted pork, weed ashes, linseed and rapeseed, mats, bones, zinc, spruce beer, feathers &c. are also exported.

The following is an account of the shipments of grain from Dantzic in 1866:—

To	Wheat		Rye	Barley	Oats	Peas	Total
	lasts	lasts	lasts	lasts	lasts	lasts	lasts
The United Kingdom	147,255	836	6,731	677	4,224	60,023	
Belgium	1,251	—	—	—	—	1,251	
France	793	—	42	—	—	835	
Holland	3,491	77	36	—	85	3,689	
Denmark	—	932	113	—	39	1,084	
Sweden and Norway	105	1,340	464	—	300	3,009	
German Ports	—	149	2,884	365	416	40,242	
Total	153,019	11,859	7,751	1,093	5,018	78,800	

**Oil Seeds.**—These are chiefly rape. Of these were exported to the United Kingdom in 1865, 427 lasts, to Belgium 500, to Denmark 33, to France 205, to Holland 122, to Prussian ports 381, to Sweden 90. Total 1,758 lasts, valued at 425,400 thalers. In 1864 the value was 1,332,400 thalers. Considerable quantities of oil are also exported.

**Timber.**—The following is the quantity of timber exported from Dantzic in 1865:—

	Quantity	Value		Stock
		Thalers	—	
Pieces of full-sized square fir	253,067	1,910,900	351,465	
" small-sized square fir	—	—	—	
Fir deck deals	339,513	663,800	—	
Masts, spars, bowsprits	866	43,300	—	
Lathwood	5,615	65,000	—	
Oak planks	88,413	145,900	—	
Pieces of oak crooks	52,008	390,000	72,403	
Oak planks, 1st brack	7,656	72,600	14,298	
" 2nd brack	16,816	95,500	121,305	
Sleepers and sleeper logs	1,111,952	889,600	—	
Schocks of oak staves	27,141	459,000	11,566	
Other quantities	—	15,500	—	
Total	—	4,688,000	—	

Statement showing the Destination of Shipments of Timber from Dantzic in 1866.

	To Germany and North of Europe	To France, Holland, and Belgium	To the United Kingdom
Fir timber - pieces	15,199	29,758	169,299
Small timber - "	5,519	7,013	16,239
Masts and spars - "	162	4,311	106
Deck deals and deals - "	91,134	118,925	71,966
Sleepers, oak and fir - "	93,903	211,892	491,687
Lathwood - fathoms	8	9	3,909
Treenails - schocks	227	285	4,510
Oak timber &c. - pieces	7,175	16,988	24,514
Oak plank - "	7,544	1,743	36,482
Staves - schocks	8,786	5,115	17,671

The following is the value of the principal articles exported:—

	Average value of 3 years 1861-3		1861	1865
	Thalers	—	Thalers	Thalers
Wheat	15,922,255	8,332,400	8,337,323	11,117,650
Other grain	5,669,378	2,337,323	2,337,323	5,341,160
Olseeds	6,957,514	1,332,400	1,332,400	4,628,400
Timber (all kinds)	5,180,000	5,355,000	192,160	4,678,400
Oil in casks	99,569	—	—	48,100
Flax	23,197	39,993	—	—
Bones	21,353	30,000	—	41,608
Pickled Pork	25,000	125,000	—	35,000
Spruce beer	55,910	65,500	—	120,000
All other articles	200,000	204,210	—	91,599
Total	25,142,000	16,691,065	—	20,532,100

The exports to the United Kingdom in 1865 were valued at:—

Grain	1,650,000
Timber	400,000
Other articles	310,000
Total	2,100,000

The principal imports are coals from the North British ports, metals, fish (chiefly herrings) from Norway, drugs, dye stuffs, and hides. The total value is reckoned in 1866 at 6,026,224 thalers, which with the imports represents a trade of 3,693,948l.

The annual imports from the United Kingdom were, on an average of 1861-3, 410,000l.; in 1864, 367,000l.; in 1865, 591,000l.

The merchants of Dantzic are but little given to speculation; and the value of the imports into the city seldom exceeds half the value of the exports.

In addition to the Royal or Government Bank, mentioned in a subsequent part of this article, a private joint-stock bank was established in 1857.

**Shipping.**—The average number and tonnage of arrivals during the 7 years 1853-9 was 1,618 of 185,000 lasts burden; during the 5 years 1860-4, 2,728, of 281,229 lasts burden. In 1862 there were 3,200, of 327,184 lasts, which departed from the port. Some large and fine ships are built at Dantzic. Steamers from Hull and London arrive here almost every week, and steamers are now to be found in all the navigable parts of the Vistula.

The number and tonnage of the vessels that arrived at Dantzic in 1866, according to their nationality, were as follows:—

Under what Flag	Number of Vessels			Tonnage		
	With Cargoes	In Ballast		Cargoes	In Ballast	
		Total	lasts		lasts	lasts
British	233	115	748	31,676	25,873	51,549
German	553	509	1,053	70,811	56,981	127,792
Danish	52	252	284	1,903	14,792	16,695
Swedish and Norwegian	95	68	163	4,733	4,912	9,645
Dutch	109	89	198	9,083	5,627	14,710
French	5	8	13	227	308	535
Belgian	—	3	5	—	302	302
Russian	2	3	5	238	302	540
United States	—	1	1	—	210	210
Total	1,027	1,036	2,063	113,598	110,613	224,211

During the three years 1861-3 the British shipping had been 22½ per cent, but during the Danish war it rose to 35 per cent. The value of the cargoes bound for ports of the United Kingdom was estimated at the sum of 2,050,000l., the whole being 1,500,000l.

**Freights in 1865.**—Coals: per keel from Newcastle to Dantzic, to be delivered in town, 6l. 7s. 10s. Wheat, per quarter of 500 lbs. weight: London, 2s. to 4s. 6d.; to Liverpool and Ireland, 3s. 3d. to 5s.; to the east coast of England and Scotland, 1s. 6d. to 4s. 6d.; to the coal ports, 1s. to 3s. 9d. Timber, per load of fir or oak of cubic feet: to London, 16s. 6d. to 19s. 6d.;

London and Ireland, Scotland, 13s. to 21s. 3d.

The freights were money per last (1-9) Upper Vistula and from the Lower Vistula sent up the river to Prussian center to Vistula, and from 15

Duties on Pilotage and

Duties

Pilotage Duties.	Duties.
Tow drawing 6 ft. water and	7 "
" "	8 "
" "	9 "
" "	10 "

Police Passport Taxes. Total of 25 lasts, 50 tons and

Money.—Accounts vs kept in guildens, guilders The rixdollar = 3 florins = 1,602 pennings. A new system was, however, introduced by the Prussian do the decrees of September 22, 1832.

The Cologne mark (Cologne) is the weight at Prussian mint in weighing the masses of the coins previously, by carats or lot (Gros) for this purpose is now kept in the dollars (R), silver grosh = 50 sil. gr. = 12 pf. The only silver monies now in circulation, of former coinages. The Prussian silver coins are now kept in the mark is coined into 144 pieces about 2s. 11½d. sterling always strictly coincide with the gold coins are Frey and half pieces. The Prussian 200 grains of fine gold. The Fred. d'or is worth 5 dol. 22 sil. g.

**Weights and Measures.** 32 lbs = 1 ton 16 ounces = 1 po 104 pounds = 1 li 20 pounds = 1 bu 55 pounds = 1 bar

1 centner = 112 lbs 100 lbs = 1 cwt 100 lbs = 1 cwt 100 lbs = 1 cwt

100 lbs = 1 cwt 100 lbs = 1 cwt 100 lbs = 1 cwt

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100 lbs = 1 cwt 100 lbs = 1 cwt 100 lbs = 1 cwt

London and Ireland, 17s. to 22s.; east coast and Scotland, 15s. to 24s.; to the coal ports, 11s. to 18s. 6d.

The freights were from 80s. to 66s. in English money per last (1-9684 tons avoirdupois) from the Upper Vistula and its tributaries, and 21s. to 51s. from the Lower Vistula. The freight for goods sent up the river varied from 12s. to 18s. per Prussian centner to places situated on the Lower Vistula, and from 15s. to 30s. to Warsaw.

**Duties on Pilotage and Police Passports at Dantzic.**

Duties	Prussian and privileged Foreign Flags		Foreign Flags not privileged	
	th.	sh. pf.	th.	sh. pf.
<b>Pilotage Duties.</b>				
Tonnage drawing 6 ft. water and under	1	15 0	2	0 0
7 " " "	2	15 0	3	0 0
8 " " "	3	0 0	3	15 0
9 " " "	3	15 0	4	0 0
10 " " "	4	0 0	5	0 0
<b>Police Passport Taxes.</b>				
Tonnage of 25 tons, 50 tons and under	1	10 0	1	25 0
50 " " "	1	17 6	2	0 0
100 " " "	1	25 0	2	5 0
200 " " "	2	7 6	3	5 0
300 " " "	3	5 0	4	15 0

**Money.**—Accounts used formerly to be wholly kept in guildens, guilders, or florins of 30 groschen. The rixdollar = 3 florins = 90 groschen = 270 schillingen = 1,620 pennings. The florin or guilder = 9d. sterling, and the rixdollar = 2s. 3d.

A new system was, however, introduced into all parts of the Prussian dominions, conformably to the decrees of September 30, 1821, and of June 21, 1832.

The Cologne mark (containing 3,609 Eng. grains) is the weight at present used in the Prussian mint in weighing the precious metals. The fineness of the coins is not determined, as previously, by carats or loths, but the mark is divided for this purpose into 288 grains. Accounts are now kept in the public offices in thalers or dollars (R.), silver groschen, and pennings; 1 thal. = 30 sil. gr. = 12 pf.

The only silver money now coined are dollars and 1/2 dollar pieces; but smaller coins are in circulation, of former coinages.

The Prussian silver coins have 1/4 of alloy; and the mark is coined into 14 dollars, each should contain 257.68 Eng. grains pure silver, and be worth about 2s. 1 1/2d. sterling; but the assays do not always strictly coincide with the mint valuation.

The gold coins are Frederick d'ors, double, single and half pieces. The mark of 288 grains, being 260 grains of fine gold, is coined into 35 d'ors. The Fred. d'or is worth from 5 dol. sil. gr. to 5 dol. 22 sil. gr., according to the market.

**Weights and Measures.**—The commercial weights are—

32 loths	= 1 ounce.
16 ounces	= 1 pound.
16 pounds	= 1 he-pound.
20 pounds	= 1 small stone.
32 pounds	= 1 large stone.
1 centner, 3 centners	= 1 shippond (330 lbs.); 100 lbs. of Prussia = 105 lbs. avoirdupois = 46.85 kilogram = 917 lbs. of America = 96 lbs. of Hamburg.
1 cental	= 1-9684 ton.
measured or shipping last	= 1/3 register ton.
measured cental	= 110/2317 lbs. avoirdupois.
measured quarter	= 5-2904 scheffels.
measured (Prussian)	= 1-512 bushel.
measured (English)	= 0.925 of an English acre.
measured (Prussian)	= 1/60 scheffels of imported grain.
measured (English)	= 1/56 " " of exported "

The liquid measures are, for beer—

5 quarts	= 1 anker.
4 ankers	= 1 ohm.
1/2 ohm	= 1 hhd.
2 hhd.	= 1 hoh.
2 hoh.	= 1 fuder.
2 fuder	= 1 last = 620.4 Eng. wine gallons.

The measure, which is less than beer measure, is called = 30 3/4 Eng. gallons. The pipe = 2 ahms.

The last of corn = 5 1/2 malters = 60 scheffels = 240 viertels = 960 metzen; and weighs 4,680 lbs. Dantzic weight in rye. The scheffel = 5.47 of a hectolitre = 1.552 Winchester bushel. Hence the last of 60 scheffels = 11 quarters 3 bushels; the last of 56 1/2 scheffels = 10 quarters 7 bushels.

The Dantzic foot = 11 1/3 Eng. incl. or 100 Dantzic feet = 94.16 Eng. feet. The ell is 2 feet Dantzic measure. The Rhineland or Prussian foot = 3138 French metres, or 12.556 Eng. inches; hence 100 Prussian = 102.8 Eng. feet. The Prussian or Berlin ell has 25 1/2 Prussian inches = 26.256 Eng. ditto. 100 Berlin ells = 72.93 Eng. yards; and 137.142 Berlin ells = 100 Eng. yards. 14 1/2 Prussian miles are equal to 15 geographical miles.

Oak planks, deals, and pipe staves are sold by the schock of 60 pieces; wheat, rye &c. are sold by the last of 56 1/2 scheffels. (Kelly's *Cumbist*; Nelkenbrecher, *Manuel Universel*.)

**Corn Trade of Dantzic.**—The reader will find under the head **CORN LAWS AND CORN TRADE** a pretty full account of the Polish corn trade; but the importance of the subject will excuse our giving a few additional details. Grain is almost wholly brought to Dantzic by water, in flat-bottomed boats suited to the navigation of the Vistula, Bug &c. Mr. Consul Gibson estimated the expense of the conveyance of wheat and rye hither, including the duty at Thorn and the charges of turning on the river till put into the granary, as follows:—

	per imp. qr.
	s. d. s. d.
From the upper provinces on the Bug, a distance of from 700 to 500 miles	9 2 to 7 10
From the provinces of Cracow, Sandomir, and Lublin, 350 to 330 miles	6 6 5 4
From Warsaw and its neighbourhood, about 210 miles	4 9 3 11
From Wlaczawek and its neighbourhood, about 110 miles	4 2 3 5
From Grandentz, a distance of about 70 miles, no duty at Thorn, and when not turned on the river	0 10 0 9

N. B.—These are the ordinary charges; but they are higher when there is any unusual demand for exportation.

The Bug has many windings, and its navigation, which is tedious and uncertain, can only be attempted in the spring, when the water is high. It is the same, though in a less degree, with some of the rivers that fall into the Vistula before it reaches Warsaw; and towards Cracow the Vistula itself is frequently unnavigable, especially in dry seasons, except in spring, and after the mid-summer rains, when the snow melts on the Carpathian mountains. The navigation of the Polish rivers in some seasons is more than usually bad. The corn from the upper provinces does not reach Dantzic till from 2 to 4 months later than usual, and is burdened with a very heavy additional expense. In fact, the supplies of grain at Dantzic depend quite as much on the abundance of water in the rivers, or on their easy navigation in summer, as on the goodness of the harvests.

'There are,' says Mr. Jacob, 'two modes of conveying wheat to Dantzic by the Vistula. That which grows near the lower parts of the river, comprehending Polish Russia, and part of the province of Plock, and of Masovia, in the kingdom of Poland, which is generally of an inferior quality, is conveyed in covered boats, with shifting boards that protect the cargo from the rain, but not from pilfering. These vessels are long, draw about 15 inches water, and bring about 150 quarters of wheat. They are not, however, so well calculated for the upper parts of the river. From Cracow, where the Vistula first becomes navigable, to below the junction of the Bug with that stream, the wheat is mostly conveyed to Dantzic in open

flats. These are constructed on the banks, in seasons of leisure, on spots far from the ordinary reach of the water, but which, when the rains of autumn, or the melted snow of the Carpathian mountains in the spring, fill and overflow the river, are easily floated.

Barges of this description are about 75 feet long, and 20 broad, with a depth of 2½ feet. They are made of fir, ruddely put together, fastened with wooden treenails, the corners dovetailed and secured with slight iron clamps—the only iron employed in their construction.

A large tree, the length of the vessel, runs along the bottom, to which the timbers are secured. This roughly cut keelson rises 9 or 10 inches from the floor, and hurdles are laid on it, which extend to the sides. They are covered with mats made of rye-straw, and serve the purpose of damming; leaving below a space in which the water that leaks through the sides and bottom is received. The bulk is kept from the sides and ends of the barge by a similar plan. The water which these ill-constructed and imperfectly caulked vessels receive is dipped out at the end and sides of the bulk of wheat.

Vessels of this description draw from 10 to 12 inches water, and yet they frequently get aground in descending the river. The cargoes usually consist of from 180 to 200 quarters of wheat.

The wheat is thrown on the mats, piled as high as the gunwale, and left uncovered, exposed to all the inclemencies of the weather, and to the pilfering of the crew. During the passage the barge is carried along by the force of the stream, oars being merely used at the head which are numerous and shifting, and to direct the vessel in passing under the several bridges. These vessels are conducted by 6 or 7 men. A small boat precedes, with a man in it, who is employed sounding, in order to avoid the shifting shoals. This mode of navigating is necessarily very slow; and during the progress of it, which lasts several weeks, and even months, the rain, if any fall, soon causes the wheat to grow, and the vessel assumes the appearance of a floating meadow. The shooting of the fibres soon forms a thick mat, and prevents the rain from penetrating more than an inch or two. The main bulk is promoted by this kind of covering, and, when that is thrown aside, is found in tolerable condition.

The vessels are broken up at Dantzic, and usually sell for about ¼ of their original cost. The men who conduct them return on foot.

When the cargo arrives at Dantzic or Elbing, all but the grown surface is thrown on the land, spread abroad, exposed to the sun, and frequently turned over, till any slight moisture it may have imbibed is dried. If a shower of rain falls on the shore during the night, the heaps of wheat on the shore are thrown together in the form of a steep roof of a house, that the rain may run off, and are covered with a linen cloth. It is thus frequently covered with a long time after the wheat has reached Dantzic before it is fit to be placed in the warehouses.

The warehouses (*speichers*) are very well adapted for storing corn. They consist generally of 7 storeys, 3 of which are in the roof. The floors are about 9 feet asunder. Each of them is divided by perpendicular partitions the whole length, about 4 feet high, by which different parcels are kept distinct from each other. Thus the floors have 2 divisions, each of them capable of storing from 150 to 200 quarters of wheat, and leaving sufficient space for turning and screening it. There are abundance of windows on each floor, which are always thrown open in dry weather to ventilate the corn. It is usually turned over 3 times a

week. The men who perform the operation throw it with their shovels as high as they can, and thus the grains are separated from each other, and exposed to the drying influence of the air.

The whole of the corn warehouses now left (for many were burnt during the siege of 1814) are capable of storing 500,000 quarters of wheat, supposing the quarters to be large enough to fill each of the two divisions of the floors with a separate heap; but as of late years it has come down from Poland in smaller parcels than formerly, and of more various qualities, which must of necessity be kept distinct, the present stock of the whole of those warehouses which are in repair, or are advantageously situated for loading the ships. Ships are loaded by gangs of porters with great despatch, who will complete a cargo of 500 quarters in about 3 or 4 hours. (*First Report.*)

Mr. Meek gives, in his excellent *Report on the Prices of Corn and other Articles in the North of Europe*, the following details with respect to Dantzic:—

Wheat of moderate quality in ordinary seasons cannot be brought from Poland and delivered at Dantzic at less than 35s. per quarter, and that only when no excitement exists in the foreign markets. Some time since a very large accumulation of grain had in the course of several years taken place in the granaries at Dantzic; but the great export which has occurred during the last 2 or 3 years has so reduced the magazines, that the stock at the close of the present season (1814) was not expected to exceed from 80,000 to 100,000 quarters. The demand has been so great during the last 2 or 3 years, that every effort has been made to collect in Poland all the supplies that were available, and to bring them to Dantzic for exportation. If the corn trade in England was modified as to be constantly open at a moderate duty, it is not likely, under such circumstances, that shipments of wheat from Dantzic would materially exceed that of the last 2 or 3 years. Not more than 5,000 quarters are consumed annually in Dantzic by a population of 60,000 persons, the people generally preferring and living upon rye bread. Of the corn exported from Dantzic, one-third comes from that part of Poland which belongs to Prussia, and the remaining two-thirds from the Russian territory. Apprehensions were expressed here, as in other places, of the competition of Odessa and America in the event of any material reduction of the duty on corn in England. The party making the observation, who is a leading corn merchant in Dantzic, said he had at that moment a cargo of Odessa corn in London which stood him in 49s. per quarter, and that he could purchase there Odessa wheat of similar quality at 48s. per quarter. The same apprehensions were expressed by others as to Odessa, exports from which place having already been largely made to Italy and other parts of the Mediterranean; and recently, it was added, several cargoes had been shipped to England. On pressing one of the most intelligent merchants in Dantzic to state what price was paid to the landed proprietor or farmer in Poland for a quarter of wheat on the estate where it was grown, he replied that it was generally bought by the Jews upon the estates from the landowners or their agents, and afterwards sold by the former to the merchants at Dantzic, deliverable at Dantzic; but in some instances the princes and great landowners sent their own commissioners to Dantzic to effect sales to the merchants; that a Russian prince, who had 10,000 serfs, had acted upon the

principle very recent instances it would not per quarter as the there was a fair aver at Dantzic, from which for the expense of bri growth to Dantzic, generally very consi which are broken up pared with their origin to 400 or 500 thalers, about 40), the expen persons navigating the 3 or 4 months, and ret there would be left 2 paid to the proprietor of which he had to be to pay the interest an mortgage which mig what would remain fo embarked in the soi generally considered a expenses; but that dependent upon the les, from which the siderable quantity o Dantzic to Great Brita listed and sent down was made to the Com employed in this trad of 2s. per cwt. had r nominal purpose of r that it was a heavy t and that a representa necessary to obtain it

(Of the timber and nearly the whole co Prussian timber is b that from the Russi quality, is much redu to good as formerly. most of the good recently got about h it is said, but little without going much ing places, which th present timber du be obvious that whe place either in the c Russia will be much so far as relates to th om Dantzic.)

*Timber Trade, B* brought down in its n logs, or sawn int labourers cannot be axes shipped here a reckoned superior to The expenses of uared timber, inclu

From the Rug -  
Wierze (above  
Vantia (above

ing higher when eat, or when hand At Dantzic, as wel d several other B packers) are appo me certain artic to classify them res and timber of pine wood, are sut ility is branded ality; Brack; and ucks Brack. All

principle very recently; that under such circumstances it would not be right to take less than 35s. per quarter as the price at which wheat, when there was a fair average crop, could be delivered at Dantzic, from which, deducting 12s. per quarter for the expense of bringing it from the place of growth to Dantzic, including waste, which is generally very considerable, cost of the boats, which are broken up and sold for a trifle compared with their original cost (amounting, perhaps, to 400 or 500 thalers, whereas they are only sold for about 40), the expense of the peasants and other persons navigating them for a voyage, sometimes of 3 or 4 months, and returning back to Poland on foot, there would be left 23s. per quarter as the price paid to the proprietor at the place of growth; out of which he had to bear the expense of cultivation, to pay the interest and redeem the capital of any mortgage which might exist, the residue being what would remain for rent and interest of capital embarked in the soil. He added that this was generally considered as an average estimate of the expenses; but that they would vary a little, dependent upon the distance, either greater or less from which the corn was brought. A considerable quantity of bones are exported from Dantzic to Great Britain, many of which are collected and sent down from Cracow. Complaint was made to the Consul by the merchant chiefly employed in this trade, that a heavy transit duty of 2s. per cwt. had recently been levied for the nominal purpose of repaving the turnpike road, that it was a heavy tax in proportion to the value, and that a representation from England was alone necessary to obtain its repeal.

Of the timber and staves shipped at Dantzic, nearly the whole comes from Russian Poland. Prussian timber is becoming scarce; and even that from the Russian territory, that is of good quality, is much reduced, and has of late not been so good as formerly. This is owing, principally, to most of the good timber that could be conveniently got afloat having been felled. There is, it is said, but little of good quality now to be had without going much farther back from the shipping places, which the discouragement given by the present timber duties prevents. It will hence be obvious that whenever any alteration takes place either in the corn trade or timber duties, Prussia will be much more benefited than Prussia, so far as relates to the export of corn and timber from Dantzic.

**Timber Trade, Brack.**—Fir timber is usually brought down in its natural state, and is squared to logs, or sawn into planks, in winter, when the broucers cannot be otherwise employed. The staves shipped here are carefully assorted, and are reckoned superior to those of America.

The expenses of the water conveyance of squared timber, including duty at Thorn, are—

		Per piece.			
		s.	d.	q.	d.
From the Bug	from about	6	0	5	9
Wlpeze (above Warsaw)	"	4	6	4	4
Vistula (above "	"	3	0	2	4

higher when the demand is unusually great, or when hands are scarce. At Dantzic, as well as at PETERSBURG, Riga, and several other Baltic ports, sworn inspectors (brackers) are appointed by authority to examine certain articles intended for exportation, and to classify them according to their qualities. Staves and timber of all sorts, with the exception of pine wood, are subjected to the brack. Prime quality is branded *Krohn* or *Crown*; second quality, *Brack*; and the third or lowest quality, *Bracks Brack*. All unmerchantable articles are

rejected by the brackers, and are not allowed to be exported.

The gauge for crown pipe staves, which the bracker has always in his hand, is 4½ inches broad, 1½ thick, and 64 inches in length, which they must be at least; but they are expected to be larger in every respect.

Pipe staves are from 64 to 68 inches long; 6, 5, and 4½ at least, broad; and from 1½ to 3 inches thick.

Brandy staves are at least 54 to 58 inches long, as thick and broad as pipe staves.

Hoghead staves are 42 to 45 inches long, as thick and broad as pipe staves, all English measure.

The quality is ascertained by marks, to distinguish each sort, as follows:—

- Crown pipe staves, stamped at the end, K. brack, in the middle, 1.
- Bracks brack, 11.
- Hoghead crown, at the end, O K. brack, in the middle, 1.
- Bracks brack, 11.
- Brandy hoghead crown, at the end, H K. brack, in the middle, 2.
- Bracks brack, 22.

Oak planks are assorted in the same manner. Crown plank is marked in the middle, C. Brack, in the end and middle, B. Bracks brack, B B.

To distinguish 1½ from 2, and 2½ from 3 inches, the 1½ are marked with I, and 2½ with 2.

At the end, in rough strokes, with coloured paint, brack is yellow I; bracks brack, white II; Crown, red III.

Staves are subjected to the brack. The calcined are opened and the crust taken off; others are not examined unless there be any suspicion of their quality, or the staves of the hoghead be supposed to be too thick. Every cask of potashes is opened.

SHIPPING CHARGES AND DUTIES.

Charges upon the Shipment of 1,000 Quarters of Corn at Dantzic in English Money.

Metage in granary	-	-	-	£	5	0	0
Delivery	-	-	-	1	4	6	
Porterage down	-	-	-	9	0	0	
Meters' fee	-	-	-	2	0	0	
Town dues	-	-	-	3	15	0	
Litherage	-	-	-	10	0	0	
Expenses to the roads	-	-	-	2	10	0	
				£35	9	6	

Exclusive of commission, 2 per cent.

The above are the charges if bought and shipped from the granary; but if bought and warehoused previously to shipping, the following additional charges are incurred:—

Metage from Craft.

Porterage up, meters' fees, and town dues are the same.

Additional.

Granary rent	-	3d.	
Labourers	-	6	per last of 10½ quarters per month.
Turning	-	7½	
Exclusive of insurance against fire.			

Charges on the shipment of—

Pearlashes	-	about	0 10	per shippound of 350 lbs.
Weed ashes	-	"	0 6	barrel do.
Fir timber	-	"	0 30	load.
On Deck deals	-	"	0 25½	load.
Deal ends	-	"	1 0	Esthom.
Lathwood	-	"	2 0	school of 60 pieces.
Clapboards	-	"	1 10	load.
Oak planks	-	"	15 10	millie pipe.
Oak ends	-	"	0 7½	last of 11 kegs.
Staves	-	"	2 0	100 lbs.
Black or spruce beer	-	"	2 0	
Feathers	-	"	2 0	

N.B.—The Prussian pound is about 3½ per cent. heavier than the English pound. The expenses

of sending goods down are taken at about an average rate; but if the whole or the greater part of the cargo were loaded in the Fairwater or roads, the expenses would be somewhat more.

**Port Charges.**—The charges on a ship of 200 lasts, or about 300 tons burden, are—

	R. s. g. pf.
Harbour money	5 20 5
Ditto in gold (say in Fred. d'ors, reckoned at 5 r., in which this must be paid)	11 5 8
River money	0 0 0
Commercial contribution	3 10 0
Expedition rapen	13 10 0
Captain's allowances &c. expenses on shore	16 20 0
Tracking the ship into the harbour (Fairwater)	2 0 0
Ballast money &c.	10 24 0
Pilot to the ballast wharf	4 0 0
Ditto moving the ship in Fairwater	2 15 0
Police passport	5 5 0
Clearing the vessel in and out	16 20 0
Making 2 r. 6 s. 6 d. sterling, at the exchange of 6 r. 25 s. gr.	175 17 4

The charges on the ships of all countries having reciprocity treaties with Prussia (which is generally the case) are the same, only Dantzic captains receive no allowance for shore expenses. River or stream money is only paid by vessels that bring goods to town, or load in the Motlau (above the blockhouse): if a ship remain in the Fairwater or Vistula, the river money is levied on the craft carrying the goods, and falls on the latter.

Mr. Consul White, in his *Report* for 1866, gives reason to hope that the Dantzic harbour dues will be forthwith reduced.

Dantzic is a favourable place for ships creening and repairing, and for obtaining supplies of all sorts of sea stores at a reasonable rate.

There belonged to the port, January 1, 1867, 13 steamers and 130 sailing vessels, measuring in all 38,357 Prussian lasts. Most of them are employed in foreign trade. The port has no fishery, and no coasting trade worth mentioning. The wages of Dantzic seamen vary from 30s. to 32s. per man per month.

**Custom House Regulations.**—The shipmaster must, within 24 hours after arrival in port, make a declaration of the cargo on board, and of the ship's provisions, and he incurs a severe penalty if the declaration do not prove correct. The ship's hatches (if goods are on board) are sealed on arrival, and an additional declaration is accepted before they are unsealed; but no *later* declaration supplementary or explanatory of the first, and no submitting the goods to investigation by the officers, is received or allowed. If the shipmaster be unable to make a complete declaration on arrival, a Custom House officer is put on board, who remains until the ship is unloaded, at an expense to her of about 2s. per day and night. The cargo can only be discharged in presence of a customs officer.

The shipmaster, and not the receiver of the goods, is made responsible if the contents of the packages do not correspond with his declaration; and he is only exonerated from this by solemnly averring, on making the declaration, that the contents are unknown to him. An evident mistake or oversight is treated as rigorously as an intentional fraud.

On commencing to *load*, the shipmaster receives a blank loading list, in which he must daily note the articles he takes on board, or he is liable to fine; but this regulation is not very rigidly enforced. On clearing out, this list is compared with the goods entered by the vessel, when the sea passport is given.

Ballast can be discharged only at stated places, on pain of the shipmaster being fined.

It is material, however, to observe that the whole Custom House business of the shipmaster is conducted by Custom House brokers, so that he is never at a loss, being informed by the one he

selects what he has to do. Alterations are frequently made in the Custom House regulations.

The shipmaster receives, on arrival, from the pilot commodore, a copy of the harbour regulations, in his own language, with instructions how to act as to ballast.

**Warehousing.**—Such goods as pay a higher duty than  $\frac{1}{2}$  a dollar per centner (about 1s. 5d. for about 113 lbs. English) may be placed in the king's stores (nowhere else), and remain there for 2 years without payment of duty. No allowance is made for waste or damage in these stores. Other goods, not capable of being changed, may be placed in private stores, under the king's lock; but not elsewhere, without permission. No rent is charged for goods in the king's stores during the first 3 months; afterwards about 1 $\frac{1}{2}$ d. monthly rent is charged for the first, and about 3d. monthly for the second year, per centner of about 113 lbs. English.

In private warehouses, the monthly rent for 10 quarters of wheat or other grain is from about 3 $\frac{1}{2}$ d. to 7d., or more, according as warehouse room is abundant or otherwise. Other goods do not usually pay by the piece, but part of a store is hired for them, and the rent generally comes somewhat higher in proportion.

The cost of rent and turning grain is from 1s. 2d. to 1s. 6d. monthly, for 10 quarters, according to the season of the year and other circumstances; but more when granary room is scarce, and wages high.

**Banking Establishments.**—There is none such here, excepting a branch of the Royal or Government Bank of Berlin. This was founded partly in the view of receiving deposits of money under litigation in the courts of the province; money the property of minors and charitable institutions, the former until disposable or placed on good security; and moneys belonging to individuals not merchants, and at times also those of the latter. Interest is paid on such deposits as follows:—

3 per cent. on sums belonging to minors, and sums deposited by the courts of justice, and 2 per cent. on all other deposits.

The principal is de mandable at pleasure, unless otherwise stipulated. The bank makes advances on grain and some other kinds of goods at 5 per cent. interest; discounts bills with 3 signatures, not having more than 2 months to run, at 6 per cent., and sometimes, when money is plentiful, at a lower rate. It also makes advances at 4 per cent. on deposits of Frederick d'ors and certain foreign moneys; and it occasionally buys bills for account of, and sells bills on, the Berlin Bank. It does not issue notes. The amount of its capital is not fixed; but Government guarantees its transactions. It is relieved from the payment of postage on money, and it is not required to use the stamp fixed by law on bills for its deposit transactions, but only those of 10 s. gr. (about 11 $\frac{1}{2}$ d.); while individuals must use stamps for such bills of 5 r. gr. for every 400 r. of not longer date than 3 months, and for every 200 r. of longer date.

On negotiable bills, however, the bank must use the stamps fixed by law, say of 5 s. gr. (about 5 $\frac{1}{2}$ d.) for sums of 50 dols. to 400 dols., and at the same rate for every additional sum between 100 dols. and 400 dols.

Bills from and on foreign places, negotiated at Dantzic, are not subject to the stamp duty.

The affairs of the bank are not made public. Being a Government concern, there are no dividends. It is not supposed to be very profitable, although enjoying the advantages of exemption from postage of moneys, and paying less stamp

duty. It is the case of the borrower.

**Credit.** Brokers signed from a rarely turn to sell for cash, credit, or longer payments, which is convenient, but it varies or otherwise.

Any person is any one of go to transact business; but broke of the Corporation regency of the magistracy of the The usual rate

3 per cent. on sums with from 1 to 2 1/2 per cent.

The corn factor sterling per last from the buyer, and the rates of bro

11 s. gr. nearly 1 s. 2 1/2 d. 3 1/2 d. 4 1/2 d. 1 per cent. for bills on Berlin 1 per cent. on moneys placed on hand from the borrower 1 per cent. from the lender 1 per cent. usually for short 1 per cent. on the actual in public funds, from bank 1 per cent. usually (sometimes less) for exportation, rent, to be paid by the seller, and of 50 sheets.

Burgers, being n without direct autho sale of goods to, Po goods bought, and 1 according to circum

**Bankruptcies** are here. Their most are speculations in obtain a discharge ex without which they each individual credi any time, if he ce property, although th by judicial authority of settlements in co creditor desirous of s hence few insolvents affairs being brought observed that credito force, must by law be with only book claim avoid the tardiness here generally agree half as much in com ent. It is, however, position, as each cr comes; and those w more, at least private of composition offered

If a private compos the insolvent is requi affairs being put into that, if a small portio except the dividend wi

to consent, or become producing as much tin may be made, that t very seldom resorted to however, generally

duty. It is true, however, that the direct advantage of the lower stamp duty is enjoyed by the borrower.

**Credit, Brokerage &c.**—Very few goods are consigned from abroad for sale, for such consignments rarely turn to good account. Imports are seldom sold for cash, but generally at 1, 2, and 3 months' credit, or longer. The discount allowed for cash payments, when sold on time, is usually 6 per cent. but it varies according as money is plentiful or otherwise.

Any person being a burgher of the town (which any one of good character may become) may transact business as a commission merchant or factor; but brokers must be chosen by the elders of the Corporation of Merchants, approved by the regency of the province, and sworn in by the magistracy of the town.

The usual rates of commission are—

3 per cent. on wood articles exported.  
 2 " " other goods " " " " " "  
 and from 1 to 2 per cent. on do. for del credere or guarantee of debts.

The corn factor receives r. 1.7 (about 4s. 9d. sterling) per last (of 60 scheffels) of all grain from the buyer, and 1 per cent. from the seller.

The rates of brokerage are—

1/2 s. gr. (nearly 1s. 2 1/2 d.) per 100 l.  
 3/4 " " " " " " " " " " " "  
 1 per mille for bills on Berlin, Warsaw, and Paris.  
 1 per cent. on moneys placed at interest, for a period not less than 6 months, from the borrower, and  
 1 per mille from the lender.  
 1 per cent. usually for short discounts, from both parties.  
 1 per cent. on the actual or the computed amount of transactions in public funds, from both parties.  
 1 per cent. usually (sometimes more or less) for merchandise, (to be paid by the seller, the broker being recently fixed at 1 per cent. on the sale of the goods, the buyer refunding to him 5 s. gr. per last of scheffels.

Burghers, being merchants, may act as brokers, without direct authority, in the purchase from, and sale of goods to, Poles, receiving 1 per cent. on goods bought, and 1 to 2 per cent. on goods sold, according to circumstances.

**Bankruptcies** are not of frequent occurrence here. Their most prevalent sources at present are speculations in grain. Bankrupts cannot obtain a discharge except by private composition, without which they always remain responsible to each individual creditor, who can attach them at any time, if he can show that they possess property, although their affairs have been settled by judicial authority. This, and the tediousness of settlements in court, make both debtor and creditor desirous of settling by composition; and hence few insolvents are made bankrupt by their affairs being brought into court. It is to be observed that creditors, having claims by bills in force, must by law be paid to the full, before those with only book claims receive anything; but to avoid the tardiness of the court, bill creditors here generally agree to let book creditors receive half as much in composition as they themselves get. It is, however, difficult to arrange a composition, as each creditor can make his own terms; and those who hold out generally get more, at least privately, than the ostensible rate of composition offered by the debtor.

If a private composition cannot be effected, and the insolvent is regularly made bankrupt by his affairs being put into court, the law prescribes that if a small portion of the creditors will not accept the dividend with which the greater portion are satisfied, the latter can require the former to consent, or become responsible for the estate producing as much finally; but so many objections may be made, that this compulsive measure is very seldom resorted to. A private composition is, however, generally preferred by all parties,

more particularly by the debtor, as being the only means by which he can become entirely free, and get a general discharge.

Honest bankrupts, whose affairs are brought into court, may be freed from personal arrest by faithfully delivering up all their property. Dishonest ones, upon conviction, are punished by being sent to the House of Correction; but they often escape punishment, from the too great laxity in enforcing the laws in criminal matters.

The creditors of a bankrupt estate brought into court rank under 8 different classes, each prior class enjoying a precedence of claim over those following, to the full amount. The 2 most considerable classes, in general, are the 6th and 7th, the former being that of the bill, the latter that of the book creditors.

**Tares &c.**—The duties are in general payable on the gross weight; a fixed allowance being made, in many cases, according to the packages; in others there is no allowance. The tariff specifies the particular regulations on this point. The tare on goods in single sacks is 4 lbs. per centner (about 113 lbs. English), it being left to the option of the receiver to have the nett weight ascertained.

In trade there are fixed rates of tare only on the following goods; viz.—

Potatoes, 6 per cent., when sold by a merchant.  
 Dye-wood, ground, 8 to 11 per bale. " " " " " "  
 Currants 11 per cent. " " " " " "  
 " 16 " " " " " "  
 " 19 " " " " " "  
 Figs and raisins 10 " " " " " "  
 Olive oil 16 " " " " " "  
 " 18 to 20 " " " " " "  
 " 16 " " " " " "  
 Sewed oil: latterly the tare is ascertained.  
 Pepper, English, in double bags, 7 lbs. " " " " " "  
 " Danish, in bags and mats, 11 lbs. " " " " " "  
 Orange and lemon peel, 6 per cent., or tare ascertained.  
 Rice from England or Hamburg: the tare as on the casks, less 2 lbs. per cask on that from England, and in proportion to the weight on that from Hamburg. Danish should give 10 per cent. tare, but the buyers are in general not satisfied with this.  
 Tallow, 10 per cent., or nett tare.  
 Tea, Danish boxes, 7 1/2 lbs. if in linen and mats.  
 " 24 lbs. in chests above 100 lbs.  
 " 22 lbs. in chests of about 80 lbs.  
 Most frequently the tare is ascertained.  
 Vitriol, 10 per cent.  
 Raw sugar, 12 to 16 per cent. according to the size of the chests.  
 Canded sugar, tare by invoice, adding in that proportion for the allowance in the weight, usually heavier.  
 Syrups, in whole casks, 10 per cent.  
 " in 4 do. and barrels, 12 per cent.  
 On the sale of imports, 1 per cent. on the nett weight (called good weight) is allowed in favour of the buyer.

**Insurance.**—There are no insurance companies nor private insurers here; but there are agents of insurance companies in Hamburg for ships, and of those of London and other places for houses and lives.

**Wages of common Labourers** in Dantzie vary from 9d. to 11d. a day, and those of carpenters, masons &c. from 1s. 6d. to 2s. Wages in all the large Prussian towns are higher than in the small towns of the country, from the price of flour, bread, and butchers' meat being higher in them. This is occasioned partly by the latter being subject to octrois or excise duties on entering the great towns, from which the country districts and smaller towns are exempted. The king receives 1/3 of these duties, and the towns the other 2/3. This burden is a great obstacle to the free intercourse of the country.

(We have derived these details from different sources, but principally from *Consular Returns*, and information supplied by the Prussian Government.)

**DATES** (Ger. datteln; Fr. dattes; Ital. datteri; Span. datiles). The fruit of the palm tree (*Phoenix dactylifera*, Linn.). This tree is abundant in Egypt, Barbary, Arabia, Persia, and the adjacent countries, particularly on the confines of the desert, and wherever there is sufficient moisture. It is a tall, majestic tree; and repeated references are made to it in the sacred writings (Eccles. xiv. 14), and

in the Koran. Mohammed, in one of his sayings, beautifully compares the upright and generous man to the palm tree: 'He stands erect before his Lord; in his every action he follows the impulse received from above, and his whole life is devoted to the welfare of his fellow-creatures.' But the veneration in which the palm tree is held in the East is to be ascribed more to its utility than to its beauty. Dates form the principal part of the subsistence of the inhabitants of many parts of Arabia and Barbary, and they are held in the highest estimation wherever they are met with. 'They are,' says Burekhardt, 'by far the most essential article of food for the lower classes of Medina; their harvest is expected with as much anxiety, and attended with as much general rejoicing, as the vintage in the south of Europe; and if the crop fails, which often happens, as those trees are seldom known to produce abundantly for 3 or 4 successive years, or is eaten up by the locusts, universal gloom overspreads the population, as if a famine were apprehended.' (*Travels in Arabia*, vol. ii, p. 214.)

There is an endless variety of dates. Generally, however, they may be described as being somewhat in the shape of an acorn, but usually larger, consisting of a thick, fleshy substance, including and freely separating from an oblong stone or kernel, having a furrow on the one side. Their taste is agreeably sweet, accompanied with a slight astringency. The new fruit is called by the Arabs *rutab*. When the dates are allowed to remain on the tree till they are quite ripe, and have become soft and of a high red colour, they are formed into a hard solid paste or cake called *adjuce*. This is formed by pressing the ripe dates forcibly into large baskets, each containing about 2 cwt. 'In this state,' says Burekhardt, 'the Bedouins export the adjone: in the market it is cut out of the basket, and sold by the pound. It forms part of the daily food of all classes of people; in travelling it is dissolved in water, and thus affords a sweet and refreshing drink. During the monsoon, the ships from the Persian Gulf bring adjone from Bussorah to Djidda for sale in small baskets weighing about 10 lbs. each: this kind is preferred to every other. Ships bound from Arabia for India take with them a considerable quantity of adjone, which is readily disposed of amongst the Mohammedans of Hindostan.' (*Travels in Arabia*, vol. i, p. 57.)

The Arabians and Egyptians use the leaves of the tree in the preparation of bags and baskets; the boughs, the outer and inner bark of the trunk, and the fleshy substance at the root of the leaves, when they spring from the trunk, have all their respective uses; and besides this, the kernels of the fruit, notwithstanding their hardness, are used as food for cattle; they are soaked for two days in water, when they become softened, and are given to camels, cows, and sheep, instead of barley: they are said to be much more nutritive than that grain. There are shops at Medina in which nothing else is sold but date kernels; and the beggars are continually employed in all the main streets in picking up those that are thrown away. (Burekhardt, vol. ii, p. 212.)

In 1866, 37,833 cwt. were imported, the largest portion coming from Turkey. But the quality of these was inferior, they being worth only 16s. 8d. per cwt., while those exported from Gibraltar and Malta were worth 2l. 8s. or more. In stowage, the Bengal, Madras, and Bombay ton is 20 cwt. wet, 16 cwt. dry.

All the refinements of Arabian cookery are exhausted in the preparation of dates; and the Arabs say that a good housewife will daily supply her

lord for a month with a dish of dates differently dressed.

Palm trees are raised by shoots; and Dr. Shaw mentions that they arrive at their vigour in about 30 years, and continue so 70 years afterwards, bearing yearly 15 or 20 clusters of dates, each of them weighing 15 or 20 lbs.: after this period they begin to decline. (*Travels in the Levant*, p. 142, &to, ed.)

The best dates imported into Great Britain are said to come from Tunis, but they are most commonly brought from Smyrna and Alexandria. They should be chosen large, softish, not much wrinkled, of a reddish yellow colour on the outside, with a whitish membrane betwixt the flesh and the stone. Those that are dry and hard are of little value.

**DEAD FREIGHT.** A technical term applied to certain kinds of heavy merchandise shipped as cargo. If more cargo might have been properly shipped on board a vessel than was actually put on board, the shipowner is entitled to a redress for *dead freight*. (*Nichol v. Ellis*, July 2, 1851.)

**DEALS or DEAL BOARDS** (Ger. *dielen*; Dutch, *deelen*; Dan. *deeler*; Swed. *tillor*; Fr. *planches mines*; Ital. *tavole*, piano; Russ. *dorskij*; Pol. *tarceje*). A thin kind of fir planks, much used in carpentry; they are formed by sawing the trunk of a tree into longitudinal divisions, of greater or less thickness, according to the purpose they are intended to serve. They are imported from Dantzic, Petersburg, Narva, and many other ports in the Baltic, and from North America; but those from Christiania, the capital of Norway, are the best, and bring the highest price. They are distinguishable from those produced in the contiguous provinces of Norway: their superiority has been said to depend principally on their being more perfectly sawed. They really depend on the greater care with which the sap-wood and other defective portions of the timber are cut away, and on the quality of the timber. [TIMBER.]

A Russian standard deal is 12 feet long, 11 inches wide, and 1½ inch thick; 400 feet of 1½ inch plank make a load.

A Christiania standard deal is 11 feet long, 9 inches wide, and 1½ inch thick.

There is another standard of Norway deals at Dram, 10 feet long, 9 inches wide, and 1½ inch thick. [CHRISTIANIA.]

**DEBENTURE.** A term used at the Custom-house to signify the *certificate* subscribed by the customs officers, and given to the exporter of goods on which a drawback is allowed, bearing that the exporter has complied with the required regulations, and that he is entitled to such drawback.

It is enacted by the 16 & 17 Viet. c. 107, that the person entitled to any drawback on any goods duly exported, or his agent authorised by him for that purpose, shall make and subscribe a declaration upon the debenture that the goods mentioned therein have been actually exported, and have not been re-landed, and are not intended to be re-landed in any part of the United Kingdom, and that such person at the time of entry and shipping was continued to be entitled to the drawback thereon, and the name of such person shall be stated in the debenture, which shall then be delivered to such person or his agent, and the receipt of such person on the debenture, countersigned by the holder of such debenture, if the same shall have been transferred in the mean time, shall be the discharge of such drawback when paid. (Sec. 131.)

No debenture for any drawback allowed upon the exportation of any goods shall be paid after the expiration of 2 years from the date of the shipment of such goods. (Sec. 132.)

For these relating to EXPORTATION

A stamp on the drawback of 2s. 6d. when 50l.; and of 5

For debenture DECIMAL AND MEASURE

DELFT or porzellan; Dutch

A coarse species tured at Delft, used in this country

DENURANCE an allowance made ship by the freight

longer than the It is usually stip of lading that a

maning or work receiving or discharging

freighter may detained time, or as long

so much per diem contract of affreight so many days shall

receiving the cargo time, such limitation stipulation on the

vessel shall in no that if detained he This holds even in cases

tioned by any fault inevitable. If, for coming to the crowded

time than is allowed page is due; and it is demurrage, that it arc

erent from the unlaw officers. Demurrage for a delay occasioned

the ship, or the hostile port; nor is it claimed occasioned by the ma

the vessel. The claim sooa as the ship is cleared, though she should

erials or tempestuous *Commercial Law*, vol. iii, p. 10

DENARIUS. A Roman that to have been offered at various periods

DENIER. A small French 12 to a sol.

DIAMOND (Ger. *Diamant*; Ital. *diamante*; Russ. *almaz*; Hind. *hirra*).

It is known from the re and in different parts

Sumatra, Java, Australasially in North America. The Indian diamond

is generally a dodecahedron, and allows its brilliancy to be light, its power being

among glass, as 2487 to 1. It is active power that New

iamond was combustible purposes of ornament, the art of glass cutting, those which will cut this purpose, the stone mu

For these and the other clauses in the Act relating to debentures, see **IMPORTATION AND EXPORTATION**.

A stamp duty is laid on debentures of 1s. when the drawback to be received does not exceed 10%; of 2s. 6d. when it exceeds 10%, and does not exceed 50%; and of 5s. whenever it exceeds 50%.

For debenture in Railways, see **RAILWAYS**.

**DECIMAL SYSTEM.** [COINS; WEIGHTS AND MEASURES.]

**DELFT or DELF** (Ger. fayence, unachtes porzellan; Dutch, Jelfs poreelyn; Fr. fatence). A coarse species of porcelain originally manufactured at Delft, whence its name. It is now rarely used in this country.

**DEMURRAGE.** In Commercial Navigation, an allowance made to the master or owners of a ship by the freighter, for detaining her in port longer than the period agreed upon for her sailing. It is usually stipulated in charterparties and bills of lading that a certain number of days, called running or working days, shall be allowed for receiving or discharging the cargo, and that the freighter may detain the vessel for a further specified time, or as long as he pleases, on payment of so much *per diem* for such over-time. When the contract of affreightment expressly stipulates that so many days shall be allowed for discharging or receiving the cargo, and so many more for over-time, such limitation is interpreted as an express stipulation on the part of the freighter, that the vessel shall in no event be detained longer, and that if detained he will be liable for demurrage. This holds even in cases where the delay is not occasioned by any fault on the freighter's part, but is inevitable. If, for example, a ship be detained, owing to the crowded state of the port, for a longer time than is allowed by the contract, demurrage is due; and it is no defence to an action for demurrage, that it arose from port regulations, or even from the unlawful acts of the Custom-house officers. Demurrage is not, however, claimable for a delay occasioned by the hostile detention of the ship, or the hostile occupation of the intended port; nor is it claimable for any delay wilfully occasioned by the master, or owners, or crew of the vessel. The claim for demurrage ceases as soon as the ship is cleared out and ready for sailing, though she should be detained by adverse winds or tempestuous weather. (Chitty's *Commercial Law*, vol. iii. pp. 426-431.)

**DENARIUS.** A Roman coin, estimated by Dr. Wharton to have been worth  $7\frac{3}{4}d.$ ; but its value differed at various periods.

**DENIER.** A small French coin, of which there were 12 to a sol.

**DIAMOND** (Ger. Dntch, Dan. and Fr. diamant; Ital. Span. and Port. diamante; Russ. almas; Pol. diament; Lat. almas; Hind. hira). A precious stone which has been known from the remotest ages. It has been found in different parts of India, and in Borneo, Sumatra, Java, Australia, the Ural Mountains, occasionally in North America, but especially in Brazil. The Indian diamond, according to Mr. Emanuel, is generally found in octahedral, the Brazilian in dodecahedral crystals. The specific gravity of the diamond is about 3.5. The diamond owes its brilliancy to its capability of refracting light, its power being, in comparison with common glass, as 2.487 to 1.526. It was from this refractive power that Newton concluded that the diamond was combustible. Apart from its value for purposes of ornament, it has an important one in the art of glass cutting, for it is the only substance which will cut this material. But to effect this purpose, the stone must have an angle which

is naturally acute. The glaziers' stones, as these are called, are worth, according to Mr. Emanuel, 10l. the carat.

The diamond mines of India have been nearly exhausted. Diamonds are found in small quantities in Sumbhulpore, where the trade of diamond washing is hereditary in certain families. But the lustre of the Indian diamond is higher than that of Brazil, and the old diamonds are more valuable than those of late discovery. Brazilian diamonds come from various localities in that country, and chiefly in alluvial soil, but sometimes in a conglomerate, found in the tops of the highest mountains in the diamond-producing district. The trade in the Brazilian diamonds dates from about the middle of the eighteenth century. The quantity produced is very large. Mr. Emanuel, though he states that the yield is decreasing, reckons the annual produce at 240,000 carats, and assigns it a value of 1,000,000l. sterling.

The labour of searching for diamonds is described with great liveliness by the gentleman whose work has been referred to. On an average of 10,000 stones, there will not be one of eighteen carats found. The largest diamond ever found in the Brazils is the Star of the South, which, when rough, weighed 254 carats.

**Tests of Diamonds. Cutting, &c.**—To ascertain whether any specimen is a true diamond or not, a fine file may be used; and if the surface of the stone be the least abraded or scratched by its action, it is not a diamond. The difference will also appear upon close examination without this instrument; the rays of light easily pass through other gems, but in the diamond they are refracted to the surface, which occasions its superior brilliancy.

On account of the extreme hardness of the diamond, the art of cutting and polishing it was for a long time unknown in Europe; but in 1456 a young man of the name of Louis Berghen, a native of Bruges, is said to have constructed a polishing wheel for the purpose, which was fed with diamond powder instead of *corundum*, which the Chinese and Hindoos had been long accustomed to employ. Berghen was led to this discovery by observing the action produced by rubbing two rough diamonds together.

Diamonds are cut into various shapes. Those enumerated by Mr. Emanuel are the double cut brilliant, the single cut brilliant, the table diamond, the rose, and the brilliolette or briolet.

**Commercial Value of Diamonds.**—The value of a rough diamond is calculated at half its weight, as it is thought likely to lose half in cutting, and the cost of cutting is reckoned at 15s. the carat. The value depends on the colour, size, and form of the crystals, and, for stones under two carats in weight, ranges from 2l. 10s. to 5l. per carat. Great caution is necessary in purchasing rough diamonds.

The valuation of polished diamonds is taken in the trade from the tables made by Jeffries in 1750, which are based on the assumption that a diamond increases in value in proportion to its weight, in the ratio of the square of its weight, i.e. supposing the value of a one-carat stone be 8l., one of two carats will be worth  $2 \times 2 \times 8 = 32l.$ , this calculation being continued up to stones of 100 carats. These tables, however, do not represent present values. The production of the gem has diminished, and the number of wearers has increased, so that the price during the last twenty years has risen enormously on all stones below five carats in weight. For obvious reasons, it is impossible to give any estimate of stones above five carats.

When diamonds are of any decided colour, as blue, red, green, they often fetch enormous prices. Such stones e.ist. Mr. Hope had one of 44½ carats, of a bright sapphire blue. In the Russian treasury there is a brilliant red diamond, weighing 10 carats. There is a green diamond at Dresden, which once belonged to Augustus the Strong, king of Poland, which weighs 48½ carats. A green diamond weighing five grains, which, if white, would have been worth no more than 28*l.*, has been sold for 320*l.* These coloured diamonds are called fancy stones. Mr. Emanuel has given three comparative tables of the price of diamonds, one of which is his own calculation of the value to be at present assigned to perfectly white and pure brilliants, and which ranges from stones weighing ¼ a carat an worth 5*l.* 10*s.* to those of 5 carats, which he values at 320*l.*; another table is that of Jeffries, composed in 1750, where the range is from 3 grains worth 6*l.*, to 5 carats worth 200*l.*; while a third is that of a Venetian merchant, who reckoned their values in the year 1606. In this table a 3-grain brilliant is valued at 15*l.* 3*s.* 4*d.*, and one of 5 carats at 346*l.* 13*s.* 4*d.* It appears that the last-named table is a record of actual sales. (See for further particulars Emanuel's *Diamonds and Precious Stones*.)

Diamonds may be landed without report, entry, or warrant. (3 & 4 Wm. IV. c. 52 s. 2.)

The carat grain used in weighing diamonds is different from the troy grain, 5 diamond grains being only equal to 4 troy grains.

DIAPER (Ger. drell; Dutch, drel; Fr. linge ouvré; Ital. tela tessuta a opere; Span. manteles alemaniscas; Russ. salfetotsschnoe). A sort of fine flowered linen, commonly used for table-cloths, napkins &c., originally manufactured at Ypres, whence its name; brought to the highest perfection in the manufactories in the north of Ireland, in Germany, and Scotland.

DICE (Ger. würfel; Dutch, taarlingen; Fr. dés (à jouer); Ital. dadi; Span. dados; Russ. kosti). Cubical pieces of bone or ivory, marked with dots on each of their sides from 1 to 6, according to the number of the face.

The regulations as to the manufacture and sale of dice are the same as those with respect to CARDS. Every pair of dice is to pay a duty of 2*s.* All pieces of ivory, bone, or other matter used in any game, having letters, figures, spots, or other marks denoting any chance, marked thereon, to be adjudged dice; and if more than 6 chances are signified on any one piece, then such piece to be charged with the full duty of a pair of dice. (9 Geo. IV. c. 18.)

In 1865 only 6 pair paid the duty.

DIMITY (Fr. basin; Ital. dobletto; Span. dimite). A species of cross-barred stuff entirely composed of cotton, similar in fabric to fustian. It was originally manufactured in Sicily, its name being of Greek origin.

DISCOUNT. An allowance paid on account of the immediate advance of a sum of money not due till some future period. It is usually said to be of two kinds—viz. discount of bills, and discount of goods; but they are essentially the same.

When a bill of exchange is presented at a banker's for discount, it is the practice to calculate the simple interest for the time the bill has to run, including the days of grace, which interest is called the *discount*; and this being deducted from the amount of the bill, the balance is paid over to the presenter of the bill. This is the method followed by the Bank of England, the London and provincial bankers, and by commercial men in general. But it is, notwithstanding, inaccurate.

The true discount of any sum for any given time is such a sum as will in that time amount to the interest of the sum to be discounted. Thus, if interest be five per cent., the proper discount to be received for the immediate advance of 100*l.* due 12 months hence is not 5*l.*, but 4*l.* 15*s.* 2*d.*; for this sum will, at the end of the year, amount to 5*l.*, which is what the 100*l.* would have produced. Those, therefore, who employ their money in discounting, make somewhat more than the ordinary rate of interest upon it; for a person discounting 100*l.* due at the end of a year, advance*s*, supposing interest to be 5*l.* per cent., only 95*l.*; so that, as this 95*l.* produces 100*l.* at the period in question, the interest received has really been 5*l.* 5*s.* 3*d.* per cent.

The rule for calculating discount on correct principles is as follows:—

As the amount of 100*l.* for the given rate and time is to the given sum or debt; So is 100*l.* to the present worth, or So is the interest of 100*l.* for the given time To the discount of the given sum.

Mr. Smart has calculated, on this principle, a table of the discount of 1*l.* for any number of days, at 2, 2½, 3, 3½ &c. to 10 per cent., to decimal places. But the simple interest of the sum being the only thing looked for in practice such tables are hardly ever referred to.

Bills in the highest credit are discounted on the lowest terms; the discount increasing according to the suspicions entertained of the punctuality solvency of the parties subscribing the bill. During the continental war, the rate of interest, or, which is the same thing, of discount, was comparatively high; for some time afterwards it was seldom above 4, and often as low as 3 and even 2½ per cent.

During the ten years 1856-1865 the average rate of discount was 4½ per cent.

Discount on merchandise takes place when after making a purchase of goods at a fixed rate of credit, the buyer finds means to make payment before the expiration of that term, receiving from the seller a discount or allowance which is commonly a good deal above the current rate of interest. The discount on goods varies, of course, according to the interest of money. During the late war, the loans to Government were so large, and the facility of investing money was such, that the discount on goods was often high as 5 per cent. for 6, and 10 per cent. for 12 months. Now, however, the discount on goods has fallen, with the fall in the rate of interest, to 7 or 7½ per cent. for 12 months; being double the current interest arising from the property; or the discount of good mercantile bills.

Long credits and discounts upon goods for a lengthened period, been usual in England. This arose from a variety of causes, but principally, perhaps, from the magnitude of our exports to the United States, Russia, and other countries where there is a great demand for capital; but in every cause it originated, it has latterly been carried to what seems to be an injurious extent. [CREDIT.] In France and Germany, the factors, in general bare of capital, are obliged to stipulate with the merchants for short credits. In Holland, the *usage* of the exporting merchant has been to pay either in ready money, or at a date as to put discounting out of the question, the manufacturer setting at once the long credit on his goods.

DIVI DIVI. The commercial name of the *Cesalpinia coriaria*, a leguminous tree found in low, marshy situations in the north

of South America and Venezuela, and India. It is used but chiefly for the bark, which is from 2 to 3 inches and when in perfect maturity contains a few small resinous particles, easily pulverized, and which covers the outer skin and the inner bark, and contains a large quantity of resin, which imports in 1866 an amount of 13*l.* 5*s.* per ton, and is imported into Liverpool. Divi Divi is used by the ancients in a principle which it contains, and which is at present used in medicine, which is a very high price of the bark, and in tanning it accords to the leather appearance. (Private DIVIDEND. The name is applied to the amount to creditors out of the annual interest payable, and other public funds, and other joint stock companies, and other joint stock companies. A town of Djidda, 21 miles from Mecca, in lat. 21° 29' N., and long. 39° 15' E., is built; the streets are paved with stone, and the houses high and airy; the most part of the population are Persians. The supply of water is very indifferent. Small quays; but large boats are used in the roads, about 200 in number, being by means of light sails, and is difficult, and short of a pilot. Djidda is of great commercial importance. It is situated in the centre of the greater part of the Indian Ocean, and is a great mart for the East. It possesses large quantities of opium, such as from 150,000*l.* to 200,000*l.* annually brought from Mocha, and is the most considerable mart for the most hazardous trade in the world, the Persian Gulf is safer than the Indian Ocean, and is very considerable. Djidda is connected with the coast of Arabia and Massouah, on the Red Sea. The imports from the East Indies consist of slaves, gold, tobacco, and other articles, and a large quantity of butter (of which immense quantities are used in Arabia), mats, and other articles. The Africans receive Indian goods, dresses and ornaments, and other articles (which are not so much valued as Nubia), iron &c. The port of Mocha is almost entirely dependent on the coffee trade. Business is transacted by means of bills of exchange, and expedition. The number of ships to the port is estimated at 100, and the quantity of timber, none of which belongs to it but is imported from Bombay or Muscat, or Suez. For a considerable time before and after the festival of the town is thronged with pilgrims, and a great deal of mercantile business is done.

of South America, principally in New Granada and Venezuela, and in some parts of the West Indies. It is used both for dyeing and tanning, but chiefly for the latter purpose. The pod is from 2 to 3 inches in length by  $\frac{3}{4}$  inch in breadth, and when in perfection is of a rich brown colour. It contains a few small seeds, but the only valuable portion is a resinous matter of a bright yellow colour, easily pulverised, which lies betwixt the outer skin and the husk that encloses the seed, and contains a large quantity of tannin. The imports in 1866 amounted to 4,269 tons, worth about 137. 5s. per ton. By far the greater portion is imported into Liverpool.

Divi Divi is used by dyers, not for the colouring principle which it contains, but for its strong astringent qualities as a mordant. For this purpose it is at present used to some extent instead of cochineal, which is scarce and dear, and hence the price is high. In tanning it accelerates the process, and imparts to the leather a clean and healthy appearance. (*Private information.*)

**DIVIDEND.** The name given to the payment made to creditors out of the estate of a bankrupt; to the annual interest payable upon the national debt, and other public funds; to the divisible profits of railways, and other joint-stock undertakings.

**DJIDDA.** A town of Arabia, on the Red Sea, about 21 miles from Mecca, of which it is the sea-port, in lat. 21° 29' N., long. 39° 14' E. It is well built; the streets are unpaved, but spacious and airy; the houses high, and constructed, for the most part, of madrepores and other marine shells. The supply of water is scanty, and its price indifferent. Small vessels approach close to the quays; but large vessels are obliged to anchor in the roads, about 2 miles off, loading and unloading by means of lighters. The entrance to the harbour is difficult, and should not be attempted without a pilot. Djidda is a place of considerable commercial importance. It is the entrepôt in which is centred the greater part of the commerce between India, Egypt, and Arabia. Many of its merchants possess large capitals—some of them as high as from 150,000*l.* to 200,000*l.* The trade chiefly brought from Mocha and other ports in Arabia is the most considerable, but it is said also to be the most hazardous. The returns are generally made in cash. The trade with India is very considerable. Djidda has also a good trade of intercourse with the ports of Cosseir, Massouah, and Massouah, on the opposite coast of the Red Sea. The imports from the last two principally consist of slaves, gold, tobacco, dhourra or barley, (the latter of which immense quantities are imported from Arabia), mats &c.; in return for which the Africans receive Indian goods suitable for their markets, dresses and ornaments for their wives, dates (which are not produced in any part of Arabia), iron &c. The principal article imported from Cosseir is wheat; and not only wheat, but the whole Heljaz, or Holy Land of Arabia, is almost entirely dependent upon Egypt. Coffee is the principal article sent in return for the expedition. The number of vessels arriving to the port is estimated at 250. Owing to the scarcity of timber, none of them are built at Djidda, those belonging to it being either purchased at Bombay or Muscat, or at Mocha, Aden, or Suez. For a considerable period before and after the feast of Ramadhan, pilgrims come from all quarters to visit the town, which is thronged with strangers, and a great deal of mercantile business is transacted.

Djidda is at present, and has been for a number of years, under the government of the Pacha of Egypt. The *moneys, weights, and measures* of the latter country [ALEXANDRIA] are now generally used in Djidda, the commerce of which has been much improved and extended in consequence of the comparative security and good order enforced by the pacha. (We have gleaned these details from the different works of Burckhardt, particularly from his *Travels in Arabia*, vol. i. pp. 1-100.)

**DOCKS.** Artificial basins for the reception of ships. The term has been supposed by some to be derived from the Greek *δέξαται*, to receive; but it is obviously no other than the Teutonic *dock*, originally perhaps derived from *dekken*, to cover, to enclose, or protect.

Docks are of two sorts, *wet* and *dry*. Wet docks are generally constructed with gates to retain the water. Ships are admitted at high water; and when the gates being shut, they are kept constantly afloat. A dry dock is intended for the building, repairing, or examination of ships. The ships to be repaired or examined are admitted into it at high water; and the water either ebbs out with the receding tide, or is pumped out after the gates are shut.

*Utility of Docks.*—The construction of wet docks has done much to facilitate and promote navigation. A large vessel, particularly if loaded, could not be allowed to come to the ground, or to lie on the beach, without sustaining considerable injury, and perhaps being destroyed; and even the smaller class of vessels are apt to be strained, and otherwise hurt, if they are left dry, unless the ground be very soft. Hence, when large vessels have to be loaded or unloaded where there are no docks, and where the water close to the shore or quay is not sufficiently deep, the work can only be carried on during a particular period of each tide: it being necessary, in order to keep the vessel afloat, that she should leave the shore with the ebbing tide. Attempts have sometimes been made to obviate this inconvenience by running jetties or piers to such a distance into the sea that there might always be a sufficient depth of water at their heads; but this can only be done in peculiar situations, and it requires that the ship's position should be frequently changed. It is in most cases, too, impossible properly to protect the cargoes of ships loading or unloading at quays, or on the beach, from depredation. Previously to the construction of wet docks on the Thames, the property pillaged from ships was estimated at 500,000*l.* a-year, though this is probably much exaggerated.

#### I. DOCKS ON THE THAMES.

1. *East and West India Docks.*
2. *London Docks.*
3. *St. Katharine Docks.*
4. *Victoria Docks.*
5. *Surrey Commercial Docks.*
6. *Millicall Dock.*
7. *London Port Dues. Charges on Account of Lights, Pilotage &c. in the Thames. Shipping &c. of London.*

- II. *SOUTHAMPTON DOCKS, SHIPPING &C.*
- III. *LIVERPOOL AND BIRKENHEAD DOCKS, SHIPPING &C.*
- IV. *BRISTOL DOCKS, SHIPPING &C.*
- V. *HULL DOCKS, SHIPPING &C.*
- VI. *GREAT GRIMSBY DOCKS &C.*
- VII. *NEWCASTLE DOCKS &C.*
- VIII. *TYNK, SOUTH SHIELDS DOCKS &C.*
- IX. *CARDIFF DOCKS &C.*
- X. *GLASGOW DOCKS, SHIPPING &C.*
- XI. *DURDEE DOCKS, SHIPPING &C.*
- XII. *LEITH DOCKS, SHIPPING &C.*
- XIII. *CORK DOCKS.*

## DOCKS

## I. DOCKS ON THE THAMES.

It is singular that notwithstanding the obvious utility of wet docks, and the vast trade of this sort on the north side of the Thames till nearly a century after a wet dock had been constructed at Liverpool. The Commercial Dock appears to have been opened so early as 1660. (Post.) The inconvenience arising from the crowded state of the river at the periods when fleets of merchantmen were accustomed to arrive, the insufficient accommodation afforded by the legal quays and wharves, the necessity under which many ships were placed of unloading in the river lighters, and the insecurity and loss of property thence arising, had been long felt as almost intolerable grievances: but so powerful was the opposition to any change, made by the private wharfingers and others interested in the then existing order of things, that it was not till 1793 that a plan was projected for making wet docks, on anything like an adequate scale, for the port of London; and 6 years more elapsed before the Act for the construction of the West India Docks was passed.

1. *West India Docks, now conjoined with the East India Docks.*—The West India Docks were the first, and continue to be the most extensive, of the great warehousing establishments formed in the port of London. Their construction commenced in February 1800, and they were partially opened in August 1802. They stretch across the isthmus joining the Isle of Dogs to the Middlesex side of the Thames. They originally consisted of an Import and Export Dock, each communicating, by means of locks, with a basin of 5 or 6 acres in extent at the end next Blackwall, and with another of more than 2 acres at the end next Limehouse; both of these basins communicate with the Thames. To these works were added, in 1829, the South Dock, formerly the City Canal, which runs parallel to the circuit-navigable by enabling ships to avoid the circuitous course round the Isle of Dogs. It was, however, but little used for that purpose, and is now appropriated to the wood trade, for the greater accommodation of which a pond of 19 acres has been formed on the south side for the reception of bonded timber. The Export Dock, or that appropriated for ships loading outwards, is about 870 yards in length by 135 in width; so that its area is near 25 acres: the North or Import Dock, or that appropriated for ships entering to discharge, and is of the same length as the Export Dock, and 166 yards wide; so that it contains nearly 30 acres. The South Dock, which is appropriated both to import and export vessels, is 1,183 yards long, with an entrance to the river at each end; both the locks, as well as that into the Blackwall Basin, being 45 feet wide, are large enough to admit ships of 1,200 tons burden. At the highest tides, the depth of water in the docks is 24 feet; and the whole will contain, with ease, 600 vessels of from 250 to 500 tons. The separation of the homeward-bound ships, which is of the utmost importance for preventing plunder, and giving additional security to the revenue and the merchant, was, for the first time, adopted in this establishment. The Import and Export Docks are parallel to each other, being divided by a range of warehouses, principally appropriated to the reception of rum, brandy, and other spirituous liquors. There are smaller warehouses and sheds on the quays of the Export and South Docks, for the reception of goods sent down for exportation.

The warehouses for imported goods are on the quays of the Import Dock. They are well-trived, and of great extent, being calculated to contain 160,000 hogsheads of sugar, exclusive of coffee and other produce. There have been deposited, at the same time, upon the quays, in the sheds, and in the warehouses belonging to these docks, 148,563 hogsheads of sugar, 70 casks and 433,648 bags of coffee, 85,158 pipes of rum and pipes of Madeira wine, 14,021 logs of malogany, 21,350 tons of logwood &c. The area occupied by the docks, warehouses &c. includes about 295 acres; and the most effectual precautions are adopted for the prevention of pilfering.

This spacious and magnificent establishment was formed by subscription, the property vested in the West India Dock Company, an affair of which were managed by 21 directors a body corporate.

The West India Docks proved a very successful undertaking, and have been highly beneficial to the original shareholders as well as to the port. All West India ships frequenting the Thames were obliged to use them for a period of 20 years from their completion. The dividend of the Company's stock was limited to 10 per cent. and after making dividends to the full amount in 1819 an accumulated fund of near 400,000. But they then diminished their charges, and suggestion of a committee of the House of Commons; and having been since still more considerably reduced, the surplus has been absorbed, the nearest dock-gate is at Limehouse, and the about  $\frac{1}{2}$  mile farther from town.

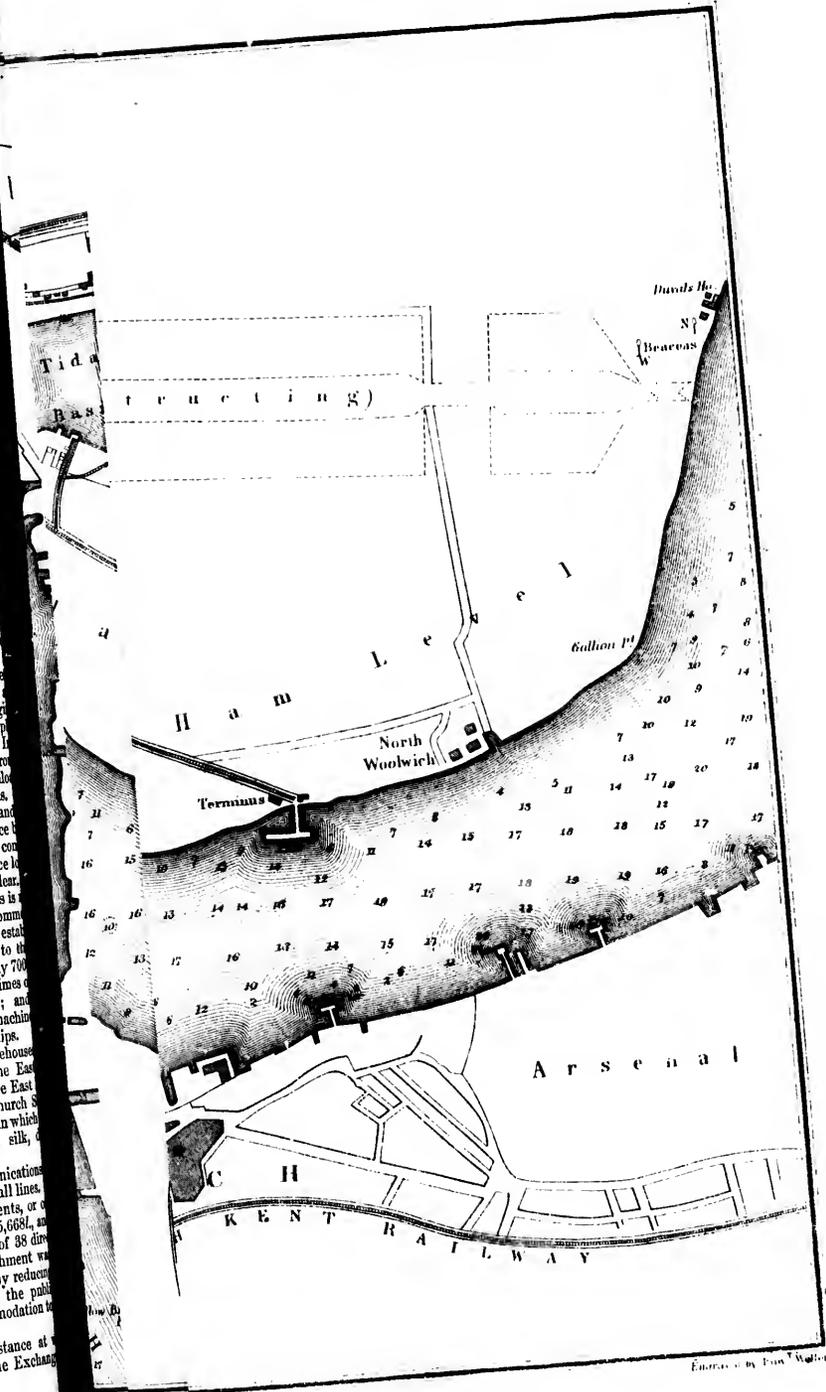
The *East India Docks*, united with those described in 1838, are situated at Blackwall,  $3\frac{1}{2}$  miles from the Exchange, and were intended for the accommodation of ships employed by the East India Company, or in the East India trade; but they are now open to vessels for all parts; There are 2 docks; 1 for ships unloading inwards, and 1 for those loading outwards. The Export Dock contains about 18 acres, and the Import Dock about 9 acres. The entrance to which connects the docks with the river, is about  $2\frac{1}{2}$  acres; the length of the entrance is 210 feet, the width of the gates 48 feet clear depth of water in the East India Docks is less than 23 feet; so that they can accommodate ships of greater burden than any other establishment on the river. There is attached to the splendid quay fronting the river, nearly 700 in length, with water sufficient at all times of tide to float the largest steam ships; and the Export Dock is furnished with a machine for masting and dismasting the largest ships.

Exclusive of the magnificent warehouses attached to the West India Docks, the East India Dock Company possess the East India warehouses in Billiter Street, Fenchurch Jewry Street, and Crutched Friars; in which warehouse and show tea, indigo, silk, spices &c.

These docks have railway communication to the North London and the Blackwall lines. The capital of both establishments, or of the United Company, amounts to 2,065,668, and the management is vested in a board of 38 directors. The consolidation of the establishment was advantageous to the shareholders by reducing the expense of management, and to the public by giving a greater choice of accommodation to vessels frequenting the docks.

The inconvenience of the distance at which these docks are situated from the Exchange

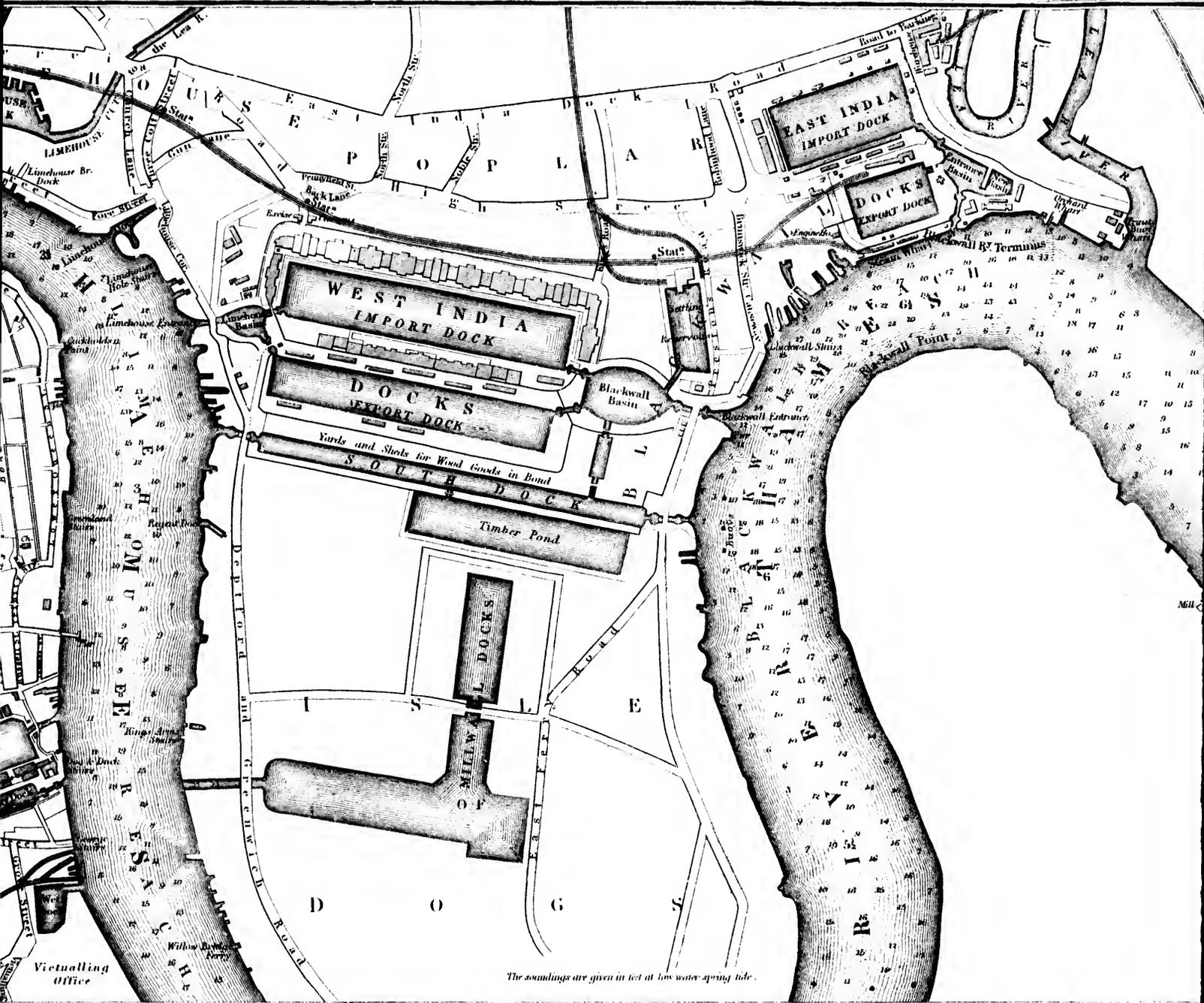




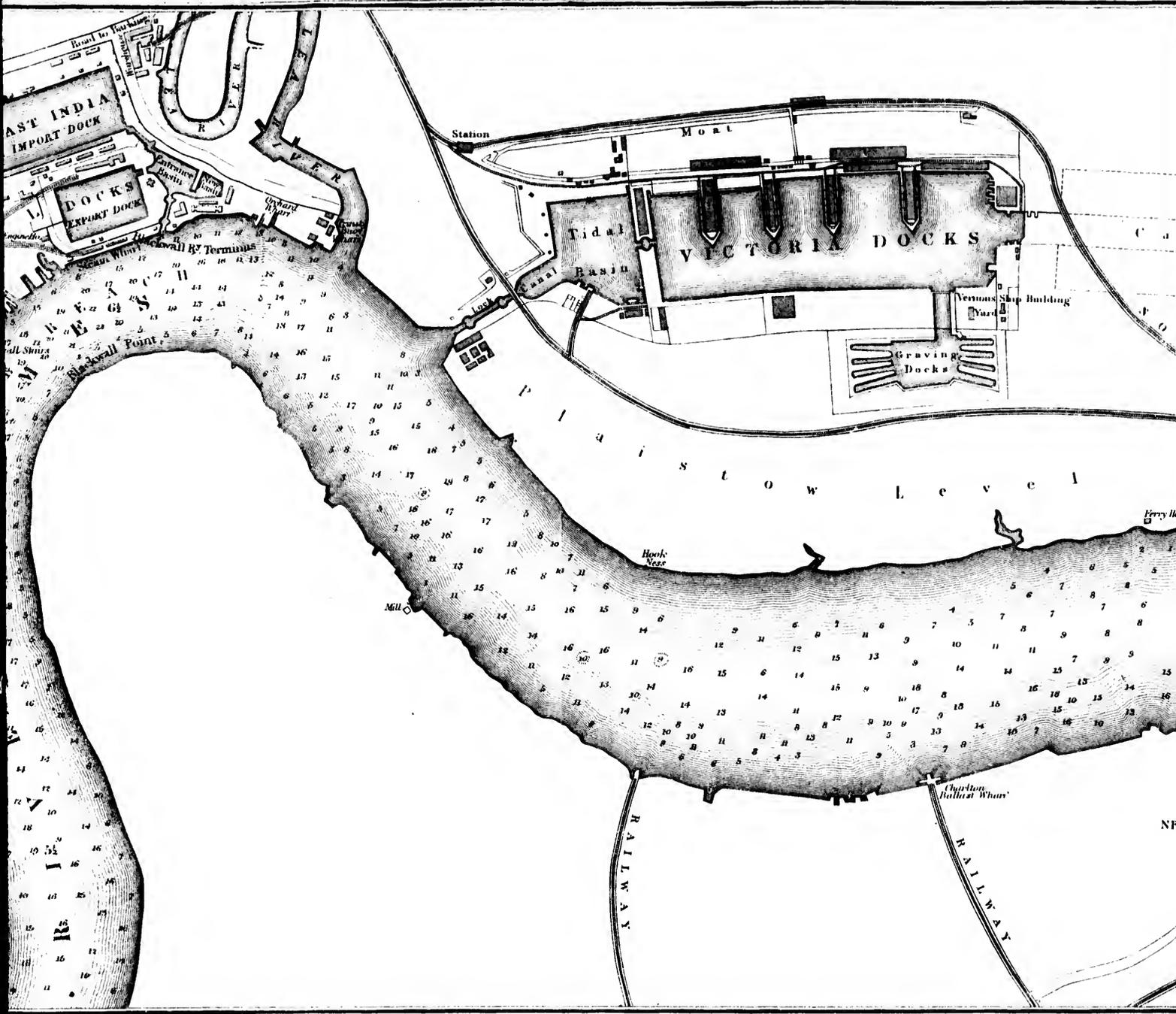
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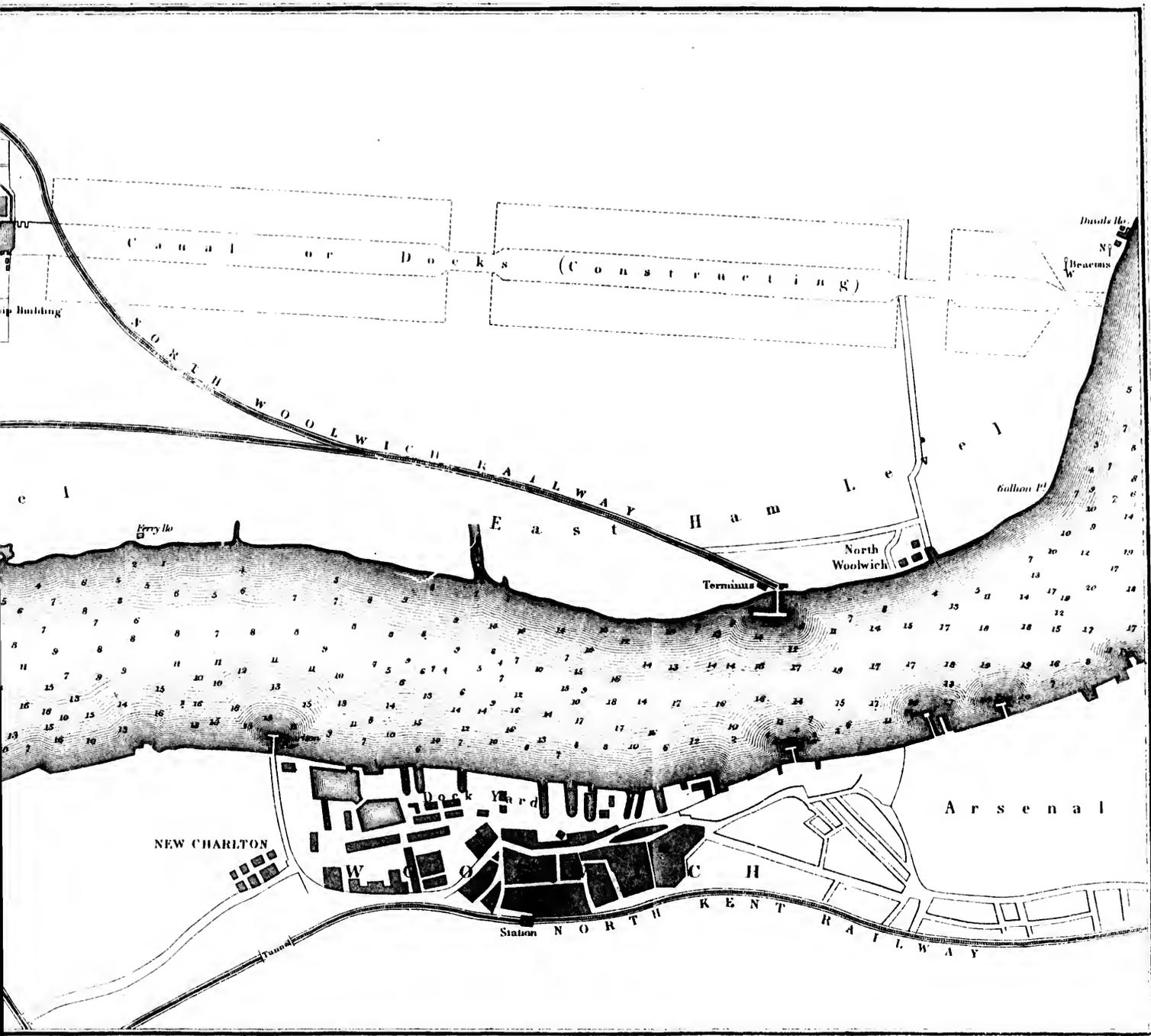
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#### RULES AND REGULATIONS AND RATES TO BE THE EAST AND WEST

The docks and wharves  
East India Import and  
called the Eastern Dock  
and Export Docks, and  
house Basins, called the  
(formerly the City Canal)

#### Regulations for Shipping Pilots, and other persons Ships, Vessels, Light lying in, and going to India Docks, pursuant to

*The Company's Moorings*  
river, within 200 yards of  
Blackwall, and that in  
within 150 yards of the  
South Dock, are reserved  
vessels entering into, or  
out of, the docks.

Pilots must not attend  
the buoys, if other ships  
up, but bring them to  
cession on the outside, re-  
pressly ordered by the dock  
inside the tier for the con-

#### VESSELS ABOUT TO ENTER DOCK

*Signals.*—A blue flag with  
entrance the whole time  
undocking; at high-water  
struck, after which no pilot  
is, unless directed so to do

*Preparing Ships for Admission.*  
be lost in getting the sails  
and stowed, sails furled,  
down, guns unloaded, gun-  
All ships are required to  
masts and strike top-gallant  
their jib and mizen booms  
down, martingales, and all  
and the yards well topped  
the dock-mast.

*Order of Admission.*—The  
under the Dock Acts, full  
mooring, unmooring, mo-  
ships, vessels, or craft w  
admission and will direct t  
generally in the order in  
any vessel shall attempt  
contrary to the direction  
master, the owner, and the  
person in charge, must be  
penalties.

*Entering.*—The ship must  
and sufficient warps  
by the dock-master.  
When within the pier  
on board when re-  
back the vessel through  
be hauled ahead by the

been in a great degree obviated by the opening of the railways referred to, and by the exhibition of samples in the Company's upper warehouses. Still, however, the charge on account of cartage is a little heavier on goods warehoused at the docks of this Company than on those warehoused farther up the river; but, on the other hand, ships entering the East India or West India Docks avoid a considerable extent of troublesome, if not dangerous navigation, that must be undertaken by those bound for the London and St. Katharine Docks.

**RULES AND REGULATIONS TO BE OBSERVED, AND RATES TO BE PAID, BY SHIPPING IN THE EAST AND WEST INDIA DOCKS.**

The docks and works of this Company are the East India Import and Export Docks and Basin, called the Eastern Docks; the West India Import and Export Docks, and the Blackwall and Limehouse Basins, called the Western Docks; and that (formerly the City Canal) called the South Dock.

*Regulations for Shipping to be observed by Masters, Pilots, and other persons having the charge of Ships, Vessels, Lighters, or Craft coming into, lying in, and going out of, the East and West India Docks, pursuant to Act 2 Wm. IV. c. 52.*

*The Company's Moorings.*—The moorings in the river, within 200 yards of each of the entrances at Blackwall, and that into Limehouse Basin, and within 150 yards of the Limehouse entrance of the South Dock, are reserved for the exclusive use of vessels entering into, or which have recently come out of, the docks.

Pilots must not attempt to place ships inside the buoys, if other ships have previously brought up, but bring them to their berths in due succession on the outside, unless they shall be expressly ordered by the dock-master to take a berth inside the tier for the convenience of docking.

**VESSELS ABOUT TO ENTER AND LEAVE THE DOCKS.**

*Signals.*—A blue flag will be kept flying at each entrance the whole time proper for docking and unloading; at high-water mark the flag will be struck, after which no pilot must sheer his vessel in, unless directed so to do by the dock-master.

*Preparing Ships for Admission.*—No time should be lost in getting the anchors properly secured and stowed, sails furled, quarter boats lowered down, guns unloaded, gunpowder put out.

All ships are required to send down top-gallant masts and strike top-gallant masts, and to have their jib and mizen booms rigged close in, bonnet-booms, martingales, and all outriggers unshipped, and the yards well topped up whenever ordered by the dock-master.

*Order of Admission.*—The dock-masters have, under the Dock Acts, full powers to direct the mooring, unmooring, moving, or removing, all ships, vessels, or craft within the Company's docks, and will direct the docking of vessels usually in the order in which they arrive; but no vessel shall attempt to gain admittance contrary to the directions given by the dock-master, the owner, and the master, pilot, or other person in charge, must be responsible for all consequences.

*Entering.*—The ship must be ready to send down and sufficient warps to each pier, when directed by the dock-master.

When within the piers, proper ropes will be sent on board when requisite to guide and haul the vessel through the lock; the vessel must be hauled ahead by her own warps, and they

are on no account to be cast off unless ordered by the dock-master.

Every pilot must bring his boat into the Basin, or South Dock, as it is a most essential part of his duty to moor the ship.

*Vessels about to Leave the Docks.*—Export vessels should be hauled down in sufficient time to be at the river locks, at Blackwall, at low water, to prevent inconvenience during the time that other vessels are requiring admission, which must have the preference.

Vessels can only be let out after high water upon the special request of the officers in charge of them.

Ships going into the river must use their own ropes, as they are out of the dock-master's charge when clear of the outer gates.

*Ships' Boats.*—The Company take no charge of ships' boats, and are not responsible for them: it therefore rests with the owner of the ship to take such measures as will ensure their safety.

*Discharging.*—Two true copies of the manifest of the cargo must be delivered into the general office, at the Dock House, in Billiter Square, within twelve hours after every vessel shall enter the docks, or after the cargo shall have been reported at the Custom House, whichever shall first happen. Penalty for refusal or neglect, any sum not exceeding 5*l.* (2 Wm. IV. c. 52 s. 84.)

No ships can be allowed to break bulk until their cargoes are duly entered.

All baggage or presents should be sent as promptly as possible to the Baggage Warehouse, where an authority from the master for the delivery thereof must be lodged.

Packages of bullion or specie (whether cargo or private property) must be delivered by the captain, under his own responsibility.

The delivery of goods overside will also rest with the master, and he must take such steps as he may think necessary to protect his owners in respect to their freight.

**EASTERN AND WESTERN IMPORT AND EXPORT DOCKS, THE BASINS, AND SOUTH DOCK.**

All vessels entering or lying in these docks and basins continue in charge of the masters and owners.

It is the duty of the pilots, or officers and crews, to transport their respective vessels, except otherwise provided for by the table of rates, under their own responsibility, to or from the river, and to or from any part of the docks or basins, as directed by the dock-master.

Light ships, on entering from the river, must be provided with sufficient hands to dock and transport them, and should move in due time into the dock; otherwise they will be removed by the dock-master, and the owners charged with the expense.

Ships taking in cargoes will be moored at the quays in due rotation. Light ships not taking in goods must be moored in either of the docks or basins, as the dock-master may judge convenient.

While ships are lying at or moving to or from the quay, all outriggers should be got in and made snug; and sails are by no means to be loose while so moving, or after daylight.

No ship must be removed from her berth without notice being given to the dock-master, and his assent as to the time of removal being obtained.

Craft must be fastened to the ships from which they are receiving, or to which they may be delivering goods.

Convenient receptacles on the quays are provided, wherein all dust, ashes, and other refuse mat-

ters are to be deposited, and which shall be cleared by the person appointed by the Company, and by no one else.

No vessel can be permitted to take in ballast after daylight, or before daybreak.

Ships' provisions or stores cannot be permitted to pass the gates without an order signed by the owner, or an officer of the ship.

Neither caulking nor plumbers' work can be allowed without special permission, to be obtained from the Principal of Police.

**Fire and Candle.**—Special licenses will be granted to use fire and candle in all the docks and basins, on application to the Principal of the Police, made by the master or owner of the vessel, specifying the names and capacity of the persons in charge of the ship, and engaging to be responsible for their attention to the regulations.

Every such license will express the place in which fire may be kept, and the circumstances under which it may be used: upon the slightest infringement of the conditions, the penalty prescribed by law will be rigidly enforced.

**Opening and Shutting the Gates.**—The gates will be opened at 6 o'clock in the morning, and shut at 8 o'clock in the evening, from March 1 to November 10; and from November 11 to the last day of February, opened at 7 a in the morning, and shut at 7 in the evening.

Captains and chief mates may be furnished with tickets upon applying at the Police Office, at the Eastern or Western Import Dock, which will entitle them to admission till 9 o'clock P.M., but no person whatever can be allowed to go out after the hour for closing the gates.

**Hours of Attendance.**—The hours of attendance are, from March 1 to October 31 inclusive, eight in the morning to four in the afternoon: from November 1 to the last day of February, inclusive, nine in the morning to four in the afternoon; and there is to be no intermission of business during these hours.

No holidays are kept, except Sundays, Christmas Day, Good Friday, East Days appointed by Royal Proclamation, and the King's or Queen's Birth Days.

TONNAGE RATES.

Sailing Vessels Inwards Discharged by the Company.

For docking, mooring, and removing within the docks and basins, unloading the cargo, and the use of the docks for four weeks from the final discharge, viz.

	Per ton register.
Laden with sugar, otherwise than after-mentioned, or other goods packed in bales, bags, baskets, serons, casks, cases, chests, or similar packages (except oil direct from the fisheries, tallow, or ashes), metal in pigs, bars, rods, plates, or similar pieces, wood in billets, such as dye wood &c.	1 6
And in addition, for every load or ton of blue gum wood, and the like; or oil in iron tanks	0 6
Laden with chests of sugar, 5 cwt. and upwards, including ship's coverage	2 0
Laden entirely, or in part, with hogsheads, and tierces of sugar or molasses from the West Indies, including ship's coverage	2 6
Laden with mahogany, cedar, or other furniture wood, in logs or planks	2 6
Laden entirely with hemp or goods in bulk, or oil direct from the fisheries	1 9
And in addition for every ton of oil in tanks	0 6
Laden entirely with tallow	1 3
For every ton of hemp	2 0
For every ton of tallow or ash	1 3
For every ton in bulk, except guano	1 9
The total number of tons charged not to exceed the register tonnage.	
Laden with wool, the growth of the North of Europe, or the North American Colonies, viz.:	
Entirely with deals, staves, lath, or fire-wood	1 9
Entirely, or in part, with timber	1 9
And in addition, for every load of hardwood or masts	0 6
For every load of pine or fir timber	0 3

\* When the discharge by the Company of any vessel is postponed by desire of the owner, six weeks only are allowed free of rent. The expense of labour incurred, and of materials broken or injured, in the discharge of rutch or gambler, and other packages when they adhere together, will be charged in addition.

Per ton register.

Laden with timber from Africa, or the East Indies, or like timber cargoes	3 0
And, in addition, for every load discharged over side	1 0
Laden with timber and spars from Vancouver Island, or similar cargoes	3 9
Laden with guano	1 9

Note.—Vessels which discharge the whole or greater part of their cargoes into lighters will be subject to such rates for discharging as shall be agreed upon between the ship-owner or master and the Company.

Sailing Vessels Inwards Discharged by their own Crews.

For the use of the docks\* for any period not exceeding four weeks from the date of entrance—

	Per ton register.
Arriving from any port or place not otherwise specified	0 9
Arriving from any port in the United Kingdom or European port outside the Baltic, between the North Cape and Ushant	0 6
Delivering part of a cargo, and not remaining beyond one week, per ton delivered	0 6

Exceptions.

	Per ton register.
Sloops and craft consisting, with bricks, and vessels with broken granite, or paving stones, not remaining beyond one week	0 3
Colliers entering to await the sale of their cargoes, not remaining beyond two weeks	0 3

Other vessels than colliers, coastwise, on landing goods in the docks equal to one-third of their register tonnage, will be exempted from payment of the tonnage rate, but rent to commence after ten clear days from the final landing of the goods.

Vessels entirely corn-laden, discharged in the docks, in full tonnage rate, not remaining beyond two weeks—

	£	s.	d.
If 50 and .. 100	1	11	6
100 .. 150	2	2	0
150 .. 200	3	3	0
200 .. 250	4	4	0
250 .. 300	5	5	0
300 .. 350	6	6	0
350 .. 400	7	7	0
400 .. 450	8	8	0
450 .. 500	9	9	0

and 2d. 2s. for every additional 50 tons register or less.

If corn vessels quit without unloading, rent to commence after one clear day from the date of entrance.

Vessels two-thirds laden with corn will be charged the usual tonnage rates on the other part of their cargoes, in proportion to their register tonnage.

If vessels to which the above exceptions apply load outwards, they will be charged the usual rate of 3d. per ton register.

Sailing Vessels Outwards, or Light Vessels, other than Steam Vessels.

	Per ton register.
Entering to load or lay up, not having discharged their import cargoes in the docks—	
The use of the docks for any period not exceeding four weeks from the date of entering	0 9

Vessels Entering to Load from the Import Warehouses or from Vessels Discharging Overseas.

	Per ton on the gross weight shipped.
For the use of the docks for one week—	
If from import warehouses	0 0
If from vessels overseas	0 0

The number of tons charged not to exceed the register tonnage.

Exceptions.

Vessels under 100 tons register coming in to load corn or deal, timber, and like wood goods, wholly from the Company's wharves, yards, or ponds—free. Rent to commence after one week.

Steam Vessels.

	Per ton register.
Entering to lay up, or to repair or fit their machinery—	
For the use of the docks for any period not exceeding four weeks from the date of entering	0 0
Entering to load or discharge cargo, the same dock rates as sailing vessels.	

\* The expense of mooring, unmooring, and removing is included.

† If such vessels load outwards, 3d. per ton additional charged.

‡ The expense of mooring, unmooring, and removing is included.

Charges for Shipping

Pieces under two 700 tons, and not above five tons, and above ten tons, and above twenty tons, each  
Above thirty tons, each  
Rent, per week, for the  
Dues for plates, shaft  
If the Company are to additional charge of 10s. 4 tons and upwards.

Vessels Entering

Steam vessels -  
Sailing vessels -  
Not to remain beyond one pay the full rates on lighters

For remaining o

Sailing vessels  
Steam vessels lying up, repairs  
Charters -  
Tons, having discharged or re  
All vessels which re-enter after used their privilege without

For the more expedite unloading by the Company be obtained in clearing them; cooping water-when filled. (Where inc delay occurs in discharge vessels, lighters, or craft, Company to cause to be number of fit and proper reasonable charge for the owners, consignee or consignee's purpose, it will be left the superintendent. The be made for such services -

Be shown hired to work under the leading officer of the ship, each not more than 1 day to be charged except in proportion.  
If not loaded, shipped, or struck down, and not under 5 tons  
If not under 1 ton to be charged.  
If not of a floating engine for work the evidence of the mast in clear way and not more than 1 day to be charged.

Whenever assistance is required within the locks, it will be furnished on the following terms

1 boat with warp and two hands  
1 do. and four hands  
1 do. and four hands  
1 do. and four hands  
The wages are only lent in aid of the ship

Wear from the East London  
local, stored, and delivered on board  
charged, from the tank

Table of Charges for Masting

	Material	Foremast
£ s. d.	£ s. d.	£ s. d.
100	15 11	8 2 0
200	11 0	3 12 0
300	5 1 0	2 2 0
400	2 12 6	1 13 9



any article warehoused in packages, or for the whole quantity of a bulk, as imported, or for any allotment of such bulk, on payment of the expense of separating it into distinct and corresponding parcels.

That the course of business may be fully understood, the attention of importers and purchasers of produce is particularly requested to the following memoranda:—

Warrants for goods which are usually sold without lotting will be made out for such quantities as have been found generally convenient to the importers.

For goods which are lotted, made merchantable &c., the warrants will be made out as soon as the operations are performed. When directions from the importer are required, notice will be given on the landing accounts, or otherwise.

The first warrants or cheques will be issued to the order of the importers or their assigns (provided there is no stop upon the goods for freight or otherwise), upon payment of the prime rates or landing charges.

Such payments must include all charges incurred to the time of passing the order or issuing the warrants or cheques, excepting rent; charges accruing subsequently, and the rent, must be paid by the holders of the warrants before delivery of the goods. The proprietors of goods may, however, clear the rent and incidental charges to any desired date, and have new warrants or cheques accordingly.

Weight or gauge notes, corresponding to the warrants, will be furnished, when required, at the charge of twopence each.

The landing and consolidated rates are received at the Dock House; rent and extra charges by the receivers at the docks, at the Clearing Office at Fenchurch Street warehouse, and at the Billiter Street and Jewry Street warehouses, in whichever place the goods may be lodged.

When the assignment or removal of part of the goods only is intended, the warrants or cheques should be divided at the Dock House in London, as hereafter provided. If the quantity to be assigned must be weighed or measured, to separate it from the bulk, the division cannot be made until the whole quantity has been reweighed or re-measured.

If the delivery of the whole of the contents is directed, and the goods are not removed within two days, a new warrant or cheque for the remainder of the parcel must be taken out.

When the holders of warrants or cheques are desirous of assigning part of their contents, without delivery, reweighing, rehousing &c., new documents will be given in exchange, on lodging the originals, duly indorsed. The indorsement should specially direct the manner in which the contents are to be divided, and state the names of the parties in whose favour the warrants or cheques are to be issued, in the following form: 'Please to divide the within;' or, when part is to be delivered: 'Deliver to Bearer [state how many packages], and grant new one for [state how many packages] in favour of \_\_\_\_\_ one for, &c.'

Warrants may be exchanged or divided, without assigning the goods, when desired by the holder, at the same rate of charge.

Original warrants will be granted free of charge, beyond that of the stamp; but for other warrants the charge will be as follows, with the stamp in addition:—

For each warrant—

1 or 2 packages or quantities	4
3 or 4 "	5
5 to 7 "	6
8 to 10 "	7
11 to 15 "	8
16 to 20 "	9
21 to 25 "	10
26 to 30 "	11
31 to 35 "	12
36 to 40 "	13
41 to 45 "	14
46 and upwards "	15
(Goods in bulk, per ton)	16
For every new cheque granted	2

If, from the nature of the contract between the seller and buyer, reweighing &c. may be necessary, new warrants, if desired, will be issued on depositing the warrants, indorsed with directions to that effect, containing the landing weights and reweights, as soon as the operations are completed.

When any alterations, such as repacking &c. are to be made (except when preparatory to immediate delivery), the warrants must be lodged, and others, representing the goods correctly, issued in the same manner.

In the case of casks of liquids used to fill up others, the warrant must be lodged, and the proprietor may either have a new warrant for the remainder, or it may be delivered (if not required to be used again in the same way) to his order.

The warrants must likewise be lodged, on giving orders to vat; but if immediate shipment is not intended, new warrants will be issued as soon as the casks are refilled.

In the four last-mentioned cases, the charges for performing the operations include the expense of the new warrants.

When warrants or cheques are lost or mislaid, the Company require that they should be advertised in the *Public Ledger*, the paper containing the advertisement, and an engagement to indemnify the Company by bond or otherwise to be enclosed with the application for duplicates. The new documents will not be issued (unless the original shall be found and delivered up) until seven clear days shall have elapsed from the date of notice by advertisement. Upon notice of the loss, the goods will be stopped, and the original document can on no account be acted upon unless first presented at the Secretary's Office.

Irregularities in the indorsements lessen the security of the proprietors of goods, and render the documents incomplete as authorities. The attention of the holders is therefore particularly called to that point, to prevent the impediments which must otherwise arise to the regular despatch of business; but they must not attempt to remove such impediments by indorsing any warrant, order, or cheque, without due authority.

Forms on which persons may be authorised to sign for others may be obtained in the General Office at the Dock House; and as no signature but that of the party named on the warrant, delivery order, or cheque can be acted upon, when goods are made deliverable to order, persons so authorised should adhere to the following form:—

'For (Name or firm),  
(Signature of the person authorised).'

**Deposit Accounts.**—To facilitate passing orders and paying the charges due upon goods, the Company will open deposit accounts, upon request from the merchants, with such deposits as they think proper: when the balance is reduced below ten pounds, a further deposit must be made, ten pounds being the smallest sum which can be received at a time.

Parties having deposit accounts with the Company must transmit a note of advice on the proper form with each deposit, and it will be necessary

that they should  
or warrants when  
that:—

Charges to

Charges to

By opening such  
chants with the Co  
are upon rent, is  
firm and pass be  
cation at the Dock

Orders for Ext  
packing, or prepar  
work not comprise  
from time to time  
labor and materi  
can be done but h  
the goods, or partic

The charges unco  
the parties giving

Goods prepared f  
prepared for shipm  
within the fixed m  
charged repiling or  
rat which may hav

The time allowe  
rehousing is as fol  
measured wood, fo  
goods, seven clear  
goods, three clear w  
vessel leads in the d  
to the date of her de

Explanation of th  
on Goods Inwards,—  
upon the gross weigh  
ceiving by land, wh  
on the quay, or loa  
weighing or gauging  
landing weights, ta  
strength of spirits, n  
Goods taken away b

The Rates in these Tables  
found by the Company;  
and future operations, b

Goods In

Arid, tartaric . . .  
Ails, Scotch . . .  
Alkanet root . . .  
Almonds, casks, 5 cwt.  
serons

Casks, under 5 cwt. . .

Boxes, or } boxes . . .

Shell, in cases or bales

Alloy, in gourd  
in Chests, casks, or bu

A'm . . .

Alex. marina . . .

in press-packed bales

in bags, not press-pack

Anchovies

Angelica root . . .

Anatto, casks or cases

Antied—See Seed Medic  
Star













Table of Rates &amp;c.—continued.

Goods Imported	Landing Rate	Re-weight-10%	Repl-ing or Re-housing	Delivery		Per Week	Rent	
				by Land	by Water		Quantities &c.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	rate	per
Marble	0 6	..	..	0 2	0 6	0 2		
Rough, in cases	per cwt.							
Slacks:								
4 tons and under	ton	6 0	..	..	..	0 5		
above 4 tons and not exceeding 10 tons	..	10 0	..	..	..	0 3		
above 10 tons	..	20 0	..	..	..	0 3		
Mats, bass	100	1 8½	..	0 6½	1 8½	0 6		
Meats, preserved—as Fish.								
Melao—as sugar	ton	3 4	1 8	1 8	3 4	0 4½		
Molasses and cane juice (or a consolidated rate of 9s. per ton nett.	..	7 6	2 6	2 6	7 6	0 9		
Moos, Rock or Iceland	..	6 0	2 5	2 5	6 9	0 4		
Mother-of-pearl shells:								
Loose	..	5 0	1 8	1 8	5 0	0 4		
In packages	..	0 4	0 1½	0 1½	0 4½	0 7½		ton
Musket, in boxes	cwt.	0 6	0 2½	0 2½	0 7½	0 0½		
In bundles or bags	..	0 6	0 2½	0 2½	0 7½	0 0½		
Musical instruments:								
above 35 feet and not exceeding 50 feet	case	4 6	..	..	1 6	4 6	0 4	
above 35 feet	..	3 0	..	..	1 0	3 0	0 3	
15 feet and under	..	1 6	..	..	0 4	1 6	0 2	
Musicians	ton	4 0	1 8	1 8	4 0	0 4		
Myrrh, See Gum.	..	0 3	0 1	0 1	0 3	0 0½		barrel or bag
Nails	cwt.	3 0	1 5	1 5	3 0	0 2		
Natives	ton	3 0	1 5	1 5	3 0	0 2		
Filling and weighing loose on delivery or rehousing, 2s. per ton.	cwt.	0 6	0 2	0 2	0 2	0 6	0 10	ton
Nutmegs (or a consolidated rate of 1s. 3d. per cwt. nett.	cwt.	0 6	0 2	0 2	0 2	0 6	0 10	ton
Nuts, Brazil, chestnuts, filberts, Spanish, and walnuts: ½ bushels and under	bag	0 2	..	..	0 1	0 2	2 0	100 bags
above and not exceeding 4 bushels: bag or sack	..	0 4	..	..	0 2	0 4	0 4½	100 bags or sacks
Nut under	cwt.	0 4½	0 1½	0 1½	0 4½	0 0½		
Nuts, under	..	0 4	0 2	0 2	0 2	0 6		ton
Oil:								
Castor, in cases	..	5 6	2 0	2 0	5 6	0 6		
In casks	..	5 6	2 0	2 0	5 6	0 6		
Olive, in jars—								
Large jars	cwt.	0 4	0 2	0 2	0 2	0 6	0 6	each
Common jars	..	0 6	0 3	0 3	0 3	0 8	0 3	..
Half jars	..	0 6	0 3	0 3	0 3	0 8	0 2	..
Said	..	0 4	..	..	0 2	0 6	0 2½	score ½ chests
Palm and cocoa nut, in casks not exceeding 30 cwt. each	ton	3 6	1 5	1 5	3 6	3 9		
In large casks above 30 cwt.	..	4 0	1 6	1 6	4 0	4 6		
In staks, 20 cwt. and under	..	4 0	1 6	1 6	4 0	4 6		
Above 30 cwt.	..	5 0	2 0	2 0	5 0	6 0		
Seed, in dippers, canisters, and like packages	cwt.	0 4	0 2	0 2	0 2	0 6	0 0½	
Per Ton of 252 Imperial Gallons								
		Olive or Seed	Fish not found-land	New-found-land				
Landing, wharfage, lay-up, to gauges, and crew's attendance at landing &c.	s. d.	5 6	5 0	5 0				
Searching and filling up (in under)	1 0	1 0	1 0					
Delivery by land from quay, or housing	1 6	1 6	1 2					
Delivery by land from snail	1 6	1 6	1 6					
Delivery by water from snail or quay	4 6	3 0	3 0					
Rent per week	0 6	0 4	0 4					
Consolidated rate of 7s. per ton on New-land all including delivery from the quay and moor's rent from the date of ship's report, and wharfage except cooping. If not delivered within month, the usual delivery rates will attach.	ton	3 0	1 2	1 2	1 2	3 6	0 3	
Case								
Case, See Junk.								
Case, about 12 gallons	2-barrel	0 4	..	..	0 1½	0 4	0 1	
Case, about 6 "	2-barrel	0 3	..	..	0 1	0 3	0 0½	
Case, about 2 ½ "	keg	0 2½	..	..	0 0½	0 2½	0 0½	
Case, about 1 ½ "	score	1 6	..	..	1 6	1 6	0 2	
Case, about ¾ "	score	0 9	..	..	0 5	0 9	0 1	
Case, about ½ "	score	0 9	..	..	0 5	0 9	0 1	
Case, about ¼ "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/8 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/16 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/32 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/64 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/128 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/256 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/512 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/1024 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/2048 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/4096 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/8192 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/16384 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/32768 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/65536 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/131072 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/262144 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/524288 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/1048576 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/2097152 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/4194304 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/8388608 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/16777216 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/33554432 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/67108864 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/134217728 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/268435456 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/536870912 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/1073741824 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/2147483648 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/4294967296 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/8589934592 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/17179869184 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/34359738368 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/68719476736 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/137438953472 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/274877906944 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/549755813888 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/1099511627776 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/2199023255552 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/4398046511104 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/8796093022208 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/17592186444416 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/35184372888832 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/70368745777664 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/14073749155328 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/28147498310656 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/56294996621312 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/112589993222624 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/225179986445248 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/450359972890496 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/900719945780992 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/1801439891561984 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/3602879783123968 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/7205759566247936 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/14411519132495872 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/28823038264991744 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/57646076529983488 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/115292153059966976 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/230584306119933952 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/461168612239867904 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/922337224479735808 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/1844674488959471616 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/3689348977918943232 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/7378697955837886464 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/14757395911675772928 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/29514791823351545856 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/59029583646703091712 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/118059167293406183424 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/236118334586812366848 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/472236669173624733696 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/944473338347249467392 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/1888946676954599334784 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/3777893353909198669568 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/7555786707818397339136 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/15111573415636794678272 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/30223146831273589356544 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/604462936625471787131088 "	score	0 9	..	..	0 5	0 9	0 1	
Case, about 1/120892587325094								



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Table of Rates &amp;c.—continued.

Goods Imported	Landing Rate	Re-weighting	Repeating or Re-housing	Delivery by Land		Delivery by Water		Rent	
				e. d.	e. d.	e. d.	e. d.	Per Week	Quantities &c.
Rhubarb - - - - -	per cwt.	e. d. 0 10	e. d. 0 3	e. d. 0 3	e. d. 0 3	e. d. 0 10	e. d. 0 10	ton	per
A consolidated rate on East India: including also starting into bulk, taring, repairing, rearing, retilling, mulling down, reweighing, and piling away, of 7s. per chest 1 cwt. and upwards, and 5s. 6d. per chest under 1 cwt.									
Rice - - - - -	ton	3 4	1 8	1 8	1 8	3 4	0 4 0 3	ton in casks ton in bags	
Or a consolidated rate: In casks - - - - - 7s. 6d. ton nett In bags - - - - - 6s. 3d. "									
Rice, old. See Junk.									
Road, unretined - - - - -	ton	2 6	0 10	0 10	0 10	2 6	0 6 0 3	ton loose 100 barrels	
Rags (not East India): 40 and under 70 square yards - - - - - Under 40 ditto - - - - -	hale half-hale	1 6 1 0	.. ..	.. ..	.. ..	0 6 0 4	1 6 1 0	0 3 0 1	
Ram. See separate table.									
Rafflower - - - - -	ton	4 0	1 8	1 8	1 8	5 0	0 6		
Or a consolidated rate of 12s. 6d. per ton nett.									
Saffron - - - - -	cwt.	2 0	0 8	0 8	0 8	2 0	0 2	bale or case	
Sage and sage flour - - - - -	ton	5 0	2 6	2 6	2 6	5 0	0 3 0 4	ton in bags ton in chests, boxes, or casks	
Saltetre - - - - -	"	4 0	1 8	1 8	1 8	5 0	0 3		
Sand, black. See Tin Ore.									
Sardines, in cases containing small tin boxes: Cases containing 100 1/2-tins or 200 1/4-tins (paid from date of landing, and taken away within three days from date of final examination of each mark—	case	0 4	0 1	0 1	0 1	0 4	0 0		
To the importer - - - - -	case	d. 3							
To the buyer, if delivered by land - - - - -	"	1							
After the above period—									
Housing - - - - -	"	1							
Delivery by land - - - - -	"	1							
By water - - - - -	"	4							
Sarsaparilla - - - - -	cwt.	1 0	0 5	0 5	0 5	1 3	0 0		
Or a consolidated rate of 2s. 3d. per cwt. nett.									
Sassafras. See Wood.									
Salt or root, in packages - - - - -	"	0 6	0 3	0 3	0 3	0 9	0 2 0 1	case or cask barrel	
Scammony - - - - -	"	2 0	1 0	1 0	1 0	3 0	0 0	drum	
Sea grass. See Alva Marina.									
Seed, clover, lucerne, and other agricultural: In bags - - - - -	ton	3 0	1 3	1 5	1 5	3 9	0 3		
In casks or cases - - - - -	"	4 0	1 6	1 6	1 6	4 6	0 6		
Medicinal, not otherwise rated - - - - -	"	5 0	2 6	2 6	2 6	7 6	0 6		
Or in Galen - - - - -	cwt.	0 6	0 2	0 2	0 2	0 6	0 0		
Seed. See Management Rates.									
Senna - - - - -	"	0 6	0 2	0 2	0 2	0 6	0 10		
Senna - - - - -	"	0 3	0 1	0 1	0 1	0 4	0 7	ton	
Sewing machines and sewing machine cabinets: Under 10 feet cube - - - - -	case	0 9	..	..	0 3	0 9	0 0		
10 and under 15 feet cube - - - - -	"	1 0	..	..	0 4	1 0	0 1		
15 " 20 " - - - - -	"	1 6	..	..	0 6	1 6	0 1		
Shellac. See Management Rates.									
Shells, bull mouth, conch, cola, clam and green ear - - - - -	ton	5 0	1 8	1 8	1 8	5 0	0 3		
Fine and coral specimens: Under 5 feet cube - - - - -	case	0 6	..	..	0 2	0 6	0 1		
5 feet and under 15 feet cube - - - - -	"	0 9	..	..	0 3	0 9	0 1		
15 " 20 " - - - - -	"	1 0	..	..	0 4	1 0	0 2		
20 " 30 " - - - - -	"	1 6	..	..	0 6	1 6	0 3		
30 " 40 " - - - - -	"	2 0	..	..	0 8	2 0	0 3		
40 " 50 " - - - - -	"	2 5	..	..	1 0	2 5	0 3		
50 " 70 " - - - - -	"	3 0	..	..	1 0	3 0	0 4		
Shops, stores, warehoused, consolidated rate: 1 cwt. and upwards - - - - -	cwt.	1 0	..	..	..	..	0 1		
Under 1 cwt. - - - - -	package	0 6	..	..	..	..	0 0		
15 lbs. - - - - -	"	0 6	..	..	..	..	0 0		
Liquids, cask, 20 gallons and upwards - - - - -	gallon	0 1	..	..	..	..	0 5	ton	
Casks, demijohns, jugs &c. - - - - -	package	1 0	..	..	..	..	0 0		
Under 10 gallons - - - - -	"	1 6	..	..	..	..	0 0		
10 gallons and under 20 gallons - - - - -	ton	3 0	1 0	1 0	1 0	3 0	0 1		
As, new or thrown (not East India or China) - - - - -	cwt.	1 0	0 4	0 4	0 4	1 0	0 2	bale, 2 cwt. and upwards	
East India and China. See Management Rates.								bale, under 2 cwt.	
Manufactured: Under 1 cwt. - - - - -	small bale or case	1 0	0 4	0 4	0 4	1 0	0 1		
1 cwt. and under 2 cwt. - - - - -	bale	1 6	0 6	0 6	0 6	1 6	0 1		
2 cwt. and upwards - - - - -	cwt.	1 0	0 4	0 4	0 4	1 0	0 0		
Water chestnut: 1 cwt. and upwards - - - - -	bale	3 0	1 0	1 0	1 0	3 0	0 1		
1 cwt. and under 6 cwt. - - - - -	"	1 6	0 6	0 6	0 6	1 6	0 1		
1 cwt. and under 4 " - - - - -	"	0 9	0 3	0 3	0 3	0 9	0 0		
1 cwt. and under 2 " - - - - -	"	0 6	0 2	0 2	0 2	0 6	0 0		
Wool and slip: 1 cwt. and under 6 cwt. - - - - -	"	1 0	0 6	0 6	0 6	1 0	0 1		
6 cwt. and under 10 " - - - - -	"	0 9	0 4	0 4	0 4	0 9	0 1		
10 cwt. and upwards - - - - -	"	0 6	0 3	0 3	0 3	0 6	0 0		
Wool, wet salted, loose - - - - -	100	2 3	1 0	1 0	1 0	3 1	0 5		
Wool, dry or dry salted, loose - - - - -	"	2 0	0 8	0 8	0 8	2 3	0 4		
Wool, wet salted, loose - - - - -	"	4 6	2 1	2 1	2 1	6 3	0 6		
Wool, dry or dry salted, loose - - - - -	"	3 0	1 5	1 5	1 5	4 2	0 5		
Wool, dry or dry salted, loose - - - - -	dozen	0 2	0 1	0 1	0 1	0 3	0 0		
Wool, small Russia - - - - -	100 skins, bundle	0 9	0 3	0 3	0 3	0 9	0 0		
Wool, or silk, in packages—as Furs. 120 - - - - -	dozen	3 0	1 0	1 0	1 0	3 0	0 1		
Wool, or silk, in packages—as Furs. 120 - - - - -	dozen	2 9	0 8	0 8	0 8	2 9	0 1		
Wool, or silk, in packages—as Furs. 120 - - - - -	dozen	1 6	0 6	0 6	0 6	1 6	0 0		

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Table of Rates &c.—continued.

Consolidated rate comprising landing, wharfage, housing, and 12 weeks' rent from date of vessel breaking	cwt. qrs. lb.	Under	cwt. qrs. lb.	Colonial, Cape, West, Spanish, North and South America, Turkey, and Levant		Barbary and Morocco	Russia	German	Delivery by Land, and Mending at Delivery
				s. d.	s. d.				
bulk landing weights, original warrants, certificates of damage, or survey after landing, including at landing, taring, lotting, sampling, unpling for show, showing, filling in, mending, reweighing and repiling per bale	0 2 0 0 3 0 1 0 0 1 2 0 2 0 0 3 2 0 5 0 0 7 2 0	and "	0 5 0 1 0 0 1 2 0 2 0 0 3 2 0 5 0 0 7 2 0 10 0 0	s. d. 1 0 0 1 6 0 2 6 0 3 6 0 4 6 0 5 6 0 6 6 0	s. d. 1 0 0 1 6 0 2 6 0 3 6 0 4 6 0 5 6 0 6 6 0	s. d. 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0	s. d. 4 0 0 5 0 0 6 0 0 7 0 0	s. d. 5 0 0 6 0 0 7 0 0	s. d. 0 4 0 0 4 0 0 6 0 0 6 0 1 0 0 1 3 0 1 6 0 1 6 0

Rates on Dyers' and Furniture Wood.

Goods Imported	Landing Rate	Re-weighing	Repiling or Rehousing	Delivery by Land	Delivery by Water	Rent per Week	Rent per Week after the first year from the Vessel breaking bulk	
							s. d.	s. d.
Yarn, hempen	5 0	2 0	2 0	2 0	5 0	0 5	per	
Zinc. See Spelter.								
Hickory								
Walrus								
Black Ebony from the East Indies, Cocca-Wood, and Lignum-Vite.								
Maple								
Teak								
White Pine								
Yellow Pine								
Red Pine								
White Oak								
Black Oak								
Spanish Cedar								
Red Cedar								
White Birch								
Yellow Birch								
Green Birch								
Black Birch								
White Elm								
Black Elm								
White Ash								
Black Ash								
White Spruce								
Black Spruce								
White Fir								
Black Fir								
White Pine								
Black Pine								
White Cedar								
Black Cedar								
White Cypress								
Black Cypress								
White Juniper								
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White Locust								
Black Locust								
White Hickory								
Black Hickory								
White Elm								

Table of Rates &amp;c.—continued.

## Indigo—continued.

Rates.	Chest.
Management: applicable to goods worked and shown for sale, comprising every operation incidental thereto, importers' first samples if ordered before the chests are nailed down, and delivery—	<i>s. d.</i>
When raised - - - - -	12 6
When not raised - - - - -	10 0
Rent, per week - - - - -	0 14

## Lac Dye.

Rates.	Chest.
Landing: comprising landing, wharfage, weighing, and furnishing landing weights, and loading or housing—	<i>s. d.</i>
Per chest, 2 cwt. and under - - - - -	0 9
above 2 cwt. to 4 cwt. - - - - -	1 0
above 4 cwt. to 6 cwt. - - - - -	1 3
Management: comprising landing, wharfage, housing, weighing, stripping, opening, sorting, sampling, taring, raising, repairing, retaring, refilling, nailing down, hooping, and marking, providing chests for overtakers, reweighing, lotting, and piling away—	<i>s. d.</i>
In chests, per cwt. gross - - - - -	1 8
Re-weighing - - - - -	0 7
Re-weighing - - - - -	0 3
Re-weighing or Delivery by land - - - - -	0 4
water - - - - -	0 5
above 2 cwt. and under - - - - -	0 9
above 2 cwt. to 4 cwt. - - - - -	1 0
above 4 cwt. to 6 cwt. - - - - -	1 3

## Sesellac and Stielac.

Rates.	Per cwt. gross.
Landing: comprising landing, wharfage, weighing, and furnishing landing weights, and loading or housing—	<i>s. d.</i>
Management: comprising landing, wharfage, housing, weighing, stripping, opening, sorting, sampling, taring, raising, repairing, retaring, refilling, nailing down, hooping, and marking, providing chests for overtakers, reweighing, lotting, and piling away—	<i>s. d.</i>
In chests - - - - -	1 9
In bags - - - - -	1 3
Rent, per week - - - - -	per ton gross 0 7
Re-weighing - - - - -	0 2
Re-weighing or Delivery by land - - - - -	0 2
water - - - - -	0 7

## Shellac.

Rates.	Per cwt. gross.
Landing: comprising landing, wharfage, weighing, and furnishing landing weights, and loading or housing—	<i>s. d.</i>
Management: comprising landing, wharfage, housing, weighing, stripping, opening, sorting, sampling, taring, raising, repairing, retaring, refilling, nailing down, hooping, and marking, providing chests for overtakers, reweighing, lotting, and piling away—	<i>s. d.</i>
In chests - - - - -	1 9
In bags - - - - -	1 3
Rent, per week - - - - -	per ton gross 0 7
Re-weighing - - - - -	0 2
Re-weighing or Delivery by land - - - - -	0 2
water - - - - -	0 7

## Shellac—continued.

Rates.	Per cwt. gross.
Management: comprising landing, wharfage, housing, weighing, stripping, opening, sorting to quality, starting into bags, shivering if requisite, sampling, taring, raising, repairing, retaring, refilling, nailing down, providing chests for overtakers, reweighing, lotting, and piling away—	<i>s. d.</i>
In chests - - - - -	1 10
In bags - - - - -	1 3
Rent, per week - - - - -	per ton gross 0 7
Re-weighing - - - - -	0 2
Re-weighing or Delivery, by land - - - - -	0 2
water - - - - -	0 7

## East India and China Silk: Raw and Thrown.

Rates.	Bates.		
	150 lb. and under 200 lb. gross.	101 lb. gross and under 150 lb. gross.	Above 101 lb. and under 150 lb. gross.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Landing: comprising landing, wharfage, weighing, furnishing landing weights, and delivery from the quay at the docks.	1 6	1 0	0 9
Note.—If the silk is not cleared from the quay the same day it is landed, it will be housed for security, and the landing and housing rate will attach.			
Landing and housing: comprising landing, wharfage, weighing, furnishing landing weights, housing, and delivery.	2 8	2 0	1 6
Note.—Sampling or inspection, or taring for customs, may take place on silk subject to this rate, on payment of the respective charges but should any further operations be required, the management rate will attach.			
Management: comprising landing and wharfage, or receiving by land, housing, weighing, and furnishing landing weights, stripping, taring, new bags and repacking, including unpling and repiling, first inspection, or first sampling, by importer or his agent, marking, reweighing, and delivery.	7 0	6 0	5 0
Rent, per week - - - - -	0 13	0 13	0 13

## Tea.

Rates, per Package	160 lb. and under 200 lb. gross.	150 lb. and under 160 lb. gross.	80 lb. and under 130 lb. gross.	60 lb. and under 80 lb. gross.	45 lb. and under 60 lb. gross.	35 lb. and under 45 lb. gross.	15 lb. and under 35 lb. gross.	Under 15 lb. gross.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Landing and housing: comprising landing, wharfage, housing, separating into chests, weighing, taring, furnishing landing weights, examining and turning out and in for damage, mending, laying down for private inspection, lotting, nailing down, placing in delivery bags, and delivery by land.	2 10	2 1	1 8	1 5	1 5	1 2	0 9	0 4
Management: comprising the same operations as the landing and housing rate; also laying down for public sale, attendance whilst on show, extra warehouse-room, and any other operations consequent thereon.	3 6	2 7	2 1	1 8	1 5	1 3	0 10	0 5
Rent, per week - - - - -	0 1	0 0 1/2	0 0 1/2	0 0 1/2	0 0 1/2	0 0 1/2	0 0 1/2	0 0 1/2

## SCHEDULE OF RATES AND CHARGES ON WINES AND SPIRITS IN CASKS OTHER THAN RUM.

The Landing Rate includes landing, wharfage, and gauging, watching, cooper's attendance at landing and while on the quay; agents of landing gauges, warrants, if required, each of spirits, as ascertained by the Customs, first samples. Wines and spirits will be allowed to remain on the quay, subject to a weekly rent for one calendar month from the commencement of the ship's discharge, or first landing from the quay, after the expiration of which the housing and coopering rate will become chargeable.

B.—When wines or spirits have been cleared from the Customs, and delivery orders have been issued with the Company within the calendar month as above, a further period, not exceeding ten days, will be allowed for clearing from the quay, on payment of the charge for delivery

from the vault in lieu of that for delivery from the quay.

The Housing and Coopering Rate includes housing and coopering, cooper's attendance at housing, and superintendence in the vaults, for the first eighteen months, regauging, and sampling at delivery; and is applicable to all wines and spirits not cleared from the quay. Goods chargeable with this rate are subject to rent from the date of the ship's breaking bulk, or first landing from craft, and to cooper's superintendence after eighteen months.

Racking.—When racking is necessary, forty-eight hours' notice will be given to the proprietor, with the option of sending his own casks. No charge will be made when the casks are racked for preservation in the vault, within twelve months from the date of the ship breaking bulk; those for exportation or coastwise excepted.

Tasting can be permitted only under the pro-



**Bottling.**

Consolidated rate for bottling, per dozen  
Delivery, per dozen  
Rent to commence three weeks after bottling - Rates as in Table 2.

**Landing Rate** includes landing, wharfage, gauging, housing, delivery from the quay by land or water, original warrants and accounts of gauges and strengths, as ascertained by the Customs, Rum not intended to be warehoused will be allowed four clear days from the final gauging of the transhipment, if intended for immediate clear days from that period, and when the export vessel loads in the docks, until the date of her departure, paying rent as if housed at landing. Rent is chargeable from the date of the ship breaking bulk, or from the first landing from craft. Consolidated Rate includes all expenses for

**DOCKS**

landing, wharfage, gauging, cooping for housing, marking, sampling, housing and delivery, original warrants, furnishing gauges and strengths, as ascertained by the Customs, surveying and furnish from the ship's commencement of discharge. It is charged in all cases, *unless notice be given*, by the importers, to place the goods under the landing rate.

Before transfer by the Company, or delivery, the charges on the quantity to be transferred or delivered must be paid.

**Sizes of Rum Casks.**

Half quarter cask	Full Contents
Quarter-cask	under 20 gallons
Barrel	20 and " 30 "
Head	30 " " 43 "
Half-but	43 " " 54 "
Punchoon or pipe	54 " " 85 "
Butt	85 " " 117 "
Leager	117 " " 159 "
	159 and upwards.

**Coverage and Extra Rates and Charges on Wines and Spirits other than Rum.**

	Pipes, 4 Hhd. or 100 Gals.	Casks Cape 66 to 75 Gals.	Hhds.	Thirds	Quarter Casks	Half-Quarter, or small Casks		Aums		
						10 Gals. and under 20 Gals.	Under 10 Gals.	Double	Single	Half
Immuring, including wood hoops, or bunging	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Demurrage	2 0	1 5	1 2	1 0	0 9	0 7	0 5	1 0	0 9	0 4
Packing and turning	0 10	0 7	0 6	0 5	0 4	0 3	0 2	0 3	0 3	0 3
Bearing out for cooping	0 3	0 2	0 2	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Rate for delivery, inspection, re dipping, or relaying, and laying up again	0 6	0 4	0 3	0 2	0 2	0 2	0 2	0 2	0 2	0 2
Plating	1 0	0 8	0 7	0 6	0 5	0 4	0 3	0 2	0 2	0 2
Coop or cooping	0 3	0 2	0 2	0 2	0 2	0 2	0 2	0 2	0 2	0 2
Reco canvas	1 6	1 3	1 1	1 0	0 9	0 8	0 7	0 6	0 5	0 4
Raking	7 0	5 0	5 0	4 0	3 0	2 0	1 0	0 9	0 9	0 6
Raking from the lees	2 6	1 9	1 6	1 3	1 0	0 9	0 6	0 6	0 6	0 4
Distilling and repairing casks	3 6	2 3	2 1	1 9	1 6	1 0	0 8	0 7	0 7	0 5
Immuring cask covers	15 0	13 0	12 6	10 6	9 0	7 0	6 0	5 0	4 6	3 0
Sampling in the vault or second sampling on the quay	1 0	0 8	0 8	0 6	0 4	0 4	0 3	12 6	1 2	1 0
Plating in store, each time	0 6	0 6	0 6	0 6	0 6	0 6	0 6	0 6	0 6	0 6
Dem at public sale	0 2	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Painting the heads	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Iron hoops	each 1 0	5 0	4 0	2 0	1 0	0 7	0 5	0 4	0 3	0 2
Leather hoops	each 1 9	0 9	0 9	0 9	0 9	0 9	0 9	0 9	0 9	0 9
Leather hoops	each 0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
Leather hoops	each 3 6	3 0	3 0	2 8	2 6	2 3	2 3	3 6	3 0	2 6
Overrinsing and branding or fining	1 0	0 9	0 9	0 6	0 6	0 6	0 6	0 6	0 6	0 6

Chimes - each 0 6  
Pieces of lead - each 0 9  
Unstable casks, otherwise rated at 210 gallons to the tun, to be charged in the proportion of 2 pipes or 4 hogheads to the tun.

Consolidated rate	Landing rate	Delivery by Land	Delivery by water	Rent per week, including Cooper's attendance	
				s. d.	per leager butt
10 0	3 6	1 2	3 6	4 4	per leager butt
				2 2	per punchoon
				1 1	per half butt
				1 1	per hoghead
				1 1	per barrel or quarter-cask
				1 1	per half-quarter-cask

When Rum is imported in Casks made of proper Oak, the Company engages to be responsible for deficiencies in measure, which shall be one gallon per Cask for each Year, or fraction of a Year, the Goods remain in charge; but the Company will not be answerable for loss arising from the Casks being made of other and inefficient materials.

**Coverage and Extra Charges on Rum.**

Per cent and second, with vital	per cask 1 0
Per cent and second, without vital	per cask 0 6
Per cent and second, per pun, or pipe	per pun, or pipe 0 9
Per cent and second, per hhd., barrel or quarter-cask	per hhd., barrel or quarter-cask 0 6
Per cent and second, per cask	per cask 0 4
Per cent and second, per cask	per cask 0 2
Per cent and second, per pun, not exceeding five gallons	per pun, not exceeding five gallons 2 0
Per cent and second, per hhd.	per hhd. 1 6
Per cent and second, per cask	per cask 0 3
Per cent and second, per pun, or hhd.	per pun, or hhd. 0 3
Per cent and second, per hhd.	per hhd. 0 3
Per cent and second, per cask	per cask 0 1
Per cent and second, per hhd.	per hhd. 0 2
Per cent and second, per cask	per cask 0 6
Per cent and second, per cask	per cask 0 1
Per cent and second, per cask	per cask 1 0
Per cent and second, per pun, or hhd.	per pun, or hhd. 0 4
Per cent and second, per cask	per cask 0 1
Per cent and second, per cask	per cask 0 3
Per cent and second, per cask	per cask 0 4
Per cent and second, per cask	per cask 0 6

	New Heads, per head	Iron Hoops, per hoop	
		New	Old
Punchoon (110 gallons and under)	s. d.	s. d.	s. d.
Half-but	2 9	0 8	0 4
Hoghead	2 9	0 8	0 1
Quarter-cask	2 2	0 8	0 4
Half-quarter-cask	2 2	0 4	0 2

Though the London and St. Katharine Docks now belong to one Company, and the undertaking and docks of the Victoria London Dock Company are transferred to the same management under the 27 & 28 Vict. c. 173, they may still with propriety be separately described.



connected with the Blackwall Railway, communicate by railway with all parts of the kingdom.

The Company was created by Act of Parliament in 1850. By this and subsequent Acts it is authorised to raise a share capital of 1,200,000*l.*, and to borrow 300,000*l.*, making its total powers of raising money 1,500,000*l.*

The undertaking was leased to Messrs. Peto, Betts, and Brassey for 21 years from January 1853, they paying as rent 5 per cent. on all capital up to 700,000*l.*, and 6 per cent. on all beyond that amount; also 2,000*l.* per annum for the expenses of the Company's offices and management, with half the profits which may arise from the working of the undertaking after payment of rent. The lessees were bound to lodge security to the extent of 150,000*l.* for the performance of the provisions of the lease; but, as already explained, the Victoria Docks have been transferred to the management of the London and St. Katharine Dock Company.

**SYNOPSIS OF THE ROUTINE OF PUBLIC BUSINESS, WITH AN ABSTRACT OF THE PRINCIPAL REGULATIONS APPLICABLE TO GOODS IN THE LONDON, ST. KATHARINE, AND VICTORIA DOCKS.**

Bills of lading must be produced before goods can be delivered to parties claiming the same, in all cases where such goods are entered by the Company for want of entry by the merchant; as also when goods have been landed from places to the eastward of the Cape of Good Hope, with the exception of Van Diemen's Land and New South Wales. They will also be required for goods from the West Indies or United States of America, when entered by parties other than the consignees. Particular attention is necessary to the regularity of the endorsements of bills of lading, as the Company's officers cannot pass any bill on which the authority from the shipper to the holder is not deduced by a complete and accurate chain of endorsement.

Every bill of lading should be *specialy* endorsed, so as to clearly designate the party to whose order the contents are to be delivered.

In all cases of informality in bills of lading, want of endorsement &c., or of their being lost, application must be made to the secretary by letter, stating the circumstances, and enclosing any documents which will show the title to the goods. In every such case the applicant must engage to indemnify the Company, by bond or otherwise, as the Court may direct.

Orders for transfer or delivery, unless the goods are to be delivered from the landing scale, cannot be accepted until the goods *have been landed*.

The payment of the landing rates, whenever retained, on the whole of each mark or parcel of goods, will be required previously to the transfer or issue of warrants, or delivery of any part thereof. Charges upon goods must be paid, carried to a deposit account, previous to an order for transfer being received by the Company. Orders for delivery cannot be acted upon unless made by the party in whose name the goods are in the Company's books, or by a person duly authorised to sign them; and should any interpolation, erasure, or alteration have been made in an order, it can only be accepted with the signature or initials of the party set against such alteration.

When goods lodged in the custody of the Company have been stopped for freight, the proprietor may liberate them by making a deposit of the amount claimed with the Company, according

to the provisions of the 'Merchant Shipping Acts Amendment Act,' 1862.

**Warrants and Transfers.**—Warrants for goods in general are issued, on written application at the dock, in favour of such person as the party in whose name they stand in the Company's books may direct. The first are issued free of expense, except for the stamp, as required by law; on all subsequent warrants and transfers the charges are as follows (stamp in addition):—

For each warrant or transfer containing—

	s.	d.
1 or 2 packages	-	- 0 1
5 "	1	- 0 2
5 to 7 "	-	- 0 3
8 " 10 "	-	- 0 4
11 " 15 "	-	- 0 5
16 " 20 "	-	- 0 6
21 " 25 "	-	- 0 7
26 " 30 "	-	- 0 8
31 " 35 "	-	- 0 9
36 " 40 "	-	- 0 10
41 " 45 "	-	- 0 11
46 and upwards	-	- 1 0
Goods in bulk, per ton	-	- 0 2
For every new cheque granted	-	- 0 2

The contents of *one warrant* may be divided into others for smaller quantities, *at the will of the holder*.

Goods for which the Company's warrants have been issued are not subject to detention for freight or landing-charges. The warrant also supersedes a certificate of transfer, is preferable in point of security, and a saving in expense. It is the only document issued by the Company entitled to be considered a legal symbol of the goods therein described, and is transferable, by an endorsement, without being produced at the dock office, thus obviating the trouble and expense of transfers; but transfers may nevertheless be effected in the books of the Company by the holder of a warrant, if desired, on its lodgment at the dock.

No warrant will be issued until the rates on the goods are paid, nor until the stop for freight (if any) has been removed, or a deposit equal to the amount claimed on account of such stop made with the Company.

Merchants' orders for delivery or transfer may be exchanged for warrants at the dock office, on written instructions being previously lodged.

If, from the nature of the contract between the seller and buyer, re-weighing &c. may be necessary, new warrants, if desired, will be issued, on depositing the warrants, endorsed with directions to that effect, containing the landing-weights and re-weights, as soon as the operations are completed.

When any alterations, such as re-packing &c., are to be made (except when preparatory to immediate delivery), the warrants must be lodged, and others, representing the goods correctly, issued in the same manner.

In the event of warrants being lost, they must be advertised in such public newspaper as may be directed by the Company, and 7 days elapse subsequently to the advertisement, and the Company be indemnified, before any delivery can be effected; but whenever the delivery of the goods is pressing, the parties may obtain it immediately, upon depositing the estimated value. Under no circumstances will duplicate warrants be issued.

Weight notes, at usual charge, are issued, on authority in writing of the owner of the goods, at any time on or before the day of prompt, entitling the holder to inspect and sample the goods.

**Authority to Sign Orders.**—Proprietors of goods desiring to authorise their clerks to sign orders on their behalf must lodge an instruction in writing to that effect with the Company. Printed forms for that purpose may be obtained.

Brokers possessing general authorities in writing



Note.—The following goods—guano, resin, pitch, tar, sulphur, spirits of and other turpentine, and petroleum—and such others as the insurance offices will not allow to be stored in the Upper Docks are warehoused exclusively at the Victoria Docks.

#### Memoranda.

The hours for the transaction of business are—  
From March 1 to October 31, 8 o'clock A.M. to 4 o'clock P.M.

From November 1 to last day of February, 9 o'clock A.M. to 4 o'clock P.M.

Registers of ships inwards, for the use of merchants and others, in which are alphabetically arranged the names of vessels, where from, and where stationed, and which also contain the particulars of ships loading, are placed at the Superintendent's Office, London Docks; Long Room, St. Katharine Dock House; Superintendent's Office, Victoria Docks.

Visitors on Sundays or public holidays are admitted only under special circumstances.

#### Rates on certain Goods stored exclusively at the Victoria Docks.

Goods Imported	Landing Rate	Re-weighting	Re-weighing or Re-housing	Delivery by Land	Delivery by Water	Rent	
						Per Week	Quantities &c.
	per ton	s. d.	s. d.	s. d.	s. d.	s. d.	per
General							
Including filling into bags and sewing up	ton	3 0	0 6	0 9	1 6	2 3	0 0
Doth.	"	2 6	0 10	0 10	0 10	2 6	3 0
Doth., unrefined	"	2 6	0 10	0 10	0 10	2 6	3 0
Doth., refined	"	3 9	1 3	1 3	1 9	4 6	0 6
Sulphur, unrefined	"	3 0	1 2	1 2	1 2	3 0	0 2
Sulphur, refined	"	0 3	0 1	0 1	0 1	0 3	0 0
Tar	barrel	2 6	0 10	0 10	0 10	2 6	13 6
Turpentine, rough	ton	2 6	0 10	0 10	0 10	2 6	13 6
Spirits of	"	6 0	1 6	1 6	1 6	2 6	0 6
Including cooper's superintendence at landing and delivery.	"	6 0	1 6	1 6	1 6	2 6	0 6

#### Petroleum.

	per ton or tun	s. d.
Landing wharfage, housing, and cooper's attendance at landing, weighing, and sampling at landing	-	4 0
Wharfage of gauging at landing	-	1 6
Wharfage of landing (full round)	-	2 6
(Materials in addition.)	-	1 6
Watching and turning (on quantity done)	-	0 6
Delivery by land from quay or warehouse	-	1 6
Delivery by water from quay or warehouse	-	2 6

The rates are applicable to goods brought in by cart or carriage.

Wharfage and shipping includes rent for three weeks (except on bullion, specie, jewellery, plate, &c.) from the date of reception, and during the period the vessel into which the goods are shipped is in the course of loading—any intermediate rent being chargeable.

Goods transferred from ship to ship will be subject to rent from the expiration of the three weeks above mentioned until the date of clearance of the vessel into which the goods are ultimately landed; such charge for rent, and for any trucking or reworking that may be necessary, to be paid at the time of lodging the transfer order.

Goods intended for exportation, but received in London or ordered to be housed, will be subject to extra charge for housing and unhousing, with wharfage, from the date of reception, until cleared for shipment into which they are shipped.

Water-borne goods landed at the request of the importer, or for the examination of the searchers, will be subject to the charges of landing and wharfage, wharfage and portorage.

Provisions and stores for the use of the ship's company (not being bonded or drawback goods) will be subject to the charge for wharfage and portorage.

The Dock Company take no cognisance of, nor are they responsible for, goods received into or cleared from a vessel in the docks by lighter, or by the Company do not undertake to lower goods from the hold of a vessel.

Persons in charge of goods sent to the docks for shipment must come provided with regular shipping notes, specifying their mark, quality, and quantity; also the name of the ship, master, and where the goods are intended for; and when for more than one vessel, a separate note must be

sent for each. These notes are to be delivered to the export foreman at the respective departments.

The duty of clearing goods devolves on the proprietors or shippers, who are responsible for all consequences arising from their not being duly cleared.

When goods cannot be shipped, either from want of room in the vessel, any informality in the document, or other cause, the order of the party in whose name the goods have been received will be necessary before they can be otherwise disposed of.

Accounts of charges on goods for shipment will be made out at the respective departments where the vessels are loading, and must be paid before the goods are put on board.

The master or mate of each vessel will be required to give a receipt to the Dock Company's officer for all goods delivered to his vessel by the Dock Company.

Registers of vessels loading outwards, and where stationed, are placed at the Superintendent's Office, London Docks; Long Room, St. Katharine Docks; Superintendent's Office, Victoria Docks.

The rate for landing, wharfage, shipping, housing, unhousing, is, in each case, one half the charge inserted in the column for wharfage and portorage, unless otherwise stated, and is charged on the gross weight of the package, except when it is otherwise specified.

#### TABLE OF RATES AND CHARGES ON WINES AND SPIRITS (OTHER THAN RUM) LANDED IN THE LONDON AND ST. KATHARINE DOCKS.

Wines and spirits (rum and British spirits excepted) landed in the docks will be chargeable with the following rates:—

**The Landing Rate,** which includes landing, wharfage, laying up to gauge and gauging, accounts of landing gauges and of strengths of spirits, first samples on the quay, warrants if required (but not the stamp upon the same), watching, cooper's attendance at landing whilst remaining on the quay, and at delivery by land or water from the quay.

Wines and spirits will be allowed to remain on the quay, subject to a weekly rent, for one



## Docking and Undocking—continued.

Coasting Vessel—	s. d.
per 1 week, per week	0 1
Under 200 tons register, landing goods in the Docks, and use of the Docks for 1 week	0 5
After 1 week, per week	0 1
Laden with bricks, broken granite, or paving stones: per use of the Docks for 1 week	0 3
After 1 week, per week	0 1
Vessels discharging their cargoes in the Island, Russia, or other Docks, wholly for the Canal with the use of the Docks for 1 week	Free
After 1 week, per week	0 1

Vessels wholly or partly laden, in lieu of the preceding tonnage rates, will be charged for docking and undocking as follows:—

Under 100 tons register	s. d.
100 tons and under 200 tons register	2 0
200 " 250 "	3 0
250 " 300 "	4 0
300 " 350 "	5 0
350 " 400 "	6 0
400 " 450 "	7 0
450 " 500 "	8 0

and 1 guinea for every additional 50 tons, or less.  
Rent of above vessels to commence after 11 days from date of clearance per week, per ton register

If such vessels leave the dock without unloading, rent to commence after one clear day from date of entrance, in addition to the charge of docking and undocking.

N.B. Vessels laden with flour, seeds, or oil cake are not included in the last-mentioned rates.

Vessels laden with mixed cargoes will be charged the same tonnage or dockage rates.

Rent on such vessels after 5 weeks, per week

Vessels loading outwards, excepting those previously exempted, will be charged, in addition to the rates before mentioned, the outward rate of 1d. per ton register if fully laden; or if partly laden, 1d. per ton on the quantity of goods taken

Steam vessels coming in to lie up, or to fit machinery, for a period not exceeding 1 week

After 1 week, per ton, per week, d. s.

All fire or steam vessels will be charged on the gross tonnage per register.

The foregoing rates do not include the expense of mooring, unmooring, and removing.

## DISCHARGING RATES ON SHIPPING.

Per ton register	s. d.
Vessels laden with wood, from Europe or the North American Colonies	0 3
And in addition for every load of hard wood, masts, or pitch pine	1d.
For every load of fir timber or bark	2d.
Laden with timber from Africa or the East Indies, or the like cargoes	2 5
And in addition for every load discharged overboard	1s.
Laden with mahogany or other furniture-wood in logs or staves	1 9
Laden with guano, cotton seed, sulphur, hemp, flax, or wool on bulk	1 0
Laden with rice	0 9
Laden entirely with tallow	0 6
Laden with mixed cargoes, tallow, hemp, flax, ashes, or goods on bulk	s. d.
For every ton of hemp or flax	1 2
" of tallow or ashes	0 6
" of other goods in bulk	1 0
Laden entirely with goods not previously mentioned, packed in bales, bags, baskets, cases, casks, chests, or other similar packages (each package or piece not exceeding 5 cwt.), and metal in pigs, bars, rods, plates, or similar pieces	0 9

Vessels have not proper convenience for discharging, or if their cargoes are of extra dimension or weight, additional rates will be charged.

Surveying ships, for storage &c., and furnishing a certificate for water supplied to ships, per 100 gals.

Office.—It is the duty of the ship's officer in charge to see that a safe gangway is made on board or over a vessel, and that it is properly secured whenever it is necessary to shift the same for the moorings, as the ship's officer is responsible for the safety and security of the gangway.

General Information.—Vessels and craft are

docked and undocked, before and after high water according to circumstances. Deliveries from the warehouses and yards of the Company, by land or water, commenced before four o'clock, and capable of being completed before half-past four, will be proceeded with, if desired.

6. Mill Wall Dock.—The Mill Wall Dock Company have no published list of charges for ships or goods; but if any person wish to bring into this dock either ships or goods, the manager is ready to make favourable arrangements for transacting any business, which can be done at the Dock House Railway place close to the Terminus of the Blackwall Railway, Fenchurch Street.

In 1863 a Company was incorporated for constructing docks, warehouses &c. in the parish of Battersea, and its powers were extended by Parliament in 1864 and 1865.

7. London Port Dues; Charges on account of Lights, Pilotage &c. in the Thames; Shipping &c. of London.—It is highly desirable that expert pilots, brilliant lights, and every other means that it is possible to devise, should be afforded to render navigation safe and expeditious. But to secure these advantages, it is indispensable that the charges on their account should be moderate. If they be otherwise, navigators are not unfrequently tempted to resort to what are less expensive, though less secure, channels. This principle has not, however obvious, been always kept sufficiently in view either in this or in other countries. During the latter years of the war, and down to 1825, the charges on account of docks, lights, pilotage &c. on ships in the Thames, and most other British ports, were exceedingly heavy, and would, no doubt, had they been maintained, have materially injured our commerce. Instead, also, of encouraging the resort of foreign ships to our ports, a contrary policy was adopted; the charges laid on them being usually about double those laid on British ships. This regulation was intended to promote the employment of the latter; but, as it led to reprisals in other countries, its real influence is believed to have been quite different; while, by driving away foreigners, it injured the trade of the country, and prevented our ports from becoming, what they are so well fitted to be, the emporiums of the world. We are glad, however, to have to state that the circumstances now alluded to have been materially, or rather wholly, changed. In 1825 the various dock monopolies expired; and a very great reduction has since been made in the charges on account of the docks, which, as already seen, are now very moderate indeed.

Exclusive of the dock duties, certain port or tonnage duties were imposed on ships frequenting the port of London, by the Acts 39 Geo. III. c. 69, 43 Geo. III. c. 124 &c. partly to pay the harbour-masters, provide mooring chains &c., and partly to create a fund for the improvement of the port, and in particular for defraying the cost of making a navigable canal across the Isle of Dogs. But this canal having been sold for 120,000l. to the West India Dock Company, under the 10 Geo. IV. c. 130, and the sums advanced by the public for the improvement of the port having been repaid, it was judiciously resolved to reduce the port duties to the lowest rates capable of defraying the necessary expenses. This was effected by the 4 & 5 Wm. IV. c. 32, which imposes the following tonnage duties on vessels in the port:—

per ton, d.  
1st. Class.—For every ship or other vessel trading coastwise between the port of London or any port or place in Great Britain, Ireland, the Orkneys, Shetland, or the Western Islands of Scotland, there shall be paid for every voyage in and out of the said port

2nd Class.—For every ship &c. entering inwards or clearing outwards from or to Denmark, Norway, or Lapland (on this side of the North Cape), or from Helsing, Hamburg, Bremen, or any other part of Germany bordering on or near the Germanic Ocean, or from or to Holland, or any other of the United Provinces, or Brabant, Antwerp, Flinders, or any other part of the Netherlands, or from or to France (within 150 miles thence), Jersey, Alderney, Sark, or the Isle of Man, there shall be paid for every &c. as above . . . 4

3rd Class.—For every ship &c. entering inwards or clearing outwards from or to Lapland (beyond the North Cape), Finland, Russia (without or within the Baltic Sea), Livonia, Courland, Island, Prussia, Sweden, or any other country or place within the Baltic Sea, there shall be paid for every &c. as above . . . 3

4th Class.—For every ship &c. entering inwards or clearing outwards from or to France (between Ushant and Spain), Portugal, Spain (without the Mediterranean), or any of the Azores, Madeira, or Canary Islands, or any of the United States of America, or of the British colonies or provinces in North America or Florida, there shall be paid for every &c. as above . . . 2

5th Class.—For every ship &c. entering inwards or clearing outwards from or to Greenland, Gibraltar, France, or Spain (within the Mediterranean), or any country, island, port, or place within or bordering on or near the Mediterranean or Adriatic Sea, or from the West Indies, Louisiana, Mexico, South America, Africa, East India, China, or any other country, island, port, or place within or bordering on or near the Pacific Ocean, or from any other country, island, port, or place whatsoever, to the southward of 25° of north latitude, there shall be paid &c. as above . . . 2

**Exemptions.**—Ships of war, and ships of the property of her Majesty or any of the Royal Family. Any vessel coming to or going coastwise from the port of London, or to any part of Great Britain, unless such vessel shall exceed 45 tons. Any vessel bringing corn coastwise, the principal part of whose cargo shall consist of corn. Any fishing smacks, lobster and oyster boats, or vessels for passengers. Any vessel or craft navigating the

Thames above and below London Bridge as far as Gravesend only. Any vessel entering inwards or outwards in ballast.

Owing to the distance of London from the sea, and the rather intricate navigation at the mouth of the river, the charges on account of lights and pilotage must necessarily be comparatively heavy. They have, however, been very materially reduced of late years. The charges on account of the lights under the management of the Trinity House have been diminished, in almost every instance, as much as a half, and sometimes even more, since 1823. [LIGHT-HOUSES.] The practice of imposing discriminating light dues on foreign vessels no longer exists. For the rates of pilotage, see PILOTAGE.

The oppressive and troublesome charges in the port of London, imposed on alien goods under the names of package, scavage &c. [PACKAGES] were put an end to in 1833. At present, therefore, we believe we are warranted in affirming that, considering its distance from the sea, the public charges on shipping in the port of London are quite as reasonable as in any other port of the empire, or of the world. But we are inclined to think that further reductions may still be effected, particularly in the article pilotage.

The following statement shows the nature and amount of the various charges that are at present (1866) incurred by vessels in the port of London:—

*Account of Charges that were Paid on a Ship of about 480 Tons (from China) Entering and Departing the Port of London, Laden both Ways, everything being conducted with strict Economy, and excluding any Charge on account of Extraordinary Despatch or Superior Accommodation; and that would be Paid by a Ship of 1,000 Tons under the like Circumstances.*

	Inward	480 Ton Ship	1000 Ton ship
Reporting at Custom-house	£ 2 0	£ 4 0	£ 4 0
Tonnage duty, 2d. per ton, and entry, 5s.	3 5 0	7 5 0	15 0 0
Pilotage, 15 feet, 10s. to Gravesend (less 1/4 if towed by steam)	1 15 0	3 7 6	7 7 6
Gravesend to London	1 5 0	3 0 0	7 17 0
putting pilot on board in Downs, and pilotage from Dungeness	5 12 0	3 11 6	3 11 6
Waterman assisting with boats &c.	1 10 0	1 10 0	1 10 0
Towage from Mause to Gravesend	1 0 0	1 0 0	1 0 0
Trinity lights dues, 2d. per ton, plus 1/2d. per ton, and 1/2d. per vessel 100 tons	6 8 9	13 1 1	13 1 1
Ramsgate dues, 1/2d. per ton	0 15 0	0 15 0	0 15 0
Dock dues, 9d. per ton; discharging tea, 9d. per ton	56 12 9	56 12 9	56 12 9
	66 12 9	128 18 0	128 18 0
	Outward		
Entering ship out at Custom-house	1 1 0	1 1 0	1 1 0
Tonnage duty, 2d. per ton, and entry, 5s.	3 15 0	7 5 0	15 0 0
Trinity lights dues, 2d. per ton, plus 1/2d. per ton, and 1/2d. per vessel 100 tons	6 8 9	13 1 1	13 1 1
Ramsgate dues, 1/2d. per ton	0 15 0	0 15 0	0 15 0
Pilotage, London to Downs, 15 feet	11 4 0	20 6 12	20 6 12
Landing pilot	1 0 0	1 0 0	1 0 0
Towage (depending on distance)	3 3 0	3 3 0	3 3 0
Clearing out and victualling bill	26 0 0	54 5 4	54 5 4
Shevcliffe, 1s. 1d. per ton, taken on board	40 6 9	54 11 0	54 11 0

**Mem.**—The charge for tonnage entry is usually 5s. Dock rent after 4 weeks, from date of entrance if the cargo be discharged by crew, and from final date of discharge if the cargo be discharged by the Dock Company, 1d. per register ton per week. Dock rates, tonnage rate, 9d. per register ton. Discharging cargo, 9d. per register ton. (No charge made for excess above register tonnage.) Dower dues are 1 1/2d. per ton, but only on vessels under 500 tons register; and the Ramsgate dues, under 500 tons, 1 1/2d. per ton. Lights.—Should the vessel call at Southampton, an extra charge is made of 1/2d. per 100; if at Plymouth, 1/2d. per ton. There is also a charge on each ship varying from 1s. to 5s., according to the tonnage, upwards only.

*Arrivals and Clearances Coastwise of Sailing and Steam Vessels at the Port of London in 1866.*

	Sailing		Steam		Total
	Vessels	Tons	Vessels	Tons	
Arrivals	9,815	1,143,781	4,999	1,895,425	14,814
Clearances	5,784	209,912	1,783	779,165	7,567
Total	15,599	1,353,693	6,782	2,674,590	22,381

**Amount of Shipping &c. belonging to the Port of London.**—According to the official accounts, there belonged to this port on December 31, 1866, 2,558 sailing vessels; of these, 1,748, of the aggregate burden of 814,906 tons, were respectively above 50 tons register, while 810, of the aggregate burden of 28,248 tons, were respectively under 50 tons register. There then also belonged to the port 229 steam vessels, of the burden of 305,591 tons. In 1819 the gross customs duty collected in the port of London amounted to 7,749,463*l.*; in 1852 it amounted to 9,431,85*l.*; and in 1858 it had in-

Reporting at Custom-house  
Pilotage  
Waterman  
Ramsgate harbor  
Towage per agreement

Down  
Pilotage  
Gravesend  
Harbour  
Clearing out

Decr dues, 9d. per ton per week (without others, 9d. per ton per week)  
Ballast (same as on outward)  
Landing  
Towage per agreement  
Clearing out

Total  
Pilotage subject to  
Charge

Common ballast delivered  
Washed  
Hessing (ballast with  
Trimming ballast (with  
Discharging ballast (with  
ballast).

The following table illustrates the progress of navigation of London

An Account of the entering the Port with Cargoes and British and Foreign Vessels, from 1700

Years	Ships	Tons
1700	1,579	579
1701	1,598	579
1702	1,598	579
1703	1,598	579
1704	1,598	579
1705	1,598	579
1706	1,598	579
1707	1,598	579
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1860	1,598	579
1861	1,598	579
1862	1,598	579
1863	1,598	579
1864	1,598	579
1865	1,598	579
1866	1,598	579

increased to 11,465,988! while in 1866, notwithstanding great reductions and remissions of duties, the revenue amounted to 10,550,063*l*. Exceeding the New York and Liverpool, so vast an amount of shipping and commerce was never previously concentrated in any single port. London may be truly said to be *universi orbis terrarum emporium*. May her prosperity be as lasting as it is great!

*Charges on a Vessel of 500 Tons Register, entering the Port of London in Ballast, and leaving in same state, being in Dock a Fortnight.*

Reporting at Custom-House	£	s.	d.
Downs to Gravesend	16	6	0
Putting pilot on board (including pilotage from Dungeness to the Downs)	5	19	0
Gravesend to London	2	10	0
Wharves			0 15 8
Ramsgate harbour dues, <i>½d.</i> per ton (Tonnage per agreement)			16 4 8
Dock dues, <i>½d.</i> per ton (Victoria Dock, <i>½d.</i> per ton per week; Surrey Commercial and London Docks, <i>½d.</i> per ton per week, if from north of Europe; and all others, <i>½d.</i> per ton)			
Ballast (same as on board on entering)			8 2 0
Ballast (London to Downs, 11 <i>fl.</i> <i>½d.</i> <i>½d.</i> onwards (Landing pilot, as per agreement)			
Ramsgate harbour dues, <i>½d.</i> per ton (Tonnage per agreement)			0 15 8
Clearing out			1 1 0
Total			9 18 8

*Pilotage subject to reduction of ¼ if towed by steam.*

Charges for Ballast. [BALLAST.]

	Per ton
Common ballast delivered in the river	4 3
Washed " " docks	1 7
Washed " " " "	2 10
Heaving ballast with port without port	0 3
Trimming ballast (as per agreement)	0 5
Discharging ballast (according to description of ballast)	

The following tabular statements will serve to illustrate the progress of the foreign trade and navigation of London:—

*An Account of the Number and Tonnage of Vessels entering the Port of London from Foreign Parts, with Cargoes and in Ballast, distinguishing between British and Foreign Ships, in the undermentioned Years, from 1700 to 1866 inclusive.*

Years	British		Foreign	
	ships	tons	ships	tons
1700	839	80,010	436	76,595
1710	1,098	129,025	184	56,746
1720	2,294	451,800	1,116	149,205
1730	2,184	419,574	1,256	149,053
1740	2,189	451,488	1,186	152,243
1750	2,248	478,103	1,193	177,019
1760	2,558	655,259	556	1,225,857
1770	5,989	725,565	1,743	1,222,619
1780	5,010	744,229	1,564	302,122
1790	5,280	710,655	1,057	207,580
1800	5,843	772,046	1,165	188,897
1810	4,075	821,788	1,547	255,875
1820	4,766	805,095	1,727	240,135
1830	4,880	988,867	2,375	277,902
1840	4,347	931,660	2,221	357,163
1850	4,618	929,259	1,909	351,456
1860	4,767	1,002,453	1,640	317,608
1870	4,589	1,092,550	1,635	281,468
1880	4,741	1,008,375	2,141	295,321
1890	5,123	1,109,587	2,439	353,316
1900	5,928	1,151,616	2,183	393,104
1910	6,271	1,156,995	1,732	491,724
1920	6,189	1,287,060	3,078	591,531
1930	6,523	1,485,319	3,047	591,531
1940	6,929	1,576,214	3,415	649,254
1950	6,993	1,489,543	3,748	728,254
1960	6,928	1,589,711	2,938	720,959
1970	6,261	1,544,219	2,502	770,116
1980	6,151	1,634,231	4,792	1,019,801
1990	5,745	1,528,197	4,023	1,013,589
2000	6,161	1,609,423	3,738	892,089
2010	6,270	1,608,851	4,189	815,860
2020	6,801	1,888,061	4,368	1,025,913
2030	6,368	1,771,003	4,101	1,073,018
2040	6,249	1,848,211	4,527	1,059,791
2050	6,673	1,922,583	4,222	1,152,160
2060	7,115	2,152,661	4,543	1,180,537
2070	7,104	2,087,310	4,543	1,191,419
2080	7,091	2,226,113	4,113	1,153,539
2090	7,135	2,424,749	4,297	1,063,569
2100	7,301	2,763,429	2,318	1,163,413
				1,011,239

Account of the Quantities of the Principal Articles Imported into London in 1866.

Articles	Quantities
Animals, living:	
Oxen, bulls, and cows	number 112,160
Sheep and lambs	" 458,190
Horses (except whalphins)	" 7,491
Cocoa	lbs. 5,064,096
Coffee	" 117,081,715
Corn: Wheat	cwt. 3,501,226
Barley	" 1,410,112
Oats	" 5,980,162
Peas	" 265,347
Beans	" 238,111
Indian corn or maize	" 1,490,952
Wheat meal and flour	" 549,618
Cotton, raw	" 841,756
Cotton manufactures	value £570,229
Dyes and dyeing stuffs:	
Cochineal	cwt. 17,955
Indigo	" 58,700
Madder and madder root (including madder)	" 1,944
Flax: Dressed or undressed	" 7,679
Tow or cordilla of flax	" 679
Fruits: Currants	" 179,053
Lemons and oranges	hushes 825,592
Raisins	cwt. 250,858
Guano	tons 41,232
Hemp	cwt. 638,215
Jute and other vegetable substances of the nature of un-dressed hemp	" 959,060
Hides, untanned: dry	" 201,072
" wet	" 271,186
" tanned, tawed, curried, or dressed (except Russ. hides)	lbs. 1,808,882
Mahogany	tons 28,251
Metals: Copper ore and regulus	tons 19,835
Copper, unwrought and part wrought	" 6,813
Iron in bars, unwrought	" "
Spelter, unwrought and rolled	" 18,269
Tin, unwrought	" 12,858
Oil: Train, blubber, and spermata	tons 105,538
Palm	cwt. 3,543
Cocoa-nut	" 140,062
Olive	tons 108,572
Seed oil, of all kinds	" 5,249
Blended cakes	" 4,121
Resins: Fiacon and gums	tons 31,152
Beef, salted	cwt. 206,151
Pork, do.	" 38,222
Butter	" 85,673
Cheese	" 386,656
Eggs	tons 255,189
Lord	great hundred 650,419
Rags, and other materials, for making paper	cwt. 2,432
Rice, raw in the husk	tons 11,088
Sulphate and calcie nitre	cwt. 997,098
Seeds: Clover	" 129,768
Flaxseed and linseed	" 83,762
Rapeseed	qrs. 271,584
Silk, raw	lbs. 307,510
Thrown	" 730,367
Silk manufactures of Europe:	cwt. 39,016
Broad stuffs	" 780,939
Ribbons	" 141,863
Silk manufactures of India:	
Bandannas, corahs, choppas, muscote cloths, rums, and rufians	pieces 56,752
Spices: Pepper	lbs. 11,723,628
Pinnetto	cwt. 134,090
Spirits: Rum	gallons 5,175,169
Brandy	" 5,201,781
Geneva	" 59,210
Sugar, unrefined:	
Equal to white clayed	cwt. 61,121
Not equal to white, but equal to brown clayed	" 1,580,274
Equal to brown muscovado	" 1,707,510
Not equal to brown muscovado	" 988,578
Total of sugar, unrefined	" 4,537,299
Sugar, refined, and sugar candy	" 135,571
Tallow	cwt. 56,051
Muscades	" 756,832
Tea	lbs. 136,774,661
Tobacco:	
Strained	" 10,710,517
Unstrained	" 21,163,435
Manufactured, cigars and snuff	" 1,888,765
Wine:	
Red	" 4,864,918
White	" 5,598,217
Total of wine	" 10,463,135
Wool and timber:	
Not sawn or split, or otherwise dressed, except hewn	loads 246,099
Doals, battens, boards, for sawn or split	" 593,910
Slaves	" 31,192
Wool, sheep and lambs' and alpacas and llamas'	lbs. 151,796,249
Woolen manufactures	value 2768,160

The value of the imports into the port of London in ordinary years considerably exceeds double the value of the exports.



## Exports from London, 1866—continued.

Articles	Quantities	Value	Articles	Quantities	Value	
Linen yarn	lbs.	7,638,094	594,600	Painters' colours	value	319,621
Linen manufactures	yards	11,683,427	581,187	Paper (except hangings)	cwt.	123,183
Free goods				Silk	tons	13,411
Thread, tapes and small wares	value	24,513		Silk, thrown, and yarn manufactures	lbs.	216,141
Machinery and millwork	"	737,623		Spirits, British and Irish	gallons	207,402
Metals:				Sugar, refined	cwt.	93,908
Iron, pig, bar, bolt, wire and cast	tons	60,371	578,697	Wool, sheep and lambs'	lbs.	3,469,697
radial	"	74,724	689,265	Woolen and worsted yarn	"	217,200
of all other kinds	"	85,077	1,178,860	Woolen manufactures: Cloths of all kinds	yards	3,567,977
Steel, unwrought	"	1,455	49,363	Worsted and mixed stuffs	"	41,615,115
Copper, ditto	cwt.	32,923	147,253	Flinnels, carpets &c.	"	6,710,385
part wrought and wrought	"	249,610	1,105,512	Hosiery and other goods	value	195,866
Lead	tons	19,191	430,587	All other articles	"	6,809,262
Tin, unwrought	cwt.	74,098	155,479	Total declared real value	"	41,419,797
plates	"	107,654	121,828			
oil, seed	gallons	4,108,149	656,053			

## II. SOUTHAMPTON DOCKS, SHIPPING &amp;c.

Southampton, at the embouchure of the Itchen, on the E. side of the large inlet of the sea called Southampton Water, opposite to the Isle of Wight, lat. 50° 53' 59" N., long. 1° 24' W., may be regarded as one of the outports of the metropolis. It is situated about 70 miles (direct distance) W.S.W. from London, the journey between them being performed by means of the South-Western Railway in from 2 to 3 hours. Southampton Water affords entrance at all times of tide, and secure anchorage in all weathers to any number of the largest merchant ships, being completely protected from the seas that would otherwise be thrown in by south-easterly gales by the Isle of Wight, its natural breakwater. Ships resorting to this port, or anchoring in Spithead Roads, or in the channel between the Isle of Wight and the mainland, may get to sea, in almost every wind, with comparative facility. Hence it is usual for ships from London bound for the Mediterranean, India, the West Indies, or America, to touch at Cowes, opposite to Southampton Water, to take on board passengers, who thus avoid the lengthened and difficult navigation round by the Forelands and Beachy Head, while at the same time they are all but certain of being immediately able to proceed on their voyage; and hence, also, Southampton is the station of the mail steamers to Alexandria, India, Cape of Good Hope, New Zealand and Australia by Panama, the West Indies &c. Latterly, too, the great natural advantages of its situation have been, and are in the course of being, most materially improved. The channel of the Itchen has been deepened; the docks connected with it have been completed on a large scale, and with every suitable accommodation, by the Dock Company incorporated in 1856.

The docks are excavated on a tongue of land rising about 175 acres, close to the terminus of the South-Western Railway. The first consists of an open dock or basin containing 16 acres water. It has a depth of 18 feet at low water, the average rise of the tide being 13 feet; its frontage extends to 3,300 feet, and it is lined by extensive bonded warehouses, sheds, and cellars. A second or close dock (the first of a series) is designed to comprise three others of still larger dimensions; it contains a water area of 10 acres, an average permanent depth of 28 feet water, surrounded, like the open dock, by bonded houses, sheds, vaults, and numerous cranes. It is connected on lines from the adjacent railway quays, run to and from the quays, alongside of which the ships are berthed. In the open dock the powerful sheers, tested to the weight of

50 tons, for the shifting of boilers or other heavy machinery, for masting ships &c.

Attached to the wet docks are three large graving or dry docks of the following dimensions, viz:—

	Eastern	Middle	Western
Length from gates to head	538	282	316
Length on blocks	445	253	343
Width of gates	80	51	66
Depth of water over blocks, at ordinary springs	25	11	20
Neap	21	10	16

Large ships of from 1,000 tons in the smallest up to 5,000 tons in the largest of these docks can be docked and undocked with a facility unknown in most other ports.

Four steam engines are employed in pumping out the water from these graving docks, the engines each raising 120 tons of water per minute.

*Tides at Southampton.*—There is a double high water at this port, the knowledge of which is most important to the mariner. The first high water at the full and change of the moon is at 10h. 30m., the second high water at 12h. 45m., and low water at 4h. The rise at springs is 18 feet, and at neaps 8 feet. To ships using the graving docks this double tide is very advantageous, as the water remains nearly stationary for 2 hours; thus, without risk, allowing vessels to come out of dock, and others to enter, without losing a tide.

This double high water is probably caused by the tide at Spithead; for as long as it runs strong to the westward, the water is kept up at Southampton, and there is no fall of consequence until the tide begins to slack at Spithead; but when the tide makes to the eastward at that point, the water falls rapidly at Southampton.

After low water the tide rises pretty steadily for 7 hours, giving the first or proper high water; it then ebbs for an hour about 9 inches, at the end of which time it again commences to rise, and in about 14 h. reaches its former level, and sometimes higher: this is called the second high water.

The following are the charges at the Dry Docks:—

*Rates to be Charged for every Ship or Vessel on the Gross Tonnage.*

For each working day (not exceeding 100 tons), 1*l.*  
(for every 50 tons above 100 tons), 2*s.*  
The day (24 hours) to end at noon, and each fractional part of a day to be charged as one day.

It lies exclusively with the Dock Company to determine into which of the three docks a vessel shall be taken; and, with a view to the general accommodation of all parties requiring the use of the dry docks, it is ordered that no ship be allowed to remain longer than fourteen days in either of the dry docks, unless under special agreement.

DOCKS

528

In addition to the foregoing rate per day for occupation of the dock, every vessel will be charged as follows, viz:—  
For docking, pumping, and undocking, including use of stages, shores and shore ropes, saw pits, smithy, and pitch furnace:—

For vessels not exceeding 300 tons	2
500 "	15
700 "	20
1,000 "	25
1,500 "	35
2,000 "	40
2,500 "	50
3,000 "	60
3,500 "	70
4,000 "	80
4,500 "	90
5,000 "	100

In the case of extra pumping being required by the captain or owners for the sake of despatch, an additional charge will be made. Caps, and fixing the same, not exceeding 5 inches thick, each 2s. 6d.; exceeding 5 inches, per inch additional 6d.

The following Special Charges to be paid (when incurred) in addition to the foregoing Rates:—For caps split out, if 2½-inch, 2s. 6d. each; 3-inch, 3s.; 4-inch, 4s.; and so on in proportion.

For shores cut, in docking or hanging the ship, 1s. to 2s. 6d. each, according to injury.  
The use of the joiner's shop, lock up warehouse, counting-house and store (with copper milling-machine when required) to be charged for in addition.

For the use of the steam-kiln, 10s. per day. Fuel for this service, as also for heating pitch, to be charged according to consumption.

N.B.—No ship will be allowed to enter the dry docks with gunpowder on board.

Southampton is distant by rail from London 80 miles, and from Birmingham 140, Manchester 216, and Liverpool 229, by way of Basingstoke, Reading, Oxford, Banbury, and Warwick. By the Coast-line of Railway it is distant from Portsmouth 16 miles, Brighton 60, and from Dorchester (to the west) 60 miles.

By sea it is distant from Havre 102 miles; and by means of a combination with the Havre and Paris Railway, a system of through rates has been introduced, by which all the towns on the continent connected by railway with Paris may send the goods to Southampton for trans-shipment, or for the supply of the London and Birmingham markets. This, as already noticed, is the point of departure and arrival of the packet ships belonging to the steam companies which carry on the mail packet service, and the general trade with Australia, Ceylon, the East Indies, and China; with America, including the West Indies, Mediterranean, Brazil; and with the Levant generally.

Constantinople, and the Levant generally. A new service by steam has been opened with Hamburg, New York, and the Hawaiian; and Southampton is daily becoming of more importance as a great continental entrepôt. In 1866 the declared value of the exports of the produce of the United Kingdom from Southampton amounted to 3,718,975*l.*; the customs revenue for 1866 collected at the port being 116,609*l.*

The rates and charges which the Dock Company levy are generally a modification of those of the principal docks of the port of London.

Vessels Inwards		Vessels Outwards.		
Arriving from	Per Ton Register	Privilege	Sailing for	Per Ton Register
1st Class.—Any port of the United Kingdom, Isle of Man, Jersey, Guernsey, and their dependencies, or European ports outside the Baltic, between the North Cape and the Straits of Gibraltar	6d.	Use of the docks for one week from date of entrance, with liberty to load outwards.	1st Class.—Any port of the United Kingdom, Isle of Man, Jersey, Guernsey, and their dependencies, or European ports outside the Baltic, between the North Cape and the Straits of Gibraltar	6d.
2nd Class.—Any other port	9d.		2nd Class.—Any other port	9d.

Vessels not having discharged their cargoes in Dock, but loading outwards

Use of the docks for one week from date of entrance, with liberty to load outwards.

Use of the docks for one week under three days will be allowed.

Bent, for every class, after the expiration of the privilege, 1*d.* per register ton per week; and any time under three days will be allowed half a week.  
Emigrant ships 1*d.* per register ton, and will be entitled to four weeks' privilege.

Rates for Discharging Cargoes by the Company.

	Per ton register.
	s. d.
Cargoes, consisting in the whole or in part of sugar in hogsheads or tierces, including ship-coverage	1 9
Cargoes, consisting of sugar in bags, mats, or chests upwards, including ship-coverage	1 3
Cargoes, consisting of sugar, rice, salpêtre, silk, hides, tobacco, wax, hemp, or jute, gross-packed; tallow, resin, turpentine, ashes, grain and seeds of all kinds, or other goods contained in casks, hales, serows, chests, copper ore, bags, baskets, or similar packages; also copper, copper ore, spelter, steel, iron, lead, or other metal in pigs, bars, rods, plates &c.	0 9
Cargoes, consisting of oil, wine, or spirits	1 0
wax and tallow, or of bones, alkalis and goods, in bulk	0 9
grain, and all descriptions of seeds and seed cake, in bulk	0 9
deals, planks, staves, and wood, in billets	1 0
Blue gum wood, or large timber, additional for every load delivered	0 6
if partly of hardwood or mast, then additional for every load delivered	0 6
if partly of pine or fir timber, additional for every load delivered	0 3
if partly of pine or fir timber, additional for every load delivered	0 6
Oil, in iron tanks, additional for every ton	1 6
Cargoes, consisting of guano, including filling into bags or baskets in ship's hold, and sewing bags or baskets	1 6
Note.—Vessels which discharge the whole or the greater part of their cargoes into lighters, will be subject to such rates as shall be agreed upon between the shipowners and the Company.	
Separating such articles as cuttle, india-rubber &c. in an adhesive state, will be charged for extra.	
No charge upon excess of cargo landed beyond the ship's register tonnage.	
When vessels are discharged by their own crews, labourers to assist may be hired of the Company to work on board at the rate of 3 <i>s.</i> 6 <i>d.</i> per day for each man; but they shall be under the directions and responsibility of the captain or representatives of the owners of vessels, both or either.	

Aggregate Amount of Tonnage which entered Port of Southampton in 1866.

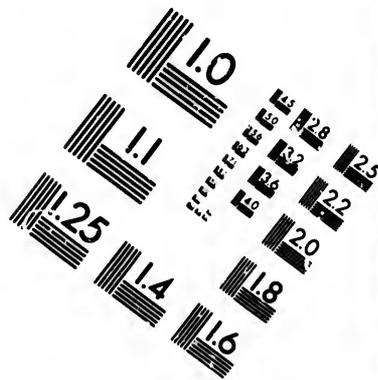
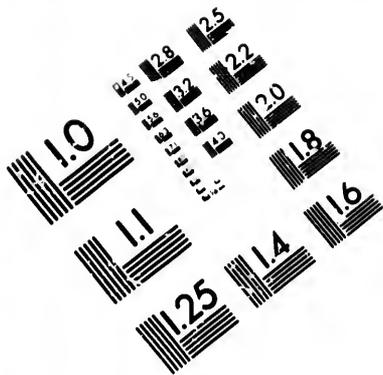
	Tons	
Russia: Baltic ports	2,520	Wallachia
White Sea	516	Madrava
Black Sea	3,759	Egypt
Sweden: Baltic ports	8,367	Cuba and foreign W. Indies
without ports	658	United States of America
Norway	2,414	Central and South America
Denmark	140	Total
Prussia	1,091	British Possessions
Germany	127,202	Chamae Islands
Holland	419	Africa
Belgium	110	North America
France	111,218	West Indies
Portugal	40	East Indies
Spain	883	
Italy	159	
Austrian ports	510	Coasting
Greece	2,261	Total
Turkey		

The dues levied by the corporation of Southampton on shipping are 2*d.* per ton each, and 5*s.* for each ship above 100 tons. (Half fine dry gravel) 1*s.* 3*d.* per ton.

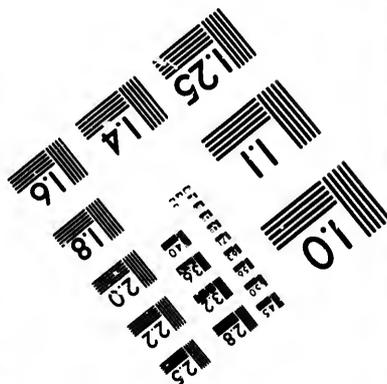
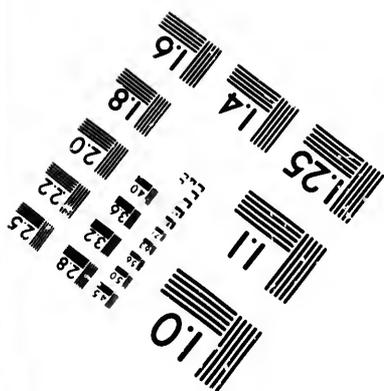
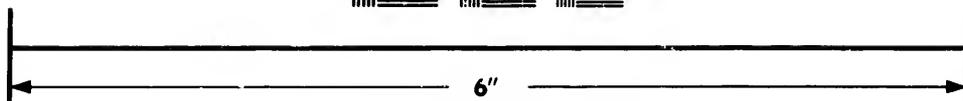
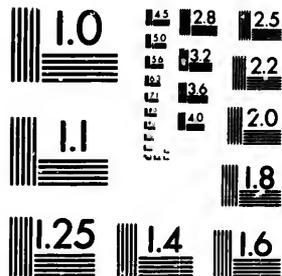
There are efficient boats belonging to the Tug Company, whose rates are very moderate. The pilotage, under a sub-commissioner Trinity Board, from any place within the Wight to Southampton, is—







**IMAGE EVALUATION  
TEST TARGET (MT-3)**



**Photographic  
Sciences  
Corporation**

23 WEST MAIN STREET  
WEBSTER, N.Y. 14580  
(716) 872-4503

1.8  
2.0  
2.2  
2.5  
2.8  
3.2  
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01  
57

# CHART OF THE WIT

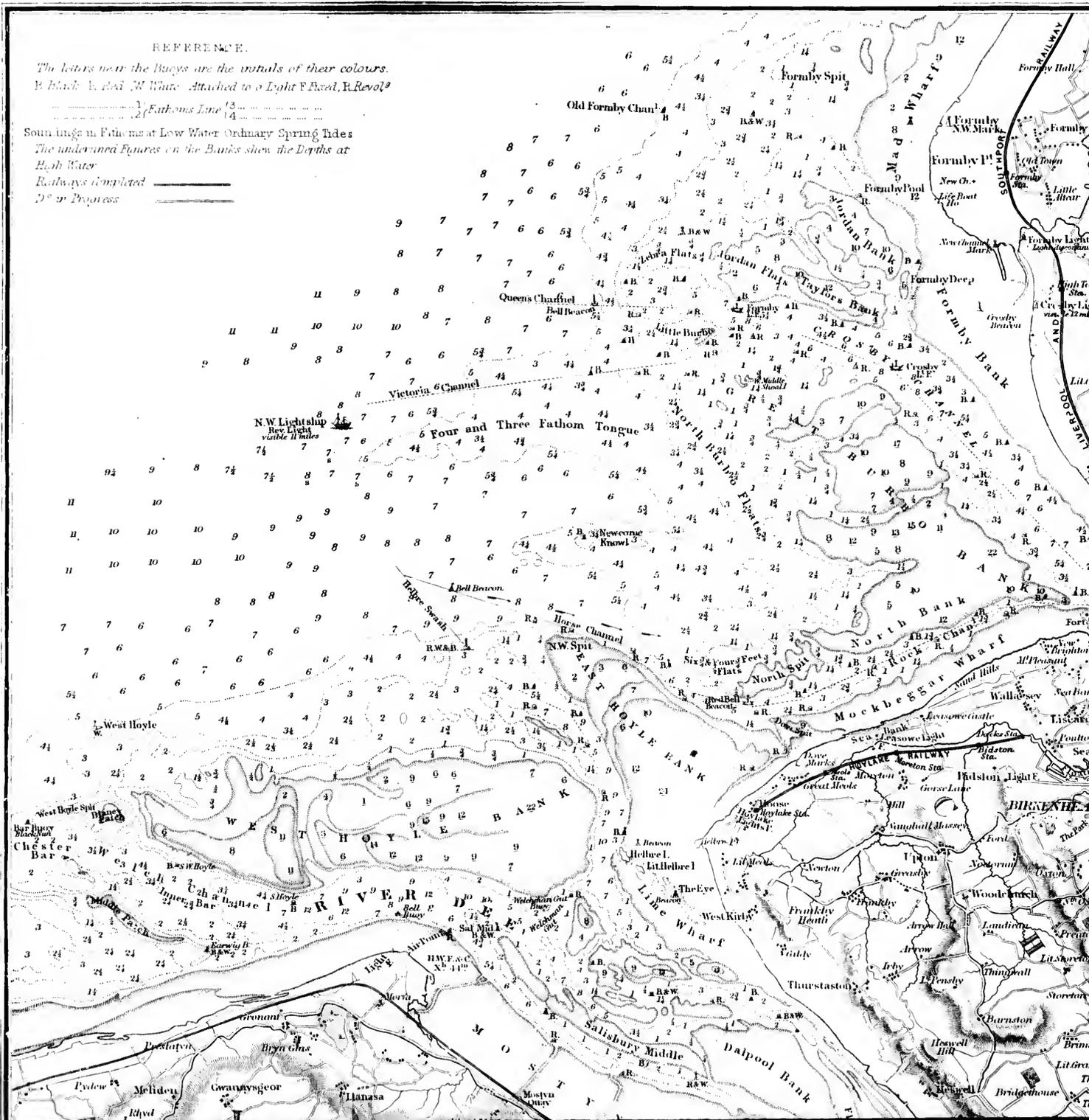
## REFERENCE.

The letters near the Buys are the initials of their colours.  
 B. Black, A. Red, W. White. Attached to a Light F. Fixed, R. Revolving.

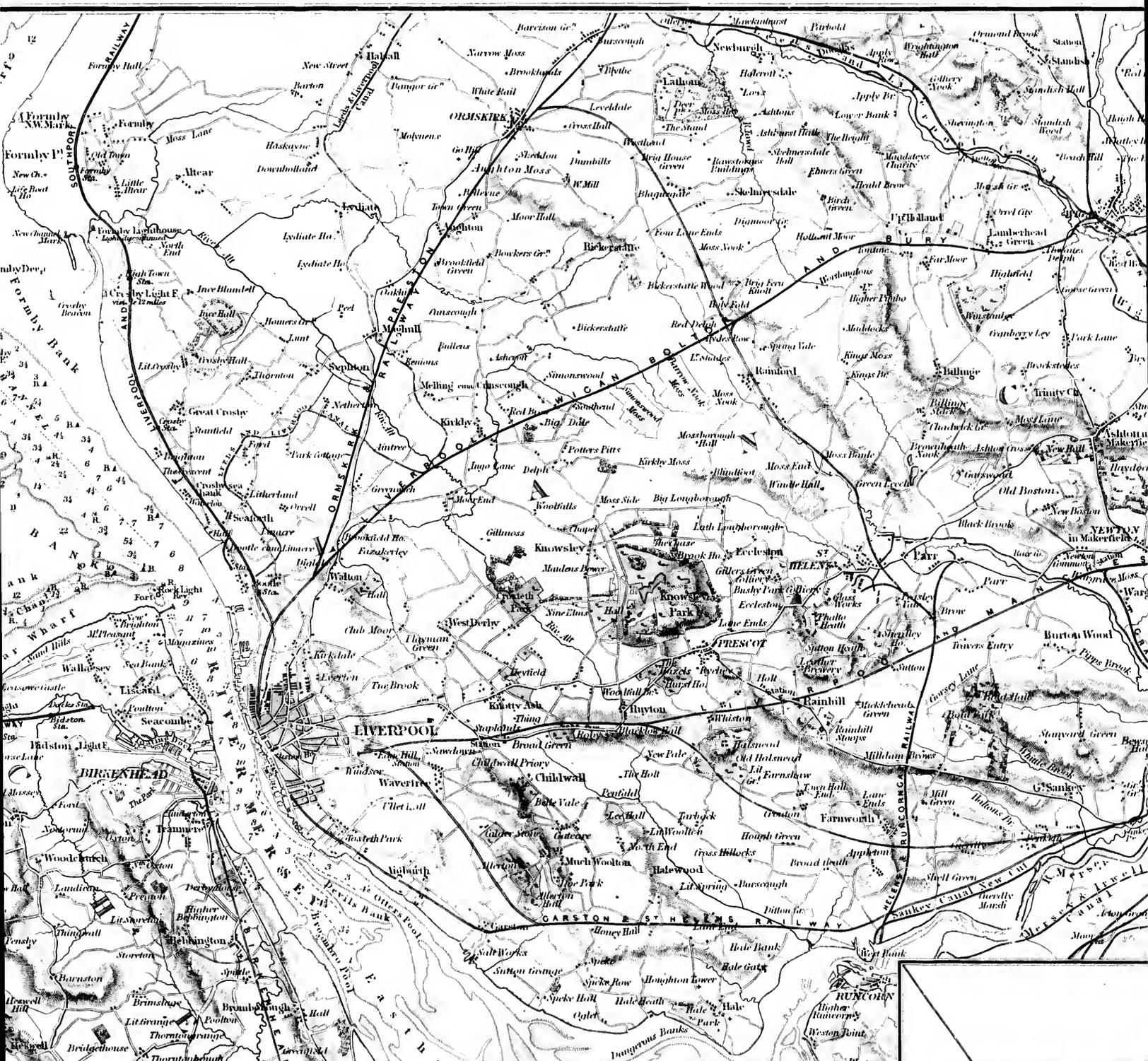
1 Fathoms Line 2 3 4

Sounding in Fathoms at Low Water Ordinary Spring Tides  
 The underlined figures on the Banks show the Depths at  
 High Water

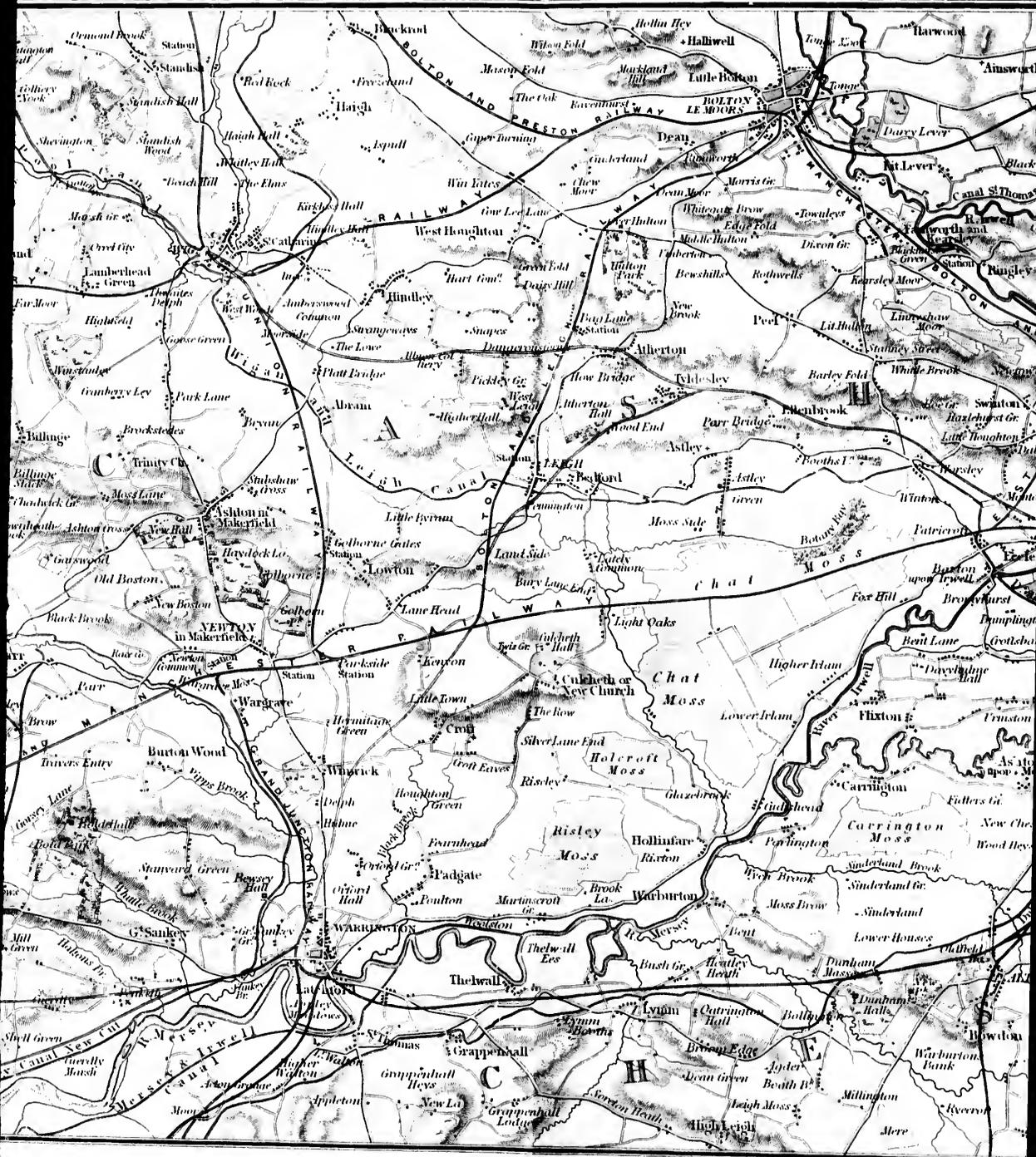
Railways completed —————  
 In Progress —————



# F THE MOUTHS OF THE RIVER WITH A MAP OF THE ADJACENT

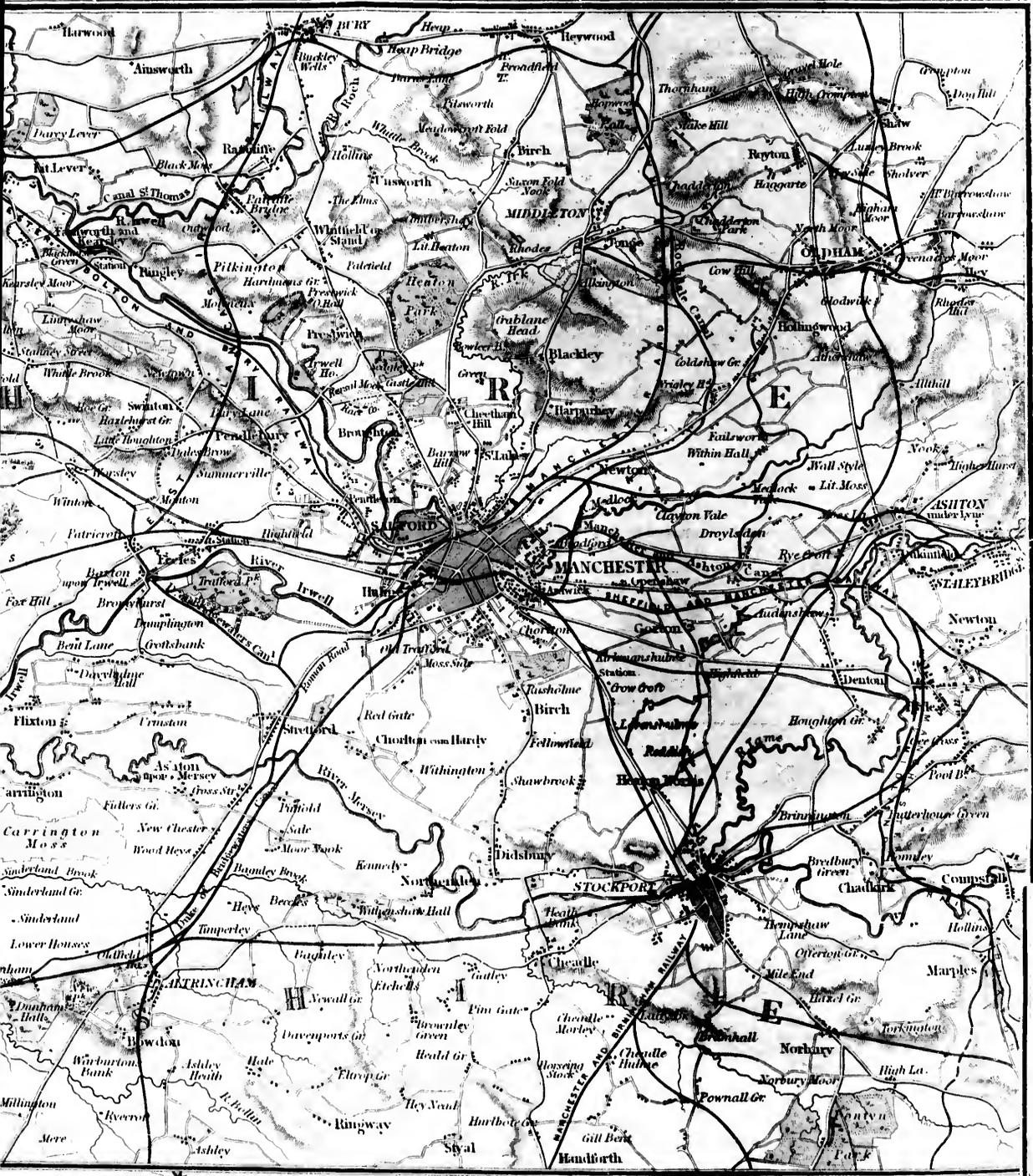


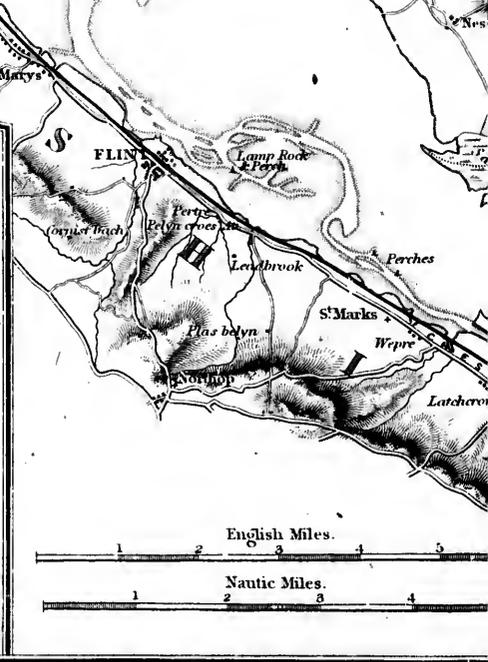
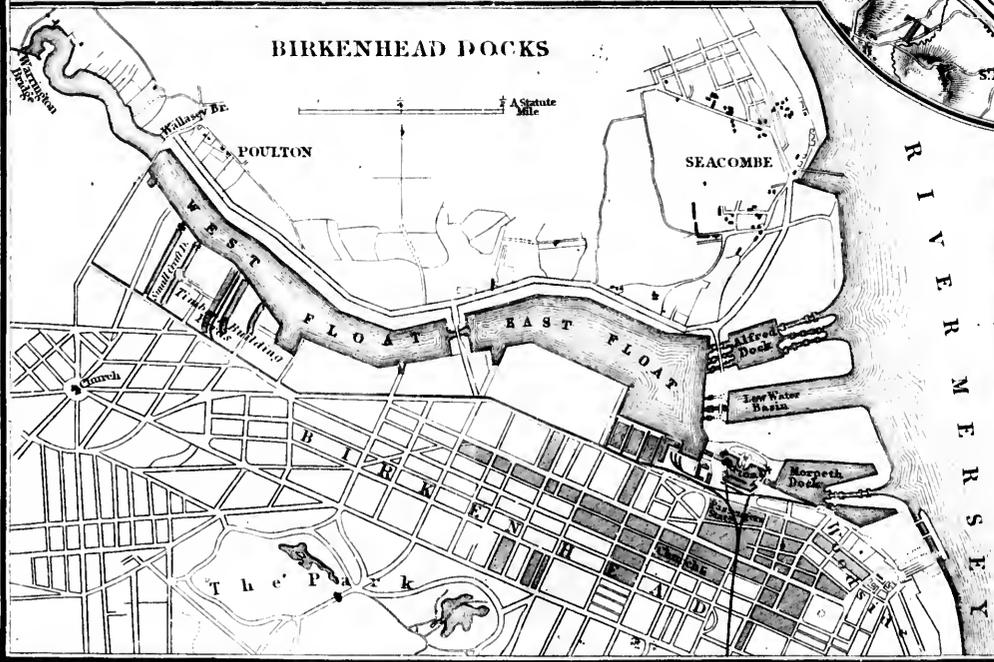
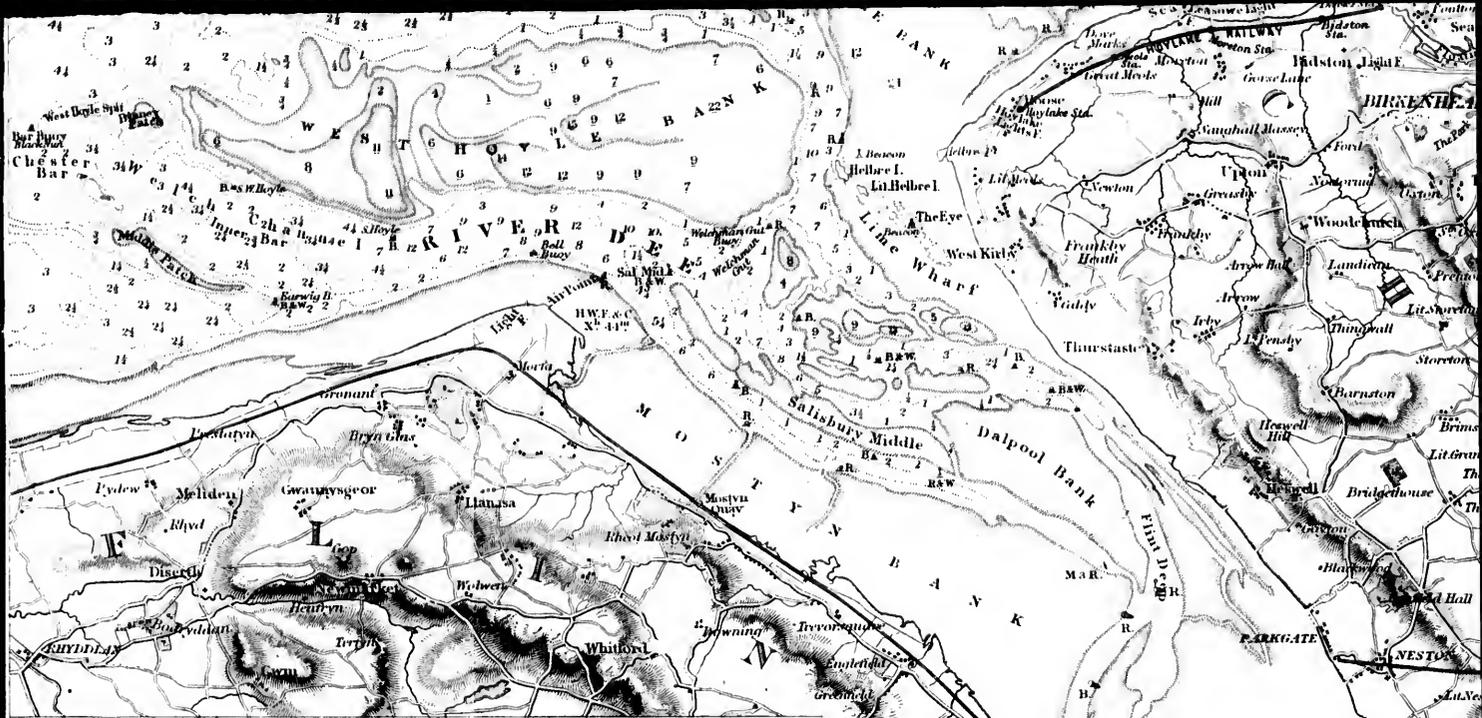
# RIVERS MERSEY AND I CENT COUNTRY, &c.

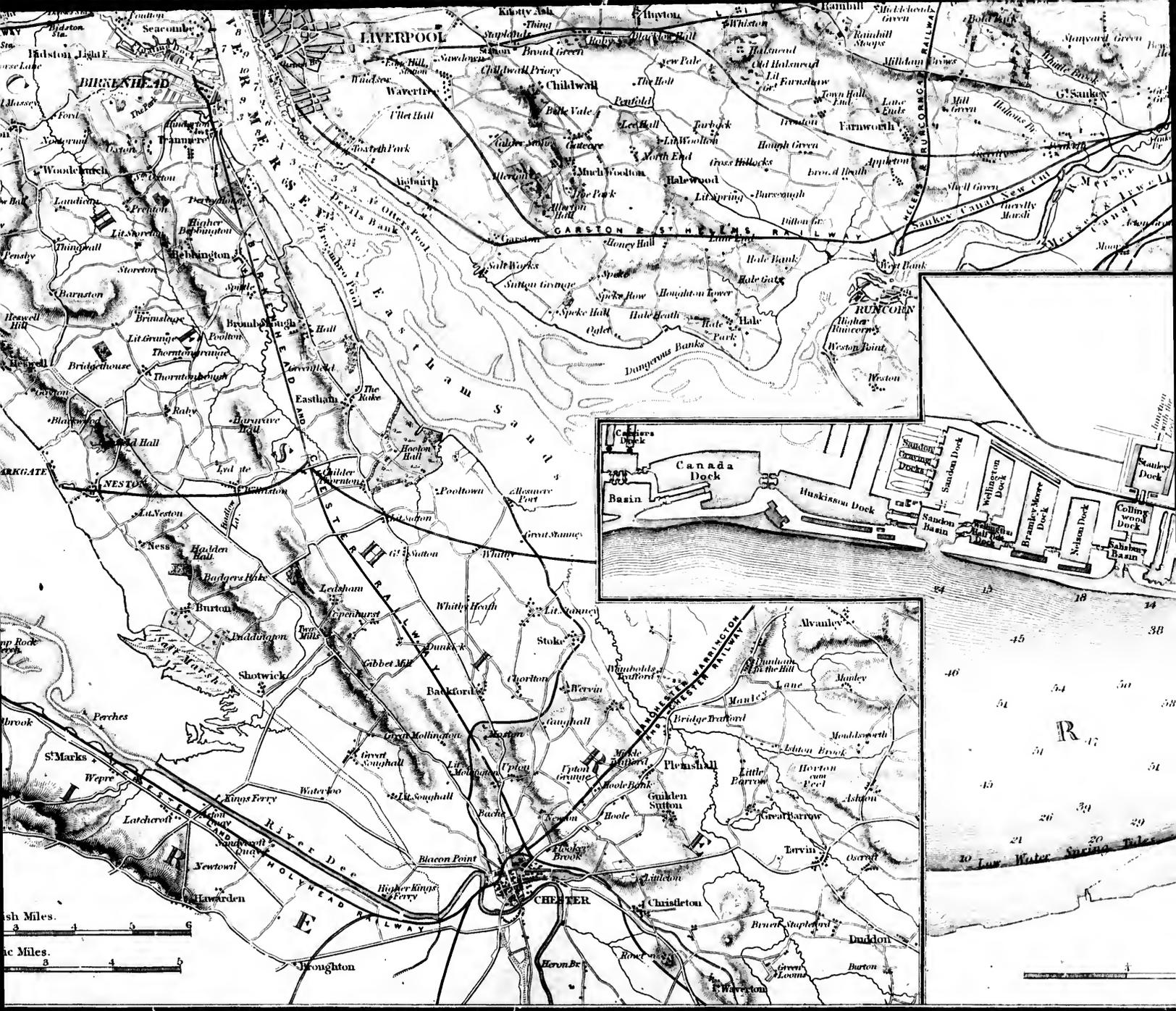


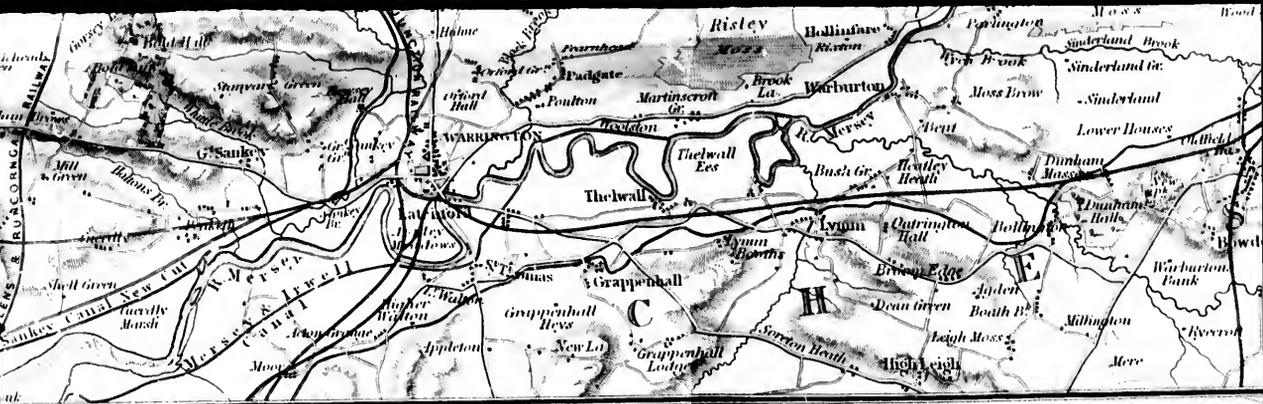
LIVERPOOL DOCKS

# ND DEE



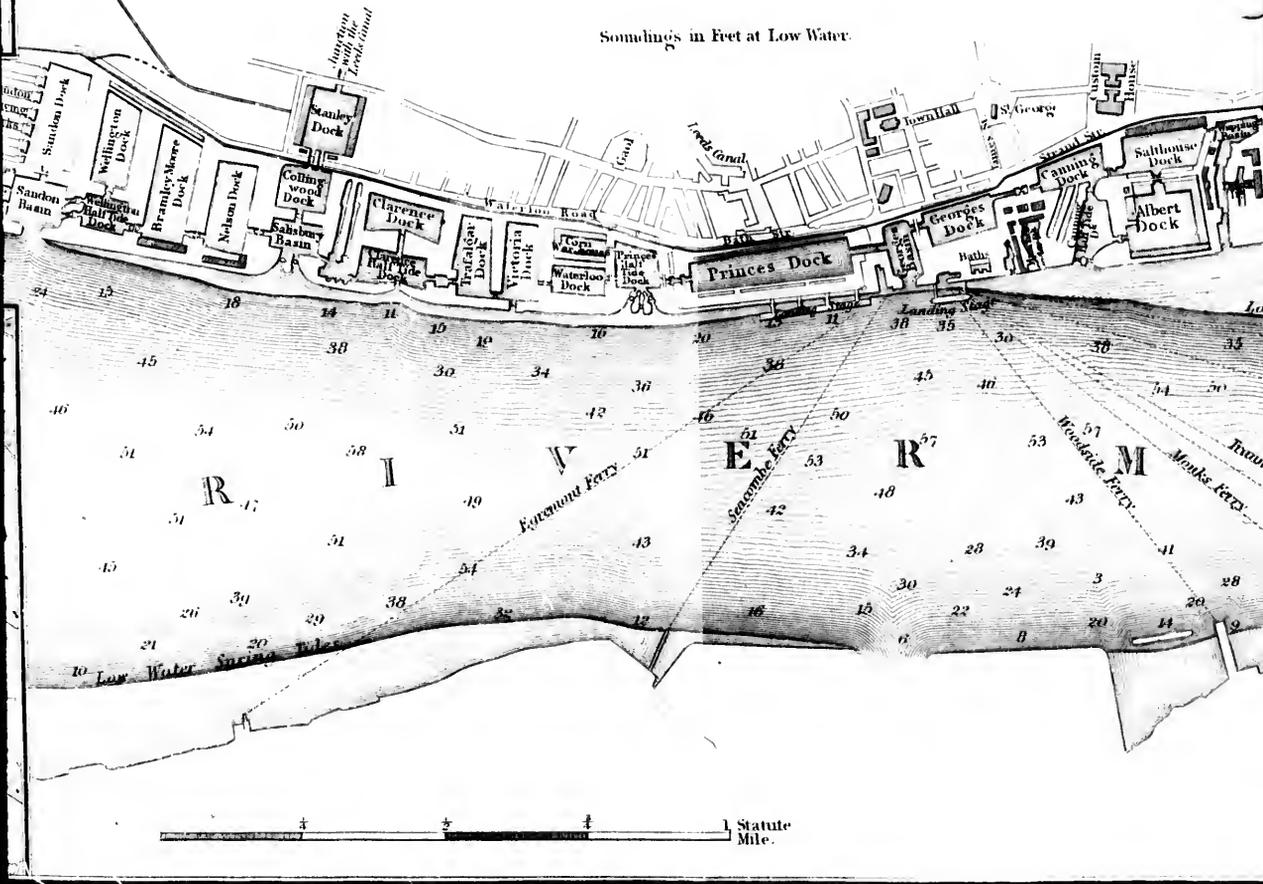


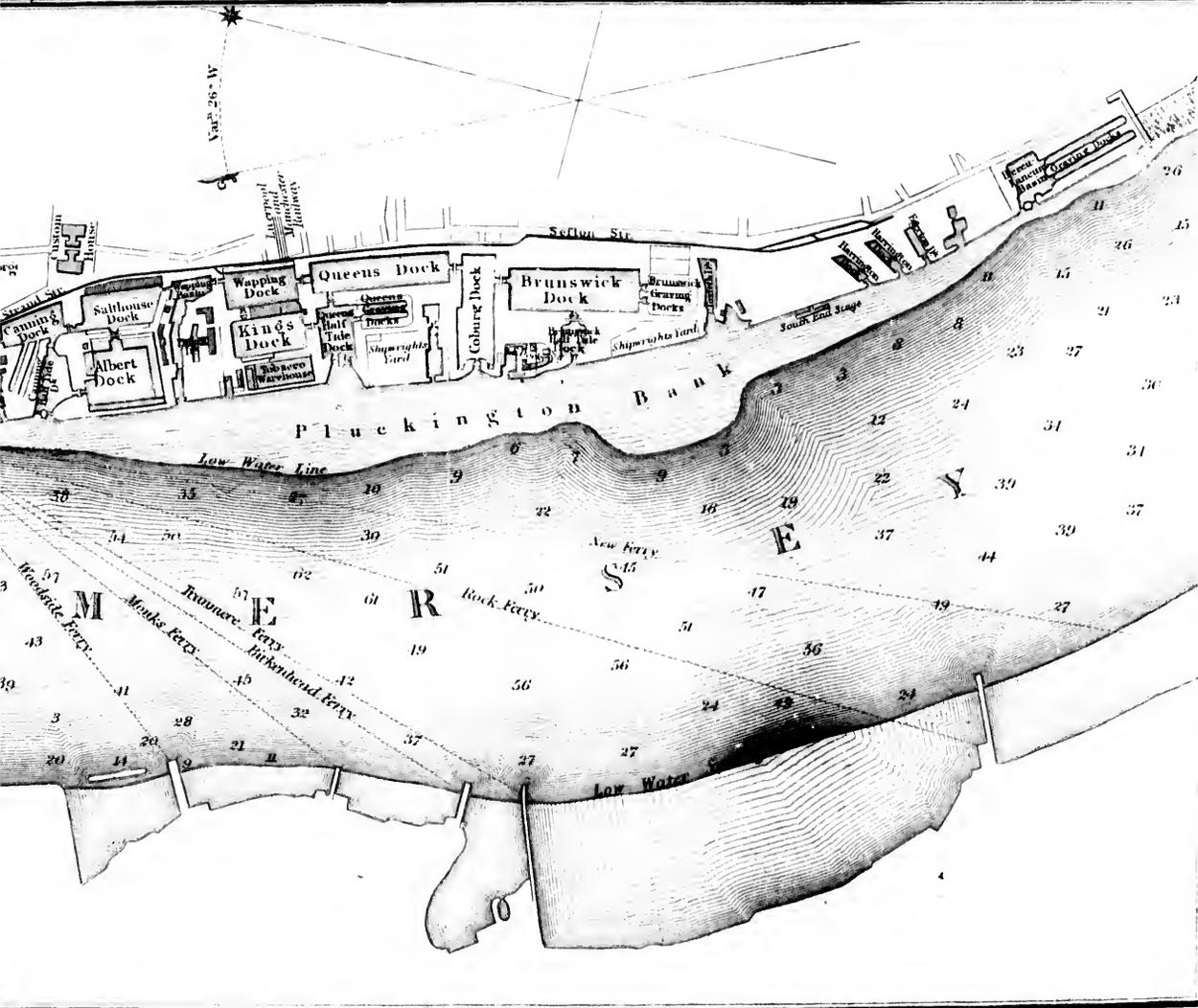
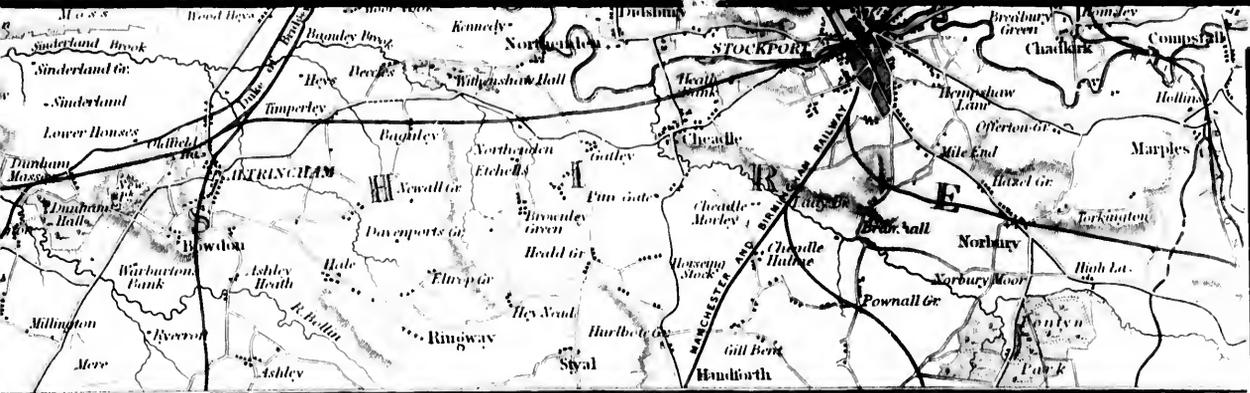




# LIVERPOOL DOCKS

Soundings in Feet at Low Water.





Shall, del. et Sculp. Perry Str. Bloomsbury



Vessels drawing 17 ft. and under, per foot	-	-	2
Vessels drawing more than 17 ft., per foot	-	-	3
which with 2% from outside amounts to 7s. and 8s.	-	-	-
per foot of ship's draught.	-	-	-
From Southampton to Sea.	-	-	-
Vessels 17 ft. and under	-	-	6
17 and not above 20	-	-	7
More than 20	-	-	9

There are no town dues whatever on merchandise.

## II. LIVERPOOL AND BIRKENHEAD DOCKS, SHIPPING &c.

The rapid rise of the port of Liverpool to its present consequence, though no doubt principally owing, like that of the town itself, to the astonishing increase of manufactures and population in the extensive district of which it is the grand emporium, is also, in part, owing to the facilities that have been given to navigation and commerce by the construction of its wet and dry docks. The entrance to the estuary of the Mersey is a good one, unencumbered with sand-banks, and the channel crossed by a bar, which, however, has at low water a depth of 21 ft. at neap, and 31 ft. at spring tides, there is water for the largest ships: the channels, too, being well indicated by lightships and light-ships, and marked with buoys, there is no difficulty in making the port. In fact, since the opening of the Victoria and Queen's channels, vessels of the largest size cross the bar at low water.

But the land around being low, ships in the river are exposed to risk from gales of wind; and to obviate this inconvenience, and to facilitate the loading and unloading, the docks have been constructed, which constitute the great glory of the town. The second wet dock in the British Empire was constructed here under an Act (8 Anne, c. 12) passed in 1709, and another about half a century after, since which period, and especially in late years, many new docks and basins have been constructed, some of which are on a very magnificent scale, with entrances capable of admitting ships requiring a width of 100 feet, and furnished with all sorts of conveniences. The area of the docks in use in 1867 amounted to more than 239 acres, and that of the basins to more than 19 acres. The quay space is of the enormous extent of above 16 miles. The dry docks contain a total length at bottom of 10,136½ feet.

The docks are defended on the side next the sea by a sea-wall above 5 miles in length, which, if taken into account the difficulties attending the construction, will be found to be one of the greatest works of modern times. It averages 11 feet in thickness, and 40 feet in height from the foundation; all the more modern part being faced with Scotch granite. Every precaution is taken to prevent the accumulation of mud in the docks by the use of steam dredging-machines; and the rules, enforced by vigilant police, are established to maintain good order, and prevent fire and depredation.

The docks are all constructed on property belonging to the Mersey Docks and Harbour Board, in whom is vested the dock estate, which is managed solely for the benefit of the public. In consequence of this result, the board consists of 28 members, of whom 24 are chosen by parties who themselves pay 25% each of said dues, and who are nominated by the conservators of the Mersey, that is, by the First Lord of the Admiralty, the Chancellor of the Duchy of Lancaster, and the Chief Commissioner of Woods

and Forests for the time being. There were in 1858, 1,451 dock-rate payers on the register; and they only have a voice in the administration of the dock affairs. (Baines's *Liverpool in 1859*, p. 79.) Whenever there is any considerable surplus revenue after providing for current expenses and the interest of money borrowed, it is applied to the reduction of the dock rates. The bonding and long to the dock estate, but are, for the most part, private property. Most of them are in the immediate vicinity of the docks, but some are at a considerable distance; and there is not in these cases, the same security against fire and depredation, the warehouses being built along the dock-quays, goods are loaded and unloaded with the greatest possible facility, and are subsequently under efficient protection. But in this respect there has latterly been a great improvement. For the numerous and destructive fires which formerly took place in private warehouses have led to the adoption of certain stringent rules for their management, which have proved so effectual that no fire of any consequence has occurred for several years, and the premium of insurance on goods lodged in warehouses conducted according to the established regulations has been reduced from 35s. per cent. per annum, to 4s. per cent. on certified warehouses under private management, and to 3s. 6d. per cent. on dock warehouses.

The board have built corn warehouses on either side of the river, which are large enough to contain from 300,000 to 400,000 quarters of grain.

In 1866, 12,622 vessels, with a burden of 3,749,428 tons, entered Liverpool. A new observatory was completed at Bidston; and a sea wall, commenced in 1865 by the Weaver Navigation Company, was completed in 1866. Two new docks were finished in 1867.

Liverpool has two gridirons of 822½ lineal feet, and four landing stages, the combined length of which is 3,347½ feet.

The half tide and graving docks on the Herculeum estate were completed and opened for use on March 16, 1866.

And in addition to those belonging to private parties, warehouses belonging to the Dock Trust, on the London plan, have been built round the quays of the Albert Dock, Stanley Dock, New Wapping Dock &c. All the dock quays have open sheds for the temporary deposit of goods alongside the ships, some of which are really magnificent structures. And besides these, there are also upon some of the dock quays, as in the Prince's Dock, Nelson Dock &c., what are termed transit sheds, of one storey, substantially built, and perfectly secured, into which ships can be discharged with unusual rapidity; the goods being removed to the proper warehouses at convenience.

**Loading and Unloading of Ships.**—In London this is effected by the servants of the different dock companies, whereas in Liverpool, except where the London system is introduced, it is effected by other parties under a plan introduced by the 9 & 10 Vict. c. 109, which has been found to answer extremely well. The owner of the ship, or the master in his behalf, unloads the cargo; and as the labour to accomplish this object depends on a variety of circumstances, such as the nature of the cargo, the magnitude of the ship, her proximity to the quay &c., the charge is regulated accordingly. The practice is for the shipowner or master to make a special agree-



the other founders and improvers of the cotton manufacture, has been, though not so direct, quite as powerful in the docks and warehouses of Liverpool as in the mills of Manchester. Liverpool also exports large quantities of iron from the mining districts of Staffordshire and Wales, of earthenware from the Potteries, and of coal from the adjoining coal districts.

Four-fifths of the trade between the United Kingdom and the United States centres in Liverpool; and she has a large share of the trade with South America and the West Indies. She also carries on a considerable trade with the East Indies and China, though in this department she is surpassed by London. Indeed, the ships and products of Liverpool are to be found in every port, in every part of the world accessible to merchantmen.

In her earlier days Liverpool took an active part in privateering, and was also largely connected with the slave trade from the Bight of Biafra. But the estimate formed of that trade previously to 1807 was very different from what it is now; and Liverpool has made the best reparation possible for the part she took in it; for she established in its stead, and has followed up with zeal and perseverance, the trade in palm-oil, till it has become of the first importance. In proof of this statement it is enough to say that in 1866 no fewer than 785,751 cwt. of palm-oil, worth 1,579,385*l.*, were imported from the west coast of Africa into the United Kingdom; and that of these, 476,374 cwt. were imported to Liverpool. We are glad to have an opportunity of mentioning a circumstance of

this sort, not so much on account of the credit which it reflects on the enterprising merchants by whom the trade has been established, as because it will, if anything can, introduce civilisation among the blacks, and impress them with a just sense of the advantages of industry and commerce.

Liverpool is the greatest port, not in the United Kingdom only, but in the world, for the shipment of emigrants. The numbers of emigrants from Liverpool during the three years 1865-67 were 121,109, 123,414, and 115,707, out of totals applicable to the United Kingdom, for the same years, of 209,801, 204,882, and 195,958. The great majority went to the United States.

The principal imports into Liverpool in the year 1866 are as follows:—

Articles	Quantities
Cocoa - - - - -	lbs. 2,824,323
Coffee - - - - -	9,281,822
Corn and meal - - - - -	cwt. 9,560,472
Cotton - - - - -	11,298,088
Tanned and dressed hides - - - - -	lbs. 1,197,448
Palm oil - - - - -	cwt. 476,374
Provisions. [Ecos.] - - - - -	1,037,903
Rice - - - - -	1,217,319
Salt-petre - - - - -	666,891
Pepper - - - - -	lbs. 2,781,013
Sulphur - - - - -	gallons 2,587,571
Sugar - - - - -	cwt. 2,601,559
Tea - - - - -	lbs. 2,717,617
Tobacco - - - - -	19,655,912
Wine - - - - -	gallons 1,462,145
Wool - - - - -	lbs. 58,268,117

The export of cattle, sheep, and swine from Ireland to Great Britain, the estimated value of which, in 1866, was 8,193,018*l.* (see *Thom's Almanach* for 1868), is carried on to a great extent through the port of Liverpool.

Quantities of Principal Duty-paying Articles Imported in Warehouse on December 31, 1865; Received into and Delivered from Warehouse in 1866; and Remaining in Warehouse on December 31, 1866, at the Port of Liverpool.

Articles	In Warehouse Dec. 31, 1865	Received in Warehouse, 1866	Delivered from Warehouse, 1866	In Warehouse Dec. 31, 1866
Wool - - - - -	58,268,117	2,819,141	2,870,148	440,450
Cocoa - - - - -	2,824,323	10,278,701	9,029,819	2,085,305
Corn and meal - - - - -	9,560,472	228,491	231,075	119,591
Cotton - - - - -	11,298,088	67,528	71,705	17,528
Tanned and dressed hides - - - - -	1,197,448	1,790,885	1,725,434	1,861,996
Palm oil - - - - -	476,374	895,488	590,285	1,000,634
Provisions. [Ecos.] - - - - -	1,037,903	74,227	74,126	11,961
Rice - - - - -	1,217,319	44,539	69,839	18,772
Salt-petre - - - - -	666,891	26,912	27,257	10,760
Pepper - - - - -	2,781,013	11,085	338,758	90,229
Sulphur - - - - -	2,587,571	155,196	273,791	308,229
Sugar - - - - -	2,601,559	514,884	596,599	429,145
Tea - - - - -	2,717,617	442,003	355,177	585,524
Tobacco - - - - -	19,655,912	131,408	371,465	45,229
Wine - - - - -	1,462,145	2,960,048	6,331,699	2,759,281
Wool - - - - -	58,268,117	34,795,096	19,183,710	29,466,735
		893,561	609,503	711,442

The vast preponderance of Liverpool in the trade will be obvious from an examination of the following statement, which is taken from the comprehensive and valuable tables published by Messrs. George Holt and Co., cotton brokers:—

Imports of Cotton Wool into Liverpool in Packages, 1866.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in 1866	Total in 1865
U.S. of U.S.	48,219	40,613	60,189	34,711	65,919	46,913	26,576	8,161	14,011	7,510	18,055	13,423	385,780	211,780
India	28,770	18,946	55,035	34,219	34,600	44,925	12,510	9,366	2,548	3,550	5,150	3,158	256,661	27,845
Other	2,996	9,581	18,149	4,817	18,565	18,517	6,815	5,908	—	—	—	4,815	86,691	10,653
Total	79,985	69,140	123,373	73,747	119,084	110,345	45,701	23,435	16,559	11,060	23,205	21,396	728,832	250,278
U.S. of U.S.	30,617	20,119	35,321	35,571	6,250	4,170	5,480	8,079	6,706	7,016	17,104	45,729	200,085	111,328
India	28,770	18,946	55,035	34,219	34,600	44,925	12,510	9,366	2,548	3,550	5,150	3,158	256,661	27,845
Other	2,996	9,581	18,149	4,817	18,565	18,517	6,815	5,908	—	—	—	4,815	86,691	10,653
Total	62,383	48,646	108,505	74,607	59,415	67,602	24,805	23,751	16,254	10,566	22,254	53,702	343,437	150,826
U.S. of U.S.	11,102	121,707	187,847	131,121	179,156	199,999	57,582	37,291	43,536	28,913	45,170	52,296	1,136,130	459,769
India	37,709	59,619	62,055	57,263	58,114	34,059	29,491	13,991	17,956	22,980	21,986	9,679	401,865	531,008
Other	30,617	20,119	35,321	35,571	6,250	4,170	5,480	8,079	6,706	7,016	17,104	45,729	200,085	111,328
Total	79,428	100,845	145,223	128,955	243,325	248,225	92,152	60,361	68,492	59,002	85,256	68,685	1,738,080	1,102,105
U.S. of U.S.	11,850	5,986	4,712	20,707	6,813	7,387	8,009	5,462	4,175	6,315	5,510	3,058	90,274	113,598
Total	292,014	218,154	480,492	390,917	152,810	309,753	288,144	248,022	232,401	219,054	112,458	117,818	5,109,020	4,559,508



few of these articles, her trade being principally in articles of direct consumption, as sugar, tea, coffee, wines &c., on which duties are paid. This circumstance accounts for the comparatively large amount of the customs revenue received in the latter. There cannot, indeed, be any doubt that

the foreign trade of Liverpool is now considerably greater than that of London. Her exports of the produce of the United Kingdom, as already seen, amounted in 1866 to 87,486,497*l.*, whereas the exports from London during the same year amounted to only 41,449,757*l.*

Account of the Number and Tonnage of British and Foreign Ships that cleared out with Cargoes and in Ballast from the Port of Liverpool in 1866, specifying the Countries for which they sailed, and the Number for each.

Countries to which departed	British						Foreign					
	With Cargoes		In Ballast		Total		With Cargoes		In Ballast		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
<b>Foreign</b>												
Russia:												
Baltic Ports	31	11,611	4	1,486	35	13,100	93	19,113	1	212	94	19,385
White Sea and Arctic Ocean	5	897	2	554	7	1,351	3	538	..	..	3	538
Black Sea and Sea of Azof	4	1,357	..	..	4	1,357	11	3,145	1	614	12	3,789
Sweden:												
Ports within the Baltic	..	..	..	..	..	..	5	1,007	7	3,327	10	4,334
Ports without the Baltic	..	..	1	570	1	570	4	1,837	1	379	5	2,216
Norway	9	1,686	..	..	9	1,686	31	6,086	9	5,898	40	9,221
Denmark	5	321	..	..	5	321	12	6,606	3	1,611	15	9,217
Iceland	4	273	..	..	4	273	11	1,310	..	..	11	1,310
Prussia:												
Schleswig Holstein and Lauenburg	8	1,761	..	..	8	1,761	46	15,697	..	..	46	15,697
Germany	1	101	..	..	1	101	1	273	..	..	1	273
Poland	15	7,111	1	579	16	7,690	10	2,659	10	6,790	26	9,449
Holland	57	23,278	..	..	57	23,278	21	4,207	..	..	21	4,207
Belgium	2	875	..	..	2	875	6	2,711	..	..	6	2,711
France:												
Ports without the Mediterranean	213	94,713	1	151	214	94,864	131	18,186	6	1,536	137	19,722
Ports within the Mediterranean	3	733	..	..	3	733	1	225	..	..	1	225
Madagascar	1	189	..	..	1	189	..	..	..	..	..	..
Portugal:												
Foreign Proper	71	23,299	5	1,883	76	25,182	26	6,199	1	316	27	6,515
Azores	4	689	19	1,983	23	2,672	2	362	2	221	4	583
Spain:												
Ports without the Mediterranean	37	9,756	1	124	38	9,880	45	20,510	8	2,421	53	22,731
Ports within the Mediterranean	15	2,328	1	391	14	2,719	40	19,329	..	..	40	19,329
Philippine Islands	..	..	..	..	..	..	5	2,560	..	..	5	2,560
Italy	76	26,422	..	..	76	26,422	61	17,749	..	..	61	17,749
Papal States	..	..	..	..	..	..	1	213	..	..	1	213
Austrian Territories	27	26,599	..	..	27	26,599	4	1,324	..	..	4	1,324
Greece	2	182	..	..	2	182	1	302	..	..	1	302
Ionian Islands	..	..	..	..	..	..	1	186	..	..	1	186
Turkey	70	61,207	..	..	70	61,207	12	2,816	..	..	12	2,816
Wallachia and Moldavia	2	875	..	..	2	875	..	..	..	..	..	..
Syria	1	300	..	..	1	300	2	325	..	..	2	325
Ei Hedjaz	..	..	..	..	..	..	1	765	..	..	1	765
Peruvia	96	97,735	4	1,619	100	99,354	9	4,036	10	160	10	4,196
Chile	..	..	..	..	..	..	9	1,387	..	..	9	1,387
United States of America:												
Atlantic Ports, Northern	398	587,884	..	..	398	587,884	204	211,700	..	..	204	211,700
Atlantic Ports, Southern	146	104,861	..	..	146	104,861	81	65,553	3	3,187	84	66,540
Pacific Ports	19	10,303	..	..	19	10,303	3	2,341	..	..	3	2,341
India and Foreign West Indies	129	56,060	1	747	130	56,807	153	48,374	..	..	153	48,374
China and southern Asia	550	227,532	4	1,195	554	228,727	165	30,209	2	472	167	30,681
Australia	10	7,384	..	..	10	7,384	..	..	..	..	..	..
Japan	..	..	..	..	..	..	1	327	..	..	1	327
Pacific Islands	3	1,212	..	..	3	1,212	..	..	..	..	..	..
Sandwich Islands	1	352	..	..	1	352	..	..	..	..	..	..
Tahiti	2	1,682	..	..	2	1,682	..	..	..	..	..	..
New Zealand	1	309	..	..	1	309	..	..	..	..	..	..
East Coast of Africa	1	287	..	..	1	287	..	..	..	..	..	..
West Coast of Africa, Foreign	107	36,138	1	21	108	36,159	2	740	..	..	2	740
Brazil	2,198	509,866	47	12,214	2,245	522,080	1,209	350,250	55	24,974	1,264	375,194
<b>British Possessions.</b>												
Ireland	9	918	..	..	9	918	..	..	..	..	..	..
Channel Islands	31	7,414	1	699	32	8,106	..	..	..	..	..	..
Manx and Gizeo	29	15,551	..	..	29	15,551	21	7,227	..	..	21	7,227
Persons in Africa	19	6,185	..	..	19	6,185	2	255	..	..	2	255
India	337	348,773	2	1,667	339	350,440	22	16,809	..	..	22	16,809
China	..	..	..	..	..	..	14	12,794	3	2,692	..	..
Canton	66	82,825	..	..	66	82,825	1	1,063	..	..	1	1,063
Amoy	23	25,732	..	..	23	25,732	3	1,351	..	..	3	1,351
Swatow	337	240,543	21	21,108	358	261,651	21	8,277	1	2,124	22	11,001
Shanghai	129	55,603	2	468	131	56,071	15	4,568	1	538	16	5,106
Hong Kong	1	295	..	..	1	295	..	..	..	..	..	..
Canton and Islands	995	796,853	29	26,223	1,024	823,076	24	42,958	3	2,658	27	45,616
Total	3,191	3,306,499	76	39,159	3,267	3,345,658	1,300	595,178	60	27,632	1,360	622,810

Arrivals and Clearances Coastwise of Sailing and Steam Vessels at the Port of Liverpool in 1866.

	Sailing Vessels		Steam Vessels		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons
Arrivals	3,786	536,459	3,776	1,297,896	7,562	1,624,355
Clearances	4,418	835,809	3,659	1,164,098	8,077	1,999,907
Total	8,204	1,372,268	7,435	2,461,994	15,639	3,834,262

the above, about half are supposed to be in the Irish trade.

of *Packets*.—Few things have conduced to the progress of the trade of Liverpool, and to the extension of the empire, than the establishment of regular communication by means of packet

ships between this great emporium and other British and foreign ports. These sail to almost all parts of the world. Besides no fewer than 5 great lines of steam packets which maintain a regular intercourse with New York and Boston, in the United States, and Halifax, Nova Scotia, Quebec,



*Abstract of chief Bye-Laws (issued 1866) made under Dock Consolidation Act, 1858 &c.*

When any delay shall take place in loading or discharging, the board may employ persons for that purpose, and masters of vessels are to assist in such work by clearing deck, and stowing away. Penalty on default, 5*l*.

Masters of vessels to obey directions of dock officers in relation to the manner of coming in or going out of dock, and not to offer any obstruction to the opening or shutting of gates. Penalty, 20*l*.

No person to open or shut, or attempt to open or shut, any dock gate, sluice, or clog; penalty, 100*l*. Nor any swing-bridge; penalty, 20*l*.

No ship to enter or be within any dock under sail. Penalty, 5*l*.

Masters of vessels in the river, near to dock entrances, to remove same when required by dock officers. Penalty, 10*l*; and the expense of removal by the board to be also paid by such masters.

Masters and owners of vessels to obey the directions of, and to offer no obstruction to, dock officers, as to the mooring, unmooring, moving, or removing any vessel from one part of any dock to another part, or to any other dock; or in the regulating the position, loading, and discharging of such vessels, and the quay space to be occupied by such vessels. Penalty, 10*l*; and all expenses incurred by dock officers in carrying out this enactment to be also paid by such masters or owners.

Dock officers may employ riggers &c. for working vessels in and out of dock, at the expense of the masters or owners.

The board, in exercise of their authority to run docks dry for repair &c., may remove vessels at the expense of the owners.

All vessels in dock to be kept so loaded or ballasted as to be safely removed. Penalty, 50*l*.

Unserviceable vessels encumbering the docks may be sold by the board at the end of four months. (Sec. 58.) Board may also remove wrecks in dock or elsewhere at the owner's expense, and sell same to recover expenses.

No vessel to be brought into dock, or alongside docks &c. contrary to any order of dock officers. Penalty, 20*l*.

No vessel to be brought in any entrance, basin, dock, when the signal is hoisted that the dock fall. Penalty, 20*l*.

Penalty on master for giving to dock officers false report as to draught of water, 100*l*.

No ballast, rubbish, dust, ashes, shingle, stone, or other refuse, or things, to be thrown into any dock. Penalty, 50*l*.

No ballast, stone, shingle, cinders, ashes, lime, dung, rubbish, dust, or refuse of any kind to be laid upon any quay or pier within three fathoms from margin of the dock or river, and if so laid to be removed within twenty-four hours. Penalty, 5*l*; and there is an additional penalty of 5*l*. for every further day the same shall remain removed.

Masters of vessels loading or discharging ballast, ashes, shingle, coals, cinders, ashes, limestones, tiles, dung, rubbish, dust, or any other matter or thing, to use for such purpose as may be directed by the board, to the satisfaction of the dock master. Penalty, 5*l*.

Goods (except timber, as to which there are other regulations) permitted to remain on any quay or pier beyond 4 o'clock p.m. of the second day after landing or depositing thereon, will incur a quay rent of 5*s*. per hour, and which rent is doubled in the event of goods being left to remain over the third day, subject to

certain powers of the board to mitigate the same. And in addition thereto, if permitted to remain thereon, so as, in the judgment of the harbour master, dock master, or traffic manager, to be an obstruction to business, the consignee will incur a penalty of 5*l*., and the board or their officers may warehouse and sell the goods.

Vessels damaging any of the works of the board may be detained until damage paid for or deposit made.

Penalty for offering bribes to dock officers and on the latter for receiving the same, 20*l*. each. (N.B.—If either of the parties giving or accepting such bribes shall, before proceedings are commenced, give information and discovery of such offence, he will be excused from the penalty.)

No person to assault, resist, obstruct, or impede any dock officer in the execution of his duty, or disobey his lawful orders, or use abusive or offensive language, or aid or incite others to do so. Penalty, 10*l*.

No ballast, ashes, or other bulky substance, or rubbish, to be thrown into the river, or any of the sea channels, or from any pier or quay. Penalty, 10*l*.

If any vessel shall load or discharge any portion of her cargo, without the previous consent of the board, in any part of the river north of an imaginary straight line from Rock Ferry Slip to the southern basin of Harrington Dock, the master or owner of such vessel will be liable to pay to the board double tonnage and dock rates; and if such vessel shall afterwards enter the docks, she will be further liable to the usual tonnage and other rates.

Persons wilfully or carelessly injuring any lightship, beacon, or buoy, landmark, lifeboat-house, or lifeboat, will incur a penalty of 20*l*., and be moreover required to make good the damage.

No vessel to be made fast to buoys other than mooring buoys. Penalty, 20*l*.

Timber alone to be placed on land exclusively appropriated for timber. Penalty, 5*s*. per hour.

No timber to be discharged into docks without consent of harbour master: penalty, 10*l*. And if so discharged by consent, and not removed within 24 hours afterwards, there is a further penalty of 5*s*. per hour.

Owners of timber permitting the same to remain on the quays or timber dépôt beyond the time prescribed by the bye-laws after the same has been passed by the Customs officers, will incur a quay rent of 5*s*. per hour, and 10*s*. per hour, respectively as above mentioned with respect to other goods left unduly on the quays. Note.—The time now allowed is prescribed by bye-law No. 97.

The board are authorised to sell any timber unlawfully laid on any quay or other place, or which may remain beyond the time within which the same is required to be removed.

As to the use of fires and lights on board ships in the docks, the following penalties are also imposed, viz. :—

For using a fire or light on board any vessel in any dock or basin not set apart or appointed by the board for that purpose, 100*l*.

For using a fire or light on board any vessel in a dock or basin set apart or appointed by the board for that purpose, but in a manner not authorised by the bye-laws, 20*l*.

For disobedience to any order given by an officer of the board, or by any police constable or watchman, for extinguishing any fire or light used in contravention of the bye-laws, or for obstructing an officer in boarding or searching any vessel for fires and lights, 10*l*.

Regon	Harbour	Tax
on	Lights	
	per ton	
d.	s.	d.
23	0	0
24	0	0
11	0	0
01	0	0
10	0	0
11	0	0
41	0	0
41	0	0

mean's Bay Hak  
and southern coast  
in Mulling, Hak  
east of Ireland, 4  
from Liverpool to  
within the United  
Ireland, or the  
of Cape Horn, 4  
and from Liverpool  
eastward of the  
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night or day, 4  
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-vessel.





Dock Rates &c.—continued.

Articles	Quay Delivery Rate		Landing and Hoisting Rate		Delivery Rate	Articles	Quay Delivery Rate		Landing and Hoisting Rate		Delivery Rate
	s. d.	s. d.	s. d.	s. d.			s. d.	s. d.	s. d.	s. d.	
Lead ore, loose	1	2	1	6	0	Silver ore, bags or cases	1	0	1	0	0
Leather, foreign, loose, bales, or cases	1	6	2	0	0	Soap	1	2	1	6	0
Fish (tanned) under 1 cwt.	0	2	0	2	0	Sponge	1	3	2	6	0
1 and under 2 cwt.	0	2	0	3	0	Steel	2	0	3	1	0
2 and under 3 cwt.	0	4	0	4	0	Sugar, in cases	1	0	3	1	0
Small or mid. crate	0	2	0	6	0	boxes and casks	1	0	3	1	0
Large crate	0	7	0	9	0	Tallow, in casks, or cases	1	2	1	9	0
Machinery, in cases or packages	1	6	1	9	0	Taploca	1	5	0	3	0
Almider	1	0	1	2	0	Tea, in packages under 30 lbs.	0	1	0	1	0
roots	1	0	1	2	0	50 lbs. and under 45 lbs.	5	16	0	1	0
not press-packed	1	6	1	9	0	45 " " 40 "	0	0	0	1	0
ground	1	0	1	2	0	40 " " 35 "	0	0	0	1	0
Molasses, cane juice, and melado	1	0	1	6	0	35 " " 30 "	0	0	0	1	0
Oil, olive, in large jars	5	10	11	7	4	30 " " 25 "	0	0	0	1	0
common jars	7	1	12	1	5	25 " " 20 "	0	0	0	1	0
quart bottles	0	8	1	0	0	20 " " 15 "	0	0	0	1	0
palm and palm nut oil, each	1	0	1	3	0	15 lbs. and upwards	1	2	1	6	0
Opium	2	11	4	2	2	Tobacco, in hds.	0	0	0	9	0
Quicksilver, in bottles	0	1	0	2	0	baies, barrels, cases, serons,	0	0	0	0	0
Rice, in packages	1	0	1	6	0	kegs, drums, and similar	0	0	0	0	0
when not weighed, per lb.	0	8	1	0	0	packages, under 1 cwt.	0	0	0	1	0
porter's order	0	8	1	0	0	1 and under 2 cwt.	0	1	0	2	0
Rum	1	4	2	0	1	2 " " 1 "	0	3	0	3	0
hogshhead	0	8	1	1	0	4 " " 3 "	0	1	0	2	0
Saltpetre	1	3	1	6	1	Tow, in bales	1	0	1	2	0
Seeds of all descriptions, unless	1	0	1	3	0	Walnuts	0	10	1	0	0
especially provided for, in bags,	1	0	1	3	0	Wine and spirits, except rum, punchon,	0	6	1	3	0
when weighed	1	0	1	3	0	hogshhead	0	4	0	10	0
when not weighed, per im-	0	9	1	0	0	barrel or third	0	4	0	10	0
porter's order	0	9	1	0	0	1-cask	0	3	0	7	0
Silk, raw or thrown (not East	4	2	5	10	2	1-quarter cask	1	2	1	9	0
India or China)	4	2	5	10	2	Wood, large	1	0	1	2	0
	4	2	5	10	2	small	1	0	1	2	0
	4	2	5	10	2	Zinc	1	0	1	2	0

N.B. Books containing a complete list of the articles charged with dock rates may be had at the docks for a mere trifle.

In compiling this article we have derived considerable assistance from the elaborate work of Mr. Thomas Baines, entitled *A History of the Commerce and Town of Liverpool*, published in 1852; and from *Liverpool in 1853*, a smaller but very useful work of the same author. But we have been indebted for the most valuable part of our information to communications obligingly sent us by some of the most intelligent merchants belonging to the town.

IV. BRISTOL DOCKS, SHIPPING, ETC.

The city and seaport of Bristol is situated (lat. 51° 27' N., long. 2° 35' W.) on the river Avon, at about 6½ miles above its junction with the Severn, or upper part of the Bristol Channel.

The great range of tide peculiar to this locality enables some of the largest class of sailing vessels to come up the river to the town. Formerly vessels took the ground at low water; but to obviate the risk and damage frequently arising from this cause, an undertaking was projected and carried out by a private company between 1804 and 1809, by which about 3 miles of the then tidal river running through the city was converted into a floating harbour, a new channel for the tide being cut to the south of the town. The harbour or dock thus formed comprises about 55 acres of water space available for large vessels, while the total area floated and kept at one level is about 130 acres.

The area of watershed supplying this large float by the river Avon and its tributaries is upwards of 800 square miles. These docks are provided with two half tide basins for the temporary accommodation of vessels entering or leaving the port, viz. Cumberland Basin with an area of about 4 acres and entrance locks 54 feet and 45 feet wide, and Bathurst Basin with an area of about 2 acres and entrances 36 feet wide: there is also a single lock for barges and small craft bound inland.

The public quays occupy a length of about 2,000 yards, while the total length of frontage

available in that part of the harbour appropriated to masted ships is about 7,000 yards. The finished accommodation on the public quays has long been much increased, and a system of transhipments for bonded goods provided, which much facilitates the unloading of customable goods.

Ship building has always been carried on to a fair extent in the port, and there are several convenient graving docks, leaving-up slip &c. &c. repairs.

The docks of Bristol have been since 1858 the property of the city, the corporation of which with a view to giving increased accommodation to larger steamers and to improve the navigation in the river, have obtained an Act of Parliament giving them power to provide larger and deeper entrance locks at Cumberland Basin, and to remove some of the most objectionable points or bends in the river. There are also railway works in course of construction down both the right and left banks of the river, terminating at floating or landing stages at the roadstead at Kingswood.

A private company has also obtained an Act for the construction of a new dock near the river mouth.

Bristol early possessed and continues to enjoy a large share of the trade with the West Indies. Among her foreign imports the most important are sugar, timber, grain of all sorts, flour, hemp, hides, oils, tallow, tea, tobacco, dye, brandy, wine, rum &c.

The exports consist principally of the produce of the various manufactures of the city, comprising refined sugar, brass and copper articles, glass, earthenware &c., with iron, salt, coal, &c. the produce of the neighbourhood, cotton, linen, and woollen goods. Bristol is also on an extensive and growing trade with France from which she imports corn, butter, bacon, tallow, cattle, horses, sheep, pigs, salmon &c. &c. she sends in return tea, raw and refined sugar, iron, wrought iron, tin plates, copper, glass, leather &c.

The imports coastwise consist mostly of tin, coal, salt, agricultural produce and foreign produce brought from other ports under bond

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Dues on Goods &c.—continued.

Articles	Dock Dues		Wharfage		Town Dues
	£	d.	£	d.	
Butter	ton	0 9	ton	0 6	
Brimstone	ton	0 2	ton	0 6	
Scott'scheuc	ton	1 0	ton	0 3	
Charcoal	ton	0 6	ton	0 6	
Cheese	ton	1 3	ton	0 6	
Chleory	ton	1 0	ton	0 6	
Cider	ton	1 0	ton	0 6	
Cocoa and nuts	ton	1 0	ton	0 6	
Codfish	ton	0 9	ton	0 6	
Copper	ton	0 6	ton	0 6	
ore	ton	0 6	ton	0 3	
Corn: Hartley, beans, Indian corn, peas	quarter	0 11	quarter	0 11	100 bush. 1 0
Dates	quarter	0 11	quarter	0 11	100 bush. 0 9
Wheat	quarter	0 11	quarter	0 11	100 bush. 1 0
Cork	ton	1 6	ton	0 5	
Cotton	hale or pocket	0 3	ton	0 6	
Cream of tartar	ton	1 6	ton	0 6	
Crivoli	ton	1 0	ton	0 6	
Earthen Red	ton	0 6	ton	0 1	
Purple and fuller's	cwt.	0 6	ton	0 3	
Elephants' teeth	ton	1 0	ton	0 6	
Fatins	ton	1 0	ton	0 6	
Flax	ton	1 6	ton	0 6	
Flour	..	..	sack	0 12	
Meal of all sorts of grain	..	..	barrel	0 04	ton 1 0
Fruit: Almonds, plums, and prunes	cwt.	0 1	ton	0 6	
Currants, figs, and raisins	cwt.	0 1	ton	0 6	
Nuts	bushel	0 1	8 bu-h.	0 1	ton 0 11
Oranges and lemons	chest	0 1	chest	0 04	chest 0 11
Gambier	ton	1 0	ton	0 6	
Grease (not lard or tallow)	ton	1 0	ton	0 6	
Guanco	ton	0 6	ton	0 6	
Guinea grains	cwt.	0 4	ton	0 6	ton 0 1
Hums	cwt.	0 2	ton	0 6	
Gypsum	ton	0 6	ton	0 6	
Stone	ton	0 3	ton	0 1	
Hair	cwt.	0 11	ton	0 6	
Hemp	ton	1 6	ton	0 6	
Hides: Dry	cwt.	0 2	ton	0 6	
Wet	cwt.	0 1	ton	0 6	
Hide pieces	cwt.	0 1	ton	0 6	
Hoofs of cattle	ton	0 9	ton	0 3	
Horns	cwt.	0 11	ton	0 6	
Ice	ton	0 4	ton	0 3	
Indigo	cwt.	0 6	ton	0 6	
Iron	ton	0 9	ton	0 6	
Old	ton	0 6	ton	0 3	
Jute	ton	1 0	ton	0 6	
Lard	ton	1 0	ton	0 6	
Lemon and lime juice	pipe	1 0	ton	0 6	ton 1 1
Lead	ton	1 0	ton	0 6	
Ore	ton	0 6	ton	0 3	
Litharge	ton	1 0	ton	0 6	
Madder	ton	0 9	ton	0 6	
Manganese	ton	0 9	ton	0 6	
Marble	ton	0 9	ton	0 6	
Mats	100	0 8	100	0 1	
Metal: old	ton	1 0	ton	0 6	
Molasses	ton	0 6	ton	0 6	
Myriolamar	ton	0 9	ton	0 6	
Okhre	ton	0 6	ton	0 6	
Orange, lemon, and citron peel	cwt.	0 2	ton	0 6	
Oil: Fish	ton	0 3	ton	0 6	ton 1 1
Blubber	ton	0 9	ton	0 6	ton 1 1
Nut	ton	1 6	ton	0 6	ton 1 1
Olive	ton	1 6	ton	0 6	ton 1 1
Palm	ton	1	ton	0 6	ton 1 1
Sape and all other seed oil	ton	1 6	ton	0 6	ton 1 1
Saiald	chest or	0 11	ton	0 6	ton 1 1
Oil cake	ton	0 2	ton	0 6	
Oil nuts	ton	1 6	ton	0 6	
Ontons	bushel	0 04	ton	0 04	
Orcillin	ton	2 11	ton	0 6	
Ores: unenumerated	ton	0 3	ton	0 2	
Plaster of Paris	ton	0 6	ton	0 6	
Pepper and Pimento	100 lbs.	0 1	ton	0 6	
Plasava	ton	1 0	ton	0 6	
Pitch and Tar	barrel	0 1	barrel	0 01	
Rosin	21 cwt.	0 1	ton	0 4	
Turpentine	barrel	0 1	ton	0 6	
Put and Pearl ashes	ton	1 6	ton	0 6	
Pumice stone	ton	0 9	ton	0 6	
Rags and junk	ton	0 6	ton	0 3	
Rice	ton	0 6	ton	0 6	ton 1 1
Sago	ton	1 0	ton	0 6	
Saltpetre	ton	1 0	ton	0 6	
Sand and stone	ton	0 3	ton	0 6	
Stone: Freestone and paving (unwrought)	ton	0 3	ton	0 3	
Paving (wrought) grind mill, ware	ton	0 3	ton	0 6	
Rurr	ton	0 3	ton	0 6	
Stagg or whet	ton	0 3	1,000	0 1	
Starch	ton	1 6	ton	0 6	
Seeds: Canary	quarter	1	20 bush.	0 1	
Flax and Hemp	quarter	0 1	quarter	0 04	
Linsced	quarter	0 1	quarter	0 04	
Hope and all other oil seed	quarter	0 1	quarter	0 04	
Caraway, clover, grass, garden, millet seed, and all seed sold by weight	cwt.	0 11	ton	0 6	
Shellac	ton	1 0	ton	0 6	
Spelter	ton	1 0	ton	0 6	
Skins: Calf skins and kips, Dry	cwt.	0 2	ton	0 6	
Wet	cwt.	0 1	ton	0 6	
Kid, lambs, and seal	100	0 2	ton	0 6	
Spirits: Brandy	pun.	1 6	pipe	0 03	
Wine	pun.	1 6	pipe	0 03	
Cases (of 12 bottles)	dozen	0 1	dozen	0 03	
Rum	pun.	1 0	pun.	0 03	
Spirits of turpentine	ton	1 6	ton	0 6	
Soda and nitrate of soda	ton	1 0	ton	0 6	
Sturmac	ton	1 0	ton	0 6	

Sugar -  
East  
Java  
Brazil  
Havana  
Manilla  
Tallow  
Tobacco: Un-  
cured  
Cured  
Chests and tar  
Chests  
In cases of  
feet: Cedar, m  
Dye wood  
11, 11, 15  
Hutches  
11, 11, 15  
Iron  
Dens and  
Lath wood  
Dens and  
5, 11, 15, 15  
Staves, 11  
Lath  
not  
Timber, fir,  
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Dock dues and  
Tonnage dues.—All  
the following is  
other charges  
of 500 tons br  
dues being tal  
from Lundy to  
from Kingsroad  
Assistant pilot  
3 men at 2s, 5d,  
and boat 1s.  
Havre master  
from Kingsroad  
Tonnage according to  
Tonnage dues, quay  
dues, 1s. per ton  
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1s. to 5s. per ton  
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Bristol during  
April 30,  
Tonnage Rates  
£ s. d.  
17,035 13 8  
15,536 3 11  
19,222 3 11  
19,768 7 4  
19,068 6 2  
19,143 6 2  
17,088 1 11  
18,791 8 6  
12,017 5 6  
18,211 17 6  
15,000 1 0  
18,270 13 8  
17,017 10 0  
17,563 3 11  
18,810 2 0  
18,228 15 4  
19,220 11 7  
19,806 16 11  
18,160 7 8  
17,215 4 11  
18,612 1 0  
dues in the 1  
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Dues on Goods &c.—continued.

Articles	Dock Dues		Wharfrage		Town Dues	
	s.	d.	s.	d.	s.	d.
Sugar	ton	1 6	bhd.	0 2		
East India	ton	1 6	tierce	0 1 1/2		
Java	ton	1 6	bbl.	0 1		
Beard	ton	1 6	6 bags	0 1	bhd.	0 6
Haranna	ton	1 6	basket	0 0 1/2	ton	0 8
Manilla	ton	1 6	case	0 2		
Tallow	ton	1 6	basket	0 0 1/2		
	ton	1 3	box	0 1		
	ton	1 3	12 bags	0 1	ton	1 0
	100 lbs.	0 2	ton	0 6	chest	0 4
	ton	1 6	ton	0 6	half dn.	0 2
	ton	1 3	bhd.	0 2	quar. do.	0 1
	cwt.	0 2	tierce	0 1		
	ton	1 6	ton	0 6		
	ton	1 6	ton	0 6		
	ton	1 0	ton	0 6	ton	1 0
	quarter	0 1	quarter	0 0 1/2		
	ton	1 6	ton	0 6		
	pipe or	1 6	pipe	0 3	pipe	1 0
	duze	0 1	dozen	0 0 1/2	dozen	0 0 1/2
	dozen	0 1	ton	0 6	load	0 4 1/2
	ton	1 0	ton	0 6		
	ton	1 0	ton	0 6	as deals	
	12 1/2	0 0	120	0 3	120	1 0
	120	2 0	120	0 3	120	0 9
	fathom	0 4	120	0 3	120	0 6
	120	1 0	120	0 3		
	120	1 6	120	0 10		
	120	0 9	120	0 10		
	120	0 4	1,000	0 4		
	120	0 2				
	120	0 1				
	load	0 8	load	0 5	load	0 4 1/2
	1,000	0 6	1,000	0 4		
	ton	2 0	ton	0 6		
	ton	1 0	ton	0 6		

Dock dues and wharfrage.—All goods not particularly rated to pay the same as goods of the like value, description, or package.  
Town dues.—All goods not particularly rated one penny per one hundred tons.

The following is an account of the various port charges which would be incurred by a ship of 500 tons bringing a cargo to Bristol; the dues being taken at the highest rate:—

PILOTAGE,  
For every Licensed Pilot who navigates a Ship or Vessel.

	£	s.	d.	£	s.	d.
from Lundy to Kingroad	-	-	7 10	-	-	10 12 9
from Kingroad to Balaun	-	-	1 10 0	-	-	10 8 4
Assurance pilot	-	-	0 10 0	-	-	2 6 8
3 men at 3s. 9d. each, 15s. 6d.	-	-	1 1 9	-	-	2 5 0
and boat 3s.	-	-	0 4 0	-	-	25 0 0
Haven master	-	-	-	-	-	50 12 9
from Kingroad to Basin 1/2d. per ton (very according to the port of loading)	-	-	-	-	-	2 6 8
Message 1d. per ton, 41s. 6d.	-	-	-	-	-	2 5 0
3 men 1s. per ton	-	-	-	-	-	25 0 0
the nearest ports only 6d. per ton.	-	-	-	-	-	
Telegraph from Pill to the Commercial	-	-	-	-	-	50 12 9
1s. 1d. to 3s. per message.	-	-	-	-	-	

From Lundy to Kingroad.		
If 80 and under	100 tons	£ 2
100 "	200 "	3 5
200 "	300 "	4 4
300 "	400 "	5 5
400 "	500 "	6 6
500 "	600 "	7 7
600 "	800 "	8 8
800 "	1000 "	9 9
1000 tons and upwards	-	10 10

From Combe to Kingroad.		
If 80 and under	100 tons	£ 2
100 "	200 "	2 16
200 "	300 "	3 10
300 "	400 "	4 4
400 "	500 "	4 14
500 "	600 "	5 12
600 "	800 "	6 6
800 "	1000 "	7 0
1000 tons and upwards	-	7 0

From Minehead to Kingroad.		
If 80 and under	100 tons	£ 1 1
100 "	200 "	1 8
200 "	300 "	1 15
300 "	400 "	2 2
400 "	500 "	2 16
500 "	600 "	3 16
600 "	800 "	3 3
800 "	1000 "	3 10
1000 tons and upwards	-	3 10

From the Holmes to Kingroad.		
If 80 and under	100 tons	£ 0 6
100 "	200 "	0 10 6
200 "	300 "	0 13 0
300 "	400 "	0 17 6
400 "	500 "	1 3 0
500 "	600 "	1 4 6
600 "	800 "	1 8 0
800 "	1000 "	1 11 6
1000 tons and upwards	-	1 15 0

Between Portishead, Kingroad, Hungroot, Broad Pill, and Cumberland Basin or Eastward Basin.		
If under 80 tons	-	£ 0 7 6
80 and under	100 tons	0 10 0
100 "	200 "	0 15 0
200 "	300 "	1 0 0
300 "	400 "	1 5 0
400 "	500 "	1 10 0
500 "	600 "	1 15 0
600 "	800 "	2 0 0
800 "	1000 "	2 5 0
1000 tons and upwards	-	2 5 0

of the Dock Dues on Tonnage and Goods  
Bristol during each of the following Years  
beginning April 30.

Tonnage Rates	Rates on Goods	Totals
£ s. d.	£ s. d.	£ s. d.
17,935 13 9	7,691 12 9	25,626 6 6
18,352 3 2	7,651 16 10	26,004 0 0
18,232 5 10	8,311 2 5	26,543 8 3
18,768 7 0	9,015 15 10	27,783 2 10
19,025 6 2	8,659 15 2	27,684 1 4
19,145 6 6	9,252 12 2	28,397 8 8
19,888 1 10	8,905 1 9	28,793 3 7
19,374 8 6	9,870 12 6	29,244 1 0
19,017 5 0	8,917 11 1	27,934 6 1
18,281 17 6	7,411 17 8	25,692 15 2
18,702 1 0	8,141 15 7	26,843 6 7
18,012 19 0	8,457 11 3	26,469 10 3
18,780 13 8	8,113 16 5	26,893 10 1
17,917 10 0	10,261 18 1	28,178 8 1
17,753 3 11	11,020 16 4	28,773 0 3
18,540 2 0	11,979 17 11	30,519 12 11
19,248 15 4	12,073 9 6	31,322 4 10
18,780 11 7	12,858 17 2	31,638 8 9
19,846 16 11	10,533 19 11	30,380 16 10
20,181 7 8	10,187 16 4	30,368 4 0
17,315 4 10	8,457 11 3	25,772 15 11
18,612 1 0	5,525 3 6	24,137 6 6

Dock dues in the last six months of the year ending 1861, were at the retard rates.  
The rates of dues on tonnage and goods took effect June 1, 1861 at 5,000l. per annum, on the receipts of the year 1861.

Account of the Number of Ships and their Tonnage, distinguishing between British and Foreign, which have Entered Inwards at Bristol with Cargoes (exclusive of Coasters) during each of the following Years ending Jan. 5 and Dec. 31.

Year	British		Foreign		Total	
	ships	tons	ships	tons	ships	tons
Ending Jan. 5.						
1814	315	78,331	25	5,278	340	83,609
1815	346	79,532	56	9,382	402	81,914
1816	360	82,237	69	17,253	429	95,490
1817	331	83,205	41	7,901	372	97,106
1818	405	96,618	46	7,923	451	104,541
1819	423	109,750	118	15,580	541	121,530
1820	477	107,568	160	22,434	637	129,992
1821	461	99,134	261	32,208	722	137,642
1822	451	96,714	251	44,868	702	135,582
1823	423	90,675	208	44,064	631	131,739
1824	432	95,901	241	28,933	673	127,134
1825	410	109,745	205	30,651	615	160,406
Ending Dec. 31.						
1825	400	87,505	170	41,511	570	129,016
1826	439	106,670	51	65,380	670	172,050
1827	406	98,925	584	86,787	690	187,712
1828	422	102,675	69	85,747	491	199,119
1829	437	104,645	353	97,975	790	202,620
1830	506	121,389	390	105,722	896	237,691
1831	517	131,413	356	131,808	873	266,081
1832	519	136,666	437	130,289	956	266,955
1833	536	140,935	430	105,317	975	246,282
1834	521	128,621	372	105,522	893	231,976

V. HULL DOCKS, SHIPPING &c.

There are five docks in Hull, occupying, their basins, a water area of 43½ acres, viz.:

Name	Year	Area	
		Acres	Sq. Ft.
Old Dock	1778	10	1,171
Humber Dock	1809	9	3 84
Junction Dock	1829	6	0 5
Railway Dock	1846	2	0 9
Victoria Dock	1850	20	1 5

A timber pond of 9 acres was constructed in 1853. A considerable quantity of shipping is accommodated within that part of the river that constitutes the old harbour, which may be computed at 10 acres of tidal water.

The docks are spacious, and are entirely surrounded with warehouses and deal yards. Hull is the principal entrepôt of the Baltic trade on the east coast of Great Britain, and as the third port in the kingdom, the value of exports being inferior only to those from Liverpool and London; although, from the circumstance of her staple articles of import being subject to duties or altogether free, her customs revenue is smaller than that of less important ports. In her exports amounted to 16,730,711, and her customs revenue to 839,463.

The following tables exhibit the principal features and progress of the trade of Hull during undermentioned years ending with 1867:—

Account of the Number of Coasting Vessels and their Tonnage, distinguishing those employed between Great Britain and Ireland from other Coasters, which have Entered Inwards at Bristol during the following Years.

Year	Between Great Britain and Ireland		Other Coasters		Total	
	ships	tons	ships	tons	ships	tons
Ending Jan. 5.						
1811	490	83,978	5,336	381,511	5,826	477,489
1815	517	88,668	6,229	388,311	6,746	476,979
1816	708	105,795	5,531	390,524	6,239	496,319
1817	460	87,651	5,868	311,022	6,328	398,673
1818	404	85,137	5,981	305,782	6,385	390,919
1819	411	92,558	6,263	327,511	6,674	420,069
1820	438	95,166	6,176	333,593	6,614	428,760
1821	388	86,437	6,061	328,540	6,449	414,977
1822	359	75,754	5,754	315,722	6,093	389,476
1823	352	74,145	5,466	303,602	5,798	377,347
1824	422	84,114	4,980	267,659	5,402	351,773
1825	372	99,399	4,510	295,219	4,882	394,618
Ending Dec. 31.						
1825	487	91,691	4,753	306,896	5,240	400,587
1826	483	96,369	4,666	377,114	5,149	473,683
1827	559	108,802	4,416	257,377	5,005	366,179
1828	614	118,000	5,155	304,038	5,749	422,048
1829	611	126,962	5,974	351,318	6,585	478,110
1830	655	130,329	6,194	343,137	6,849	473,666
1831	619	137,713	6,084	355,561	6,743	473,074
1832	624	108,337	6,433	360,229	7,027	468,466
1833	519	142,631	6,076	331,880	6,495	494,511
1834	617	141,327	6,034	353,127	6,651	491,454

Declared Value of the Exports of British and Irish Produce and Manufactures, with the Customs Duties at the Port of Bristol, during each of the following Years.

Year	Exports				Duties	
	£	s.	d.	£	s.	d.
Ending Jan. 5.						
1814	186,528	12	0	966,350		
1815	176,148	18	0	1,007,832		
1816	150,883	19	6	919,149		
1817	167,593	4	8	911,514		
1818	167,491	11	7	1,004,789		
1819	147,014	17	10	1,036,753		
1820	221,964	17	10	1,012,519		
1821	225,066	3	11	1,051,891		
1822	275,599	0	0	1,100,695		
1823	207,710	0	0	1,000,250		
1824	259,745	0	0	1,410,068		
1825	632,674	0	0	1,288,287		
Ending Dec. 31.						
1825	383,173	0	0	1,132,462		
1826	465,833	0	0	1,201,030		
1827	556,411	0	0	1,211,033		
1828	427,512	0	0	1,295,559		
1829	535,967	0	0	1,410,668		
1830	361,842	0	0	1,219,111		
1831	203,198	0	0	1,336,223		
1832	215,548	0	0	1,517,177		
1833	215,966	0	0	1,150,598		
1834	202,710	0	0	1,103,000		

Year	Tonnage of Shipping (excl. River Craft)	Amount of Duties paid	Value of British Produce exported		Amount of Foreign Produce
			£	£	
1843	653,309	30,115	10,151,418	6,000,000	16,151,418
1844	761,748	38,204	10,307,587	6,000,000	16,307,587
1845	710,638	36,615	10,796,238	6,000,000	16,796,238
1846	779,985	37,990	10,878,870	6,000,000	16,878,870
1847	833,039	38,684	9,558,941	6,000,000	15,558,941
1848	813,908	38,922	8,183,629	6,000,000	14,183,629
1849	790,831	38,204	9,721,412	6,000,000	15,721,412
1850	811,710	38,000	10,566,510	6,000,000	16,566,510
1851	827,594	38,206	10,266,891	6,000,000	16,266,891
1852	799,866	34,961	9,913,111	6,000,000	15,913,111
1853	880,866	35,422	10,222,000	6,000,000	16,222,000
1854	850,229	34,959	From 1848		
1855	792,411	28,440	12,161,180	6,000,000	18,161,180
1856	1,075,787	40,225	13,556,624	6,000,000	19,556,624
1857	1,086,637	40,478	15,785,813	6,000,000	21,785,813
1858	1,086,697	40,815	15,800,587	6,000,000	21,800,587
1859	1,138,189	45,801	14,308,787	6,000,000	20,308,787
1860	1,218,203	46,857	14,308,123	6,000,000	20,308,123
1861	1,071,937	42,314	13,903,123	6,000,000	19,903,123
1862	1,024,137	36,135	11,916,375	6,000,000	17,916,375
1863	1,038,107	35,829	13,556,624	6,000,000	19,556,624
1864	1,106,196	37,067	16,052,398	6,000,000	22,052,398
1865	1,202,763	45,985	17,271,209	6,000,000	23,271,209
1866	1,383,819	45,551	16,730,711	6,000,000	22,730,711
1867	1,330,202	44,201			

Tonnage of Steam Vessels (exclusive of Steamers) frequenting the Port of Hull from Year 1838 down to 1867.

Year	Tonnage of Steam Vessels on Foreign Voyages	Tonnage of Steam Vessels employed Coastwise	Total
1838	38,515	137,364	175,879
1839	48,556	134,922	183,478
1840	48,949	131,003	180,952
1841	46,745	127,745	174,490
1842	56,711	122,422	179,133
1843	58,083	126,084	184,167
1844	68,248	126,248	194,496
1845	67,760	132,907	200,667
1846	85,305	125,498	210,803
1847	102,726	131,226	233,952
1848	94,659	123,570	218,229
1849	123,657	108,536	232,193
1850	182,174	119,734	301,908
1851	200,408	106,169	306,577
1852	193,698	111,111	304,809
1853	181,943	119,239	301,182
1854	207,435	96,971	304,406
1855	241,421	97,917	339,338
1856	309,509	104,070	413,579
1857	415,193	159,951	575,144
1858	424,241	162,000	586,241
1859	382,143	165,018	547,161
1860	438,208	165,180	603,388
1861	443,180	141,825	585,005
1862	411,608	159,222	570,830
1863	441,253	159,722	600,975
1864	471,113	126,016	597,129
1865	531,917	136,966	668,883
1866	621,520	136,966	758,486
1867	636,911	114,753	751,664





It is generally believed that, on the whole, the losses on the trade have fully counterbalanced the gains. The steam navigation of the port is again on the increase, as seen in the third table applicable to Hull; and many iron steamers and sailing vessels continue to be added to the shipping of the port. These, with the reductions in the dock rates and port charges, the increased facilities afforded for the shipment and warehousing of goods, and the intimate communications with the interior of the kingdom, and even with foreign countries, have given an extraordinary impulse to the trade of the port, and this, no doubt, will be maintained and increased if the peace of Europe should happily be preserved.

It is believed by many that the trade of the town and the well-being of its inhabitants would be much promoted by purchasing up the docks from their present proprietors, and placing them under trust for the benefit of the town, as at Liverpool and Bristol; and this, we are assured, might be accomplished with but little difficulty. (We are indebted for the greater part of the foregoing information to the obliging kindness of the able secretary to the docks.)

*Account of the Quantities of the Principal Articles Imported into Hull during the Year 1866.*

Articles	Quantities
Animals, living, oxen, bullocks, and cows - no.	29,945
Com <sup>o</sup> wheat - sheeps and lambs - "	46,340
barley - "	1,290,241
oats - "	1,691,881
peas - "	243,223
beans - "	186,385
Indian corn or maize - "	190,216
wheat meal and flour - "	190,629
Flax: dressed or undressed - "	429,344
tow or rottils of flax - "	224,686
Fruits: lemons and oranges - bushels	53,915
Hemp - "	245,997
Wool, unscoured dry - cwts.	107,836
wet - "	19,127
tanned, tawed, curried, or dressed - "	25,723
Oil: train, blubber, and spermaceal - lbs.	218,810
olive - "	91
seed oil, of all kinds - "	6,940
Coared ciles - "	1,234
Provisions: bacon and hams - tons	20,514
beef, salted - cwts.	11,515
pork - "	896
liver - "	2,187
cheese - "	47,03
tea - "	11,580
lard - great hundred	13,475
suet - "	11,418
raisins - qrs.	550,570
sugar - lbs.	121,536
spices - "	2,060
rice - "	400
brandy - "	38
Geneva - "	127,550
Port - "	3,895
Sherry - "	5,865
Wine, unfermented - cwts.	198,916
Wine, fermented - lbs.	147,122
Manufactured, cigars and snuff - "	5,718
Tobacco - "	9,995
Wool: raw and shorn - "	11,580
No. 1 or 2, or otherwise dressed, - "	58,168
Wool, beam, beam, &c. sawn or split - loads	234,650
Skins - "	4,021
Wool, sheep and lambs - "	13,815,762
Wool, unwashed - "	136
Wool, manufactures - value £	88,269

**VI. GREAT GRIMSBY DOCKS &c.**

Grimsby is a borough and seaport, in the county of Lincoln, on the south side of the estuary of the Humber, which at this point is about 1 mile across, 7 miles W. from the lighthouse on Spurn Head, which is in lat. 53° 34' 44" N., long. 0° 7' 9" E. Population, in 1861, 15,060. The wharf is a long, narrow, hooked tongue of land which terminates in the Head protects a capacious roadstead, with good holding ground, extending to within a mile of the new works at Grimsby, and well known as a harbour of refuge to those who navigate the North Sea. The entrance to the river is marked by the lighthouse on Spurn

Head, and by two light-ships in the Channel. Grimsby has, in consequence, the double advantage of a secure roadstead and of proximity to the open sea. The utility of this new harbour is evident from the scarcity of ports along this portion of the coast of England; for, if we except the leading port of Hull, which also lies on the Humber, 15 miles farther inland, there is no other port with docks but that of Grimsby, between Hartlepool in Durham and King's-Lynn in Norfolk, a distance of fully 160 miles.

Grimsby is a borough of considerable antiquity, and was formerly a port of such importance that in the reign of Edward III. it sent 11 ships to the siege of Calais. Owing, however, to the gradual filling up of its harbour, it laterly sunk into comparative insignificance. In 1802 a new harbour was constructed; but being accessible only at high water, it was not productive of all the advantages that were expected. But, in 1846, a new harbour, on a larger scale, accessible at all times of the tide, was commenced; and in anticipation of its being finished, Grimsby was made the terminus of two important railways.

The old dock or floating basin, constructed in 1801-2, measures about 19 acres; but being placed at the high-water margin of a flat shore, and being consequently accessible only towards high water, it is of very limited utility.

To secure a proper depth of water at the entrance of the new works was an object of the first importance; and to attain it they have, under the Act of 1845, been projected  $\frac{3}{4}$  mile into the estuary in advance of the old dock, reclaiming at the same time and enclosing 130 acres of land.

The new works comprise a wet dock of upwards of 25 acres in extent, with two entrance locks, having in front a tidal basin of 15 acres. The latter, formed by two piers, together about 2,000 feet in length, is provided with landing quays of masonry. It has a depth of 9 feet at low water springs, and of 12 $\frac{1}{2}$  feet at low water neaps; the rise of tide at the former being about 18, and at the latter about 12 feet. The facility of ingress and egress afforded by this basin is especially useful to steamers, which, as they usually convey passengers or light merchandise, do not require to enter a dock. Here they lie afloat alongside the piers at all times of the tide.

The new dock, opened in May 1852, is entered from the basin by two locks of massive masonry, furnished with double sets of gates for ebb and flood tides, the larger of which, constructed by special agreement with the Government) to admit the largest class of war steamers, is of the following dimensions, viz.—Length between the gates 300 feet; breadth from wall to wall 70 feet; depth of water on sill, at low water spring tide, 7 feet; depth of water on sill, at low water neap tides, 10 $\frac{1}{2}$  feet; depth of water on sill, at high water spring tide, 25 $\frac{1}{2}$  feet; depth of water on sill, at high water neap tides, 22 $\frac{1}{2}$  feet. At half tide the average depth of water on the sill of this lock is 16 to 17 feet, and at three-quarters tide 20 to 22 feet.

The smallest or second lock is designed for general purposes. Its length between the gates, 200 feet; breadth, from wall to wall, 45 feet; and its sill being 9 inches below that of the large lock, it has, at half tide, a depth of 17 to 18 feet water; and, at three quarters tide, of 21 to 22 feet. The lock gates, worked by hydraulic machinery, are opened and closed with ease and rapidity.

The water area of the new dock amounts, as already stated, to upwards of 25 acres, including a timber pond at its upper end; it has never less than 25 feet depth of water at its entrance, shoaling gradually to 20 feet at the timber pond. The

dock is filled with fresh water—a circumstance of considerable advantage to steamers. Wharfs or quays extend on both sides of the docks, upwards of 3,600 feet in length. They are traversed by railways, so that trains may be at once loaded from the ships, and the goods forwarded to their destination. The covered sheds and bonding warehouses, with suitable jetties, cranes, and other machinery, erected close to the quays, are extensive and convenient.

There is also a fish craft dock of about 6 acres, situated on the east side of the new dock. It is 80 feet long by 20 feet wide, with a depth of water on the sill at high water spring tides of 15 feet, and has a timber wharf 400 feet long and 35 feet wide partly roofed, with ice-houses, curing establishments &c. adjoining.

From the proximity of Grimsby to the mouth of the Humber, both sailing and steam vessels can get to sea from it with the greatest facility. It would seem, indeed, to be well fitted, not only for a commercial port, but also for a station for government steamers and other ships of war in the event of our being engaged in hostilities with any of the Northern Powers. Grimsby is 190 miles from Rotterdam, with which it has regular steam communication, and 220 miles from Antwerp.

In connection with the wet dock, a graving dock for the repair of ships was opened in 1858. It has an entrance of 70 feet wide, and an average depth of 19 to 20 feet on the sill. It is further intended to open a channel of communication between the old and the new dock, which will add greatly to the utility and value of the former.

But, after all, the value of Grimsby as a commercial port will principally depend on its facilities of communication with the interior. And these are of the most extensive description. A direct branch of the Great Northern Railway, from Peterborough, passing through Boston and the east parts of Lincoln, and thus opening a rich agricultural country, brings Grimsby within 154 miles distance, or 4 or 5 hours' travelling, of London. The line of the Manchester, Sheffield, and Lincolnshire Railway Company, who are the proprietors of the works at Grimsby, unites it with Manchester (distance 117 miles) and Sheffield. It intersects in its course two trunk lines to the North, viz. the Midland and the Great Northern.

The agricultural district of Lincolnshire and the Midland counties, the manufacturing and mineral districts of Lancashire and Yorkshire, and the metropolis, are thus brought into direct and easy communication with a port that offers especial advantages for the trade with Holland, the Elbe, and the Baltic; and which is, indeed, extremely well situated for traffic, whether east, north, or south.

The number of vessels entered at this port during 1866 are as under:—

	No.	Tonnage
Inwards from Foreign Ports	1,016	250,271
Outwards - - - - -	1,033	268,483
Coasting.		
Inwards - - - - -	122	7,681
Outwards - - - - -	366	48,863

Amount of Customs' duties received at Grimsby in 1866, 15,709*l.*; value of exports from the port in 1866, 8,205,807*l.*

The following table shows the rates and duties charged by the Manchester, Sheffield, and Lincolnshire Railway Company, at the Grimsby Docks, on vessels trading between the port of Grimsby and any of the after-mentioned places, and on vessels entering the docks for shelter or repairs:—

For every vessel trading between the Port of Grimsby and any port or place in Denmark, Sweden, or Norway, below Elsinore, or in Germany, Holland, Flanders, France to the eastward of Ushant Inland, the Island of Guernsey, and Jersey

For every vessel trading between the Port of Grimsby and any port or place in the Baltic Seas, and all other ports or places above the Sound, or between the said port and any island or place or port of Europe to the westward of Ushant without the Straits of Gibraltar

For every vessel trading between the Port of Grimsby and any port or place in the West Indies, North and South America, Africa, Greenland, or any place in the eastward of the North Cape of Norway, all places within the Straits of Gibraltar, and all islands and places in the ocean to the southward of Cape St. Vincent, not before named

For every vessel trading between the Port of Grimsby and any port or place in the West Indies, North and South America, Africa, Greenland, or any place in the eastward of the North Cape of Norway, all places within the Straits of Gibraltar, and all islands and places in the ocean to the southward of Cape St. Vincent, not before named

For every vessel entering into the docks in ballast to be laid up (such vessel not having made the last preceding voyage from the said Port of Grimsby, and paid duty accordingly upon her departure from the said docks, and not being regularly employed in the trade of the said ports), for every ton the sum of

For each such vessel which shall remain more than 6 weeks, the further charge per ton per week of

For every vessel exceeding 50 tons burden, entering the said docks for repairs, shelter from storms, or from any other accidental cause

For every such vessel, if remaining more than seven days, the further sum per ton per week of

For every vessel not exceeding 50 tons burden, so moored in the said docks, the sum of

For each such vessel remaining in the docks more than twenty-four hours, the further sum per ton per week of

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The following are the rates and duties charged at the Grimsby Docks on the cargoes of coasting vessels, and vessels navigating the Humber, and rivers or canals communicating therewith:—

	Inwards	Outwards
Wool, fleeces, spent ties, woollen yarn, and dried peats	per ton	0 6 1 1/2
Slates, tiles, iron, and bark	per chaldron	0 3 0 0 0
Lime	per ton	0 3 0 0 0
Coals, slack, cinders, culm, coke, charcoal, or bricks	per ton	0 3 0 0 0
Timber, wood, deals, plank, battens &c.	per ton	0 6 0 0 0
Groceries	per ton	1 0 1 1/2
Grain, ratches, and lentils	per quarter	0 1 0 0 0
Dung, compost, manure (unpacked)	per ton	5 0 1 0 0
Hay (packed)	per ton	0 6 0 0 0
Goods not before specified	per ton	0 6 0 0 0

\* If shipped from railway waggons, free.

N.B.—Vessels making use of the Grimsby Docks are not subject to corporation dues of any kind.

Rates to be charged on the Registered Tonnage

For	Vessels under 100 tons		And for private purposes 50 tons
	£	s. d.	
One day	2	2 0	0 1 0
Two days	2	16 0	0 2 0
Three "	3	10 0	0 3 0
Four "	4	4 0	0 4 0
Five "	5	12 0	0 5 0
Six "	5	12 0	0 6 0
Seven "	6	6 0	0 7 0
Eight "	7	11 0	0 8 0
Nine "	7	11 0	0 9 0
Ten "	8	8 0	1 0 0
Eleven "	9	16 0	1 1 0
Twelve "	9	16 0	1 2 0
Thirteen "	10	10 0	1 3 0
Fourteen "	11	4 0	1 4 0

A special agreement will be made for vessels requiring to remain more than fourteen days.

In addition to the above rate per day for the use of the dock, every vessel will be charged for pumping, use of horizontal shores, pitch, and smithy, viz. :—

Vessels not exceeding 500 tons	£ 4
700 "	5
1,000 "	10
exceeding 1,000 "	15

Rules and Regulations.

1. To ensure to all parties as far as possible the use of the dock in the order of priority, as kept by the Harbour Master, in which all

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VII. NEWCAST  
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DOCKS

intended for repair in the Graving Dock must be entered, and the sum of 1 guinea paid at the time of such entrance. The said sum of 1 guinea will be allowed as part of the dockage, if the same be paid within ten days after the bill is delivered out; if not so paid, it will be forfeited. The entrance-money will also be forfeited if the vessel does not take her turn at the time specified at the time of entry, provided the dock is ready to receive her.

2. No changing of turns to be allowed, except in the case of a vessel having received damage by accident; and relief is to be given in such cases to vessels either inward or outward bound, according to the judgment and by the authority of the Harbour Master.

3. Any vessel staying in the Graving Dock more than 7 days must allow the gates to be turned or turns may require, and must be responsible for its own shoring.

4. No vessel will be allowed to remain longer than 14 days in the Graving Dock, except under special agreement.

5. No vessel will be permitted to be broken up in the Graving Dock without the consent of the directors, under the hand of their secretary for the time being.

6. Ground blocks and horizontal shores only are to be provided by the Company; and if any of them are let adrift, lost, or negligently or wilfully damaged, the same must be made good by the owners of the vessel occasioning the loss or damage; and any vessel requiring to remove or take out blocks must replace the same; and if it is necessary to pump dock dry for that purpose, the vessel must pay an additional 5*l.* for pumping.

7. Every person who shall cut, destroy, or be guilty of wilful or negligent injury to any of the blocks, shores, machines, stoves, water-cisterns or pipes, pitch-pots, cranes, tackle, or other appendages, belonging to the Graving Dock or the property of the Company, or shall throw down heavy timber or other things upon the steps or stonework instead of using the slides or sledges provided for that purpose, shall not only make good the damage or injury done, but shall, over and above, forfeit the sum of ten shillings for each such offence. The damage to be computed and assessed by the Harbour Master.

8. No work of any description will be allowed to be done in the Graving Dock on Sunday, except upon proved emergency, and only by the express permission in writing of the Harbour Master.

9. No vessel will be allowed to enter the Graving Dock with gunpowder on board.

10. The Graving Dock must be cleaned out each year, at the expense of the vessel or vessels occupying it, to the satisfaction of the Harbour Master.

VII. NEWCASTLE DOCKS &c.

Previously to 1857, the port of Newcastle-on-Tyne, although by far the most important of the northern ports, possessed no dock accommodation. Under the Tyne Improvement Act, 1852, however, the 'Northumberland Dock' was constructed in a place called 'Hayhole,' on the north side of Tyne, and was opened on September 1, 1857. Its area is 55 acres, and that of the tidal water is 23, and the least 18½ feet. The accommodation provided at first was principally for an open dock for coals; and communication by wharves has been opened with a considerable number of collieries, but the import trade carried on at the dock is annually increasing; and more extensive accommodation has been constructed to meet each increase. The number of

vessels which entered the docks in 1861 was 4,961; and in 1864, 5,032; and the amount of tonnage has since that date considerably increased.

The following is a schedule of the present rates and tolls on vessels and goods carried in vessels using the Northumberland Dock, Leviable by order of the Tyne Improvement Commissioners, under the Tyne Improvement Act, 1852.

Tonnage Rates.

For every ship clearing for any port in the United Kingdom or the Isle of Man	Rate
For every ship clearing for any port in the United Kingdom or the Isle of Man	per registered ton 2
For every ship clearing for any port in the United Kingdom or the Isle of Man	per registered ton 2
For every ship clearing for any other port and place than above specified	per registered ton 4
For every ship entering the dock for the sole and exclusive purpose of delivering or unloading ballast, gravel, or sand	per registered ton 1
For every ship entering and leaving the dock without delivering or loading a cargo	per registered ton 1
For every ship with a cargo from any port in the United Kingdom or the Isle of Man	per registered ton 2
For every ship with a cargo from any port or place in Europe of the Baltic Sea, or from any port in the Islands of Guernsey and Jersey	per registered ton 4
For every ship with a cargo from any other port or place	per registered ton 6

For the above rates any ship may remain in the dock for any time not exceeding 4 weeks, and after the expiration of that time a further sum of 3*d.* per registered ton per week shall be payable in respect of such vessel.

River Craft will be charged at the rate of 8*d.* for a load of 8 chaldrons, or 20 tons, and in like proportion for a greater or less load.

Rates or Tolls on Goods.

For every ton of large or uncreased coals put on board any vessel in the dock for export, whether coastwise or foreign	Rate
For every ton of small coals put on board any vessel in the dock for export, whether coastwise or foreign	2
For every ton of coals, culm, or cluders, put on board any vessel in the dock	1
For every load of timber, each load containing fifty cubic feet, received or delivered from any vessel in the dock	3
And in case such timber shall continue in the dock for a longer period than one month, then for each week beyond such month	3
For every ton weight of goods or merchandise of every other description received or delivered from any vessel in the dock	10
Or, at the option of the Commissioners, for every ton measurement of such goods and merchandise, each ton measurement containing forty cubic feet	4
And for every package or parcel of goods less than a ton, either of weight or measurement, the same sum as is payable in respect of a ton.	6

VIII. TYNE, SOUTH SHIELDS DOCK, &c.

The Tyne Dock, opened on March 3, 1859, is designed for the accommodation of ships of the largest burden, and is connected by railway with all parts of the kingdom.

There are two coal and coke shipping jetties with 22 spouts, where the largest description of vessels can be loaded afloat. Coals from the Northumberland and Durham coal-fields can be shipped to any extent.

There are nine warehouses capable of storing grain, fibre, hemp, tallow, and general merchandise. Steam travelling and hydraulic cranes are provided in different parts of the dock.

Sheer legs capable of lifting 60 tons are now erected and are in use.

There is also extensive timber accommodation on land and water.

DOCK ACCOMMODATION.

Dock.				
Area in Acres	Depth of Water in Dock O. S. T.	Depth over Sill at High Water O. S. T.	Width of Entrances	
			East Lock	West Lock
50	21	24½	60	80

Basin.

Area In Acres	Depth of Water		Width of Entrance
	At H. W. O. S. T.	At L. W.	
10	feet 2 1/2	feet 1 1/2	feet 2 1/2
High water at the Bar on full and change			3h. 50m.
Ordinary spring tide of tide			1 1/2 h. 50m.
Neaps			1 1/2 h. 4m.

The datum is 150, below a notch cut in the S. W. corner of the Low Light &c.

List of Rates, Tolls, and Dues.

Inward Charges.	Rates per ton d.
For every ship with a cargo from any port in the United Kingdom, the Isle of Man, or in the Islands of Guernsey and Jersey	2
For every ship with a cargo from any port or place in Europe, between Lisbon and the Nile in Norway, including the ports in the Baltic Sea	4
For every ship with a cargo from any other port or place	6
Outward Charges.	Rates per ton d.
For every ship clearing for any port in the United Kingdom, the Isle of Man, the White Sea, or any port between the North Cape and Gibraltar, including the Baltic, and for the British possessions in North America	2
For every ship clearing for any other port or place than above specified	4
For every ship entering or using the docks for the sole and exclusive purpose of delivering or unloading ballast, gravel, or sand	1 1/2
For every ship entering and leaving the docks without delivering or loading a cargo	2

For the above rates any ship may remain in the docks for any time not exceeding 4 weeks, and after the expiration of that time a further sum of 1d. per ton per week shall be payable in respect of such vessel.

For keels, lighters, or other river craft, not exceeding 50 tons burden, entering and leaving the docks for the purpose of loading or discharging minerals or merchandise, 1s. each way.

Dues, Rates, or Tolls on Timber, Goods, or Merchandise Transferred to or from Vessels or River Craft in the Docks.

	Rates, d.
For every load of timber, of whatever description, each load containing fifty cubic feet, received or delivered from any vessel	3
For every ton weight of goods or merchandise, of every other description, received or delivered from any vessel	4
Or, at the option of the Company, for every ton measurement of such goods and merchandise, each such ton measurement containing forty cubic feet	6
And for every package or parcel of goods less than a ton either of weight or measurement, the same sum shall be payable in respect of a ton.	

When the quays or jetties are used for loading

Bute Docks.

Lat. 51° 27' 16" N.; long. 3° 10' 20" W.; High Water, full and change, 6 h. 37 m.

West Dock	East Dock	Tidal Dock
<p><b>Sill of Sea Gates.</b> Height at springs, 28 ft. 8 1/2 in.; height at neaps, 18 ft. 7 1/2 in.</p> <p><b>Width of Sea Gates,</b> 45 ft.</p> <p><b>Basin.</b> Length, 360 ft.; width, 200 ft.</p> <p><b>Lock.</b> Length between gates, 152 ft.; width, 35 ft.</p> <p><b>Dock.</b> Length, 4,000 ft.; width, 200 ft.; depth of water from 15 to 19 ft.</p> <p>The stanch in the 19 and 15 ft. water combine the latest improvements in the shipping of coal, by which 150 tons may be shipped per hour from each stanch.</p> <p>By the steam ballast cranes on the eastern side, 40 tons per hour may be discharged by each crane.</p> <p>The traffic to and from this dock is sent over the Taff Vale Railway.</p>	<p><b>Sill of Sea Gates.</b> Height at springs, 31 ft. 8 1/2 in.; height at neaps, 21 ft. 7 1/2 in.</p> <p><b>Sea Gates.</b> Width, 55 ft.</p> <p><b>Sea Lock.</b> Length between gates, 220 ft.; width, 55 ft.</p> <p><b>Basin.</b> Length, 380 ft.; width, 250 ft.</p> <p><b>Inner Lock.</b> Length between gates, 200 ft.; width, 47 ft.</p> <p><b>Lock.</b> Length, 4,500 ft.; width, northern portion, 500 ft.; southern portion, 500 ft.; depth of water, 25 ft.</p> <p>The stanch afford the means of shipping coal brought by the Rhymney and Taff Vale narrow gauge lines, and by the South Wales broad gauge railway. The height of the stanch will admit of the largest vessels lying under and taking in cargo. Means are provided for putting stanching into vessels for discharging ballast, and for putting coal on board without breakers.</p>	<p><b>Average depth of water.</b> At springs, 11 ft. 8 1/2 in.; at neaps, 16 ft. 7 1/2 in.</p> <p>Ballast and other material are discharged by cranes on the south side.</p> <p>The coal is shipped at the stanch on the north side, which communicates with the Rhymney and South Wales Railway.</p> <p>The dock charge on sailing or discharging is 1d. per register ton.</p>

Remarks.—The anchorage off Penarth Head is excellent. The Cardiff and Penarth Flats and East and West Mud are composed of a thick stratum of soft alluvial clay and mud, on which the largest vessels loaded lie aground with perfect

or unloading, the above dues, rates, or tolls are exacted, but wharfage and other charges payable, and information as to the same may be obtained on application to the collector at dock office, or to the Company's goods manager, Newcastle.

The following are payable whether the animals be transferred to and from vessels or craft in the docks, or loaded or unloaded at the quays, wharves, or jetties:—

	Rates per head, s. d.
Horses	1 6
Oxen, cows, and bulls	1 0
Ponies, mules, and asses	0 6
Cattle and deer	0 2
Lambs, sheep, goats, and pigs	0 1

The highest tide ever known in the Tyne Dock was 27 1/2 feet on the dock sills. The rise is frequently to 25, 25 1/2, 26, and 26 1/2. The average height of spring tides is 24 1/2 feet on the sills. At no time is there less than 20 feet in the dock when the gates are closed, or less than 8 feet outside the dock. The number of vessels which entered the port of South Shields alone, in 1865, was 499 with a tonnage of 148,852, of which 67 were steam vessels with a tonnage of 34,979.

IX. CARDIFF DOCKS &c.

Cardiff, situated on the river Taff, and having in 1861 a population of 32,954, has, in consequence of its connection by rail and canal with Merthyr Tydvil and the chief mining districts of South Wales, risen to very considerable importance. This has been much enhanced by the accommodation it offers in the Docks constructed at vast expense by the late Marquis of Bute.

The Taff River is navigable for small vessels up to near the South Wales Railway.

**Glamorgan Canal.**—The approach to this canal is by the river Taff. Width of gates of Sea Lock 27 feet; length of Sea Lock 103 feet; depth of water on sill of inner gates 13 feet; length of canal for loading and discharging vessels 3,112 feet; average width 100 feet; depth of water in canal 13 to 9 feet.

PENARTH DOCK.

Basin, 400 ft. x 330 ft.; lock, 270 ft. long; dock, 2,000 x 370 ft.; water, 35-8 ft. high tide, and 25-7 lowest, being 4 ft. more water than East Bute Dock, and 7 ft. more than West Bute Dock. Gates 60 ft. wide.

safety. Penarth Head, being about 200 ft. above high water mark, not only affords perfect shelter from the boisterous west wind, but generally most desirable as a place of shelter and anchorage for the large and valuable vessels which frequent

the port. Steam-tugs are in attendance at every tide. There are also steamers plying between these docks and the ports of Liverpool, Cork, Whitehaven, Burnham, Bristol &c. By the Rhymney Railway and the Newport, Abergavenny, and Hereford Railway, there is a direct and unbroken narrow gauge communication between Cardiff, London, Birmingham, Chester, Liverpool, Manchester, and the North. The South Wales Railway (broad gauge) affords a communication between this port and Milford Haven, Carmarthen, Swansea, Neath, Newport, Chepstow, Gloucester, and London.

The Port of Cardiff is the outlet for the large mineral and manufactured produce of the central portion of the South Wales Mineral Field, in which are the populous districts of Merthyr, Rhymney, and Aberdare, with which this port is connected by the Taff and Rhymney Railways, and Glamorgan Canal.

#### Table of Tonnage Rates in the Bute Docks.

Vessels under 50 tons	£	s.	d.
of 50 tons and under 100 tons	0	2	6
100 "	0	5	0
200 "	0	7	6
300 "	0	10	0
400 "	0	12	6
500 "	0	15	0
600 "	1	0	0
700 "	1	2	6
800 "	1	5	0
900 "	1	7	6
1,000 "	1	10	0
1,100 "	1	12	6
1,200 "	1	15	0
1,300 "	1	17	6
1,400 "	1	20	0
1,500 "	1	22	6
1,600 "	1	25	0
1,700 "	1	27	6
1,800 "	1	30	0
1,900 "	1	32	6
2,000 "	1	35	0
And so on for every additional 100 tons or portion thereof			

The owners of the docks will not be responsible for any damage occurring to vessels while in tow by their steamer.

#### Table of Tonnage Rates on Shipping.

First Class.	per register ton
On all sailing, steam, or other vessels entering from or departing for any port in the United Kingdom, Isle of Man, Jersey, Guernsey, Alderney, and Sark, under 100 tons register	1
100 tons and under 200 tons register	2
200 tons register and upwards (except steam vessels)	3
Steam vessels 200 tons register and upwards	4
Second Class.	
On all sailing, steam, or other vessels entering from or departing for any port in Europe, between the North Cape and Cape Finisterre	5
Third Class.	
On all sailing, steam, or other vessels entering from or departing for any other port in Europe and the Mediterranean	7
Fourth Class.	
On all sailing, steam, or other vessels entering from or departing for all other foreign ports whatsoever	9
Fifth Class.	
On all sailing, steam, or other vessels which do not enter within the gates of any dock or basin, but which either discharge or receive passengers of goods upon or from any pier, landing place, or jetty	3
Sixth Class.	
On all sailing, steam, or other vessels using the tidal harbour of the undertakers	0
any sailing, steam, or other vessel, being of less than 200 tons measurement, shall remain in any dock or basin for a period longer than 10 days; or being of 200 tons and less than 400 tons measurement for a longer period than 15 days; or being of 400 tons measurement or upwards for a period longer than 21 days, then for the period during which the vessel remains beyond those periods respectively the further rates following, that is to say:	
For the first week or any part thereof	1
second	1 1/2
For every week or part of a week beyond the second week	2

#### Rates for the Discharge, Removal, and Deposit of Ballast.

Register Tonnage of Vessels from which the Ballast is discharged	Rates per Ton on the quantity of Ballast
Under 100 tons	s. d.
100 and under 200 tons	0 6
200 "	0 8
300 "	0 9
400 "	0 10
500 "	0 11
600 "	1 0
700 "	1 1
8 and upwards	1 1

**Additional Rates.**—For the use of barges, if required, 4d. per ton on the quantity discharged.

For discharging ballast by night, 3d. per ton on the quantity so discharged.

For trimming ballast to within 15 ft. of any hatchway from which the ballast is to be discharged, 2d. per ton; or the captain can employ his crew for this purpose.

Application for barges, night work, and trimming of ballast, to be made at the Ballast Office.

#### X. GLASGOW DOCKS, SHIPPING &c.

Glasgow, the commercial capital of Scotland, on both sides the Clyde, lat. (Observatory) 55° 51' 32" N., long. 4° 17' W. (population, 1861, including suburbs, 446,395), is indebted for her present greatness to her advantageous situation on a fine river, in one of the richest coal and mineral districts of the empire. Originally the Clyde was much encumbered by fords and shallows, and for a lengthened period it served rather to excite and disappoint expectation than to confer any real commercial advantage on the city. In 1662, after several other schemes had failed, the magistrates of Glasgow purchased the ground on which Port Glasgow (16 miles lower down the river) now stands, where they formed a harbour and a graving dock, the first work of its kind in Scotland. For a considerable period the intercourse between Glasgow and its newly acquired port was principally carried on by land carriage; but from 1667 attempts were every now and then made to deepen the river. In 1688 a quay was formed at the Broomielaw; but even so late as 1775 no vessel drawing 6 ft. water could reach Glasgow except at spring tides. At length a plan, proposed in 1769 by Mr. Golburn, engineer, of Chester, for deepening the river to 7 ft. at neap tides, was adopted, and since then, by the continued use of numerous dredging machines, a depth of from 18 to 21 ft. water at neaps has been obtained. In 1864, of 46 vessels over 1,000 tons, 13, that drew more than 20 ft. water, came safely to the Broomielaw, while one of the largest steam vessels afloat, the Persia, of 3,600 tons burden, was launched in 1856 into the river about one mile below Glasgow, and came up to the harbour to receive its machinery. The river for 7 miles below the city is very much widened, and forms nearly a straight line; the sloping banks, formed of whinstone, being constructed in imitation of ashlar. The accommodation for shipping at the Broomielaw, or harbour, is now also very greatly extended. The quays extend upwards of 2 1/2 miles in length, varying from 120 to 200 yards in width, and are amply furnished with sheds for goods, cranes, and other appliances for working a first-rate harbour. The quay has the important advantage of being directly connected, by means of the General Terminus Line, with the various railways that centre in the city. The Parliamentary trustees for managing the river have also acquired ground north of the harbour, on which they have power to construct docks.

That part of the Clyde which lies between Glasgow Bridge and the mouth of the river Kelvin forms the harbour of Glasgow. The area of its water space is 124 acres, of which 70 are occupied by shipping. The total length of quays on both sides of the harbour in 1867 was 4,577 yards, but 830 lineal yards of quay space must be added for the wet dock at Windmillcroft on the south side of the harbour.

Vessels of 21 ft. draught of water can lie alongside the quays; and as dredging operations are continually carried on, vessels of greater draught

will, in a short time, have no difficulty in entering the harbour. About 600,000 cubic yards of material are annually removed from the bed of the river.

The government of the harbour is vested in 25 'Trustees of the Clyde Navigation,' who are elected jointly by the Town Council, the ship-owners and harbour ratepayers, the Chamber of Commerce, and the merchants' and traders' houses. Their jurisdiction extends as far down the Clyde as Newark Castle at Port-Glasgow, and they have powers under the Clyde Navigation Consolidation Act 1858' (21 & 22 Vict. c. 109) for making by-laws, regulations &c. The Executive consists of a general manager, a treasurer, and 4 assistants; harbour-master, and 9 deputies; engineer and 5 assistants; tonnage collector, weighers, a superintendent, 2 inspectors, 3 sergeants, and 37 officers of police.

The revenue of the harbour for the year—

	£	s.	d.
1863 was	114,083	7	10
1864	141,380	13	9
1865	141,597	11	11
1866	125,787	10	0
1867	131,892	2	6

and the ordinary annual expenditure, including dredging, is about 42,000*l.* (42,104*l.* 12*s.* in the year ended June 30, 1867).

The total number of arrivals of sailing and steam vessels from home and foreign ports in the year

Year	Sailing	Steam	Total
1861	4,501	11,281	16,085
1862	4,573	11,291	15,864
1863	4,400	10,552	15,152
1864	4,569	9,962	14,531

In 1866 there belonged to Glasgow 536 sailing vessels of 233,073 tons, and 271 steam vessels of 99,280 tons.

The number of steam vessels actually employed at and trading from the river Clyde during the summer of 1865 was—

No. of Vessels	How Employed	Gross Tonnage	Register Tonnage	Net Tonnage	Draught of Water
28	To coast towns on Frith of Clyde	4,252	2,421	2,553	ft. 3 to 12
15	Scotch ports	5,119	2,033	1,610	6 to 12 0
19	Irish "	4,703	5,106	2,870	10 to 12 0
16	English "	3,657	2,673	510	10 to 12 0
7	France and the Mediterranean	7,658	5,031	890	12 to 15 0
8	New York and Quebec	11,175	8,917	980	15 to 21 0
93	Passenger steamers	58,961	28,113	9,513	
51	Tug steamers	2,371	729	1,473	5 to 6 0
124	Total steamers	41,315	28,842	10,818	

The rise and fall of tide at the harbour of Glasgow at spring tides is 10 ft.; at neap tides is 8 ft.

Dimensions of Dry Docks.

Name and place of Dry Dock	Length within Gates	Width of Entrance	Depth of Water Spring-tides	Charge
Tod and Mac Gregor's, Glasgow	500	56 0	18 0	3 <i>d.</i> per ton on gross tonnage for drying and unloading. This includes painting cut and use of shores, but not including 1 <i>d.</i> per ton per tide for first 11 weeks, 4 <i>d.</i> per ton per tide for next 23 days. A longer time as per agreement.
Mac Millan's, Dumbarton	309	41 0	13 0	
R. Steele and Co., Greenock	351	47 6	16 0	
Caird and Co., Greenock	390	45 0	15 0	
Greenock Old Town Dock	210	30 0	13 0	
New	350	38 0	13 0	
Port Glasgow Dry Dock, on blocks inside gates	235	32 11	10 0	
Portland Shipping Company, Troon, on blocks	278	37 6	neap 8 0 spring 12 6 10 6	

The patent slips at Glasgow and on the Clyde on which vessels are drawn up (at 3*d.* per ton, with 4*d.* per ton per tide while they are on for repairs) are as follows:—

Barclay, Curle, and Co., Glasgow	slip 1 for	tons 500
Alex. Stephen and Sons, Glasgow	" "	800
Tod and Mc. Gregor, Partick	" "	1,000
Henderson, Eulborn, and Co., Renfrew	" "	1,000
Scott, Mac Gill, and Co., Bowling	" "	500
Donny and Rankin, Dumbarton	" "	200
R. Steele and Co., Greenock	" "	300
Harr and Shearer, Ardrossan	" "	500
Andrew Mc. Lea, Rothesay	" "	200

Total 11 patent slips

The following table shows the number of vessels built and launched on the Clyde in the years 1863 and 1864, and the number upon the stocks on December 31, 1864:—

Description of Vessels	Launched in 1863		Launched in 1864		On stocks December 31 1864	
	no.	tonnage	no.	tonnage	no.	tonnage
Sailing ships, iron	31	26,762	50	39,074	37	13,946
wood-composite	14	5,875	6	3,250	5	1,089
Total sailing ships	49	36,457	62	47,527	54	24,255
Steam ships, iron	119	85,943	178	129,887	85	76,731
wood-composite	2	1,700	1	591	5	3,970
Total steam ships	121	87,543	180	130,978	88	81,704
Grand total	170	124,000	242	178,505	142	105,959

The number of vessels building on May 1, 1865, was 177.

Harbour Dues.—Rates on vessels, on each time of entering, or using or departing from the river or harbour:—

1. On all vessels, except as aftermentioned,

arriving at or departing from the harbour, from or to any place in the United Kingdom of Great Britain and Ireland, per register ton, 1*½d.* inwards, 1*½d.* outwards.

2. On all steam-vessels arriving at or departing from the harbour, from any place within the line drawn from east to west across the Channel at Pladda, per register ton, 3*d.* inwards, 3*d.* outwards.

3. On all vessels arriving at or departing from the harbour, from or to any place out of the United Kingdom of Great Britain and Ireland, per register ton, 4*d.* inwards, 4*d.* outwards.

4. On all vessels that shall remain in the harbour over and above the first 24 lawful days, per register ton, per week, 1*d.*

5. On all vessels entering or departing from any of the wet docks or tidal basins, when constructed, in addition to the harbour rates, per register ton, 6*d.* inwards, 6*d.* outwards.

6. On all vessels that shall remain in any of the wet docks or basins over and above the first 24 lawful days, per register ton per week, 3*d.*

7. On all vessels entering or using the harbour not liable for the above rates, and not trading with cargo liable for rates under schedule of per register ton, 6*d.* Provided that the last mentioned charge shall not extend to any vessels or goods in which are exempted from rates by the Act.

8. On all vessels entering or using the basin at Bowling, having previously been regularly trading on the river, per register ton, per week, 4*d.*

9. On all other vessels entering or using said basin, per register ton per week, 2*d.*

Vessels turning from any shall not trip, under river Clyde that portion limits any of they shall or any of the trustees limits of the or discharge the said limits than may be same.

Notes

Each hoghead of

Each ton of heavy Duto mahogany of schedule (H) Duto other timbers marble

Each cwt. wazon, exceeding 12 cwt.

Weighing duippers or imps collector or other for ascertaining specified by the if equal to or gr weighing duties at Weighing duties weighed on the app

Rates for the use of

- For planks or stages for each 100 lbs or
- For rhodes: for each One shilling extra on each the vessel.

Rates

For the supply of water in harbour of docks

But rates shall not be actually sup

Charges on a Ship of

Harbour dues on ship

Tonnage dues on 500 tons & upwards

Light dues on 500 tons & upwards

Light dues on 100 tons & upwards

Light dues on 50 tons & upwards

Light dues on 25 tons & upwards

Light dues on 10 tons & upwards

Light dues on 5 tons & upwards

Light dues on 2 tons & upwards

Light dues on 1 ton & upwards

Harbour dues on ship

Tonnage dues on 700 tons & upwards

Light dues on 700 tons & upwards

Light dues on 350 tons & upwards

Light dues on 175 tons & upwards

Light dues on 87 tons & upwards

Light dues on 43 tons & upwards

Light dues on 21 tons & upwards

Light dues on 10 tons & upwards

Light dues on 5 tons & upwards

Light dues on 2 tons & upwards

Light dues on 1 ton & upwards

Harbour dues on ship

Tonnage dues on 700 tons & upwards

Light dues on 700 tons & upwards

Light dues on 350 tons & upwards

Light dues on 175 tons & upwards

Light dues on 87 tons & upwards

Light dues on 43 tons & upwards

Light dues on 21 tons & upwards

Light dues on 10 tons & upwards

Light dues on 5 tons & upwards

Light dues on 2 tons & upwards

Light dues on 1 ton & upwards

Harbour dues on ship

Tonnage dues on 700 tons & upwards

Light dues on 700 tons & upwards

Light dues on 350 tons & upwards

Light dues on 175 tons & upwards

Light dues on 87 tons & upwards

Light dues on 43 tons & upwards

Light dues on 21 tons & upwards

Light dues on 10 tons & upwards

Light dues on 5 tons & upwards

Light dues on 2 tons & upwards

Light dues on 1 ton & upwards

Harbour dues on ship

Tonnage dues on 700 tons & upwards

Light dues on 700 tons & upwards

Light dues on 350 tons & upwards

Light dues on 175 tons & upwards

Light dues on 87 tons & upwards

Light dues on 43 tons & upwards

Light dues on 21 tons & upwards

Light dues on 10 tons & upwards

Light dues on 5 tons & upwards

Light dues on 2 tons & upwards

Light dues on 1 ton & upwards

Vessels proceeding empty for a cargo, or returning empty having discharged a cargo to or from any place beyond the limits of the harbour, shall not be liable to pay any rates for the empty trip, under Article 7.

Vessels passing to or from any place on the river Clyde above Hutcheson Bridge, through that portion of the river which is embraced within the limits of the harbour, shall not be liable for any of the rates specified in this schedule unless they shall use any of the said docks or tidal basins or any of the quays or other works constructed by the trustees on the banks of the river, within the limits of the harbour, or unless they shall take in or discharge their cargo or any part thereof within the said limits, or shall remain therein longer than may be necessary for passing through the same.

#### Rates for use of Ordinary Cranes.

	s.	d.
Each hogshead of sugar and hoists, not exceeding 12 cwt.	0	3
from 12 to 15 "	0	4
from 15 to 20 "	0	6
Each ton of hemp	-	0 6
Iron machinery and other timber rated in the first column of schedule (11) at 2s. per ton	-	0 6
But other timber	-	0 4
marble	-	1 0

#### Rates for Weighing.

	s.	d.
Each cart, wagon, or other carriage load or weigh not exceeding 12 cwt.	0	1
exceeding 12 cwt.	0	2

Weighing duties to be paid by the owners, shippers, or importers of goods, if required by the collector or other officer appointed by the trustees for ascertaining the rates, provided the weight specified by the owner, shipper, or importer of the goods be found less than the real weight; but if equal to, or greater than, the real weight, the weighing duties are not to be exigible.

Weighing duties for coals to be paid only when weighed on the application of the owner or shipper.

#### Rates for the use of Planks, Stages, and Rhones.

	s.	d.
1. For planks or stages for loading or discharging vessels: for each . . . . .	1	0
2. For rhones for each wagon of coal loaded therewith	0	1

One shilling extra on each cargo for removing the rhone to and from the vessel.

#### Rates for use of Water.

	s.	d.
For the supply of water in vessels entering and using the harbour at docks	-	per channeon 0 8

Dut rates shall not be leviable unless water shall be actually supplied to vessels.

#### Charges on a Ship of 500 Tons Register arriving at Glasgow with Cotton, and clearing out laden with Iron.

	In with Cotton.		Rates		Foreign		Coasting	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Harbour dues on ship	-	-	1d. F. and 1d. C.	8 6 8	3 2 6	3 2 6	3 2 6	
Tonnage dues on 500 tons cotton	-	-	2s. F. and 1s. 6d. C.	30 0 0	22 10 0	22 10 0	22 10 0	
Lampers' charges for unloading cargo	-	-	6d. per ton	7 10 0	same	same	same	
Northern lights	-	-	1 4-16 and 6d. per 50 tons	9 2 1	0 0 0	0 0 0	0 0 0	
Clyde lights	-	-	1d. per ton	2 1 8	1 0 10	1 0 10	1 0 10	
Towing ship	-	-	9d. per ton	18 15 0	same	same	same	
Winding do.	-	-	2s. per ft. (water)	1 10 0	same	same	same	
Planks and stages	-	-	..	0 15 0	same	same	same	
Hutcheson's	-	-	..	8 0 0	same	same	same	
Unloading and removing ballast, say 100 tons	-	-	1s. per ton	83 0 5	same	same	same	
Note.—Vessels of more than 15 feet water are charged, in towing and piloting, as drawing 15 feet.								
Out with Pig Iron.								
Harbour dues on ship	-	-	1d. F. and 1d. C.	8 6 8	3 2 6	3 2 6	3 2 6	
Tonnage dues on 700 tons pig iron	-	-	9d. F. and 9d. C.	26 5 0	same	same	same	
Lampers' charges for loading do.	-	-	8d. per ton	23 6 8	same	same	same	
Northern lights	-	-	4 4-16 & 6d. per 50 tons	9 2 1	0 0 0	0 0 0	0 0 0	
Clyde lights	-	-	1d. per ton	2 1 8	1 0 10	1 0 10	1 0 10	
Towing ship	-	-	9d. per ton	18 15 0	same	same	same	
Winding do.	-	-	2s. per ft. (water)	1 10 0	same	same	same	
Planks and stages	-	-	..	0 15 0	same	same	same	
Supplying ship with water	-	-	..	0 12 0	same	same	same	
Note.—If bar or red iron, the charges would be as follows: Tonnage dues on 700 tons at 1s. 6d. F. and C., 29d. 10s. Lampers' charges loading ditto at 10d. F. and C., 29d. 3s. 4d.								

#### Rates for the Use of Cranes capable of lifting Ten Tons and upwards, putting in or taking out of Vessels old or new Machinery.

	£	s.	d.
For each hoist, not exceeding 1 ton	0	0	6
exceeding 1 ton and not exceeding 2 tons	0	1	0
2 "	3	0	0
3 "	4	0	0
4 "	5	0	0
5 "	6	0	15
6 "	8	0	0
8 "	10	0	10
10 "	12	0	0
12 "	15	0	0
15 "	20	0	0
20 "	25	0	10
25 "	30	0	0
30 "	35	0	12
35 "	40	0	15
40 "	45	0	17
45 "	50	0	20
50 "	60	0	25

All necessary use of the crane, from the lifting of a piece of machinery off its carriage until stowed or adjusted in the vessel, or from the lifting of a piece of machinery from the vessel until placed on its carriage, shall be included in one hoist.

Putting on board machinery, engines and boilers, including fitting up when the vessel is new and fitted out for the first time, per horse power of engine as per contract, 2s. 6d.; or per ton, 3s.

Taking out boilers and machinery for repairs, per horse power of engine, as per contract, 2s.; or per ton, 2s. 6d.

Putting on board boilers and machinery after being repaired, including fitting up, per horse power of engine as per contract, 1s. 6d.; or per ton, 2s.

Putting in or taking out boilers, per horse power of engine, as per contract, 1s.; or per ton, 3s.

The above rates to be charged per horse power of engine, or per ton, in the option of the trustees.

General repairs or jobbing, not included in the above, to be charged at the rate per day of 5l. 5s.

In addition to the rates for cranes, specified in this schedule, 6d. per hour to be paid for wages to cranemen attending while the crane is being worked.

**Ballast.**—The Clyde trustees remove ballast from vessels on either side the harbour, at a rate not exceeding 1s. per ton, and supply clean stone ballast at 1s. per ton.

The river Clyde is divided into three stages, and the following are the Tonnage Dues exigible upon each, viz. —

The first stage extends from Hutcheson's Bridge to the Old Ferry at Renfrew, being about 600

yards to the east of the present ferry, and the dues on goods carried or conveyed thereon are two-thirds of the tonnage dues exigible by the trustees.

The second stage extends from the Old Ferry at Renfrew to the mouth of Dalnuir Burn; and the dues exigible thereon are one-sixth of the tonnage dues; and

The third stage extends from Dalnuir Burn to Newark Castle; and the dues exigible thereon are one-sixth part of the tonnage dues.

*Charges for Lights from the Clyde.*

America and West Indies by North.	4 4-16 and 6d. per 50 tons if from a port south of Cape Cod.
91. 7s. 5d.	4 4-16 and ditto if from a port north of Cape Cod.
By South.	10 2-16 and 6d. per 50 tons.

The charge for unloading and taking in a cargo is per agreement with licensed lumpers or porters who ply on the quay for hire. There are no fixed rates, but the following charges may be considered pretty near the mark: unloading cotton about 6d. per ton, and for taking in iron 9d. per ton. The other items of charge of a public kind affecting the ship are, towing up and down the river, planks and stages for discharging and loading the cargoes, supplying the ship with water and the removal of ballast if any on board, and ships loaded with cotton usually have ballast.

*Entrance to the River.*—As a guide to mariners, it may be mentioned that vessels of 19 ft. draught of water can arrive at the harbour of Glasgow, and that vessels drawing 17 ft. are considered regular traders. Vessels drawing 15 to 16 ft. may always arrive and depart without touching the bottom. At the entrance to the river vessels are placed under the charge of pilots acquainted with the channel, which is well marked with beacons and buoys. A ship on reaching the mouth of the river at Newark had best commence ascending as soon after half-flood as possible. There are no particular usages connected with the harbour of Glasgow beyond those adopted in most other rivers and harbours. Lights are permitted in the harbour from 6 A. M. to 10 P. M.

Glasgow may be said to be cosmopolitan in her commerce and manufactures, uniting within herself the businesses and trades of almost every other town and city in the United Kingdom. Hence it follows that while one branch of manufacture or trade may be dull, another may be prosperous; and accordingly Glasgow seldom feels any of those general depressions which so frequently occur in places which have only one or two branches of manufacture or commerce. The great industrial occupations of Glasgow are its cotton spinning and weaving; its collieries and iron manufactures; its iron ship building and machine making; and its chemical, porcelain and glass manufactures. According to Dr. Strang, the consumption of raw cotton in Glasgow in 1854 was above 1,900 bales per week, of from 430 to 440 lbs. each; and the number of power looms dependent on Glasgow was from 26,000 to 27,000, producing daily about 700,000 yards cloth. In the west of Scotland, of which Glasgow is the central mart, there were, in 1866, 6,275,000 tons of coals drawn from the pits, of which 1,036,541 tons were shipped, exclusive of the quantities sent beyond the boundaries by railways, leaving the larger proportion for the conversion of iron and the manufacturing consumption and domestic use of the Glasgow district. Of the produce of pig iron in the counties of Lanark and Ayr (1866), 139,408 tons were shipped from Glasgow alone direct to foreign

countries, exclusive of the quantities sent away by railways. During the same year there were exported from Glasgow 49,488 tons of railroad and 12,737 tons of other kinds of malleable iron. The value of the whole coal and iron businesses to the district in 1854 was reckoned at about 4,872,000*l.*, of which 1,973,000*l.* was paid in wages to 83,900 persons. As to iron ship building and marine engine making, it may be stated that in 1864, 242 vessels were made, including both steam and sailing, having an aggregate tonnage of 178,505, for which also marine engines were made or had been made. In 1863 there were launched 150 iron vessels of 112,605 tons. Of these, 31 were iron sailing vessels of 26,762 tons, and 67 iron screw steamers of 26,299 tons, and 38 paddle steamers of 26,147 tons; and on May 1, 1865, there were building 177 vessels of all kinds. The chemical products of Glasgow are multifarious, consisting of sulphuric, muriatic, nitric and acetic acids and their various salts; bleaching powder, soda, soap, cudbear, bichromate of potash, sugar of lead, iodine, salts of ammonia, alum, prussiate of potash, naphtha, pitch, oil, animal charcoal, bone tar, cream of tartar &c. &c. The works of St. Rollox, situated in the north-east quarter of Glasgow, constitute perhaps the largest chemical establishment in the world. They cover about 12 acres of ground, employ above 1,000 men, consuming annually about 20,000 tons of common salt, and 80,000 tons of coal, and producing of soda, bleaching powder, sulphuric acid, soap &c. about 25,000 tons: 81,163 cwts. of soda were exported from Glasgow to foreign parts in 1866. The lofty chimneys of St. Rollox are among the curiosities of the city, one of them being 450 feet high, 50 feet diameter at the base, and 14 ft. at top. There are eight large potteries engaged in the manufacture of all kinds of china, porcelain, Parian, and other ware, 4 flint glass manufactories, and 12 bottle houses. The total produce of the business, which employs 2,000 people, may be fairly estimated at 120,000*l.*, while the quantity exported in 1866 from Glasgow amounted to 17,167 packages. The value of the exported produce of the flint glass manufactories of Glasgow in 1866 was 90,109*l.* The bottle houses produce about 13 millions of bottles, nearly half of which are exported from the Clyde. In the manufacture of tobacco pipes 600 persons are employed, who work up about 2,740 tons of clay, and who daily manufacture, finish, and pack about 200 gross pipes. The rapid progress which this general pursuit have made in Glasgow may be entirely attributed to the demand which the foreign trade of the Clyde has created for bulky freight.

*Accounts of the Customs Duties collected at Glasgow, and of the Number and Tonnage of the Ships belonging to the Port, in the undetermined Years.*

Years	Duties	No. of Ships	Tonnage
1798	£ 125	..	..
1806	1,327	..	..
1815	8,308	59	4,39
1820	11,000	85	6,60
1830	39,615	233	40,94
1840	46,974	351	71,53
850	640,366	507	157,000
859	805,356	610	178,919
1-55	795,203	815	349,813
1866	801,123	807	337,233
1867	1,022,219	..	..

Nearly half the customs paid in Scotland are collected at Greenock. Glasgow now ranks as the 4th exporting port in the empire, being in this respect surpassed only by Liverpool, London, and Hull.

*Account of Principal Manufacture of Glasgow*

Alkali: soda	..
Asphalt	..
Arms and amm.	..
Fire-arms (some)	..
Gunpowder	..
Beer and ale	..
Butter	..
Candles, stearine	..
Coal, cinders, and	..
Cotton yarn	..
Cotton manufact.	..
Piece goods	..
Ironery and smel.	..
Iron and chemical	..
Earthenware and p.	..
Flax, twines	..
Wine of all kinds	..
Waterbury and m.	..
Woods and cutl.	..
Leather, tanned, un-	..
wrought	..
and harn.	..
Linen yarn	..
Linen manufactur.	..
Piece goods	..
Threads, tapes, and	..
wares	..
Machinery and mill	..
Metals	..
Iron-pig, bar, bolt,	..
and cast	..
Iron-rod	..
Wine of all other kind	..
Steel, wrought	..
Copper, wrought	..
part wrought	..
Lead and shot	..
Iron, wrought	..
Plate	..
Sp. steel	..
Wool, combed	..
Wool, carpet	..
Wool (except hangings)	..
Wool, thrown, and yarn	..
manufacture	..
Wool, British and Irish	..
Wool, foreign	..
Wool, sheep and lambs'	..
Wool, worsted yarn	..
Wool, manufacture	..
Cloths of all kinds	..
Woolen and mixed stuffs	..
Woolen, carpets, Acc.	..
Woolen and other goods	..
Other articles	..
Total declared real	..

the value of the exported Kingdom from amounted to 50 population are comparat population.—If the of the rapid advan and manufac of its progress at century will re

	Males	Females
..	..	..
68,119	78,351	..
107,721	109,709	..
153,313	147,569	..
163,321	183,270	..

861 the population 84,864, having be  
 XI. DUNDEE DO  
 See, on the north  
 28° N., long. 20  
 tonness Point  
 es light-houses,  
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 of 1815, and is ne  
 the British linen  
 tive trade.  
 on a humble







only 2s. 6d. for attendance of boat and men, besides the pilotage.

The rates of pilotage &c. outwards are one-half of those inwards.

Where a vessel takes a steam tug, either in or out, the pilotage and charges for pilot boats and crews shall be one third less than the rates above specified.

In 1866 Granton, formerly a creek in the port of Leith, was made an independent port.

### XIII. CORK DOCKS.

There are no wet docks in Cork, but at the city, situate on the river Lee, 10 miles from the mouth of the harbour, there are excellent quays, giving a frontage of 13,580 ft., to which vessels drawing 16 ft. of water can approach. There are large bonded warehouses and good storage, with facilities for landing goods &c. Vessels of larger tonnage discharge at West Passage, 7 miles down the river, and 3 miles from the harbour's mouth, where there is an average depth of water of 38 ft.

The harbour affords safe anchorage in all weather for the largest merchant ships. It is a port of call for the American mail steamers, and for vessels arriving from the Mediterranean &c. for orders.

The port enjoys a large coasting trade between London, Liverpool, Bristol, and Glasgow in goods under bond; exporting corn, butter, cattle, whisky, and fish. The foreign imports consist of grain, wine, sugar, brandy, and wood.

The only port charges that ships are liable to are the harbour dues on tonnage and goods landed.

There are 4 graving docks here—2 at Cork, 1 at West Passage, and 1 at Monkstown Ferry, where there is large accommodation for the repair of ships.

### Revenue of the Port for the 5 Years ended March 31.

Year	£
1861	589,361
1862	298,467
1863	302,687
1864	302,977
1865	297,511

The exports from Cork in the year 1866 amounted in value to 110,703L. The principal article was butter. The customs collected in 1867 amounted to 319,783L. There belong 1 to Cork in 1866 180 sailing vessels of a burden of 50 tons and under, giving a total tonnage of 4,497; over 50 tons 177, tonnage 26,497; steam vessels 39, tonnage 7,289.

DOG (Fr. chien; Ger. hund; Ital. cane; Lat. canis familiaris). Of this quadruped, emphatically styled 'the friend and companion of man,' there is a vast number of varieties. But to attempt to give any description of an animal so well known would be quite out of place in a work of this kind; and we mention it for the purpose principally of laying the following accounts before our readers, with a remark or two with respect to Asiatic dogs.

Cuvier, the great French naturalist, says, 'The dog is the most complete, the most remarkable, and the most useful conquest ever made by man: every species has become our property; each individual is altogether devoted to his master, assumes his manners, knows and defends his goods, and remains attached to him until death; and all this proceeds neither from want nor constraint, but solely from true gratitude and real friendship. The swiftness, the strength, and the scent of the dog have created for man a powerful ally against other animals, and were perhaps, necessary to the establishment of society.'

It is the only animal which has followed man through every region of the earth.'

It is singular, however, that neither Cuvier, nor any one of those by whom his statements have been copied, should have mentioned that this account is applicable only to Europe. All Mohammedan nations regard the dog as impure, and will not touch it without an ablution. The same is also the case with the Hindus. From the Hellespont to the confines of Cochín-China, dogs are unappropriated, and have no master. They prowl about the towns and villages; and though they are naturally more familiar, they are in no respect more domesticated, than the carrion crows, kites, vultures &c. which assist them in performing the functions of scavengers. In China and Cochín-China the dog is eaten as food; its flesh being, with the exception of that of the bear, the most common in their markets.

The changes in the law effected by 30 Vict. c. 5 were, first, a reduction of the duty for each dog from 12s. to 5s.; secondly, the abolition of the exemption of dogs used in tending or driving cattle or sheep; and, thirdly, the collection of the duty by means of a license for each dog, under the management of the officers of excise, instead of an assessment made by the persons appointed by the district commissioners of taxes for each parish.

The effect of these changes may be seen from the following statement of the

### Number of Dogs charged to Assessed Taxes in the Year ended April 5, 1866, together with the Amount of Duty charged.

	Number charged to Assessed Taxes	Amount of Duty charged
England	3,917,2	£14,027
Scotland	36,365	1,578
Great Britain	3,953,5	£15,605

### Number of Excise Dog Licenses granted between April 1 and November 15, 1867, or about 8 months, and Amount of Duty charged.

	Number of Licenses granted	Amount of Duty charged
England	791,519	£15,000
Scotland	96,169	3,411
Great Britain	887,688	£18,411

The unnecessary multiplication of dogs, particularly in large cities, is a very great nuisance coming, as they often do, into the possession of those who are without the means of providing for them, they are frequently left to wander about the streets; and from ill usage, want of food, and of proper attention, are apt, during hot weather, to become rabid. In several places the nuisance has attained to a formidable height; and it is singular, considering the numerous fatal accidents which have taken place, that no effective measures should sooner have been made to have it abated. It has grown to its present excess, partly from the many exemptions having been granted from the duty, and partly from a want of care in the collection. The number of the former has now been lessened; and besides more rigidly enforcing the latter, it would be proper to enact that all dogs found wandering in the streets without masters should be impounded.

DOLLAR (Ger. thaler; Dan. and Swed. daler). No unit of monetary value has a wider circulation than this. It is used in Northern Germany, the Scandinavian Kingdoms, China and the East Archipelago, and in the North-western coast of America. It is rapidly becoming the unit

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The follow  
dollars current  
Mr. Yates :—

American  
Central America  
Danish  
French  
Holland  
Mexican  
New Zealand  
Norwegian  
Portuguese  
Spanish  
Swedish  
Turkish

The following  
fish currency:—  
By the German  
24, 1857, in Aus  
Hanover, Wurtem  
German States, an

2-thaler piece is equal  
1-thaler piece

Maria Theresa thaler  
Kronenthaler  
Conventions thaler

Kronenthaler  
Kronenthaler

Native Dollar  
Sovereign  
Regulator

New 3-thaler piece  
MICKLE

Dollar (peso)  
Rijksdaler (24 guilder)  
N

Rijksdaler  
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Southern  
Dollars varying from

Dollar (peso)  
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calculated at the rate  
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DWY (Ger. dunen, fl  
dret; Ital. penna  
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Mr. Pennant  
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the currency in the colonies of British North America, and great part of South America.

According to Mr. Yates (*Current Coins of All Countries*) the dollar originally contained an ounce of silver. This accomplished numismatist adds that at about the beginning of the sixteenth century a Count Schlick, who possessed some silver mines at Joachimsthal in Bohemia, contracted to supply silver coins weighing an oz. to the Emperor and various German princes. It was from an abbreviation of the name Joachimsthaler that, according to Mr. Yates, the name thaler or dollar originated.

The following are the weights of the several dollars current in various countries as given by Mr. Yates:—

	grains.		grains.
American	37	Trussian	21.95
Central America	37		19.5
Dutch	11.11		18.5
French	17.51	Hanover	16.8
Hamburg Scherwin	36.8		17.5
Holland Settlements	31.8	Brunswick	21.95
China	21.8	Oldenburg	21.95
New Granada	31.8	Hesse	18.9
Sweden	31.8	Frankfort	18.5
Norwegian	38.9	Württemberg	18.5
Spanish	36.29	Austria	18.5
Porto	27	United States	26.72

The following is a valuation of dollars in English currency:—

By the German Monetary Convention of Jan. 24, 1857, in Austria, Prussia, Bavaria, Saxony, Hanover, Württemberg, Baden, 19 of the lesser German States, and Frankfort-on-the-Maine:—

	Amount of Duty charged.
8-thaler piece is equal to 1-thaler piece	2 1/2
Maria Theresia thaler	4 2
Kronenthaler	3 7
Conventions thaler	4 2
Kronenthaler	4 7 1/2
Kronenthaler	4 7 1/2
Native Dollar	4 8
Speciedaler	4 6 1/2
Regiedaler	4 5 3/4
New 3-thaler piece	2 4
Dollar (peso)	4 4 1/2
Rykdaler (24 guilder)	4 3
Speciedaler	4 6
Dollars varying from	15 0
Dollar (peso)	11 6
Dollars-species	4 4 1/2
Dollars-riksdaler	4 7 1/2
Dollar	1 1 1/2
Dollars	4 3 1/2
Dollars	4 7

calculated at the rate of 62d. per oz. English standard silver. (COINS.)

For the above we are indebted to Mr. C. Trübner. DYN (Ger. dunen, flaumfedern; Dutch, dons; French, Ital. penna matta, plumini; Spanish, plumazo; Russ. puch; Lat. plumæ). The feathers from the breasts of several birds, particularly those of the duck kind. That of the duck is the most valuable. These birds are taken from their breasts, and line their nests with it. Mr. Pennant says that it is so very soft, that a quantity of it weighing only 1/2 of an ounce more than fills the crown of the largest hat. That found in the nest is most valued, and is called *line down*; it is much more elastic than down plucked from the dead bird, which is com-

paratively little esteemed. The eider duck is found on the western islands of Scotland, but the Iceland is principally imported from Norway and portland. In 1865, 23,875 lbs. of down were imported. In 1866 only 2,895 lbs. were imported.

DRAGON'S BLOOD. [BALSAM.]  
DRAWBACK. A term used in Commerce to signify the remitting or paying back of the duties previously paid on a commodity on its being exported.

A drawback is a device resorted to for enabling a commodity affected by taxes to be exported and sold in the foreign market on the same terms as if it had not been taxed at all. It differs in this from a bounty—that the latter enables a commodity to be sold abroad for less than its natural cost, at its natural cost. Drawbacks, as Adam Smith has observed, do not occasion the exportation of a greater quantity of goods than would have been exported had no duty been imposed. They do not tend to turn towards any particular employment a greater share of the capital of the country than would go to that employment of its own accord, but only to hinder the duty from driving away any part of that share to other employments. They tend not to overturn that balance which naturally establishes itself among all the various employments of the society, but to hinder it from being overturned by the duty. They tend not to destroy, but to preserve, what it is in most cases advantageous to preserve—the natural division and distribution of labour in the society. (p. 221.)

Were it not for the system of drawbacks, it would be impossible, unless when a country enjoyed some very peculiar facilities of production, to export any commodity that was more heavily taxed at home than abroad; but the drawback obviates this difficulty, and enables merchants to export commodities loaded at home with heavy duties, and to sell them in the foreign market on the same terms as those fetched from countries where they are not taxed.

Most foreign articles imported into this country may be warehoused for subsequent exportation. In this case they pay no duties on being imported, and, of course, get no drawback on their subsequent exportation.

Sometimes a drawback exceeds the duty or duties laid on the article; and in such cases the excess forms a real bounty of that amount, and should be so considered.

The Act 16 & 17 Vict. c. 107 has the following clauses in relation to drawbacks:—

No drawback of excise shall be allowed upon any goods cleared for exportation unless the person intending to claim such drawback have given due notice to the officer of excise, and have produced to the searcher, at the time of clearing such goods, a proper document under the hand of the officer of excise, containing the description of such goods; and if such goods be found to correspond with the particulars of the goods contained in such document, and be duly shipped and exported, the searcher shall, if required, certify such shipment upon such document, and shall transmit the same to the officer of excise. (See 122.)

No drawback to be allowed upon the exportation of any goods entered for drawback or as stores which shall be of less value than the amount of the drawback claimed; and all such goods so entered shall be forfeited, and the person who caused such goods to be entered shall forfeit the sum of 200l., or treble the amount of drawback



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**EARNEST.** In Commercial Law, the sum advanced by the buyer of goods in order to bind the seller to the terms of the agreement. It is enacted by the 17th section of the famous Statute of Frauds, 29 Chas. II. c. 3, that 'no contract for the sale of any goods, wares, and merchandises, for the prices of 10*l.* sterling or upwards, shall be allowed to be good, except the buyer shall accept part of the goods so sold, and actually receive the same, or give something in earnest to bind the bargain, or in part payment, or that some note or memorandum in writing of the said bargain be made and signed by the parties to be charged by such contract, or their agents thereunto lawfully authorised.'

As to what amounts to sufficient earnest, Blackstone lays it down, that 'if any part of the price is paid down, if it is but a penny, or any part of the goods is delivered by way of earnest, it is binding.' To constitute earnest, the thing must be given as a token of ratification of the contract, and it should be expressly stated so by the giver. (*Chitty's Commercial Law*, vol. iii. 283.)

After earnest and before the payment of the whole price, it appears that the property is in the vendee, subject only to the vendor's lien. (*Smith's Realty Law*, p. 485.)

**EARTHENWARE** (Ger. irdene waaren; Dutch, geogeed; Fr. vaisselle de terre, poterie; Ital. liglie, terraglio; Span. loza de barro; Russ. chetschnie passolli; Pol. gliniane naczynia), crockery, as it is sometimes termed, comprises every sort of household utensil made of clay and fired in the fire. Its manufacture is, in all ages, of very considerable importance, and its improvements that have been made in it since the middle of last century have contributed fully to its extension, and have added to the comfort and convenience of all

there is scarcely; it has been well observed, that the manufacture which is so interesting to countries as that of earthenware, presenting, as it does, a beautiful union of science and art, in the same time us with the comforts and ornaments of civil life. Chemistry administers her part, by pointing out the several species of earths, and showing as well their most appropriate compositions as the respective degrees of heat which they require. Art has studied the various degrees of antiquity, and produced from them even more exquisite in form than the nature has been provided in such gradations of beauty as to suit every station from the highest to the lowest. It is to be seen in every country, and in every house, through the whole of America, in many parts of Asia, and in the countries of Europe. At home it has been made in the less cleanly vessels of pewter and tin, and, by its cheapness, has been brought to the means of our poorest housekeepers. From substances originally of no value, and which have induced labour of such various degrees, and created skill of such various degrees,

that nearly the whole value of the annual produce may be considered as an addition made to the mass of national wealth. The abundance of the ware exhibited in every dwelling-house is sufficient evidence of the vast augmentation of the manufacture, which is also demonstrated by the rapid increase of the population in the districts where the potteries have been established. (*Quarterly Review*.)

For the great and rapid extension of the manufacture we are chiefly indebted to the late Mr. Josiah Wedgwood, whose original and inventive genius enabled him to make many most important discoveries in the art, and who was equally successful in bringing his inventions into use. The principal seat of the manufacture is in Staffordshire, where there is a district denominated the Potteries, comprising a number of small towns and villages, and a population which is now (1868) estimated at over 140,000, by far the greater portion of which is engaged in the manufacture. There are no authentic accounts of the population of this district in 1760, when Mr. Wedgwood began his discoveries; but the general opinion is, that it did not at that time exceed 20,000. The village of Etruria, in the Potteries, was built by Mr. Wedgwood. The manufacture has been carried on at Burslem, in the same district, for several centuries.

The canals by which Staffordshire is intersected have done much to accelerate the progress of the manufacture. Pipe-clay from Dorsetshire and Devonshire, and flints from Kent, are conveyed by water carriage to the places where the clay and coal abound; and the finished goods are conveyed by the same means to the great shipping ports, whence they are distributed over most parts of the globe.

The earthenware manufacture has increased considerably since 1814, but it is not possible to state the exact ratio. The prices of the different sorts of earthenware are said to have fallen 25 per cent. during the last 30 years. Wages have not fallen in the same proportion; but we are assured that a workman can, at the present day, produce about four times the quantity he did in 1790. We subjoin an

Account of the Value of the Earthenware and China Exported from the United Kingdom in 1866, specifying the Countries to which it was principally sent, and the Values sent to each.

Countries	Value
Russia	-
Hamburg	-
Holland	21,963
United States	46,131
Brazil	13,437
France	796,608
Cuba	79,862
British East Indies	43,535
Australia	37,868
British North America	55,299
Total value of above and of the exports to all other countries	1,017,611
	1,630,019

The above account sets the preponderance of the United States as a market for earthenware in a very striking point of view. We have been

insured that it is necessary to add  $\frac{1}{4}$  to the declared value of the exports, to get their true value.

It is estimated that the value of the various sorts of earthenware produced at the Potteries may amount to about 2,000,000*l.* a-year; and that the earthenware produced at Worcester, Derby, and other parts of the country, may amount to about 1,000,000*l.* more; making the whole value of the manufacture 3,000,000*l.* a-year. The consumption of gold at the Potteries is about 1,200*l.* a-week, and of coal about 13,000 tons a-week.

The export trade in earthenware, i.e. red pottery and brown stone ware, common earthenware, and porcelain, has somewhat declined of late years, though the value of the shipments in 1866 is considerably in excess of that of the shipments in the previous year.

**EAST INDIA COMPANY.** A famous association, originally established for prosecuting the trade between England and India, which they acquired a right to carry on exclusively. Since the middle of last century, however, the Company's political have become of more importance than their commercial concerns.

**EAST INDIES**, a popular geographical term not very well defined, but generally understood to signify the continents and islands to the east and south of the river Indus, as far as the borders of China, including Timor and the Moluccas, but excluding the Philippine Islands, New Guinea, and New Holland. China and the Philippine Islands were, however, included within the limits of the East India Company's peculiar privileges.

- I. EAST INDIA COMPANY (HISTORICAL SKETCH OF).
- II. EAST INDIES (STATE OF SOCIETY IN, GROWING DEMAND FOR ENGLISH GOODS, TRADE, COLONISATION, RAILWAYS &c.).
- III. EAST INDIES (EXTENT, POPULATION, MILITARY FORCE, REVENUE &c. OF BRITISH).

#### I. EAST INDIA COMPANY (HISTORICAL SKETCH OF).

The persevering efforts of the Portuguese to discover a route to India, by sailing round Africa, were crowned with success in 1497. And it may appear singular, that, notwithstanding the exaggerated accounts that had been prevalent in Europe, from the remotest antiquity, with respect to the wealth of India, and the importance to which the commerce with it had raised the Phœnicians and Egyptians in antiquity, the Venetians in the middle ages, and which it was then seen to confer on the Portuguese, the latter should have been allowed to monopolise it for nearly a century after it had been turned into a channel accessible to every nation. But the prejudices by which the people of most European states were actuated in the sixteenth century, and the peculiar circumstances under which they were placed, hindered them from embarking with the alacrity and ardour which might have been expected in this new commercial career. Soon after the Portuguese began to prosecute their discoveries along the coast of Africa, they applied to the Pope for a bull, securing to them the exclusive right to the possession of all countries occupied by infidels, or which the Portuguese either had discovered, or which they might discover, to the south of Cape Non, on the west coast of Africa, in 27° 54' north latitude; and the Pontiff, desirous to display, and at the same time to extend, his power, immediately issued a bull to this effect. Nor, preposterous as a proceeding of this sort would now appear, did any one

then doubt that the Pope had a right to issue such a bull, and that all states and empires were bound to obey it. In consequence, the Portuguese were, for a lengthened period, allowed to prosecute their conquests in India without the interference of any other European power; and it was not till a considerable period after the beginning of the war, which the blind and brutal bigotry of Philip II. kindled in the Low Countries, that the Dutch navigators began to display their flag on the Eastern Ocean, and laid the foundations of their Indian empire.

The desire to comply with the injunctions in the Pope's bull, and to avoid coming into collision, first with the Portuguese, and subsequently with the Spaniards, who had conquered Portugal in 1580, seems to have been the principal cause that led the English to make repeated attempts, in the reigns of Henry VIII. and Edward VI., and the early part of the reign of Elizabeth, to discover a route to India by a north-west or north-east passage—channels from which the Portuguese would have had no pretence for excluding them. But these attempts having proved unsuccessful, and the Pope's bull having ceased to be of any effect in this country, the English merchants and navigators resolved no longer deterred by the imaginary rights of the Portuguese from directly entering upon what was then reckoned by far the most lucrative and advantageous branch of commerce. Captain Stephens, who performed the voyage in 1582, was the first Englishman who sailed to India by the Cape of Good Hope. The voyage of the famous Francis Drake contributed greatly to diffuse the spirit of naval enterprise, and to render the English better acquainted with the newly discovered route to India. But the voyage of the celebrated Thomas Cavendish was, in the latter respect, the most important. Cavendish sailed to England in a little squadron, fitted out at his expense, in July 1586; and having explored a greater part of the Indian Ocean, as far as the Philippine Islands, and carefully observed the most important and characteristic features of people and countries which he visited, returned to England, after a prosperous navigation, in September 1588. But perhaps nothing excited so much to inspire the English with a desire to embark in the Indian trade as the capture that were made about this period from the Spaniards. A Portuguese East India carrack, captured by Sir Francis Drake on his expedition to the coast of Spain, induced the cupidity of the merchants by the richness of her cargo, at the same time that the papers on board gave specific information respecting the traffic in which she had been engaged, and the more important capture of the same vessel made in 1593. An armament, fitted out for the East Indies by Sir Walter Raleigh, and commanded by Sir John Borroughs, fell in, near the mouth of the Amazon, with a Portuguese carrack, with the largest of all the Portuguese ships of 1,600 tons burden, carrying 700 men, 36 brass cannon; and, after an obstinate struggle, carried her into Dartmouth. She was the first vessel that had been seen in England; and her cargo, consisting of gold, spices, calicoes, pearls, drugs, porcelain, ivory &c., excited the ardour of the English to engage in so profitable a commerce.

In consequence of these and other causes, an association was formed in London in 1599 for prosecuting the trade to India. Adventurers applied to the Queen for a charter of incorporation, and also for power to employ other English subjects, who had not

license from them, from carrying on any species of traffic beyond the Cape of Good Hope or the Straits of Magellan. As exclusive companies were then very generally looked upon as the best instruments for prosecuting most branches of commerce and industry, the adventurers seem to have had little difficulty in obtaining their charter, which was dated December 31, 1600. The corporation was entitled 'The Governor and Company of Merchants of London trading into the East Indies.' The first governor (Thomas Smythe, Esq.) and 24 directors were nominated in the charter; but power was given to the Company to elect a deputy-governor, and in future to elect their governor and directors, and such other office-bearers as they might think fit to appoint. They were empowered to make by-laws; to inflict punishments, either corporal or pecuniary, provided such punishments were in accordance with the laws of England; to export all sorts of goods free of duty for 4 years; and to export foreign coin or bullion to the amount of 30,000*l.* a-year, 6,000*l.* of the same being previously coined at the mint; but they were obliged to import, within 6 months after the completion of every voyage except the first, the same quantity of silver, gold, and foreign coin that they had exported. The duration of the charter was limited to a period of 15 years; but with and under the condition that, if it were found for the public advantage, it might be renewed at any time upon 2 years' notice being given. Such was the origin of the British East India Company, the most celebrated commercial association of ancient or modern times, and which in course of time extended its sway over the whole of the Mogul empire.

It might have been expected that, after the charter was obtained, considerable eagerness would have been manifested to engage in the trade, such was not the case. Notwithstanding the most calls and threats of the directors, many of the adventurers could not be induced to come forward to pay their proportion of the charges incident to the fitting out of the first expedition. As the directors seem either to have wanted to enforce their resolutions, or thought it expedient not to exercise it, they formed a subordinate association, consisting of such members of the Company as were really willing to defray the cost of the voyage, and to bear all the risks and losses attending it, on condition of their having the exclusive right to whatever profits might arise from the voyage by such subordinate associations that were conducted during the first 13 years of the Company's existence.

The first expedition to India, the cost of which was defrayed by the Company, consisted of five ships, and carried 130 tons burden. The goods put on board were principally bullion, iron, tin, broad cloths, cutlery, glass &c. The chief command was entrusted to Captain James Lancaster, who sailed from England on February 13, 1601. Being very imperfectly acquainted with the seas and countries to be visited, they did not arrive at their destination, Acheen in Sumatra, till June 5, 1602. The voyage was, on the whole, only prosperous. Lancaster entered into commercial treaties with the kings of Acheen and Borneo, and having taken on board a valuable quantity of pepper and other produce, he was forced, in his way home, to fall in with a Dutch vessel, in concert with a Dutch vessel, a quantity of 900 tons burden, richly laden with pepper, which Lancaster returned to the Downs on September 1603. (*Modern Universal History*, vol.

x, p. 16; Macpherson's *Commerce of the European Powers with India*, p. 81.)

But notwithstanding the favourable result of this voyage, the expeditions fitted out in the years immediately following, though sometimes consisting of larger ships, were not, at an average, materially increased. In 1612 Captain Best obtained from the court at Delhi several considerable privileges; and amongst others, that of establishing a factory at Surat, which city was henceforth looked upon as the principal British station in the west of India, till the acquisition of Bombay.

In establishing factories in India, the English only followed the example of the Portuguese and Dutch. It was contended that they were necessary to serve as depôts for the goods collected in the country for exportation to Europe, as well as for those imported into India, in the event of their not meeting with a ready market on the arrival of the ships. Such establishments, it was admitted, were not required in civilised countries; but the peculiar and unsettled state of India was said to render them indispensable there. Whatever weight may be attached to this statement, it is obvious that factories formed for such purposes could hardly fail of speedily degenerating into a species of forts. The security of the property deposited in them furnished a specious pretext for putting them in a condition to withstand an attack; while the agents, clerks, warehousemen &c. formed a sort of garrison. Possessing such strongholds, the Europeans were early emboldened to act in a manner quite inconsistent with their character as merchants, and but for a very short time elapsed before they began to form schemes for monopolising the commerce of particular districts, and acquiring territorial dominion.

Though the Company met with several heavy losses during the earlier part of their traffic with India, from shipwrecks and other unforeseen accidents, and still more from the hostility of the Dutch, yet, on the whole, the trade was decidedly profitable. There can, however, be little doubt that their gains at this early period have been very much exaggerated. During the first 13 years they are said to have amounted to 132 per cent. But then it should be borne in mind, as Mr. Grant has justly stated, that the voyages were seldom accomplished in less than 30 months, and sometimes further extended to 3 or 4 years; and it should be remarked, that, on the arrival of the ships at home, the cargoes were disposed of at long credits of 18 months or 2 years; and that it was frequently even 6 or 7 years before the concerns of a single voyage were finally adjusted. (*Sketch of the History of the Company*, p. 13.) When these circumstances are taken into view, it will immediately be seen that the Company's profits were not, really, by any means so great as has been represented. Still it may not be uninteresting to remark that the principal complaint that was then made against the Company did not proceed so much on the circumstance of its charter excluding the public from any share in an advantageous trade, as in its authorising the Company to export gold and silver of the value of 30,000*l.* a-year. It is true that the charter stipulated that the Company should import an equal quantity of gold and silver within 6 months of the termination of every voyage; but the enemies of the Company contended that this condition was not complied with, and that it was, besides, highly injurious to the public interest, and contrary to all principle, to allow gold and silver to be sent out of the kingdom. The merchants and others interested in the

support of the Company could not controvert the reasoning of their opponents without openly impugning the ancient policy of absolutely preventing the exportation of the precious metals. They did not, however, venture to contend, if the idea did not, however, venture to contend, if the idea really occurred to them, that the exportation of bullion to the East was advantageous on the broad ground of the commodities purchased by it being of greater value in England; but they contended that the exportation of bullion to India was advantageous because the commodities thence were chiefly re-exported to other countries from which a much greater quantity of bullion was obtained than had been required to pay for them in India. Mr. Thomas Mun, a director of the East India Company, and the ablest of its early advocates, ingeniously compares the operations of the merchant in conducting a trade in silver to that of the agriculturist in conducting a trade in the seed-time and harvest of agriculture. 'If we only behold,' says he, 'the actions of the husbandman in the seed-time, when he casteth away much good corn into the ground, we shall account him rather a madman than a husbandman; but when we consider his labours in the harvest, which is the end of his endeavours, we find the worth and plentiful increase of his actions.' (*Treasure by Foreign Trade*, p. 50, ed. 1664.)

We may here remark that what has been called the mercantile system of political economy, or that system which measures the progress of a country in the career of wealth by the supposed balance of payments in its favour, or by the estimated excess of the value of its exports over that of its imports, appears to have originated in the excuses now set up for the exportation of bullion. Before this epoch, the policy of prohibiting the exportation of bullion had been universally admitted; but it now began to be pretty generally allowed that its exportation might be productive of advantage, provided it occasioned the subsequent exportation of a greater amount of raw or manufactured products to countries whence bullion was obtained from them. This, when compared with the previously existing prejudice (for it hardly deserves the name of system) which wholly interdicted the exportation of gold and silver, must be allowed to be a considerable step in the progress to sounder opinions. The maxim *ce n'est que le premier pas qui compte* was strikingly verified on this occasion. The advocates of the East India Company began gradually to assume a higher tone, and at length boldly contended that bullion was nothing but a commodity, and that its exportation should be rendered as free as that of anything else. Nor were these opinions confined to the partners of the East India Company—they were gradually communicated to others; and many eminent merchants were taught to look with suspicion on several of the previously received dogmas with respect to commerce, and were, in consequence, led to acquire more correct and comprehensive views. The new ideas ultimately made their way into the House of Commons; and in 1663 the statutes prohibiting the exportation of foreign coin and bullion were repealed, and full liberty given to the East India Company and to private traders to export them in unlimited quantities.

But the objection to the East India Company, or rather the East India trade, on the ground of its causing the exportation of gold and silver, admits of a more direct and conclusive, if not a more ingenious reply. How compendious soever the ancient intercourse with India by the Red Sea and the Mediterranean, it was unavoidably attended with a good deal of expense. The productions of the remote parts of Asia, brought to

Ceylon, or the ports on the Malabar coast, by the natives, were there put on board the ships which arrived from the Arabian Gulf. At Borenes they were landed, and carried by camels 250 miles to the banks of the Nile. They were there again embarked, and conveyed down the river to Alexandria, whence they were despatched to different markets. The addition to the price of goods by such a multiplicity of operations must have been considerable; more especially as the price charged on each operation was fixed by monopolists, subject to no competition or control. Pliny says that the cost of the Arabian and Indian products brought to Rome when he flourished (A.D. 70) was increased a hundred-fold by the expenses of transit (*Hist. Nat. lib. vi. c. 23*); but there can be little or no doubt that this is to be regarded as a rhetorical exaggeration. There are good grounds for thinking that the less bulky goods of Eastern products, such as silk, spices, balsams, precious stones &c., which were those principally made use of at Rome, might, supposing there were no political obstacles in the way, be conveyed from most parts of India to the ports on the Malabar coast by way of Egypt, at a decidedly cheaper rate than they could be conveyed to them by the Cape of Good Hope.

But at the period when the latter route to India began to be frequented, Syria, Egypt &c. were occupied by Turks and Mamelukes—barbarians who despised commerce and navigation, and were at the same time, extremely jealous of strangers, especially of Christians or infidels. The price of the commodities obtained through the intervention of such persons was necessarily very much enhanced; a discovery of the route by the Cape of Good Hope, was, consequently, of the most importance; for, by putting an end to the monopoly enjoyed by the Turks and Mamelukes, it introduced, for the first time, something like competition into the Indian trade, and caused the western parts of Europe to obtain supplies of Indian products for about  $\frac{1}{3}$  of what they previously cost. Mr. Mun, in a tract published in 1621, estimates the quantity of Indian commodities imported into Europe, and their value when bought in Aleppo and in India, as follows:

Cost of Indian Commodities consumed in Europe when bought in Aleppo (or Alexandria).

6,000,000 pepper cost, with charges &c. at Aleppo	6,000,000
2s. per lb.	12,000,000
450,000 cloves, at 4s. 6d.	1,800,000
150,000 maces, at 4s. 6d.	600,000
400,000 nutmegs, at 2s. 6d.	800,000
350,000 indigo, at 1s. 2d.	420,000
1,000,000 Persian raw silk, at 12s.	12,000,000

But the same quantities of the same commodities cost, when bought in the East Indies, according to Mr. Mun, as follows:—

6,000,000 pepper, at 2d. per lb.	3,000,000
450,000 cloves, at 9d.	405,000
150,000 maces, at 9d.	135,000
400,000 nutmegs, at 4d.	1,600,000
350,000 indigo, at 1s. 2d.	420,000
1,000,000 raw silk, at 8s.	8,000,000

Which being deducted from the former balance of 953,542l. 13s. 4d. And supposing the statements made by Mr. Mun are correct, that allowance is made for the difference of the freight from Aleppo and India, the above would indicate the saving which the direct route by the Cape of Good Hope effected in the purchase of the above-mentioned commodities (*A Discourse of Trade from England to the Indies*, by T. M., original edition, p. 11).

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tract, which is very scarce, is reprinted in Purchas's *Pilgrims*.)

In the same publication (p. 37) Mr. Mun informs us that, from the beginning of the Company's trade to July 1620, they had sent 79 ships to India; of which 34 had come home safely and richly laden, 4 had been worn out by long service in India, 2 had been lost in encreening, 6 had been lost by the perils of the sea, and 12 had been captured by the Dutch. Mr. M. in further states that the exports to India since the formation of the Company had amounted to 840,370*l.*; that the produce brought from India had cost 336,288*l.*, and had produced here the enormous sum of 1,914,600*l.*; that the quarrels with the Dutch had occasioned a loss of 84,088*l.*; and that the stock of the Company, in ships, goods in India &c. amounted to 400,000*l.*

The hostility of the Dutch, to which Mr. Mun has here alluded, was long a very formidable obstacle to the Company's success. The Dutch early endeavoured to obtain the exclusive possession of the spice trade, and were not at all scrupulous as to the means by which they attempted to effect this their favourite object. The English, on their part, naturally exerted themselves to obtain a share of so valuable a commerce; and as neither party was disposed to abandon its views and pretensions, the most violent animosities grew up between them. In this state of things it would be ridiculous to suppose that unjustifiable acts were not committed by the one party as well as the other; though the worst act of the English appears venial when compared with the conduct of the Dutch in the massacre at Amboyna in 1622. While, however, the Dutch Company was vigorously supported by the Government at home, the English Company met with no efficient assistance from the feeble and vacillating policy of James and Charles. The Dutch either despised their remonstrances, or defeated them by an apparent compliance; so that no real reparation was obtained for the outrages they had committed. During the civil war Indian affairs were necessarily lost sight of; and the Dutch continued, until the ascendancy of the republican party had been established, to reign triumphant in the East, where the English commerce was nearly annihilated.

But notwithstanding their depressed condition, the Company's servants in India laid the foundation, during the period in question, of the settlements at Madras and in Bengal. Permission to build Fort St. George was obtained from the native authorities in 1640. In 1658 Madras was used to the station of a presidency. In 1645 the Company began to establish factories in Bengal, the principal of which was at Hooghly. These, for a lengthened period, subordinate to the presidency at Madras.

Sooner, however, had the civil wars terminated than the arms and councils of Cromwell reversed the situation of our affairs in India. The treaty which broke out between the Long Parliament and the Dutch in 1652 was eminently injurious to the latter. In the treaty of peace, concluded in 1654, it was stipulated that indemnification should be made by the Dutch for the losses and injuries sustained by the English merchants and factors in India. The 27th article bears, 'that the States-General of the United Provinces shall take care that justice be done upon those who were partakers or accomplices in the massacre of the English at Amboyna, as the revenue of England is pleased to term that fact, and any of them be living.' A commission was at the same time appointed, conformably to the 28th article of the treaty, to enquire into the

reciprocal claims which the subjects of the contracting parties had upon each other for losses sustained in India, Brazil &c.; and, upon their decision, the Dutch paid the sum of 85,000*l.* to the East India Company, and 3,615*l.* to the heirs or executors of the sufferers at Amboyna. (*Bruce's Annals*, vol. 1. p. 489.)

The charter under which the East India Company prosecuted their exclusive trade to India, being merely a grant from the Crown, and not ratified by any Act of Parliament, was understood by the merchants to be at an end when Charles I. was deposed. They were confirmed in this view of the matter from the circumstance of Charles having himself granted, in 1635, a charter to Sir William Courten and others, authorising them to trade with those parts of India with which the Company had not established any regular intercourse. The reasons alleged in justification of this measure, by the Crown, were, that the East India Company had neglected to establish fortified factories, or seats of trade, to which the King's subjects could resort with safety; that they had consulted their own interests only, without any regard to the King's revenue; and in general that they had broken the condition on which their charter and exclusive privileges had been granted to them. (*Rym. Fadera*, vol. xx. p. 146.)

Courten's association, for the foundation of which such satisfactory reasons had been assigned, continued to trade with India during the remainder of Charles's reign; and no sooner had the arms of the Commonwealth forced the Dutch to desist from their depredations, and to make reparation for the injuries they had inflicted on the English in India, than private adventurers engaged in great numbers in the Indian trade, and carried it on with a zeal, economy, and success that monopoly can never expect to rival. It is stated in a little work, entitled *Britannia Langvens*, published in 1680, the author of which has evidently been a well-informed and intelligent person, that during the years 1653, 1654, 1655, and 1656, when the trade to India was open, the private traders imported East India commodities in such large quantities, and sold them at such reduced prices, that they not only fully supplied the British markets, but had even come into successful competition with the Dutch in the market of Amsterdam, and very much sunk the actions (shares) of the Dutch East India Company. (P. 132.) This circumstance naturally excited the greatest apprehensions on the part of the Dutch Company; for, besides the danger that they now ran of being deprived, by the active competition of the English merchants, of a considerable part of the trade which they had previously enjoyed, they could hardly expect that, if the trade were thrown open in England, the monopoly would be allowed to continue in Holland. A striking proof of what is now stated is to be found in a letter in the third volume of Thurlow's *State Papers*, dated at the Hague, January 15, 1654, where it is said that 'the merchants of Amsterdam have advice that the Lord Protector intends to dissolve the East India Company at London, and to declare the navigation and commerce of the East Indies free and open; which doth cause great jealousy at Amsterdam, as a thing that will very much prejudice the East India Company in Holland.'

Feeling that it was impossible to contend with the private adventurers under a system of fair competition, the moment the treaty with the Dutch had been concluded the Company began to solicit a renewal of their charter; but in this they were not only opposed by the free traders, but by a part of themselves. To understand how this happened,

it may be proper to mention that Courten's association, the origin of which has been already noticed, had begun, in 1648, to found a colony in Assada, an island near Madagascar. The Company, alarmed at this project, applied to the council of state to prevent its being carried into effect; and the council, without entering on the question of either party's rights, recommended them to form a union, which was accordingly effected in 1649. But the union was, for a considerable time, rather nominal than real; and when the Dutch war had been put an end to, most of those holders of the Company's stock who had belonged to Courten's association joined in petitioning the council of state that the trade might in future be carried on, not by a joint stock, but by a regulated Company; so that each individual engaging in it might be allowed to employ his own stock, servants, and shipping in whatever way he might conceive most for his own advantage. (*Petition of Adventurers*, for his own advantage. (*Petition of Adventurers*, November 17, 1656; Bruce's *Annals*, vol. i. p. 518.)

This proposal was obviously most reasonable. The Company had always founded their claim to a monopoly of the trade on the alleged ground of its being necessary to maintain forts, factories, and ships of war in India; and that as this was not done by Government, it could only be done by a Company. But, by forming the traders with India into a regulated Company, they might have been subjected to whatever rules were considered most advisable; and such special duties might have been laid on the commodities they exported and imported as would have sufficed to defray the public expenses required for carrying on the trade, at the same time that the incalculable advantages of free competition would have been secured; each individual trader being left at liberty to conduct his enterprises, subject only to a few general regulations, in his own way and for his own advantage. [COMPANIES.]

But notwithstanding the efforts of the petitioners, and the success that was clearly proved to have attended the operations of the private traders, the Company succeeded in obtaining a renewal of their charter from Cromwell in 1657. Charles II. confirmed this charter in 1661, and at the same time conferred on them, the power of making peace or war with any power or people not of the Christian religion; of establishing fortification, garrisons, and colonies; of expediting ammunition and stores to their settlements duty free; of seizing and sending to England such British without their leave; and of exercising civil and criminal jurisdiction in their settlements, according to the laws of England. Still, however, as this charter was not fully confirmed by any Act of Parliament, it did not prevent traders, or interlopers as they were termed, from appearing within the limits of the Company's territories. The energy of private commerce, which, to use the words of Mr. Orme, 'sees its drift with eagles' eyes,' formed associations at the risk of trying the consequence at law, being safe at the outset and during the voyage, since the Company were not authorised to stop or seize the ships of those who thus attempted to come into competition with them. Hence their monopoly was by no means complete; and it was not till after the Revolution, and when a free system of government had been established at home, that, by a singular contradiction, the authority of Parliament was interposed to enable the Company wholly to engross the trade with this source.

In addition to the losses arising from this source, the Company's trade suffered severely, during the reign of Charles II., from the hostilities that were then waged with the Dutch, and from the con-

fusion and disorders caused by contests among the native princes; but in 1668 the Company obtained a very valuable acquisition in the island of Bombay, which Charles II. acquired this island as a part of the marriage portion of his wife, Catharine of Portugal; and it was now made over to the Company, on condition of their not selling or alienating it to any persons whatever, except such as were subjects of the British crown. They were allowed to legislate for their new possession; but it was enjoined that their laws should be consonant to reason, and 'as near as might be' agreeable to the practice of England. They were authorised to maintain their dominion by force of arms; and the natives of Bombay were declared to have the same liberties as natural-born subjects. The Company's western presidency was soon after transferred from Surat to Bombay.

In 1664 the French East India Company was formed, and 10 years afterwards they laid the foundation of their settlement at Pondicherry.

But the reign of Charles II. is chiefly memorable in the Company's annals from its being the era of the commencement of the tea trade. The first notice of tea in the Company's records is found in a despatch, addressed to their agent at Bantam, dated January 24, 1667-8, in which he is desired to send home 100 lbs. of tea, 'the best he can get' (Bruce's *Annals*, vol. ii. p. 210.) Such was the late and feeble beginning of the tea trade—a branch of commerce that has long been of vast importance to the British nation, and without which it would long since have ceased to exist, at least as a mercantile body.

In 1677 the Company obtained a fresh renewal of their charter; receiving at the same time an indemnity for all past misuse of their privileges and authority to establish a mint at Bombay.

During the greater part of the reigns of Charles II. and James II. the Company's affairs at home were principally managed by the celebrated Josiah Child, the ablest commercial writer of the time; and in India by his brother, Sir John Child. In 1681 Sir Josiah published an apology for the Company, under the signature of *Edgewood*. A Treatise wherein is demonstrated that the India Trade is the most National of all British Trades; in which, besides endeavouring to vindicate the Company from the objections that had been made against it, he gives an account of its state at the time. From this account it appears that the Company consisted of 553 partners; that they employed in the trade between England and India from 35 to 36 ships, of from 775 to 100 tons; and from port to port in India (p. 23); that customs duties upon the trade amounted to 60,000*l.* a-year; and that the value of the Company's goods, in lead, tin, cloth, and stuffs, and other articles of the production and manufacture of the island, amounted to about 60,000*l.* or 70,000*l.* Sir Josiah seems to have been struck, as he might, by the inconsiderable amount of the trade, and he therefore dwells on the advantages of it, and he is indirectly productive in enabling the Company to obtain supplies of raw silk, pepper &c. at a lower price than they would otherwise have had. But this, though true, proved nothing in favour of the Company; it being an admitted fact that articles were furnished at a still lower price by interlopers or private traders.

Sir Josiah Child was one of the first who proposed the formation of a territorial empire in India. But the expedition fitted out in 1686, in consequence of accomplishing this purpose, proved unsuccessful; and the Company were glad to accept of the terms offered by the Mogul.

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Child, having died during the course of these transactions, was succeeded in the principal management of the Company's affairs in India by Mr. Vaux. On the appointment of the latter, Sir Josiah Child, to whom he owed his advancement, exhorted him to act with vigour, and to carry into immediate effect. Mr. Vaux returned for answer, that he should endeavour to acquit himself with integrity and justice, and that he would make the laws of his country the rule of his conduct. Sir Josiah Child's answer to this letter is expected his orders were to be his rules, and not the laws of England, which were a heap of nonsense, compiled by a few ignorant country gentlemen, who hardly knew how to make laws for the good government of their own private families, much less for the regulating of companies and foreign commerce. (Hamilton's *New Account of the East Indies*, vol. i. p. 232.)

During the latter part of the reign of Charles II. and that of his successor, the number of private adventurers, or interlopers, in the Indian trade, increased in an unusual degree. The Company vigorously exerted themselves in defence of what they conceived to be their rights; and the question with respect to the validity of the powers conferred on them by their charter was at length brought to issue by a prosecution carried on at their instance against Mr. Thomas Sandys, for trading to the East Indies without their license.

But this decision was ascribed to corrupt influence; and instead of allaying, only served to increase the clamour against them. The meeting of the Convention Parliament gave the Company's opponents hopes of a successful issue to their efforts; and had they been united, they might have succeeded. Their opinions were, however, divided—part being for throwing the matter open, and part for the formation of a new company on a more liberal footing. The latter party formed into a body, and acting in unison, struggled against the Company was chiefly supported by them. The proceedings that took place on this occasion are amongst the most useful in the history of the country. The open and unblushing corruption was practised by all parties. 'It was, in fact, a trial by bribe to one or other as the irresistible force of the law.' (*Modern, Universal History*, vol. 27.)

Government appears, on the whole, to have been favourable to the Company, and obtained a fresh charter from the Crown in 1698. But in the following year the trade was laid open by a vote of the House of Commons, that all the subjects of England had an equal right to trade to the East Indies unless prohibited by Act of Parliament. Matters continued in this footing till 1698. The pecuniary distresses in which Government was then involved induced them to apply to the Company for a loan of 2,000,000*l.*, for which they offered 8 per cent. interest. The Company offered to advance 1,000,000*l.* at 4 per cent.; but the credit of the Company was at the time so low, that they were not accepted of an offer from the associated Company, who had previously opposed the Company's application, at 8 per cent., on condition that it should be formed into a new and exclusive company.

While this project was in agitation, the advantages of free trade were not idle, but were themselves to show that, instead of establishing a new Company, the old one ought to be continued. But, however conclusive, their argu-

ments, having no adventitious recommendations in their favour, failed of making any impression. The new Company was established by authority of the Legislature; and as the charter of the old Company was not yet expired, the novel spectacle was exhibited of two legally constituted bodies, each claiming an exclusive right to the trade of the same possessions!

Notwithstanding all the pretensions set up by those who had obtained the new charter during their struggle with the old Company, it was immediately seen that they were as anxious as the latter to suppress every thing like free trade. They had not, it was obvious, been actuated by any enlarged views, but merely by a wish to grasp at the monopoly, which they believed would redound to their own individual interest. The public, in consequence, became equally disgusted with both parties; or, if there were any difference, it was with the greatest aversion, inasmuch as we are naturally more exasperated by what we conceive to be duplicity and bad faith than by fair, undisguised hostility.

At first the mutual hatred of the rival associations knew no bounds. But they were not long in perceiving that such conduct would infallibly end in their ruin; and that while one was labouring to destroy the other, the friends of free trade might step in and procure the dissolution of both. In consequence they became gradually reconciled; and in 1702, having adjusted their differences, they resolved to form themselves into one Company, entitled *The United Company of Merchants of England trading to the East Indies*.

The authority of Parliament was soon after interposed to give effect to this agreement. The United Company engaged to advance 1,200,000*l.* to Government without interest, which, as a previous advance had been made of 2,000,000*l.* at 8 per cent., made the total sum due to them by the public 3,200,000*l.*, bearing interest at 5 per cent.; and Government agreed to ratify the terms of their agreement, and to extend the charter to March 25, 1726, with 3 years' notice.

While these important matters were transacting at home, the Company had acquired some additional possessions in India. In 1692 the Bengal Agency was transferred from Hooghly to Calcutta. In 1698 the Company acquired a grant, from one of the grandsons of Aurengzebe, of Calcutta and two adjoining villages; with leave to exercise judiciary powers over the inhabitants, and to erect fortifications. These were soon after constructed, and received, in compliment to William III., then king of England, the name of Fort William. The agency at Bengal, which had hitherto been subsidiary only, was now raised to the rank of a presidency.

The vigorous competition that had been carried on, for some years before the coalition of the old and new Companies, between them and the private traders, had occasioned a great additional importation of Indian silks, piece goods, and other products, and a great reduction of their price. These circumstances occasioned the most vehement complaints amongst the home manufacturers, who resorted to the arguments invariably made use of on such occasions by those who wish to exclude foreign competition; affirming that manufactured India goods had been largely substituted for those of England; that the English manufacturers had been reduced to the cruel necessity either of selling nothing, or of selling their commodities at such a price as left them no profit; that great numbers of their workmen had been thrown out of employment; and, last of all, that Indian goods

were not bought by British goods, but by gold and silver, the exportation of which had caused the general impoverishment of the kingdom! The merchants and others interested in the India trade could not, as had previously happened to them in the controversy with respect to the exportation of bullion, meet these statements without attacking the principles on which they rested, and maintaining, in opposition to them, that it was for the advantage of every people to buy the products they wanted in the cheapest market. This just and sound principle was, in consequence, enforced in several petitions presented to Parliament by the importers of Indian goods; and it was also enforced in several able publications that appeared at the time. But these arguments, how unanswerable soever they may now appear, had then but little influence; and in 1701 an Act was passed, prohibiting the importation of Indian manufactured goods for home consumption.

For some years after the re-establishment of the Company, it continued to prosecute its efforts to consolidate and extend its commerce. But the unsettled state of the Mogul empire, coupled with the determination of the Company to establish factories in every convenient situation, exposed their affairs to perpetual vicissitudes. In 1715 it was resolved to send an embassy to Delhi, to solicit from Furucksur, an unworthy descendant of Aurengzebe, an extension and confirmation of the Company's territory and privileges. Address, accident, and the proper application of presents conspired to insure the success of the embassy. The grants or patents solicited by the Company were issued in 1717. They were in all 34. The substance of the privileges they conferred was, that English vessels wrecked on the coasts of the empire should be exempt from plunder; that the annual payment of a stipulated sum to the Government of Surat should free the English trade at that port from all duties and exactions; that those villages contiguous to Madras formerly granted and afterwards refused by the Government of Arcot should be restored to the Company; that the island of Diu, near the port of Masulipatam, should belong to the Company, paying for it a fixed rent; that in Bengal, all persons, whether European or native, indebted or accountable to the Company, should be delivered up to the presidency on demand; that goods of export or import, belonging to the English, might, under a *dustuck* or passport from the president of Calcutta, be conveyed duty free through the Bengal provinces; and that the English should be at liberty to purchase the lordship of 37 towns contiguous to Calcutta, and in fact commanding both banks of the river for 10 miles south of that city. (Grant's *Sketch of the History of the East India Company*, p. 128.)

The important privileges thus granted were long regarded as constituting the great charter of the English in India. Some of them, however, were not fully conceded, but were withheld or modified by the influence of the emperor's lieutenants, or soubahdars.

In 1717 the Company found themselves in danger from a new competitor. In the course of that year some ships appeared in India, fitted out by private adventurers from Ostend. Their success encouraged others to engage in the same line, and in 1722 the adventurers were formed into a Company under a charter from his Imperial Majesty. The Dutch and English Companies, who had so long been hostile to each other, at once laid aside their animosities, and joined heartily in an attempt to crush their new competitors. Remonstrances being found ineffectual,

force was resorted to; and the vessels of Ostend Company were captured, under the frivolous pretences, in the open seas and on coasts of Brazil. The British and Dutch Governments abetted the selfish spirit of hostility played by their respective Companies; and the Emperor was, in the end, glad to purchase the support of Great Britain and Holland to the Pacific Sanction, by the sacrifice of the Company of Ostend.

Though the Company's trade had increased, it was still inconsiderable; and it is very difficult, indeed, when one examines the accounts, to have from time to time been published of the Company's mercantile affairs, to imagine how the idea ever came to be entertained that their commerce was of any considerable, much less important, importance. At an average of the years ending with 1734, the total value of British manufactures and other products annually exported to India amounted to only 92,410, 12s. The average value of the Bullion annually exported during the same period amounted to 518,102, 11s.; making the total annual average exports 617,513, 3s. 10d.—a truly pitiful sum when we consider the wealth, population, and industry, of the countries between which the Company's commerce was carried on, and affording by its smallness a strong presumptive proof of the effect of the monopoly in preventing the growth of the trade.

In 1730, though there were 3 years still unexpired of the Company's charter, a vigorous effort was made by the merchants of London, Bristol, and Liverpool to prevent its renewal. It has been said that the gains of the Company, had they been exactly known, would not have excited any very envious feelings on the part of the merchants; but, being concealed, they were exaggerated; and the boasts of the Company as to the importance of their trade contributed to spread the belief that their profits were enormous, and consequently stimulated the exertions of their opponents. Supposing, however, that the real state of the case had been known, there was not enough to justify the utmost exertions on the part of the merchants; for the limited profits made by the Company, notwithstanding their monopoly, were entirely owing to the misconduct of the agents, which they had vainly endeavoured to restrain, and to the waste inseparable from unwieldy establishments.

The merchants on this occasion followed the example that had been set by the petitioners for free trade in 1656. They offered, in the first place, to advance the 3,200,000, lent by the Company to the public, on more favourable terms; and in the second place, they proposed that the subscribers to this loan should be formed into a regulated Company, for opening the trade, under the most favourable circumstances, to all countries of their countrymen.

It was not intended that the Company should trade upon a joint stock, and in their own capacity, but that every individual who proposed should trade in the way of private adventurer. The Company were to have the duty of erecting and maintaining the forts and establishments abroad; and for this, and for other attending what was called the enlargement and preservation of the trade, it was proposed they should receive a duty of 1 per cent. upon exports to India, and of 5 per cent. upon imports from it. For ensuring obedience to and other regulations, it was to be enacted that no one should trade to India without licence from the Company; and it was proposed that all

with 3 years' notice, should be granted as the duration of their peculiar privilege.

'It appears from this,' says Mr. Mill, 'that the end which was proposed to be answered by incorporating such a Company was the preservation and erection of the forts, buildings, and other fixed establishments required for the trade of India. This Company promised to supply that demand which has always been held forth as peculiar to the India trade, as the grand exigency which, distinguishing the traffic with India from all other branches of trade, rendered monopoly advantageous in that peculiar case, how much sooner it might be injurious in others. While it provided for this real or pretended want, it left the trade open to all the advantages of private enterprise, private vigilance, private skill, and private economy—the virtues by which individuals thrive and nations prosper; and it gave the proposed Company an interest in the careful discharge of its duty by making its profits increase in exact proportion with the increase of the trade, and, of course, with the facilities and accommodation by which the trade was promoted.'

Three petitions were presented to the House of Commons in behalf of the proposed Company, by the merchants of London, Bristol, and Liverpool. It was urged that the proposed Company would, through the competition of which it would be productive, cause a great extension of the trade; that it would produce a larger exportation of our own produce and manufactures in India, and reduce the price of all Indian commodities to the people at home; that new channels of traffic would be opened in Asia and America as well as in Europe; that the duties of customs and excise would be increased; and that the waste and extravagance caused by the monopoly would be entirely avoided.' (Mill's *India*, vol. iii. p. 37.)

But these arguments did not prevail. The Company magnified the importance of their trade, and contended that it would be unwise to risk advantages already realised for the sake of those that were prospective and contingent. They alleged that, if the trade to India were thrown open, the price of goods in India would be so much lowered by the competition of different traders, that their price in England so much diminished, that the freedom of the trade would certainly end in the ruin of all who had been foolish enough to venture in it. To enlarge on the fallacy of these statements would be worse than superfluous. It is obvious that nothing whatever could have been risked, and that a great deal would have been gained, by opening the trade in the way that was proposed. And if it were really true that the trade to India ought to be subjected to a monopoly, the traders by their competition should ruin each other, it would follow that the trade to Africa—and not that only, but every branch of the foreign and home trade of the empire should be surrendered to exclusive Companies. Such as the Company's arguments were, they were satisfactory to Parliament. They, however, consented to reduce the interest on the debt due to the public from 5 to 4 per cent., and authorized a sum of 200,000*l.* for the public service.

On these conditions it was agreed to extend the exclusive privileges to Lady-day 1766, with the customary addition of 3 years' notice.

About 15 years from this period the Company's affairs went on without any very prominent changes. But notwithstanding the increased importation of tea, the consumption of which now rapidly extended, their trade continued to be comparatively insignificant. At an average of 15 years ending with 1741, the value of the

British goods and products of all sorts, exported by the Company to India and China, amounted to only 157,944*l.* 4*s.* 7*d.* a-year! During the 7 years ending with 1748 they amounted to only 188,176*l.* 16*s.* 4*d.* When it is borne in mind that these exports included the military stores of all sorts forwarded to the Company's settlements in India and at St. Helena, the amount of which was at all times very considerable, it does appear exceedingly doubtful whether the Company really exported, during the entire period from 1730 to 1748, 150,000*l.* worth of British produce as a legitimate mercantile adventure! Their trade, such as it was, was entirely carried on by shipments of bullion; and even its annual average export, during the 7 years ending with 1748, only amounted to 548,711*l.* 19*s.* 2*d.* It would seem, indeed, that the Company had derived no perceptible advantage from the important concessions obtained from the Mogul emperor in 1717. But the true conclusion is, not that these concessions were of little value, but that the denegating influence of monopoly had so paralysed the Company, that they were unable to turn them to account; and that, though without competitors, and with opulent kingdoms for their customers, their commerce was hardly greater than that carried on by some single merchants.

In 1732 the Company were obliged to reduce their dividend from 8 to 7 per cent., at which rate it continued till 1744.

The opposition the Company had experienced from the merchants when the question as to the renewal of their charter was agitated in 1730 made them very desirous to obtain the next renewal in as quiet a manner as possible. They therefore proposed, in 1743, when 23 years of their charter were yet unexpired, to lend 1,000,000*l.* to Government, at 3 per cent., provided their exclusive privileges were extended to 1780, with the usual notice; and, as none were expecting such an application, or prepared to oppose it, the consent of Government was obtained without difficulty.

But the period was now come when the mercantile character of the East India Company—if, indeed, it could with propriety be at any time said to belong to them—was to be eclipsed by their achievements as a military power, and the magnitude of their conquests. For about two centuries after the European powers began their intercourse with India, the Mogul princes were regarded as amongst the most opulent and powerful of monarchs. Though of a foreign lineage—being descended from the famous Tamerlane, or Timur Beg, who overran India in 1400—and of a different religion from the great body of their subjects, their dominion was firmly established in every part of their extensive empire. The administration of the different provinces was committed to officers, denominated soubahdars, or nabobs, intrusted with powers, in their respective governments, similar to those enjoyed by the Roman prætors. So long as the emperors retained any considerable portion of the vigour and bravery of their hardy ancestors, the different parts of the government were held in duo subordination, and the soubahdars yielded a ready obedience to the orders from Delhi. But the emperors were gradually debauched by the apparently prosperous condition of their affairs. Instead of being educated in the council or the camp, the heirs of almost unbounded power were brought up in the slothful luxury of the seraglio; ignorant of public affairs; benumbed by indolence; depraved by the flattery of women, of eunuchs, and of slaves; their minds contracted with their enjoyments; their inclinations were vitiated by their habits; and

their government grew as vicious, as corrupt, and as worthless as themselves. When the famous Kouli Khan, the usurper of the Persian throne, invaded India, the effeminate successor of Tamerlane and Aurengzebe was too unprepared to oppose, and too dastardly to think of avenging, the attack. This was the signal for the dismemberment of the monarchy. No sooner had the invader withdrawn than the soubahdars either openly threw off their allegiance to the emperor, or paid only a species of nominal or mock deference to his orders. The independence of the soubahdars was very soon followed by wars amongst themselves; and, being well aware of the superiority of European troops and tactics, they anxiously courted the alliance and support of the French and English East India Companies. These bodies, having espoused different sides, according as their interests or prejudices dictated, began very soon to turn the quarrels of the soubahdars to their own account. Instead of being contented, as hitherto, with the possession of factories and trading towns, they aspired to the dominion of provinces; and the struggle soon came to be, not which of the native princes should prevail, but whether the English or the French should become the umpires of India.

But these transactions are altogether foreign to the subject of this work; nor could any intelligible account of them be given without entering into lengthened statements. We shall only, therefore, observe that the affairs of the French were ably conducted by La Bourdonnais, Dupleix, and Lally, officers of distinguished merit, and not less celebrated for their great actions than for the base ingratitude of which they were the victims. But though victory seemed at first to incline to the French and their allies, the English affairs were effectually retrieved by the extraordinary talents and address of a single individual. Colonel (afterwards Lord) Clive was equally brave, cautious, and enterprising; not scrupulous in the use of means; fertile in expedients; endowed with wonderful sagacity and resolution; and capable of turning even the most apparently adverse circumstances to advantage. Having succeeded in humbling the French power in the vicinity of Madras, Clive landed at Calcutta in 1757, in order to chastise the soubahdar, Surajah ul Dowlah, who had a short while before attacked the English factory at that place, and inhumanly shut up 146 Englishmen in a prison, where, owing to the excessive heat and want of water, 123 perished in a single night. Clive had only 700 European troops and 1,400 Sepoys with him when he landed; but with these, and 570 sailors furnished by the fleet, he did not hesitate to attack the immense army commanded by the soubahdar, and totally defeated him in the famous battle of Plassey. This victory threw the whole provinces of Bengal, Bahar, and Orissa into our hands, and they were finally confirmed to us by the treaty negotiated in 1765.

Opinion has been long divided as to the policy of our military operations in India; and it has been strenuously contended that we should never have extended our conquests beyond the limits of Bengal. The Legislature seems to have taken this view of the matter; the House of Commons having resolved, in 1782, 'that to pursue schemes of conquest and extent of dominion in India are measures repugnant to the wish, the honour, and the policy of this nation.' But others have argued, and apparently on very good grounds, that, having gone thus far, we were compelled to advance. The native powers, trembling at the incursions of British dominion, endeavoured, when too late, to make head against the growing evil. In this view they entered into combinations and wars against

the English; and the latter having been uniformly victorious, their empire necessarily went on increasing, till all the native powers have been swallowed up in its vast extent.

The magnitude of the acquisitions made by Lord Clive powerfully excited the attention of the British public. Their value was prodigiously exaggerated; and it was generally admitted that the Company had no legal claim to enjoy, during the whole period of their charter, all the advantages resulting from conquests to which the fleets and armies of the state had largely contributed. In 1767 the subject was taken up by the House of Commons; and a committee was appointed to investigate the whole circumstances of the case, and to calculate the entire expenditure incurred by the public on the Company's account. During the agitation of this matter the right of the Company to the new conquests was totally denied by several members. In the end, however, the question was compromised by the Company agreeing to pay 400,000*l.* a-year for 2 years; and in 1769 this agreement, including the yearly payment, was further extended for 5 years more. The Company at the same time increased their dividend, which had been fixed by the former agreement at 10, to 12½ per cent.

But the Company's anticipations of increased revenue proved entirely visionary. The rapidity of their conquests in India, the distance of the controlling authority at home, and the abuse in the Government of the native princes, to whom the Company had succeeded, conspired to foster a strong spirit of speculation among their servants. Abuses of every sort were multiplied to a frightful extent. The English, having obtained, or rather enforced, an exemption from those heavy trade duties to which the native traders were subject, engrossed the whole internal trade of the country. They even went so far as to decide what quantity of goods each manufacturer should deliver, and what he should receive for them. It is due to the directors to say that they exerted themselves to repress these abuses; but their resolutions were neither carried into effect by their servants in India, nor sanctioned by the proprietors at home; so that the abuses, instead of being repressed, went on acquiring fresh strength and violence. The resources of the country were rapidly impaired; and while many of the Company's servants returned to Europe with immense fortunes, the Company itself was involved in debt and difficulties; and so far from being able to pay the stipulated sum of 400,000*l.* a-year to Government, was compelled to apply in 1772 to the Treasury for a loan!

In this crisis of their affairs Government interposed, and a considerable change was made in the constitution of the Company. The dividend was restricted to 6 per cent. till the sum of 1,400,000*l.* advanced to them by the public, should be paid. It was further enacted that the court of directors should be elected for 4 years, 6 members annually, but none to hold their seats for more than 4 years at a time; that no person was to sit at the courts of proprietors who had not possessed his stock for 12 months; and that the amount of stock required to qualify for a seat should be increased from 500*l.* to 1,000*l.* The jurisdiction of the Mayor's Court at Calcutta was confined to small mercantile cases; and in lieu of it, a new court was appointed, consisting of a chief justice and 3 principal judges appointed by the Crown. A superiority was also given to Bengal over the other presidencies. Mr. Warren Hastings being named in the Act as governor-general of India. The governor-general could

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In 1781 the exclusive were extended divided on the per cent; three fourths paying the dividend to Government service, and the Company's own use.

In 1780 the value of goods exported to the amount of 12,618,616*l.*; and the value of the exports formed only of the foreign trade of the administration

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gillars, and judges were prohibited from having any concern whatever in trade; and no person residing in the Company's settlements was allowed to take more than 12 per cent. per annum for money. Though strenuously opposed, these measures were carried by a large majority.

At this period (1773) the total number of proprietors of East India stock, with their qualifications as they stood in the Company's book, were as follows:—

	Proprietors	Stock		
		£	s.	d.
Englishmen, possessing 1,000 <i>l.</i> stock and upwards	487	1,018,336	19	11
Foreigners, possessing 1,000 <i>l.</i> stock and upwards	323	890,910	17	0
Englishmen, possessing 500 <i>l.</i> stock and upwards	1,246	634,164	1	8
Foreigners, possessing 500 <i>l.</i> stock and upwards	95	50,228	0	0
Total	1,951	2,593,638	18	7

Notwithstanding the vast extension of the Company's territories, their trade continued to be apparently insignificant. During the 3 years ending with 1773 the value of the entire exports of British produce and manufactures, including military stores, sent out by the Company to India and China, amounted to 1,469,411*l.*, being at the rate of 489,803*l.* a-year; the annual exports of bullion during the same period being only 84,933*l.* During the same 3 years 23 ships sailed annually for India. The truth, indeed, seems to be, that for the increased consumption of tea in Great Britain, the Company would have entirely ceased to carry on any branch of trade with the East, had the monopoly would have excluded us effectually from the markets of India and China if the trade had reverted to its ancient channels, the route by the Cape of Good Hope been relinquished.

In 1781 the exclusive privileges of the Company were extended to 1791, with 3 years' notice; the dividend on the Company's stock was fixed at 10 per cent; three fourths of their surplus revenues, after paying the dividend and the sum of 400,000*l.* payable to Government, was to be applied to the public service, and the remaining fourth to the Company's own use.

In 1780 the value of British produce and manufactures exported by the Company to India and China amounted to only 386,152*l.*; the bullion exported during the same year was 15,014*l.* The value of the exports during the same year was 12,648,616*l.*; showing that the East India Company formed only one thirty-second part of the foreign trade of the empire.

The administration of Mr. Hastings was one of the most unwise, unwise, and unwise. The state of the country, instead of being improved, became worse; so much so, that in a few minutes by Marquis Cornwallis, dated November 18, 1789, it is distinctly stated 'that the third part of the Company's territory is now a prey for wild beasts.' Some abuses in the conduct of their servants were, indeed, rectified; but, notwithstanding, the net revenue of Bengal, Orissa, and the Cis, which in 1772 had amounted to 2,285,766*l.*, declined in 1785 to 2,072,963*l.* The exhaustion of the country, and the expenses incurred in the war with Hyder Ally and France, rendered the Company in fresh difficulties; and unable to meet them, they were obliged in 1784 to present a petition to Parliament, setting forth their inability to pay the stipulated sum of 400,000*l.* a-year to the public, and praying to be relieved from that payment and to be supported with a sum of 900,000*l.*

All parties seemed now to be convinced that some further changes in the constitution of the Company had become indispensable. In this crisis Mr. Fox brought forward his famous India Bill, the grand object of which was to abolish the courts of directors and proprietors, and to vest the government of India in the hands of seven commissioners appointed by Parliament. The coalition between Lord North and Mr. Fox having rendered the ministry exceedingly unpopular, advantage was taken of the circumstance to raise an extraordinary clamour against the bill. The East India Company stigmatised it as an invasion of their chartered rights; though it is obvious that, from their inability to carry into effect the stipulations under which those rights were conceded to them, they necessarily reverted to the public; and it was as open to Parliament to legislate upon them as upon any other question. The political opponents of the Government represented the proposal for vesting the nomination of commissioners in the Legislature as a daring invasion of the prerogative of the Crown, and an insidious attempt of the minister to render himself all-powerful by adding the patronage of India to that already in his possession. The bill was, however, carried through the House of Commons; but, in consequence of the ferment it had excited, and the avowed opposition of his Majesty, it was thrown out in the House of Lords. This event proved fatal to the Coalition ministry. A new one was formed, with Mr. Pitt at its head; and Parliament being soon after dissolved, the new minister acquired a decisive majority in both Houses. When thus secure of Parliamentary support, Mr. Pitt brought forward his India Bill, which was successfully carried through all its stages. By this bill a Board of Control was erected, consisting of six members of the privy council, who were to check, superintend, and control all acts, operations, and concerns which in anywise relate to the civil or military government or revenues of the territories and possessions of the East India Company. All communications to or from India, touching any of the above matters, were to be submitted to this Board; the directors being ordered to yield obedience to its commands, and to alter or amend all instructions sent to India as directed by it. A secret committee of three directors was formed, with which the Board of Control might transact any business it did not choose to submit to the court of directors. Persons returning from India were to be obliged, under very severe penalties, to declare the amount of their fortunes; and a tribunal was appointed for the trial of all individuals accused of misconduct in India, consisting of a judge from each of the Courts of King's Bench, Common Pleas, and Exchequer; 5 members of the House of Lords, and 7 members of the House of Commons; the last being chosen by lot at the commencement of each session. The superintendance of all commercial matters continued, as formerly, in the hands of the directors.

During the administration of Marquis Cornwallis, who succeeded Mr. Hastings, Tipoo Saib, the son of Hyder Ally, was stripped of nearly half his dominions; the Company's territorial revenue was, in consequence, greatly increased; at the same time that the permanent settlement was carried into effect in Bengal, and other important changes accomplished. Opinion has been long divided as to the influence of these changes. On the whole, however, we are inclined to think that they have been decidedly advantageous. Lord Cornwallis was, beyond all question, a sincere friend to the people of India, and laboured earn-

estly, if not always successfully, to promote their interests, which he well knew were identified with those of the British nation.

During the 3 years ending with 1793 the value of the Company's exports of British produce and manufactures fluctuated from 928,783*l.* to 1,031,262*l.* But this increase is wholly to be ascribed to the reduction of the duty on tea in 1784, and the vast increase that consequently took place in its consumption. [T.E.] Had the consumption of tea continued stationary, there appear no grounds for thinking that the Company's exports in 1793 would have been greater than in 1780, unless an increase had taken place in the quantity of military stores exported.

In 1793 the Company's charter was prolonged till March 1, 1814. In the Act for this purpose a species of provision was made for opening the trade to India to private individuals. All his Majesty's subjects residing in any part of his European dominions were allowed to export to India any article of the produce or manufacture of the British dominions, except military stores, arms, munition, masts, spars, cordage, pitch, tar, and copper; and the Company's civil servants in India, and the free merchants resident there, were allowed to ship, on their own account and risk, all kinds of Indian goods, except calicoes, dimities, muslins, and other piece goods. But neither the merchants in England, nor the Company's servants or merchants in India, were allowed to export or import except in Company's ships. And in order to insure such conveyance, it was enacted that the Company should annually appropriate 3,000 tons of shipping for the use of private traders; it being stipulated that they were to pay, in time of peace 5*l.* outwards, and 15*l.* homewards, for every ton occupied by them in the Company's ships; and that this freight might be raised in time of war with the approbation of the Board of Control.

It might have been, and indeed most probably was, foreseen that very few British merchants or manufacturers would be inclined to avail themselves of the privilege of sending out goods in the Company's ships, or of engaging in a trade fettered on all sides by the jealousy of powerful monopolists, and where consequently their superior judgment and economy would have availed almost nothing. As far, therefore, as they were concerned, the relaxation was more apparent than real, and did not produce any useful results. (In a letter to the East India Company, dated March 21, 1812, Lord Melville says: 'It will not be denied that the facilities granted by that Act [the Act of 1793] have not been satisfactory, at least to the merchants either of this country or of India. They have been the source of constant dispute, and they have even entailed a heavy expense upon the Company, without affording to the public any adequate benefit from such a sacrifice.' *Papers published by East India Company, 1813, p. 84.*) It was, however, made use of to a considerable extent by private merchants in India, and also by the Company's servants returning from India, and some of whom invested a part, and some the whole of their fortune in produce fit for the European markets.

The financial difficulties of the East India Company led to the revolution which took place in its government in 1784. But notwithstanding the superintendence of the Board of Control, its finances have continued nearly in the same unprosperous state as before. We have been favoured from time to time with the most dazzling accounts of revenue that was to be immediately derived from India; and numberless Acts of Parliament

have been passed for the appropriation of surpluses that never had any existence except in the imagination of their framers. The proceeding that took place at the renewal of the charter in 1793 affords a striking example of this. Lord Cornwallis had then concluded the war with Tippoo Saib, which had stripped him of half his dominions; the perpetual settlement, from which so many benefits were expected to be derived, had been adopted in Bengal; and the Company's receipts had been increased, in consequence of accessions to their territory, and subsidies from native princes &c., to upwards of eight millions sterling a-year, which it was calculated would afford a future annual surplus, after every deduction of charge had been deducted, of 1,240,000*l.* Mr. Dundas (afterwards Lord Melville), then President of the Board of Control, availed himself of these favourable appearances to give the most flattering representation of the Company's affairs. There could, he said, be no question as to the permanent and regular increase of the Company's surplus revenue; he assured the House that the estimates had been framed with the greatest care; that the Company's possessions were in a state of prosperity till then unknown in India; that abuses which had formerly insinuated themselves into some departments of the Government had been rooted out; and that the period was at length arrived when India was to pour her golden treasures into the lap of England! Parliament participated in these brilliant anticipations, and in the Act prolonging the charter it was enacted: 1. That 500,000*l.* a-year of the surplus revenue should be set aside for reducing the Company's debt in India to 2,000,000*l.*; 2. That 500,000*l.* a-year should be paid into the exchequer, to be appropriated for the public service as Parliament should think fit to order; 3. When the India debt should be reduced to 2,000,000*l.*, and the bond debt to 1,500,000*l.*, one sixth part of the surplus was to be applied to augment the dividends, and the other five sixths were to be paid into the Bank, in the name of the Commissioners of the National Debt, to be accumulated as a *guarantee fund*, until it amounted to 12,000,000*l.*; and when it reached that sum, the dividends upon it were to be applied to make up the dividends on the capital stock of the Company to 10 per cent., if at any time the funds appropriated to that purpose should prove deficient &c.

Not one of these anticipations was realized. Instead of being diminished, the Company's debt began immediately to increase. In 1795 the Government were authorised to add to the amount of the floating debt. In 1796 a new device to reduce the money was fallen upon. Mr. Dundas represented that as all competition had been destroyed in consequence of the war, the Company's commerce had been greatly increased, and that their mercantile capital had become insufficient for the extension of their transactions. In consequence of this representation, leave was given to the Company to issue two millions to their capital stock by one million of new shares; but as these shares sold at a rate of 17*l.* each, they produced 3,400,000*l.* In 1797 the Company issued additional bonds to the extent of 1,417,000*l.*; and notwithstanding all this, Mr. Dundas stated in the House of Commons, March 13, 1799, that there had been a deficit of 1,319,000*l.* the previous year of 1,319,000*l.*

During the administration of the Marquis Wellesley, which began in 1797-8 and terminated in 1805-6, the British empire in India was augmented by the conquest of Seringapatam and the whole territories of Tippoo Saib, the conquest of large tracts by the Mahratta chiefs, the conquest

of Delhi, the ancient seat of the various other important revenue, which had in 1787, was increased to 17,672,000*l.*, leaving the following year 1,000,000*l.*, while the same; and there continued excess of expenditure charges, and a consequence of 1811-12.

Notwithstanding their territories, the Company continued to be for the 5 years ending 1811 by the Company in amount of individual

Year	Surplus
1793	928,783 <i>l.</i>
1794	1,031,262 <i>l.</i>
1795	1,031,262 <i>l.</i>

The exports by the Company's ships, during the period from 1807-8 to 1811, amounted to 363,496*l.* The Company's exports to India by the Company's military stores sent to China during the same period, and their burden

for some years before the Company's charter in 1814, gaining ground and to the East was capital; and that it was enterprise and being subjected to and within such numbers were, consequently and commercial interest set aside, and the Company vigorous, and had interest of the privilege made to China to April; the Government of their hands for the same, the trade to India conditions, to the trade, directly on Calcutta, Madras, and Peking; that they should not be undertaken; they should abstain, and the Board of carrying trade of India and China. advantages, such is the case as compared with traders gained an over the East India time more than

Report of the commission on the foreign trade in 1821, it is stated consumption of British goods commenced of

Delhi, the ancient seat of the Mogul empire, and various other important acquisitions; so that the revenue, which had amounted to 8,059,000*l.* in 1757, was increased to 15,403,000*l.* in 1805. But the expenses of government, and the interest of the debt, increased in a still greater proportion than the revenue, having amounted in 1805 to 17,672,000*l.*, leaving a deficit of 2,269,000*l.* In the following year the revenue fell off nearly 1,000,000*l.*, while the expenses continued nearly the same; and there was, at an average, a continued excess of expenditure, including commercial charges, and a contraction of fresh debt, down to 1811-12.

Notwithstanding the vast additions made to their territories, the Company's commerce with them continued to be very inconsiderable. During the 5 years ending with 1811, the exports to India by the Company, exclusive of those made on account of individuals in their ships, were as follows:—

	£	Year	£
1807	52,416	1810	1,019,815
1808	919,544	1811	1,035,516
1809	866,133		

The exports by the private trade, and the *private* trade, that is, the commanders and officers of the Company's ships, during the above-mentioned years, were about as large. During the 5 years ending with 1807-8 the annual average imports to India by British private traders, only amounted to 305,496*l.* (*Papers*, published by the East India Company in 1813, 4to. p. 56.)

The Company's exports included the value of military stores sent from Great Britain to India. The ships employed in the trade to *India* and *China* during the same 5 years varied from 33, and their burden from 36,671 to 45,342 tons.

For some years before the termination of the Company's charter in 1813, the conviction had been gaining ground among all classes that the trade to the East was capable of being very greatly extended; and that it was solely owing to the want of enterprise and competition, occasioned by being subjected to a monopoly, that it was confined within such narrow limits. Very great improvements were, consequently, made by the manufacturing and commercial interests to have the monopoly set aside, and the trade to the East thrown open to all. The Company vigorously resisted these proposals, and had interest enough to procure a provision of the privilege of carrying on an exclusive trade to China to April 10, 1831, with 3 years' extension; the Government of India being continued in their hands for the same period. Fortunately, however, the trade to India was opened, under certain conditions, to the public. The principal conditions were, that private individuals might trade, directly only, with the presidencies of Calcutta, Madras, and Bombay, and the province of Penang; that the vessels fitted out by them should not be under 350 tons burden; and that they should abstain, unless permitted by the Board of Control, from engaging in carrying trade of India, or in the trade between India and China. And yet, despite these arrangements, such is the energy of individual enterprise as compared with monopoly, that the private traders gained an almost immediate ascendancy over the East India Company, and in a short time more than *trebled* our trade with

be accounted for by the demand of European residents, the number of whom does not materially vary; and it appears to have been much the greatest in articles calculated for the general use of the natives. That of the cotton manufactures of this country alone is stated, since the first opening of the trade, to have been augmented from *four to five-fold* [it is now (1868) augmented many hundreds of times]. The value of the merchandises exported from Great Britain to India, which amounted in 1814 to 870,177*l.*, amounted in 1819 to 3,052,741*l.* [this is the amount of the Company's exports only, and the sum is not quite accurate. *Post*]; and although the market appears then to have been so far overstocked as to occasion a diminution of nearly  $\frac{1}{2}$  in the exports of the following year, that diminution appears to have taken place more in the articles intended for the consumption of Europeans than of natives; and the trade is now stated to be committed by the best informed persons to be reviving. When the amount of population, and the extent of the country over which the consumption of these articles is spread, are considered, it is obvious that any facility which can, consistently with the political interests and security of the Company's dominions, be given to the private trader for the distribution of his exports, by increasing the number of ports at which he may have the option of touching in pursuit of a market, cannot fail to promote a more ready and extensive demand.

Besides the restraints imposed by the Act of 1813 on the proceedings of the free traders (these restraints were a good deal modified by the 3 Geo. IV. c. 89, passed in pursuance of the recommendation of the committee quoted above), they frequently experienced very great loss and inconvenience from the commercial speculations of the East India Company. The latter had commercial residents, with large establishments of servants, some of them intended for coercive purposes, stationed in all the considerable towns; and the Marquis Wellesley has stated 'that the intimation of a wish from the Company's resident is always received as a command by the native manufacturers and producers.' The truth is, that it was not in the nature of things that the Company's purchases could be fairly made: the natives could not deal with their servants as they would have dealt with private individuals; and it would be absurd to suppose that agents authorised to buy on account of government, and to draw on the public treasury for the means of payment, should generally evince the prudence and discretion of individuals directly responsible in their own private fortunes for their transactions. The interference of such persons would, under any circumstances, have rendered the East India trade peculiarly hazardous. But their influence in this respect was materially aggravated by the irregularity of their appearances. No individual, not belonging to the court of directors, could foresee whether the Company's agents would be in the market at all; or, if there, to what extent they would either purchase or sell. So capricious were their proceedings, that in some years they laid out 700,000*l.* on indigo, while in others they did not lay out a single shilling; and so with other things. A fluctuating demand of this sort necessarily occasioned great and sudden variations of price, and was injurious alike to the producers and the private merchants.

And besides being injurious to the private trader, and to the public generally, both in India and England, this trade was of no advantage to the East India Company. How, indeed, could

The Report of the committee of the House of Commons on the foreign trade of the country, printed in 1821, it is stated that 'the greatly increased consumption of British goods in the East since the commencement of the free trade cannot

it be otherwise? A Company that maintained armies and retailed tea, that carried a sword in one hand and a ledger in the other, was a contradiction; and, had she traded with success, would have been a prodigy. It was impossible for her to pay that attention to details which is indispensable to the carrying on of commerce with advantage. She may have gained something by the monopoly of the tea trade, though even that is questionable; but it is admitted on all hands that she lost heavily by her trade to India. When, therefore, the question as to the renewal of the charter came to be discussed in 1832 and 1833, the Company had no reasonable objection to urge against their being deprived of the privilege of trading. And the Act 3 & 4 Wm. IV. c. 85, for continuing the charter till 1854, terminated the Company's commercial character, by enacting that the Company's trade to China was to cease on April 22, 1834, and that the Company was, as soon as possible after that date, to dispose of their stocks on hand and close their commercial business; and the wonderful increase that has since taken place in the trade with the East is the best proof of the sagacity and soundness of the opinions of those by whose efforts the incubus of monopoly was removed.

From this period down to 1858, when the Company was, as a governing body, finally abolished, its functions were wholly political, and the directors were, in truth, little more than a council to assist and advise the President of the Board of Control. During the period now alluded to (from 1834 to 1858) some most important events have taken place in India. The British Empire has been increased by the acquisition in 1845 of the territory of Scinde, at the mouths of the Indus; in 1849 of the extensive and fertile country of the Punjab (Five Rivers), in N.W. India, between the Sutlej and the Indus; and in 1852 of Pegu and Martaban in Burmah. Being occupied by comparatively brave and hardy races, the subjugation of Scinde and the Punjab was not effected without much difficulty, and after the occurrence of several well-fought battles.

The period referred to is also distinguished by the ill-advised invasion of Afghanistan in 1839. This unprovoked aggression led to the greatest reverse that has ever happened to the English in India. But the disastrous retreat from Cabul having been avenged, and the prestige of our arms restored, we finally withdrew from the country in 1842. And it is to be hoped that we may never again, unless from the most urgent necessity, attempt to extend our empire in that quarter beyond its present limits.

A conviction had been for a lengthened period gaining ground, that the Company's intervention in the Government of India had become inexpedient, and that it should be directly administered by the Crown. In 1853 a step was taken in this direction by the Act 16 & 17 Vict. c. 95, which reduced the number of directors from 24 to 18, part of which were to be nominated by the Crown, and made other changes. It is not easy to say how long this modified system might have gone on, had it not been for the outbreak of the gigantic mutiny of 1857. It would be foreign to our object to introduce details with respect to the origin of this insurrection, its progress and suppression. These are known to all our readers. Here it is sufficient to mention that the incipient prejudice against the Company having been strengthened, though without much reason, by the disasters in India, advantage was taken of their occurrence to introduce a bill into Parliament for transferring its government from the Company to the Crown;

which soon after (August 2, 1858) became the Act 21 & 22 Vict. c. 106. Thus has terminated, after a prolonged existence of about 238 years, the East India Company, the most celebrated joint-stock association of which history has preserved any account. (It still exists in name for some routine matters; but it is probable that this phantom, *magni nominis umbra*, will speedily disappear.) Its commercial had long been sunk in its military and political character. It had subjugated one of the most extensive empires in the world. And though its policy has been in many respects of a very questionable description, it is entitled to the high praise of having vigorously exerted itself to restrain abuses on the part of its servants, to protect the vast population within its dominion, and provide for their well-being.

The government of India is now vested under the 21 & 22 Vict. c. 106, in a Secretary of State, assisted by a council of 15 members: 8 of the latter were nominated by her Majesty, and 7 by the East India Company. On vacancies taking place among the former, their successors are to be nominated by the Crown; and vacancies among the Company's nominees are to be filled up by election by the council. Members hold these situations during good behaviour, receive a salary of 1,200*l.* a-year, and a retiring pension of 500*l.* a-year. The majority of the council are to consist of persons who have either served or resided in India for 10 years. They are not allowed to sit in Parliament.

## II. EAST INDIES (STATE OF SOCIETY IN GROWING DEMAND FOR ENGLISH GOODS, TRADE, COLONISATION, ETC.).

1. *Distinction of Castes in India.* *Inconspicuous of the Representations as to the Indalities have unalterably attached to ancient Customs and Practices.*—We have taken occasion, in the preceding sketch of the history of the East India Company, repeatedly to notice the small extent of the trade carried on by its agency. It was contended, however, that this was to be ascribed, not to the deadening influence of monopoly, but to the peculiar state of the people of India. A notion has long been prevalent in this quarter of the world, that the Hindoos are a race unsusceptible of change or improvement of any sort; that every man is brought up to the profession of his father, and can engage in none else; and that, owing to the simplicity and unalterableness of their habits, they never can be consumers, at least to any considerable extent, of foreign commodities. 'What is now in India has always been there, and is likely still to continue.' (Robertson's *Disquisition*, p. 202.) The Hindoos of this world are said to be the same as the Hindoos of the world of Alexander the Great. The description of the world given by Arrian has been quoted as applying to their actual situation. It is affirmed that they have neither improved nor retrograded, and are referred to India as to a country in which institutions and manners that prevailed 2,000 years ago may still be found in their purity! The President de Goguet says it distinctly, in his learned and invaluable work *the Origin of Laws, Arts, and Sciences*, that 'every trade is confined to a particular caste, and can be exercised only by those whose parents possessed it.' (*Origin of Laws* &c. Eng. trans. iii. p. 24.) Dr. Robertson says that 'the situation every Hindoo is unalterably fixed; his destiny is irrevocable; and the walk of life is marked out for which he must never deviate.' (*Disquisition on India*, p. 199.) The same opinions are maintained by later authorities. Dr. Tennant says that

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whole Indian community is divided into 4 great classes; and each class is stationed between certain walls of separation, which are impassable by the purest virtue and most conspicuous merit.' (Quoted by Mr. Rickards, p. 6.) This unalterable destiny of individuals has been repeatedly assumed in the despatches and official papers put forth by the East India Company, and has been referred to on all occasions by them and their servants as a proof that the depressed and miserable condition of the natives is not owing to misgovernment, or to the weight of the burdens laid upon them; and that it is in vain to think of materially improving their condition, or of making them acquainted with new arts, or giving them new habits, so long as the institution of castes, and the prejudices to which it has given rise, preserve their ascendancy unimpaird.

But notwithstanding the universal currency which the opinions now referred to have obtained, and the high authority by which they are supported, they are, in all the most essential respects, entirely without foundation! The books and notes of the Hindoos themselves, and the minute and careful observations that have recently been made on Indian society, have shown that the influence ascribed to the institution of castes by the ancients, and by the more early modern travellers, has been prodigiously exaggerated. In the first part of his work on India, Mr. Rickards established, partly by references to the authoritative books of the Hindoos, and partly by his own observations, and those of Mr. Colebrooke, Dr. Schlegel, and other high authorities, that the vast majority of the Hindoo population may, and in fact do, engage in all sorts of employments. It has been further shown that there is nothing in the structure of Indian society to oppose any serious obstacle to the introduction of new arts, or spread of improvement; and that the causes of the poverty and misery of the people must be sought for in other circumstances than the institution of castes, and the nature of Hindoo religion.

The early division of the population into the 4 classes of priests (Brahmins), soldiers (Chattris), husbandmen and artificers (Vaisyas), and merchants (Sutras), was maintained only for a very short period. The Hindoo traditions record that the intermixture of these classes took place at a very remote epoch; and the mixed brood arising were divided into a vast variety of tribes, or castes, to whom, speaking generally, employments are forbidden.

'The employments,' says Mr. Rickards, 'allowed to these mixed and impure castes may be divided to every description of handicraft and agriculture for which the wants of human society created a demand. Though many seem to derive their names from their ordinary trade or occupation, and some have duties assigned them which are odious and disgusting for any others to perform, yet from the direct necessity, yet no employment, generally speaking, is forbidden to the mixed and impure tribes, excepting three of the most sacred duties of the sacerdotal class; viz. the recitation of the Vedas, officiating at a sacrifice, and presenting from a pure-handed giver; these three are exclusively Bra'minical.'

Mr. Colebrooke, who is acknowledged on all occasions to be one of the very highest authorities as respects Indian affairs, has a paper in the 10th volume of the *Asiatic Researches*, on the subject of castes. In this paper Mr. Colebrooke states that the *Jatimala*, a Hindoo work, enumerates forty-two mixed classes springing from the intermixture of a man of interior class with a

woman of a superior class, or in the *inverse* order of the classes. Now, if we add to these the number that must have sprung from intermixture in the *direct* order of the classes, and the hosts further arising from the continued intermixture of the mixed tribes amongst themselves, we shall not certainly be disposed to dissent from Mr. Colebrooke's conclusion, 'that the subdivisions of these classes have further multiplied distinctions to an *endless variety*.'

Mr. Colebrooke has given the following distinct and accurate account of the professions and employments of the several classes at the present day. It forms a curious commentary on the 'irrevocable destiny' of Dr. Robertson, and the 'impassable walls' of Dr. Tennant.

'A *Brahman*, unable to subsist by his duties, may live by the duty of a soldier; if he cannot get a subsistence by either of these employments, he may apply to tillage and attendance on cattle, or gain a competence by traffic, avoiding certain commodities. A *Chattriya* in distress may subsist by all these means; but he must not have recourse to the highest functions. In seasons of distress a further latitude is given. The practice of medicine and other learned professions, painting and other arts, work for wages, menial service, alms, and usury, are among the modes of subsistence allowed both to the *Brahman* and *Chattriya*. A *Vaisya*, unable to subsist by his own duties, may descend to the servile acts of a *Sudra*; and a *Sudra*, not finding employment by waiting on men of the higher classes, may subsist by handicrafts; principally following those mechanical operations, as joinery and masonry, and practical arts, as painting and writing, by which he may serve men of superior classes; and although a man of a lower class is in general restricted from the acts of a higher class, the *Sudra* is expressly permitted to become a trader or a husbandman.

'Besides the particular occupation assigned to each of the mixed classes, they have the alternative of following the profession which regularly belongs to the class from which they derive their origin on the mother's side: those at least have such an option who are born in the direct order of the classes. *The mixed classes are also permitted to subsist by any of the duties of a Sudra; that is, by menial service, by handicrafts, by commerce, and agriculture.* Hence it appears THAT ALMOST EVERY OCCUPATION, THOUGH REGULARLY IT BE THE PROFESSION OF A PARTICULAR CLASS, IS OPEN TO MOST OTHER CLASSES; and that the limitations, far from being rigorous, do in fact reserve only the peculiar profession of the *Brahman*, which consists in teaching the *Veda*, and officiating at religious ceremonies.'

'We have thus,' says Mr. Rickards, by whom this passage has been quoted, 'the highest existing authority for rejecting the doctrine of the whole Hindoo community "being divided into four castes," and of their peculiar prerogatives being guarded inviolate by "impassable walls of separation." It is also clear that the intermixture of castes had taken place, to an indefinite extent, at the time when the *Dherma Sastra* was composed, which Sir William Jones computes to be about 880 years B.C.; for the mixed classes are specified in this work, and it also refers in many places to past times, and to events which a course of time only could have brought about. The origin of the intermixture is therefore lost in the remotest and obscurest antiquity; and having been carried on through a long course of ages, a heterogeneous mass is everywhere presented to us, in these latter times, without a single example, in any particular state, or kingdom, or separate portion

of the Hindoo community, of that quadruple division of castes which has been so confidently insisted upon.

'I have myself seen carpenters of five or six different castes, and as many different bricklayers, employed on the same building. The same diversity of castes may be observed among the craftsmen in dockyards, and all other great works; and those who have resided for any time in the principal commercial cities of India must be sensible that every increasing demand for labour, in all its different branches and varieties of old and new arts, has been speedily and effectually supplied, in spite of the tremendous institution of castes, which we are taught to believe forms so impassable an obstruction to the advancement of Indian industry.'

2. *Growing Demand for English Goods.*—It is difficult to suppose that the directors of the East India Company should not have been early aware of the fallacy of the opinions as to the fixedness of Indian habits. So far, however, as we know, they did not, in this instance, evince any acquaintance with the discoveries of their servants. On the contrary, in all the discussions that took place with respect to the opening of the trade in 1814, the Company invariably contended that no increase of trade to India could be expected. In a letter of the chairman and deputy chairman to the Right Honourable Robert Dundas, dated January 13, 1809, it is stated that 'the small demand for foreign commodities in India (results from the nature of the Indian people, their climate and their usages. The articles of first necessity their own country furnishes more abundantly and more cheaply than it is possible for Europe to supply them. The labour of the great body of the common people only enables them to subsist on rice, and to wear a slight covering of cotton cloth; they, therefore, can purchase none of the superfluities we offer them. The comparatively few in better circumstances, restricted, like the rest, by numerous religions and civil customs, of which all are remarkably tenacious, find few of our commodities to their taste; and their climate, so dissimilar to ours, renders many of them unsuitable to their use; so that a commerce between them and us cannot proceed far upon the principle of supplying mutual wants. Hence, except woollens, in a very limited degree, for mantles in the cold season, and metals, on a scale also very limited, to be worked up by their own artisans for the few utensils they need, hardly any of our staple commodities find a vent among the Indians; the other exports which Europe sends to India being chiefly consumed by the European population there, and some of the descendants of the early Portuguese settlers; all of whom, taken collectively, form but a small body in view to any question of national commerce.' (*Papers published by authority of the East India Company, 1813, p. 21.*)

The volume from which we have made this extract contains a variety of passages to the same effect. So confident, indeed, were the Company that they had carried the trade to India to the utmost extent of which it was capable, that it was expressly stated, in resolutions passed in a general court held at the India House on January 26, 1813, 'that no large or sudden addition can be made to the amount of British exports to India or China; that the Company had suffered a loss in attempting to extend this branch of their trade; that the warehouses at home were glutted with Indian commodities for which there was no demand; and that to open the outports to the trade would be no other than 'a ruinous transfer of it

into new channels, to the destruction of immense and costly establishments, and the beggary of many thousands of industrious individuals.'

Luckily, however, these representations were unable to prevent the opening of the trade, and the result has sufficiently demonstrated their fallacy. The enterprise and exertion of individuals have vastly increased our exports to India—that very country which the Company had so confidently pronounced was, and would necessarily continue to be, incapable of affording any additional outlet for our peculiar products!

The commercial accounts for 1812 and 1813 were unfortunately destroyed by the fire at the Custom-house. The trade to India was opened on April 10, 1814; and in that year the declared value of the products exported from Great Britain to the countries eastward of the Cape of Good Hope, excepting China, by the East India Company, was 826,558*l.*, and by the private traders 1,048,132*l.* In 1817 the Company's exports had declined to 638,382*l.*, while those of the private traders had increased to 2,750,333*l.*; and in 1829 the former had sunk to only 488,601*l.*, while the latter had increased to 3,979,972*l.*, being more than double the total exports to India, as well by the Company as by private traders, in 1814! Since then the market has continued progressively to increase. At an average of the 6 years ending with 1849, the declared value of the exports of British goods amounted to no less than 6,315,688*l.* a-year; the declared value of those exported in 1849 being 6,803,274*l.* In 1854, previously to the late outbreak, the exports to India had reached the sum of 10,025,969*l.*

The Company stated, and no doubt truly, that they lost a very large sum in attempting to extend the demand for British woollens in India and China, which, notwithstanding, continued very limited. But in their efforts to force the sale of woollens, they seem to have entirely forgotten that we had attained to great excellence in the manufacture of cotton stuffs, the article principally made up of as clothing in Hindoostan; and that, notwithstanding the cheapness of labour in India, the advantage we derived from our superior machinery might enable us to offer our stuffs to the natives at a lower price than they could afford to manufacture them for. No sooner, however, had the trade been opened to private adventurers than this channel of enterprise was explored; and the result has been, that, instead of bringing cottons from India to England, the former has become one of the best and most extensive markets for the cottons of the latter. We regret, indeed, whether, in the whole history of commerce, another equally striking example can be produced of the powerful influence of competition in opening new and almost boundless fields for successful prosecution of commercial enterprise.

In 1814, the first year of the free trade in the exports of cotton amounted to 817,000 yards of which only about 170,000 yards, valued at 17,778*l.*, were exported by the Company. The progress of the trade has since been such, that in 1866 we exported to India 541,699,474 yards of cotton stuffs, and 19,849,406 lbs. twist and hosiery, lace, and small wares, the aggregate declared value of the whole being 12,773,000*l.*

The demand for several other articles of manufactures has increased with great rapidity. Notwithstanding all that has been said as to the immutability of Hindoo habits, the fact is, as we have denied that a taste for European productions and customs is rapidly spreading itself over India, and the fair presumption is, that it will continue to gain ground according as education is

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diffused, and as the natives become better acquainted with our language, arts, and habits. The authenticity of Dr. Heber's statements cannot be called in question; and there are many passages in different parts of his Journal that might be quoted in corroboration of what has now been stated. Our limits, however, will only permit of our making a very few extracts.

'Nor have the religious prejudices and the unchangeableness of the Hindoo habits been less exaggerated. Some of the best informed of their nation, with whom I have conversed, assure me that half their most remarkable customs of civil and domestic life are borrowed from their Mohammedan conquerors; and at present there is an *obstinate* disposition to imitate the English in everything, which has already led to very remarkable changes, and will, probably, to still more important. The wealthy natives now all affect to have their houses decorated with Corinthian pillars, and filled with English furniture; they drive the best horses and the most dashing carriages in Calcutta; many of them speak English fluently, and are tolerably read in English literature; and the children of one of our friends I saw one day dressed in jackets and trowsers, with round hats, shoes, and stockings. In the Bengalee newspapers, of which there are two or three, I observed that Whiggism; and one of their leading men declared a great dinner, not long since, in honour of the Spanish revolution: among the lower orders the same feeling shows itself more beneficially in a growing neglect of caste.' (Vol. ii. p. 306.)

'To say that the Hindoos or Mussulmans are deficient in any essential feature of a civilised people is an assertion which I can scarcely suppose to be made by any who have lived with them: their manners are at least as pleasing and courteous as those in the corresponding stations of life among ourselves; their houses are larger, and, according to their wants and climate, to the full as convenient as ours; their architecture is at least as elegant; nor is it true that in the mechanic arts they are inferior to the general run of European nations. Where they fall short of us (which is chiefly in agricultural implements, and the mechanics of common life), they are not, so far as I have understood of Italy and the south of France, surpassed in any degree by the people of those countries. Their goldsmiths and weavers produce beautiful fabrics as our own; and it is so far from true that they are obstinately wedded to their old patterns, that they show an anxiety to imitate our models, and do imitate them very successfully. The ships built by native artists at Bombay are notoriously as good as any which sail in London or Liverpool. The carriages and coaches which they supply at Calcutta are as handsome, though not as durable, as those of Longwood. In the little town of Monghyr, 300 miles from Calcutta, I had pistols, double-barrelled guns, and different pieces of cabinet-work brought down by boat for sale, which in outward form (for I saw no finer, nobody but perhaps Mr. ——— could detect to be of Hindoo origin; and at Delhi, the shop of a wealthy native jeweller, and at Delhi, boxes, ear-rings, snuff-boxes &c. of the latest modes (so far as I am a judge), and ornamented with French devices and mottoes.' (Vol. ii. p. 306.)

'The Bishop Heber penetrated into the interior of India, he found the same taste as in Calcutta, European articles and for luxuries, prevalent everywhere among the natives. Of Benares he writes as follows:—

'I treated further into it, were the large, lofty, and handsome dwelling-houses, the beauty and apparent richness of the goods exposed in the bazaars, and the evident hum of business. Benares as well as a very holy city. It is the great mart where the shawls of the north, the diamonds of the provinces centre; and it has very considerable silk, cotton, and the woollen manufactures of its own; while English hardware, swords, shields, and spears, from Lucknow and Monghyr, and those European luxuries and elegancies which are daily becoming more popular in India, circulate from hence through Bundelcund, Gorrackpoor, Nepal, and other tracts which are removed from the main artery of the Ganges.' (Vol. i. p. 289.)

'Proceeding still farther into the interior of the country, and when at Nusseerabad, distant 1,051 miles from Calcutta, the Bishop continues his Journal in the same strain; viz:—

'European articles are, at Nusseerabad [near Ajmeer, in the heart of the Rajpoot country], kept by a Greek and two Parsees from Bombay; they had in their list all the usual items of a Calcutta warehouse. English cotton cloths, both white and printed, are to be met with commonly in wear among the people of the country, and may, I learned to my surprise, be bought best and cheapest, as well as all kinds of hardware, crockery, celebrated mart in Marwar, on the edge of the desert, several days' journey west of the where, till very lately, no European was known to have penetrated.' (Vol. ii. p. 36.)

As to the character of the Hindoos, their capacity, and even anxious desire, for improvement, the Bishop's testimony is equally clear and important, the reader's attention is requested to the following statements:—

'In the schools which have been lately established in this part of the empire, of which there are at present 9 established by the Church Missionary, and 11 by the Christian Knowledge Societies, some very unexpected facts have occurred. As all direct attempts to convert the children are disclaimed, the parents send them without scruple. But it is no less strange than true, that there is no objection made to the use of the Old and New Testament as a class-book; that so long as the teachers do not urge them to be baptised, or to curse their country's gods, they readily consent to everything else; and not only Mussulmans, but Brahmins, stand by with perfect coolness, and listen sometimes with apparent interest and pleasure, while the scholars, by the road side, are reading the stories of the creation and of Jesus Christ.' (Vol. ii. p. 290.)

'Hearing all I had heard of the prejudices of the Hindoos and Mussulmans, I certainly did not at all expect to find that the common people would, not only without objection, but with the greatest thankfulness, send their children to schools on Bell's system; and they seem to be fully sensible of the advantages conferred by writing, arithmetic, and above all by a knowledge of English. There are now in Calcutta, and the surrounding villages, 20 boys' schools, containing 60 to 120 each; and 23 girls', each of 25 or 30.' (Vol. ii. p. 300.)

'In the same holy city [Benares] I visited another college, founded lately by a wealthy Hindoo banker, and intrusted by him to the management of the Church Missionary Society,

but what surprised me still more, as I pene-

in which, besides a grammatical knowledge of the Hindoostanee language, as well as Persian and Arabic, the senior boys could pass a good examination in English grammar, in Hume's History of England, Joyce's Scientific Dialogues, the use of the globes, and the principal facts and moral precepts of the Gospel; most of them writing beautifully in the Persian, and very tolerably in the English character, and excelling most boys I have met with in the accuracy and readiness of their arithmetic.' (Vol. ii. p. 388.)

'The different nations which I have seen in India (for it is a great mistake to suppose that all India is peopled by a single race, or that there is not as great a disparity between the inhabitants of Guzerat, Bengal, the Dooab, and the Deccan, both in language, manners, and physiognomy, as between any four nations in Europe) have, of course, in a greater or less degree, the vices which must be expected to attend on arbitrary government, a demoralising and absurd religion, and (in all the independent states, and in some of the districts which are partially subject to the British) a laxity of law, and an almost universal prevalence of intestino feuds and habits of plunder. The general character, however, has much which is extremely pleasing to me: they are brave, courteous, intelligent, and most eager after knowledge and improvement, with a remarkable talent for the sciences of geometry, astronomy &c., as well as for the arts of painting and sculpture. In all these points they have had great difficulties to struggle with, both from the want of models, instruments, and elementary instruction; the indisposition, or rather the horror entertained, till lately, by many among their European masters, for giving them instruction of any kind; and now from the real difficulty which exists of translating works of science into languages which have no corresponding terms.' (Vol. ii. p. 409.)

Even if our space permitted, it would be unnecessary to add to these extracts. The facts and circumstances now mentioned must, we think, satisfy every one that there is nothing in the nature of Indian society, in the institution of castes as at present existing, or in the habits and customs of the natives, to hinder them from advancing in the career of civilisation, commerce, and wealth. 'It may safely be asserted,' says Mr. Hamilton, 'that with so vast an extent of fertile soil, peopled by so many millions of tractable and industrious inhabitants, Hindostan is capable of supplying the whole world with any species of tropical merchandise; the production, in fact, being only limited by the demand.'

3. *Trade with India.*—We had occasion to advert, in former editions of this work, on the difficulties under which the trade with India then laboured in consequence of the duties on sugar, rum, and other Indian products being very much higher than those laid on the same articles when imported from the colonies in the West Indies. It is needless, however, to enlarge on the manifest inexpediency of such policy, or to enter into any lengthened arguments to prove that Governments are bound to treat all who are subject to their authority with the same equal and impartial justice. The discriminating duties now referred to have been all abolished, and the products of India and of our other dependencies come into the home market on the same equal terms. The beneficial influence of this wise and liberal policy has been strikingly evinced in the increased imports of sugar, cotton, indigo, rice, wool &c., from India. These imports have been so very great, that despite the vast increase in the shipments of cotton stuffs and yarn, iron, machinery,

woollens, and other articles of British produce in India, the value of the imports from that country has exceeded the value of the exports to that continent; and hence the heavy drain of bullion from the East. This drain, no doubt, has almost always existed; but the late extraordinary excess of the imports over the exports has proportionally increased its magnitude.

Indigo grows luxuriantly from the 15th to the 30th degree of lat.; but in India the produce in Bengal and Bahar, between 22° and 27° N., and long. 84° and 90° E.; where else the product is inferior. The produce of all the Bengal provinces is estimated at about 60,000,000 lbs., produced about 1,250,000 acres of cultivated land by planters, at an average, farming about 2,500 lbs. each. The prime cost of the article to the grower has been estimated at 1,700,000l.; the gross produce on which, including risk and charges to the grower of exportation, amounts to 40 per cent. The export by sea of indigo from British India, however, fallen in value from 2,093,474l. in 1810 to 1,860,141l. in 1865. The production of indigo in India is confined to Bengal, and the produce, though large, is of inferior quality.

Opium has been, for many years past, an important article of great and rapidly increasing export to China, the Malay Islands, and elsewhere. The exports, chiefly to China, were valued in 1865 at 11,122,746l. This vast importation into China is not being balanced by any corresponding exportation of ordinary merchandise is the cause of the large exports of bullion from it to India. The poppy may be said to take the place in the agriculture that the vine and olive occupy in that of Southern Europe. Its growth within the British territories has been confined chiefly to the Benares districts, and the province of Malwah, where it is extensively cultivated, and yields a large revenue to Government.

The principal export of cotton was formerly to China; but the export to Great Britain has become very considerable, having amounted to 84,101,961 lbs. in 1848, and to no fewer than 614,578,384 lbs. in 1866. This importation amounts to nearly one half in quantity, and nearly a third in value, of our whole annual consumption of cotton wool!

Notwithstanding the vast, and all but unlimited capacities of British India for the production of sugar, its total export in 1838 amounted to more than two-thirds of the exports of that article from the Mauritius! This miserable result is wholly, or almost wholly, ascribable to the inferior quality of East Indian sugars, and to the very rude and imperfect methods which they were prepared. No doubt it was also, ascribable to the circumstance of the Indian sugars having been burdened, previous to 1836, with a duty of 8s. per cwt. over and above the duty charged on West Indian sugars. But in the course of that year Bengal sugars were put on the same footing, in respect of duties, as those of the West Indian colonies; and in a few years a great improvement has been effected in the manufacture of East Indian sugars, the quality of which are now about equal to the best of those from Jamaica and Demerara. In 1865 the imports from the British East Indies amounted to 342,760 cwt.

The abolition of the discriminating duties in favour of Bengal sugars, being founded on justice and equity, it has since been extended to the other British India, and to Ceylon. Nothing, as already observed, could be more unjust or inconsistent with sound principle than to

**EAST INDIA COMPANY**

higher duties on the products of one portion or dependency of the empire than on those of another. The corn of India, both rice and wheat, is inferior to that of most other countries, for the same reason that its cotton and sugar are inferior, both being the produce of a rude husbandry and rude preparation. Rice is scalded instead of being kiln-dried; and wheat is never dried at all, except in the sun. It was supposed that the latter might be largely imported under a free corn trade into England; but it does not appear that there are any real grounds for such an opinion. Indian wheat is, speaking generally, very inferior to British wheat; and it could not be imported, in ordinary years, at less than from 40s. to 44s. per quarter. Its price, free on board at Calcutta, may be taken at 18s. or 17s. per quarter; to which if we add 18s. for freight to England, and 7s. or 8s. for profits and landing charges here, it is abundantly plain that, except in high-priced years, it would not answer to import Indian corn. The value of the rice exported by sea from British India in 1865 was 5,573,537l., while that of wheat was but 110,265l.

talent of Europeans. (These articles are, however, referred to under their several heads.) The trade with India has been enormously developed of late years, partly in consequence of greater attention which has been given to its varied products, of the enterprise which has introduced British capital into the peninsula, both for the construction of railways and for the cultivation of several important articles, and of the great demand which has arisen for Indian cotton, owing to the cessation of American supplies. The discovery of coal in very large quantities will no doubt hereafter stimulate the adoption of artificial fuel in that country for many kinds of industrial enterprise. The following table will exhibit briefly the growth of the trade with India:—

*Statement showing the Value of the General Imports into the United Kingdom from, and Exports thence to, British India from 1856 to 1866.*

Year	Imports		Exports	
	£	Rs.	£	Rs.
1856	17,263,000	11,025,000	12,192,000	12,192,000
1857	18,604,000	12,500,000	12,500,000	12,500,000
1858	14,000,000	17,500,000	17,500,000	17,500,000
1859	15,215,000	17,500,000	17,500,000	17,500,000
1860	15,105,000	17,500,000	17,500,000	17,500,000
1861	21,969,000	17,500,000	17,500,000	17,500,000
1862	31,135,551	17,500,000	17,500,000	17,500,000
1863	48,134,640	17,500,000	17,500,000	17,500,000
1864	52,295,290	20,757,000	20,757,000	20,757,000
1865	37,395,152	20,757,000	20,757,000	20,757,000
1866	36,901,997	18,873,191	18,873,191	18,873,191

*Total Number and Tonnage of Foreign and Native Vessels engaged in the Foreign and Coasting Trades, Entered and Cleared at Ports in British India, in each of the Years ended April 30, 1863, 1864, 1865, and 1866.*

Years ended April 30	Entered		Cleared		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons
	1863	21,307	2,788,958	20,114	2,823,247	41,421
1864	23,718	3,300,073	21,126	3,541,273	44,844	6,841,346
1865	26,823	3,915,710	29,070	4,007,607	55,893	7,923,317
1866	21,870	3,695,364	23,531	3,926,020	45,401	7,621,384

The exports of wool, principally obtained from the north-west provinces, have increased with extraordinary rapidity. The imports of Indian wool into England in 1863, when they began, were so inconsiderable as to amount only 3,721 lbs., whereas in 1861 they had increased to 4,529,320 lbs., and in 1866 to 605,624 lbs. Previously to the discovery of nitrate of soda in America, Bengal and Bahar had a monopoly of the trade in saltpetre; and, contrary to what might have been anticipated, the exports from the latter do not appear to have been much affected by that discovery. Dyes, shell-lac, linseed oil, sal-ammoniac, castor oil, coffee from Malabar, tea from Assam &c., tin, antimony, and pearl sage are other exports worthy attention, and which owe their importance as principally to the commercial enterprise and

*Quantities and Declared Values of the Principal Articles, the Produce of the United Kingdom, Exported to India (ex Singapore and Ceylon) in each of the 3 Years ending with 1866.*

Principal and other Articles	Quantities			Declared Retail Value		
	1861	1865	1866	1861	1865	1866
	£	£	£	£	£	£
And biscuits	—	—	—	248,828	—	—
And ammunition	—	—	—	—	233,609	220,783
And (small)	—	—	—	—	—	—
And	11,154	15,373	15,959	18,430	16,951	18,292
And	115,632	165,615	360,068	7,639	10,206	19,609
And	165,430	190,076	192,470	486,135	550,789	535,438
And	3,380	2,923	2,982	52,771	45,813	41,010
And	1,162	1,318	617	117,731	137,055	140,911
And	235,778	244,928	308,805	1,547,153	1,411,956	1,400,911
And	31,492	184,685	182,165	175,265	875,897	181,080
And	16,357,323	13,602,980	19,819,406	2,190,924	1,482,719	787,908
And	439,256,572	303,780,170	515,401,082	10,279,078	9,809,925	2,166,107
And	—	—	—	96,201	81,325	16,628,116
And	—	—	—	45,958	38,374	49,600
And	—	—	—	84,431	73,392	63,918
And	51,315	59,397	35,532	160,436	151,853	27,908
And	139,977	192,979	225,060	218,358	296,151	137,002
And	1,321	1,405	1,379	1,435,500	1,961,801	2,377,971
And	—	—	—	36,607	30,026	150,070
And	4,112,533	2,610,172	2,053,495	38,096	37,428	35,908
And	—	—	—	46,681	42,029	25,524
And	—	—	—	186,877	111,090	23,416
And	—	—	—	213,988	271,156	82,815
And	28,650	25,867	26,019	286,765	313,364	491,630
And	—	—	—	98,015	88,209	195,696
And	—	—	—	46,826	35,767	86,438
And	183,106	117,807	135,954	45,282	47,165	42,510
And	—	—	—	24,754	94,601	52,481
And	—	—	—	80,988	58,352	16,772
And	—	—	—	98,263	26,800	79,653
And	—	—	—	38,671	12,906	27,733
And	7,213,859	4,111,580	3,818,993	10,766	12,778	59,838
And	—	—	—	44,821	43,675	15,798
And	—	—	—	803,068	21,399	437,013
And	—	—	—	21,707	36,737	28,127
And	60,125	46,139	55,721	58,928	65,443	51,847
And	—	—	—	669,650	653,443	560,840
Total	—	—	—	19,531,637	16,890,415	20,008,490



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4,000,000 by the Levant, and 4,000,000 through the Russian frontier. And though it is generally believed by later authorities that this estimate was beyond the mark, still there is no manner of doubt that the drain of bullion to the East was then, and for several years before and after, of the most formidable dimensions. Gradually, however, it began to diminish, partly in consequence of the decrease in the supplies of bullion from America subsequently to 1808, and partly, and we believe principally, from the great and sudden increase in the exports of cottons and other manufactured goods to India which followed the opening of the trade in 1813. Such, indeed, was the influence of these and other concurring causes, that in 1832 and 1833 the export of bullion from England to India had not merely ceased, but the tide had actually begun to set in the opposite direction. This abnormal state of things did not continue for any very lengthened period. For a

few years there was no very decided movement of bullion either from Europe to the East, or from the East to Europe. But this approach to an equilibrium has wholly passed away. The drain of bullion from Europe to the East has again set in with renewed force, and is become deeper and broader than at any former period; and its continued influx, there is no general rise of prices nor anything to show that India is becoming saturated with the precious metals, or even with silver. On the contrary, the supply appears to be this apparently bottomless abyss be not of itself sufficient to swallow up the largest portion, if not the whole, of the late extraordinary additions to the supply of bullion.

### INDIAN RAILWAYS AND TELEGRAPHS.

The following gives the statistics of Indian Railways and Telegraphs:—

Length of Railways open for Traffic, and the various Traffic Operations, in each Presidency or Province of British India, in each of the Years ended June 30, 1863, 1864, 1865, and 1866.

Presidencies or Provinces	Years ended June 30			
	1863	1864	1865	1866
<b>Length of Line open for Traffic</b>				
Miles				
Bengal	611	813	1,264	1,867
North-west Provinces	222	376	596	690
Madras	592	527	111	1,128
Mysore	652	738	650	690
Punjab	114	111	143	111
Total	43	45	123	255
<b>Passengers Conveyed</b>				
No.				
Bengal	2,996,486	4,434,571	5,582,707	5,011,364
North-west Provinces	477,164	1,639,197	1,865,649	1,456,451
Madras	1,691,238	4,401,453	4,731,993	3,905,793
Mysore	3,756,121	125,089	418,017	293,062
Punjab	125,089	356,426	457,091	371,230
Total	9,392,944	11,631,683	12,866,518	10,180,910
<b>Receipts from Passenger Traffic</b>				
£				
Bengal	189	376,817	674,509	595,588
North-west Provinces	82,081	107,911	166,167	189,025
Madras	111,845	129,662	427,201	404,137
Mysore	211,786	258,938	16,380	6,691
Punjab	13,196	81,598	16,380	27,839
Total	32,193	16,194	17,969	1,278,500
<b>Receipts from Goods Traffic</b>				
£				
Bengal	370,802	558,518	888,119	1,162,823
North-west Provinces	145,988	177,322	213,807	287,632
Madras	108,744	468,374	639,529	1,469,286
Mysore	278,759	415,718	66,107	46,475
Punjab	76,717	14,823	7,581	62,130
Total	922	682	7,581	3,248,656
<b>Total Receipts</b>				
£				
Bengal	626,231	929,335	1,562,628	2,056,411
North-west Provinces	208,069	285,340	380,274	476,667
Madras	220,567	298,036	1,080,730	1,930,723
Mysore	490,515	674,656	580,274	55,166
Punjab	89,913	96,811	82,493	80,269
Total	1,271,515	1,702,945	3,117,675	4,607,256
<b>Working Expenses</b>				
£				
Bengal	325,381	517,298	735,511	919,087
North-west Provinces	114,466	157,460	195,270	207,445
Madras	154,747	165,961	679,035	1,001,508
Mysore	285,176	378,060	78,986	45,887
Punjab	70,919	92,154	19,211	51,874
Total	6,343	12,103	78,986	2,225,995
<b>Net Receipts</b>				
£				
Bengal	302,847	412,037	827,117	1,137,324
North-west Provinces	96,583	127,730	185,001	269,221
Madras	63,820	127,730	397,635	929,115
Mysore	305,599	132,545	3,507	10,083
Punjab	18,994	296,596*	6,099	35,795
Total	4,372	4,763	6,099	2,311,241
<b>Balance of the working expenses of Bombay, Baroda, and Central India Railway, the returns for which have not been received.</b>				
£	695,985	980,608*	1,409,632	2,311,241

Telegraphs.—Length of lines open in 1866, 13,390 miles. Length of lines from Hyderabad 245 miles; from Ferozepore 77 miles.

Scale of Charges for a Group of 20 Words.

miles R.A.		miles R.A.	
Not exceeding 100	1 0	Above 800 and not ex. 1,000	5 0
Above 100 and not ex. 200	1 8	" 1,000 and not ex. 1,600	4 0
200	2 0	" 1,600	3 0
400	2 8	" 2,000	5 0
800	2 0	" 4,000	5 0



though there are such quantities continually coming into it, and none going out.' (On the Government of Hindostan, p. 16.)

The comparative security that was lately enjoyed by the natives in most parts of India may have done something to lessen this habit; but one so widely diffused and so deeply rooted cannot be easily or speedily modified: and though the illegal exactions of their rulers were curbed and partially put down in the countries directly under the Company's government, there was in Oude and many other parts of India, previously to the late insurrection, a great deal of disorder, oppression, and robbery. Since that unfortunate outbreak, insecurity and disorders of all sorts have immeasurably increased, and have proportionally stimulated the practice of hoarding. The rebellion raging in China has had similar effects; and we have been assured by those who, from experience and observation, are well qualified to form an opinion on such a subject, that it may be moderately estimated that in India and China, during the half-dozen years ending with 1857, a sum of not less than 100,000,000 sterling has been consigned to the earth.

The circumstances thus briefly noticed may be considered as the leading causes of the all but perennial drain of bullion to the East. Other circumstances, already adverted to, depending on the secular state of the trade between England and Europe generally and the East, have since 1848 largely increased the export of the precious metals from India. But the further details connected with this part of the subject are reserved for the article SECTORS METALS.

Account of the Imports and Exports of Treasure into and from India during each of the 32 Years ending with 1855-6.

Year	Imports		Exports		Excess of Imports
	£	Rs.	£	Rs.	
1823-24	1,803,283	19,134	1,698,282		105,001
1824-25	2,416,465	108,109	2,038,356		378,109
1825-26	2,836,467	263,554	2,038,356		800,111
1826-27	2,610,101	310,656	1,772,445		837,656
1827-28	3,019,920	315,906	2,299,452		720,468
1828-29	1,915,264	470,523	2,665,014		-749,750
1829-30	1,786,233	566,488	1,219,747		566,488
1830-31	1,811,335	515,076	1,326,259		485,076
1831-32	5,115,292	215,797	3,287,495		1,827,797
1832-33	4,291,518	736,076	4,018,029		273,489
1833-34	3,752,472	1,108,840	2,645,532		1,108,840
1834-35	3,185,659	816,028	2,369,631		816,028
1835-36	2,839,922	715,870	2,124,052		715,870
1836-37	1,975,391	1,416,038	517,353		1,416,038
1837-38	4,694,503	2,559,743	1,664,760		3,029,743
1838-39	3,599,807	971,241	2,628,566		971,241
1839-40	3,811,869	541,285	3,270,584		541,285
1840-41	5,052,059	919,089	4,132,970		919,089
1841-42	6,831,577	1,055,330	5,776,247		1,055,330
1842-43	4,871,526	1,783,296	3,088,230		1,783,296
1843-44	3,428,428	1,267,633	2,160,795		1,267,633
1844-45	4,101,588	601,177	3,500,411		601,177
1845-46	4,413,099	2,253,328	2,159,771		2,253,328
1846-47	3,811,571	813,395	2,998,176		813,395
1847-48	12,412,016	661,938	11,750,078		661,938
1848-49	16,756,965	875,166	15,881,797		875,166
1849-50	10,677,027	1,116,339	9,560,688		1,116,339
1850-51	14,935,977	681,195	14,254,782		681,195
1851-52	26,908,967	1,111,110	25,797,857		1,111,110
1852-53	22,994,540	1,270,635	21,723,905		1,270,635
1853-54	21,255,552	1,114,775	20,140,777		1,114,775
1854-55	36,545,701	2,165,352	34,380,349		2,165,352
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Excess of Imports - - - - - 227,152,017  
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great influx of late years has been due to general increase of exports from India, and in particular for the years 1862-6, in consequence of payments for cotton. The

EAST INDIES

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turers that the habits of a people go for nothing in creating a market; and that enterprise, skill, and capital, and the credit which creates capital, are of no avail in the production of commodities.

In order to facilitate the development of agriculture and the employment of British capital in India, Lord Canning (being Governor-General) issued a series of ordinances in October 1861 for the sale of waste lands, and the redemption of the land tax—the object being to effect the sale of waste lands in perpetuity, discharged from all prospective demand on account of land revenue, and 'permission to redeem the existing sum equal in value to the revenue redeemed.'

III. EAST INDIES, EXTENT, POPULATION, MILITARY FORCE, REVENUE, ETC.

1. Extent, Population, &c. of British Dominions in Hindostan.

Abstract of Area and Population of India, distinguishing British, Native, and Foreign Native States, according to latest Returns. (Issued from India Office, May 1868.)

	Area in Square Miles	Population
British India.		
Under the Governor-General of India in Council	46,454	5,619,955
Lieutenant-Governor of Bengal	199,915	37,505,699
Lieutenant-Governor of North-West Provinces	85,580	30,110,615
Lieutenant-Governor of Punjab	100,411	19,166,157
Chief Commissioner of British Burmah	90,070	2,370,455
Governor of Madras	141,719	21,206,509
Governor of Bombay and Sind	148,539	15,039,106
Chief Commissioner of Central Provinces	22,456	6,508,281
Total under British administration	114,718	9,104,511
Native States	917,292	115,585,769
In Bengal - West Provinces	117,451	4,152,927
Punjab	8,458	2,291,400
Central India	105,412	7,151,538
Madras	185,610	14,622,587
Bombay	116,125	12,880,224
Total of Native States	66,204	6,804,625
Foreign Native States	596,790	47,309,159
Under French Government	188	205,847
Portuguese Government	1,066	315,262
Total Foreign Native States	1,254	517,149
Total Area and Population of India	1,715,335	192,012,137

The principal native states are Hyderabad, the Nizam's dominions, Nepal, Seindia, Holkar, Mysore, Rajpootana, Cashmere, Guzerat, Travancore, &c. These states are, for the most part, surrounded by British territories, and generally administered in accordance with the advice of British agents appointed to reside at their respective courts. It may be thought that their entire absorption into the British dominions would be desirable; but though this would most likely be beneficial in the end, it could not fail to occasion much discontent. The annexation of Oude by Lord Dalhousie, notwithstanding its government was of the worst possible description, is believed to have been a prominent cause of the late rebellions, and it is right to add that the annexation policy of that distinguished statesman, which was looked on with so much favour, is now repudiated by the most eminent authorities both in this country and India.

In 1805, according to the official returns, the total number of British-born subjects in Hindostan was 31,000. Of these, 22,000 were in the army as officers and privates; the civil officers of Government and mariners who resided in India under covenant, about 5,000; the officers and practitioners in the courts of justice, 300; the remaining 1,700 consisting of adventurers who had smuggled themselves out in various capacities. Since the date above mentioned no detailed reports have been published; but there is no reason to believe that down to the outbreak of 1857 the total number of British subjects in Hindostan exceeded 45,000 or 50,000, if we count the removal of the restrictions on their settlement having, as already seen, added very few to the previous number. Now (1868), however, they are estimated at about 100,000.

The army required for the protection of these extensive provinces, and for the retaining them under due subordination, has been, with the exception of that of Russia, probably the largest standing army in the world. In 1796 it amounted to 55,000; in 1864, 1865, and 1866 it consisted of the following effective force, in British, native, and contingent native troops:—

Return of the Actual Strength of Her Majesty's Forces (Royal and Local Troops) in British India, May 1, 1864, on April 1, 1865, and on March 1, 1866.

Presidencies	European Commissioned and Non-commissioned Officers and Men			Native Commissioned and Non-commissioned Officers and Men			Total	
	1861	1865	1866	1861	1865	1866	1864	1865
	No.	No.	No.	No.	No.	No.	No.	No.
Bengal, including North-West Provinces and Punjab	45,181	42,128	39,377	61,619	43,796	43,202	106,805	85,884
Madras	15,585	16,002	14,618	49,475	46,898	46,517	65,428	62,653
Bombay	14,096	15,740	15,994	10,271	27,826	27,254	54,567	48,255
Total	74,862	71,880	67,965	151,765	118,519	116,973	226,800	196,792

N.B.—Including the Civil Force not under the Orders of the Commander-in-Chief.

The contingent troops of the Native States commanded by British officers, and available, under treaties, to the British Government, may be estimated at about 25,000 men, chiefly furnished by the Nizam, Seindia, Mysore, and the Guicowar. Each presidency has its separate army, commanded-in-chief, staff &c.; but the commander-in-chief of the Supreme Government has a general authority over the armies of all the presidencies. Among the native troops, called *Sepoys*, the infantry consists chiefly of Hindoos, and the cavalry fauty consists chiefly of high-caste men, but in the Madras and Bombay armies men of all castes and denominations were enlisted. The troops are not

raised by any forced levy or conscription; and service in India is quite voluntary, and has become so popular that each regiment has had a number of supernumeraries ready to take the place of such soldiers as die or leave. The men here well paid, clothed, and fed. Corporal punishment of natives is not allowed, imprisonment being the Indian as in the French army, the engine by which discipline is kept up. The mutiny in 1857 the native army has considerably reduced and reorganised, and native artillery has been abolished. The regular army in India is now entirely European.

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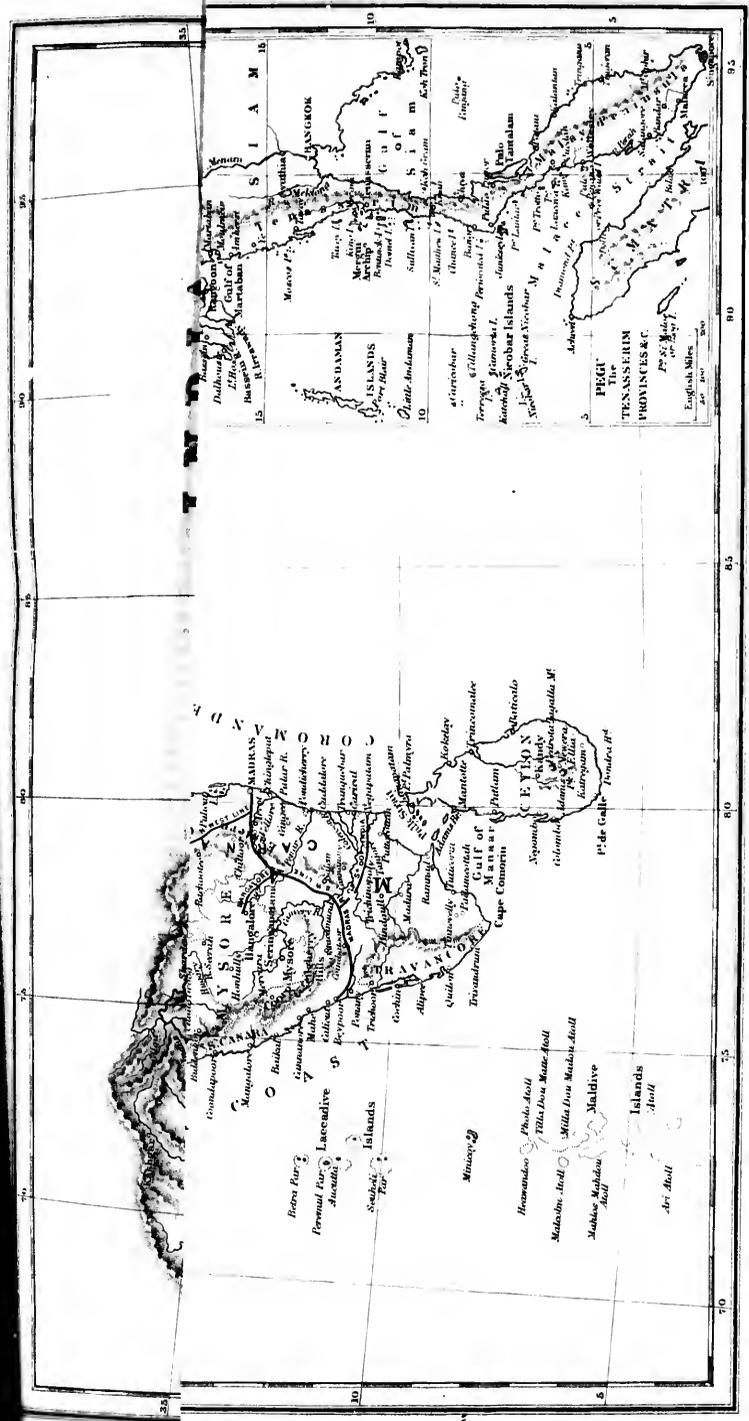
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Total		
	1865	1866
65	85,914	1,025,000
58	62,953	1,025,000
167	148,867	1,025,000
628	1,98,103	1,025,000

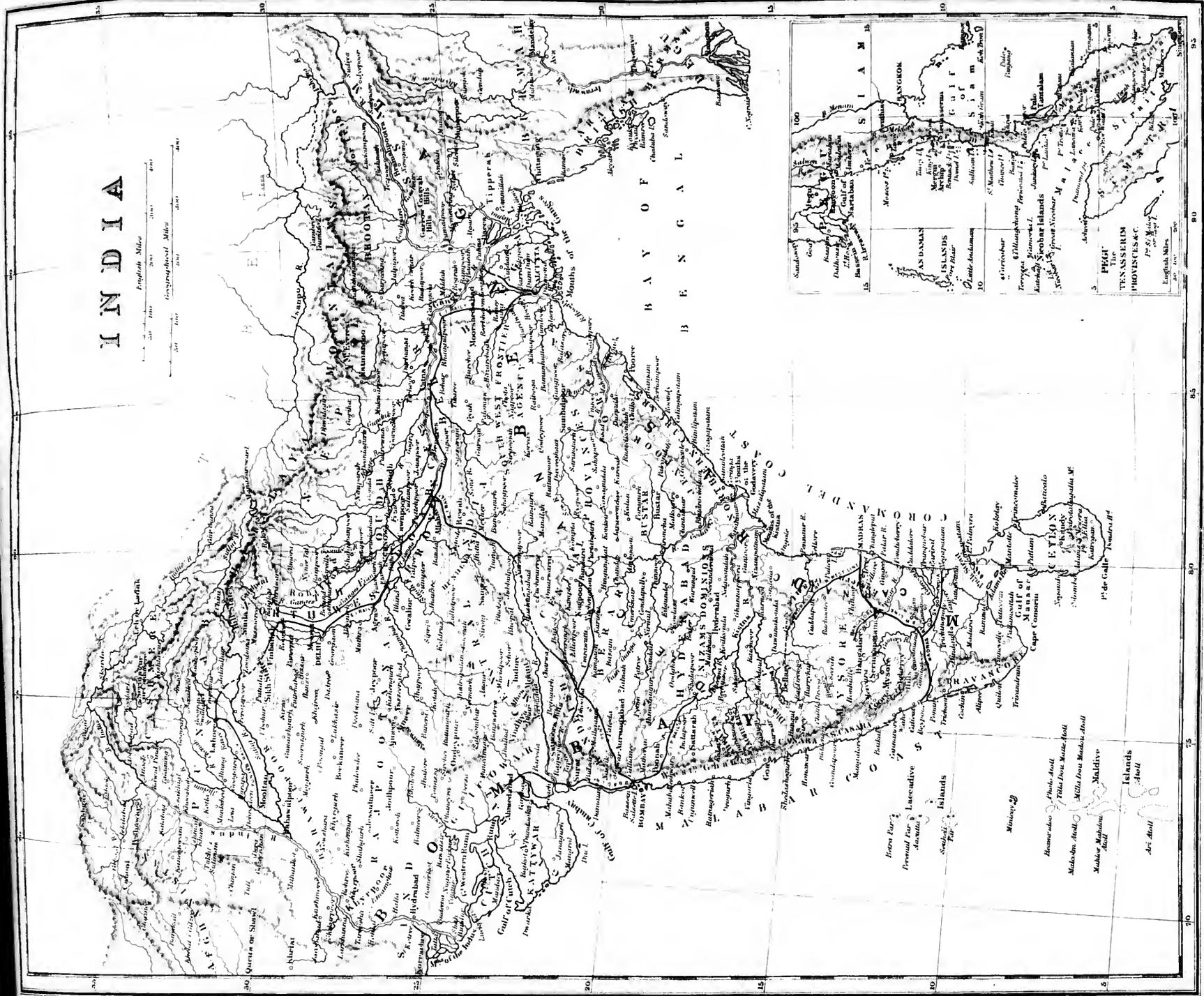
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London: Longman & Co.

# INDIA

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before the Parliamentary committees, in 1832 and 1833, as to the real state of the Indian army, and the degree of dependence to be placed on it; but none could have anticipated the entire, or all but the entire, defection of the Bengal native army, and the bloodshed and calamities by which it was followed. If we wish to retain possession of this country, we must in future depend less on the native, and more on the European force distributed over its surface.

Two systems are open to us, on either of which we may attempt permanently to establish our power in India, viz.: 1st. By maintaining the laws and customs, and outwardly respecting the religions and other prejudices, of the natives; and 2nd. By vigorously labouring to subvert all these, and to effect a moral and religious revolution by, in as far as possible, Anglicising the country. We have hitherto acted on the first of these plans; and though its results have not certainly been of the most satisfactory description, it is the safest and most economical, the most in accordance with the tolerant spirit of the age, and it might, in the course of centuries, if our ascendancy were so far prolonged, lead to nearly the same results as the second. The latter, however, provided it were skillfully conducted, and that we were prepared to maintain a force in India adequate to suppress any disturbance that might take place, particularly at the outset of the plan, would accomplish its object in a much shorter period, and would probably be, in the end, the best for all parties, and more especially for the natives.

*Advantage of India to England.*—The popular opinions in regard to the vast advantages derived from England from the government of India are as numerous as can well be imagined. It is doubtful, indeed, whether its advantages compensate for its disadvantages. India never has been, and never can be, a field for the resort of ordinary emigrants. It has, it is true, furnished an outlet for considerable numbers of well-educated young men of the middle classes, but the fortunes of those who return to spend the evening of their days in England are far short of compensating for the outlay on themselves and on those who think that the legitimate trade we carry on with India (we say legitimate, for a considerable portion of our trade with India is carried on in violation of the laws of England) is greater than it would have been had India continued subject to its native rulers; neither is it any means improbable that the large public debt of India will, in the end, have to be partially provided for by this country.

high destiny and glory of providing for the generation and well-being of 190 or 200 millions of human beings; but we have yet to learn whether this be not an undertaking that is greatly beyond our means, and whether, in attempting to elevate a debased and enervated race (supposing that we really make such an attempt) 12,000 miles from our shores, we may not be sapping the foundations of our own power and greatness.

Nothing during the outbreak of 1857 has been more extraordinary than the fact of its having failed to bring forward a single native chief of talent. In every contest the inferiority even of the best drilled sepoy, when brought face to face with Europeans, has been most striking. No superiority of numbers gave them a chance of success. They continue to be precisely what they were at Plassey and Assaye.

*2. Revenue and Expenditure of British India.*—The far greater part of the revenue of India is at present, and has always been, derived from the soil. The land has been held by its immediate cultivators generally in small portions, and have been under the obligation of making an annual payment to Government of a certain portion of the produce of their farms, which might be increased or diminished at the pleasure of the sovereign, and which has, in almost all cases, more than a bare subsistence. Under the Mohammedan government, the gross produce of the soil was divided into equal or nearly equal shares between the ryots, or cultivators, and the Government. We regret we are not able to say that the British Government has made any material deductions from this enormous assessment. Its oppressiveness, with the impossibility of assessing it on anything like a fair and sound principle, have done far more than anything else to prevent our ascendancy in India, and the comparative tranquillity and good order we have introduced, from having the beneficial effects that might have been anticipated. The cultivators throughout Hindostan are proverbially poor; and till the amount of the assessment to which they are subject be effectually reduced, and they are secured from the interference of the revenue officers, they cannot be otherwise than wretched. They are commonly obliged to borrow money, to buy their seed and carry on their operations, at a high interest, on a species of mortgage over the ensuing crop. Their only object is to get subsistence—to be able to exist in the same obscure poverty as their forefathers. If they succeed in this, they are satisfied. Mr. Colebrooke, whose authority on all that relates to India is so deservedly high, mentions that the

Abstract View of the Gross Revenues of India for the Years 1862-67.

Heads of Revenue	1862-63	1863-64	1864-65	1865-66	1866-67
Land Revenue	19,270,117	20,303,423	20,095,061	20,173,897	19,156,410
Land cesses	520,580	504,413	551,537	507,082	511,310
Land contributions	1,951,080	2,000,270	2,224,036	2,211,871	2,119,789
Land income taxes	725,753	715,990	681,114	700,832	699,247
	1,882,212	1,485,622	1,281,817	692,211	699,247
	2,164,366	5,384,061	2,296,929	2,279,857	221,227
	5,214,120	5,035,476	5,323,581	5,312,119	2,050,864
	8,055,476	6,231,999	7,651,405	8,512,261	5,345,910
	1,189,538	1,735,216	1,972,098	1,994,632	6,803,113
Telegraph	371,116	569,759	377,839	491,551	1,305,773
Post and police (fees, fines)	425,398	459,882	362,533	406,166	239,591
Post dues &c.	75,285	97,762	99,099	190,163	496,139
	494,842	631,798	675,996	790,529	228,513
	189,016	707,715	508,095	198,890	66,658
	447,553	461,785	588,273	917,165	538,139
Fort (military)	401,057	615,903	469,509	2,368,661	3,144,181
	802,509	747,431	733,567	728,410	737,368
	315,061	72,277	247,624	216,221	235,513
Total for India	15,143,732	44,615,032	45,652,807	48,935,490	42,192,433



Account of the Public Debt of British India, distinguishing that raised in England, with the Amount of Interest paid, on the 30th April of each Year,

Years ended April 30	In India		In England		Total	
	Debt	Interest	Debt	Interest	Debt	Interest
1810	32,750,697	1,543,950	1,731,300	51,828	34,482,000	1,595,778
1811	34,187,827	1,612,800	1,731,300	61,581	35,919,127	1,674,381
1812	36,670,173	1,737,093	1,731,300	61,373	38,401,473	1,798,466
1813	38,741,310	1,831,163	1,731,300	62,206	40,472,610	1,893,369
1814	40,119,151	1,902,200	1,731,300	65,563	41,850,451	1,968,763
1815	41,203,150	1,914,700	2,209,600	61,339	43,412,750	2,006,039
1816	41,592,219	1,962,445	2,209,600	60,271	43,801,819	2,031,716
1817	41,884,625	2,112,953	2,209,600	70,010	44,084,225	2,182,963
1818	45,937,613	2,181,561	2,209,600	10,984	48,137,213	2,192,545
1819	47,451,018	2,241,410	2,209,600	150,509	49,660,518	2,391,919
1820	50,035,258	2,285,216	2,209,600	175,725	52,244,858	2,467,944
1821	51,159,815	2,413,476	2,209,600	144,950	53,369,415	2,588,426
1822	51,215,193	2,431,300	2,209,600	124,092	53,414,793	2,552,392
1823	52,613,091	2,470,133	2,209,600	117,509	54,822,691	2,569,642
1824	49,769,876	2,025,877	2,209,600	112,012	52,039,476	2,137,889
1825	51,815,528	2,035,815	2,209,600	153,518	54,025,128	2,189,333
1826	53,849,922	2,180,601	2,209,600	152,016	56,059,522	2,341,619
1827	55,546,652	2,210,300	2,209,600	155,494	57,756,252	2,397,094
1828	60,701,084	2,496,672	2,209,600	159,166	62,910,684	2,655,838
1829	65,088,631	2,625,625	2,209,600	172,739	67,298,231	2,818,367
1830	71,969,160	2,493,327	2,209,600	266,861	74,178,760	2,785,188
1831	71,001,081	2,524,104	2,209,600	1,661,633	73,200,681	4,186,811
1832	72,418,820	2,478,625	2,209,600	1,026,008	74,628,420	5,212,819
1833	74,626,135	2,551,680	2,209,600	1,486,016	76,835,735	6,708,835
1834	74,207,215	2,093,250	2,209,600	1,372,999	76,406,815	3,466,249
1835	74,334,435	2,091,861	2,209,600	1,249,441	76,544,035	3,341,301
1836	74,527,251	2,527,651	2,209,600	1,212,765	76,736,851	4,740,416

Account of the Public Registered Debt of India as it stood on March 31, 1867, and the Rate of Interest borne by the same.

Registered Debt	Amount of Debt	Rate of Interest	Annual Amount of Interest
			£
India and Bengal:			
Loans	360,721	6 per cent.	21,643
Debt	10,665,130	5 per cent.	533,256
Debt	20,875,033	5 per cent.	1,043,752
Debt	371,210	4 per cent.	14,848
Debt	31,680,986	4 per cent.	1,267,239
Debt	80,823	3 per cent.	2,425
Loans transferred from Fort Marlborough	763	10 per cent.	76
Treasury notes	1,131,180	6, 5, 4, and 3 per cent.	49,464
Treasury bills	9,560	3 and 2 per cent. per diem	154
Loans on account of the Mysore Princes	405,980	4 per cent.	16,239
Gov. medical &c. funds	2,551,614	8 and 4 per cent.	15,615
Miscellaneous deposits	181,479	8, 4, and 3 per cent.	6,203
<b>Total</b>	<b>67,999,839</b>		<b>3,447,904</b>
And:			
Treasury notes	11,550	5 per cent.	574
Police superannuation fund	11,177	4 per cent.	503
<b>Total</b>	<b>22,727</b>		<b>1,077</b>
Central Provinces:			
Police superannuation fund	16,913	4 per cent.	761
And:			
Treasury notes	6,690	5 per cent.	331
Police superannuation fund	15,513	4 per cent.	608
<b>Total</b>	<b>22,503</b>		<b>912</b>
And West Berar:			
Police superannuation fund	3,201	4 per cent.	111
And Western Provinces:			
Miscellaneous deposits	20,000	4 per cent.	800
Treasury notes	41,650	5 per cent.	2,082
Police superannuation fund	34,824	4 per cent.	1,392
<b>Total</b>	<b>96,474</b>		<b>4,274</b>
And:			
Treasury notes	14,300	5 per cent.	715
Police superannuation fund	20,927	4 per cent.	901
<b>Total</b>	<b>35,227</b>		<b>1,616</b>
And:			
Treasury notes	15,400	8 per cent.	1,232
Treasury bills	8,050	6 per cent.	483
Military, and medical funds	1,106,481	6, 5, and 4 per cent.	60,201
Miscellaneous deposits	152,213	6, 5, and 4 per cent.	6,172
Treasury notes	579,132	5 and 4 per cent.	23,475
<b>Total</b>	<b>1,861,276</b>		<b>94,563</b>
And Sind:			
Police superannuation fund	2,016,721	8, 6, 5, 4, and 4 per cent.	115,155
Miscellaneous deposits	415,571	6, 5, 4, and 3 per cent.	18,579
Treasury notes	8,750	5, 4, and 3 per cent.	436
Treasury bills	210	5 per cent. per diem	12
<b>Total</b>	<b>2,441,252</b>		<b>134,182</b>
<b>Grand Total</b>	<b>72,226,815</b>		<b>4,313,575</b>

Calculations of the books for 1865-66 have been taken as the basis of these figures: differences will appear on a comparison with the books for 1866-67, in which the amounts were posted from separate debt statements, and not from the books, the books for 1865-66 not being ready.

...ever much these accounts of the financial state, that while in power, though they occasionally acted on erroneous principles, they always exerted an exaggerated ideas entertained respecting themselves to enforce economy in every branch of their expenditure, and to impose and collect their revenues in the best and cheapest manner. But as by foreigners, it will excite no surprise in the mind of anyone who has ever reflected on the subject. It is due indeed to the directors to it would be idle to suppose that they should

EAST INDIES

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Total Amount of the Public Debt of British India (exclusive of East India Company's Stock Debt, distinguishing the Debt Raised in England and India respectively, with the Amount of Interest Paid thereon, in each of the Years 1863-1866 ended April 30, and 11 Months ended March 31, 1867.

Year	Raised in India					Interest Paid	Raised in England			Total	
	Description of Debt				Total		Description of Debt		Interest Paid	Total	Interest Paid
	Registered Debt	Treasury Notes	Temporary Loans	Deposits, including the Civil, Military, and other Funds &c.			Hand Debt	Debt due and other Loans &c.			
1863	£ 61,581,491	£ 1,655,118	£ 165,765	£ 5,940,060	£ 72,342,434	£ 3,551,680	£ 3,116,000	£ 28,725,100	£ 1,156,916	£ 101,495,535	£ 4,708,596
1864	£ 61,255,355	£ 1,755,091	£ 417,437	£ 7,740,576	£ 72,168,459	£ 3,693,420	£ 3,111,000	£ 33,195,600	£ 1,374,999	£ 98,588,115	£ 5,073,499
1865	£ 61,099,185	£ 1,962,411	£ 411,111	£ 5,881,108	£ 72,354,815	£ 3,361,461	£ 3,096,000	£ 25,029,100	£ 1,251,141	£ 98,477,555	£ 4,612,601
1866	£ 63,135,816	£ 1,875,455	£ 399,183	£ 6,911,798	£ 72,322,052	£ 3,397,651	£ 3,067,500	£ 28,879,100	£ 1,219,765	£ 98,585,511	£ 4,612,416
1867	£ 63,641,973	£ 1,906,868	£ 429,213	£ 6,576,767	£ 72,554,821	£ 3,115,373	£ 3,009,000	£ 24,538,000	£ 1,306,253	£ 102,068,115	£ 4,421,626

ever have succeeded in entirely rooting them out. How can it be imagined that strangers sent to India, conscious that they are armed with all the strength of government, placed under no real responsibility, exempted from the salutary influence of public opinion, fearing no effectual exposure through the medium of the press, and anxious only to accumulate a fortune, should not occasionally abuse their authority? or that they should manage the complicated and difficult affairs of a vast empire, inhabited by a race of people of whose language, manners, and habits they are almost wholly ignorant, with that prudence, economy, and vigilance, without which it were idle to expect that any great surplus revenue should ever be realised?

**EBONY** (Ger. ebenholz; Dutch, ebbenout; Fr. ébène; Ital. ebano; Russ. ebenowoderowo; Lat. ebenus). A species of wood brought principally from the West and East Indies. It is exceedingly hard and heavy, of great durability, resembling a very fine polish, and on that account used in mosaic and other inlaid work. There are many species of ebony. The best is that which is jet black, free from veins and rind, very compact, astringent, and of an acrid, pungent taste. This species (denominated by botanists *Diospyros Ebenus*) is found principally in Madagascar, the Mauritius, and Ceylon. The centre of the tree is said to be valuable. In 1866 only of the tree is said to be valuable. In 1866 we imported 1,922 tons of ebony, principally from the West coast of Africa, Ceylon &c. Besides the black, there are red, green, and yellow varieties; but the latter are not so much esteemed as the former. Cabinet-makers are in the habit of substituting pear-tree and other woods dyed black for genuine ebony: these, however, want its polish and lustre, though they hold glue better. The price of ebony varied in the year 1866 from 8l. 13s. 6d. to 9l. 12s. 6d. the ton. The duty, 1s. per ton, was repealed from March 26, 1866.

**EEL** (*Anguilla marmorata* of Linnaeus). A fish, the appearance of which is too well known to require any description. It is a native of almost all the waters of Europe, frequenting not only rivers, but stagnant pools. Eels are in many places extremely abundant, particularly in Holland and England. Several ponds are appropriated in England to the raising of eels, and considerable numbers are taken in the Thames and other rivers. But a large portion of the eels used in England are furnished by Holland. Indeed, very few except Dutch eels are ever seen in London; and even Hampton and Richmond are principally supplied by them. The trade is carried on by Dutch traders, who employ in it several small vessels, by means of which the market is regularly and amply provided for. A cargo of eels is supposed to average from 15,000 to 20,000 lbs. weight, and was charged down to 1853, when it was repealed,

with a duty of 13l. 13s. In 1866, 13,710 cwt. of eels were imported from Holland, valued at 43,187l.

**EGGS** (Fr. œufs; Lat. ova). Eggs differ in size, colour, taste &c. according to the different species of birds that lay them. The eggs of poultry are those most commonly used as food, and form an article of very considerable importance, a commercial point of view. The eggs of plovers, which are esteemed a great delicacy, are also extensively used in London during a part of the season, and make, indeed, a perpetually recurring dish at fashionable dinners. Vast quantities of the eggs of poultry are brought from the country to London and other large towns, besides being very largely imported from the Continent. At this moment the trade in eggs forms no inconsiderable branch of our trade with France, and affords constant employment to a number of small vessels.

In 1854 the duty on eggs was fixed at 8d. per cubic foot (about 200) on those brought from a foreign country, and at 4d. per ditto on those brought from a British possession. This duty, which produced 24,721l. in 1858, was repealed that year.

In 1866 we imported no fewer than 438,878 cwt. of eggs, almost entirely from France, Belgium, Spain, but especially France, which furnished by far the largest portion of the entire supply. The eggs were valued at 1,105,653l. They are reckoned by the great hundred of 120.

Plovers' eggs are found in most parts of England, but especially in the fens. Considerable supplies are also derived from Holland. Eggs are reckoned at 40 cubic feet to the ton.

**EJOO.** [GOMMUT.]

**ELEMI** (Fr. résine élémi; Ger. oelbaumharz; Span. gomma de limon). A concrete, resinous substance, the botanical source of which is undetermined; procured originally from the Levant, and now supplied chiefly from Manilla. It is the most part in pharmacy. It is a soft, resinous mass, becoming harder and more resinous by age, of a yellowish-white colour, and a rather fragrant, fennel-like odour, almost entirely soluble in rectified spirit. (*British Pharmacopœia of the Medical Council, 1867.*)

**ELEPHANTS' TEEETH.** Under 20 lbs. weight they are called serivellas. In Bengal and Andras they are reckoned at 16 cwt. to the bulk, 50 cubic feet in cases; Bombay 18 cwt. bundles, 20 cwt. loose. (Stevens *On Stone* [Ivory].)

**ELM** (*Ulmus*). A tree common in Britain, said to have been introduced from a country by the Crusaders. The tree does not grow in low and moist soils. It attains to a great age and lives to a great age: its trunk is often crooked, and it is of slow growth. The

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of the heart-wood of elm is generally darker than that of oak, and of a redder brown. The sap-wood is of a yellowish or brownish white, with pores inclined to red. It is in general porous, and cross-grained, sometimes coarse-grained, and has no larger septa. It has a peculiar odour. It twists and warps much in drying, and shrinks very much both in length and breadth. It is difficult to work, but is not liable to split, and bears the driving of bolts and nails better than any other timber. In Scotland, chairs and other articles of household furniture are frequently made of elm wood; but in England, where the wood is inferior, it is chiefly used in the manufacture of collars, casks, packing cases, pumps, pipes &c. It is appropriated to these purposes from its great durability in water, which also occasions its extensive use as piles and planking for wet foundations. The nares of wheels are frequently made of elm; those of the heavy waggons and drays of London are made of oak, which supports a heavier weight, but does not hold the spokes so firmly. Elm is said to bear transplanting better than any other large tree. (Tredgold's Principles of Carpentry, pp. 201-203 &c.)

**ELSINEUR or HELSINGOR.** A town of Zealand, on the Sound, about 22 miles north of Copenhagen, lat. 56° 2' 17" N., long. 12° 38' 2" E. Population 8,442 in 1861. Adjacent to Elsinour is the castle of Cronborg, which commands the

entrance to the Baltic by the Sound. All merchant ships passing to and from the Baltic were obliged, previously to 1857, to salute Cronborg Castle by hoisting their colours when abreast of the same; and no merchant ship was allowed to pass the Sound without clearing out at Elsinour, and paying toll, according to the provisions in the treaties to that effect negotiated with Denmark by the different European powers. The first treaty with England having reference to this subject is dated in 1450. The Sound duties had their origin in an agreement between the King of Denmark on the one part, and the Hanse Towns on the other, by which the former undertook to construct light-houses, landmarks &c. along the Kattegat, and the latter to pay duty for the same. The duties have since been varied at different periods; but being a serious obstruction to navigation, and much objected to, they were finally repealed in 1857, on compensation being made to Denmark according to the subjoined treaty. The accompanying plan of the Sound is taken from the Admiralty Chart, compiled by Danish authorities.

*Navigation of the Baltic.*—This is exhibited in the following account of the number of ships that passed (going and returning) the Sound at different periods, previous to the repeal of the dues, from 1777 to 1856, specifying the countries to which they belonged:—

Countries	1777	1780	1785	1790	1811	1816	1820	1825	1830	1835	1840	1851	1856
British Islands	4,582	1,701	2,537	3,771	2,319	1,814	5,397	5,186	4,274	2,472	4,071	4,811	4,772
Holland	2,267	2,028	1,571	2,099	2,511	876	853	630	1,227	654	917	2,069	1,908
Sweden	1,173	1,880	2,155	370	2,759	2,042	1,549	1,519	1,183	991	1,764	2,255	2,538
Denmark	1,110	1,311	1,287	1,586	476	787	792	803	734	732	974	1,518	2,508
Prussia	472	61	1,338	299	1,053	1,044	1,544	2,391	2,253	1,938	2,996	2,664	2,336
Russia	47	43	114	6	495	399	542	355	105	625	811	1,047	422
United States	..	..	20	41	..	168	169	620	152	126	117	131	94
France	..	21	..	29	125	12	16	63	72	199	149	239	288
Spain	..	19	..	15	32	..	..	..	..	..	..	..	..
Hanse	..	..	..	..	..	..	..	..	..	..	..	..	..
Imperial (Austria)	..	..	..	..	..	..	..	..	..	..	..	..	..
Danzig	..	231	174	161	..	..	..	..	..	..	..	..	..
Teikoburg	..	..	..	..	..	..	..	..	..	..	..	..	..
Helsingor	..	..	..	..	..	..	..	..	..	..	..	..	..
Lübeck	..	75	82	..	..	..	..	..	..	..	..	..	..
Wismar	..	82	110	176	..	..	..	..	..	..	..	..	..
Stettin	..	22	31	61	101	..	..	..	..	..	..	..	..
Stockholm	..	29	104	101	339	..	..	..	..	..	..	..	..
Switzerland	..	12	21	28	28	..	..	..	..	..	..	..	..
Germany	..	..	..	..	..	..	..	..	..	..	..	..	..
Other places	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	9,655	8,291	10,208	9,742	8,186	8,871	10,926	15,140	15,212	10,255	15,662	19,919	20,680

the statements in this table for the years 1777 to 1780 are taken from the valuable work entitled *Voyage de Deux Français au Nord de l'Europe* (i. 369); the other years are taken from the reports by the British consul at Elsinour, and other sources. We have seen no two returns of shipping that pass the Sound which quite differ, though the differences are not very material. The British consul first began to send returns of shipping in 1831.

The Oder, Vistula, and other great rivers which empty into the Baltic, and the many large cities which are built on or near its shores, have made it the theatre of a very extensive commerce. In respect of importance was much increased by the introduction of Petersburg, the trade of which is of great extent and value. Raw products, such as iron, copper, tin, lead, flax, hemp, flax, tallow, linseed, bristles, wool &c., constitute the principal articles of export from the Baltic ports; and the principal articles of import, such as salt, coal &c. being among the principal articles of import. The leading ports, setting out from the Sound, are Copenhagen, Lübeck, Wismar, Danzig, Swinemünde, Dantzic (which, next to Copenhagen, is the principal European port for the export of wheat), Königsberg, Memel, Riga,

Petersburg, and Stockholm. The United Kingdom has by far the largest portion of the foreign trade of the Baltic. This is evident from the fact of the British ships passing the Sound greatly exceeding those of any other country. In 1857 we imported from the Baltic about 1,580,000 qrs. wheat, 980,000 do. barley, and 1,260,000 do. oats; and in 1856, 14,876,500 cwt. of wheat, 4,314,722 cwt. of barley, and 6,172,870 cwt. of oats, exclusive of very large quantities of tallow, hemp and flax, timber, linseed, bristles &c.

The harbour as well as the railway bedding or patent slip, which were finished in the autumn of 1863, were (says Mr. Hudson, the United States' Consul at Elsinour) 'of the greatest benefit to the town and its shipping. The harbour contains about 200,000 square feet, with a depth of 18 feet. The docks are 1,740 feet in length, with plenty of good wharfage. The depth at the mouth of the harbour is 18 feet, with a breadth of 128 feet. The patent slip is an inclined plane of 692 feet in length, being 265 feet above and 427 feet under the water, and a stationary engine raises the vessel on the bedding. Vessels of 1,000 tons burden are raised with the greatest facility, and 2 good-sized vessels can occupy the bedding at the same time. It is well worthy the attention of masters and owners



of vessels. Repairs are generally done with despatch. (For new Danish laws as to measurement of vessels, see COPENHAGEN.)

**Pilotage &c.**—When ships come into Elsinour roads, or lie wind-bound near the Lappen, water-men come on board to enquire if the master will be carried ashore to clear; and in rough weather it is always best to make use of their services, their boats being generally very safe. The Danish authorities have published a table of rates, being the highest charge that can be made by the boat-men upon such occasions; but captains may bargain with them for as much less as they please. Most ships passing the Sound take on board pilots, the signal for one being a flag at the fore-topmast-head. Those bound for the Baltic take a pilot at Elsinour, who either carries the ship to Copenhagen, or Dragoe, a small town on the south-east extremity of the Island of Amack, where she is clear of the grounds. Those leaving the Baltic

take a pilot from Dragoe, who carries the ship to Elsinour. Sometimes, when the wind is fresh from the E. and S.E., it is impossible for a ship bound for Copenhagen or the Baltic to double the point of Cronborg; and in that case an Elsinour pilot is sometimes employed to moor the ship in the channel towards Kull Point on the Swedish shore, in lat. 56° 18' 3" N., long. 12° 26' E. But this does not often happen, as the Danish Government employ steam tugs; for the special purpose of bringing ships, in adverse weather, round Cronborg Point. The pilots are regularly licensed, so that, by employing them, the captain's responsibility is at an end. Their charges are fixed by authority, and depend on the ship's draught of water. We subjoin a copy of the tariff applicable to pilots taken on board at Elsinour to carry ships to Dragoe, Copenhagen, or Kull Point, with the sums both in silver and in Rigsbank paper dollars.

Pilotage from April 1 to September 30.

Ships drawing water	Dragoe				Copenhagen						Kull Point			
	Silver		Paper		Silver		Paper		Silver		Paper			
	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.		
Under 8 feet	11	78	12	18	9	10	9	10	26	5	73	2	83	
Between 8 and 9	14	7	15	56	11	2	11	75	6	75	6	43		
9 — 10	15	84	16	56	11	94	12	53	7	55	9	25		
10 — 11	17	22	17	71	12	91	13	32	8	41	10	30		
11 — 12	18	56	19	16	13	87	14	32	9	55	9	43		
12 — 13	19	59	20	51	14	51	15	31	10	25	10	36		
13 — 14	21	28	21	51	15	28	16	30	11	16	11	29		
14 — 15	22	62	22	43	16	75	17	29	12	97	12	36		
15 — 16	24	65	23	51	17	56	18	22	13	84	13	39		
16 — 17	26	68	24	57	18	56	19	16	14	15	14	39		
17 — 18	28	71	25	43	19	22	20	72	15	41	15	39		
18 — 19	29	47	26	61	20	0	21	58	16	59	16	39		
19 — 20	30	47	27	72	21	57	22	46	17	74	17	39		
20 — 21	32	86	28	80	22	59	23	52	18	59	18	39		
21 — 22	34	86	29	80	23	40	24	52	19	51	19	39		
22 — 23	36	83	30	1	24	40	25	52	20	51	20	39		

Pilotage from October 1 to March 30.

Ships drawing water	Dragoe				Copenhagen						Kull Point			
	Silver		Paper		Silver		Paper		Silver		Paper			
	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.		
Under 8 feet	11	92	15	40	11	57	11	70	7	53	7	53		
Between 8 and 9	16	75	17	50	12	61	12	61	8	73	8	73		
9 — 10	18	56	19	16	13	88	14	64	9	92	9	92		
10 — 11	20	57	21	2	15	88	15	64	10	16	10	16		
11 — 12	22	19	22	86	16	47	16	47	11	25	11	25		
12 — 13	24	0	23	72	17	73	17	73	12	36	12	36		
13 — 14	27	59	24	58	18	58	18	58	13	47	13	47		
14 — 15	29	40	25	12	19	4	20	99	14	72	14	72		
15 — 16	32	12	26	52	21	57	21	57	15	95	15	95		
16 — 17	34	88	27	88	22	59	22	26	16	17	16	17		
17 — 18	37	32	28	12	23	57	23	57	17	18	17	18		
18 — 19	40	24	30	88	24	79	24	79	18	48	18	48		
19 — 20	42	92	31	48	25	60	25	60	19	48	19	48		
20 — 21	45	61	32	47	26	4	26	4	20	79	20	79		
21 — 22	48	26	33	49	27	58	27	58	21	88	21	88		
22 — 23	48	26	34	49	28	45	28	45	22	8	22	8		

N.B.—When a pilot is taken on board at Dragoe to carry a ship to Elsinour, the charge is the same as that given under the first head of the above column. (*Archives du Commerce*, tome iii. p. 145.)

The *Moneys, Weights, and Measures* of Elsinour are the same as those of Copenhagen (which see), except that the rixdollar is divided into 1 ort instead of 6 mares; thus, 24 skillings make 1 ort, and 4 Orts 1 rixdollar.

**Treaty for Abolition of Sound Dues agreed to at Copenhagen, on March 14, 1857, by the following Powers:**—The Queen of the United Kingdom of Great Britain and Ireland, the Emperor of Austria, the King of the Belgians, the Grand Duke of Oldenburg, the King of Hanover, the Grand Duke of Mecklenburg-Schwerin, the King of Denmark, the King of the Netherlands, the King of Prussia, the Emperor of Russia, the King of Sweden and Norway, and the Senates of the Free Hanseatic Cities of Lübeck, Bremen, and Ham-

burg, on the one part; and the King of Denmark, on the other part.

I. The King of Denmark engages to the Queen of the United Kingdom of Great Britain and Ireland &c.—

1. Not to levy any duty of customs, tonnage, lights, lighthouses, beacons, or any other dues whatever, either in regard to vessels or cargo upon ships sailing from the North Sea to the Baltic, or vice versa, on passing through the Belts or the Sound, whether they simply pass the Danish waters or whether they anchor or lie-to therein. No vessel whatsoever, whether by casualty or by commercial operation, shall henceforward be subjected, under any pretext, to any detention or impediment whatever in the passage of the Sound or of the Belts; but the King of Denmark expressly reserves to himself the right of regulating, by special arrangements, the mode of visiting or detaining, the treatment, the guard to duties and customs, of vessels belonging

to Powers which are not Parties to the Treaty.

2. Not to levy any duty of customs, or may enter or depart from the Sound with cargo on board, or have not performed therein, nor upon that to which such vessel has been liable on account of the Sound and the Belts, the stipulations of the Treaty, which it is well understood to be so abolished, and he levied either in the Danish ports, shall, by any augmentation of port and customs duties, introduction, for the navigation or customs, or otherwise.

II. The King of Denmark engages to the above-mentioned Powers—

1. To preserve at all the lights and buoys, and to facilitate navigation at the Belts, and

2. To take into consideration the utility or expediency of the position of the former buoys, beacons, and the number thereof; and any kind upon foreign

3. To superintend, and to regulate, the pilotage, the employment of pilots, and the option of carrying on board, and it is understood that

moderate; that the same for Danish vessels, and that the charge of those vessels on

4. To permit, with the individuals, Danish vessels to station in the Sound and on the

5. To extend to a ship or may hereafter be the Elbe with those lines of commerce which is a foreign goods

6. To extend to a ship or may hereafter be the Elbe with those lines of commerce which is a foreign goods

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18. To extend to a ship or may hereafter be the Elbe with those lines of commerce which is a foreign goods

19. To extend to a ship or may hereafter be the Elbe with those lines of commerce which is a foreign goods

20. To extend to a ship or may hereafter be the Elbe with those lines of commerce which is a foreign goods

to Powers which are not parties to the present Treaty.

2. Not to levy upon such of the said vessels as may enter or depart from Danish ports, whether with cargo or in ballast, and whether they have or have not performed any operation of commerce therein, nor upon their cargoes, any tax whatever to which such vessels or their cargoes would have been liable on account of the passage through the Sound and the Belts, and which is abolished by the stipulations of the preceding paragraph; and it is well understood that the taxes which shall be so abolished, and which consequently shall not be levied either in the Sound and the Belts or in Danish ports, shall never be reimposed indirectly by any augmentation, for that purpose, of the port and customs dues now existing, nor by the introduction, for that purpose, of fresh dues of navigation or customs; nor in any other manner whatever.

II. The King of Denmark engages, moreover, to the above-mentioned high contracting parties—

1. To preserve and maintain in the best state all the lights and lighthouses actually existing either at the entrance or in the approaches to his ports, harbours, roads, and rivers or canals, or along his coasts, as well as the buoys, beacons, and sea-marks actually existing, and serving to facilitate navigation in the Kattegat, the Sound, and the Belts.

2. To take into most serious consideration, as heretofore, in the general interest of navigation, the utility or expediency either of changing the position or the form of such lights, lighthouses, buoys, beacons, and sea-marks, or of increasing the number thereof; the whole without charge of any kind upon foreign vessels.

3. To superintend, as heretofore, the service of pilotage, the employment of which, in the Kattegat, the Sound, and the Belts, shall at all times be at the option of captains and masters of vessels. It is understood that the charges for pilotage shall be moderate; that the rate thereof shall be the same for Danish vessels and for foreign vessels; and that the charge for pilotage shall be exacted from those vessels only which shall have voluntarily employed pilots.

4. To permit, without any restriction, any private individuals, Danes or foreigners, to establish and to station in the Sound and in the Belts, and on the same conditions, whatever nation they may belong to, tugs serving exclusively to the towing of vessels which may desire to employ them.

5. To extend to all the roads or canals which now or may hereafter connect the North Sea and the Elbe with the Baltic, the exemption of dues which is at present accorded, on some of these lines of communication, to the national foreign goods enumerated in the following

article: amadou, not prepared; yellow amber; animals of all kinds; antimony; live trees and shrubs; slates and slate-pencils; slate for roofing; silver in bars and for remelting; arsenic; asphaltum (bitumen Judaicum or glutinuous bitumen); asafetida; valonia; berries or seeds of juniper; brooms and rubbers (unless comprised under the article 'brushes'); bamboo, Indian reeds, and other rough reeds not manufactured; spermaceti, and oil of spermaceti; grain; wheat, barley, oats, maize, rye, wheat, vetches; or the use of apothecaries; dye-woods; wood of all kinds; float-wood, wood to be used instead of floats for fishing nets; bole, white and red terra sigillata; borax, crude or refined; bricks; pounded brick, or brick powder;

bronze or bell-metal; brushwood (*buisson*); bulbs or roots of flowers; cadmium; calamine; camphor; cantharides; floor-stones (*carreaux*); maps and charts; castoreum; ashes; potash, soda, and other kinds of ashes; wooden hoops; hemp, dressed or undressed; charcoal; teasles; wheelwright's work (*charronnage*); lime; rags; cement of all kinds; wax; ish glass; shells; corals; cordage; ox and cow horns (or horns of black cattle) as well as horn-tips; cotton; copper; rose-copper (Garkupfer, not forged or prepared by rollers) and copper in sheets for coining; waste of grain; grits as forage for cattle; bran, straw, chaff, and other waste of grain; elephant's teeth or ivory; teeth of the walrus (the sea-horse or sea-cow); law or business documents; staves, or stave wood; tortoise-shell; patterns of no value; sealboards for binders, shoemakers, furbishers, as well as split twigs; meerschmaum; packages, old or used; casks, cases, trunks, chests, bags or sacks, and old wicker flasks, empty; emery; tin, raw, unwrought, and rasped tin (*étain râpé*); whalebone, whalefins, whalebone not split; flour or meal made of grain which is free from transit duty; feldspar, not pulverised; pig-iron, raw; bar-iron of all kinds (hoop-iron, however, is liable to duty); beans; figures and statues in plaster; flowers and flower-plants; flores cassia (cassia huds); hay; dung and artificial manure; also, for example, patent manures, *noir animal* &c. (Chile saltpetre, sulphated ammoniac, and similar goods are not exempt, notwithstanding they may be intended for manure. Plaster in powder is, however, exempt from transit duty when certified as intended to be used only for manure); rough ice (natural); acorns; globes; tar and tar-water; seeds, hemp, flax, colza, and other seeds of all kinds, as well as seeds for the use of apothecaries, as, for example, fennel-seed (caraway and aniseed are liable to duty); clothes and baggage of travellers, household furniture, and implements which have been used, if they are transported in consequence of a change of residence; clothes or garments, which have been worn, transported, according to the judgment of the officers of customs, as travellers' baggage, without its being necessary for the owner to accompany them; fresh pot-herbs, as well as whortleberries or bilberries, strawberries, raspberries, gooseberries, red or spotted whortleberries (*airelles rouges ou punctures*), green gooseberries, hips, fresh grapes, horse-radish, and onions; coal of all kinds, as well as coke and cinders; oil of hemp; oysters; reed for thatching; wool of all kinds; milk; brass, unwrought (not forged and not prepared by rollers); blubber, liver &c. for making train-oil; bacon; lentils; lees of wine in a dry state (sediment of wine); cork; flax, dressed or undressed; printed books with the prints which belong to them, bound or unbound; malt; manganese; manna; medals; metals, unwrought (bronze and other alloys of metals similar to brass), not forged, and not prepared by rollers; black lead; ore, not melted, of all kinds; minerals, and objects of natural history, such as earths, stones, and ores, plants and fruits, shells, insects, birds, and other animals, stuffed or preserved in spirit of wine for cabinets of natural history or scientific collections; models of all kinds; coin of all kinds; moss for packing and stuffing, and *coton silvestre*; music, manuscript or printed; musk; mother-of-pearl, rough or in shells; mats, used; galls; objects of art, such as statues, busts, bas-reliefs; opium; gold in bars, and for remelting; peeled, shelled, or hulled barley, and groats made of grain which is free from transit duty; bones; osiers, peeled or unpeeled; rope-maker's work, including hemp-webs and fishing-

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is intended as a hostile demonstration. But an embargo for the prevention of intercourse with others rarely answers: that stoppage of trade which it is intended to effect is in general as injurious to those by whom the embargo is enacted as to those against whom it is levelled.

**EMERALD** (Fr. *émeraude*; Ger. *smaragd*; Ital. *smeraldo*; Lat. *smaragdus*; Span. *esmeralda*; Pers. *paheh*; Arab. *zamarud*). A precious stone in high estimation. It is distinguished from all other gems by its peculiar *emerald green* lustre, varying in intensity from the palest possible tinge to a full and deep colour, than which, as Pliny has truly stated, nothing can be more beautiful and pleasing; 'nullius coloris aspectus jucundior est.' It emulates, he continues, if it do not surpass, the verdure of the spring; and the eye, satiated by the dazzling glare of the more brilliant gems, or wearied by intense application, is refreshed and strengthened by the quiet, enlivening green of the emerald. In Pliny's time the best came from Scythia. Those met with in modern times do not often exceed the size of a walnut. Some of a much larger size, and perfect, have been found, but they are extremely rare. Nero used one as an eye-glass in surveying the combats of the gladiators. Hitherto it has always been found crystallised. Specific gravity from 2.6 to 2.7. (Plin. *Hist. Nat.* lib. xxxvii. c. 5; Thomson's *Chemistry*.)

The green of the emerald is said to be derived from organic substances.

The emerald is found at Muzo in New Granada, near Santa Fé de Bogotá, in a bituminous limestone rock. The mines were let at a rent of 8,000¢ per annum, but the speculation does not seem to have prospered. It is also found in mica slate at Henschel, in Salzburg, in Siberia, and in the Burmese empire near Ava. But the emerald has been known from the remotest ages. It is rarely found perfect. Lately it has enormously increased in value. Mr. Emanuel says that perfect emeralds of deep rich grass green are now worth from 200 to 300¢ per carat. The size of the emerald does not increase its value in the same ratio that it does that of the diamond and ruby. It may be said that there are many very fine emeralds in European and Asiatic treasuries, those which belong to the Russian, Saxon, and Papal crowns being singularly large and beautiful. In the British treasury there is an emerald weighing 100 carats, and the Duke of Devonshire has one of 100 carats in weight. (Emanuel *On Diamonds* &c.)

**EMERY** (Fr. *émeril*, *émeri*; Ger. *smirgel*; Ital. *smerglio*, *smeregio*; Span. *esmeril*; Russ. *smirka*; Lat. *smiris*). A mineral brought to us from Naxos, Smyrna &c. It occurs also in many, Italy, and Spain. It is always in masses, and mixed with other minerals. Its colour is intermediate between greyish black and grey. Specific gravity about 4. Lustre vitreous and adamantine. Emery is extensively used in the polishing of hard bodies. Its powder is obtained by trituration. (Thomson's *Chemistry*.)

A part of the emery that is at present used in this country comes from Asia Minor. In 1847 an English geologist discovered a deposit of emery in the vicinity of Smyrna, and the supplies from that source are very extensive. The quantity, however, derived from Asia Minor varies greatly from year to year. Thus for the five years ending with 1851 the imports into the United Kingdom from that source have been 6,502, 33,964, 27,610, 3,150, and 1,000 cwts. The price of emery is about 9s.

There is also a really a coarse variety of corundum.

It is found in Cornwall, and latterly it is said to have been discovered in large quantities in California.

When Mediterranean wheat is freighted at 1s. per quarter, emery stone is rated at 4s. 8d. per ton of 20 cwt.

**ENGROSSING.** 'The buying up of corn and other dead victuals, with intent to sell them again.' (Blackstone, book iv. c. 42.) We have shown, in another article, how absurd it is to suppose that this practice should have any injurious influence [COIN LAWS]. But, for a long time, most scarcities that occurred were either entirely ascribed to the influence of engrossers and forestallers [FORESTALLING] or, at least, were supposed to be materially aggravated by their proceedings. In consequence, however, of the prevalence of more just and enlarged views upon such subjects, the statutes that had been made for the suppression and punishment of engrossing, forestalling &c. were repealed in 1772. But notwithstanding this repeal, engrossing continues to be an indictable offence, punishable at common law by fine and imprisonment; though it is not at all likely, were an attempt made, that any jury would now be found ignorant or prejudiced enough to convict any one on such a charge.

**ENTRY, BILL OF.** [IMPORTATION.]

**ERMINE** (Ger. *hermelin*; Fr. *hermine*, *ermine*; Russ. *gornostai*). A species of weasel (*Mustela candida*, Linn.) abundant in all cold countries, particularly Russia, Norway, Lapland &c., and producing a most valuable species of fur. In summer the ermine is of a brown colour, and is called the *stoat*. It is in winter only that the fur has that beautiful snowy whiteness and consistence so much admired. [FURS.]

**ESPARTO.** A species of rush—the *Stipa tenacissima* of botanists. It is found in the southern provinces of Spain, and is particularly abundant on all the sterile, uncultivated, and mountainous districts of Valencia and Murcia. Beekmann (*History of Inventions*, vol. ii. p. 288, Eng. ed.) supposes, apparently with good reason, that the *Stipa tenacissima* is the plant described by Pliny under the name of *Sparta*, who ascribes its application to useful purposes to the Carthaginians. (*Hist. Nat.* lib. xix. c. 2.) It is still used for the same purposes as in antiquity, being manufactured into cordage, shoes, matting, baskets, nets, mattresses, sacks &c. Cables made of esparto are said to be excellent: being light, they float on the surface of the water, and are not, therefore, so liable as hempen cables to be cut or injured by a foul bottom. They are exclusively made use of in the Spanish navy. Esparto is largely consumed in the manufacture of *alpergates*. These are light shoes worn by the Valencian peasantry, having platted soles made either of esparto or hemp, but principally of the former. They are extremely cheap and commodious in hot climates; and besides being in extensive demand at home, used to be exported in immense quantities to both Indies: but since the emancipation of Spanish America this trade has greatly fallen off. The Spanish peasantry have attained to wonderful dexterity in the manufacture of esparto. 'After having soaked the rush in water, the women and children, without either wheel or spindle, contrive to twist two threads at the same time. This they do by rubbing them between the palms of their hands, in the same manner as a shoemaker forms a thread upon his knees, with this difference, that one motion gives the twist to each thread, and at the same time unites them. To keep the threads asunder, the thumb of the right hand is interposed between them; and when that is wanted for other

## ESTRICH

purposes, the left thumb supplies its place. Two threads being thus twisted into one of the bigress of a large crow-quill, 46 yards are sold for little more than 3*l.*, the materials being worth about 1/2 part of the price. (Townsend's *Travels in Spain*, vol. iii. p. 177—see also p. 129; Fischer's *Picture of Valencia*, Eng. ed. p. 92, and p. 57 &c.)

But despite the falling off in the exports of esparto shoes to America, this branch of industry esparto has materially advanced of late years. Many has materially advanced of late years. Many thousands of women and young persons are said to be constantly employed in the country between Alicante and Almeria in the production of mats, and other light articles, exclusive of great numbers of men engaged in the manufacture of cables and cordage of all sorts. Esparto matting has come into very extensive demand, and the various articles made from the rush, *esparto labrado*, form a considerable item in the exports of Spain. About 20,000 tons are annually shipped from Aguilas, near Carthagena, besides considerable quantities from the latter, Alicante, and Valencia [ALICANT]. They are mostly sent to Marseilles; but partly also to other ports of Spain, and to England and other countries. Machinery has been successfully introduced into the various branches of the manufacture, and the demand for its produce is said to be rapidly extending. We imported in 1866, 70,041 tons of esparto and other vegetable fibre for making paper. (*Annales du Commerce Extérieur*, 1858; *Part. Papers*; &c.)

ESTRICH or ESTRIDGE (Fr. duvet d'aunuche; Ital. penna matta di strozzo; Span. plumazo de avestruz; Lat. struthionum pluma molliores). The fine soft down which lies immediately under the feathers of the heaver in the finest is used as a substitute for beaver in the manufacture of hats, and the coarser or stronger sort is employed in the fabrication of a stuff which resembles fine woollen cloth. Estridge is brought from the Levant, Italy, and other parts of the Mediterranean.

EUPHORBIVM (Ger. euphorbium; Fr. euphorbe; Arab. akal-naizab). This is a kind of resin, obtained from Northern Africa, the Cape of Good Hope, the Canary Islands and Western Africa, and also from Egypt and the East. It is exceedingly acrid, producing a sense of insupportable heat in the mouth and throat. At one time it was used in medicine, both externally and internally, but in consequence of its violent action its use is now discontinued. Its chief employment is for veterinary purposes.

EXCHANGE. In Commerce, this term is generally used to designate that species of mercantile transactions by which the debts of individuals residing at a distance from their creditors are cancelled without the transmission of money.

Among cities or countries having any considerable intercourse together, the debts mutually due by each other approach, for the most part, near to an equality. There are at all times, for example, a considerable number of persons in London indebted to Hamburg; but speaking generally, there are about an equal number of persons in London to whom Hamburg is indebted. And hence, when A of London has a payment to make to B of Hamburg, he does not remit an equivalent sum of money to the latter, but he goes into the market and buys a bill upon Hamburg; that is, he buys an order from C of London addressed to his debtor D of Hamburg, requesting him to pay the amount to A or his order. A, having endorsed this bill or order, sends it to B, who receives payment from his neighbour D.

The convenience of all parties is consulted by a transaction of this sort. The debts due by A to B, and by D to C, are extinguished without the intervention of any money. A of London pays C of ditto, and D of Hamburg pays B of ditto. The debtor in one place is substituted for the debtor in another; and a postage or two, and the stamp for the bill, form the whole expenses. All risk of loss is obviated.

A bill of exchange may, therefore, be defined to be an order addressed to some person residing at a distance, directing him to pay a certain specified sum to the person in whose favour the bill is drawn, or his order. In mercantile phraseology, the person who draws a bill is termed the *drawer*; the person in whose favour it is drawn, the *remitter*; the person on whom it is drawn, the *drawee*; and after he has accepted, the *acceptor*. Those persons into whose hands the bill may have passed previously to its being paid are termed their writing their names on the back, termed the *indorsers*; and the person in whose possession the bill is at any given period is termed the *holder* or *possessor*.

The negotiation of inland bills of exchange, or of those drawn in one part of Great Britain and Ireland on another, is entirely in the hands of bankers, and is conducted in the manner already explained. [BANKING.] Bills drawn by foreign merchants of one country upon another are termed *foreign bills of exchange*, and it is to their negotiation that the following remarks principally apply.

1. *Par of Exchange.*—The *par* of the currency of any two countries means, among merchants, the equivalency of a certain amount of the one in the currency of the other. Thus, according to the mint regulations of Great Britain and France, 1*l.* sterling is equal to 25 francs, which is said to be the *par* between London and Paris. And the exchange between the two countries is said to be at *par* when the two are negotiated on this footing; that is, for example, when a bill for 100*l.* drawn in London is payable, when a bill for 2520 fr. in Paris, and conversely. When London buys a bill on Paris for more than 25 francs, the exchange is said to be in favour of London and against Paris; and when, on the other hand, 1*l.* in London will not buy a bill on Paris for 25 fr. 20 cent., the exchange is against London and in favour of Paris.

The foregoing statements explain what is usually meant by the *par* of exchange, or the exact determination, or the ascertaining the precise equivalency of a certain amount of the currency of one country in the currency of another, is exceedingly difficult. If the standard, one be gold and that of another silver, they must necessarily vary with every variation in the relative values of these metals. This is not all: even where two countries use the same metal for a standard, its value may be different in the one, and in estimating the relative value of exchange between them this difference must be taken into account. In illustration, we may take the case of France and Mexico, which both use silver for a standard; but silver is largely produced in Mexico, is always of a higher value than in France, and is extensively imported into the latter; and taking the cost of this silver at 2 or 3 per cent, it is plain that the value of the bill would be really at *par* when it appears to be 2 or 3 per cent, against Mexico. But the precious metals, even in contiguous countries, is always exposed to fluctuations in value.

issue or withdrawal of paper, from circumstances affecting the balance of payments &c., as shown above. It is obvious, therefore, that it is all but impossible to say, by merely looking at the mint prices of bullion in each, what is the par of exchange between them. And, luckily, this is not necessary. The importation and exportation of bullion is the real test of the exchange. If bullion is stationary, neither flowing into nor out of a country; its exchanges may be truly said to be at par; and, on the other hand, if there be an influx of bullion from a country, it is a proof that the exchange is against it, and conversely if there be an influx of bullion into a country.

11. *Circumstances which determine the Course of Exchange.*—The exchange is affected, or made to diverge from par, by two classes of circumstances: first, by any discrepancy between the actual weight or fineness of the coins, or of the bullion for which the substitutes used in their place will exchange, and their weight or fineness as fixed by the mint regulations; and, secondly, by any sudden increase or diminution of the bills drawn in one country upon another.

It is but seldom that the coins of any country correspond exactly with their mint standard; and when they diverge from it, an allowance corresponding to the difference between the actual value of the coins and their mint value must be made in determining the *real par*. Thus, if, while the standard in weight and purity, those of France were either 10 per cent. worse or debased below the standard of her mint, the exchange, it is obvious, would be at *real par* when it was *nominal par* against Paris, or when a bill payable in London for 10*l.* was worth in Paris 277*2* fr. 10*0*. In estimating the *real course* of exchange between any two or more places, it is necessary to attend carefully to this circumstance: that is, to examine whether their coins are all of the standard weight and fineness, and if not, how much they differ from it. The coins circulating in a country are either pure or rubbed as to have sunk considerably below their mint standard, or when paper money is at *real par* only when it is against the country to the extent to which its coins are depreciated. When this circumstance is taken into account, it will be found that during the latter years of the war, the exchange was apparently very much against this country in our favour. The depression of the *real* exchange only, being occasioned by the great depreciation of the paper currency in which bills

are drawn in the actual course of exchange, the divergence of bills, arising from circumstances affecting the currency of either of two countries together, are *nominal* only: such as are occasioned by circumstances affecting their

relative value in the actual course of exchange, and the other commodities of precisely the same value. Their debts and credits will be equal, and the *real exchange* will be at par. The exchange drawn by the one will be exactly equal to that drawn by the other, and their bills will be adjusted without recourse to the transfer of bullion or any other commodity. But it very rarely happens that the exchange is due by any two countries to the same side or the other; and this

balance must affect the exchange. If the debts due by London to Paris exceeded those due by Paris to London, the competition in the London market for bills, on Paris would, because of the comparatively great amount of payments our merchants had to make in Paris, be greater than the competition in Paris for bills on London; and, consequently, the real exchange would be in favour of Paris and against London.

The cost of conveying bullion from one country to another forms the limit within which the rise and fall of the *real exchange* between them must be confined. If 1 per cent. sufficed to cover the expense and risk attending the transmission of the money from London to Paris, it would be indifferent to a London merchant whether he paid 1 per cent. premium for a bill of exchange on Paris, or remitted money direct to that city. If the premium were less than 1 per cent., it would clearly be his interest to make his payments by bills in preference to remittances; and that it could not exceed 1 per cent. is obvious; and that it one would prefer remitting money to buying a bill at a greater premium than sufficed to cover the expense of a money remittance. If, owing to the breaking out of hostilities between the two countries, or to any other cause, the cost of remitting money from London to Paris were increased, the fluctuations of the *real exchange* limits within which such fluctuations may range correspond in all cases with the cost of making remittances in cash.

Fluctuations in the *nominal exchange*, that is, in the value of the currencies of countries trading together, have no effect on foreign trade. When the currency is depreciated, the premium which the exporter of commodities derives from the sale of the bill drawn on his correspondent abroad is only equivalent to the increase in the price of the goods exported, occasioned by this depreciation. But when the premium on a foreign bill is a consequence, not of a fall in the value of money, but of a deficiency in the supply of bills, there is no rise of prices; and in these circumstances the unfavourable exchange operates as a stimulus to exportation. As soon as the *real exchange* diverges from *par*, the mere inspection of a price-current is no longer sufficient to regulate the operations of the merchant. If it be unfavourable, the premium which the exporter will receive on the sale of his bill must be included in the estimate of the profit he is likely to derive from the transaction. The greater that premium, the less will be the difference of prices necessary to induce him to export. And hence an unfavourable *real exchange* has an effect exactly the same with that which would be produced by granting a bounty on exportation equal to the premium on foreign bills.

But for the same reason that an unfavourable *real exchange* increases exportation, it proportionally diminishes importation. When the exchange is really unfavourable, the price of commodities imported from abroad must be so much higher, exclusive of expenses, the ordinary profit of the importer must pay for a foreign bill if he remit one to his correspondent, or for the discount, added to his correspondent, his correspondent draw upon him. A less quantity of foreign goods will, therefore, suit the market when the *real exchange* is unfavourable; and fewer payments having to be made abroad, the competition for foreign bills will be diminished, and the *real exchange* will be raised proportionally.

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In the same way it is easy to see favourable. In the same way it is easy to see that a favourable *real* exchange must operate as a *duty* on exportation, and as a *bounty* on importation.

It is thus that fluctuations in the *real* exchange have a necessary tendency to correct themselves. They can never, for any considerable period, exceed the expense of transmitting bullion from the debtor to the creditor country. But the exchange cannot continue either permanently favourable or unfavourable to this extent. When favourable or unfavourable it corrects itself by restricting exportation and facilitating importation; and when unfavourable, it produces the same effect by giving an unusual stimulus to exportation, and throwing obstacles in the way of importation. The true *par* forms the centre of these oscillations; and although the thousand circumstances which are daily and hourly affecting the state of debt and credit prevent the ordinary course of exchange from being almost ever precisely at *par*, its fluctuations, whether on the one side or the other, are confined within certain limits, and have a constant tendency to disappear.

This natural tendency which the exchange has to correct itself is powerfully assisted by the operations of the bill-merchants.

England, for example, might owe a large excess of debt to Amsterdam; yet, as the aggregate amount of the debts *due* by a commercial country is generally balanced by the deficiency of bills on which it has to receive, the deficiency probably be Amsterdam in London would most probably be compensated by a proportional redundancy of those on some other place. Now, it is the business of the merchants who deal in bills, in the same way as of those who deal in bullion or any other commodity, to buy them where they are cheapest, and to sell them where they are dearest. They would, therefore, buy up the bills drawn by other countries on Amsterdam, and dispose of them in London; and by so doing, would prevent any great fall in the price of bills on Amsterdam in those countries in which the supply exceeded the demand, and any great rise in Great Britain and those countries in which the supply happened to be deficient. In the trade between Italy and this country, the bills drawn on Great Britain amount almost invariably to a greater sum than those drawn on Italy. The bill-merchants, however, by buying up the excess of the Italian bills on London, and selling them in Holland and the other countries indebted to England, prevent the *real* exchange from ever becoming very much depressed.

III. *Negotiation of Bills of Exchange.*—Bills of exchange may be made payable on demand (the invariable term of payment in the case of checks), or at sight, at a certain specified time after sight or after date, or at *usance*, which is the usual term allowed by the custom or law of the place where the bill is payable. In most countries, though not in all, a few days are allowed for payment beyond the term when the bill becomes due. These are denominated *days of grace*, and vary in different parts. In Great Britain and Ireland, 3 days' grace are allowed on all bills except those payable on demand, which must be paid as soon as presented. The following is a statement of the *usance* and days of grace, if any, for bills drawn upon some of the principal commercial cities:—

[m | d, m | s; m | d, d | s, d | a, respectively denote months after date, months after sight, days after date, days after sight, days after acceptance.]

	London on	Usance	Days of grace
Amsterdam	1 mtd.	0	0
Rotterdam	1 mtd.	0	0
Antwerp	1 mtd.	12	0
Hamburg	1 mtd.	12	0
Alton	13 dls.	10	0
Bombay	30 dls.	0	0
Batavia	14 dls.	4	0
Paris	1 mtd.	0	0
Frankfort	2 mtd.	11	0
Bremen	20 dls.	3	0
Havana	2 mtd.	14	0
Geneva	6 dls.	6	0
Madrid	2 mtd.	11	0
Calix	2 mtd.	11	0
Bilbao	2 mtd.	11	0
Gibraltar	11 dls.	0	0
Leghorn	3 mtd.	5	0
Lisbon	3 mtd.	5	0
Genoa	14 dls.	3	0
Venice	30 dls.	1	0
Vicenza	3 mtd.	5	0
Malta	3 mtd.	5	0
Naples	30 dls.	6	0
Palermo	30 dls.	6	0
Lisbon	30 dls.	6	0
Oporto	21 dls.	3	0
Rio Janeiro	60 dls.	3	0
Dublin	60 dls.	3	0
New York			

\* In France, days of grace were suppressed by the Code de Commerce, art. 125. In America, bills payable at sight, or on demand, or at less than 7 days after sight or date, are not allowed any days of grace; but drafts on Petersburg, bills after date are allowed 10 days' grace; but drafts only 3 days' grace.

In the dating of bills, the New Style is used in every country in Europe, with the exception of Russia.

The Stamps on Bills of Exchange and Promissory Notes have been fixed by the 17 & 18 Vict. c. 83; 23 Vict. c. 15; 23 & 24 Vict. c. 111; 24 & 25 Vict. c. 21; and 27 & 28 Vict. c. 56, as follows, viz. :—

	Dut
Inland bill of exchange or promissory note, for the payment to the bearer, or to order, at any time, otherwise than on demand, of any sum of money: £	4 s
Not exceeding 5 not not exceeding	2 s
Exceeding 5	7 s
10	9 s
25	10 s
50	11 s
75	12 s
100	13 s
200	14 s
300	15 s
400	16 s
500	17 s
750	18 s
1,000	19 s
1,500	20 s
2,000	21 s
3,000	22 s
4,000 and for every 1,000-l. and part of 1,000-l. thereby made payable	23 s
Foreign bill of exchange or promissory note drawn on, but payable out of, the United Kingdom: £	4 s
If drawn singly or otherwise than in a set of three or more, the same duty as on an inland bill of the same amount and tenor.	
If drawn in sets of three or more, for every bill of each set, where the sum payable thereby shall not exceed	2 s
Exceeding 2 s and not exceeding	3 s
5	4 s
7 1/2	5 s
10	6 s
15	7 s
20	8 s
30	9 s
40	10 s
50	11 s
75	12 s
100	13 s
1,500	14 s
2,000	15 s
3,000	16 s
4,000 and for every 1,000-l. and part of 1,000-l. thereby made payable	17 s
Foreign bill of exchange drawn out of, and payable out of, the United Kingdom, but indorsed or negotiated within the United Kingdom, the same duty as on a foreign bill drawn within the United Kingdom, and payable out of the United Kingdom: £	4 s
Foreign bill of exchange for the payment of money exceeding 5-l., drawn out of the United Kingdom, and payable or indorsed or negotiated within the United Kingdom. For every bill or part of 1,000-l. of the money thereby made payable	23 s

In London bills of exchange are sold by brokers, who go round to the merchants and discover whether they are sellers of bills. A few of the brokers influence, after ascertaining the state of





father, or payable to an infant when he shall become of age.

Any material alteration of a bill after it has been drawn, accepted, or indorsed, such as the date, sum, or time of payment, will invalidate it; but the mere correction of a mistake, as by inserting the words 'or order,' will have no such effect.

The negotiability of a bill depends on the insertion of sufficient operative words of transfer: such as by making it payable to A or order, or to A or bearer, or to bearer generally.

Although a bill is presumed to have been originally drawn upon a good and valuable consideration, yet in certain cases a want of sufficient consideration may be insisted on in defence to an action on a bill. Certain considerations have been made illegal by statute; as for signing a bankrupt's certificate, for money won at gaming, or for money lent on a usurious contract. But with respect to gambling transactions is good in the hands of a bona fide holder; and by 58 Geo. III, c. 93 a bill or note in the hands of an innocent holder, although originally founded on a usurious contract, is not

In general, if a bill is fair and legal in its origin, a subsequent illegal contract or consideration on the indorsement thereof will not invalidate it in the hands of a bona fide holder.

A bill cannot be given in evidence in a court of justice unless it be duly stamped, not only with a stamp of the proper value, but also of the proper denomination.

**Acceptance of a bill.**—An acceptance is an engagement to pay a bill according to the tenor of the acceptance, which may be either *absolute* or *qualified*. An *absolute* acceptance is an engagement to pay a bill according to its request, which is done by the drawee writing 'Accepted' on the bill, and subscribing his name, or writing 'Accepted' only; or merely subscribing his name at the bottom or across the bill. A *qualified* acceptance is when a bill is accepted conditionally; as when goods conveyed to the drawee are sold, which does not bind the acceptor till the contingency has happened.

An acceptance may be also partial; as to pay 1/4 instead of 1/2, or to pay at a different time or place from that required by the bill. But in all cases of a conditional or partial acceptance, the acceptor should, if he mean to resort to the other parties to the bill in default of payment, give notice to them of such partial or conditional acceptance.

In all cases of presenting a bill for acceptance, it is necessary to present the bill at the house of the drawee lives, or where it is made payable. By 1 & 2 Geo. IV, c. 78 all bills accepted at a banker's or other place are to be deemed payable at a banker's only, and not otherwise; or elsewhere, it is a qualified acceptance, and the acceptor is not liable to pay the bill, except in default of payment when such payment has been first demanded at the banker's. The drawee is entitled to keep the bill 24 hours after presented for acceptance. The acceptance on inland bill must be *in writing on the face of the bill*, or if there be more parts than one, on one of the parts: nothing short of this constitutes an acceptance.

When a bill is made payable at sight, or at a certain time after sight, it must, in either case, in order to fix the time when it is to be paid, be presented for acceptance; and the date of the ac-

ceptance should appear thus: 'Accepted, 10th September, 1868.'

Due diligence is the only thing to be considered in presenting any description of bill for acceptance; and such diligence is a question depending on the situation of the parties, the distance at which they live, and the facility of communication between them.

When the drawee refuses to accept, any third party, after protesting, may accept for the honour of the bill generally, or for the drawee, or for the indorser; in which case the acceptance is called an acceptance *supra protest*.

The drawers and indorsers are discharged from liability, unless due notice of non-acceptance when presented for acceptance, or non-payment at the time the bill becomes due, is given. These notices must be given with all due diligence to all the parties to whom the holder means to resort for payment. Generally, in both foreign and inland bills, notice is given next day to the immediate indorser, and such indorser is allowed a day, when he should give fresh notice to the parties who are liable to him.

Notice may be sent by the post, however near the residence of the parties may be to each other; and though the letter containing such notice should miscarry, yet it will be sufficient; but the letter containing the notice should be delivered at the General Post Office, or at a receiving-house appointed by that office, or at a receiving-house notice to one of several parties is held to be notice to all; and if one of several drawers be also the acceptor, it is not necessary to give notice to the other drawers.

Upon the non-acceptance or non-payment of a bill, the holder, or a public notary for him, should protest it; that is, draw up a notice of the refusal to accept or pay the bill, and the declaration of the holder against sustaining loss thereby. In-land bills need not be protested; in practice they are usually only noted for non-acceptance; but this, without the protest, is wholly futile, and adds nothing whatever to the evidence of the holder, while it entails a useless expense on those liable to pay.

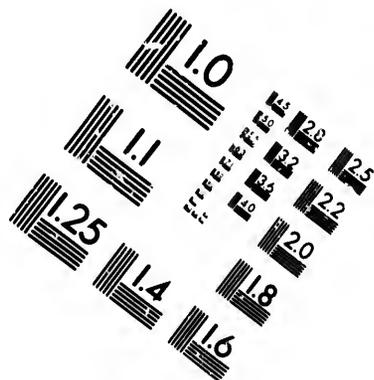
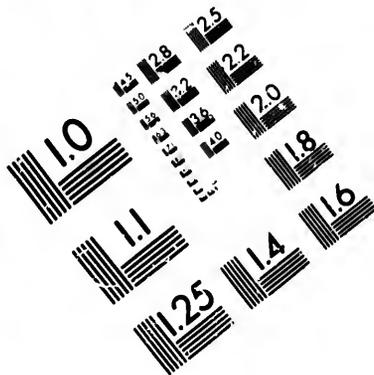
**Indorsement of bills.**—An indorsement is the act by which the holder of a negotiable instrument transfers his right to another person, termed the indorsee. It is usually made on the back of a bill, and must be in writing; but the law has not prescribed any set form of words as necessary to the indorsement, and in general the mere signature of the indorser is sufficient.

All bills payable to order or to bearer for 12, and upwards are negotiable by indorsement; and the transfer of them for a good consideration, before they are payable, gives a right of action against all the precedent parties on the bill, if the bills in themselves are valid; but a transfer after they are due will only place the holder in the situation of the person from whom he takes them.

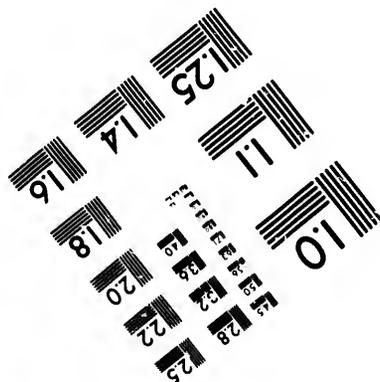
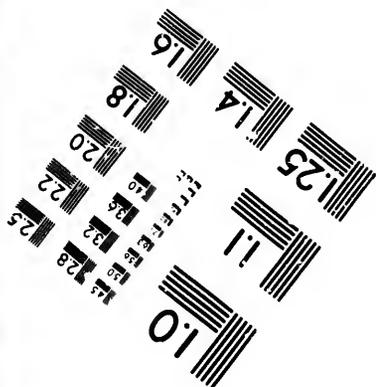
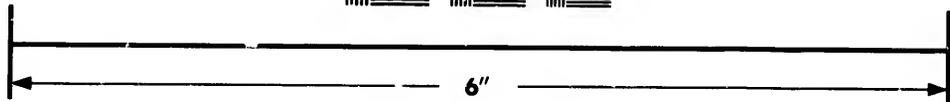
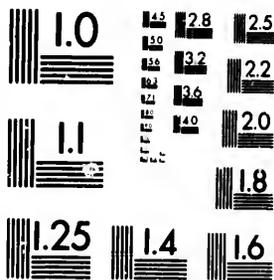
Bills may be transferred either by delivery only, or by indorsement and delivery: bills payable to order are transferred by the latter mode only; but bills payable to bearer may be transferred by either mode. On a transfer by delivery, the person making it ceases to be a party to the bill; but on a transfer by indorsement, he is to all intents and purposes chargeable as a new drawer.

A bill originally transferable as a new drawer, by restrictive words; for the payee or indorsee, having the absolute property in the bill, may, by express words, restrict its currency by indorsing it 'Payable to A B only,' or 'to A B for his use,' or any other words clearly demonstrating his intention to make a restrictive and limited indorse-





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ment. Such special indorsement precludes the person in whose favour it is made from making a further transfer, so as to give a right of action against the special indorser, or any of the preceding parties to the bill.

In taking bills to account or discount, it is important well to examine all special indorsements. Lord Tenterden decided that a person who discounts a bill indorsed 'Pay to A B or order for my use,' discounts it subject to the risk of having to pay the money to the special indorser, who so limited the application for my use; thus a party may be liable to pay the amount of the bill twice over, unless he previously ascertains that the payment has been made conformably to the import of the indorsement.

After the payment of part, a bill may be indorsed over for the residue.

**Presentment for Payment.**—The holder of a bill must be careful to present it for payment at the time when due, or the drawer and indorsers will be exonerated from their liability; even the bankruptcy, insolvency, or death of the acceptor will not excuse a neglect to make presentment to the assignee or executor; nor will the insufficiency of a bill in any respect constitute an excuse for non-presentment: the presentment should be made at a reasonable time of the day when the bill is due; and if by the known custom of any trade or place bills are payable only within particular hours, a presentment must be within those hours. If a bill has a qualified acceptance, the presentment should be at the place mentioned in such qualified acceptance, or all the parties will be discharged from their obligations.

If a bill fall due on Sunday, Good Friday, Christmas Day, or any public fast or thanksgiving day, the presentment must be on the day preceding these holidays. By 7 & 8 Geo. III. c. 15, if a bill or note be payable on the day preceding these holidays, notice of the dishonour may be given the day following the holiday; and if Christmas Day fall on Monday, notice may be given on Tuesday.

Bills, however, payable at usance, or at a certain time after date or sight, or after demand, ought not to be presented for payment precisely at the expiration of the time mentioned in the bill, but at the expiration of the *days of grace*. These but are not allowed in some countries: they also vary where they are allowed, and should always be computed according to the usage of the place where the bill is due. (See head III. of this article: *Negotiation of Bills of Exchange*.) At Hamburg, the day on which the bill falls due makes one of the days of grace, but nowhere else.

On bills payable on demand, or when no time of payment is expressed, no days of grace are allowed; but they are payable instantly on presentment. On bank post bills no days of grace are claimed; but on bills payable at sight the usual days of grace are allowed from the date of the acceptance.

Payment of a bill should be made only to the holder; and it may be refused unless the bill be produced and delivered up. On payment a receipt should be written on the back; and when a part is paid, the same should be acknowledged upon the bill, or the party paying may be liable to pay the amount a second time to a *bonâ fide* indorser.

**Promissory Notes and Checks.**—The chief distinction between promissory notes and bills of exchange is, that the former are a direct engagement by the drawer to pay them according to their tenor, without the intervention of a third party

as a drawee or acceptor. Promissory notes may be drawn payable on demand to a person named therein, or to order, or to bearer generally. They are assignable and indorsable; and in all respects so nearly assimilated to bills by 3 & 4 Anne c. 9, that the laws which have been stated as bearing upon the latter may be generally understood as applicable to the former. In *Elliott v. Bury*, it has been decided, in case an instrument is drawn so equivocally as to render it uncertain whether it be a bill of exchange or promissory note, the holder may treat it as either against the drawer.

Promissory notes, bills, drafts, or undertakings in writing, being made negotiable or transferable, for a less sum than 20s., are void, and persons uttering such are subject to a penalty not exceeding 20l., recoverable before a justice of peace.

The issue of a demand for a less sum than 5l. by the bearer on demand for a less sum than 5l. by the Bank of England, or any licensed English banker, is prohibited. By 26 & 27 Vict. c. 105, the parts of 17 Geo. III. c. 30 which restrain the negotiation of bills of exchange and promissory notes for a less sum than 5l., and the schedules C. & D. of 8 & 9 Vict. c. 38, enacting similar restraints in Scotland, are repealed.

A *check or draft* is as negotiable as a bill of exchange, and vests in the assignee the same right of action against the assignor.

Checks are of two sorts: that is, they may be either on plain or on stamped paper. The distinction was introduced by the 16 & 17 Vict. The peculiar conditions and limitations which plain checks must be drawn, and the privileges enjoyed by those on stamped paper, are briefly stated in the art. CHECKS, to which the reader is referred.

Any person drawing, accepting, or paying a bill or promissory note not duly stamped is liable to a penalty of 50l.; and a penalty of 50l. is imposed on parties sending or receiving unstamped checks or drafts at a greater distance than ten miles in a direct line from the place where they are issued.

It used to be of especial importance to bankers and others taking bills and notes, that they should only be aware of the responsibility of the acceptor and other parties to such bills and notes, but they should have some knowledge of those whom they received them; for, if the instrument turned out to have been lost or fraudulently obtained, they might be deprived of their money on an action by the owner to recover possession. Lord Tenterden decided, 'if a person take a bill or any other kind of security under circumstances which ought to excite suspicion in the mind of any reasonable man acquainted with the facts of the case, and which ought to put him on guard to make the necessary enquiries, and he do not, then he loses the right of maintenance of the instrument against the possession of the instrument against the owner.' (Guidhall, Oct. 25, 1823.) But since been decided, in *contra-ventio* doctrine, that the claim of the *bonâ fide* holder of a bill or note that has been lost or stolen is invalidated by the want of the suspicious enquiries referred to by Lord Tenterden, and gross negligence; and that to defeat a claim it must be shown that he took the instrument *malâ fide*. (*Chitty On Bills*, 9th ed. 1829.) This is an important, and, as we think, a just decision. It facilitates the negotiation and clears up and gives precision to the law.

Before concluding this article on bills of exchange, it may not be improper to introduce two cautions with regard to acceptances.

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loss of bills.

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accommodation paper, and proceedings in case of the loss of bills.

1. A man should not put his name as acceptor to a bill of exchange without well considering whether he has the means of paying the same when due, as otherwise he may be liable not only to the costs of the action against himself, but also to the costs of the action against the other parties to the bill. The shrewd tradesman is generally anxious to get the acceptance of his debtor at a short date, well knowing that it not only fixes the amount of the debt, but it is more speedily recoverable by legal procedure than a book debt.

2. Traders who wish to support their respectability, and desire to succeed in business, should be cautious in resorting to what is called the system of cross-accommodation acceptances: it is seldom ends well, and usually excites suspicion expedient often adopted by the parties; it being an expedient often adopted by swindlers to defraud the public. Independent of the expense in stamps and discounts, and frequently in noting, such accommodation is sufficient to deter from the practice. Suppose, for instance, A and B mutually accommodate each other to the amount of 1,000*l.* the acceptances being in the hands of third persons: both A and B are liable to such third persons to the extent of 2,000*l.* each; and should A by any unforeseen occurrence be suddenly rendered unable to meet his acceptances, the holders of the whole, as well the acceptances of A as the acceptances of B, will resort to B for payment; and it may so happen that although B could have provided for his own share of the accommodation paper, he may be unable to provide for the whole, and may thus become insolvent.

3. In case of the loss of a bill, the 9 & 10 Wm. III. c. 17 provides that if any inland bill be lost or missing within the time limited for its payment, the drawer shall, on sufficient security given to the holder, if such bill be found again, give another bill of the same tenor with the first.

EXCISE. [FUND.]

The name given to the duties or taxes laid on certain articles produced and consumed at home; but, exclusive of these, the duties on licenses and post-horses are also placed under the management of the excise, and are frequently included in the excise duties. The excise of one sort or other has existed in all modern, and perhaps also in all ancient times. It was introduced into Rome by Augustus, who imposed a duty of 1 per cent. (*centesima*) on all articles, whether great or small, sold in public markets or by auction, at an extremely moderate, a duty of this sort has since fallen from the difficulties in the way of assessment, its interference with the dealings of individuals, and the abuses to which it must give rise. It was so very prevalent, that in the time of the army, that the main support of the army, for the support of which this tax was appropriated, depended on its being levied. (*Tacit. Annal.*, lib. i. sec. 78.) In consequence of it underwent various changes. It was sufficiently well established that it was not only to Rome, and perhaps to some few other great towns. In the smaller towns it would not indeed have sufficed to support a good deal in common with the duties on town duties charged on commodities such as wine, Paris and other great continental

cities. But the defective mode of its assessment must have made it infinitely more troublesome and onerous. (*Gibbon, Decline and Fall*, i. 211, ed. 1838; *Dureau de la Malle, Economie Politique des Romains*, ii. 45.)

Excise duties had been from an early period established in Holland, and the large revenue which they afforded pointed them out to the leaders of the popular party in the great civil war as the most likely means by which they could raise funds to carry on the great contest in which they had embarked. They were consequently introduced by a parliamentary ordinance in which being then laid on the makers and vendors of ale, beer, cider, and perry. The royalists soon after followed the example of the republicans, both sides declaring that the excise should be continued no longer than the termination of the war. But it was found too productive a source of revenue to be again relinquished; and when the nation had been accustomed to it for a few years, the Parliament declared in 1649 that the 'impost of excise was the most easy and indifferent levy that could be laid upon the people.' And it is worthy of remark that the regulations embodied in Cromwell's Excise Act of 1657, authorising officers to make searches, and directing the giving of notices &c., are very similar to those now in force.

The same reasons that made the excise be continued down to the Restoration secured its existence subsequently to that epoch. A portion of its produce was at the same time assigned in perpetuity to the Crown, in compensation for relinquishing the hereditary revenues arising from wardships and other feudal prerogatives which were then abolished. And, notwithstanding Mr. Justice Blackstone says that 'from its first original to the present time its very name has been odious to the people of England' (*Commentaries*, gain ground, and is at this moment progressively to various important articles, and furnishes a large share of the public revenue of the kingdom.

It is probable that the prejudice to which Blackstone alludes did not originate so much in any dislike to the duties themselves as in the peculiar circumstances connected with their imposition. Originally they were let in farm, which is a most unpopular proceeding; and down to a recent period there was hardly a single duty the assessment of which was not made the subject of numerous lengthened, obscure, and contradictory statutes, so that it was hardly possible for any trader, however desirous to comply with the law, to avoid getting into serious scrapes. The duties being frequently also carried to an oppressive extent, smuggling was practised; and when a party was prosecuted, whether for an intentional or unintentional infraction of the law, or for attempting to defraud the revenue, the case might be laid before judges (without the intervention of a jury) in whose decision the party had little confidence. No wonder, therefore, that the excise should have been unpopular. But the obnoxious practice of letting the duties to farmers has been long abandoned, and of late years the laws and regulations connected with their assessment have been much simplified. In this respect, indeed, nothing should be omitted to render the rules for assessing the duties brief, calculated to the comprehension of every one, and the details and processes as little as possible with supposing their assessment to be sufficiently simplified, and that they are of a reasonable amount, but little objection can be made to the duties because of the summary jurisdiction exer-

cised by the commissioners and justices. On the contrary, this practice has some material advantages. When parties are prosecuted in the Court of Exchequer for offences against the revenue, their case is, of course, submitted to a jury. But in this court, as in others, delays frequently take place, and the expenses are always very considerable; whereas in cases of summary jurisdiction, or those adjudged by the commissioners and justices, there is little or no delay, and little or no

expense. And considering that all parties who fancy themselves aggrieved by the decision of the commissioners are entitled (1 Viet. c. 20 s. 26) to appeal at a very trifling cost to a baron of exchequer, who rejudges the case, while those who suppose themselves aggrieved by the decision of the justices may appeal to the quarter-sessions (7 & 8 Geo. IV. c. 53 s. 82), there really appears to be more to approve than to object to in the summary jurisdiction.

Quantities of the several Articles subject to Duties of Excise, Charged with Duty; Exported; and Retained for Home Consumption in the United Kingdom, in each of the Years (ended March 31) 1863, 1864, and 1865, with the Nett Amount of Revenue received for each Article.

Articles	Quantities Charged with Duty and Free of Duty			Quantities Exported to Foreign Countries on Drawback and Free of Duty			Quantities Retained for Home Consumption in the United Kingdom		
	1862-63	1863-64	1864-65	1862-63	1863-64	1864-65	1862-63	1863-64	1864-65
Chicory - - - cwt.	—	—	—	—	—	—	—	—	—
Hops - - - lbs.	4,417	11,366	5,753	8,551,998	—	—	4,147	11,366	5,753
Malt:							val. £5,010	—	—
Charged with duty bushels	—	—	—	292,565	217,985	212,755	—	—	—
Used in beer exported (estimated)	41,064,530	47,959,671	48,538,659	1,116,435	1,531,121	1,217,171	30,716,052	46,331,568	47,572,787
Free of duty for distillation and exportation	4,092,581	4,753,068	4,819,192	211,045	212,996	232,525	£1,907,408	£5,317,555	£5,050,650
Total of malt	33,157,111	52,663,742	53,558,181	1,592,815	1,744,102	1,692,222	43,261,571	50,831,610	51,953,237
Spirits:									
Charged with duty gallons	19,760,892	20,251,125	21,238,862	597,736	557,000	564,885	19,163,156	19,694,125	20,673,977
Free of duty for exportation	4,192,290	4,289,878	4,145,821	4,492,290	4,289,878	4,415,821	£1,178,261	£1,186,081	£1,200,224
Total of spirits	24,253,172	24,521,003	25,384,683	5,092,016	4,826,878	5,010,706	19,163,126	19,694,125	20,673,977
Sugar, home made - cwt.	110	—	1,063	—	—	—	140	—	1,063

The excise duties formerly imposed on salt, leather, candles, beer, glass, hops, paper, and other less important articles, have been repealed. On the other hand, an excise duty on chicory, equal to the customs duty on coffee, has been imposed. And we doubt whether there be one of the existing duties which can be fairly objected to on principle, or for its injuriously interfering with the manufacture, or being too high. Whatever may have been the case formerly, the excise is now fully entitled to the eulogium passed upon it by Arthur Young:—'Excises are by much the fairest, most equal, and least burdensome of all taxes. They are paid voluntarily. Not a shilling is contributed but in proportion to the free consumption. The Dutch, who have been deservedly esteemed the wisest nation in Europe in all matters of taxation, have been enabled to preserve their industry under burdens of which we have no experience, and scarcely any conception, principally by their having adopted this mode of taxation.' (*Political Arithmetic*, part ii. p. 46.)

The excise duty on sugar was imposed, by the Act 3 & 4 Viet. c. 57, on all sugar raised in the United Kingdom, whether from beet-root, potatoes, or other materials. It is the same as the duty on British colonial sugar. Probably, however, the better policy would be to prohibit the home production of such articles, inasmuch as it is sure to facilitate smuggling and adulteration.

The laws with respect to the general management of the excise were consolidated by the 7 & 8 Geo. IV. c. 5, from which the following particulars are selected:—

**Commissioners.**—Four commissioners were to constitute a board, but the Boards of Excise, and Stamps and Taxes, were consolidated by the 12 & 13 Viet. c. 1. They are to be subject, in all things relating to their peculiar duty, to the orders of the Treasury. They may appoint collectors and other subordinate officers, and give them such salaries and allowances as the Treasury shall direct; but they are not allowed to increase the number of inferior officers without the permis-

sion and approval of the Treasury. No member of the House of Commons can be a commissioner of excise.

**Officers of Excise.**—Until this year (1865) no officer of excise was to vote or interfere at any election of a member of Parliament under pain of forfeiting 500l. and being rendered incapable of ever holding any office or place of trust under her Majesty; but by 31 & 32 Viet. c. 73, the disabilities of revenue officers to vote at such elections are removed.

No person holding any office of excise is to hold in any sort of goods subject to the excise laws.

Any person bribing or offering to bribe any officer of excise shall forfeit 500l.; and every officer accepting such bribe, or doing, committing, or permitting any act or thing whereby any of the provisions of the excise laws may be evaded or broken, shall forfeit 500l. and be declared incapable of ever after serving her Majesty in any capacity whatever. But if any of the parties to such illegal transactions shall inform against the other before any proceedings thereupon shall have been instituted, he shall be indemnified against the penalties and disabilities imposed for such offences.

**Duties and Powers of Officers.**—It is the duty for any officer to enter any building or place, used for carrying on any trade subject to the excise, either by night or by day (but by night, in the presence of a constable or police officer), to inspect the same &c.; and upon such officer making oath that he has cause to suspect that goods forfeited under the Excise Acts are deposited in any private house or place, the commissioners of excise, or one justice of the peace, may grant a warrant to the officer to enter such house or place (if in the night in the presence of a constable) to search for and seize such goods.

**Specimen Books** may be left by the officer on the premises of persons subject to the excise, and anyone who shall remove or deface such books shall be liable to a penalty of 200l.

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Removing Goods to avoid duty.—Goods fraudulently removed or secreted in order to avoid the duty to be forfeited; and every person assisting in such removal shall forfeit and lose treble the value of such goods, or 100*l.*, at the discretion of the commissioners.

Obstructing Officers.—All persons who shall oppose, molest &c. any officer of excise in the execution of his duty shall respectively, for every such offence, forfeit 200*l.*

Officers violently resisted in making any seizure may oppose force to force; and in the event of their wounding, maiming, or killing any person when so opposed, they shall be admitted to trial, and may lead the general issue.

Justices, mayors, bailiffs, constables &c. are required to assist excise officers; and any constable who, on notice and request, declines going with an excise officer, is to forfeit 20*l.* for every such offence.

Claimants of Goods seized.—No claim shall be entered for goods seized except in the real names of the proprietors of such goods. Claimants are bound with two sureties in a penalty of 100*l.* to pay the expenses of claim; and in default thereof, the goods are to be condemned.

Proceedings in Courts of Law.—All penalties under the excise laws may be sued for and recovered in the Courts of Exchequer at Westminster, Edinburgh, or Dublin respectively, according as the offence may have taken place in England, Scotland, or Ireland; provided that the proceedings in the courts commence within 3 years after the commission of the offence.

Information for the recovery of penalties against the excise laws in London may be heard and adjudged by any three or more of the commissioners of inland revenue; and in other places such informations may be exhibited before one or more, to be heard and adjudged by any two or more, Justices of the peace. The 28 & 29 Vict. c. 96 s. 25 gives right of appeal where the penalty exceeds 50*l.*

Mitigation of Penalties.—Justices are authorised, if they see cause, except when there is a special provision to the contrary, to mitigate any penalty incurred for any offence committed against the excise laws to one fourth part thereof; and the Justices may, when they see cause, remit or entirely remit such penalty.

Distribution of Penalties.—Down to 1868 all penalties and forfeitures incurred under the Excise Acts were distributed, half to her Majesty, and the other half to the officer or person who should discover, or sue for the penalty. But by 31 & 32 Vict. c. 41 such penalties are, after October 1, 1868, to be paid to her Majesty, and rewards are to be paid, in respect of such penalties, out of Supplies voted by Parliament. (Secs. 1 & 2.) On proof of any officer acting collusively in making a seizure, the commissioners may direct his share to be forfeited.

Oaths and Affirmations.—Persons wilfully taking or making any false oath or affirmation as to any matter connected with the excise laws shall, upon being convicted of such offence, suffer the pains and penalties incident to wilful and corrupt perjury; and those procuring or suborning such persons to swear or affirm falsely shall, upon conviction, be liable to the pains and penalties incident to subornation of perjury.

Actions against Excise Officers.—No writ, summons, or process shall be sued out or served upon, nor shall any action be brought, raised, or prosecuted against, any officer of excise, for any thing done under any of the excise laws, until after the expiration of 1 calendar month next after notice in writing has been delivered to such officer, specifying the cause of such action, and the name and place of abode of the person in whose name it is to be brought. No action shall lie against any excise officer for any thing done under the excise laws unless it be brought within 3 months after the cause of action shall have arisen. If judgment be given against the plaintiff, and in favour of the defendant, the latter shall, in every such action, have treble costs awarded.

Forging Certificates &c.—By the 41 Geo. III. c. 91 it is enacted that if any one shall forge, counterfeit, or knowingly give any forged certificate required to be granted by any officer of excise, he shall be guilty of felony, and being convicted, shall be transported for 7 years.

All individuals carrying on any business subjected to the control of the excise must take out licenses, renewable chiefly on July 5 or October 10, annually. [LICENSES.]

All such individuals are also obliged to make entries of every building, place, vessel, or utensil, as the case may be, in the name of the real owner, with the officer of excise in whose survey such building, place &c. shall be situated. Individuals found employed in unlicensed excise manufactories are severally liable in a penalty of 30*l.* for the first offence; and in the event of any such offender refusing or neglecting to pay such penalty, he is to be committed to the house of correction or labour, till the fine of 30*l.* has been paid, or the term of 3 months has expired; and if found guilty of a second offence, the fine is to be 60*l.*; and in the event of its not being paid, the imprisonment is to be for 6 months. (7 & 8 Geo. IV. c. 53 s. 33.)

Permits are usually necessary for the removal of exciseable commodities. [PERMITS.]

EXPECTATION, of life. [INSURANCE.]

EXPORTATION. In Commerce, the act of sending or carrying commodities from one country to another. [IMPORTATION AND EXPORTATION.]

EXPORTS. The articles exported or sent beyond seas. [IMPORTS AND EXPORTS.]

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FACTOR. An agent employed by some one individual or individuals to transact business on their account. He is not generally residing in the same place as his principal, but in a foreign country. He is authorised, by letter of attorney or otherwise, to receive, and sell goods and merchandise, to receive, and transact all sorts of business on account of his employers, under such limitations and conditions as the latter may choose to impose. A

very large proportion of the foreign trade of this and most other countries is now carried on by means of factors or agents.

Factors and brokers are in some respects nearly identical, but in others they are radically different. 'A factor,' said Mr. Justice Holroyd, 'differs materially from a broker. The former is a person to whom goods are sent or consigned; and he has not only the possession, but, in consequence of its being usual to advance money upon them, has



but the latter will be justly censurable if they do not execute their engagements on account of others with that care and diligence which a 'prudent and attentive father of a family' uses in his own private concerns. It is their duty to exert themselves proportionally to the exigency of the affair in hand; and neither to do anything, how minute soever, by which their employers may sustain damage, nor omit anything, however inconsiderable, which the nature of the act requires. Perhaps the best general rule on the subject is, to suppose a factor or agent bound to exert that degree of care and vigilance which may be reasonably expected of him by others. At all events it is clear he is not to be regulated by his own notions of the value of the business. A man may neglect business of his own, or not think it worth attending to; but he is not, therefore, to be excused for neglecting any similar business he has undertaken to transact for others. (There are some very good observations on this subject in Sir William Jones's *Essay on Bailments*, 2nd ed. p. 75 and *passim*.)

A factor who sells a commodity under the price he is ordered may be obliged to make good the difference, unless the commodity be of a perishable nature and not in a condition longer to be kept; and if he purchase goods for another at a fixed rate, and their price having afterwards risen, he fraudulently takes them to himself, and sends them somewhere else, in order to secure an advantage, he will be found, by the custom of merchants, liable in damages to his principal.

An agent employed to sell is not allowed to be the purchaser, at least not unless he make known that he intends to be such and furnish his employer with all the knowledge he himself possesses, or unless the court, perceiving that the principal would lose by a resale, think fit on that point to uphold the transaction. So neither can an agent employed to purchase be himself the purchaser, unless there was a plain understanding between him and the principal. And if an agent is employed to purchase, purchase for himself, he will be considered a trustee for his principal. (See *Smith On Mercantile Law*, p. 144.)

If a factor, in conformity with a merchant's order, buy with his money, or on his credit, a commodity he is directed to purchase, and, without the advice of the transaction, sells it again at profit, appropriating that profit to himself, the merchant may recover it from him, and have him redressed for fraud.

A factor buy, conformably to his instructions, goods of which he is robbed, or which suffer some considerable injury, he is discharged, and the loss on the principal. But if the goods be stolen from the factor, he will not be so easily discharged; the fact of their having been abstracted by violence, and not by violence, raises a strong presumption that he had not taken that reasonable care of them which was incumbent upon him. If, however, he can prove that the goods were lodged in a place of security, and that he had not been guilty of positive negligence, nor exercised less care towards them than towards his own property, he will not be held responsible even for a theft committed by his servants. (*Jones On Bailments*, p. 76; *Chitty On Commercial Law*, vol. iii, c. 12.)

A factor, having money in his hands belonging to his principal, neglect to insure a ship and according to order, he must, in the event of a miscarriage, make good the damage; and he may make any composition with the insurers after the event, without orders to that effect, he is answerable for the whole insurance. A principal at

the end of a very long letter directed his agent thus: 'Observe, the premium on this value is also to be insured;' but the agent, not noticing this sentence, neglected to insure the premium, and being sued, was held liable for the omission.

If goods are remitted to a factor, and he make a false entry of them at the Custom-house, or land them without entry, and they are in consequence seized or forfeited, he is bound to make good the damage to his principal; but if the factor make his entry according to invoice or letters of advice, and, these proving erroneous, the goods are seized, he is discharged.

It is now a settled point that a factor has a lien on goods consigned to him, not only for incidental charges, but as an item of mutual account for the balance due to him so long as he remains in possession. If he be surety in a bond for his principal, he has a lien on the goods sold by him on account of such principal, to the amount of the sum he is bound for.

It being the general rule of law 'that property does not change while *in transitu*,' or in the hands of a carrier, a consignment made before the bankruptcy of a consignee, but not arriving till after, remains the property of the consignee, except, indeed, where the delivery is made by the order and upon the account of the consignee, and is a complete alienation from the consignee. In the case, therefore, of a consignment to a factor, the property remains the consignee's, and passes into the hands of his assignees. When a factor has a lien on goods, he has a right to the price, though received after the bankruptcy.

Where general or unlimited orders are given to a factor, he is left to buy and sell on the best conditions he can; and if detriment arise to a principal from the proceedings of a factor acting under such authority, he has no redress, unless he can show that he acted fraudulently or with gross negligence.

A factor or broker acting against the interest of his principal cannot even receive his commission. If he pay money on account of his principal without being authorised, he cannot recover it back.

An agent cannot delegate his rights to another so as to bind the principal, unless expressly authorised to nominate a sub-agent.

(For further information as to the general powers and liabilities of factors and agents, see Beawes, *Lex Mercatoria*, art. 'Factors'; 'Super-cargoes' &c.; *Chitty's Commercial Law*, vol. iii, c. 3; *Woolrych On Commercial Law*, pp. 317-329; *Smith's Mercantile Law*, pp. 109, 169; &c.)

[BROKERS.] Under the law with respect to the transactions of factors or agents on third parties that prevailed down to the Act 6 Geo. IV. c. 94, it was held that a factor, as such, had no authority to pledge, but only to sell, the goods of his principal; and it was repeatedly decided that a principal might recover back goods on which a bonâ fide advance of money had been made by a third party, without his being bound to repay such advance, and notwithstanding this third party was wholly ignorant that the individual pledging the goods held them as a mere factor or agent. It used also to be held that bonâ fide purchasers of goods from factors or agents not vested with the power of sale might be made liable to pay the price of the goods a second time to the real owner.

The extreme hardship and injurious influence of such regulations are obvious. It is the business of a principal to satisfy himself as to the conduct and character of the factor or agent he employs; and if he make a false estimate of them, it is more

equitable, surely, that he should be the sufferer than those who have no means of knowing any thing of the matter. The injustice of the law in question, and the injury it did to the commerce of the country, had frequently excited attention, and were very ably set forth by the late Lord Liverpool in his speech in the House of Lords on moving the second reading of the bill referred to.

Those of their Lordships who were acquainted with commercial transactions would know that money was frequently advanced on goods without its being possible for the person advancing the money to have any further acquaintance with the transactions than that the factor was in actual possession of the goods. It then became a question, putting fraud out of view, if the factor became a bankrupt, or in any other way failed to execute his engagements, whether the loss should fall on the principal who had consigned these goods, or on the *pledgee* who had advanced money on them. It had been of late held that if the factor were intrusted only to dispose of the property, the loss must fall on the pledgee. He meant to contend that this was contrary to equity, and contrary to analogy—that it was disapproved of by high authority, and was contrary to the law in every country of the world, except this, and the United States of America, which had drawn their law from this country. It was contrary to equity, he thought, that the pledgee, who had advanced his money without any fraud, but on the *bonâ fide* possession of the goods, should suffer. He had placed no confidence, but the principal who had appointed the factor had placed confidence. He could limit him in his operations as he pleased—he could give him any kind of instructions—he might qualify his power—he was bound to take precautions before placing confidence; and he was in all respects more liable to suffer from his faults than the pledgee. The latter knew nothing of the power of the factor; he saw only the goods, and advanced his money on what was a sufficient security for repayment. On every principle of natural equity, therefore, the loss ought to fall, not on the *pledgee*, but on the principal. He knew that this view was connected with one very important question—that of possession and title; but it was not possible for transactions to go on unless the possession was admitted as the title to the goods. If this were an indifferent question, or a question involving only a few cases, he would not have called on their Lordships to legislate on this subject; but all the commercial interests of the country were connected with it. And he might say he believed that two thirds of the whole commerce of the country was carried on by consigning goods to a factor, and leaving it to his discretion to dispose of them to the greatest advantage, sending them to market when he pleased, and raising money on them when he could not send them to market. Bills of exchange, Exchequer bills, and money bills of every description were subject to this rule. If a person consigned Exchequer bills to a second person, and he parted with them, the third party who obtained them was held to have a right to them. Commercial proceedings were of as much importance as money proceedings, and he could not see why they should not receive the same security. It might be asked, perhaps, when this was felt to be so great an evil, why it was not altered before; but it seemed to be one of those things which had grown up gradually, and which did much mischief before they became extensively known. The first decision, he believed, which established the law as it now stood was delivered in 1742; and he knew that Lord Chief Justice Gibbs had said he could

not explain the origin of that decision. He supposed it might have been dictated by some fraud. That decision, the Lord Chief Justice maintained, was at variance with the best interests of commerce, and had grown out of circumstances he could not explain. From the time of the first decision, the decisions had not been numerous, till of late years. He did not doubt but the judge had decided according to the law as it was established by these precedents; but in doing that, they had expressed their regret that these precedents had been established. [Here his Lordship read an extract from opinions delivered by the late Lord Chief Justice Ellenborough, and a late Judge, Mr. Le Blanc, expressing their regret, in deciding cases according to these precedents, that they had been established.] He inferred from these opinions that these Judges, though they had felt themselves obliged to decide in this way, supposed that the law was contrary to the general analogy of our laws and to the principles of justice. He then came to the last consideration—the law of this country being in this respect different from the law of all other countries except the law of the United States of America. In all other countries the law was recognised to be what he wished to establish it by the bill before their Lordships. When there was no evidence of fraud, it was held that the man advancing money on goods held by a factor should not suffer for his faults, but that the person who confided in the factor must be the sufferer. This was also the law in Scotland. He had understood, too, that the evils of the law were felt in America, and that means had been taken for bringing it before the Congress, with a view to assimilate the law of America to the law of other countries. If the question were examined by the principles of equity, by analogy with other cases, or by the authority of those who decided in our courts, or by the practice of other countries, it would be found that the reasons were strong in favour of the bill. It was of great importance in commercial transactions that our law should be like the law of other countries. It was not the same with the laws relative to real property—to our land law, if he might so call it; but when the bill was founded on equity and analogy, he thought it was an additional reason in its favour that it assimilated our commercial law to the commercial law of other countries. He did not know if he had made himself understood, or if he had sufficiently explained the object of the bill; but the measure was founded in justice, and he hoped to have their Lordships' consent to it. The noble Earl concluded by moving the second reading of the bill.

Nothing can be clearer or more satisfactory than the principle laid down by Lord Liverpool in the above extract from his speech: but Act 6 Geo. IV. c. 94, which his Lordship introduced, did not fully carry out his views: for while it confirms *bonâ fide* sales, made in the ordinary course of business, in cases in which the purchaser had notice that the seller was merely an agent, it does not confirm *bonâ fide* advances made on goods, or on documents of title to goods, under the same circumstances. To obviate this discrepancy to get rid of the litigation to which certain equities in the 6 Geo. IV. c. 94 had given rise to facilitate commerce, the following statute, Viet. c. 39, was passed in 1842.

**Bonâ fide Advances to Persons intrusted with Possession of Goods or Documents of Title known to be Agents, protected.**—From and after the passing of this Act, any agent intrusted with the possession of goods, or of the documents of title to goods, shall be deemed and taken to be the owner of such goods and documents so far

give validity of pledge, if person with whom advance is made, or such goods or documents, are not consigned to another person, and notice thereof is not given to the person claiming the goods or documents.

**Bonâ fide 1.** Where any such person, or security for the delivery of other goods or negotiable securities, is delivered up to the person to whom a previous advance has been made, and agreement, if any, is made, shall be deemed to be an advance within the meaning of this Act, and shall not be subject to the provisions of this Act, if the consideration for the advance is present and the person to whom the advance is made is not a party to the contract or agreement, and the value of the goods or documents deposited is not less than the value of the advance which, or the negotiable securities, are to be advanced.

**But the Statute to be construed so as to be consistent with the provisions of this Act.**—The provisions of this Act shall not be construed to be inconsistent with the provisions of any Act in force at the time of the passing of this Act, and shall be construed so as to be consistent with the provisions of any Act in force at the time of the passing of this Act, and shall be construed so as to be consistent with the provisions of any Act in force at the time of the passing of this Act.

give validity to any contract or agreement by way of pledge, lien, or security bona fide made by any person with such agent, as well for any original loan, advance, or payment made upon the security of such goods or documents as also for any further contract or agreement in respect thereof; and such contract or agreement shall be binding upon the owner of such goods, and all other persons interested therein, notwithstanding that the person with whom such contract or agreement is made is only an agent, (Sec. 1.)

**Bona fide Deposits in Exchange protected.**—Where any such contract or agreement for pledge, lien, or security shall be made in consideration of the delivery or transfer to such agent of any other goods or merchandise, or document of title, or negotiable security, upon which the person so delivering up the same had at the time a valid and available lien and security for or in respect of a previous advance by virtue of some contract or agreement made with such agent, such contract or agreement, if bona fide on the part of the person with whom the same may be made, shall be deemed to be a contract made in consideration of an advance within the true intent and meaning of this Act, and shall be as valid and effectual, to all intents and purposes, and to the same extent, as if the consideration for the same had been a bona fide present advance of money; provided always that the lien acquired under such last-mentioned contract or agreement upon the goods or documents deposited in exchange shall not extend to the value at the time of the goods and merchandise which, or the documents of title to which, the negotiable security which shall be delivered up and exchanged. (Sec. 2.)

**But the Statute to be construed to protect only transactions bona fide.**—This Act, and every matter herein contained, shall be deemed and construed to give validity to such contracts and agreements only, and to protect only such loans, advances, and exchanges, as shall be made bona fide, and without notice that the agent making such contracts or agreements as aforesaid has not respect thereof against the owner of such goods or merchandise; and nothing herein contained shall be construed to extend to or protect any lien or charge for or in respect of any antecedent debt due from any agent to any person with or to whom such lien or pledge shall be given, nor to give any agent intrusted as aforesaid in this Act, authority from any express orders or authority from the owner; but that, for the purpose of the intent of protecting all such bona fide advances, and exchanges as aforesaid (though without notice of such agent not being the agent's authority), and to no further or other purpose, such contract or agreement as aforesaid shall be binding on the owner and all persons interested in such goods. (Sec. 3.)

**Meaning of the Term 'Document of Title' &c.**—Where any bill of lading, India warrant, dock warrant, receipt, receipt, certificate, warrant, or order for the delivery of goods, or any other document in the ordinary course of business as proof of possession or control of goods, or authorising a person to receive goods, or to deliver, or to deliver, the possessor of such document to receive goods thereby represented, shall be deemed and taken to be a document of title within the meaning of this Act; and any agent or person, who is possessed of any such document of title, whether derived immediately

from the owner of such goods or obtained by the possession of such agent's having been intrusted with the possession of the goods or of any other document of title thereto, shall be deemed and taken to have been intrusted with the possession of the goods represented by such document of title as aforesaid, and all contracts pledging or giving a lien upon such document of title as aforesaid shall be deemed and taken to be respectively pledges of and liens upon the goods to which the same relates; and such agent shall be deemed to be possessed of such goods or documents, whether the same shall be in his actual custody or shall be held by any other person subject to his control or on his behalf; and where any loan or advance shall be bona fide made to any agent intrusted with the possession of any such goods or documents of title as aforesaid, on the faith of any contract or agreement in writing to consign, deposit, transfer, or deliver such goods or documents of title as aforesaid, and such goods or documents of title shall actually be received by the person making such loan or advance, without notice that such agent was not authorised to make such pledge or security, every such loan or advance shall be deemed and taken to be a loan or advance on the security of such goods or documents of title within the meaning of this Act, though such goods or documents of title shall not actually be received by the person making such loan or advance till the period subsequent thereto; and any contract or agreement, whether made direct with such agent as aforesaid, or with any clerk or other person on his behalf, shall be deemed a contract or agreement with such agent; and any payment made, whether by money or bills of exchange, or other negotiable security, shall be deemed and taken to be an advance within the meaning of this Act; and an agent in possession of any such goods or documents as aforesaid for the purposes of this Act, to have been intrusted therewith by the owner thereof, unless the contrary can be shown in evidence. (Sec. 4.)

**Agent's Civil Responsibility not to be diminished.**—Nothing herein contained shall lessen, vary, alter, or affect the civil responsibility of an agent for any breach of duty or contract, or non-fulfilment of his orders or authority in respect of any such contract, agreement, lien, or pledge as aforesaid. (Sec. 5.)

**Agent making Consignments contrary to Instruction of Principal, guilty of Misdemeanor.**—If any agent intrusted as aforesaid shall, contrary to or without the authority of his principal in that behalf, make any consignment, deposit, transfer, or delivery of any goods or documents of title so intrusted to him as aforesaid, as and by way of a pledge, lien, or security; or shall, contrary to or without such authority, for his own benefit and in violation of good faith, accept any advance on the deposit, transfer, or agreement to consign, or deliver such goods or documents of title as aforesaid; every such agent shall be deemed guilty of a misdemeanor, and being convicted thereof, shall be sentenced to transportation for any term not exceeding 14 years nor less than 7 years, or to suffer such other punishment by fine or imprisonment, or by both, as the court shall award; and every clerk or other person who shall knowingly and wilfully act and assist in making any such consignment, deposit, transfer, or delivery, or in accepting or procuring of a misdemeanor, and being deemed guilty of a misdemeanor, and being convicted thereof, shall be liable, at the discretion of the court, to any of the punishments which the court shall

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award, as hereinbefore last mentioned: provided nevertheless that no such agent shall be liable to nevertheless prosecution for consigning, depositing, transferring, or delivering any such goods or documents of title, in case the same shall not be made a security for or subject to the payment of any greater sum of money than the amount which at the time of such consignment, deposit, transfer, or delivery was justly due and owing to such agent from his principal, together with the amount of any bills of exchange drawn by or on account of such principal, and accepted by such agent: provided also that the conviction of any such agent shall not be received in evidence in any action at law or suit in equity against him, and no agent intrusted as aforesaid shall be liable to be convicted by any evidence in respect of any act done by him, if he shall, at any time previously to his being indicted for such offence, have disclosed such act, on oath, in consequence of any compulsory process of any court of law or equity in any action, suit, or proceeding which shall have been bona fide instituted by any party aggrieved, or if he shall have disclosed the same in any examination or deposition before any commissioner of bankrupt. (Sec. 6.)

**Right of Owner to redeem &c.**—Nothing herein contained shall prevent such owner as aforesaid from having the right to redeem such goods or documents of title pledged as aforesaid, at any time before such goods shall have been sold, or repayment of the amount of the lien thereon, or restoration of the securities in respect of which such lien may exist, and upon payment or satisfaction to such agent, if by him required, of any sum of money for or in respect of which such agent would by law be entitled to retain the same goods or documents, or any of them, by way of lien as against such owner, or to prevent the said owner from recovering of and from such person with whom any such goods or documents may have been pledged, or who shall have any such lien thereon as aforesaid, any balance or sum of money remaining in his hands as the produce of the sale of such goods, after deducting the amount of the lien of such person under such contract or agreement: provided always, that in case of the bankruptcy of any such agent, the owner of the goods which shall have been so redeemed by such owner shall, in respect of the sum paid by him on account of such agent for such redemption, be held to have paid such sum for the use of such agent to have his bankruptcy, or in case the goods shall not be so redeemed, the owner shall be deemed a creditor of such agent for the value of the goods so redeemed at the time of the pledge, and shall, if he shall think fit, be entitled in either of such cases to prove for or set off the sum so paid, or the value of such goods, as the case may be. (Sec. 7.)

Clause 8 refers to the interpretation of the Act. In order further to enforce honesty on the part of agents and other like persons, the statute 24 & 25 Vict. c. 96 enacts that under certain circumstances they shall be guilty of misdemeanor, and punishable with penal servitude. When any person intrusted as a banker, merchant, broker, attorney, or other agent, with any money or security for its payment, with a direction in writing to apply, pay, or deliver it, or any part of it, or its proceeds, for any purpose or to any person specified in such direction, in violation of good faith, and contrary to the terms of such direction, converts it to the use and benefit of himself or any person other than the person so intrusting him. Whenever any person intrusted as a banker, broker, attorney, or other agent, with any chattel, valuable security, or any power of attorney for the sale and transfer

of any share or interest in any public stock or fund (British or foreign), or in any stock or fund of any body corporate, company, or society, or of any safe custody, or for any special purpose, without any authority to sell, negotiate, transfer, or pledge, in violation of good faith, and contrary to the object or purpose for which it was intrusted to him, sells, negotiates, transfers, pledges, or in any manner converts it or its proceeds to his own use or benefit, or the use or benefit of any person other than the person by whom he was so intrusted, (Trustees and mortgagees are excepted, and the parties specified are not restrained from disposing of securities.) So again in cases where the agent transfers &c. part of the estate. So with the fraudulent use of powers of attorney. So with the pledge of goods intrusted to a factor or agent for the advance of money or valuable security on contract to consign or deliver. Clerks assisting factors are punishable in the same manner. But the remedy of the principal is against the factor, and not against the innocent or bona fide purchaser.

A principal is not criminally responsible for the act of his agent, except he expressly commanded it.

For the revocation of an agent's power to commit his principal to third parties, see *Bankrupt Law*, p. 153.

**FACTORAGE or COMMISSION.** The allowance given to factors by the merchants and manufacturers &c. who employ them: it is a percentage on the goods they purchase, or sell on account of their principals; and varies in different countries, and as it refers to different articles. It is customary for factors, as observed in the preceding article, to insure the debts due to those for whom they sell for an additional, or *del credere*, commission, generally averaging from 1 1/2 to 2 per cent. Factorage or commission is also frequently charged at a certain rate per cask, or other measure, or weight, especially when the factor is only employed to receive or deliver: this is usually fixed by special agreement between the merchant and factor.

**FACTORY.** In Commerce, a place where merchants and factors reside, to negotiate business themselves and their correspondents on commission. These establishments, of great importance in the past history of commerce, have a practical existence at present. In modern times the word factory is used as an abbreviation for manufactory. For a short account of Factory Acts, see *MANUFACTURES*.

**FAIRS AND MARKETS.** These institutions are very closely allied. A fair, as the term is generally understood, is only a greater or smaller market recurring at more distant intervals, and are appropriated to the sale of one or more kinds of goods, the hiring of servants or labourers; but fairs are, in most cases, attended by a great concourse of people, for whose amusement exhibitions are got up.

**1. Origin of Fairs.**—Institutions of this kind are peculiarly serviceable in the earlier stages of society, and in rude and inland countries, where the number of shops, and the commodities which are then either comparatively limited, or but little frequented by dealers; so that the advantage of all that fairs should afford, and merchants induced to attend. For this purpose various privileges have been annexed to fairs, and numerous facilities afforded for the disposal of property in them. To a greater degree of solemnity, they were originally, both in the ancient and modern world, associated with religious festivals. In modern times, indeed, they are still held on the same

Amount	At # per Cent.
£	0 0 0
1	0 0 0
2	0 0 0
3	0 0 0
4	0 0 0
5	0 0 0
6	0 0 0
7	0 0 0
8	0 0 0
9	0 0 0
10	0 0 0
11	0 0 0
12	0 0 0
13	0 0 0
14	0 0 0
15	0 0 0
16	0 0 0
17	0 0 0
18	0 0 0
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92	0 0 0
93	0 0 0
94	0 0 0
95	0 0 0
96	0 0 0
97	0 0 0
98	0 0 0
99	0 0 0
100	0 0 0

Amount	At # per Cent.
£	0 0 0
1	0 0 0
2	0 0 0
3	0 0 0
4	0 0 0
5	0 0 0
6	0 0 0
7	0 0 0
8	0 0 0
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99	0 0 0
100	0 0 0

right or part of the saint... and till the practice... in England, to... the growth of towns... for the disposal... produce at the week... in them, the utility... has very much... but much of their... some of them are... a good number... pressed. It is far otherwise in the facilities for carrying on business are comparatively limited in the utmost importance for the bringing together of dealers. This is not a means of promoting commercial antipathies of the products, arts, &c. *Establishment of English Fairs* which supposes such gran





FAIRS AND MARKETS

Account of the Number of Sheep and Cattle exhibited at the October Fairs of Bullinasloe, in the under-mentioned Years, from 1790 to 1867, both inclusive.

Year	Sheep, total sold and unsold	Horned Cattle, total sold and unsold	Year	Sheep, total sold and unsold	Horned Cattle, total sold and unsold	Year	Sheep, total sold and unsold	Horned Cattle, total sold and unsold
1790	61,971	8,632	1822	90,177	9,017	1817	80,519	10,154
1791	68,427	7,996	1823	95,909	10,909	1818	87,015	8,102
1792	70,386	7,996	1824	81,231	9,017	1819	67,416	12,754
1793	87,161	8,801	1825	90,965	10,966	1820	51,072	15,795
1794	81,531	10,031	1826	91,615	8,210	1821	54,519	11,659
1795	87,993	12,100	1827	91,575	8,719	1822	59,187	11,803
1796	80,269	8,368	1828	97,341	11,515	1823	62,558	19,512
1797	82,299	9,327	1829	86,119	9,513	1824	79,899	18,409
1798	76,918	8,537	1830	81,556	2,976	1825	81,182	22,710
1799	91,901	7,258	1831	64,176	2,209	1826	80,718	26,128
1800	86,800	1,162	1832	65,412	8,128	1827	94,678	20,784
1801	85,529	9,908	1833	66,714	6,657	1828	91,650	25,016
1802	77,988	9,304	1834	69,151	9,183	1829	97,729	18,112
1803	86,202	8,149	1835	65,536	9,157	1830	81,661	17,474
1804	91,764	9,611	1836	69,356	9,183	1831	81,661	19,115
1805	76,353	8,183	1837	90,969	9,183	1832	75,416	16,510
1806	70,309	6,902	1838	96,251	11,113	1833	71,997	19,115
1807	70,877	6,902	1839	91,293	11,750	1834	75,491	16,510
1808	78,227	9,010	1840	77,193	12,608	1835	71,355	22,476
1809	80,715	9,738	1841	75,493	11,164	1836	66,530	18,819
1810	85,000	8,705	1842	76,815	11,391	1837	75,502	17,508
1811		7,284					75,502	23,731

Principal French Fairs.—Among these may be specified the fairs of St. Germain's, Lyons, Rheims, Chartres, Rouen, Bordeaux, Troyes, and Bayonne; but they are much fallen off.

The most important of the modern French fairs is that of Beaucuire, on the right bank of the Rhone, opposite to Tarascon, 14 miles E. of Nismes. It is very favourably situated for an entrepôt, being exclusive of the command of internal navigation afforded by the Rhone, connected by canals with the sea and the Canal du Midi. The fair, which commences on the 22nd and finishes on the 10th of July, was formerly the greatest in Europe; and, though a good deal fallen off, it is still attended by a vast concourse of people, not from France only, but also from Switzerland, Germany, Italy, Spain, and the Levant. Almost every sort of article, whether of convenience or luxury, which can be met with in the town. It is said the number of visitors still amounts to from 50,000 to 60,000, and the amount of business done in September 50,000,000 fr.; but we have little doubt that these estimates are very greatly exaggerated, and that the first would be nearer the mark were it reduced to 50,000 or 60,000. All bills due at this fair are presented on the 27th, and protested on the 28th. A tribunal instituted for the purpose of expediting and immediately settling all disputes growing out of transactions that take place at the fair. A military force attends to preserve order, and the prefect of the department, who is always present, entertains the principal merchants and strangers. (*Geographical Dictionary*, art. 'Beaucuire') and the authorities there resident to.)

German Fairs.—The principal German, or European, fairs, are those of Frankfort-on-Main, Frankfort-on-the-Oder, and Leipsic. These fairs are generally very great, and are abundantly supplied with the cotton stuffs, silks, and hardware of England; the silks and velvets of France; the printed cottons of India and Austria; the raw, manufactured, and dyed wools of Germany; the furs of the North; Turkey carpets; Cachemere shawls &c. They are also very much frequented by those of Spanish and foreign merchants of all nations, who are negotiating with those of the country for the purchase of furs, and German and Manchester supplying themselves with the raw materials and the jewellery of Paris. In fact, we meet the representatives, as it were, of every people in the world, labouring, without intending it, to promote each other's interest, and to extend and strengthen that bond which binds together the great family of man.

The fairs at Frankfort-on-the-Maine should begin, the first on Easter Tuesday, and the second on the Monday nearest to September 8. Their duration is limited to 3 weeks, but they usually begin from 8 to 15 days before their legal commencement. Accounts before their legal commencement. Accounts are kept in rixdollars; or 22½ batzen. The rixdollar = 3s. 18d.; so that the par of exchange is 141 batzen per £ sterling. 100 lbs. common Frankfort weight = 103 lbs. avoirdupois. The foot = 11.27 English inches.

The fairs at Frankfort-on-the-Oder are 3 in number; viz. *Reminiscere*, in February or March; *St. Margaret*, in July; and *St. Martin*, in November. They ought, strictly speaking, to terminate in 8 days, but they usually extend to 15. The Prussian Government gives every facility to those who attend these fairs. Accounts are kept in Prussian money, that is, in rixdollars of 2s. 11d. = 12.356 English inches. The foot = 11.27 English inches.

The fairs of Leipsic are still more celebrated than those of either Frankfort. They are held thrice a year—on January 1, at Easter, and at Michaelmas. The first is the least important. The Easter and Michaelmas fairs are famous, particularly the former, for the vast number of new publications usually offered for sale. They are attended by all the principal booksellers of Germany, and by many from the adjoining countries, who adjust their accounts, learn the state of the trade in all parts of the world, and endeavour to form new connections. Most German publishers of Germany what London is to that of Great Britain. As many as 5,000 new publications have been in a single Leipsic catalogue! They are also great markets for Saxon woollens and other goods, British calicoes, French silks, and, in fact, for most descriptions of produce. The fairs ought to close in 8 days, but they usually continue for about 3 weeks.

No days of grace are allowed. The holder of a bill must demand payment on the day it becomes due; and, if not paid, he must have it protested on that very day, and returned by the first opportunity. If he neglect any of these regulations, he loses all right of recourse upon the drawer and indorsers. Money of account at Leipsic same as at Frankfort-on-the-Maine, 100 lbs. Leipsic = 103 lbs. avoirdupois. The foot = 11.27 English inches. (*Kelly's Cambist*; *Manuel de Nelkenbrecher*; *Bowring's Report on the Prussian Commercial Union*, pp. 255-269; &c.)

Dr. Baring gives, in his *Travels in Hungary* (pp. 201-223), an interesting account of the fairs held at Debreczin and Pesth. The latter has been

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come the grand centre of Hungarian commerce, some part of which is conducted at its fairs.

11. *Italian Fairs.*—Of these, the most celebrated is that of Sinigaglia, a small but handsome town of the Papal dominions, on the Misa, near its confluence with the Adriatic, and should terminate on the 20th of July, but it usually continues on the last day of that month, but it usually continues 8 or 10 days longer. The duties on goods brought to the fair are extremely moderate, and everything is done to promote the convenience of those frequenting it. All sorts of cotton, woollen, and silk goods, colonial produce, iron and steel, hardware, jewellery, brandy and liqueurs, timber, drugs, spices &c. are brought here by the English, French, Austrians, Swiss &c. These are exchanged for the various raw and manufactured products of Italy and the Levant; consisting, among others, of raw, thrown, and wrought silks; oil, fruits, cheese, alum, soda, sumach, sulphur &c. Accounts are kept in scudi of 20 soldi; the sendo = 4s. 4d. very nearly. 190 lbs. Sinigaglia = 734 avoirdupois. *(Manuel de Nelkenbrecher; 25-33 English inches. 'Italy,' p. 121.)*

12. *Russian Fairs.*—These are numerous, and many of them are well attended. The most important is held at Nijni-Novgorod, at the confluence of the Oka with the Wolga, lat. 56° 19' 40" N., long. 41° 28' 30" E. Previously to 1817 this fair was held in a less convenient situation, at Makareff, lower down the Wolga; but the buildings for the accommodation of the merchants at the latter having been accidentally burnt down in 1816, Government took advantage of the circumstance to remove the fair to Nijni. It is principally carried on within the new bazaars constructed for that purpose on the left bank of the Oka. These, which are divided into parallel rows of streets, are constructed of stone walls roofed with iron, having covered galleries in front supported by iron pillars. They are built on piles, and, to guard against inundations, the ground on which they stand has been raised about 20 feet, and is enclosed on 3 sides by canals, and on the 4th by a navigable inlet of the Oka, there is every facility for the delivery and shipment of goods. The establishment is of great extent, comprising 2,524 booths, and is admitted on all hands to be at once the largest and most perfect of its kind that is anywhere to be met with. But, in addition to the above, there are about as many shops and booths constructed of wood, which belong to private parties. The fair begins in July, and continues for a month or 6 weeks.

The total value of all sorts of produce brought to the fair in 1852 amounted to 61,591,000 silver roubles; of this sum, Russian produce made 49,274,000 roubles; colonial and dye stuffs, 2,580,000 do.; Chinese produce, 6,886,000 do.; Persian produce, 1,284,000 do.; with the produce of Khiva and Bokhara 886,000 do. *(Fogoborski, Forces Productives de la Russie, iii. 281.)* The stationary population of the town, which may amount to about 25,000, is, during the fair, said to amount to from 100,000 to 130,000, including Chinese, Persians, Armenians, Tartars, Bokharians &c. Theatrical exhibitions, shows of wild beasts, and other sports, add to the attractions of the scene.

Another celebrated Russian fair is held in the month of December, at Kiachta, in Mongolia, on the Chinese frontier, lat. 50° 21' 5" N., long. 106° 28' 15" E. The town is small, the population not exceeding 4,000 or 5,000; but by far the

largest part of the commerce between the Russian and Chinese empires is transacted at its fair, and it is also the centre of the political intercourse between them. The commodities brought hither by the Russians consist principally of Russian and German broad cloths, furs, sheep and lamb skins, leather, coarse linens, worsted stuffs, carpets, and Chinese or tea, raw and manufactured silk, manneken, porcelain, sugar-candy, rhubarb, tobacco, musk &c.; the value of the articles, however, other than tea, being comparatively inconsiderable. The quantity of tea purchased at the Kiachta fairs by the Russians, which in 1814 was only 9,080 poods, increased between 1817 and 1817 very considerably, and amounted in 1850, according to the official returns, to 210,179 poods, or 7,566,411 lbs.; very superior tea, worth about 2s. 6d. per lb., and 85,410 poods (3,076,849 lbs.) inferior or black tea. At an average of all sorts of tea into 1850, the total imports of all sorts of tea into Russia through Kiachta were estimated at 11,742,000 lbs. Eng. a-year. According to the same accounts the total value of the exports to China through Kiachta, in 1850, amounted to 6,916,071 silver roubles, and that of the imports to about the same amount to 923,554. But the effect on the trade produced by the abolition of the Russian monopoly and the legal importation of foreign tea in 1862 is best shown by the receipts of the Kiachta Custom-house, which fell from 1,240,000 silver roubles in 1861 to 2,050,509 in 1863. *(Report of Mr. Lunaley, Sec. of Embassy, 1867.)* The Russian trade is in the hands of comparatively few rich; that of the Chinese of whom are very rich; that of the European Russia conveyed from Kiachta to Commodities may be by land or by water; in the former case the journey takes a very short summer; 3 years, or rather 3 very short summers; rivers being for the most part of the year frozen over. *(Schmitzer, Statistique Générale de l'Empire de la Russie, p. 143; &c.)* We subjoin

An Account of the Principal Fairs in Russia, of the Value of the Goods Exhibited and Sold at each in 1851. *(Fogoborski, iii. 288.)*

Fairs	Goods exhibited	Goods sold
Nijni-Novgorod	60,976,000	58,800,000
Irkut, Nov. Fern	25,751,000	25,710,000
Kharkoff, in January	12,510,000	2,990,000
Poltava, in August	5,216,000	5,230,000
Korennaia, Nov. Koorck	6,229,000	5,500,000
Chiroupinakala, Don Cossacks	5,129,000	1,500,000
Kharkoff, in August	4,566,000	4,500,000
Kreozitz, Nov. Tchernigoff	2,981,000	1,700,000
Poltava, in February	3,554,000	1,500,000
Do. Feast of the Ascension	21,082,000	19,000,000
Other principal fairs	173,335,000	172,000,000
Total	353,335,000	350,000,000

13. *Turkish Fairs.*—Several important which little or nothing is known in this country are held at various places in European Turkey. Among others may be specified those of Usundjova, in Roumelia; Janina, in Thessaly; Strouga, on the Lake of Oerida; Novik, in Upper Mesia; Islivni, in Thrace; Plovdiv, in Macedonia; Eski-Djuma, in Bulgaria; and Zeitoun and Pharsalia, in the Peloponnese.

The largest and most important of these is that of Usundji, held at the village of Usundji, a tributary of the Maritima, 44 miles west by north of Adrianople.

visited by M. Blanqui in 1850. The latter sort are very apt to be attended by from 80,000 had journeyed hither Turkey for the purpose of raw cotton, leather, the country, and of manufactures of the latter is very extensive village by Government for the merchants, and into a ban for the receipt for the greater number, notwithstanding, to encourage on the surrounding high tracts of commerce that prevailed in the plain among the mountains. *(Blanqui, Voyage en Turquie en Europe.)* This great fair, which is held, like the other, immediately after harvest, is attended by many merchants, who transact business, it is very active, if this is the more surprising, is at Adrianople a constant from the seat of were supposed that they have been anxious to send details with respect to this country, describing the present advantages, but the rates by which they reached, and so forth, where exist, they have published; and hence the business of these fairs is of foreigners. *(Eastern Fairs.—The Eastern world is that sort of pilgrims in the world to be frequented by individuals of all ranks and from the remotest corners; and though the world; and though the declined of late years, great. [CARAYAN.] in Hindostan, is from its being one of the pilgrimages, and the town, which is inconceivable at the point of issues from the mountains, and Europeans, notwithstanding, who have been numerous, estimate the transactions, estimate the strangers are then as vicinity. But every holy; and the 1,000 to 1,500,000, and dealers are countries of India and countries which happened to auspicious moment was announced to the was so tremendous that she: her trampled on the river! The fair for commercial purposes of natives of Nepal with Afghans, Usbeck numbers of horses, c*

visited by M. Blanqui in 1841, and by Mr. Spencer in 1850. The latter says (but statements of this sort are very apt to be exaggerated) that it was attended by from 80,000 to 100,000 people, who had journeyed hither from all parts of European Turkey for the purpose of disposing of their wool, hides, raw cotton, leeches, and other products of the country, and of purchasing in return the manufactures of the West. The show of the latter is very extensive. Sheds are erected in the village by Government, which serve as warehouses for the merchants, and every house is converted into a haw for the reception of strangers. But by the greater number of the latter have, notwithstanding, to encamp with their animals, horses &c. on the surrounding plain. Blanqui speaks in high terms of commendation of the good order that prevailed, in the absence of anything like police among the motley population at the fair. (Blanqui, *Voyage en Bulgarie*, p. 252; Spencer's *Travels in European Turkey*, ii. 346; &c.)

This great fair, which lasts 15 days (Blanqui) is held, like the other fairs, in autumn, immediately after harvest. But though it be largely frequented by German, Swiss, Italian, and Greek merchants, who purchase a great amount of business, it is very little, if at all, known in England. This is the more surprising, seeing that we have consuls at Adrianople and other places not very distant from the seat of the fair; and it might have been supposed that these functionaries would have been anxious to send home the most ample details with respect to this and other fairs in their respective countries, describing the products which might be sent advantageously bought and sold at these fairs, the rates by which they might be most profitably reached, and so forth. But if such reports were published; and hence, probably, the fact of the business of these fairs being mostly in the hands of foreigners.

**Eastern Fairs.**—The most important fair in the Eastern world is that held at Mecca during the month of pilgrims in the month of Dhalhagja, and to be frequented by many thousands of individuals of all ranks and orders, brought together from the remotest corners of the Mohammedan world; and though the numbers attending it declined of late years, the concourse is still great. [CARAVAN.]

Delwar, in Hindostan, in lat. 29° 57' N., long. E. 117 miles north-east from Delhi, is famous for its being one of the principal places of pilgrimage, and the greatest fair in India. The town, which is inconsiderable, is situated on the banks of the Ganges, at the point where that sacred river issues from the mountains. The pilgrimages and fair are held together at the vernal equinox, and Europeans, nowise addicted to the religion, who have been repeatedly present on various occasions, estimate that from 200,000 to 300,000 strangers are then assembled in the town and vicinity. But every twelfth year is reckoned as a jubilee; and then it is supposed that from 1,500,000, and even 2,000,000 pilgrims and dealers are congregated together from all parts of India and countries to the north, which happened to be a twelfth year, and a very auspicious moment for bathing in the Ganges was announced to the impatient devotees, who were so tremendous that no fewer than 430 persons were either trampled to death under foot, or perished in the river! The foreigners resorting to the fair for commercial purposes only, consist of natives of Nepal, the Punjab, and the Afghans, Usbeck Tartars &c. and they bring with them numbers of horses, cattle, and camels;

Persian dried fruits, shawls, drugs &c.: the returns are made in cotton piece goods, indigo, sugar, &c. The merchants never mention the price of their goods, but conduct the bargain by touching the different joints of their fingers, to hinder the bystanders from gaining any information. During the Maharratta sway, a kind of poll-tax and duties on cattle were levied; but all is now free, without impost or molestation of any sort. Owing, also, to the precautions adopted by the British Government, the most perfect order is preserved—much to the surprise and satisfaction of the natives; for, antecedent to our occupation of the country, the fairs usually ended in disorder and bloodshed. (*Private information*, and the excellent account of Hurdwar in Hamilton's *Gazetteer*.)

The fairs of Portobello, Vera Cruz, and Acapulco, once so famous, are now totally deserted; that of the Havannah is also much fallen off.

**FATHOM.** A measure of length, 6 feet, chiefly used for measuring the length of cordage, and the depth of water and mines.

**FEATHERS, BED-FEATHERS** (Fr. plumes, plumes à lit; Ger. federn, bettfedern; Dutch, bedveern, pluimen; Ital. piume; Span. plumas) make a considerable article of commerce; particularly those of the ostrich, goose, heron, swan, peacock, and other poultry. The feathers of the ostrich have been held in the highest estimation from antiquity downwards, and have furnished favourite decorations for the fans and headresses of ladies, the helmets of warriors, and the most splendid processions. Many parts of Great Britain supply feathers for beds, and an inferior sort is brought from Ireland. Eider down, the finest variety of its class, is imported from the north of Europe; the ducks that supply it being inhabitants of Greenland, Iceland, and Norway. The eider duck breeds in the islands on the west of Scotland, but not in sufficient numbers to form a profitable branch of trade to the inhabitants. Hudson's Bay furnishes very fine feathers, especially for quills. The down of the swan is brought from Dantzic, as well as large quantities of superior feathers.

The duty on feathers was repealed in 1845. In 1866 the following quantities were imported; viz.

Feathers for beds	-	-	cwt. 12,470
Ostrich white	-	-	do. 11,877
black	-	-	" 27,000
Other sorts, unenumerated	-	-	" 51,499

**FIDDLES, or VIOLINS** (Ger. violinen, geigen; Dutch, violen; Fr. violons; Ital. violini; Span. violines; Russ. skripizii). Musical instruments, too well known to need any particular description. The finest-toned violins are those made in Italy; they are usually called Cremonas, from the name of the town where they were formerly manufactured in the highest perfection; 100 guineas and more have not unfrequently been given for a first-rate Cremona violin.

**FIGS** (Ger. feigen; Dutch, vygen; Fr. figues; Ital. fichi; Span. higos; Lat. fic, carica; Arab. teen). The fruit of the fig tree (*Ficus carica*), a native of Asia, but early introduced into Europe. It flourishes in Turkey, Greece, France, Spain, Italy, and Northern Africa, and even sometimes ripens its fruit in the open air in this country. Figs, when ripe, are for the most part dried in ovens to preserve them, and then packed very closely in the small chests and baskets in which we import them. The best come from Turkey; those of Kalamata, in the Morea, are said to be the most luscious. (Thomson's *Dispensatory*.)

Dried figs form a very considerable article of commerce in Provence, Italy, and Spain; besides



notwithstanding the enormous expense incurred in carrying some of them into effect, has been productive of any material advantage! and we see no reason to think that the suggestions of the committee of 1833, supposing they were to be acted upon, would have had any better success.

The injury done to the breeding grounds might, perhaps, be obviated; but besides this, the committee laid much stress on the encroachments of the French and other foreign fishermen, and on the license given to import foreign-caught turbot &c. duty free! We confess it appears to us quite visionary to suppose that these circumstances could have much influence. Our fishermen, living upon the very shores of the bays to which the French are said to resort, have advantages on their side sufficient, surely, to insure them a superiority, without the forcible expulsion, supposing that could be accomplished, of their foreign competitors. A man who does not succeed in a business carried on at his own door so well as one who resides 100 miles off, must look for the cause in his want of skill or industry, and should seek rather to improve himself than to disend his rival. The proposition for excluding turbot &c. of foreign catch—a one that could not be listened to for a moment. Such exclusion would not deprive of the slightest advantage to the British fishermen unless it occasioned a rise in the price of the fish; and we need not say that if the legislature interfere at all in the matter, it should be for its object the lowering, not the raising, of prices. A convention for fixing the limits of the coast and other fisheries on the coasts of the United Kingdom and of France was signed at Paris on August 2, 1839. Another convention between France for regulating these fisheries was signed January 14, 1868.

A Royal Commission which reported on the sea fisheries of the United Kingdom in 1866 took somewhat opposite views to those of the committee of 1853. The commissioners found that the quantity of fish had increased, and not diminished, in the years, and that beam trawling in the open sea was a wastefully destructive mode of fishing; they recommend that unrestricted freedom of catching and selling fish be permitted to all, whether British or foreigners. We append portions of two reports illustrative of the price of fish in Manchester and Newcastle-on-Tyne, showing the marked increase in that of the latter attributable to the opening of railway communication.

All that it is possible to do for the fishery, by relieving it from tithes and other burdens, and by facilitating the disposal of the fish in the markets of this and other countries, should be done; but in this way, and perhaps by some new regulations for preserving the brood, we do not see what more is to be done by legislative interference. The appointment of inspectors of salmon fisheries, and the enforcement of regulations for the preservation and improvement of this fish under various Acts from 21 & 25 Vict. c. 109 to 28 & 29 Vict. c. 119 and 121, have already done much good. It will be seen, in our articles on the HERRING and WHOLE FISHERIES, that the bounty system was attended with vast expense, without leading to any useful result. All sorts of fish, of whatever value, are now admitted free of duty.

The price of fish in the metropolis, though reduced of late years, is still very high, at least as compared with beef. This has been pretty generally believed to be in no small degree owing to the salesmen of Billingsgate market being able, in great measure, to regulate both the supply of the article and its price. The committee of 1833, however, declare that though they minutely examined the subject, it did not appear that any improper monopoly or injurious regulations subsisted either in the mode of supplying the market in the sale of the fish.

The demand for fish in other central towns has been similarly augmented. The quantity of fish carried by 12 railways in 1864, viz. 122,381 tons, is contrasted in the Sea Fisheries Commissioners' Report with the quantity (99,724 tons) conveyed by the same lines in 1862.

Sir John Barrow, in a valuable article on the fisheries, in the *Encyclopædia Britannica*, estimated the value of the entire annual produce of the foreign and domestic fisheries of Great Britain at 8,300,000*l.* But it is admitted by every one who knows any thing of the subject that this estimate is very greatly exaggerated. We doubt much whether the entire value of the fisheries can be reckoned so high as 5,500,000*l.* In 1866 we imported 1,547,598 cwts. of fish, valued at 631,552*l.*, of which 113,131 cwts. of fish, valued at 631,552*l.*, Holland, were fresh, chiefly from Norway and salted, while we exported 393,591 cwts. cured or chiefly herrings, to the value of 811,471*l.* [COD; HERRING; LOBSTER; MACKEREL; OYSTER; PILCHARD; SALMON; TURBOT; WHALE.]

Showing the Prices of Fish in the Manchester Fish Market in the 4 Years 1856-7, and 1864-5. The figures show the Prices in the first week in January.

Names of Fish	1856		1857		1861		1865	
	per lb.	1s. to 1s. 6d.	3d. to 4d.	1s. to 1s. 9d.	6d. to 8d.	1s. 9d. to 1s. 6d.	8d. to 1s.	6d. to 8d.
"	"	2d. to 4d.	"	"	3d. to 6d.	3d. to 10d.	3d. to 4d.	
"	"	1s. 6d.	"	"	4d. to 6d.	10d. to 1s.	3d. to 4d.	
"	"	2d. to 4d.	"	"	3d.	1s. to 1s. 6d.	3d. to 4d.	
"	"	3d.	"	"	1 1/2d. to 2d.	3d.	3d. to 4d.	
"	"	4d. to 6d.	"	"	5d. to 6d.	1 1/2d. to 2d.	1 1/2d. to 2d.	
"	"	2d.	"	"	3d.	3d.	3d.	
"	"	4d. to 6d.	"	"	7d. to 8d.	4d. to 5d.	4d.	

The above are the retail prices. Wholesale prices about one-third less.

Showing the Prices paid for Fish in the Market and Town of Newcastle-upon-Tyne in each of the 4 Years 1856-7 and 1864-5. (Collected and compiled by the Keeper of the Market, appointed by the Corporation.)

Names of Fish	1856		1857		1861		1865	
	per stone	2s. to 2s. 6d.	3d. to 1s. 3d.	2s. 3d. to 2s. 9d.	1s. to 1s. 6d.	4s. to 5s. 6d.	4s. 6d. to 6s. 6d.	1s. 9d. to 2s.
per pair	"	3d. to 1s. 3d.	"	"	1s. to 1s. 6d.	1s. 9d. to 2s.	1s. 9d. to 2s.	
each	"	3d. to 1s. 3d.	"	"	1s. to 1s. 6d.	1s. 9d. to 2s.	1s. 9d. to 2s.	
"	"	3d. to 9d.	"	"	1s. to 1s. 6d.	1s. 9d. to 2s.	1s. 9d. to 2s.	
"	"	3d. to 6d.	"	"	1s. to 1s. 6d.	1s. 9d. to 2s.	1s. 9d. to 2s.	
"	"	6d. to 9d.	"	"	1s. to 1s. 6d.	1s. 9d. to 2s.	1s. 9d. to 2s.	
per stone	"	9d. to 1s.	"	"	1s. to 1s. 6d.	1s. 9d. to 2s.	1s. 9d. to 2s.	
"	"	1s. to 1s. 6d.	"	"	1s. to 1s. 6d.	1s. 9d. to 2s.	1s. 9d. to 2s.	

FLAX (Ger. *flachs*; Dutch, *vlasch*; Fr. *lin*; Ital. and Span. *lino*; Russ. *len*, *lon*; Pol. *len*; Lat. *linum*). An important plant (*Linum usitatissimum*) cultivated from the earliest ages in Great Britain and many other countries; its fibres being manufactured into thread, and its seed crushed for oil. But in general we have been in the habit of importing a large proportion of our supplies. The premiums given by the Legislature to force the cultivation of flax had little effect; the fact being, as Mr. London has stated, that its culture is found to be, on the whole, less profitable than that of corn. When allowed to ripen its seed, it is one of the most severe crops.

Probably, however, the case may be different in Ireland, the soil and climate of which appear to be better suited than those of Britain to the growth of flax. There, at all events, its cultivation has been rapidly extended within the last 20 years. This is evinced by the fact that while the land under flax in Ireland in 1817 amounted to only 58,312 acres, it had increased in 1851 to 140,356 acres, to 301,693 acres in 1864, and on an average of the 3 years 1865-1867 it amounted to 256,015 acres. This extension has been owing, in some measure, to the exertions of a society for promoting the growth of flax, and it remains to be seen whether it be really an advantage.

Russia supplies by far the largest portion of the flax imported into this country, the principal sorts being Petersburg, Narva, Riga, Revel, Pernau, Liebau, Memel, and Oberland. Petersburg and Narva flax are nearly of the same quality, the latter being but little inferior to the former. Both sorts come to us in bundles of 12, 9, and 6 heads. The Riga flax seems to deserve the preference of any imported from the Baltic. It is the growth of the provinces of Marienburg, Druania, Thiesenhausen, and Lithuania.

The best Marienburg is called simply Marienburg (M), or Marienburg clean; the second quality, cut (GM); and the third, *risten drayband* (RD): of the three other provinces, the first quality bears the name of *rakitzer*—as *Druania rakitzer* (DR), *Thiesenhausen rakitzer* (TR), and *Lithuania rakitzer* (LR). The cut flax of these three provinces is the second quality; and to the third quality belong the *badstub* and *badstub cut* (B and BG), the *paternoster* (PN), and *hufs three band* (HD). *Badstub* and *paternoster* are the refuse of the *rakitzer* flax, and the *three band* again the refuse of the former sorts, and consequently very ordinary. The Revel and Pernau consist of *Marienburg cut*, *risten*, *hufs three band*, and *three band*. The Liebau and Memel growths are distinguished by the denomination of *four* and *three band*. These two sorts, as well as the Oberland flax, come from Königsberg, Elbing &c., and are little esteemed in the British markets.

Flanders or Dutch flax is well dressed, and of the finest quality.

Flax is extensively cultivated in Egypt. In late years, some of the Italian ports, which used to be supplied from Russia, have been fully supplied on lower terms from Alexandria.

The *Phormium tenax*, or New Zealand flax, has been said to exceed every other species in strength of fibre and whiteness; qualities which, if it really possess them in the degree stated, must make it peculiarly well fitted for being made into canvas and cordage. In point of fact, however, there is a great diversity of opinion as to its real merits, and it fetches at present (1868) but a low price. In 1831 and 1832 the imports of New Zealand flax amounted respectively to 15,725 and 13,667 cwts.; but they fell off in 1835 to 7,312 cwts., and since then only trifling quantities have been imported. It is alleged that this is a consequence of the imperfect preparation of the flax, which has hitherto been entirely entrusted to the native women; but without presuming to say whether the defects with which it is charged be inherent in the flax itself, or depend on its preparation, it is abundantly certain that, unless it be furnished of a superior quality, it will not suit our markets.

When flax is brought to the principal British ports whence it is shipped, it is classified according to its qualities, and made up in bundles by inspectors (*brackers*) appointed by Government to see the assortment of that and all other mercantile goods. These functionaries are said to perform their duty with laudable impartiality and exactness. A ticket is attached to every bundle of assorted flax, containing the names of the inspector and of the sort of flax, and the period when it was selected or inspected. [HEMP.] Good flax should be of a fine bright colour, well separated from the codilla, or coarser portion of the plant; and long, fine, and strong fibre. In purchasing flax it is usual to employ agents wholly devoted to this peculiar business.

Account of the Quantities and Values of the Flax and Tow, and Codilla of Flax, Imported into the United Kingdom in 1866, specifying the Countries from which they were brought, and the Quantities and Values brought from each.

Whence Imported	Flax dressed		Flax undressed		Flax or Codilla
	cwts.	Value	cwts.	Value	
Russia	26,105	92,124	1,006,791	2,780,515	212,615
Prussia	2,235	8,119	48,381	151,953	3,403
Hamburg	1,490	5,287	—	—	6,672
Holland	3,341	6,312	59,087	237,490	8,906
Belgium	4,209	19,995	108,823	435,292	25,538
France	—	—	14,911	59,981	5,204
Other Parts	87	313	3,951	19,466	1,131
Total	35,467	132,173	1,212,921	5,362,250	279,869

In 1866 the price of dressed flax varied from 4*l.* 15*s.* to 3*l.* 10*s.* 7*d.*, that of undressed from 4*l.* to 2*l.* 13*s.* The Russian being 2*l.* 15*s.* 4*d.*, that of codilla and tow was from 2*l.* 12*s.* 3*d.* to 2*l.* 9*s.* 7*d.*

The duty on flax, which previously to 1845 was only 1*d.* per cwt., was repealed in the course of that year. For an account of the exports of flax and hemp from Russia, see PETERSBURG.

Charges at Petersburg on 12 Head Flax

Circs 16 bobbin = 63 pound = 1 ton.	
Duty, 540 cop. per hectovitz	—
Quarantine duty, 1 per cent.	—
Additional duty, 10 per cent.	—
Custom-house charges, 4 per cent.	—
Receiving and weighing, 40 cop. per bobbin	—
Bracking, 1 roob. per hectovitz	—
Binding, 75 cop. per	—
Lighterage and attendance to Cronstadt, 5 roob. per 100 Alas	—
Brokerage, 60 cop. per ton	—

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FLAX-SEED

Brokerage,  $\frac{1}{2}$  per cent.  
 Commission and extra charges, 3 per cent.  
 Stamps,  $\frac{1}{2}$  per cent.  
 Brokerage on bills,  $\frac{1}{2}$  per cent. }  $\frac{1}{2}$  per cent.  
 are charges varying according to the price paid.  
 Flax charges is bought at so much per shippound.  
 6 shippound = 1 ton.  
 The charges of importation are the same, or nearly so, as on Petersburg flax.

Charges here, per ton, taking the price at 15l.

Insurance, 12s. 6d. per cent., and policy during the summer, for best risks	£	s.	d.
Sund duty	0	6	9
Freight, say 52s. 6d. per ton in full	2	12	6
Port dues	0	1	8
Loading charges	1	11	0
Discount, 31 per cent. (being sold at 9 months' credit)	1	13	9
Brokerage, $\frac{1}{2}$ per cent.	0	4	6

Loss by tare, 2 per cent.

9 Head Flax.

56 holdins = 53 poods = 1 ton.

Fixed charges at Petersburg amount to

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FOOCHOW

or sent to the crushing mills to be converted into oil.

As the quality of the crop depends much on the seed employed, a good deal of care is requisite in selecting the best. Generally speaking, it should be chosen of a bright, brownish colour, oily to the feel, heavy, and quite fresh. Dutch seed is in the highest estimation for sowing; it not only ripens sooner than any other that is imported, but produces larger crops, and of the quality that best suits our principal manufactures. American seed produces fine flax, but the produce is not so large as from Dutch seed. British flax-seed is sometimes used instead of Dutch; but the risk of the crop misgiving is so much greater, that those only who are ignorant of the consequences, or who are compelled from necessity, are chargeable with this act of ill-judged parsimony. (*London's Encyclopedia of Agriculture*.) Crushing seed is principally imported from India, but considerable quantities are also brought from Russia and Italy.

Account of the Quantities and Values of Flax and Linseed Imported into the United Kingdom in 1866, specifying the Countries from which they were chiefly brought, and the Quantities and Values brought from each.

Whence Imported	Quantities	Value
Russia -	qrs. -	£
Prussia -	746,727	2,051,019
Holland -	61,115	119,871
British India -	20,857	66,467
Other Parts -	267,759	924,116
Total -	1,158,736	3,371,536

Account of the Quantities of Flax and Linseed Imported into the United Kingdom in each of the 8 Years ending with 1867.

	1860	1861	1862	1863	1864	1865	1866	1867
Flax and Linseed -	qrs. 1,330,693	1,160,379	1,088,470	1,104,578	1,115,373	1,435,119	1,158,736	1,095,560

The price of these seeds varied in 1866 from 7s. 6d. to 3l. 9s. 9d. per quarter.

The duty of 1d. per quarter formerly imposed on flax-seed and linseed was repealed in 1866.

**LOTSAM, JETSAM, and LAGAN.** In order to constitute a legal wreck, the goods must come ashore. If they continue at sea, the law distinguishes them by the foregoing uncoined and barbarous appellations: *fotsam* is when the goods continue swimming on the surface of the waves; *lotsam* is when they are sunk under the surface of the water; and *lagan* is when they are sunk, but not to a cork or buoy to be found again. (Black-Book i. c. 8.) Foreign liquors, brought or sent into Great Britain or Ireland as dutiable goods, are to pay the same duties as dutiable goods, and are to be treated as such. (Black-Book i. c. 8.)

**OCR** (Ger. feines mehl, semmelmehl; Dutch, Fr. fleur de farine; Ital. fiore; Span. harina). The meal of wheat corn, finely ground and sifted. There are three qualities of flour, viz. *firsts*, *seconds*, and *thirds*, of which the first is the purest. [CORN LAWS AND CORN]

**FOOCHOW.** This port, one of the principal Treaty ports, is the capital of the province of Chekiang, and is situated in lat. 26° 02' 24" N. long. 119° 25' 0" E. The sea on the east of the province is that known as the Formosa Channel. The province is mountainous, but there is access to the interior by the two great rivers, the Min

which drains the Bohoa region, and the Fu-kien. The advantages of the port as a place from which black teas could be most conveniently shipped were recognised as early as 1830, and it was included among the four open ports of the Treaty of Nankin in 1842. It lies 34 miles from the mouth of the Min, and its population is estimated at 600,000, the walls being more than 8 miles in circuit.

The navigation of the estuary of the Min is intricate and dangerous, the guide to the transit being the prominent landmark called Sharp Island Peak. At about 8 miles from the mouth the stream contracts to a channel not more than half a mile in width, at the passes of Kin-pai and Minguan. Above these passes is the anchorage for foreign vessels at Lo-sing Island, called also Pagoda Island. Vessels are held to have entered the port after they have passed Kin-pai, and the ship-anchors, Kushan, and the river between the Bridge and Tien-how Island. The shallowness of the river above Pagoda Island, about 10 miles from Foochow, precludes the passage of any but very light craft. There is also an artificial bar, constructed in 1841, with a view to preventing the access of British ships of war to the city.

Foochow is 185 miles from Amoy, 335 from Swatow, and 510 miles from Hong-kong, and communications by steamer are maintained between these ports. It is distant 410 miles from Shanghai. The local weights are different from those employed elsewhere, being one third less. Thus the



answered to the merchant by way of general average, and the value of the freight thereof allowed to the owner. So, if the master be compelled by necessity to sell a part of the cargo for victuals or repairs, the owners must pay to the merchant the price which the goods would have fetched at the place of destination, and therefore are allowed to charge the merchant with the money that would have been due if they had been conveyed thither.

When goods are deteriorated during a voyage, the merchant is entitled to a compensation, provided the deterioration has proceeded from the fault or neglect of the master or mariners; and of course he is not answerable for the freight, unless he accept the goods, except by way of deduction from the amount of the compensation. On the other hand, if the deterioration has proceeded from a principle of decay naturally inherent in the commodity itself, whether active in every situation, or in the confinement and closeness of a ship, or from the perils of the sea, or the act of God, the merchant must bear the loss and pay the freight; for the master and owners are in no fault, nor does their contract contain any insurance or warranty against such an event. In our West India trade, the freight of sugar and molasses is usually regulated by the weight of the casks at the port of delivery here, which, in fact, is in every instance less than the weight at the time of the shipment; and, therefore, the loss of freight occasioned by the leakage necessarily falls upon the owners of the ship by the nature of the contract.

Different opinions have been entertained by Yalin, Pothier, and other great authorities as to maritime law, with respect to the expediency of allowing the merchant to abandon his goods for freight in the event of their being damaged. This question has not been judicially decided in this country. 'The only point,' says Lord Tenterden, 'intended to be proposed by me as doubtful, is the right to abandon for freight alone at the port of destination; and in point of practice, I have been informed that this right is never claimed in this country.' (*Law of Shipping*, part iii. c. 7.)

Freight being the return made for the conveyance of goods or passengers to a particular destination, no claim arises for its payment in the event of a total loss; and it is laid down by Lord Mansfield, that 'in case of a total loss with salvage, the merchant may either take the part saved or abandon.' (Abbott, part iii. c. 7.) But after the merchant has made his election, he must abide by it.

It often happens that a ship is hired by a charterparty to sail from one port to another, and thence back to the first—as, for example, from London to Leghorn, and from Leghorn back to London—at a certain sum to be paid for every month or other period of the duration of the employment. Upon such a contract, if the whole be one entire voyage, and the ship sail in safety to Leghorn, and there deliver the goods of the merchant and take others aboard to be brought to London, but happen to lose, in her return thither, nothing is due for freight, although the merchant has had the benefit of the voyage to Leghorn; but, if the outward and homeward voyages be distinct, freight will be due for the proportion of the time employed in the outward voyage. 'If,' said Lord Mansfield, in a case of this sort, 'there be one entire voyage out and the ship be cast away on the homeward voyage, no freight is due; no wages are due, because the whole profit is lost; and by express agreement the parties may make the outward and

homeward voyage one. Nothing is more common than two voyages: wherever there are two voyages and one is performed, and the ship is lost on the homeward voyage, freight is due for the first.' (K. B. Trin. Term, 16 Geo. III.)

It frequently happens that the master or owner fails to complete his contract, either by not delivering the whole goods to the consignee or owner, or by delivering them at a place short of their original destination: in these cases if the owner or consignee of the goods derive any benefit from their conveyance, he is liable to the payment of freight according to the proportion of the voyage performed, or *pro ratâ itineris peracti*: and though contracts of this nature be frequently entire and indivisible, and the master or owner of the ship cannot, from their nature, sue thereon, and recover a rateable freight, or *pro ratâ itineris*, yet he may do so upon a fresh implied contract, for as much as he deserves to have, unless there be an express clause in the original charterparty or contract to the contrary. A fresh implied contract is inferred from the owner's or consignee's acceptance of the goods. Many difficulties have, indeed, arisen in deciding as to what shall amount to an acceptance: it is not, however, necessary actually to receive the goods; acceptance may be made by the express or implied directions, and with the consent, of the owner or consignee of the goods, but not otherwise.

It sometimes happens that the owner of the ship, who is originally entitled to the freight, sells or otherwise disposes of his interest in the ship: where a chartered ship is sold before the voyage, the vendee, and not the vendor or party to whom he afterwards assigns the charterparty, is entitled to the freight. But where a ship has been sold during the voyage, the owner, with whom a covenant to pay freight has been made, is entitled to the freight, and not the vendee. A mortgagee who does not take possession is not entitled to the freight.

The time and manner of paying freight are frequently regulated by express stipulations in a charterparty, or other written contract; and when that is the case, they must be respected: but if there be no express stipulation contrary to or inconsistent with the right of lien, the goods remain as a security till the freight is paid; for the master is not bound to deliver them, or any part of them, without payment of the freight and other charges in respect thereof. But the master cannot detain the cargo on board the vessel till these payments be made, as the merchant would, in that case, have no opportunity of examining the condition of the goods. In England, the practice is, when the master is doubtful of payment, to send such goods as are not required to be landed at any particular wharf, to a public wharf, ordering the wharfinger not to part with them till the freight and other charges are paid. No right of lien for freight can exist unless the freight be earned; if the freighter or a stranger prevent the freight from becoming due, the ship owner or master's remedy is by action of damages.

(For further information and details with respect to this subject, see the art. CHARTERPARTY in this Dictionary; Abbott (Lord Tenterden) *On the Law of Shipping*, part iii. c. 7; Chitty's *Commercial Law*, vol. iii. c. 9; Smith's *Mercantile Law*, 7th ed. p. 295; Molloy *de Jure Maritimo*, book ii. c. 4; &c.)

FRUIT (Ger. obst, fruchte; Dutch, ooft; Fr. fruit; Ital. frutta, frutte; Span. fruta; Russ. owooschtsch; Lat. fructum). This appellation is bestowed by commercial men upon those species

of fruit, such as oranges, lemons, almonds, raisins, currants, apples &c., which constitute articles of importation from foreign countries.

**FULLERS' EARTH** (Ger. walkereder; Dutch, voluitarde; Fr. terre à foulon; Ital. terra da purgatori; Span. tierra de batan; Russ. schiffernain; Lat. terra fullonum). A species of clay, of a greenish white, greenish grey, olive and oil green, blue, and sometimes spotted colour. It is usually opaque, very soft, and feels greasy. It is used by fullers to take grease out of cloth before they apply the soap. The best is found at Reigate in Surrey. The remarkable deterative property on woollen cloth depends on the alumina, which should be at least one fifth of the whole, but not much more than one fourth, lest it become too tenacious. The use of fullers' earth has greatly declined, though even at present about 12,000 tons of the substance are annually raised at Reigate. Malcolm, in his *Survey of Surrey*, published in 1809, says that he took considerable pains in endeavouring to ascertain the consumption of fullers' earth, and that he found it to be about 6,300 tons a-year for the entire kingdom, of which about 4,000 tons were furnished by Surrey.

The name given to the public funded debt due by Government.

The practice of borrowing money in order to defray a part of the war expenditure began, in this country, in the reign of William III. In the infancy of the practice it was customary to borrow upon the security of some tax, or portion of a tax, set apart as a fund for discharging the principal and interest of the sum borrowed. This discharge was, however, very rarely effected. The public exigencies still continuing, the loans were, in most cases, either continued, or the taxes were again mortgaged for fresh ones. At length the practice of borrowing for a fixed period, or, as it is commonly termed, upon *terminable* annuities, was almost entirely abandoned, and most loans were made upon *interminable* annuities, or until such time as it might be convenient for Government to pay off the principal.

In the beginning of the funding system, the term fund meant the taxes or funds appropriated to the discharge of the principal and interest of loans; those who held Government securities, and sold them to others, selling, of course, a corresponding claim upon some fund. But after the debt began to grow large, and the practice of borrowing upon interminable annuities had been introduced, the meaning attached to the term fund was gradually changed, and instead of signifying the security upon which loans were advanced, it has for a long time signified the principal of the loans themselves.

Owing partly, perhaps, to the scarcity of disposable capital at the time, but far more to the supposed insecurity of the Revolutionary establishment, the rate of interest paid by Government in the early part of the funding system was comparatively high; but as the country became richer, and the confidence of the public in the stability of Government was increased, ministers were enabled to take measures for reducing the interest, first in 1716, and again in 1749.

During the reigns of William III. and Anne the interest stipulated for loans was very various; but in the reign of George II. a different practice was adopted. Instead of varying the interest upon the loan according to the state of interest in the market at the time, the rate of interest was generally fixed at *three or three and a half per cent.*; the necessary variation being made in the principal funded. Thus, suppose Government

were anxious to borrow, that they preferred borrowing in a 3 per cent. stock, and that they could not negotiate a loan for less than 4 per cent.; they effected their object by giving the lender, in return for every 100*l.* advanced, 150*l.* of 3 per cent. stock; that is, they bound the country to pay him or his assignees 4*l.* 10*s.* a-year in all time to come, or otherwise to extinguish the debt by a payment of 150*l.* In consequence of the prevalence of this practice, the principal of the debt now existing amounts to nearly *two fifths* more than the sum actually advanced by the lenders.

Some advantages are, however, derivable, or supposed to be derivable, from this system. It renders the management of the debt, and its transfer, more simple and commodious than it would have been, had it consisted of a great number of funds, bearing different rates of interest; and it is contended that the greater field for speculation afforded to the dealers in stocks bearing a low rate of interest has enabled Government to borrow, by funding additional capitals, for a considerably less payment on account of interest than would have been necessary had no such increase of capital been made.

But in point of fact, these advantages are inconsiderable, while the disadvantages inseparable from the practice of funding a large amount of stock at a low rate of interest are great and lasting. During war, especially if any considerable portion of its expenditure be defrayed by means of loans, the rate of interest uniformly rises, and is usually much higher than during peace. If, therefore, loans were funded in stocks bearing a rate of interest equivalent to the rate when they happen to be contracted for, the charge on their account might be reduced soon after the return of peace, according to the fall in the rate of interest; whereas, when loans are funded in stocks bearing a low rate of interest, it becomes impossible to take advantage of the fall in interest at the return of peace, and the country is burdened with the expense of the injury we sustain by overlooking this plain principle. It is not easy to exaggerate the injury we sustain by overlooking this plain principle. In 1815, to specify only one of many similar instances, Government bargained for a loan of 36,000,000*l.* it being stipulated that every subscriber of 100*l.* should be entitled to 17*l.* 3 per cent. stock, or 10*l.* 4 per cent. stock, making the interest on the loan 5*l.* 12*s.* 4*d.* per cent. The great improvement of this transaction is obvious. If interest of 5*l.* 15*s.* to 6*l.* per cent. had been paid for the loan, it might have been obtained without funding additional capital; and had that been done, should have been able, within 4 or 5 years, to reduce the charge on account of the loan to 3 or 3½ per cent.; but, owing to the way in which the contract was made, we have not had, and do not have, any means of reducing the charge on account of this loan, so long as the market rate of interest is above 3 per cent. by paying 17*l.* for every 100*l.* originally advanced, exclusive of the 10*l.* of 4 per cent. stock! As already stated, is only one instance out of many of the same sort. We believe, indeed, that it is within the mark when we affirm that this erroneous method of funding, the result of which is at present paying from 6,000,000*l.* to 7,000,000*l.* a-year on account of the public debt more than would have had to pay, had the same been borrowed and funded without any increase of capital. (For a further and full discussion

## FUNDS

Account of the Principal and Interest of the Public Funded Debt of Great Britain and Ireland, and the Charge thereupon, in the Year ended March 31, 1868.

DEBT		CHARGE	Is Great Britain
Capital	Per cent.		
Capital transferred in the Name of the Commissioners			
Capital Unredeemed			
Capital			
Great Britain.			
New annuities			



subject, see the 3rd edition of the *Treatise on Taxation and the Funding System*, by the author of this work, pp. 469-470.)

That this improvident system should have been so extensively acted on by our finance ministers during the American and French wars is the more surprising, seeing that experience had already demonstrated the advantages of funding limited capitals at a comparatively high rate of interest. Although during the reigns of William III. and Anne loans were mostly contracted at a very high rate of interest, no attempt was made to disguise this fact by assigning to the parties large amounts of stock bearing a low rate of interest. The stock created was the exact amount of the loans, the interest on it being increased according to the supposed insecurity of the Government, the scarcity of floating capital &c. Now, mark the consequences of this. So early as 1716 Sir Robert Walpole, availing himself of the greater facility with which money was procured after the Treaty of Utrecht, and of the greater stability of the Government, was able, by offering to pay off the creditors, to reduce the charge on account of the debt thus created from 1,598,602*l.* to 1,274,146*l.*, being a saving of

324,456*l.*, or about one fifth of the entire charge. In 1727 a further saving of about 340,000*l.* a-year was effected by reducing the interest on the greater portion of the debt from 5 to 4 per cent.; and in 1749, during the administration of Mr. Pelham, the interest was again reduced from 4 to 3 per cent.—a measure which produced a fresh saving of 565,000*l.* a-year.

Happily the practice of funding in a 5 per cent. stock was not entirely abandoned during the late war. In 1822 the total British and Irish 5 per cent. stock amounted to about 150,000,000*l.*; and, by offering to pay it off, a reduction of interest was then effected to the extent of about 1,200,000*l.* a-year. And since that period further savings have been effected by the reduction of the interest on the 4 and 4½ per cent. stock. But, unfortunately, by far the greatest proportion of the debt created during the late war, and that with the American colonies, was funded in the 3 per cent.; and, as already stated, the charge on that portion has in consequence been hitherto, and will, most probably, continue to be, for an indefinite period, unsusceptible of diminution.

We subjoin

11.—*A Return showing the Results of the Operations undertaken in 1822, 1824, 1825, 1826, 1834, and 1841, for Reducing the Charge on account of the National Debt, and the Terms upon which such Reduction was made; also showing the Annual Interest on the Funded Debt saved thereby.*

Year		Gross Capitals	Annual Interest	Annual Interest saved
		£	£	£
1822	Five per cent. (Navy) Annuities, capital	152,422,143		
	Amount of Dissents paid off	2,794,776		
	Honus of 5 <i>l.</i> per cent. allowed to those who assented	149,627,867	7,461,93	
	Capital 4 <i>l.</i> per cent.	157,109,217	6,284,264	1,177,665
1824	Bank of Ireland Debt at 5 per cent. reduced to 4 per cent. at par, per 5 Geo. IV. c. 25	1,153,816	57,692	
	Same Capital, at 4 per cent.	1,153,816	46,153	
1825	Four per cent. Annuities	76,218,180	3,049,917	11,230
	Same Capital, at 3 <i>l.</i> per cent., including 6,149,243 <i>l.</i> Non-assents, vested in the Commissioners for the Reduction of the National Debt, per 5 Geo. IV. c. 45	76,218,180	2,668,645	381,271
1826	5 per cents. 1797, reduced to 3 per cents. 1812, & 1831, 6 <i>l.</i> 6 <i>d.</i> considered 5 per cents. for 1807, 5 per cents., 37 Geo. III. c. 19	1,013,668		
	Capital at 5 per cent.	1,013,668		
1825	Capital at 3 per cent.	973,657	44,672	
	Deduct Dissents paid off	41,011	38,916	9,756
1830	4 per cent. Annuities, formerly Navy 5 per cents.	153,671,091		
	Amount of Dissents paid off	2,880,915		
1830	Which was exchanged for 150,119,600 <i>l.</i> , 3 <i>l.</i> 10 <i>s.</i> per cent. Annuities	5,254,185		
	469,326 <i>l.</i> , 5 <i>l.</i> per cent. Annuities	23,469	5,277,655	253,211
1831	4 per cent. Annuities created in 1826	10,622,911	424,916	
	Capital Same Capital, at 3 <i>l.</i> 10 <i>s.</i> per cent., including 4,133,741 <i>l.</i> Dissents, vested in Commissioners for the Reduction of the National Debt on account of the Fund for Banks for Savings	10,622,911	371,891	57,113
1841	Bank of Ireland Debts, at 5 and 4 per cent., reduced to 3½ per cent., per 3 and 4 Vict. c. 75, and Warrant of Treasury, January 30, 1841	1,015,384	50,769	
	Debt at 4 per cent.	1,615,381	64,615	
1841	Same Capital at 3½ per cent.	2,630,768	115,581	
	New 3 <i>l.</i> 10 <i>s.</i> per cent. Annuities	157,245,517		45,808
1841	Reduced 3 <i>l.</i> 10 <i>s.</i> per cent. Annuities	67,701,606		
	3 <i>l.</i> 10 <i>s.</i> per cent. Annuities, 1818	2,514,369		
1841	Old 3 <i>l.</i> 10 <i>s.</i> per cent., and Debentures	14,401,173		
	Amount of Dissents and Non-assents paid off	446,860,663		
1841	Same capital at 3 <i>l.</i> 5 <i>s.</i> per cent.	218,757,311	8,706,505	611,883
		218,757,311	8,084,612	3,621,893

IV.—Account rendered to the Kingdom of the following

Year ending

Feb. 1, 1817  
Jan. 31, 1818  
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1857  
1858

The following account (No. III.) exhibits the progress of the national debt of Great Britain from the Revolution to the present time:—

III.—Account of the Principal and Annual Charge of the Public Debt at different Periods since the Revolution.\*

	Principal Funded and Unfunded	Interest and Management
Debt previously in the Revolution in 1690	£ 661,163	£ 39,855
Excess of debt contracted during the reign of William III, above debt paid off	14,109,962	1,173,169
Debt at the accession of Queen Anne in 1702	14,771,125	1,213,024
Debt contracted during the reign of Anne in 1702, above debt paid off	83,408,233	1,847,811
Debt at the accession of George I. in 1714	98,179,358	3,060,835
Debt contracted during the reign of George I.	16,318,163	—
Debt at the accession of George II. in 1727	114,497,521	3,260,934
Debt contracted between the accession of George II. and the Peace of Paris in 1763, 3 years after the accession of George II, above debt paid off	80,192,126	2,671,799
Debt in 1763	134,276,019	5,032,733
Debt paid off from 1763 to 1775	5,823,258	329,211
Debt at commencement of American war in 1775	128,452,761	4,703,522
Debt contracted during the American war after conclusion of American war in 1783	118,624,241	4,961,222
Debt paid from 1786 to 1793	215,466,854	6,664,541
Debt at commencement of French war in 1793	3,803,421	232,362
Debt contracted during French war in 1793	873,663,421	9,452,179
Debt at the conclusion of the English and Irish Exchequers at the commencement of 1817	591,507,711	21,880,689
Excess of debt cancelled over debt contracted from 171 to March 31, 1862	839,382,115	31,591,227
Debt on March 31, 1862, and charge thereon during preceding year	38,611,907	5,425,226
Debt on March 31, 1862, and charge thereon during preceding year	800,770,238	36,166,701
Excess of debt cancelled over debt contracted from March 31, 1861 to March 31, 1867	23,472,131	—
Debt on March 31, 1867, and charge thereon during preceding year	777,197,801	26,117,622

\* The earlier portion of this account has been taken chiefly from an elaborate paper compiled by Mr. Chisholm, formerly of the Exchequer, showing the progress of the debt since 1691. (Par. Papers, No. 143, Sept. 1, 1857.)  
† Interest on debt reduced.  
‡ In 1801, 5,000,000 of the unredeemed public debt was cancelled, and a terminable annuity substituted. The capitalized value of the annuity should therefore be added to the principal in the first column.

IV.—Account showing the Total Amount of the Unredeemed Funded Public Debt of the United Kingdom, and the Annual Charge thereon, in the following Years.

Year ending	Capital of Unredeemed Funded Debt	Annual Charge thereon
Feb. 1, 1817	£ 796,200,191	£ 29,812,014
Jan. 5, 1818	776,749,403	29,310,151
1819	781,080,481	29,781,628
1820	781,133,222	29,872,206
1830	771,023,532	28,285,900
1835	743,675,299	27,783,321
1836	736,349,966	26,603,705
1837	761,182,970	28,553,192
1838	762,273,188	28,591,739
1839	761,347,680	28,585,503
1840	766,347,684	28,748,791
1841	766,371,725	28,756,724
1842	774,550,158	29,701,458
1843	773,069,319	28,609,708
1844	775,169,092	28,746,892
1845	769,191,611	27,836,214
1846	766,618,892	27,702,880
1847	764,608,281	27,656,555
1848	771,001,851	27,610,251
1849	774,092,638	27,775,190
1850	773,168,317	27,717,936
1851	769,278,562	27,681,081
1852	763,196,892	27,614,113
1853	761,629,214	27,530,881
1854	755,511,201	27,436,125
1855	756,259,979	27,459,699
March 31, 1856	775,730,094	27,570,807
1857	780,119,729	27,600,112
1858	779,225,392	27,477,443
1859	786,801,151	27,721,080
1860	785,904,000	27,714,655
1861	783,119,609	27,491,391
1862	781,272,358	27,656,691
1863	783,386,739	27,718,331
1864	777,429,221	27,905,322
1865	777,788,295	27,873,710
1866	775,115,229	27,826,529
1867	769,541,001	27,800,422
1868	741,190,724	26,424,262

V.—Amount of the Unfunded Debt in Exchequer Bills and Bonds, and of the Annual Charge thereon, in the following Years, viz:—

Years ending Jan 5 and March 31	Amount of Exchequer Bills &c.	Charge of Interest per Annum
1830	£ 23,490,550	£ 806,076
1831	27,271,250	736,168
1832	27,135,550	691,365
1833	27,278,000	577,340
1834	27,596,000	713,598
1835	26,512,500	636,117
1836	26,076,601	688,704
1837	26,976,000	692,929
1838	26,043,500	871,309
1839	24,026,050	611,370
1840	19,965,050	788,707
1841	21,076,350	559,130
1842	18,343,950	797,012
1843	18,182,100	711,601
1844	18,407,300	591,031
1845	18,404,500	462,363
1846	18,580,200	442,653
1847	18,310,700	419,293
1848	17,916,500	433,318
1849	17,286,000	787,281
1850	17,156,200	605,124
1851	17,256,000	492,790
1852	17,132,000	403,476
1853	17,742,800	359,800
1854	16,021,100	199,123
1855	26,151,100	807,200
1856	26,129,700	870,281
1857	27,089,000	1,008,670
1858	25,511,500	984,613
1859	18,477,400	968,183
1860	16,928,300	437,849
1861	16,080,000	419,087
1862	16,400,000	600,000
1863	16,495,400	493,660
1864	15,136,000	427,268
1865	10,712,500	402,332
1866	8,187,700	328,800
1867	7,056,000	287,172
1868	7,211,100	255,556

\* To March 31.

The above statement (No. III.) shows that a reduction of 61,884,311, was effected in the principal of the national debt, and of 5,414,305, in the annual charge on account thereof, between February 1817, and March 31, 1868. The diminution has been brought about, despite the loans effected during the interval, partly by the application of surplus revenue to buy up stock, but more by the reduction of the interest on the 4 and 5 per cent. stocks existing in 1817, and by that paid on the unfunded debt. The total annual saving by the reduction of interest on the funded debt between 1822, when the first, and 1844, when the last reduction was made (that of the 3½ per cent. annuities, mentioned in former impressions of this work), has been 3,051,800; and, considerable as this is, it would have been three times as great but for the pernicious practice, previously pointed out, of funding large nominal capitals.

We subjoin a brief notice of the different unredeemed funds or stocks constituting the public debt, as they stood on March 31, 1868.

I. FUNDS BEARING INTEREST AT TWO AND A HALF PER CENT.

New Annuities at 2½ per cent.—This is a stock created in 1853, under the 16 & 17 Vict. c. 23. Previously to the passing of this Act, the existing stock of the once famous, or rather, perhaps, infamous South Sea Company, amounted to 3,662,784. For many years previously the Company had been entirely divested of its commercial character, and the duty of the directors was restricted to the transfer of the Company's stock from one purchaser to another, and the payment of the dividends upon it, both of which operations were performed at the South Sea House, and not at the Bank. But in 1853, when the price of stocks was unusually high, it was proposed to create a new 2½ per cent. stock; and in this view the proprietors of the South Sea Stock were offered for every 100l. of it subscribed into the new 2½ per cent. stock, 110l. of the latter, with a guarantee against the interest being reduced for

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VI.—Amount of the Unfunded Debt in Exchequer Bills and Exchequer Bonds, and of the Interest paid thereon, in the following Years, viz.:

Years	Exchequer Bills			Exchequer Bonds		
	Amount out-standing at the close of the Year	Rate of Interest at which Bills were loaned during the Year	Amount of Interest paid during the Year	Amount out-standing at the close of the Year	Rate of Interest per Annum paid on the Bonds	Amount of Interest paid during the Year
1855—ending Jan. 5, 1854	£ 16,021,100	Per diem 1d. and 2d.	531,269	6,000,000	3	183,000
1854-5 " Mar. 31, 1855	17,131,100	2d. and 2½.	593,000	7,000,000	3	210,000
1855-6 " " "	21,187,700	2d. and 2½.	616,087	7,000,000	3	210,000
1856-7 " " "	20,989,000	2d.	717,193	2,000,000	3 and 3½	67,500
1857-8 " " "	20,911,200	2½.	731,153	5,000,000*	3 and 3½	156,000
1858-9 " " "	18,277,400	3½.	199,750	2,500,000	3½ ann. 3½	87,500
1859-60 " " "	15,256,800	3½. 17s. 6d. 10s.	165,918	2,500,000		
1860-1 " " "	5,611,100					

\* £4,000 paid off on May 8, 1859.

40 years, or till 1894. It is evident, however, from this statement, that the interest on the sum transferred from the old South Sea Stock was not reduced to 2½, but 2½, or 2½. 15s. per cent. The non-redeemed portion was paid off on April 5, 1854.

There can be little or no doubt that but for the unforeseen change in the money market which began to take place about the period when the 16 & 17 Vict. c. 23 was passed, the whole, or by far the greater portion, of the old South Sea Stock would have been converted into the 2½ per cent. stock. But the rise in the rate of interest, occasioned by the threatened disturbances on the Continent and the anticipations of a deficient harvest, hindered the conversion that would otherwise have taken place. Still, however, it is of great importance to have laid the foundation of a 2½ per cent. stock. These annuities amounted for the United Kingdom on March 31, 1868, to 3,827,904l. There are besides 418,300l. of Exchequer Bonds created by 16 Vict. c. 23 which bear this rate of interest.

II. FUNDS BEARING INTEREST AT THREE PER CENT.

1. *Debt due to the Banks of England and Ireland.*—This consists of the sum of 11,015,100l. lent by the Bank to the public at 3 per cent.; dividends payable on April 5 and October 10. This must not be confounded with the Bank capital of 14,553,000l. on which the stockholders divide. The dividend on the latter is at present, and has been for some time past, 9 per cent. The debt to the Bank of Ireland amounts to 2,630,769l.

2. *Three per Cent. Consols, or Consolidated Annuities.*—This stock forms by much the largest portion of the public debt. It had its origin in 1751, when an Act was passed, consolidating (hence the name) several separate stocks bearing an interest of 3 per cent. into one general stock. At the period when the consolidation took place, the principal of the funds blended together amounted to 9,187,821l.; but by the funding of additional loans and parts of loans in this stock, it amounted for the United Kingdom, on March 31, 1868, to the immense sum of 395,489,459l.!

The consolidated annuities are distinguished from the 3 per cent. reduced annuities by the circumstance of the interest upon them never having been varied, and by the dividends becoming due at different periods. This stock is, from its magnitude and the proportionally great number of its holders, the soonest affected by all those circumstances which tend to elevate or depress the price of funded property; and on this account it is the stock which speculators and jobbers most commonly select for their operations. Dividends payable January 5 and July 5.

3. *Three per Cent. Reduced Annuities.*—This fund was established in 1757. It consisted, as the name implies, of several funds which had previously been borrowed at a higher rate of interest;

but, by an Act passed in 1749, it was declared that such holders of the funds in question as did not choose to accept in future of a reduced interest of 3 per cent. should be paid off—an alternative which comparatively few embraced. The debts which were thus reduced and consolidated amounted, at the establishment of the fund, to 17,571,271l. By the addition of new loans they amounted, on March 31, 1868, for the United Kingdom, to 106,198,563l. Dividends payable April 5 and October 10.

4. *New Annuities.*—This stock was funded in 1841 by the Acts 7 Vict. c. 4 and c. 5, which directed that the following stocks, viz.:

New 5 per cent. Annuities, formed in 1830	15,705,517
Reduced 3 per cent.	6,291,654
5 per cent. Annuities	2,000,000
Old 5 per cent. Annuities and Debentures	1,180,000
	25,177,171

should be converted into a new stock bearing interest at 3½ per cent. till October 10, 1854, when the interest was reduced to 3 per cent., with the proviso that it is not to be further reduced till 1874. The new unredeemed stock created under this arrangement amounted, on March 31, 1868, to 220,936,421l. Dividends payable April 5 and October 5.

III. FUNDS BEARING MORE THAN THREE PER CENT. INTEREST.

1. *New 5 per Cent. Annuities.*—This stock was formed in 1830, at the same time with the new 3 per cent. annuities referred to above, under the 11 Geo. IV. c. 13. This statute gave the holders of the then existing 4 per cent. stock, the interest of which was to be reduced, the option of subscribing into the new 5 per cent. annuities, or into a new 5 per cent. stock, at the rate of 100l. 4 per cent. for 70l. 5 per cents. Few, however, availed themselves of the latter alternative. Amount, March 31, 1868, 433,125l.

2. *New 3½ per Cent. Annuities,* formed, as before stated, in 1853. Amount on March 31, 1868, 240,746l.

IV. ANNUITIES.

1. *Annuities per 16 & 17 Vict. c. 45, 18 Vict. c. 18, 23 & 24 Vict. c. 109, 25 & 26 Vict. c. 38, 30 Vict. c. 14 & 25, 29 Vict. c. 5, & 30 Vict. c. 30.* All these expire in 1885 except those of the 25 & 26 Vict., the Red Sea Telegraph Company's annuity, which ceases on Aug. 9, 1908.

2. *Annuities per 48 Geo. III., 10 Geo. IV. c. 25, and 3 & 4 Wm. IV. c. 14.*—These Acts authorized the commissioners for the reduction of the national debt to grant annuities for terms of years and life annuities; accepting in payment either money or stock, according to rates specified in tables to be approved by the Lords of the Treasury. No annuities are granted on the life of any man

under 15 years by the com years not ge years. These in parts or payable Jan nes April 5 Irish Debt. any details s Ireland. The which it cons above. The e at the bank o modulate the the pleasure of Britain, and fr

Exchequer authority of I sums, and bea 2d. per diem rate at the time, venment are m dly transaction ment are prime intervention. stande Excheq by public adver ting in Excheq stock, even thou part comparative be received at th paid for it, the h risk of fluctuati premium or disc bou. At the bills, in 1896, and have The amount outv 5,611,100l. In 1838 Excheq interest at 2½; 2½ per cent. for 3 holders of South S to accept the same for every 100l. stock

VII.—Account of in each of the 5

Stock	Value
Consols	395,489,459
5 per cent. reduced	25,177,171
5 per cent. annuities	2,000,000
5 per cent. stock	1,180,000
5 per cent. bonds	1,180,000
5 per cent. Exchequer bills	1,180,000
5 per cent. 5 per cent.	1,180,000
5 per cent. 4 per cent.	1,180,000
5 per cent. 3 per cent.	1,180,000
5 per cent. 2 per cent.	1,180,000
5 per cent. 1 per cent.	1,180,000

III.—Prices of the

100l. stock, div. 8 per cent.	100
100l. reduced annuities	100
100l. consols annuities	100
100l. 5 per cent. annuities	100
100l. 5 per cent. stock	100
100l. 5 per cent. bonds	100
100l. 5 per cent. Exchequer bills	100
100l. 5 per cent. 5 per cent.	100
100l. 5 per cent. 4 per cent.	100
100l. 5 per cent. 3 per cent.	100
100l. 5 per cent. 2 per cent.	100
100l. 5 per cent. 1 per cent.	100

under 15 years of age, nor in any case not approved by the commissioners. Annuities for terms of years not granted for any period less than ten years. These annuities are transferable, but not in parts or shares. Those for terms of years, payable January 5 and July 5; and those for lives, April 5 and October 10.

**Irish Debt.**—It seems unnecessary to enter into any details with respect to the public debt of Ireland. The various descriptions of stock of which it consists, and their amount, are specified above. The dividends on the Irish debt are paid at the Bank of Ireland; and, in order, to accommodate the public, stock may be transferred, at the pleasure of the holders, from Ireland to Great Britain, and from the latter to the former.

**Exchequer Bills** are bills of credit issued by authority of Parliament. They are for various sums, and bear interest (generally from 1½d. to 2½d. per diem per 100*l.*) according to the usual rate of the time. The advances of the Bank to Government are made upon Exchequer Bills; and the daily transactions between the Bank and Government are principally carried on through their intervention. Notice of the time at which outstanding Exchequer bills are to be paid off is given by public advertisement. Bankers prefer investing in Exchequer bills to any other species of stock, even though the interest be for the most part comparatively low; because the capital may be received at the Treasury at the rate originally paid for it, the holders being exempted from any risk of fluctuation, except in the amount of the premium or discount at which they may have bought the bills. Exchequer bills were first issued in 1696, and have been annually issued ever since. The amount outstanding on March 31, 1868, was 6,011,000*l.*

In 1853 Exchequer Bonds were issued bearing interest at 2½ per cent. for 10 years, and thereafter 2 per cent. for 30 years, or till 1894, to such holders of South Sea and 5 per cent. stock as chose to accept the same, a bond for 100*l.* being given for every 100*l.* stock subscribed. (16 & 17 Vict. c.

23.) On March 31, 1868, the Exchequer bonds outstanding amounted to 2,400,000*l.*

**India Stock and India Bonds** are always quoted in the list of the prices of the public funds. The stock on which the East India Company divided was 6,000,000*l.*; the dividend on which has been from 1793, 10½ per cent. The other stocks are 4 and 5 per cents. India bonds are generally for 100*l.*, 500*l.*, and 1,000*l.* each, and bear at present 4 and 5 per cent. interest respectively, and are payable March 31 and September 30. In selling them, the interest due down to the day of sale is, with the premium, added to the amount; the total being the sum to be paid by the purchaser. The premium, which is, consequently, the only variable part of the price, is influenced by the circumstances which influence the price of stocks generally, the number of bonds in circulation &c.

The price of stocks is influenced by a variety of circumstances. Whatever tends to shake or to increase the public confidence in the stability of Government tends at the same time to lower or increase the price of stocks. They are also affected by the state of the revenue; and, more than all, by the facility of obtaining supplies of disposable capital, and the interest which may be realised upon loans to responsible persons. From 1730 till the Rebellion of 1745, the 3 per cents. were never under 80, and were once, in June 1737, as high as 107. During the Rebellion they sunk to 76, but in 1749 rose again to 100. In the interval between the Peace of Paris, in 1763, and the breaking out of the American war, they averaged from 80 to 90; but towards the close of the war they sunk to 54. In 1792 they were, at one time, as high as 96. In 1797 the prospects of the country, owing to the successes of the French, the mutiny in the fleet, and other adverse circumstances, were by no means favourable; and in consequence the price of 3 per cents. sunk, on September 20, on the intelligence transpiring of an attempt to negotiate with the French republic having failed, to 47½, being the lowest price to which they have hitherto fallen.

VII.—Account of the Highest and Lowest Price of the Principal English and Foreign Funds in each of the 5 Years ending with 1857, and of Consols in each of the 6 Years ending with 1867.

Stock	1853		1854		1855		1856		1857	
	Highest	Lowest								
Consols	101	90½	96½	85½	93½	86½	96½	87½	93½	86½
3 per cent. reduced	101½	91	96	85½	94	85½	94½	87½	94½	86½
4 per cent. new	101	92½	96½	87	94½	86½	97½	87½	94½	86½
Bank stock	230½	98	221½	90½	216	90½	220	205	210	207
India stock	271	238	241	220	236	220	236	218	227½	207
Long annuities	64	54	58	48	47	47	59-16	2-13-0	48	17
India bonds	87½ p.	104 p.	124 p.	204 p.	77 p.	84 p.	224 p.	124 p.	74 p.	504 p.
Exchequer bills	75 p.	174 p.	224 p.	24 p.	274 p.	124 p.	214 p.	124 p.	74 p.	394 p.
Foreign										
5 per cent.	101½	93	87	73	67½	65	99½	81½	91	87
4 per cent.	100½	91½	93	84	95½	90½	99½	92½	100	92
3 per cent.	100	97	102	93	103	94½	103½	99	103½	94
Spain 5 per cent.	72½	56	63½	49	60	61	88½	54	96	79
6 per cent.	108	99½	103	98½	105	99	106½	102½	105½	100
7 per cent.	85½	81½	85	76	84	81	86	85	88	81
8 per cent.	67½	64	63½	51	63½	60½	67	63	66	63½
9 per cent.	99	92	96½	80½	90½	87	99½	93	100	91
10 per cent.	103½	98	99½	89½	99½	97	97½	90½	99½	91
11 per cent.	112½	111	114½	87	102	91	113	97	113	104
12 per cent.	50	44	41½	33	40½	36	48	38½	43½	39½
13 per cent.	..	..	..	..	..	..	107½	88½	99	81½
14 per cent.	..	..	..	..	..	..	107	88	103	95½
1862										
1863										
1864										
1865										
1866										
1867										
Consols	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
3 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
4 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
5 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
6 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
7 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
8 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
9 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
10 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
11 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
12 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
13 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84
14 per cent.	93½	92½	93½	92½	90½	89½	91½	86½	90½	84

VIII.—Prices of the different Descriptions of British Funds on Wednesday, August 19, 1868.

Bank stock, 8 per cent.	214
3 per cent. reduced annuities	94½
4 per cent. consols annuities	91½
5 per cent. annuities	91½
6 per cent.	75½
7 per cent.	75½
8 per cent.	75½
9 per cent.	75½
10 per cent.	216½
11 per cent.	115
12 per cent.	104½
13 per cent.	105½
14 per cent.	105½
15 per cent.	105½
16 per cent.	105½
17 per cent.	105½
18 per cent.	105½
19 per cent.	105½
20 per cent.	105½
21 per cent.	105½
22 per cent.	105½
23 per cent.	105½
24 per cent.	105½
25 per cent.	105½
26 per cent.	105½
27 per cent.	105½
28 per cent.	105½
29 per cent.	105½
30 per cent.	105½
31 per cent.	105½
32 per cent.	105½
33 per cent.	105½
34 per cent.	105½
35 per cent.	105½
36 per cent.	105½
37 per cent.	105½
38 per cent.	105½
39 per cent.	105½
40 per cent.	105½
41 per cent.	105½
42 per cent.	105½
43 per cent.	105½
44 per cent.	105½
45 per cent.	105½
46 per cent.	105½
47 per cent.	105½
48 per cent.	105½
49 per cent.	105½
50 per cent.	105½
51 per cent.	105½
52 per cent.	105½
53 per cent.	105½
54 per cent.	105½
55 per cent.	105½
56 per cent.	105½
57 per cent.	105½
58 per cent.	105½
59 per cent.	105½
60 per cent.	105½
61 per cent.	105½
62 per cent.	105½
63 per cent.	105½
64 per cent.	105½
65 per cent.	105½
66 per cent.	105½
67 per cent.	105½
68 per cent.	105½
69 per cent.	105½
70 per cent.	105½
71 per cent.	105½
72 per cent.	105½
73 per cent.	105½
74 per cent.	105½
75 per cent.	105½
76 per cent.	105½
77 per cent.	105½
78 per cent.	105½
79 per cent.	105½
80 per cent.	105½
81 per cent.	105½
82 per cent.	105½
83 per cent.	105½
84 per cent.	105½
85 per cent.	105½
86 per cent.	105½
87 per cent.	105½
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140 per cent.	105½
141 per cent.	105½
142 per cent.	105½
143 per cent.	105½
144 per cent.	105½
145 per cent.	105½
146 per cent.	105½
147 per cent.	105½
148 per cent.	105½
149 per cent.	105½
150 per cent.	105½
151 per cent.	105½
152 per cent.	105½
153 per cent.	105½
154 per cent.	105½
155 per cent.	105½
156 per cent.	105½
157 per cent.	105½
158 per cent.	105½
159 per cent.	105½
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161 per cent.	105½
162 per cent.	105½
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243 per cent.	105½
244 per cent.	105½
245 per cent.	105½
246 per cent.	105½
247 per cent.	105½
248 per cent.</	

Agreements for the sale of stock are generally made at the Stock Exchange, which is frequented by a set of middlemen, called *jobbers*, whose business is to accommodate the buyers and sellers of stock with the exact sums they want. A jobber is generally possessed of considerable property in the funds, and he declares a price at which he will either sell or buy. Thus, he declares he is ready to buy 3 per cent. consols at 93½, or to sell at 93½; so that, in this way, a person willing to buy or sell any sum, however small, has never any difficulty in finding an individual with whom to deal. The jobber's profit is generally ¼ per cent., for which he transacts both a sale and a purchase. He frequently confines himself entirely to this sort of business, and engages in no other description of stock speculation.

We borrow the following details from Dr. Hamilton's valuable work on the National Debt:—

'A bargain for the sale of stock being agreed on, is carried into execution at the Transfer Office, at the Bank. For this purpose the seller makes out a note in writing, which contains the name and designation of the seller and purchaser, and the sum and description of the stock to be transferred. He delivers this to the proper clerk, and then fills up a receipt, a printed form of which, with blanks, is obtained at the office. (The letters of the alphabet are placed round the room, and the seller must apply to the clerk who has his station under the initial of his name. In all the offices there are supervising clerks, who join in witnessing the transfer.) The clerk in the mean time examines the seller's accounts, and if he find him possessed of the stock proposed to be sold, he makes out the transfer. This is signed in the books by the seller, who delivers the receipt to the clerk; and upon the purchaser's signing his acceptance in the book, the clerk signs the receipt as witness. It is then delivered to the purchaser upon payment of the money, and thus the business is completed.

'This business is generally transacted by brokers, who derive their authority from their employers by powers of attorney. Forms of these are obtained at the respective offices. Some authorise the broker to sell, others to accept a purchase, and others to receive the dividends. Some comprehend all these objects, and the two last are generally united. Powers of attorney authorising to sell must be deposited in the proper office for examination one day before selling; a stockholder acting personally, after granting a letter of attorney, revokes it by implication.

'The person in whose name the stock is invested when the books are shut, previous to the payment of the dividends, receives the dividend for the half year preceding; and, therefore, a purchaser during the currency of the half year has the benefit of the interest on stock he buys, from the last term of payment to the day of transfer. The price of stock, therefore, rises gradually, *ceteris paribus*, from term to term; and when the dividend is paid, it undergoes a fall equal thereto. Thus, the 3 per cent. consols should be higher than the 3 per cent. reduced by ¼ per cent. from April 6 to July 5, and from October 10 to January 5; and should be as much lower from January 5 to March 5, and from July 5 to October 10; and this is nearly the case. Accidental circumstances may occasion a slight deviation.

'The dividends on the different stocks being payable at different terms, it is in the power of the stockholders to invest their property

in such a manner as to draw their income quarterly.

'The business of speculating in the stocks is founded on the variation of the price of stock, which it probably tends in some measure to support. It consists in buying or selling stock according to the views entertained, by those who engage in this business, of the probability of the value rising or falling.

'This business is partly conducted by persons who have property in the funds; but a practice also prevails, among those who have no such property, of contracting for the sale of stock on a future day at a price agreed on. For example, A may agree to sell B 10,000*l.* of 3 per cent. stock, to be transferred in 20 days, for 6,000*l.* A has, in fact, no such stock; but if the price, on the day appointed for the transfer, be only 58, he may purchase as much as will enable him to fulfil his bargain for 5,800*l.*, and thus gain 200*l.* by the transaction: on the other hand, if the price of that stock should rise to 62, he will lose 200*l.* The business is generally settled without any actual purchase of stock, or transfer; A paying to B or receiving from him the difference between the price of stock on the day of settlement, and the price agreed on.

'This practice, which amounts to nothing else than a wager concerning the price of stock, is not sanctioned by law; yet it is carried on to a great extent: and as neither party can be compelled by law to implement these bargains, their sense of honour, and the disgrace attending a breach of contract, are the principles by which the business is supported. In the language of the Stock Exchange, the buyer is called a *Bull*, and the seller a *Bear*, and the person who refuses to pay his loss is called a *Lame Duck*; and the names of these defaulters are exhibited in the Stock Exchange, where they dare not appear afterwards.

'These bargains are usually made for certain days fixed by a committee of the Stock Exchange, called *settling days*, of which there are about 8 in the year; viz. one in each of the months of January, February, April, May, July, August, October, November; and they are always on Tuesday, Wednesday, Thursday, or Friday, being the days on which the commissioners for the reduction of the national debt make purchases. The settling days in January and July are always the first days of the opening of the Bank books for public transfer, and these days are notified at the Bank when the consols are shut to prepare for the dividend. The price at which stock is sold to be transferred on the next settling day is called the price on account. Sometimes, instead of closing the account on the settling day, the stock is carried on to a future day, on such terms as the parties agree on. This is called a *continuation*.

'All the business, however, which is done in the stocks for time is not of a gambling nature. In a place of so extensive commerce as London, opulent merchants, who possess property in the funds, and are unwilling to part with it, have frequently occasion to raise money for a short time. Their resource in this case is to sell the money, and buy for account; and although the money raised in this manner costs more than the legal interest, it affords an important accommodation, and it may be rendered strictly permanent and recoverable.' (Third ed. pp. 314-317.)

It would be foreign to the object of this work to enter upon any examination of the advantages and disadvantages of the funding system, which we have elsewhere discussed at considerable length.

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made for certain Stock Exchange, here are about 800 of the months of y, July, August, y are always at, or Friday, being sioners for the to make purchase, and July are always of the Bank banks days are notified e shut to prepar at which stock a next settling day. Sometimes, be n the settling day, ure day, on next. This is called

which is done a gambling an- commerce as London property in the part with it, large money for a share case is to sell it; and although the costs more than an important con- sidered strictly by pp. 314-317.) The object of this was of the advantage of the of the dividend, and a considerable length

FUNDS

(Treatise on Duration, pp. 420-441, 3rd ed.) Perhaps, on the whole, the latter preponderate, though it is not to be denied that the former are very considerable. The purchase of funded property affords a ready method of investment; and neither the Bank of England nor any of the London private banks allows interest upon deposits, it is plain that, had it not been for the facilities given by the funds, individuals unable to employ their savings in some branch of business would, down to a late period, have derived no immediate advantage from them, unless they resorted to the hazardous expedient of lending upon private credit. But since the establishment of joint-stock banks in the metropolis, which allow interest on deposits, the advantage of the funds as a means of commodious investment is not real; for it may be doubted whether the banks in question, or even the Scotch banks, which have been long in the habit of allowing interest on deposits, could do so, or whether, in fact, they could be conducted at all, without the aid of the funds.

The subjoined account of the number of dividend warrants issued in the quarters ending with October 10, 1851, and January 5, 1852, and for the first dividend day of 1855, are very important documents. The large number (over 90,000 in 1855) of holders of sums not producing above 5l. of quarterly dividend is principally to be ascribed to the circumstances already mentioned as peculiar to the banking system of the metropolis; and there can be little doubt that their number would be materially diminished, did the Bank of England and the private banks allow a reasonable rate of interest on deposits. It is evident from these accounts that the number of persons having a direct interest in the funds is much greater than they represent. The dividends upon the funded property belonging to the Equitable and other insurance companies, the different banking companies &c. are paid upon single warrants, as if they were due to so many private individuals; whereas they are, really, paid to these individuals by because they act as factors or trustees for a vast number more. It is consequently quite absurd to pretend, as is sometimes done, that any interference with funded property would affect only the 200,000 or 270,000 individuals out of a population of 30,000,000. Any attack upon the funds would really be destructive, not merely of the interests of those to whom dividend warrants are issued, but of all who depend upon them; it would destroy our whole system of insurance and banking, and overspread the country with bankruptcy. Not only, therefore, is every proposal for an invasion of the property of the fundholders based on injustice and robbery, but it would,

were it acted upon, be little less ruinous to the community than to the peculiar class intended to be plundered.

The following table has been calculated, in order to show in which of the public funds money may be invested so as to yield the greatest interest. It gives the prices, differing by 1 per cent., from 50 to 93 for 3 per cents. &c. at which they all must be to yield the same interest; so that, supposing the 3 per cents. to be at 80, a sum invested in them, or in the 3½ per cents., will yield the same interest, provided the latter be at 93; if the 3½ per cents. be below this sum, it will of course be more advantageous, in so far at least as interest is concerned, to invest in them than in the 3 per cents.; while, if they be above 93, it will be less advantageous.

To get the true value of the different funds at any particular period, in order to compare them accurately together, it is necessary to deduct from each the amount of interest accruing upon it from the payment of the last dividend.

IX.—Table showing the Prices of the different Funds must be at to produce an equal Interest, and also the annual Interest produced by 100l. sterling invested at any of those Prices.

3 per Cent. Price	3½ per Cent. Price	4 per Cent. Price	5 per Cent. Price	Interest
50	58	66	83	3
51	59	67	84	3
52	60	68	85	3
53	61	69	86	3
54	62	70	87	3
55	63	71	88	3
56	64	72	89	3
57	65	73	90	3
58	66	74	91	3
59	67	75	92	3
60	68	76	93	3
61	69	77	94	3
62	70	78	95	3
63	71	79	96	3
64	72	80	97	3
65	73	81	98	3
66	74	82	99	3
67	75	83	100	3
68	76	84	101	3
69	77	85	102	3
70	78	86	103	3
71	79	87	104	3
72	80	88	105	3
73	81	89	106	3
74	82	90	107	3
75	83	91	108	3
76	84	92	109	3
77	85	93	110	3
78	86	94	111	3
79	87	95	112	3
80	88	96	113	3
81	89	97	114	3
82	90	98	115	3
83	91	99	116	3
84	92	100	117	3
85	93	101	118	3
86	94	102	119	3
87	95	103	120	3
88	96	104	121	3
89	97	105	122	3
90	98	106	123	3
91	99	107	124	3
92	100	108	125	3
93	101	109	126	3
	102	110	127	3
	103	111	128	3
	104	112	129	3
	105	113	130	3
	106	114	131	3
	107	115	132	3
	108	116	133	3
	109	117	134	3
	110	118	135	3
	111	119	136	3
	112	120	137	3
	113	121	138	3
	114	122	139	3
	115	123	140	3
	116	124	141	3
	117	125	142	3
	118	126	143	3
	119	127	144	3
	120	128	145	3
	121	129	146	3
	122	130	147	3
	123	131	148	3
	124	132	149	3
	125	133	150	3
	126	134	151	3
	127	135	152	3
	128	136	153	3
	129	137	154	3
	130	138	155	3

Account of the Number of Persons who were entitled to Dividends on the Portions of the Public Debt held by them which became due at the Quarters ended October 10, 1851, and January 5, 1852, and on the 1st Dividend Day of 1855, arranged in Classes according to the Amount of Dividend paid on each.

Description of Stock, 1851-2	Not exceeding								Ex-ceeding 2000l.	Total	
	5l.	10l.	50l.	100l.	200l.	300l.	500l.	1000l.			
to whom dividends were payable	13,429	5,360	12,321	5,596	2,080	618	310	176	68	28	37,016
per cent. reduced annuities	33,113	15,561	34,872	7,804	4,072	1,046	790	284	86	46	65,756
annuities	2,922	2,029	4,764	851	413	113	75	29	8	21	10,774
consolidated annuities	59,931	17,685	39,377	10,986	93	1,998	1,409	6	11	6	2,367
per cent. annuities, 1776	116	51	127	32	4	1	1	1	1	1	115,160
annuities	29	25	124	32	4	3	3	19	—	—	530
per cent. annuities	560	415	1,151	210	81	29	28	—	8	13	237
annuities	89,315	11,570	91,752	23,702	13,688	3,868	2,593	1,142	361	200	268,191

\* Dividends payable October 10.

† Dividends payable January 5.

Account of Number of Persons entitled to Dividends &c.—continued.

Description of Stock, 1865	Not exceeding										Total
	5L.	10L.	50L.	100L.	200L.	300L.	500L.	1000L.	2000L.	5000L.	
3 per cent. consolidated annuities	15,223	19,270	41,279	11,537	6,869	1,848	1,329	671	210	93	125,511
New 5 per cent. annuities (1854)	37	21	186	34	15	4	2	1	1	1	302
5 per cent. " "	183	13	28	5	10	14	8	5	4	1	258
India 5 per cent. stock	1,727	13	270	70	44	12	5	1	1	1	2,252
3 per cent. reduced annuities	53	1	5,133	1,032	528	165	68	15	1	1	7,458
New 3 per cent. annuities	2,961	31	219	60	22	9	1	1	1	1	3,406
3 per cent. reduced annuities	11,631	4,028	11,278	3,198	1,782	566	293	109	61	54	27,552
New 3 per cent. annuities	31,900	13,283	27,129	6,553	3,543	930	649	280	97	58	54,735
Annuitants for terms of years	68	74	143	28	12	5	2	1	1	1	202
Red sea and Indian telegraph annuity payable Feb. 4, 1865	57	43	136	28	14	5	3	4	1	1	208
Totals	90,601	10,235	86,723	22,743	12,995	531	2,509	1,119	391	199	200,977

\* Dividends payable January 5.

† Dividends payable April 5.

**Foreign Funds.**—Exclusive of the funded and unfunded debt due by the British Government, and by India and the various colonies, more than 19-20ths of which is held by British subjects, our countrymen are also large creditors of foreign states. With the exception of Spain, the interest on the debts of most European states is paid with great regularity; and their funds form a great may, on the whole, be reckoned, at least so long as peace is preserved, a pretty secure investment. Our countrymen are also large creditors of the new South American States, and of the United States of North America. Owing, however, to the anarchy in which the former have been almost constantly involved, and the consequent want of power, and probably also of inclination, on the part of their rulers, to make any adequate provision for the payment of their debts, a large arrear of interest has, in most instances, been allowed to accumulate, with but little prospect of its being speedily reduced.

The public debt of the United States, which amounted, at the close of the last war with this

country, to 158,713,049 dollars, was entirely paid off in 1835. This proceeding, so honourable to the United States, naturally tended to raise the character of American securities in the English market, and enabled the Government to contract the loans required to carry on the late war with Mexico on very favourable terms. The debt of the Union existing on November 17, 1857, amounted to 25,165,155 dolrs.; but it has since been enormously increased by the expenditure on account of the civil war 1861-1865, and amounted on June 30, 1865, to 558,873,546l.

But in addition to the debt of the Union, the majority of the States, and several also of the principal cities, have contracted peculiar debts of a less or greater amount. In most cases these were incurred to promote the execution of some public undertaking, such as the construction of canals or railways, the excavation of docks, the erection of buildings, the establishment of banks or insurance companies, and so forth. West-join from the *American Almanac* &c.—

XI.—An Account of the Debts of the different States in January 1858, and Total Amount of Debts at different times from 1852 to 1867.

States	Absolute Debt	Contingent Debt	Total Debt	Annual Interest Absolute De.
Maine	dols. 699,500	dols. 326,700	1,026,200	41,750
New Hampshire	—	—	—	—
Vermont	—	4,949,555	6,265,555	20,000
Massachusetts	1,311,000	386,311	3,816,311	120,000
Rhode Island	—	770,000	28,441,914	95,000
Connecticut	31,671,914	—	95,000	1,860,000
New York	95,000	—	39,881,738	600,000
New Jersey	39,881,738	—	14,851,404	1,000,000
Pennsylvania	10,751,404	4,100,000	32,711,467	1,000,000
Delaware	28,812,367	3,828,500	6,139,743	120,000
Maryland	7,181,923	—	6,139,743	120,000
Virginia	3,192,743	3,000,000	2,634,722	150,000
North Carolina	2,634,722	—	2,211,707	150,000
South Carolina	158,000	—	158,000	—
Georgia	5,888,134	5,000,000	10,705,142	500,000
Florida	2,271,707	6,324,351	—	—
Alabama	4,280,591	—	2,494,315	150,000
Mississippi	—	1,100,000	1,256,857	160,000
Louisiana	—	8,614,000	5,374,241	200,000
Texas	1,424,545	—	17,100,959	1,000,000
Arkansas	4,142,857	—	2,269,467	150,000
Tennessee	5,574,244	—	7,357,074	200,000
Kentucky	17,100,959	—	19,038,000	1,000,000
Kentucky	2,269,467	—	128,010	—
Ohio	7,357,074	—	4,128,927	250,000
Michigan	12,831,000	18,436,000	—	—
Indiana	602,000	—	—	—
Illinois	128,010	—	—	—
Missouri	—	219,021	—	—
Iowa	3,010,906	—	—	—
Wisconsin	250,000	—	—	—
California	—	—	—	—
Minnesota	—	—	—	—
Total, near January 1, 1852	169,076,638	53,481,124	202,557,762	6,000,000
1853	181,303,865	57,863,921	219,167,786	6,200,000
1854	191,671,591	50,155,112	221,806,503	6,400,000
1855	192,026,206	41,767,851	236,794,149	10,000,000
1856	182,030,283	56,872,459	238,902,742	10,000,000
1857	187,292,039	57,121,658	245,211,259	11,000,000
1858	194,294,745	—	256,616,985	12,000,000
1859	1,100,361,211	1,266,591,236	2,366,952,447	125,000,000
1865	1,637,890,641	875,909,372	2,511,800,013	125,000,000
1867	—	—	—	—

\* These tables are believed to be accurate, being compiled almost exclusively from official reports made by the Legislatures of the several States.

Some advantages borrowed excitement of which however, it did not excuse for have declined debts. It that in the following the been comp debts: but temporary rich, and er committed; that they v same paym earliest possi to say, has m as will be s obligingly fu a gentleman and extremel The follow pay the inter debts during followed 1837 diana, Illinois Louisiana, P sylvania has s has funded the during the ses from the date became due. per cent.; but 3 years, the St was mean eno exchange 5 per the overdue int while she at the per cent. on th including the po and has also all, and has pai accumulated durt interest upon the accumulated, sl recently reduced all her d b, signers. The 00 parts, one 00,000 dollars) State, and whi added for; the 00,000 dollars) at of the State their engageme in the State in banks to provi State did not portion of debt was banks wite a shorter or bel for their be that there arc tions outstand after is obligan is the possi viz. the rep of States, exce amount, for whi was sold certa rds in payment

FUNDS

Some of the debts so contracted have been advantageously laid out; but a large portion borrowed in 1835, and other periods of wild excitement, were contracted on very disadvantageous terms, and expended on projects some of which have turned out extremely ill. This, however, was the affair of the States themselves, and did not afford so much as the shadow of an excuse for the conduct of those States which have declined to provide for the payment of their debts. It was not, indeed, to be wondered at that in the distress into which the Union was thrown by the crash of 1837, and the depression following thereon, some of the States should have been compelled to suspend payment of their debts; but a necessity of this sort could be temporary only. The indebted States are all rich, and eminently flourishing and prosperous communities, and it might have been expected that they would have made every effort to resume payment in full of their debts at the earliest possible moment. But this, we are sorry to say, has not been the case with some of them, as will be seen from the following statement, obligingly furnished to us for our last edition by a gentleman connected with the United States, and extremely well versed in these matters:—

The following States of the Union failed to pay the interest on the whole or a part of their debts during the period of depression which followed 1837, viz. Michigan, Pennsylvania, Indiana, Illinois, Maryland, Arkansas, Mississippi, Louisiana, Florida, and Texas. Of these, Pennsylvania has resumed payment of interest, and has funded the arrears thereof, which had accrued during the suspension, in stock bearing interest from the date when the respective dividends became due. The interest on this stock was 6 per cent.; but after it had remained unpaid for 5 years, the State, notwithstanding her wealth, was mean enough to oblige the holders to accept in exchange 5 per cent. stock, with the payment of the overdue interest at 5 instead of 6 per cent.; while she at the same time laid a direct tax of 5 per cent. on the dividends payable on her debt, including the portion held by foreigners. Maryland has also resumed payment of interest in full, and has paid off the dividends which had accumulated during the period of suspension, with interest upon them from their maturity; but, like Pennsylvania, she laid a tax of 5 per cent. on all her debt, including that belonging to foreigners. The debt of Louisiana consisted of two parts, one comparatively small (about 100,000 dollars), which was the direct debt of the State, and which has always been punctually paid for; the other much larger (about 2,000,000 dollars), arising from the loan of the State to various banks as security for their engagements, and which became a charge on the State in consequence of the inability of the banks to provide for the claims upon them. The State did not make any provision for this portion of debt from her treasury; but the banks which suspended payments have, at a shorter or longer interval, themselves funded their bonds guaranteed by the State; and there are not at present any overdue portions outstanding for which the credit of Michigan has repudiated the greater part of her debt, viz. the portion sold to the Bank of the United States, excepting a small proportion of the amount, for which she admits her liability. She has sold certain public works, receiving the proceeds in payment to the extent to which she

has acknowledged her liability, and has thus greatly reduced the amount outstanding, and has provided for the payment of interest on the latter, excepting the repudiated portion. The State of Indiana has a small proportion of her debt guaranteed by the Bank of Indiana, the interest on which has been regularly paid. The other, and much the larger portion, has been disposed of, after several years of suspension, in the following manner: one half of the principal has been funded in a new stock, bearing 5 per cent. interest, of which, however, only 4 per cent. being funded in a deferred stock. One half of the arrears of interest was also funded in the 2½ per cent. stock. For the other half of the principal and interest the State has declined to make any provision from its funds. But as the Wabash and Erie Canal, one of the works for which the debt was contracted, was in an unfinished state, the bondholders were offered the option of advancing the sum required for its completion, and receiving the net income of the canal and the produce of the sale of certain public lands granted to aid in its construction, towards the payment, first, of their advances, and then of the half of the principal and interest of their State bonds not provided for by the State. A considerable part of the bondholders having acted upon this proposal by contributing the necessary sum, the canal has been completed. Its revenue, and the produce of the land sales, will be applied, first, to the repayment of the advances, then to the payment of the interest and principal of the bonds of the subscribers, and lastly, if there should be any eventual surplus, to the payment of the bonds held by non-subscribers. It is hoped that the bonds of the subscribing bondholders may in time be provided for by the canal and sales of land; but the prospect of benefit to the non-subscribers from this arrangement is remote and uncertain. Illinois has confined her provision for her debt to imposing a permanent tax of 25 cents in the 100 dols. on all property in the State, and enacting that the produce of this tax, whatever it may amount to, shall be applied towards paying the interest on the bonds, applying it first towards the payment of the oldest due coupons, and then to those of more recent date in succession. The largest amount produced by this tax has only sufficed to pay about 14 per cent. per annum on the principal of the bonds. It is hoped that from the rapid increase of the wealth of the State, the tax will equally improve in productiveness, and that it may eventually equal the interest of the bonds, which is at the rate of 6 per cent. But until that shall be the case, the amount of the debt must increase every year by the difference between a year's interest and the produce of the tax for the year, which becomes an addition to the very large amount of interest now overdue. And as no provision is made for paying, either now or hereafter, the interest accruing on this very large and increasing arrear, the bondholders must, under the most favourable working of the law, be eventually considerable losers. Arkansas has not made any provision from the State funds towards her debt; but as the State bonds were issued to provide capital for a bank, its assets are liable for the payment of the bonds.

The debt of Mississippi was contracted to furnish capital for the Union Bank and the Planters' Bank. She has repudiated the bonds issued for the benefit of the former, amounting to 5,000,000 dollars, and has made no provision either for those or for 2,000,000 dollars issued to

Exceeding 2000	Total
55	1,075,711
1	211
2	62
3	11,314
4	11
5	47
6	27,071
7	11
8	54
9	54
10	14,718
11	1,107
12	2
13	281
14	281
15	281
16	281
17	281
18	281
19	281
20	281
21	281
22	281
23	281
24	281
25	281
26	281
27	281
28	281
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31	281
32	281
33	281
34	281
35	281
36	281
37	281
38	281
39	281
40	281
41	281
42	281
43	281
44	281
45	281
46	281
47	281
48	281
49	281
50	281

was entirely paid to honourable to add to raise the in the English government to carry on the late favourable terms, on November 5, 1855 dols.; but increased by the (the civil war June 30, 1865, to

of the Union, the several also the peculiar debts of in most cases due execution of was the construction of ation of docks the blishment of basis so forth. Wash- acac &c.—

Total Amount of Debt

Year	Annual Interest Absolute Dols.
1866	41,571
1867	—
1868	—
1869	—
1870	—
1871	—
1872	—
1873	—
1874	—
1875	—
1876	—
1877	—
1878	—
1879	—
1880	—
1881	—
1882	—
1883	—
1884	—
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1998	—
1999	—
2000	—

by the treasury and

the Planters' Bank, her liability for which she acknowledges. By a recent change in the constitution of the State, her courts of law have been allowed to take cognisance of the claims of individuals against the State, and under this law a suit was brought, which resulted in a decision of the supreme court of the State affirming the obligation of the State in the case of the Union Bank bonds, which had been repudiated. It is a very ominous circumstance that one of the judges who decided in favour of the bondholders, and who, having completed his term of service, became a candidate for re-election, was rejected by the vote of the people because of her debt from the Florida has not provided for her reduced State funds. Its amount has been greatly reduced by debtors of the banks, to whom the State bonds were issued, buying them up at low prices, and paying them into the banks in discharge of their debts.

Texas has announced her intention of paying by her own laches, that is, of settling her debt on the principle of only recognising the amount which the bonds have cost the bondholders—a principle which will operate a very great reduction of its magnitude. Only a part of the bondholders have submitted to this decision, 5,000,000 dollars paid to Texas by the Federal Government have been appropriated by her towards the settlement of her debt in the way now stated.

This is not a very favourable statement; but Michigan, Illinois, and those States which had made such ineffectual provision for the payment of their debts, have since been induced to adopt more efficient measures. A very small sacrifice on their part would enable them entirely to wipe off that foul stain on their honour and their credit, under which some of them are even now suffering. Mississippi, we are afraid, continues her policy, if so we may call it, of repudiation. We cannot find fault with the policy of the States which have taxed some of their dividends due to foreigners; for, though such a proceeding be not easily justified on principle, it is unlikely in accordance with the example we have set in subjecting the dividends due to the foreigner to the income tax.

The total State debt of California amounted, as seen above, in January 1858, to 4,928,127 dols.; but this sum was raised by county and city debts to an aggregate of 12,163,090 dols. It is highly to the credit of the people of this new State that on a proposal for the repudiation of the debt being submitted to their consideration, it was rejected by 57,661 votes to 16,970 do. (*American Almanac for 1859*, p. 336.)

Soon after Pennsylvania had been unwise enough to repudiate her debt, the following forcible appeal was addressed to Congress by the late Rev. Sydney Smith:—

*The humble Petition of the Rev. Sydney Smith to the House of Congress at Washington.*

'I petition your honourable house to institute some measures for the restoration of American credit, and for the repayment of debts incurred and repudiated by several of the States. Your petitioner lent to the State of Pennsylvania a sum of money for the purpose of some public improvement. The amount, though small, is to him important, and is a saving from a life income, made with difficulty and privation. If their refusal to pay (from which a very large number of English families are suffering) had been the result of war, families are suffering) had been the result of war, produced by the unjust aggression of powerful enemies; if it had arisen from civil discord; if it had proceeded from an improvident application of

means in the first years of self-government; if it were the act of a poor State struggling against the barrenness of nature—every friend of America would have been contented to wait for better times; but the fraud is committed in profound peace, by Pennsylvania, the richest State in the Union, after the wise investment of the borrowed money in roads and canals, of which the repudiation are every day reaping the advantage. It is an act of bad faith which (all its circumstances considered) has no parallel, and no excuse.

'Nor is it only the loss of property which your petitioner laments: he laments still more that impotence power which the bad faith of America has given to aristocratical opinions, and to the enemies of free institutions in the Old World. It is in vain any longer to appeal to history, and to point out the wrongs which the many have received from the few. The Americans who boast to have improved the institutions of the Old World, have at least equalled its crimes. A great nation, after trampling under foot all earthly tyranny, has been guilty of a fraud as enormous as ever disgraced the worst king of the most degraded nation of Europe.

'It is most painful to your petitioner to see that American citizens excite, wherever they may go, the recollections that they belong to a dishonest people, who pride themselves on having trampled on pillaged Europe; and this mark is fixed by their faithless legislators on some of the best and most honourable men in the world, whom every Englishman has been eager to see and proud to receive.

'It is a subject of serious concern to your petitioner that you are losing all that power which the friends of freedom rejoiced that you possessed, looking upon you as the ark of human happiness and the most splendid picture of justice and wisdom that the world had yet seen. Little did the friends of America expect it, and sad is the spectacle, to see you rejected by every State in Europe, as a nation with whom no contract will be made, because none will be kept; unstable in the very foundations of social life, deficient in the elements of good faith—men who prefer any kind of infamy, however great, to any pressure of taxation, however light.

'Nor is it only this gigantic bankruptcy for so many degrees of longitude and latitude which your petitioner deplors, but he is alarmed also by the total want of shame with which these things have been done; the callous immorality with which Europe has been plundered, that denseness of the moral sense which seems to preclude all return to honesty, to perpetuate this new infamy, and to threaten its extension over every State of the Union.

'To any man of real philanthropy, who receives pleasure from the improvements of the world, the repudiation of the public debts of America in the shameless manner in which it has been done, is the most melancholy event which has happened during the existence of the present generation. Your petitioner sincerely prays that the great and good men still existing among the may, by teaching to the United States the disgrace they have incurred in the Old World, restore them to moral health, to that high position they have lost, and which, for the happiness of mankind, it is so important they should ever maintain; for the United States are now working the greatest of all political problems, and upon the confederacy the eyes of thinking men are turned fixed, to see how far the mass of mankind can be trusted with the management of their own affairs, and the establishment of their own happiness.

The following table gives a statement of the public debt of each country according to the returns:—

Country	Debt
Russian Empire	Sweden (annual)
Norway	
Denmark	
Prussia	
Hanover	
Hamburg	
Hesse	
Hessenwick (for 3 years)	
Prussia's (annual)	
Saxony (annual)	
Württemberg (for 3 years)	
Baden (for 2 years)	
Electoral Hesse (annual)	
Prussia's (annual)	
Hamburg	
Holland	
Belgium	
France	
Portugal	
Spain and Biscay	
Switzerland	
Austria	
Italy	
Greece	
Turkey (empire)	
United States (Yearly June 30)	
China	
Peru	
United Kingdom	

(For accurate information, see the Committee, see P.L.S. In Commerce, covered, to the inner side being into a sort of leaf undergoing this process. Beaver fur was in the hat manufacture and other hats is its employment in now much scarce because, fallen off the middle-aged or over, is most esteemed and takes the best diction or pelcat, Germany: it is soft and small which, adheres to the skin. Marten and mink (a are principally imported from Canada. The fur is a diminutive species (a diminutive species) vast quantities from America, which also quantities of other skins brought from valuable furs, as ermine from Russia. FUR TRADE. Writing details with regard to the most extensive a London:— Though practically I shall be able to already known to you subject, I should a per 3 classes. I. The 1st class wensity; among which an immense variety from each other value, that to most produce of so many. These lamb skins globe, and are even form, in particular, of thousands amount. Poland, East Prussia, In Russia an of various other articles of actual necessity. The 2nd class would

FUNDS

Countries	Year	Total	Per Head of Population
Russian Empire	1861	263,609,641	2 1/2
Sweden (annual)	1863	2,936,182	5 1/2
Norway	1859	1,721,655	0 14 5/6
Denmark	1863	1,077,059	1 1 6/6
Prussia	1861	41,651,707	4 0 0
Oldenburg	1861	625,025	2 3 3/2
Hanover	1861	7,202,710	2 1 2
Hanwick (for 5 years)	1865	28,152,777	3 14 10
Revan (annual)	1861	10,055,627	5 16 5
Saxony (annual)	1861	6,292,835	5 17 1
Wartemberg (for 3 years)	1865	8,615,913	4 5 30
Baden (for 2 years)	1865	1,325,777	3 12 0
Electoral Hesse (annual)	1862	2,575,353	2 0 11
Prussia (annual)	1861	4,559,591	2 0 6
Holland	1861	81,602,423	18 19 2
Belgium	1861	25,511,016	1 1 4
France	1861	539,088,965	14 5 6
Portugal	1861	41,651,430	11 7 2
Spain and Baleares Islands	1865	165,927,471	9 11 6
Switzerland	1861	217,091,171	10 4 6
Austria	1861	176,225,039	6 11 10
Italy	1863	10,707,361	7 19 5
Greece	1863	49,500,000	9 13 3
Turkey (empire)	1864	558,873,516	1 8 0
United States (Year ended June 30)	1865	22,935,419	17 15 5
Brazil	1861	2,935,419	2 5 9
Chili	1861	6,857,618	1 1 0
Peru	1863	808,298,298	27 16 0
United Kingdom	1865		

FUR TRADE

of the first, as it also comprises furs which through habit and fashion have now become articles of necessity. I should here enumerate all those different skins commonly called *hating furs*. But the demand for these has, owing to the introduction of silk and straw hats, greatly fallen off, though it is still considerable. The furs used for hat making were beaver, musquash, otter, nutria, hare, and rabbit; but each of these may be subdivided into 20 different sorts or classes.

\*Nutria, or nutria, is comparatively a new article. It began first to be imported in large quantities about 1810, from the Spanish possessions in South America. [NUTRIA.] The skin is used for different purposes, being either dressed as a peltry, or cut (storn) as a hating fur; and if well manufactured and prepared, it bears some resemblance to beaver fur, and is used for similar purposes.

3. Under the 3rd and last class I should bring all those furs which, though continually sold, and used in immense quantities, must still be considered mere articles of fashion, as their value varies according to the whims and fancies of different nations. There are, however, exceptions among these; and since they are always used, though their price is much influenced by changes of fashion.

This class comprises an endless variety of furs, as under it may be brought the skins of most animals in existence; almost all of them appearing occasionally in the trade.

\*Furs being entirely the produce of nature, which can neither be cultivated nor increased, their value is not influenced by fashion alone, but depends materially on the larger or smaller supplies received. The weather has great influence on the quality and quantity of furs imported from all quarters of the globe; and this circumstance renders the fur trade more difficult, perhaps, and precarious than any other. The quality, and consequently the price, of many furs will differ every year. It would be completely impossible to state the value of the different articles of furs, the trade being the most fluctuating imaginable. I have often seen the same article rise and fall 100, 200, and 300 per cent. in the course of a twelvemonth; nay, in several instances, in the space of 1 month only.

Among the furs which always rank very high (though, like all the rest, they change in value) may be specified the Siberian sable, and the black and silver fox. These articles are at all times comparatively very scarce, and command high prices.

The chief supplies of peltries are received from Russia (particularly the Asiatic part of that empire) and from North America. But many other countries produce very beautiful and useful furs; and though we are most indebted to Asia and America, Europe furnishes a very considerable quantity. Africa and Australia are of little importance to the fur trade, as, from their situation, they furnish but few articles, and consume still less. From the former we draw leopard and tiger skins (the most beautiful of that species), while the only production of the latter is the kangaroo; this, however, is never used as a fur, being chiefly consumed by leather dressers and tanners for the sake of its pelt.

Besides numerous private traders, there are several fur companies of very old standing, who in various countries do a great amount of business. Among these, the Hudson's Bay Company (London) deserves to be mentioned first, not only from the extent of their business, but because it is one of the oldest chartered companies in England.

The American Fur Company (in New York) stands next. They chiefly traded to London,

(For accurate information on the debts of various communities, see *Fenn On Funds*, by Nash, 1867.)  
**FURS.** In Commerce, the skins of different animals, covered, for the most part, with thick fine hair, the inner side being converted by a peculiar process into a sort of leather. Furs, previously to their undergoing this process, are denominated *peltry*.  
*Beaver fur* was formerly in very extensive use in the hat manufacture; but the introduction of silk and other hats has all but entirely superseded its employment in this way, and its value, though now much scarcer than formerly, has, in consequence, fallen off very considerably. The fur of the middle-aged or young animal, called *cut beaver*, is most esteemed. It is the finest, most glossy, and takes the best dye. *Fitch*, or the fur of the fitch or polecat, is principally imported from Germany; it is soft and warm, but the unpleasant smell which adheres to it depresses its value.  
*Marten and mink* (a diminutive species of otter) are principally imported from the United States and Canada. The fur of the musquash or muskrat (a diminutive species of beaver) is imported in vast quantities from our possessions in North America, which also supply us with considerable quantities of other skins. Nutria skins are principally brought from Buenos Ayres. The more valuable furs, as ermine, sable &c., come principally from Russia.

**FUR TRADE.** We are indebted for the following details with respect to the fur trade to one of the most extensive and intelligent fur merchants in London:—  
 Though practically engaged in the fur trade, I shall be able to say little with regard to it already known to you; but were I to write on the subject, I should divide the trade into 2, or 3 classes.  
 1. The 1st class would comprise articles of necessity; among which I should principally number an immense variety of lamb skins, varying so far from each other in size, quality, colour, value, that to most persons they would appear to produce of so many different species of animals. These lamb skins are produced in all parts of the globe, and are everywhere consumed; but in particular, an essential part of the dress of thousands among the lower classes in Poland, East Prussia, Hungary, Bohemia, Saxony. In Russia and other cold climates the skins of various other animals may be considered as articles of actual necessity.  
 The 2nd class would in a measure form part



The furs from our North American colonies are nearly all imported by the Hudson's Bay Company, by whom they are sold at public sales.

China is one of the best markets for furs. The Russo-American Fur Company were in the habit of carrying a considerable quantity of the furs taken by them in Kamtschatka and what was Russian America to Kiangta, where they were exchanged for tea and other Chinese products.

**FUSTIAN** (Ger. barehent; Dutch, fustein; Fr. fustaine; Ital. fustagno, frustagno; Span. fustan; Rus. bumason; Pol. barchan). A kind of cotton stuff, weaved or ribbed on one side. The manufacture of this fabric is traceable to the middle ages. 3,000,126 yards of fustians &c., plain and coloured, were exported in 1866, valued at 208,757.

**FUSTIC** (Ger. gelbbolz, fustiek; Dutch, geelboom; Fr. bois jaune de Brésil; Ital. legno giallo de Brasile; Sp. palo del Brasilamarillo). The wood of a species of mulberry (*Morus tinctoria*), growing in most parts of South America, in the United States, and the West India Islands. It is a large and handsome tree; and the timber, though, like most other dye-woods, brittle, and at least easily splintered, is hard and strong. It is very extensively used as an ingredient in the dyeing of yellow, and is largely imported for that purpose. Of

5,933 tons of fustic imported into Great Britain in 1866, 926 tons were brought from Mexico, 1,421 ditto from the British West Indies, 526 ditto from Cuba, 277 ditto from the United States, and 612 ditto from Brazil. Fustic from Cuba or the United States fetches full 30 per cent. more in the London market than that of Jamaica or Venezuela. In 1866 the price of the former varied from 7*l.* 18*s.* 1*d.* to 7*l.* 15*s.* 8*d.* per ton, while the latter varied from 5*l.* 9*s.* 10*d.* to 4*l.* 17*s.* 3*d.* per ton. The consumption amounts to about 6,000 tons a-year. The duty on fustic was abolished in 1845.

Zante, or young fustic, is really a species of sumach (*Rhus cotinus*, Linn.), and is quite distinct from the *Morus tinctoria*, or old fustic; the latter being a large American tree, while the former is a small European shrub. It grows in Italy and the south of France, but is principally exported from the Ionian Islands and Patras in the Morea. It imparts a beautiful bright yellow dye to cottons &c., which, when properly mordanted are used, is very permanent. It is conveniently stowed amongst a cargo of dry goods, as it may be cut into pieces of any length without injury. Only a small quantity of this species of sumach is imported. Its price fluctuates considerably.

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**GALACZ or GALATZ.** A town of Moldavia, on the left bank of the Danube, between the confluence of the Sereth and Pruth with that river, lat. 45° 23' N., long. 28° E. It is ill built and dirty, though in these respects it has latterly been much improved. Pop. supposed to amount to from 50,000 to 80,000. The trade of the town is chiefly carried on by Greek merchants; but, within the last few years, various English and other foreigners have formed establishments in it. Though at a considerable distance inland, Galacz is in the best position for becoming the port of the Danube. At present, however, it is little more than the port of Moldavia; Ibraila or Braihlow, about 12 miles farther inland, being the port of Wallachia. The commercial importance of these ports, and indeed the Danube, dates only from the Treaty of Adrianople in 1829. Previously to that epoch the trade of the Principalities laboured under the most oppressive restrictions, and was principally carried on by native produce may be freely exported either by sea or land, on paying moderate duties; and the duties on imports also, for the most part, comparatively moderate. The probability, indeed, seems to be that Galacz, 'the Alexandria,' as it has been called, 'of Scythian Nile,' will at no very distant period become a first-rate emporium. The resending of Wallachia and Wallachia from Turkish misgovernment has been of signal advantage, and it is to be hoped that they may never again be subjected to a paralysing influence. The establishment of regular intercourse by means of steam packets between Vienna and Galacz, and thence, by the Black Sea, with Constantinople and Trebizond, has already done a great deal, and will every day do more, to introduce a spirit of improvement into the vast and fertile, but long-neglected, provinces traversed by the Danube in the lower part of its course. The capacities of this great as a commercial highway are certainly

unequaled by those of any other European stream, and their full development would be of immeasurable advantage, not merely to the countries on its banks, but to all commercial nations.

**Exports and Imports.**—Moldavia and Wallachia are very productive provinces, being fruitful both of corn and cattle. The high prices of corn in France, Italy, and England, in 1846 and 1847, gave an extraordinary stimulus to the export trade of Galacz and Ibraila. The exports of wheat from both ports in 1847 amounted to no fewer than 570,578 quarters, worth on board ship 875,603*l.*; the exports of Indian corn during the same year were 337,720 quarters, worth 1,172,150*l.*; and among the other exports were about 320,000 quarters of barley, and 42,000 cwt. of tallow, with a variety of inferior articles. The total value above year amounted to the very large sum of 2,368,472*l.*, of which about two thirds were from Ibraila.

The quality of the wheat, which is partly hard and partly soft, was, a few years ago, very inferior, being generally damp, and having an earthy smell from its being kept in pits dug in the ground. Latterly, however, it has been much improved; and the finer samples now fetch, in Marseilles, Genoa, and Leghorn, within from 3 to 4 per cent. of the price of Odessa wheat. In 1852 we imported 86,140 quarters of Wallachian and Moldavian wheat, with no fewer than 626,714 do. Indian corn. In later years the quantity is considerably diminished. In 1866 the imports of wheat were 141,181 cwt., and of Indian corn 604,503 cwt. Both provinces fatten large herds of cattle, particularly the Austrian states. Tallow may be had in large quantities, its annual produce in Wallachia only being estimated at about 3,000,000 okes, or 8,500,000 lbs. Until within these few years the

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tallow shipped at Galacz was burdened with a heavy export duty, which checked its sale, and consequently, also, its growth. This duty, after having been 3 per cent., was abolished in 1861, and renewed on all exports and imports at 5 per cent. in 1861. The quality of the Danubian tallow is excellent. Among the other articles of export are wool, timber, hides and skins, lard, butter, bristles, bones, jerked beef, linseed, barilla, yellow-berries, coarse cheese &c. Timber of the finest quality may be had in any quantity; but as it can only be advantageously exported in large ships, which cannot when laden make their way over the bar, the trade in it has hitherto been confined within comparatively narrow limits. One, however, would be disposed to think that this difficulty might be obviated by sending down the timber in rafts, and loading outside the bar.

Notwithstanding the recent period at which the navigation of the Danube has been opened, and the barbarous state of the countries in the lower part of its course, the value of the exports from Galacz and Ibraila at present (1868) probably exceeds 1,800,000*l.* a-year, of which from 750,000*l.* to 800,000*l.* may be from the former. But, considerable as this is, it is nothing to what it certainly would be were civilisation to make any considerable progress in the countries traversed by the Danube after it leaves the Austrian dominions, and still more were the river to become, as it naturally is, the principal channel for the conveyance of products to and from Hungary and Transylvania.

The great articles of import are manufactured cotton goods, and cotton twist, principally from England, the demand for which is rapidly increasing; with sugar, coffee, and other colonial products; olives and olive oil, iron and steel, hardware &c.

**Entrance to Galacz.**—Of the three principal mouths of the river, the Soulina (middle) mouth, in lat. 45° 10' 30" N., long. 29° 41' 20" E., is the only one accessible by vessels of considerable burden. The depth of water on the bar, at its entrance,  $\frac{1}{2}$  mile from the shore, varies from 10 to 13 and 14 feet, according to the season of the year and the direction of the wind. When the latter blows from the E., it is opposed by the current of water flowing from the W., so that the bar is rapidly increased by the river; and when, on the contrary, the current and the wind coincide, the mud is carried out into the sea, and the depth of water on the bar is progressively augmented. The assistance of a powerful dredging machine, or machine fitted to stir up the mud, or other deposit forming the bar during the prevalence of westerly winds, would be of great importance; and it is believed that with its agency the channel might be very materially deepened. The Great complaints were made of the state of the navigation of the Danube during 1853. It appears to have been occasioned partly by difficulties arising out of the disputes between Russia and Turkey, and partly by the prevalence of easterly winds. But it would be easy, by erecting a lighthouse to mark the entrance to the river, and employing a dredging machine to the navigation, to obviate the physical obstructions to the navigation. From the bar to Galacz and Ibraila there is nowhere less than 18 feet water, and in many places from 60 to 70 feet. Vessels of 300 tons lie close to the quays at Galacz. The shores at the mouth of the river being low, and bordered with reeds and shoals, vessels intending to enter the river generally make the small rocky islet of

Phidonisi or Serpent Isle, in lat. 45° 15' 15" N., long. 30° 10' 30" E., whence the Soulina mouth bears W. by S., distant 23 miles. This island was famous in antiquity for its temple in honour of Achilles, to whom it was sacred. It was called *Leuce*, or the White Island, from the myriads of sea-fowl by which it was usually covered. The notion of its being infested with serpents, is singular, however, seeing that it is now annually passed by numbers of European ships, that it should not have been visited by any traveller. It may be expected to contain some remains of antiquity. (Clarke's *Travels in Russia, Turkey* &c. 8vo. ed. vol. ii. p. 391-101.)

According to Mr. Cunningham, the first objects seen, on nearing the shore, are the masts of vessels in the river, and the houses in the town of Soulina, which, however, are very low. Soulina, though only a port of transit, has become, since the navigation of the Danube has been opened, one of the principal shipping ports in the Black Sea. In 1866, 148 vessels, of 58,604 tons, entered the port. Haasmeister says that there is a wooden tower on the south shore at the entrance to the river; but though the contrary has been often affirmed, and its position given in Arrow-mill's map, there is certainly no lighthouse. Lights are generally stationed without the bar, into which large ships discharge a part of their cargoes; and pilots may generally be obtained from them or other vessels. As the current is sometimes very strong and difficult to stem, a proper establishment of steam tugs at the mouth of the river would be a great advantage. An E. S. E. wind carries a vessel from Soulina to Galacz through all the different reaches of the river; but otherwise the navigation is difficult, and towing is in parts necessary.

Frost usually sets in on the Danube in December, and continues till March. Freight in the ports of the Danube are always from 20 to 25 per cent. higher than in Odessa; premiums of insurance, the contrary, are not higher than at the latter port, except on such vessels as, on account of their size, are obliged to discharge outside the bar.

**Money, Weights, and Measures.**—These are mostly the same as at CONSTANTINOPLE. Accounts are kept in piastres and paras. 1 piastre = 40 paras.

**Galacz.**—Ducat blanc = 44 pia. Silver ruble = 15 pia. Spanish dollar = 19 pia. 32 paras. Turkish yermelik, old coinage = 19 pia. 32 paras. Turkish yermelik, new coinage = 17 pia. 15 paras. Austrian zwanzigers = 3 pia. 5 paras. It is to be observed that when exchanges are so high it is requisite to remit in specie, any of these coins may go to a premium, according as it suits better than others for the remittance; and when there is want of bills to remit to Austria, the ducat blanc = 44 pia. 20 paras.

**Ibraila** has two rates of currency; the one for charges, which is the same as in Galacz, and the other for the purchase of merchandise, as follows:—Ducat blanc = 32 pia.; Spanish dollar = 14 pia.; Turkish yermelik, old coinage = 14 pia.; Turkish yermelik, new coinage = 12 pia. 28 paras. zwanziger = 2 pia. 12 paras. Note.—The same in Galacz, any of these coins may go to a premium.

**Galacz and Ibraila.**—All duties are paid in places, in the course of the Treasury, as follows: Ducat blanc = 31½ pia.; silver ruble = 10 pia.; Spanish dollar = 14 pia.; Turkish yermelik, old coinage = 14 pia.; zwanziger = 24 pia.

The ducat blanc weighs 1 Turkish drachm. Exchanges.—Bills can generally be sold on

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- Marseilles
- Vienna
- Amsterdam
- Hamburg
- Vienna

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following places, and the rates in 1865 were as noted:—

**Rates of Exchange.**

Place	Galac. Pias.	Par.
Berlin and Leipzig	11	11 = 1 thaler
London	99	20 = 1 lb.
Marseilles	3	21 = 1 franc
Genoa	3	20 = 1 lira
Amsterdam	8	2 = 1 florin
Hamburg	7	2 = 1 marc banco
Vienna	8	6 = 1 florin

The Galacz piastre has 40 paras.

**Weights.**—Galacz and Ibrailla. 400 drachms = 1 cwt. 41 cokes = 1 cantar.

**Measures.**—Galacz and Ibrailla. 20 banniza = 1 kilo. The kilo of Galacz to that of Ibrailla is as 113 to 232, or 2 Ibrailla kilos = 3 Galacz nearly.

**Correspondence of Weights and Measures of Galacz with those of Foreign Places.**

100 lbs	= 1 cwt. English
112 " "	= 100 kilograms
110 " "	= 100 fund of Vienna
100 " "	= 1 pud of Russia
100 kilos of Galacz	= 145 imperial qrs.
100 " "	= 435 hectolitres
100 " "	= 425 stajo of Venice
100 " "	= 600 sacks of Leghorn
100 cwt of mixed	= 280 cewtwt of Odessa
55 " "	= 1 imperial qr.
115 " "	= 1 hectolitre
1 kilo of Ibrailla	= 24 cewtwt
1 " "	= 24 imperial qrs.

Note.—These measures generally measure out somewhat less.

**Charges on Shipping &c. in Galacz and Ibrailla.**

**Port Charges.**—In Galacz anchorage is 30 pia., and a guardian for 5 days' observation 5 pia. per day. In Ibrailla anchorage is 17½ pia., and guardian for 5 days' observation 5 pia. per day.

**Quarantine.**—Vessels generally remain in quarantine during their stay, as little or no advantage is gained by taking pratique.

Vessels wishing to take pratique may obtain it in 14 to 21 days, according to the state of health in Turkey, by taking a Health Office guard on board; or the captain alone may take pratique, and, when the health of the people is good in Constantinople and along the Danube, quarantine lasts only seven days.

The following quantities of grain were shipped during 1874 from Galacz and Ibrailla:—

Articles	Galacz	Ibrailla
Wheat	419,100 kilos	335,500 kilos
" "	428,000 "	219,500 "
" "	59,500 "	11,000 "
" "	37,800 "	186,500 "
" "	4,300 "	1,400 "
" "	2,470 "	7,500 "
Total	952,170	795,100

100 Galacz kilos = 143 qrs., 1,404,503 qrs.  
100 Ibrailla kilos = 232 qrs., 1,882,912 qrs.  
3,287,415 qrs. Besides, 8,100 kilos of millet and 8,400 kilos of rape seed were exported from Galacz.

There is a continuous increase in the production of petroleum, lumber, wool, and rocksalt from Galacz ports.

The annexed is the estimate given by Mr. Malmros, United States consul at Galacz, of the value of articles produced in this district:—

Wheat	per acre	5½ Galacz piastres
Wheat	per wadra (12 qrs.)	12 "
Wheat	per oca	7½ "
Moldavian	per oca	46 to 56 silver rubles
" "	per oca	5 Galacz piastres
" "	"	5 "
" "	per pair	25 "
" "	per wadra	110 "
" "	each	12 "
" "	each	35 "
" "	"	158 "
" "	"	568 "
" "	"	552 "

**Freights at Galacz.**—These vary very much. In June 1864 they were as low as 7s. 6d. to 8s. per quarter from Galacz and Ibrailla to England, and from 6s. 6d. to 6s. from Soullina. In the course of the year they rose to 10s. 6d. from Galacz and Ibrailla, and to 8s. 3d. from Soullina. In general freights may be taken to be 8s. 6d. per quarter from Galacz to England, 50 florins per last from Galacz to Holland, 450 francs per charge from Galacz to Marseilles.

**Duties.**—An ad valorem duty of 5 per cent. is levied on all articles, except provisions, imported into, or exported from, the Principalities of Moldavia and Wallachia. Government reserves to itself the power of prohibiting the exportation of any article, but it has to give a month's previous notice of any such prohibition.

Galacz is a free port; that is, a port at which all commodities may be landed, warehoused, re-exported and consumed in the town, free of duty. Quarantine regulations are strictly enforced, unless performed previously to entering the river.

Ismail and Reni, ports of the Russian province of Bessarabia, are situated on the Danube, and are both, but especially Ismail, a good deal nearer its mouth than Galacz; but they are much less considerable in point of commercial importance. Having little importation, their trade is confined almost entirely to the exportation of corn, and even in this respect they are very inferior to Galacz and Ibrailla. They are subject to the Russian duties and regulations.

We have gleaned these particulars from a variety of works, but principally from the valuable Report by Mr. Cunningham, printed at Galacz in 1841; the work of Hagemeister, printed at Commerce of the Black Sea, Eng. trans. pp. 83-95 Sea, p. 193 &c.; M. Malmros' Report to the Black and Mr. Vice-Consul Dupuis' Report on the Trade of Soullina and Toulcha for 1866.

**Pro formâ Invoice of Wheat purchased in Galacz, and put free on board.**

Kilos 1,000 wheat at 150 piastres 2½ kilo	150,000	150,000
Kilos 50 tons on sifting	-	150,000
Kilos 970 shipped	-	150,000
<b>Charges</b>		
Duty on kilos 970, @ piastres 4.—D 51½	3,919	69
Town duty, @ paras 10 ½ kilo	212	59
Measuring on purchasing, @ paras 6 ½ kilo	150	0
Portage reeling, @ paras 20 ½ kilo	500	0
Sifting, @ paras 20 ½ kilo	500	0
Cartage to warehouse according to distance, paras 30 ½ kilo on kilos 970	727	50
Measuring shipping on kilos 970 @ paras 12	291	0
Portage on shipping kilos 970 @ paras 20	485	0
Cartage on shipping, paras 30	727	50
Warehouse, ½ per cent.	750	0
Brokers, 1 per cent.	750	0
Scandaglio box for measure	30	0
Attendance of warehouseman	30	0
Postage and petty expenses	30	0
Commission, 3 per cent.	-	10,974
Bill brokerage, 1 per cent.	-	160,974
	-	4,849
	-	165
	-	96
	-	165,969
	-	57

When the grain is shipped direct from the warehouse of the seller, without being transported to the warehouse of the buyer, then the charges will be less by the cartage and portage passed for that purpose.

When the season is advanced and the streets in bad order, the charges of embarking will be something more.

We may avail ourselves of this opportunity to state that there has been an equal, or even greater, increase in the exports from Bulgaria, independently of those that come down the

Danube to Ibraila. About 1837 the entire exports of wheat from Varna and the other Bulgarian ports between the Gulf of Bourghas and Kustengts did not certainly exceed 200,000 quarters, and in 1847 they amounted to 896,000 quarters. And it is necessary to bear in mind that this is exclusive of the exports, which are very considerable, from Toultscha, a port of Bulgaria, on the Danube, about 40 miles W. of the entrance to the Sulina mouth. Those of Kustengts in 1861 were 502,298 qrs. of wheat and other corn.

Number and Tonnage of Vessels of various Nations Cleared from the Mouth of the Danube, including those loaded in the Harbour of Soulina, in the Year 1863.

Nationality	Vessels	Tons
Austrian, Sailing	211	58,074
Merchant steamers	11	2,509
Steam packets	129	35,966
Danish	1	87
Ecuadorian	1	631
French and Jerusalem, Sailing vessels	53	5,197
French and Jerusalem, Steam packets	10	11,516
British, Sailing vessels	31	57,065
Merchant steamers	1,072	16,068
Greek	19	110,750
Hamburg	20	202
Hannoverian	17	2,559
Dutch	268	4,152
Ionian	11	21,561
Italian	67	81,277
Macklenburg	15	3,000
Moldo-Wallachian	2	2,914
Norwegian	1	2,631
Oldenburg	17	792
Prussian	90	1,411
Russian, Sailing vessels	36	3,532
Merchant steamers	5	12,097
Steam packets	1	16
Samos	2	4,001
Servian	1	2,167
Swedish	486	316
Turkish	1	211
American, United States	3,099	41,091
Total		519,532

In 1864 the vessels were 3,330, the tonnage 555,457.

Quantities of the Principal Articles Exported from Moldo-Wallachia in 1863.

Articles	Quantities
Animals - - - - - number	1,686
Buffaloes - - - - - "	1,165
Cattle - - - - - "	6,250
Cows - - - - - "	8,567
Goats - - - - - "	5,227
Horses and colts - - - - - "	18,106
Lambs - - - - - "	206,896
Sheep - - - - - cwt.	86,847
Swine - - - - - "	1,176
Bristles - - - - - lbs.	6,356
Cheese - - - - - "	20,281
Cocoons of silkworms - - - - - qrs.	563,642
Corn - - - - - qrs.	68,116
Barley and oats - - - - - "	1,117,240
Beans - - - - - "	31,850
Maise - - - - - "	117,113
Millet - - - - - "	1,626,940
Rye - - - - - cwt.	17,771
Wheat - - - - - number	101,415
Fish - - - - - lbs.	267
Hides - - - - - number	180,569
Leeches - - - - - cwt.	1,279
Mat - - - - - gallons	532,090
Prunes, dried - - - - - cwt.	156,579
Raki and spirits of wine	
Repeseed - - - - - number	672
Skins - - - - - "	86,580
Fox - - - - - "	355,601
Goat - - - - - "	5,190
Lambs - - - - - "	6,551
Marten - - - - - cwt.	136,283
Pig - - - - - cwt.	236,595
Sheep - - - - - value	49,777
Tallow - - - - - cwt.	236,595
Timber (declared value) - - - - - gallons	10,183
Tobacco - - - - - "	274,910
Vinegar - - - - - cwt.	49,989
Wine - - - - - "	25,614
Wool, unwashed	
Washed	

The port of Varna is situated on the W. coast of the Black Sea, at the bottom of a rather small bay, about 3 miles N.W. of Cape Galata, the latter being in lat. 43° 10' N., long. 27° 58' E. Its importance has much increased since its

connection by railway with Rustchuk on the Danube. The ordinary anchorage is to the S.W. of the town, in 7 or 8 fathoms, bottom sand and ooze. It is open to all winds between E. and S.E. Vessels load and unload by means of lighters, it being dangerous to approach within less than 1/4 mile of the shore.

Between Varna and Soulina is the port of Kustengts, which, now that the railway connecting the Danube and the Black Sea via Tchernavoda has been opened, will must draw much of the trade of Galacz.

Both hard and soft wheat are shipped from Varna, the value of the former being from 30 to 40 per cent. greater than that of the latter. A duty is charged on wheat when exported; and being a fixed duty of about 2s. 8d. per quarter, it is high when prices are low, and low when they are high.

Mouths of the Danube.—There is a great discrepancy in the statements of ancient authors as to the number of channels by which the Danube poured its waters into the Euxine. (Cellarius *Notitia Orbis Antiqui*, lib. ii. c. 8.) A similar discrepancy exists at this moment; some authorities affirming that it has 4, others 5, and others 6 or 7 mouths. But, as stated above, there are only 3 of any considerable magnitude, viz. the Kilia mouth on the north, and successively the Soulina mouth, and the Edrillis mouth. But, besides these, there are other channels of inferior importance, of which two, at least, are still more to the south than the Edrillis mouth. In antiquity the most southerly channel was the deepest, and best suited for the purposes of navigation, and was thence called *Sacrum*. (Cellarius *supra*.)

It is not, however, to be wondered at, that in the course of so many ages, very great changes should have taken place in the channels of the river. It seems probable that the *Ostium Sacrum*, or southerly channel of the ancients, may have run between the now Rassein, which communicates with the Euxine at Kara Kerman, formerly *Istropolis*, and the point still more to the south. At any rate there certainly was a channel in the middle of the river pointed out (D'Anville, *Abrigi de la Geographie Ancienne*, tom. i. p. 307); and as it is a goodly channel, more to the south than the Edrillis mouth, which the *Ostium Sacrum* has been commonly identified, it would seem to have the best claim to the distinction of being synonymous with the latter. This channel is, in fact, still partially open, and it is stated that the Austrian Government has seriously entertained a project of making it navigable. There can be no doubt if this could be effected, it would be of much importance to the trade with Hungary and the countries on the upper part of the river, materially shortening the river navigation, and facilitating the transit of ships and goods to the Black Sea; but the marshy nature of the ground is said to oppose formidable obstacles to the construction of a canal.

Navigation of the Danube.—Steam navigation on the Danube was first established in 1830, which the undertaking has gone on prospering much so, that the communication between Vienna and Constantinople (partly by steamer and partly by railway) is now well maintained. The Austrian Steam Company, which was the first in the river to have extended their scheme by starting a line between Vienna and Linz, and a Bavarian company commenced in 1838 running vessels between Ratisbon and Linz.

Steam boats ply on the Danube as long as the river is free from ice (usually from March

to November) to Basensch, once reaching Galacz proceeding by may be reached.

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Galatova—A railroad capital of Moravia, to

to November): Vienna to Pesth, daily; Pesth to Basensch, once a week; thence to Rostchuk; reaching Galvez on the fourth day from Pesth, or preceding by railway to Varua. Constantinople may be reached in about the same time.

The journey from Vienna to Constantinople, including stoppages, is performed in less than 5 days, about 15L.; second place, 156 florins.

The navigation of the Danube by steamers is unfortunately interrupted for about 50 miles, between Drobnova and Gladova, by rocks and rapids, the lowest and most considerable of which is a sort of cataract, called the 'Irongate,' about 3 miles below the Hungarian frontier. It is worthy of remark that the most illustrious of the Roman emperors, Trajan, alive to all the advantages to be derived from the easy navigation of the Danube, had with equal industry and sagacity formed a road, or towing-path, along the river's edge, for facilitating the operation of towing, of which the remains are still extant, with an inscription commemorative of the completion of the works. It has been proposed to overcome the difficulties in the way of the navigation by renovating the old Roman road, and deepening the channel contiguous to it. But it rarely happens that attempts to improve the navigation in the bed of a river, under anything like similar circumstances, are even tolerably successful. The better way, undoubtedly, would be, were it practicable, to construct a lateral canal, or rather a canal from the mouth of the Bereska to Palamka, which would not only avoid the rapids, but also shorten the navigation by getting rid of the bend of the river by Orsova. But the difficulties in the way of such an undertaking, from the nature of the ground, are said to be insuperable; and it is, therefore, probable that the distance of 50 miles along the rapids will continue, if not always, at least for some considerable time, à portage. The inconveniences, however, of this break in the navigation has been diminished, as far as possible, by the construction of an admirable carriage road, of great expense, by the Hungarian Diet, from Mohora to Orsova. In the extent of excavations at the neck, and terraces of masonry, upon which is carried, it is not inferior as a specimen of engineering to the finest roads over the Alps. Several steamers have been transported down these rapids at the season of floods; small barges are sent at all times; and little boats, laden with wax and wool, are towed up by men and oxen. The passengers and goods conveyed by the steamers are transferred from Moldova in row-boats to Gladova, below the Irongate, where they embark on another steamer. (*Geog. Dict.*, art. *Bucurega*.)

*Bucurega*.—A railroad is completed from Brunn, capital of Moravia, to Vienna; another railroad crosses from the Danube at Linz, north to Budweis, in Bohemia, where it reaches the banks of the Danube; and through it communicates with the Danube; but, as already explained, the railway connection now connecting the Danube and the Adriatic Sea will probably transfer the major portion of the trade of Galvez to Kustengri.

*Canal of the Danube and the Rhine*.—The projected canal to unite the Danube and the Rhine, the favourite scheme of Charlemagne, was undertaken by the Bavarian Government, and was completed and opened in 1846. It runs from Bamberg, by Erlangen and Nuremberg, to Neumark, joining the Danube at Kellheim, some miles above Hatisbou. The distance between Bamberg and Neumark, and the Danube, is about 100 miles; but the actual extent of canal is less,

the communication being in part effected by the Regnitz, a tributary of the Main, and the Altmühl, a tributary of the Danube. There is now, consequently, an internal communication by water throughout all the vast country stretching from the shores of the Netherlands to the Black Sea; so that produce shipped at Rotterdam or at Galvez may be conveyed from the one to the other in the same vessel.

**GALANGAL** (Ger. galgant; Dutch and Fr. galanga; Russ. kalgant; Lat. galanga; Arab. kustulk; Chinese, liang king). The root of the *Moranta galanga*, brought from China (where it grows in Shansi, Fuhkien, and Kaucha) and the East Indies, in pieces about 1 inch long, and hardly  $\frac{1}{2}$  an inch thick. A larger root of the same kind (*Greater Galangal*), an inch or more in thickness, is inferior. It has an aromatic smell, not very grateful; and an unpleasant, bitterish, extremely hot, biting taste. It is used in medicine and cookery, especially curries. Worth about 16s. 6d. per picul. It should be chosen full and plump, of a bright colour, very firm and sound; 12 cwt. are allowed to a ton. (Lewis's *Mat. Med.*; Milburn's *Orient. Com.*)

**GALBANUM** (Fr. galbanum; Ger. Mutterharz; Ital. galbano; Lat. galbanum; Arab. muzard). A species of gum resin obtained from an unknown plant imported from Africa, especially the Cape of Good Hope, and from Syria and Persia. It is brought to this country from the Levant and India in cases or chests containing from 100 to 300 lbs. each. Galbanum usually appears in the form of masses composed of irregular whitish, reddish, or yellowish tears about the size of a pea, more or less translucent, and generally mixed with pieces of stalk, seeds, or other foreign matters. It is purified by straining.

According to Ludewig, a gum resin described as *Persian galbanum* is received in Russia by the way of Astracan or Orenburg, and is the kind used in that country. It comes enclosed in skins, and is in masses of a reddish brown colour with whitish streaks. It has a strong, disagreeable odour, and an acrid, bitter taste.

Galbanum is used in medicine. (*British Pharmacopoeia of the Medical Council*, 1867; Wood and Bache, *United States Dispensatory*.)

**GALLIPOLI**. A sea-port town of South Italy (Naples), prov. Lecce, on the east shore of the Gulf of Tarento, on a rocky islet at the west extremity of a narrow peninsula, to which it is joined by a bridge; lat. 40° 3' N., long. 17° 58' E. It is fortified, has a castle, and is well built. Pop. 9,208 in 1861. It is the principal port of the Mediterranean for the shipment of olive oil, and has, in consequence, a considerable trade.

It is indebted for this distinction, partly to its being situated in a country where oil is produced in the greatest abundance, but more, perhaps, to the circumstance of the cisterns, cut in the limestone rock on which the town is built, being peculiarly well fitted for the preservation of the oil. They do not differ much in appearance from a common water tank. They are usually under the exception of a circular hole, into which the oil is poured, and through which it is again drawn up. It will keep in these cisterns for an indefinite period, and is materially improved, not only in clearness, but also in flavour. When the oil is to be shipped, it is drawn off from the cisterns into *uteri* or skins, which are carried on men's backs to the shore, where the casks, being filled, are conveyed in lighters to the ships. [OLIVE OIL.] Of 23,690 tuns olive oil imported into the United Kingdom in 1866, 13,952 tuns

were from Naples and Sicily, and principally from this port.

Gallipoli has no harbour, but a bay or roadstead N.E. of the town. The latter has from 10 to 12 fathoms water; but it shoals towards shore, and vessels of considerable burden should not come within less than a musket shot of the land. Those that come nearest to the shore moor with their heads to the N.W. with 2 cables out a-head and 2 a-stern in from 16 to 20 feet water. The only danger in entering or leaving the roads is a blind rock at their entrance, about 500 yards N.N.E. from the fort. It has only about from 5 to 7 feet water; and as it is not marked by any buoy, pilots should be employed by foreigners. A tunny fishery is carried on inside the bay, but the nets are easily avoided. Winds from the N. and N.W. throw in a heavy sea.

About ½ mile W. from the town is the low, flat island of St. Andrea. It is said in Norie's *Sailing Directions for the Mediterranean*, that there is a lighthouse on this island; but, though a lighthouse on it would be of great service to ships making on their way to the port, and though it be laid down in some of the charts of this sea, the truth is that none such really exists, nor is there even a tower on the island! There are some lesser islands between St. Andrea and the mainland. There is deep water between the former and the nearest islands, but not between the latter and the town. A dangerous shoal lies about ½ mile S. of St. Andrea.

**Monies, Weights, and Measures.**—Those of Naples, excepting the measure of oil, which in Naples is measured in vats of 11 salme, 1 stajo, and 28 pignatti of Gallipoli. The salmas of Naples and Gallipoli are the same, each weighing 163½ rotoli of clear oil. The difference is in the subdivision: viz.—

1 Salma of Naples	= 16 Staja, or 320 Pignatti.
1 Salma of Gallipoli	= 10 Staja, or 320 ditto.
1 Stajo of Naples	= 20 Pignatti.
1 Stajo of Gallipoli	= 32 Pignatti.
72 S. of Gallipoli	= 1 Imp. ton.

The quarantine regulations are the same as those of Naples; but as Gallipoli has no lazaretto, vessels laden with susceptible goods proceed to Brindisi to discharge and perform quarantine, Brindisi having the only lazaretto in the province of Terra di Otranto.

**General Remarks.**—Masters of vessels loading oil at Gallipoli are obliged to attend at the measurement of the oil, and inspect its quality. They receive for their attendance from the shipper, free of all charges on board, 2 staja, or 2 per cent. (Gallipoli measure), of oil for every 100 salme their vessel loads.

**Bills of Lading** for a cargo of oil are merely signed by the master with his name, without any sort of clause. He, consequently, affirms for the quantity and quality of the oil and casks. All bills of lading are made out in Italian.

In shipments for St. Petersburg, the number, tare, and gross and nett weight of each cask are endorsed on the bill of lading, which is signed by the master and shipper on both sides.

Besides the bills of lading, the master signs receipts in quadruplicate, specifying that a sufficient quantity of wood has been supplied to the stowers for the stowage of his cargo, and that he has received a certain number of empty casks for the purpose of transferring the oil to them, should any leakage take place during the voyage.

Another receipt is signed by the master stating that he has received the custom-house caskets, proving the duty to have been paid on his cargo. The caskets are of service should the vessel put into any other Italian port.

The **Port Charges**, of a public nature, are fixed by the tariff for the kingdom. But there are several port charges of a private nature, such as pilotage, mooring, unmooring, discharging of ballast, and watermen's or Interpreter's attendance. These are only paid by foreign vessels, and for the Neapolitan traders require no pilot, and their own vessels, and discharge their ballast, and speak the language of the place, do not require an interpreter, and merely have a person to assist them in getting their clearances from the different offices, whom they pay by private arrangements. The charges for British vessels are—

Pilotage, entering -	du. 4	gr. 0
"    clearing -	"    4	"    0
Mooring and unmooring -	"    16	"    0
Interpreter's attendance -	"    18	"    0
Discharging of ballast, for every ton -	"    0	"    0

N.B.—Vessels of all nations pay the same charges.

**Supplies and Prices of Provisions.**—Gallipoli is not a favourable place for obtaining supplies of fresh provisions, and is without any salt provisions, except salted cod, herrings, pilchards, and anchovies.

Bread (rather bad)	4	grs.	3 per cent.
Beef (not always to be had)	18	18	
Pork (not to be had in summer)	10	12	
Lamb and kid	20	5 each	
Fowls	12	18 per pair	
Eggs	20	16 per dozen	
Cheese	18	60	
Coffee	30	no price	
Tea (very bad, and sold by apothecaries)	30	48	
Sugar (rushed)	2	6 per cent.	
Butter (not to be had)	2	6 per cent.	
Wine (good and strong)	2	6 per cent.	
Biscuits	2	6 per cent.	

is sent must be ordered, and is inferior. Vessels generally provide this article at Naples, where it is good and cheap.

Vegetables are not abundant at all seasons. Water. The supply for shipping is copious and excellent, and is conveniently put on board. (*Geographical Dictionary*, art. 'Gallipoli,' with the authorities there referred to; and valuable private information.)

**GALLON.** A measure of capacity, both for dry and liquid articles, containing 4 quarts. 5 Geo. IV. c. 74, 'the Imperial gallon shall be the standard measure of capacity, and shall contain 10 lbs. avoirdupois weight of distilled water weighed in air at the temperature of 62° Fahrenheit's thermometer, the barometer being at 30 inches, or 277.274 cubic inches; and all other measures of capacity to be used, as well as wine, beer, ale, spirits, and all sorts of liquors, shall be derived, computed, and ascertained from such gallon; and all measures shall be taken in parts, or multiples, or certain proportions of said Imperial standard gallon.' The old English gallon, wine measure, contained 231 cubic inches, and the old English gallon, ale measure, contained 282 cubic inches. Hence the Imperial gallon is about ¼ larger than the old wine gallon, and about ¼ less than the old ale gallon. By the 6 Geo. IV. c. 58 s. 6 it is enacted that from and after January 6, 1826, whenever any gallon measure mentioned in any Act of Parliament relative to excise, it shall be taken and deemed to be the Imperial standard measure. [WINE AND MEASURES.]

**GALLS OR GALL-NUTS** (Fr. galles, waldgalle; Ger. gallapfel, gallus; Ital. gallo, gallone; Lat. galæ; Arab. afs; Hind. majjoolah, mazu). Excreescences produced by the stings of a small insect, which deposits its eggs in the tender shoots of a species of oak (*Quercus toria*, Linn.) abundant in Asia Minor, Syria, &c. Galls are inodorous, and have a narrow

bitter and intensely spherical size of a pea to they are of a brown surface is tubercular break with a thin in commerce by the. The white been gathered the way out of the are not so heavy colour, and do not green and blue galls has escaped; the the former, and are more of colouring galls are of green very extensively use of ink, of w of al ingredients.

all the vegetable wood with great effect. The ancients reckon prior to every other pre-eminence. They from Aleppo, Tripoli brought from the western bank journey from Aleppo unquestionably the gathered in the surrounding name. Those from inferior quality. They carried thither from India. It is not unusual blue, in order to increase is, however, detected in is thus imparted to the dried and lighter than. In 1806, 17,549 cwt. of the United Kingdom, from China and Japan. Eastern produce was the article as derived 22,64 per cent. After Turkey, the average value per cwt. Bombay galls the price of galls appeared. In 1807, it was stated on 21, 10s. to 31, 4s. per cwt. In 1808, the Chinese galls were 31, 10s. (*British GALVESTON*, The Gulf most southerly of the E. end of the long, in the name, on the northern side, and on the northern bay of Galveston, between the N. side of the bay, and the N. side of the bay, lat. 29° 16' 37" N. 1809, before the civil war was about 10, 000. Since its close, and in 1867; that of Texas is estimated by Mr. Mason at 1,000,000 to 1,200,000. The bar outside Galveston on the N.E. end of the bay on the mainland, is water at the highest tides; hence the smaller boats of 200 or 250 tons, are not able to enter the bay, as well as other ports on the N. coast. The deficiency of water being the entrance to the bay impeded by the d

bitter and intensely astringent taste. They are nearly spherical, and vary in magnitude from the size of a pea to that of a hazel nut. When good, their surface is tubercular; they are heavy, brittle, and break with a flinty fracture. They are known in commerce by the names of *white*, *green*, and *blue*. The white galls are those which have not been gathered till after the insect has eaten its way out of the nucleus and made its escape. They are not so heavy as the others, are of a lighter colour, and do not fetch so high a price. The green and blue galls are gathered before the insect has escaped; they are heavier and darker than the former, and are said to afford about one third more of colouring matter.

Galls are of great importance in the arts, being very extensively used in dyeing, and in the manufacture of ink, of which they form one of the principal ingredients. They are the most powerful of all the vegetable astringents, and are frequently used with great effect in medicine.

The ancients reckoned the gall-nuts of Syria superior to every other, and they still retain their pre-eminence. They are principally exported from Aleppo, Tripoli, Smyrna, and Soid; those brought from the first come chiefly from Mosul, on the western bank of the Tigris, about ten days' journey from Aleppo. The real Mosul galls are unquestionably the best of any; but all that are gathered in the surrounding country are sold under this name. Those from Carmania are of a very inferior quality. The galls met with in India are carried thither from Persia by Arabian merchants.

It is not unusual to dye the whitish gall-nut blue, in order to increase their value. The fraud is, however, detected by the deeper blue tinge that is thus imparted to them, and by their being perforated and lighter than the genuine blue galls.

In 1866, 17,549 cwt. of galls were imported into the United Kingdom. Of these, 7,018 cwt. came from China and Japan; but the quality of this Eastern produce was low, the average value of the article as derived from these sources being £2.6d. per cwt. After these came the produce of Turkey, the average value of which was 6l. 9s. 10d. per cwt. Bombay galls were worth 5l. 14s. 8d. The price of galls appears to have risen very considerably of late years. In a former edition of this work it was stated that they were worth 2l. 10s. to 3l. 4s. per cwt.; now, with the exception of the Chinese galls, the price hardly falls now 3l. 10s. (*British Pharmacopœia* &c. 1867.)

**GALVESTON.** The principal sea-port of Texas, the most southerly of the United States, at the E. end of the long, low, narrow island of the same name, on the north shore of the Gulf of Mexico, and on the channel forming the entrance to the bay of Galveston, an extensive inlet of the sea between the N. side of the island and the mainland; lat. 29° 16' 37" N., long. 94° 49' 41" W. In 1860, before the civil war, the population of Galveston was about 10,000, but has greatly increased since its close, and has been estimated at 20,000 in 1867; that of Texas, having been 604,215 in 1867, is estimated by Mr. Acting-Consul Barnes to be 1,000,000 to 1,200,000 in 1867.

The bar outside Galveston harbour and bay, on the N.E. end of the island and Point Bolivar on the mainland, has not more than 13½ feet of water at the highest springs, and but 10 feet at low water; hence the smaller class of vessels, or those of 200 or 250 tons, are most suitable for the service of the port, as well as for that of almost all the other ports on the N. and E. sides of the Gulf, the facility of water being all but universal. The entrance to the harbour was sometimes impeded by the dangerous accumulation

of sand on the inner bar; but a Board of Survey having been appointed by the Government, this defect no doubt has been remedied as far as possible. Though the land be low, the houses of Galveston may be seen from the mainland at a distance of several miles. Vessels drawing 8 feet water and upwards should, however, not approach the bar nearer than 16 fathoms without heaving to and making the signal for a pilot, which is promptly attended to. Vessels drawing less than 8 feet water may approach the bar till the water shoals to 4 fathoms before heaving to. Vessels making the port in the night should invariably anchor in 5 or 6 fathoms; and the holding ground being excellent, those who are well found in anchors and cables have nothing to fear. Pilot boats are constantly on the look out, and ships should on no account attempt crossing the bar till they have got a pilot on board. In the harbour there is about 35 miles from N. to S., and from 12 to 18 9 feet water, and is intersected by a bar; this bar has increased of late years, so as to be dangerous to vessels drawing more than 9½ feet of water, except during a high flood tide. (Kennedy's *Texas*, i. 29.) Several very considerable rivers have their embouchures in the bay, so that the town has a considerable command of internal navigation.

The great articles of export from Galveston, and, indeed, from Texas, are cotton, provisions, cattle and other stock, hides and skins, furs, hullaion from Mexico &c. The articles of importation consist principally of cotton and other manufactured goods, hardware, agricultural implements and machinery, powder and shot, salt, coal &c.

This trade has, however, greatly increased of late years. The exports to foreign countries in 1866 amounted to 2,002,429l. in value, nearly the whole of this being cotton, while the exports coastwise amounted to 2,753,893l., of which the chief article was cotton, and the next in importance wool.

The following was the average price of sundry articles between Jan. 1, 1866 and Jan. 1, 1867:—

India bagging	-	-	-	£	s.	d.
Butter	-	-	per yard	0	1	0
Chessa	-	-	per lb.	0	1	0
Coffee, Rio, fair	-	-	per lb.	0	1	0
Corns, Indian, white	-	-	per bush.	0	10	0
Cotton, middling	-	-	per 50 lbs.	0	4	1
Flour, extra	-	-	per bush.	0	1	1
Hides, dry	-	-	per lb.	0	0	5
Hark, mesa	-	-	per lb.	0	0	4
Peonies	-	-	per 200 lb. barrel	5	4	1
Rice, Carolina	-	-	per barrel	0	11	3
Salt, Liverpool, coarse	-	-	per lb.	0	0	5
Sugar, Texas	-	-	per sack	0	7	5
	-	-	per lb.	0	0	5

Between September 1, 1865, and September 1, 1866, 150,000 hides, at an average 22 lbs. each, 25,680 bales of wool averaging 600 lbs. each, and 20,800 horned cattle were exported from the Texan ports.

*Moneys, Weights, and Measures* same as those of the United States. [New York.]

*Shipping.*—In 1866 there were 92 vessels, of 23,229 tons, engaged in the foreign, and 1,283 vessels, of 447,795 tons, engaged in the coasting, trade of Galveston.

**CHARGES ON SHIPPING IN THE PORTS OF TEXAS.**

*Tonnage Duty.*—All sailing vessels entering any port of the State from any foreign port or place are chargeable with a tonnage duty of 60 cents per ton, and steam boats with 30 cents, according to registered tonnage.

*Entrance.*—Any ship or vessel of less than 100 tons burden pays 1½ dol.; of 100 and upwards, 2½ dols.

*Clearance.*—For every clearance of vessels of the above-mentioned burden, the same fees respectively:—



GAS COMPANIES

Russ. granatnoi kamen; Span. granadas). There are several varieties of this gem, of which those used in jewellery are the carbuncle, the cinnamon stone, the almandine, and the pyrope or Bohemian garnet. The chemical composition of the Bohemian is silica and alumina, with protoxide of iron, the latter in considerable quantity.

The term carbuncle is applied to garnets when they are cut en cabochon, i. e. not in facets, but with a flat or hollow base, and a smooth convex top.

The Syrian or Oriental garnet (so called from Syrian, the capital of Pegu) is brought from India, Penn. Ceylon, and Brazil. The pyrope is found in Bohemia and Saxony. Good carbuncles, large, free from spots, and pure, are worth as much as 500 each. Bohemian garnets are worth much more in Austria than elsewhere, a zecklace of beads on diamonds, &c. 2nd edition.)

GAS COMPANIES. The term usually applied to designate the companies or associations established in most large towns for lighting the streets and houses with gas.

Every one must have remarked that most species of coal, when ignited, give out large quantities of gas, which burns with much brilliancy, yielding a great quantity of light as well as of heat. Dr. Clayton seems to have been the first who attempted, about 1736, to apply this gas to the purposes of artificial illumination; but his experiments were upon a very small scale, and more than half a century afterwards, at length, however, Mr. Murdoch, of Soho, instituted a series of judicious experiments on the extraction of gas from coal; and, by his ingenuity and sagacity, succeeded in establishing one of the most capital improvements ever made in the arts. Mr. Murdoch found that the gas might be collected in reservoirs, and conveyed by pipes to a great distance from the furnace where it was generated; and that it afforded, by its slow combustion, when allowed to escape through small orifices, a beau-

tiful and steady light. This great discovery, which places Mr. Murdoch in the first rank among the benefactors of mankind, was first brought into practice at Redruth, in Cornwall. In 1802 it was applied to light Mr. Murdoch's manufactory at Soho; in 1805 it was adopted by Messrs. Phillips and Lee, of Manchester, in the lighting of their great cotton mill; and is now employed in the lighting of the streets, theatres, and other public buildings, factories &c. of all the considerable and most of the small towns of the empire, and also in most considerable towns of the continent and America, Australia &c.

Gas light is indebted, for its rapid diffusion, not more to its peculiar softness, clearness, and unvarying intensity, than to its comparative cheapness. According to Dr. Thomson (*Encyc. Brit.*, 'Gas Lights'), if we value the quantity of light given by 1 lb. of tallow in candles at 1s., an equal quantity of light from coal gas will not cost more than 23d., being less than a fourth part of the cost of the former.

Oil and other substances have been used in furnishing gas for the purpose of illumination, but none of them has answered so well as coal. Most of the oil gas establishments have been abandoned, and the carrying of gas works on a large scale, into houses &c., are very expensive, and require a large outlay of capital. Hence most of the gas stock companies, in the different towns are supplied by joint-ventures. Many of them have turned out to be very profitable concerns.

The subjoined table contains a statement of the most important particulars connected with the principal gas companies, obtained under Parliamentary authority in 1866. It shows the rates per cubic feet charged for gas by the principal gas companies in the United Kingdom in 1865, with the amount of their capital at that date, the rate per cent. of dividend payable on the capital, and the price of coal per ton used by the companies. (Extracted from *Parl. Paper No. 486*, Sess. 1866.)

Names of Companies	Rates per 1,000 Cubic Feet at which the Gas is supplied at the latest Date		Price of Coal per Ton at the latest Date		Amount of paid-up Capital at the latest Date		Rate per Cent. of last Dividend
	s. d.	s. d.	s. d.	s. d.	£	s. d.	
London.	4	6	17	7 1/2	780,000	0 0	10 per cent. and 1/2 for arrears.
Manchester.	4s. 6d. common, and 6s. 6d. canal		15	4 1/2	380,000	0 0	
Birmingham.	4s. 6d. until March 31, 1865, and then reduced to 4s.		17	3	450,000	0 0	10s. on 280,000l., and 4s. on 100,000l.
Edinburgh.	6s. and 5s. 6d. canal, 4s. 6d. and 4s. common		14	0 1/2	437,180	0 0	10 per cent.
Cardiff.	4s. 6d.		27	3 1/2	300,000	0 0	"
Leeds.	4s. 6d. maximum, to June 30; and from June 30, 4s.		48	4			"
Sheffield.	To Lady-day, 4s.; to Michaelmas, 5s. 3d.; and since Michaelmas, 5s. 4d.		14	9 1/2	200,000l. shares; 60,000l. debentures 1,300,000l. shares; 405,000l. debentures		"
Bradford.	4s. 6d. and 5s. common, 6s. canal		16	5	255,000	0 0	10 per cent. on original shares; 7 1/2 per cent. on new shares
Nottingham.	Town, 4s.; country, 4s. 5d.		32	10	562,585	0 0	6s. on 197,322l., 5s. on 11,702l., and 10s. on 345,650l.
Gloucester.	4s. 6d.		15	3	Fixed Capital £540,000 14,000 Bonds 114,836 Total £652,336		10 per cent. per ann.
Southampton.	5s. 8d. to Midsummer, then 5s. 4d.		15	8 1/2	100,000	0 0	10s., and 1l. 15s. 5d. arrears
London and Westminster.	4s. 6d.		200,000	0 0	200,000	0 0	10 per cent.
London and Greenwich.	4s. 6d.		17	2	100,000	0 0	10 per cent., and 2 per cent. for back dividends
London and Whitechapel.	4s. 6d.		14	0	450,000	0 0	4 1/2 per cent.
London and Fenchurch.	4s. 6d.		14	0	115,811	13 3	6 1/2 per cent.

GAS COMPANIES

Table as to Gas Companies—continued.

Names of Companies	Rates per 1,000 cubic Feet at which the Gas is supplied at the latest Date	Price of Coal per Ton at the latest Date	Amount of paid-up Capital at the latest Date	Rate per Cent. of last Dividend
<b>ENGLAND AND WALES—continued.</b>				
Ashton	4s. small consumers; 3s. 2d. large consumers	11 9 including carriage	£ 60,000 s. 0 d. 0	10 per cent. upon old capital, but only about 1 per cent. on new capital
Birkenhead	5s. in Birkenhead and Cloughton; 5s. 6d. in other places	15 6	183,315 10 4	No dividends are paid; profits reduced when prices admit
Birmingham	2s. 6d., 2s. 9d., and 3s., with 5 per cent.	11 10	Share capital, £248,000 Loans " 40,350 Total " £288,350	9 per cent. on old capital, 7 1/2 on new capital, and 4 and 4 1/2 per cent. on loan capital
Blackburn	3s. 9d. to 1s.	11 0 Wigan canal only	Original and A shares, 90,000; B shares, 41,641	A shares, 10 per cent.; B shares, 7 1/2 per cent.
Bolton	3s. 6d. in the borough; 3s. 6d. to 5s. out of the borough	1 6 Cannel	187,687 10 0	10 per cent. on old shares, and 6 1/2 per cent. on new
Bradford	3s. 4d. to 2s. 8d.; from July 1, 3s. to 2s. 5d. To June, 1861, 5s.	9 10 1/2 16 7 8 6 9 6	55,000 0 0 100,000 0 0 51,326 0 0	9 1/2 per cent. 2,800; annual interest
Brighton and Hove	3s. 6d., the maximum price fixed by the Act	13 8 1/2	35,200 0 0	10 per cent.
Bristol	4s. 6d.	17 5	22,500 0 0	6 per cent. per annum
Burnley Corporation	4s. 3d.	9 6	61,749 2 5	20,000; at 10 per cent.; remainder at 8 per cent.
Cambridge	3s. 5d. to 2s. 9d.	Coal 21 0 Cannel 10 1		
Canterbury				
Gardiff				
Carlisle	3s.		Value of works, July 1, 1865, 27,099l.; debt, July 1, 1865, 13,698l.	
Cheltenham	Cheltenham 7s. 9 1/2-10d.; 7s. 6 1/2-4d.; 3s. 3 1/2-10d. Out parishes: 4s. 9d., 4s. 3 1/2-10d., 3s. 9d.	11 17-10	35,000 0 0	10 per cent.
Devonport		16 6 Newcastle; 25 9 Cannel 17 9 7 9	52,000 0 0	9 per cent. on 25,000 and 5 1/2 per cent. on the remainder.
Exeter	4s. 2d., with discount of 10 per cent. to large consumers	9 6 1/2	54,600 0 0	8 1/2 per cent.
Hartlepool	3s. 9d., maximum, subject to discount on prompt payments as per scale annexed	17 9 7 9	98,525 0 0	6 1/2 per cent.
Leeds	3s. 1d. to 3s. 6d.	June 30 9 7 December 31 Various prices	209,061 0 0 120,000 0 0	4 1/2 to 10 per cent.
Leicester				
Liverpool United	3s. 3d., 3s. 6d., 3s. 9d., and 4s.	Various 10 6 Coal 19 0 Cannel 6 4	754,898 0 0 50,000 0 0	11 1/2 per cent. on each 15s. share of old capital, and 7 1/2 per cent. on new
Naplesfield				
Newcastle-upon-Tyne and Gateshead	3s. 4d.		200,000 0 0	10 per cent. on 100,000 and 5 1/2 per cent. on 100,000
Northampton	4s. 2d.	15 3 1/2	52,661 0 0	7 1/2 per cent.
Nottingham	3s. to 2s. 9d.	11 5	34,500l. in loans, subject to interest	10 per cent. on 25,000 and 5 1/2 per cent. on 10,000
Plymouth and Stonehouse	2s. 9d.	16 5	37,500 0 0	10 per cent.
Preston	4s. 3 1/2d. to 5s. 4 1/2d., and reduced to 3s. 9d. to 3s. 4d. and 3s.	2s. 9d.	150,000 0 0	10 per cent.
Sheffield United	4s. 3 1/2d. and 5s.	About 12 0		
Southampton	3s. 4d. and 3s.	8 8 15 8 16 4	338,000 0 0 100,000 0 0 238,000 0 0	10 per cent. on 200,000, and 7 1/2 per cent. on remainder of fixed capital
Stalybridge	4s. 6d.			
Sunderland	3s. 6d. to 3s.	7 0	113,000 0 0	8 1/2 per cent.
Wolverhampton	2s. 9d. and 3s.	10 6 17 0 9 2	85,000 0 0 75,000 0 0	10 per cent.
York United	5s. 6d.			
<b>SCOTLAND.</b>				
Dundee	4s. 8d.	21 0	65,115 6 1	2 1/2 per share
Edinburgh	4s. 4d. to 3s. 7 1/2d.	18 8	150,000 0 0	10d. per cent.
Edinburgh and Leith	4s. 7d. to 3s. 9d.	10 10 1/2 13 0	108,000 0 0 209,000 0 0	10 per cent. on 100,000, and 7 1/2 per cent. on new stock
Glasgow	4s. 2d.	14 6 1/2	190,000 0 0	10 per cent.
Glasgow, City and Suburban				
<b>IRELAND.</b>				
Belfast	3s. to 3s. 9d.	15 2	126,270 0 0	10 1/2 per cent. on capital, and 7 1/2 per cent. on new

**GELATINE.** The name Gelatine is used to include gluten, derived from the skin, tendons, and bones of adult animals, and chordin, which is obtained from the cartilages and bones of young animals. Gelatine is used in various degrees of purity, for alimentary purposes, and in the arts. The manufacture of gelatine is all but universal,

though the best and purest is stated to come from France. It is used in photography and stationery, and for sizing paper. Isinglass, glue, and size are various forms of gelatine. [ISINGLASS.] The imports of gelatine in 1866 were 186 cwt., worth 781l.; and exports 27 cwt., of the value of 113l.

GENEVA (D. Ger. gaud, gen. Lat. juniper aqu spirit obtained by distilling the ad later give to the by which it is said to render it tonic of genièvre, L. berry. By far the best where its manufacture extent. The distillate been famous, and sponous condition. solely of spirit obtained with juniper and acquires, as distilled by the whole of the 'Schied' ally to the East produce of the distillate at 2,000 gallons of wine gallons, of which exported. (Cloet, Pays Bas, p. 32.) In nothing, perhaps heavy taxation be in the trade of genev Paper No. 248. Since years ending with 17 was about 10s. per wine gallon, but in 1832 gallons. But duties to 5s. per gallon and politic measure was. All period the average amount to 1890 the duties fully as the taste for and as the duties on used in about the importation went on increase of the 10 years year. This was the

Account of the Importation in Great Britain of the Distillate of the D...

Year	Quantity retained for Home Consumption	Quantity exported	Quantity imported
1857	1,200,000	1,000,000	2,200,000
1858	1,300,000	1,100,000	2,400,000
1859	1,400,000	1,200,000	2,600,000
1860	1,500,000	1,300,000	2,800,000
1861	1,600,000	1,400,000	3,000,000
1862	1,700,000	1,500,000	3,200,000
1863	1,800,000	1,600,000	3,400,000
1864	1,900,000	1,700,000	3,600,000
1865	2,000,000	1,800,000	3,800,000
1866	2,100,000	1,900,000	4,000,000

NOA. A maritime of the famous revenue of the king the extensive growth of the light-house of 89° 54' 24" N. Genoa is one in general the narrow; but some are generally wide, and the buildings, and the period of her being ground, in the appearance of

GENEVA (Dutch, genever; Fr. genévre; Ger. gaud, genever; Ital. acqua di ginopro; Lat. juniper aqua; Span. agua de enebro). A spirit obtained by distillation from grain, rectified with the addition of juniper berries. The latter give to the spirit that peculiar flavour by which it is distinguished, and are also said to render it diuretic. Geneva is a corruption of *genèvre*, the French term for the juniper berry.

By far the best geneva is made in Holland, where its manufacture is carried on to a very great extent. The distilleries of Schiedam have long been famous, and are at present in a very prosperous condition. Schiedam geneva is made solely of spirit obtained from rye and barley, flavoured with juniper berries. It becomes milder, and acquires, as it gets old, an oily flavour disliked by the Hollanders; hence nearly the whole of the 'Schiedam' is exported, and principally to the East Indies. The entire annual produce of the distillery in Holland has been estimated at 2,000,000 ankers, or 20,500,000 wine gallons, of which about two-thirds are exported. (Cloet, *Description Géographique des Pays Bas*, p. 32.)

In nothing, perhaps, has the destructive effect of heavy taxation been so strongly exhibited as in the trade of geneva. It appears from the *Parl. Paper No. 248*, Sess. 1826, that during the ten years ending with 1786, when the duty on geneva was about 10s. per wine gallon, the average annual consumption in Great Britain amounted to about 1,232 gallons. But in 1786 Mr. Pitt reduced the duties to 5s. per gallon; and the effect of this wise and politic measure was such, that in the next decennial period the average imports for home consumption amounted to 444,891 gallons. From 1796 to 1806 the duties fluctuated from 7s. 6d. to 14s.; and as the taste for geneva had been formed, and as the duties on other spirits had been increased in about the same proportion, the consumption went on increasing, having been, at an average of the 10 years, as high as 724,351 gallons near. This was the maximum of consumption.

Mr. Vansittart soon after began his inauspicious career, and immediately raised the duty from 14s. to 20s. 8d., the consequence of this increase being, that in the 10 years ending with 1816 the average consumption amounted to only 272,898 gallons. Since then the duties continued stationary down to 1846 at 22s. 10d. the Imperial gallon on an article which might have been bought in bond for 3s. 6d. or 4s. 6d. The duties on rum and British spirits having been afterwards materially reduced, the consumption of geneva went on progressively diminishing, till it amounted, as appears from the subjoined official statement, in 1813, to no more than 13,913 gallons; being only *one fifty-third* part of what it amounted to during the 10 years ending with 1806. The estimated value in bond for all the geneva imported in 1865 was 1s. 8½d. per gallon.

To make any lengthened commentary on such statements would be useless. Our policy, if we may apply this term to so revolting a display of short-sighted rapacity, had no other effect than to lessen the public revenue and enjoyment of the people, to injure our trade with Holland, and to foster and promote the ruinous and destructive practice of smuggling. The exorbitant duties on geneva, brandy, and tobacco led to the formation of the coast guard and the preventive water guard, costing together for many years about 360,000l. per annum; and yet, notwithstanding this outlay, and notwithstanding the innumerable penalties and punishments to which he is exposed, the trade of the smuggler was not put down, but continued, on the contrary, in a peculiarly flourishing condition.

At length, in 1846, Sir Robert Peel did for geneva what he did for brandy, that is, he reduced the duty from 22s. 10d. to 15s. per gallon. In 1860 a uniform customs duty of 10s. 5d. was laid on Foreign spirits, so as to equal in amount the exise duty on British spirits; this wise measure has had the best effect, as will be seen from the subjoined table.

The regulations as to the importation &c. of geneva are similar to those affecting BRANDY.

Account of the Number of Gallons (Imperial Measure) of Geneva Entered for Home Consumption in Great Britain and Ireland, the Rates of Duty on the same, and the entire Net Produce of the Duty, in certain Years since 1826.

Year	Quantities retained for Home Consumption			Net Produce of Duty			Rates of Duty per Imperial Gallon	
	Britain	Ireland	United Kingdom	Britain	Ireland	United Kingdom	Great Britain	Ireland
	Imp. gal.	Imp. gal.	Imp. gal.	£	£	£	£ s. d.	£ s. d.
1826	67,058	2,681	69,739	75,551	2,337	77,888	1 2 6	1 2 6
1827	21,006	1,733	22,739	32,650	2,018	34,668	—	—
1828	13,025	1,622	14,647	20,550	1,826	22,376	—	—
1829	11,203	1,218	12,421	6,348	1,391	7,739	—	—
1830	37,338	2,495	39,833	28,463	1,930	30,393	—	—
1831	36,191	2,606	38,797	19,652	1,955	21,607	—	—
1832	23,261	3,715	26,976	19,145	2,035	21,180	—	—
1833	—	—	37,212	—	—	20,486	—	—
1834	—	—	117,465	—	—	61,178	—	—
							From March 15 0 15 0	0 15 0
							From March 15 0 15 0	0 15 0
							July 17, 1860 0 10 5	0 10 5

GENOA. A maritime city of Italy, once the seat of the famous republic of that name, now a province of the kingdom of Italy, at the bottom of the extensive gulf to which it gives its name, the light-house being in lat. 44° 24' 18" N. long. 8° 51' 24" E. Population, in 1862, 25,000. Genoa is one of the finest cities of Italy. In general the streets are inconveniently narrow; but some of the principal ones are very broad, and consist almost entirely of modern buildings, and private palaces erected during the period of her prosperity. Being built on a rising ground, in the form of an amphitheatre, the appearance of the town from the sea

is most magnificent, and justifies the epithet given to her of *la Superba*.

Port.—The harbour is semicircular, the diameter being about 1,000 fathoms. It is artificial, being formed by 2 gigantic moles having opposite directions. That on the east side, called the old mole (*molo vecchio*), projects from the centre of the city W. by S. It is about 260 fathoms in length, and has a battery near its middle. The new mole (*molo nuovo*), on the opposite side of the port, adjoins the southern extremity of the suburb of St. Pietro d'Arena, projecting about 210 fathoms from the shore in an E.S.E. direction. The heads of the moles bear from each other N.E. by E., and S.W. by S.

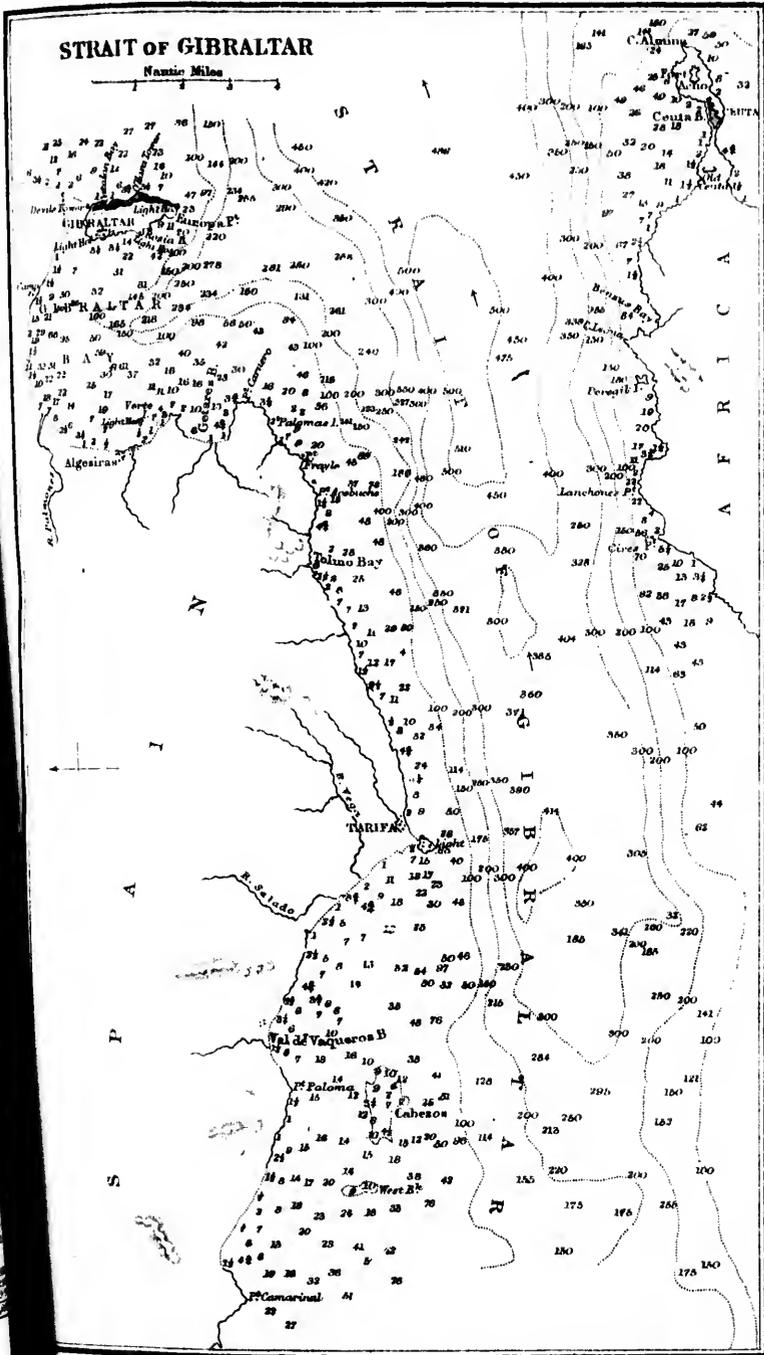






# STRAIT OF GIBRALTAR

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Year	1865	1866
1858	59,000	60,000
539	35,000	36,000
026	15,000	16,000
511	50,000	51,000
813	8,500	8,800
173	10,100	10,400
199	45,000	46,000
1,106	17,000	17,500
2,298	5,000	5,200
4,078	9,200	9,500
5,103	10,500	10,800
6,413	11,100	11,400
7,345	12,000	12,300
882	15,000	15,500
6,006	15,000	15,500
7,299	15,500	16,000
4,901	15,500	16,000
1,707	600	600
26,583	105,213	108,000
2,410	6,000	6,000
23,468	20,000	20,000
06,108	11,700,547	12,000,000

**Port Dues.**—  
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at Gibraltar, w  
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consumption of ginger  
1800 was 1000 cwt. a-year. The  
the too high duties  
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In 1850 the duties  
were 25 cts. of raw  
ginger in the year 18  
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of a merchant ship laden with nitre (fossil alkali) having used some pieces of it to support the kettles placed on the fires they had made on the sand, were surprised to see pieces formed of a translucent substance, or glass. This was a sufficient hint for the manufacture. Ingenuity (*astuta ingeniosa solertia*) was immediately suggested, improve the process thus happily suggested, hence the magnetical stone came to not only iron, but from an idea that it contained not only iron, but glass. They also used clear pebbles, shells, and fossil sand. Indian glass is said to be formed of native crystal, and is on that account noted as superior to every other. But if this be a correct description of the glass of India in the age of Pliny, it has fallen off very much; Indian glass being now about the very worst that is made. At present, the Hindoos manufacture it of fragments of broken glass, quartz sand, and impure soda—an article found native in many parts of India, particularly in the south. The furnaces are so bad that they cannot melt our common bottle glass. (Hamilton's *Mysore*, vol. iii. p. 370.) The glass of China is much better than that of India, though still very inferior to that of Europe. Phœnician glass, according to Pliny, was prepared with light dry wood, to which copper and nitre were added, the last being principally brought from Ophir. It was sometimes ally tinged with different colours. Sometimes it was brought to the desired shape by being blown, sometimes by being ground on a lathe, and sometimes by being embossed like silver. Sidon, he adds, was famous for this manufacture. In Pliny's time, that mirrors were first invented. In Pliny's time, glass was made in Italy, of fine sand from the shore between Cumæ and the Lucrine bay.

Glass was manufactured at Rome into various articles of convenience and ornament. Pliny mentions that Nero gave 6,000 sesterces (50,000*l.*) according to the ordinary method of reckoning) for 2 glass cups, each having 2 handles. These, however, must have been of an immense size and of exquisite workmanship; for glass was then in common use for drinking vessels, and was used even in the form of bottles in which to keep wine. (Mart. *Epig.* lib. ii. 22, 40, and lib. iv. 86.)

There is no authentic evidence of glass being used in windows previously to the third or fourth century; and then, and for long after, it was used only in churches and other public buildings. In this country, even so late as the latter part of the 16th century, glass was very rarely met with. In a survey of Alnwick Castle, made in 1573, it is stated: 'And, because throwe extreme winds, the glasse of the windowes here in the country dooeth decaye castles and houses here in the country dooeth decaye everie windowe, at the departure of his lordshippe, from linge at any of his lordship's absence, or and dowring the time of his lordship's absence, and others lyinge in them, were taken doune and lade up in safety: And at soeche time as ather his lordshippe or anie other sholdo lye at any of the said places, the same might then be set uppe of newe, with smale charges, wherens now the decaye thereof shall be verie costlie and chargeable to be repayed.' (*North. Housh. Book*, xvii.) Sir P. M. Eden thinks it probable that glass windows were not introduced into farmhouses in England much before the reign of James I. They are mentioned in a lease in 1615, in a parish in Suffolk. In Scotland, however, as late as 1661, the windows of ordinary country houses were not glazed, and only the upper parts of even those in the king's palaces had glass; the lower ones having two wooden shutters, to open at pleasure, and admit the fresh air. From a passage in Harrison's *De-*

scription of England, it may be inferred that glass was introduced into country houses in the reign of Henry VIII. He says: 'Of old time (meaning probably, the beginning of the century) our country houses instead of glasse did use much of oke in checkerwise. I read also that some of the better sort, in and before the time of the Saxons, did make panes of horse instead of glasse, and fix them in wooden ealnes (frames); but as horse in windowes is now (1684) quite laid downe in every place, so our lattices are also growne into disuse, because glasse is come to be so plentiful, and within verie little so good, cheap, if not better than the other.' Glass is now introduced into the windows of every country of Great Britain; and in this cold, damp climate it ought rather to be considered as a necessary convenience. What Dr. Johnson has said of glass deserves to be quoted: 'By some formal liquefaction was mankind taught to produce a body at once in a high degree solid and transparent, which might admit the light of the sun, and exclude the sight of the philosopher; and might extend the existence, and charm him at one with the unbounded extent of the material, and at another with the endless subordination of animal life; and, what is of yet more importance, might supply the decays of nature, and supply the old age with subsidiary sight. Thus was the artifice in glass employed, though without own knowledge or expectation. He was enlarging the avenue of science, and confounding the highest and most lasting pleasures; he was abating the student to contemplate nature, and beauty to behold herself.' (*Rambler*, No. 17.)

Venice, for a long time, excelled all other the manufacture of glass, but was afterwards rivalled by France. The manufacture was introduced into England; but it was not on to any extent previously to the sixteenth century. The first plates for looking-glass were made in 1673, at coach windows were made in 1673, at Venice by Venetian artists under the protection of the Duke of Buckingham. The British Glass Company was incorporated in 1773, when its extensive works at Ravenhead, near St. Helens, Lancashire. The manufacture was introduced by workmen from France, who previously brought all our plate glass, which is now made at Ravenhead, and from the Continent.

The manufacture of Bohemian glass was introduced into England in 1822, and was firmly established till 1838, owing to the difficulties which attended the employment of foreign workmen alone were employed. British artisans have now been trained to the value of the glass annually produced in Britain. But the workpeople employed in different departments of the manufacture in 1861 to 16,288.

**Former Duties on Glass.**—Considering the importance of glass, and the various uses to which it is applied, it might have been exempted from all taxes at all events, if the public expenditure were kept within reasonable limits, and obvious considerations were all

right of in the tax duties on it. It is a certain extent, a duty manner. After duties were raised per cent. on duty on wine, was that and population in both these sorts been in 1791, when per cent. The progress of the duties since 1791, the duties on the latter on the former, being pointed out. We do not know whether to vary the duties on wine assessed without doubt that which we have argued the probability by their entire exemption it, and that of preventing them from any movements, and in respect the duties on any one acquirement, we may doubt that the duty were fully justified, that 'no tax can be more at variance with than this duty on

I.—Price

Year	Date	12	12
1760			
1769			
1827			
1836			
1845			
1847			
(duty paid)			
(duty free)			
1865			
1865			
1865			
1865			

and exhibiting the Q of the 3 Years ending Duties &c. (Obtai

Year	Quantity	Value
1840	101,889	101,889
1841	97,521	97,521
1842	85,665	85,665
1840	55,625	55,625
1841	27,650	27,650
1842	21,528	21,528
1840	129,978	129,978
1841	116,895	116,895
1842	97,495	97,495
1840	16,850	16,850
1841	20,855	20,855
1842	25,500	25,500
1840	4,951	4,951
1841	—	—
1842	—	—
1840	595,574	595,574
1841	601,177	601,177
1842	390,182	390,182

Total net revenue Annual average

right of in the taxing of glass in this country; the duties on it having been carried to a most convenient extent, and imposed in the most judicious manner. After successive augmentations, the duties were raised in 1813 to the amount of 108.5 per cent. on flint and plate glass! And the consequence was, that despite the increase of wealth and population in the interim, the consumption of both these sorts of glass was less than it had been in 1791, when the duty was only 32s. 2d. per cwt. The progress of the manufacture and the duties since 1813 is exhibited in the subsequent tables, the influence of the various modifications of the latter on production being too obvious to require being pointed out.

We do not know whether it was possible to have assessed without opening a still wider door than that which existed; but they not only augmented the price of a most indispensable article, and that in no inconsiderable degree, but they further prevented the operations of the manufacturers, by preventing them from making experiments, and improvements, and introducing new processes. We are any one acquainted with the facts entertained by the Commissioners of Excise, to be sure, were fully justified in expressing their opinion that 'no tax can combine in expressing their sense of variance with all sound principles of justice, than this duty on glass.'

Had it been impossible otherwise to get rid of the duties, they might have been advantageously commuted for an increase of the house duty. The greater cheapness of glass would have more than compensated to most householders for the increase of the house tax, at the same time that the manufacture would have been increased and improved.

But any commutation of this sort was rendered unnecessary. The imposition of the income tax having supplied Sir Robert Peel of the means of effecting those great financial reforms which will ever distinguish his administration, the duties were repealed from April 5, 1815, the beneficial influence of this liberal and judicious measure is obvious in the improved quality, descriptions of glass in the market; and there can be no doubt that its advantages will become still more and more obvious from the facilities it gives for the introduction of improvements, and consequently for ameliorating the fabric as well as reducing the cost of one of the most useful and admirable of the products of art and industry.

A most remarkable fall in price has been effected in the article. Previous to the repeal of the duty, in 1805 it had fallen to 27. 8s.; while ordinary sheet glass, worth 1s. 2d. per foot in 1841, can now (1865) be got for 2s.

The annexed tables show the state of the manufacture previously to the abolition of the duty:—

I.—Prices of Plate Glass in Great Britain from 1760 to 1865.

Year	Date	Prices at which Sold by Trade Tariff per Superficial Foot											
		12 by 12 inches	21 by 18 inches	26 by 24 inches	48 by 30 inches	60 by 12 inches	60 by 18 inches	96 by 60 inches	123 by 72 inches	141 by 75 inches	144 by 76 inches		
1760		per foot 2. d.	per foot 2. d.	per foot 2. d.	per foot 2. d.	per foot 2. d.	per foot 2. d.	per foot 2. d.	per foot 2. d.	per foot 2. d.	per foot 2. d.	per foot 2. d.	per foot 2. d.
1769		13 1	10 2	12 8	40 9	43 0	43 0	43 0	43 0	43 0	43 0	43 0	43 0
1827		8 1	8 9	16 5	16 5	16 5	16 5	16 5	16 5	16 5	16 5	16 5	16 5
1836		7 0	9 0	10 9	10 9	10 9	10 9	10 9	10 9	10 9	10 9	10 9	10 9
1815	(date paid)	7 0	9 0	10 9	10 9	10 9	10 9	10 9	10 9	10 9	10 9	10 9	10 9
1817	(duty free)	3 4	5 1	6 10	8 4	11 10	12 10	19 5	21 5	27 4	27 7	27 7	27 7
1865		1 7	2 2	2 4	2 9	3 0	3 0	3 1	3 5	4 0	4 0	4 0	4 0
1865		2 0	2 8	2 11	3 1	3 7	4 0	4 3	5 5	6 6	6 6	6 6	6 6
1865		2 6	3 0	3 4	3 9	4 4	4 4	5 0	6 0	8 0	8 0	8 0	8 0
1865		2 1	2 5	2 10	3 4	4 1	4 4	5 0	6 0	8 0	8 0	8 0	8 0

II.—Exhibiting the Quantities of the different Descriptions of Glass Manufactured during the 3 Years ending with 1812, with the Quantities Exported, the Rates and Produce of the Duties &c. (Obtained from the Excise.)

Year	Quantity manufactured	Quantity exported	Rate of Duty	Gross Amount of Duty	Drawback on Glass exported	Net Amount of Duty (Ex-Duty) after deducting drawback and other legal allowances
1810	cwts. 101,889	19,913	To May 15, 1810, 18s. 5d. per cwt.; since, 18s. 8d. per cwt. and 5 per cent.	£ 101,029	£ 21,199	£ 79,830
1811	97,321	20,516		£ 95,565	24,603	70,962
1812	83,653	13,606		£ 81,973	15,098	66,875
1810	55,825	13,879	To May 15, 1810, 7s. 6d. per cwt.; since, 3s. per cwt. and 5 per cent.	£ 101,117	£ 7,412	£ 93,705
1811	57,359	12,113		£ 87,061	17,483	69,578
1812	24,258	6,318		£ 67,812	9,866	57,946
1810	129,978	15,518	To May 15, 1810, 3s. 13s. 6d. per cwt.; since, 3s. 13s. 6d. per cwt. and 5 per cent.	£ 499,662	£ 75,550	£ 424,112
1811	116,895	19,118		£ 451,061	92,879	358,182
1812	97,495	12,369		£ 376,205	69,891	306,314
1810	16,850	8,219	To May 15, 1810, 11. 10s. per cwt. To August 15, 1810, 11. 10s. per cwt. and 5 per cent.	£ 80,423	£ 35,601	£ 44,822
1811	20,855	8,219		£ 98,397	36,876	61,521
1812	25,500	8,219		£ 129,115	32,378	96,737
1810	9,051	—	To May 15, 1810, 7s. per cwt.; since, 7s. per cwt. and 5 per cent.	£ 189,885	£ 105,986	£ 83,899
1811	325,574	229,887		£ 184,174	114,109	70,065
1812	300,482	245,833		£ 145,496	82,915	62,581
Total net revenue collected during the 3 years ending with 1812				£ 1,147,174	£ 105,986	£ 1,041,188
Annual average net revenue of the 3 years ending with 1812				£ 382,391	£ 35,328	£ 347,063
Total net revenue collected during the 3 years ending with 1812				£ 1,147,174	£ 105,986	£ 1,041,188
Annual average net revenue of the 3 years ending with 1812				£ 382,391	£ 35,328	£ 347,063





GOMUTI

is capable of being extended more than 1,300 miles in length. Its tenacity is considerable, though in this respect it yields to iron, copper, platinum, and silver. From the experiments of Seekingén, it appears that a gold wire 0.078 inch in diameter is capable of supporting a weight of 150.07 lbs. avoirdupois without breaking. It melts at 320° of Wedgwood's pyrometer. When melted, it assumes a bright bluish green colour. It expands in the act of fusion, and consequently contracts while becoming solid more than most metals, a circumstance which renders it less proper for casting in moulds. (Thomson's *Chemistry*.)

A considerable quantity of leaf gold is imported into Great Britain. In 1865 upwards of 12,000,000 leaves were thus imported, valued at 27,500*l*. For the quantities of gold produced, and the places where it is produced, see PRECIOUS METALS. GOMUTI or E.100. A species of palm (*Arenga saccharifera*), growing abundantly in Singapore and Penang, and in the Indian Archipelago.

A valuable fibrous product is obtained from this palm, resembling *black horse-hair*: it is found between the trunk and branches, at the insertion of the latter, in a matted form, interspersed with long, hard, woody twigs of the same colour. When freed from the latter, it is manufactured by the natives into cordage. Its fibres are stronger and more durable, but less pliant, than those of the cocoa nut, or coir [Coir], and are, therefore, fitter for cables and standing rigging, but less fit for running rigging. The native shipping of the Eastern Islands of all kinds are chiefly equipped with cordage of the gomuti, and the largest European shipping in the Indies use cables of it. It undergoes no preparation but that of spinning and twisting; no material similar to our tar and pitch, indispensable to the preservation of hempen cordage, being necessary with a substance that, in a remarkable degree, possesses the quality of resisting alternations of heat and moisture. The going materials of Amboyna and the other Spice Islands is the best. That of Java has a coarse, ligneous fibre. Gomuti is generally sold in twisted shreds or yarns, often as low as 1 dollar per picul, and seldom more than 2. Were European ingenuity applied to the improvement of this material, there seems little doubt that it might be rendered more extensively useful. (Crawford's *East. Archip.* vol. iii. p. 425; Balfour's *Cyclopaedia of Southern India*.)

GOOD HOPE, CAPE OF. [CAPE TOWN.]

GOTTENBURG, or, more properly, GOTHABORG, on the south-west coast of Sweden, at the head of a fiord near the Kattegat, which receives the river Götha, lat. 57° 42' 4" N., long. 11° 57' 45" E. Population in 1863, 41,585. Vessels do not come close to the city, but lie in the river or harbour at a short distance from the shore, goods being conveyed from and to them by lighters that navigate the canals by which the lower part of the town is intersected. The depth of water in the port is 17 feet, and there is no tide, bar, or shallow. A vessel entering the Götha must take a pilot on board, whose duty it is to meet her a league west of Wingo Beacon. After Stockholm, Gotteburg has the most extensive commerce of any town in Sweden. Iron and steel, the former in excellent, but the latter inferior to that made in England, form the principal articles of export. They are brought from the rich mines of Wermeland, distant about 200 miles; being conveyed partly by the Lake Weener, partly by the river hætta Canal [CANALS], and partly by the river Götha. The exports of iron in 1847 amounted in all to 27,447 tons. The original cost of iron is supposed to be increased about 5 per cent. by

the expense of its conveyance to Gotteburg; and the shipping charges, inclusive of the export duty, are about 10 per cent. additional. The next great article of export is timber, particularly deal, which are also furnished by Wermeland. The opening of the Götha Canal, by which Gotteburg communicates with a large portion of the interior of Sweden, has exercised a powerful and beneficial influence over her commerce. The Railway between Stockholm and Gotteburg, now (1858) complete, will still further promote the prosperity of the latter. She carries on an extensive trade with England, and English is generally understood. Steamers run once a week between Gotteburg and Hull, and between London and Gotteburg once a fortnight, for 8 months of the year; but in winter the intercourse with England is kept up by the tedious route of Lübeck and Hamburg.

*Herring Fishery*.—Gotteburg used, at no distant period, to be one of the principal seats of herring fishery. In 1801 the export was 73,000 barrels. In 1808 and 1809 fish were very scarce, and in 1812 they entirely disappeared, and have not hitherto returned: so that Gotteburg is not of exporting, at present imports considerable quantities of herrings.

The following is an account of the vessels which arrived at and left Gotteburg in the five years ending with 1866. Sweden has an extensive carrying trade:—

Year	Arrivals				
	British		Foreign		Total
	Ships	Tons	Ships	Tons	
1862	266	65,819	1,719	200,483	1,885
1863	267	70,955	1,879	209,917	2,146
1864	248	69,207	1,740	255,752	2,088
1865	251	72,028	1,616	279,569	2,067
1866	281	99,290	1,736	288,987	2,017
Departures					
1862	255	61,578	1,566	195,700	1,821
1863	272	71,687	1,573	200,881	1,845
1864	247	69,113	1,478	256,452	1,725
1865	261	73,659	1,402	299,455	1,663
1866	281	99,590	1,571	292,888	1,652

The principal imports into Gotteburg are coffee, cotton, herrings, sugar &c. Its exports are iron, timber, deals, and oats; more than half the deals and nearly all the oats going to Britain.

11 centner or 100 Swedish lbs. = 95 lb. avoirdupois  
1 tun = 4 bushels  
12 <sup>1</sup>/<sub>16</sub> cubic feet = 8 bushels.

The following is an approximate estimate of the total value of the imports into Gotteburg for the five years 1862 to 1866, viz.:

Year	In British Ships	In Foreign Ships
1862	£ 415,000	£ 1,065,000
1863	£ 479,000	£ 1,161,000
1864	£ 513,000	£ 1,288,000
1865	£ 753,000	£ 1,924,000
1866	£ 809,500	£ 1,814,000

In 1864 the merchant marine was valued at 11,223 aynlastes burden.

Approximate Estimate of the Exports from Gotteburg for the Five Years 1862 to 1866

Year	In British Ships	In Foreign Ships
1862	£ 513,800	£ 833,000
1863	£ 423,850	£ 811,450
1864	£ 417,000	£ 835,500
1865	£ 457,500	£ 925,000
1866	£ 589,500	£ 975,000

Comparative Statistics

Articles	1862	1863	1864	1865	1866
Gold	...	...	...	...	...
Silver	...	...	...	...	...
Copper	...	...	...	...	...
Iron	...	...	...	...	...
Wool	...	...	...	...	...
Flax	...	...	...	...	...
Wheat	...	...	...	...	...
Rice	...	...	...	...	...
Wine	...	...	...	...	...
Other articles	...	...	...	...	...
Total	...	...	...	...	...

The total value of the exports from Gotteburg during the five years ending with 1866, viz.:

Custom-house Regulations

... vessels... carrying in port, no... have a vessel till... who having ins... and them to... appointed to su... the loading. T... a Swedish ship... each of 300 r... sailing mixed cargoes... the former, 21... On a private... are the same as... wharfage System... length of time... for the first 2... thereafter.

*Credit &c.*—... 2 per cent. Good... raw sugar at 9 m... to the seller; other...  
*There are*—... establishments at G...; but the nation... which advance li... on the security... Some of the... have agents here, v...

*Water &c.*—These... quality and cheap... 2*l*. per lb., and... *Weights, Measures*...  
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Comparative Statement of the Quantities of the Principal Articles of Import for the same Period, viz.:

Articles	1862	1863	1861	1865	1866
Coffee	95,100	82,100	85,000	100,560	101,700
Tea	7,137,600	6,351,662	4,539,000	10,405,764	6,135,185
Opium	138,818	1,053,927	2,988,973	6,755,213	9,535,983
Silk	9,416,030	373,268	2,266,865	3,188,314	1,230,787
Wool	18,220,770	9,218,200	3,331,658	2,467,318	2,819,012
Wine	1,209,030	15,974,016	15,835,012	29,690,937	17,117,839
Iron		1,016,317	2,426,721	1,721,911	2,128,111

Iron.—The total shipments of iron from Gotteburg during the under-mentioned five years have been as follows, viz.:

Year	Tons
1862	41,350
1863	41,360
1864	38,130
1865	38,130
1866	55,350

Of this iron, the greatest part was exported to the United Kingdom and the United States.

Wool.—Exclusive of other sorts, the exports of plain, deals, and battens from Gotteburg in 1866 were to the following countries, viz.:

To	Cubic ft.
England and British Colonies	6,965,790
France	5,712,060
Spain	206,380
Belgium	131,570
Other countries	95,270
Total	13,810,050

Custom-house Regulations and Port Charges.

Importing in port, no person is allowed to board a vessel till she be in custody of the officers who, having inspected the manifest and cargo, are appointed to superintend the unloading and loading. The public charges of all goods on a Swedish ship and on a foreign ship not laden with mixed cargoes at Gotteburg, would be the same as on a Swedish ship.

Warehousing System.—Goods may be bonded for a length of time, on paying 2 per cent. for the first 2 years, and 1 per cent. thereafter.

Insurance, Credit &c.—The usual rate of commission is 2 per cent. Goods are commonly sold for raw sugar at 9 months, with 3 months' discount to the seller; other goods at 3, 4, and 6 months.

Banking &c.—There are no public or private establishments at Gotteburg for the issue of notes; but the national bank has two branches, which advance limited sums of money on the security of goods, and in discounting bills. Some of the English insurance companies have agents here, who do a good deal of business.

Weights, Measures &c.—These may be had here in any quantity and cheap: beef 1 1/2 d. per lb., mutton 2 d. per lb., and butter 6 d. per lb.

Weights, Measures &c. same as at Copenhagen.

Books.—In this article, we have made use of *Travels in the North of Europe*, vol. iv. by Mr. Consul Engstrom's Report, &c.

DAYS OF. [EXCHANGE.] Gotteburg; Fr. raisins; Ital. grapes; Span. ubas, racimos; Lat. uvæ. A limited quantity of wine is produced from the vine. The communication between countries by sea and steam navigation, the import of specially grapes, has greatly increased. 132 bushels of grapes were imported into the Kingdom, chiefly from Spain and

Portugal. The highest priced were those of Spain, valued on an average at 22s. 5d. per bushel. There is no duty on fresh grapes.

The grapes grown in Great Britain in the open air are much smaller, and by no means so luscious as those of foreign countries; but those raised in hothouses are quite equal, if not superior, to the latter. Grapes are imported not only in their natural state, but dried and preserved, in which latter state they are denominated RAISINS.

GRINDSTONES. Flat circular stones of different diameters and thickness, mounted on spindles or axles, and made to revolve with different degrees of velocity, employed to polish steel articles, to give an edge to cutting instruments &c. Grindstones not in constant use are commonly turned by which handles; but at Sheffield and other places where polished articles and cutlery are extensively manufactured, large numbers of grindstones, being mounted in buildings appropriated to that purpose, called grind or blade mills, are turned by straps, acting on their axles, the moving power being either water or steam. The stone best suited to form grindstones is what is called sharp-grit; it being chosen finer or coarser according to the purposes for which they are destined. The principal grindstone quarry in England is at Gatshead Fell, in the county of Durham, where they are produced in vast numbers, not only for home use, but for exportation to all parts of the world. But those principally in use at Sheffield are mostly quarried at Wickersley, in Yorkshire.

They are classed in eight different sizes called feet, according to their dimensions, as in the following table:—

Denominations	Diameter	Thickness	No. in a Chaldron
1 foot	in.	in.	
2 feet	10	2	36
3 feet	14	2 1/2	27
4 feet	20	4	18
5 feet	28	4	9
6 feet	35	5	5
7 feet	42	6	3
8 feet	50	8	1 1/2

A grindstone foot is 8 inches: the size is found by adding the diameter and thickness together. Thus, a stone 56 inches diameter by 8 thick, making together 64 inches, is an 8-foot stone, of 8 inches each foot.

Besides the above sizes, grindstones are made when ordered, of any intermediate dimensions: many are made much larger than any of the above sizes; some as large as 76 inches diameter, and 14 or 15 inches thick, which are a great weight, a cubic foot weighing 1 cwt. 1 qr. 14 lbs. (Rees's *Cyclopaedia*; Bailey's *Survey of Durham*, p. 43.)

Grinding is an unhealthy and dangerous employment. For some purposes the stones are made to revolve with an extreme degree of velocity, which makes them occasionally fly in pieces. But the greatest annoyance to which the grinder is exposed is from his inhaling the minute particles of stone, and of iron and steel, that are always flying about, particularly in the process termed dry grinding. Contrivances have been suggested for obviating this serious inconvenience;

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but whether it be owing to their unsuitableness, or to the carelessness of the workmen, none of them has succeeded in practice. (*Treatise on Iron and Steel*, Lardner's *Cyclopaedia*, p. 293.)  
**GUAIAIACUM** or **LIGNUM VITÆ** (Fr. gayac, bois saint; Ger. pockhalm; Ital. guajaco; Lat. guaiacum, lignum vitæ; Span. guayaco). The wood of a tree, a native of Jamaica, Hayti, and the warmer parts of America.

It is a dark-looking evergreen, growing to from 40 to 50 feet in height, and from 14 to 18 inches in diameter. The bark is hard, smooth, and brittle: the wood is externally yellowish, and internally of a blackish brown colour. Lignum vitæ is the weightiest timber being 1.333. It is exceedingly hard, and difficult to work. It can hardly be split, but breaks into pieces like a stone, or crystallised metal. It is full of a resinous juice or crystallised metal. It is full of a resinous juice (*guaiac*), which prevents oil or water from working into it, and renders it proof against decay. Its weight and hardness make it the very best timber for stampers and mallets; and it is admirably adapted for the sheaves or pulleys of blocks, and for friction rollers or castors. It is extensively used by turners.

The *guaiac*, or gum, spontaneously exudes from the tree, and concretes in very pure tears. It is imported in casks or mats; the former containing from 1 to 4 cwt., the latter generally less than 1 cwt. each. Its colour differs considerably, being partly brownish, partly reddish, and partly greenish; and it always becomes green when left in the open air. It has a pleasant balsamic smell, but has scarcely any taste, although when swallowed it excites a burning sensation in the throat. When heated, it melts, diffusing at the same time a pretty strong, fragrant odour. Its specific gravity is 1.229. (*Veget. Sub., Lib. of Entert. Knowledge*; Thomson's *Chemistry*; &c.)

**GUANO** or **HUANO** (the Peruvian term for manure). A substance used as a manure, found on certain small islands off the coast of Peru and Bolivia, and on parts of the shore of the mainland. It is friable, and easily reduced to powder; its colour varies from a dull red to a dirty white, and it has a strong smell, and a fat, unctuous feel. Humboldt was either the first, or one of the first, by whom this important substance was brought to Europe; but it was described at a much earlier date by Ulloa (*Voyage au Perou*, i. 481), and has been used as a manure by the Peruvians from the age of the Incas downwards. Very different opinions have been entertained as to its nature and origin, but there is no longer any doubt that, as Ulloa stated, it consists of the excrements of the sea-birds which are found in prodigious swarms all along the Peruvian and Bolivian shores. The localities where the deposit is principally met with being within a rainless region, it is accumulated with a rapidity of which we have no idea. Guano is of very different qualities: some authorities give the preference to the whitish varieties, which are believed to be more recent, while others prefer the red. According to Klaproth, a quantity of guano represented by 100 contained—urate of ammonia 16 parts, phosphate of lime 12½ do., silica 4 do., lime 10 do., oxalate of lime 12½ do., and water, do., common salt ½ do., sand 28 do.; but its organic and combustible matter, 28½ do.; but its composition is found to differ very materially. The best is that which contains the greatest proportion of ammonia.

There can, however, be no doubt that guano is a most efficient manure, and that about 2½ cwt. per acre of average guano mixed with about two-thirds the usual quantity of farm-manure (which is required to keep the soil in a state of fertility) will produce, when applied to land that is well drained, nearly double the ordinary quantity of potatoes. In turnip husbandry, splendid crops are produced by the agency of guano only: in this case from 4 to 5 cwt. per acre should be applied. It has also a powerful influence in improving crops of corn and the pasture following such crops. The effect of guano is very materially increased by its being covered up to a considerable depth as soon as it is laid on the ground, and top-dressing is certainly the most advantageous way in which it can be applied. (Principle of *formation*.) It is, in fact, the most valuable of manures; and under such circumstances it becomes of importance to learn the probable value of the deposit, and the price at which it is imported and sold in Europe.

Unfortunately, our information on both points is less complete than might be expected. After it commenced to be largely exported to this and other foreign countries, an apprehension was felt in Peru that the guano began to gain ground in no very long time be wholly exhausted along the coast of Peru, and the department of Arequipa, in which guano is extensively used as a manure, Government has been called upon to avert this catastrophe by prohibiting its export; and we are, nevertheless, well convinced that

We are, nevertheless, well convinced that apprehension is in great measure unfounded. The present (1868) guano is principally obtained from the Chincha Islands, opposite to Pisco, in Peru, in about lat. 13° 25' S., and long. 81° W., and the Lobos Islands, opposite to Pavaillon de Pica, Iquique, and other parts of the coast of Upper and Lower Peru. The estimates of the guano in these deposits differ very much, but on the whole, we have no difficulty in concluding that the estimates contained in the paper on this subject published at Lima are the most to be depended on (they are published in papers on Guano, pp. 100, 101, before Parliament in 1852); and the following results, viz.:—The coast of Peru, 7,921,407 tons, those of the Chincha Islands, 18,250,000 do., and those of the Lobos Islands, 853,086 do., making in all 27,024,493 do. supposing that under a liberal system of exportation were to amount to 400,000 or 500,000 tons, here is a supply that would last in the present state of the world for nearly 70, and in the other parts of the world for 100 years. But it is stated in the paper that the coast deposits are greatly in excess of the above estimate; and that were the adjacent rocks and islands produced from 6° to 23° S. lat., many more millions of tons certainly be met with; and hence we conclude that for practical purposes guano may be said to be all but inexhaustible. The islands except by those who are uninhabited where by those who are inhabited, it would, but for the Government, cost nothing save the expense of putting it on board and the freight to the Governments of Peru and Bolivia, so little aware of the value of the guano, their duty to their constituents that they sold in 1839 to private

Quantities of C

	1858	1859
tons	353,342	81,192
do.	19,632	25,381

was imported in 18... and 6,156 from... countries other than... low prices, that... imports in 1867... at 2,109,506... perhaps be sur... of guano have... into Spain; the... 1863 being 31,6... thereon 375,392... in manuring save... of Murcia a... been mostly sen... but recently t... report it on their own... and have establi...





*Gum Senegal* is the produce of another species of acacia, called in Egypt 'Tullach' or 'Tulch.' It is found in many parts of Africa and Asia. In the Egyptian dependencies, the Tullach grows abundantly *Estat* of the Nile, in the provinces of Semnar and Taka.

The entire produce of this species of gum, which may be estimated at 30,000 cantars of 100 lbs., is sent in bags manufactured from bark, via the Nile and the Red Sea, to Cairo, where it is bought for the European markets at an average price of 18s. per cantar. When pure, gum senegal is of a dark reddish colour, opaque, and is found adhering to the branches of the trees, from which it exudes in hard globules, from  $\frac{1}{2}$  an inch to 3 inches in diameter.

Gum senegal, as will be inferred from its value, is much inferior in quality to gum arabic.

Gum senegal is imported from the west coast of Africa, especially from two kinds of acacia, called in the native language *vercek* and *nebel*. This substance is imported, chiefly by the French, in large masses, and generally of a darker colour than true gum arabic. There is generally a slight bitterness in this kind of gum. Its chief use is in the arts, and it is frequently substituted for gum arabic.

Gum of quality inferior to the above is imported from India, Australia, and the Cape; but all these kinds, although it appears always obtained from various species of acacia, contain a certain principle, called *bassorin*, which does not dissolve fully in water, or form a homogeneous solution.

At an average of the 3 years ending with 1812, the gum arabic entered for consumption amounted to 18,176 cwt. a-year. Previously to 1812, the duty on gum arabic from a British possession was 6s. per cwt., and from other parts 2s.; but the duty on it and all other gums was re-arranged at 6s. per cwt. without regard to origin. In 1812 it was further reduced to 1s. per cwt., and was finally repealed in 1845. Of 50,112 cwt. of gum arabic imported in 1866, Egypt supplied 425 cwt., 4,939 from 'Austrian territories,' and the remainder in small quantities from several localities. That from Turkey bore the highest price, that of Australia the lowest.

In 1866, 3,639 cwt. of gum senegal were imported, the value being a little above 5l. per cwt., and the best gum arabic was worth 7l. 9s. 2d.

Account of Imports in 1866 of such of the Principal Gums as are known in Commerce.

Gums	Cwts.	Gums	Cwts.
Dragon's blood	715		
Euphorbium	99		
Ireda	2,008		
Lac, seed	17		
Lac, stick	2,140		
Sandarach	2,059		
Senegal	3,639		
Tracacanth	698		
Unenumerated	7,797		

The quantities of these are re-exported, to value in 1866 of 374,783l.

*Resins*, for the most part, exude spontaneously from trees, though they are often obtained from artificial wounds, and are not uncommonly, at least in the East, combined with volatile oil, from which they are separated by distillation. They are solid bodies, naturally brittle; have a certain degree of transparency, and a colour most commonly yellow. Their taste is more or less bitter, and not unlike that of volatile oils; but they are not so smelly, unless they happen to contain some foreign body. They are all heavier than water, their specific gravity varying from 1.0182

to 1.1862. They differ from gums in being insoluble in water, whether cold or hot; while they are, with a few exceptions, soluble in alcohol, especially when assisted by heat. When heated, they melt; and if the heat be increased, they take fire, burning with a strong yellow flame, and emitting a vast quantity of smoke. Common rosin furnishes a very perfect example of a resin, and it is from this substance that the whole genus have derived their name. Rosin is, indeed, frequently denominated resin. The principal resins are ANISE, COPAL, ELEM, LABDANUM, LAC, MASTIC, ROSIN, SANDARACH, TACAMAHAC, &c. (Thomson's *Chemistry*.)

III. *Gum-resins*, a class of vegetable substances consisting of gum and resin. They differ from resins in this—that they never exude spontaneously from the plant, being obtained either by bruising the parts containing them, and expressing the juice, which is always in a state of emulsion, generally white, but sometimes of a different colour, or by making incisions in the plant, from which the juice flows. The juice, being exposed to the action of the sun, is condensed and inspissated till it forms the gum-resin of commerce. Gum-resins are usually opaque, or, at least, their transparency is inferior to that of resins. They are always solid, and most commonly brittle, and have sometimes a fatty appearance. When heated, they do not melt as resins do, neither are they so combustible. Heat, however, commonly softens them, and causes them to swell. They burn with a flame. They have almost always a strong smell, which, in several instances, is alliaceous. Their taste, also, is often acrid, and always much stronger than that of resins. They are usually heavier than resins. They are partially soluble in water, but the solution is always opaque, and usually milky. Alcohol partially dissolves them, the solution being transparent.

The most common gum-resins are ALOES, AMMONIA, EPHORBIUM, GALBANUM, GAMBAGE, MYRRH, OLIVANUM, SAGAPENUM, SCAMMONY, &c. (London's *Encyc. of Agriculture*; Thomson's *Chemistry*; *British Pharmacopæia*, 1867.)

GUNNY (Hind. tat; Ben. guni). A strong, coarse sackcloth manufactured in Bengal for making into bags, sacks, and packing generally, answering at once the two purposes for which canvas and bast are used in Europe. The material from which this article is manufactured is the fibre of two plants of the genus *Corchorus*; viz. *Corchorus olitorius* and *Corchorus capsularis* (Bengali, *pat*); both, but particularly the first, extensively cultivated throughout Lower Bengal. Besides a large domestic consumption of gunny, the whole rice, paddy, wheat, pulses, sugar, and saltpetre of the country, as well as the pepper, coffee, and other foreign produce exported from Calcutta, are packed in bags or sacks made of this article. There is also a large exportation of manufactured bags, each commonly capable of containing 2 maunds, or about 160 lbs. weight, to other parts of India, North America, Singapore, Pegu &c.

Each gunny bag weighs on an average 2 lbs. Pieces of gunny cloth are usually 30 yards long, and weigh about 6 lbs. each. (*Annual of Scientific Discovery*, 1862.)

In 1866, gunnies and gunny bags valued at 102,858l. were exported from British India. Of these, by far the largest amount was exported from the presidency of Bengal. [JUTE.]

GUNPOWDER (Ger. pulver, schiesspulver; Dutch, buskruid; Dan. krudt, pulver; Swed. krut; Fr. poudre; Ital. polvere; Span. and Port. polvora; Russ. poroch; Pol. proch; Lat. pulvis pyrius). This well-known inflammable powder

is composed of nitre, sulphur, and charcoal, reduced to powder, and mixed intimately with each other. The proportions of the ingredients vary very considerably; but good gunpowder may be composed of the following: viz. 76 parts of nitre, 15 of charcoal, and 10 of sulphur. These ingredients are first reduced to a fine powder separately, then mixed intimately, and formed into a thick paste with water. After this has dried a little, it is placed upon a kind of sieve full of holes, through which it is forced. By this process it is divided into grains, the size of which depends upon the size of the holes through which they have been squeezed. The powder, when dry, is put into barrels, which are made to turn round on their axis. By this motion the grains of gunpowder rub against each other, their asperities are worn off, and their surfaces are made smooth. The powder is then said to be glazed. (Thomson's *Chemistry*.)

Dr. Thomson has the following remarks with respect to the introduction of gunpowder into warlike operations: 'The discoverer of this compound, and the person who first thought of applying it to the purposes of war, are unknown. It is certain, however, that it was used in the fourteenth century. From certain archives quoted by Wiegand, it appears that cannons were employed in Germany before the year 1372. No traces of it can be found in any European author previously to the thirteenth century, but it seems to have been known to the Chinese long before that period. There is reason to believe that cannons were used in the battle of Cressy, which was fought in 1346. They seem even to have been used three years earlier, at the siege of Algesiras; but before this time they must have been known in Germany, as there is a piece of ordnance at Amberg, on which is inscribed the year 1303. Roger Bacon, who died in 1292, knew the properties of gunpowder; but it does not follow that he was acquainted with its application to fire-arms.' (Thomson's *Chemistry*.) The proportions of the several constituents of gunpowder vary considerably in different countries. For further particulars as to the introduction of CANNON, see that article.

The manufacture, keeping, carriage, and sale of gunpowder are regulated by several statutes. By the Gunpowder Act of 1860, 23 & 24 Vict. c. 139 (amended by 24 & 25 Vict. c. 130, and 25 & 26 Vict. c. 98), it is enacted that no person shall use mills or other engines for making gunpowder, or manufacturing the same in any way, except in mills and other places lawfully used at the time of passing the Act, or in places licensed by justices of the peace in manner therein mentioned, under pain of forfeiting the gunpowder and 2s. a lb. It is further enacted that no more than 50 lbs. of sporting and Government powder, or materials to be made into gunpowder, or 60 lbs. of any inferior powder, shall be made at any one time under a single pair of mill-stones, or rollers or runners, on pain of forfeiting all above such quantities of 50 or 60 lbs., and 2s. for every lb.; nor shall more than 50 cwt. be dried in any one stove or place at any one time, under forfeiture of all above that quantity and 2s. for every lb. thereof. Powder mills erected on Crown lands are exempted from the above regulations so far as relates to the making of fine fowling powder.

No dealer is to keep more than 200 lbs. of powder, nor any person not a dealer more than 50 lbs., in the cities of London or Westminster, or within 3 miles of either of them, or within any other city,

borough, or market town, or 1 mile thereof, or within 2 miles of the queen's palaces or manor-houses, or ½ mile of any parish church, on pain of forfeiture, and 2s. per lb.; except in licensed mills, or to the amount of 300 lbs. for the use of collieries, within 200 yards of them.

Not more than 30 barrels are to be carried by any land carriage, unless in a van specially constructed, and then 40 lbs.; or unless such carriage form part of a railway train, and then 80 lbs.; nor more than 500 barrels by water, unless going by sea or coastwise: each barrel not to contain more than 100 lbs.

All vessels, unless belonging to the Navy, coming into the Thames, are to put on shore, at or below Blackwall, all the gunpowder they have on board exceeding 25 lbs. Vessels outward bound are not to receive on board more than 25 lbs. of gunpowder previously to their arrival at Blackwall. The Conservators of the river Thames have authority to appoint searchers to inspect ships and search for gunpowder. All the gunpowder found above 25 lbs., and the barrels containing it, and 2s. for every lb. above that quantity, are forfeited. Any person obstructing an officer searching for concealed gunpowder is liable to a penalty of 10l. The places of deposit for gunpowder are regulated by the 54 Geo. III. c. 159.

The importation of gunpowder, arms &c. may at any time be prohibited by proclamation or by order in council (16 & 17 Vict. c. 107 s. 43).

Gunpowder is of considerable importance in a commercial point of view. This will be evident from the following

*Account of the Gunpowder Exported in 1866, specifying the Countries to which it was sent, and the Quantity and Value of that sent to each.*

Countries	Quantities	Value
Italy: Sardinian States	1,659,738	51,900
Naples and Sicily	103,400	3,200
Greece	556,981	17,100
Tunis	3,919,000	77,000
Western Africa (foreign)	2,836,619	82,000
Java	63,673	314
China (exclusive of Hong Kong)	919,192	23,700
Japan	100,750	2,200
Cuba	150,000	1,400
St. Thomas	35,532	500
New Granada	104,720	580
Chili	851,403	21,500
Brazil	1,263,323	40,000
Uruguay	154,830	4,000
Argentine Confederation	100,193	1,200
Channel Islands	107,718	2,200
Malta	382,293	12,000
Western Africa (British)	676,792	13,000
British Possessions in South Africa	219,806	8,200
Mauritius	131,000	3,500
British India: Bombay and Sind	115,229	2,700
Bengal and Pegu	256,642	11,500
Singapore and the Straits Settlements	1,539,981	54,100
Ceylon	165,197	5,700
Hong Kong	939,869	16,700
Australasia	2,550,421	68,500
British North America	579,120	13,000
British West India Islands and British Guiana	126,617	4,800
British Honduras	117,743	3,500
Other Countries	451,300	12,000
Total	17,600,225	482,000

GYPSUM or SULPHATE OF LIME is found in various parts of the Continent, in Derbyshire and Nottinghamshire, and in Nova Scotia, where it is largely exported. When reduced to powder, and formed into a paste with water, termed *plaster of Paris*, and is much used for forming casts &c. It is also used for floors, and has been advantageously employed as a manure.

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**HABERDASHERY AND MILLINERY.** Although in one sense closely allied, inasmuch as the haberdasher supplies the milliner with the simple materials to assist in making up her goods, the millinery trade being almost entirely in the hands of females, and wholly confined to making up ladies' caps and bonnets, there is at the present day (1868) no other affinity between these branches of trade. A haberdasher is a person who deals in all subsidiary articles required by the milliner, dress-maker, or tailor, such as pins, needles, buttons, tapes, threads, cottons, sewing silks &c.—in fact, in everything required by them to make up or put together all descriptions of clothing; and haberdasher of the present day keeps and sells the similar indispensable articles required by milliners, bootmakers, shoemakers, staymakers, and manufacturers.

About 300 years ago (temp. Queen Elizabeth) an association appears to have existed between the Mercers and Haberdashers' Companies of London; but this was discontinued about that time, the mercers confining themselves to the sale of silks and velvets, which were the chief articles of their trade, and they gradually resigned the sale of all less important wares. The haberdashers dealt in hats, millinery, small articles of jewellery, pins (a creative commodity), and a thousand other things which still belong to the trade. (Knight's *London*.) It is certain that the Haberdashery trade about 30 years ago was much more limited in extent than it is at the present time; but it may be remembered that the opening of the trade in 1828, which has been followed by a large number being given to the production of fancy goods in Prussia, Germany, and France (which included new classes under the designation of haberdashery, although not, strictly speaking, entitled to that appellation), has very largely promoted the branch of trade which now flourishes under that name.

*Report of the Haberdashery and Millinery Exported from the United Kingdom in 1857 and 1866, specifying the Countries to which they were sent and the Value of the Articles sent*

	1857	1866
Total	559,981	581,110
France	165,197	16,100
Germany	859,869	69,300
Spain	559,491	10,000
Italy	579,150	13,000
Portugal	126,617	4,300
Belgium	117,793	10,000
Sweden	461,366	10,000
Denmark	609,279	10,000
Other Countries	10,000	10,000

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There is doubtless a mistake in the number of haberdashers (including hosiers) returned in 1861 at 6,453 persons. That may apply to small dealers carrying on business as haberdashers and hosiers; but it is certain that the great bulk of the dashers, although not carrying on business under that designation.

Little faith, we fear, can be placed in the accuracy of the above customs return for 1857 and 1866 for haberdashery and millinery exported. It is well known that while on the one hand goods shipped to foreign countries, for the sake of saving trouble, are described by the general term haberdashery, on the other a large amount of goods shipped from Birmingham, Sheffield &c. are described as hardware, although consisting of pins, needles, buttons, hooks and eyes &c. as well as of other metal articles which are comprised and haberdashery.

We are indebted for this article to R. Slater, Esq., of Fore Street.

**HACKNEY CARRIAGES.** Carriages stationed in the streets or other public places, and bound to carry such persons as require their services, for certain rates of hire according to the distances travelled. They have generally been licensed by authority, and subjected to certain regulations, intended to prevent strangers and others using them from fraud and imposition. It may be doubted, however, whether these regulations public would not be as well accommodated, at least in all large towns, by throwing the business open, and trusting to competition to rectify abuses. As respects London, nothing can be said in favour of its hackney coach establishment, which is, in truth, a disgrace to the city. Speaking generally, the carriages are dirty, disagreeable vehicles, the horses worn out, and the drivers ill-clothed and uncivil; forming a striking contrast to the elegance and commodiousness of the private carriages of the servants.

Hackney coaches were first established in London in 1625. They were then stationed not in the streets, but at the principal inns. In the reign of Charles II, their number was considerable. Commissioners for licensing and superintending hackney coaches were established by the Act 9 Anne c. 23; and successive Acts have been passed, specifying the number of coaches that might be licensed, the duties payable to Government, and the conditions under which licenses were to be granted. But we cannot say that these Acts reflect any credit on their authors; and the last (16 & 17 Vict. c. 33) is, perhaps, the most objectionable of any. To say that all hackney carriages shall charge alike, without regard to their style or fitting up, is to offer a premium on inferiority. If this were their object, these Acts have been eminently successful; but in every other respect they have been complete failures, and the sooner they are repealed the better. Immense numbers of cabriolets are annually licensed in the metropolis.

*Hackney Carriage Regulations, Fares &c. for Metropolitan Police District and City of London.*  
 —Fares for hackney carriages are according to

distance or time, at the option of the hirer, expressed at the commencement of the hiring; if not otherwise expressed, the fare to be paid according to distance. (16 & 17 Vict. c. 33, schedule A.)

No driver is compellable to hire his carriage for a fare according to time, at any time after 8 in the evening, and before 6 in the morning.

Agreement with driver to pay more than legal fare not binding, and sum paid beyond the fare may be recovered. (1 & 2 Wm. IV. c. 22 s. 43.)

Driver not to charge more than the sum agreed on for driving a distance, although such distance be exceeded by the driver. (Sec. 44.)

If proprietor or driver agree beforehand to take for any job any sum less than the proper fare; penalty for exacting or demanding more than the sum agreed on, 40s. (Sec. 45.)

Driver may demand a reasonable sum as a deposit, from persons hiring and requiring him to wait, over and above the fare to which driver is entitled for driving thither. Penalty 40s. if driver refuse to wait, or go away before expiration of time for which deposit shall be sufficient compensation; or if driver shall refuse to account for such deposit. (Sec. 47.)

Hirer refusing to pay the fare, or for any damage and compensation for loss of time, may be committed to prison. (Sec. 41.)

The number of persons to be carried by any hackney carriage shall be distinctly marked on such carriage, as the Commissioner of Police shall direct; and the driver shall, if required by the hirer, carry by such carriage the number of persons marked thereon, or any less number. (16 & 17 Vict. c. 33 s. 9.)

When carriage is drawn by 2 horses,  $\frac{1}{4}$  above the fares hereinafter mentioned is to be paid. (Schedule A.)

Two children under 10 to be counted as 1 adult, whether the hiring be by distance or time.

*Fares by Distance, within a radius of 4 miles from Charing Cross.*—If hired when standing on a stand, for any distance not exceeding 1 mile, 1s. (30 & 31 Vict. c. 134 s. 26.)

Above the number of 3 persons carried, 6d. extra for each person.

And for any distance exceeding 1 mile, for every mile, and for any part of a mile not completed, at the rate of 6d.

Above the number of 2 persons carried, 6d. extra for each person for the whole hiring.

When not standing on a stand, for each mile and for any part of a mile not completed, at the rate of 6d. (16 & 17 Vict. c. 127 s. 13, and c. 33.)

Above the number of 2 persons carried, 6d. extra for each person for the whole hiring.

One shilling for every mile, or part of a mile, beyond 4 miles (radius) from Charing Cross, if carriage discharged beyond such 4 miles.

No driver shall demand or receive any sum by way of back fare for the return of the carriage from the place at which discharged. (16 & 17 Vict. c. 33 s. 4.)

When the driver, to be paid according to distance, shall be required by the hirer to stop for 15 minutes, or for any longer time, the driver may demand and receive a further sum (above the fare calculated according to distance) of 6d. for every 15 minutes completed that he shall have been so stopped. (Sec. 4.)

*Fares by Time.*—One hour, or part of an hour, 2s. (Schedule A.)

For every 15 minutes, or less, beyond 1 hour, 6d. (Cap. 127 s. 15.)

Each person above 2, the whole hiring, 6d. extra. (Sec. 14.)

No driver shall demand or receive any sum by

way of back fare for the return of the carriage from the place at which discharged. (Sec. 4.)

If the driver is required to drive more than 4 miles an hour, for every mile or part of a mile above 4 miles, 6d. extra. (Cap. 33 s. 7.)

*Luggage.*—A reasonable quantity of luggage is to be carried in or upon the carriage without any additional charge, except as provided in next paragraph. (Cap. 33 s. 10.)

When more than 2 persons are carried in any hackney carriage, with more luggage than can be carried inside the carriage, a sum of 2d. for every package carried outside the carriage is to be paid. (Schedule A.)

*General Regulations, Misconduct &c.*—Hackney carriage standing in the street, unless actually hired, to be deemed plying for hire; and the driver is obliged to go with any person desirous of hiring such carriage; and on hearing complaint, driver must produce evidence of having been actually hired at the time. (1 & 2 Wm. IV. c. 22 s. 33.)

The driver is to drive at not less than 6 miles an hour, unless in cases of unavoidable delay, when required by the hirer to drive slower. (16 & 17 Vict. c. 33 s. 17.)

The driver shall (unless he have a reasonable excuse, to be allowed by the justice) drive to any place within the Metropolitan police district, City of London, to which he may be required by the hirer, not exceeding 6 miles from the place where hired. (Sec. 17.)

The driver shall (unless he have a reasonable excuse, as above) drive for any time not exceeding 1 hour from the time when hired. (Sec. 17.)

The proprietor of every hackney carriage shall keep distinctly painted or marked both on the side and outside of such carriage, as the Commissioner of Police shall direct, a table of fares, which may be legally demanded; and the driver shall have with him at all times, when plying for hire, a book of fares, in such form as shall be directed by the Commissioner, and produce the same when required for the information of any person hiring or intending to hire such carriage. (Sec. 18.)

In cases of disputes as to the fare according to distance, any table or book signed by the Commissioner of Police shall, on proof of such signature, be conclusive evidence of all the details therein stated to have been measured by the authority. (Sec. 6.)

In case of any dispute between the hirer and driver of a hackney carriage, the hirer may require the driver to drive to the nearest Metropolitan police court or justice room, where the complaint may be determined by the sitting magistrate without summons; or if no police court or justice room be open at the time, then to the nearest police station, where the complaint may be entered, and tried by the magistrate at the next sitting. (Sec. 18.)

Every driver of a hackney carriage shall be hired, deliver to the hirer a card on which shall be printed the number of the Stamp Office on such carriage, or such other words as may be directed by the Commissioner of Police may direct.

Penalty of 40s., or 1 month's imprisonment, for each offence against any of the above provisions. (Secs. 17, 19.)

All property left in any hackney carriage shall be deposited by the driver at the nearest station within 24 hours, if not sooner claimed by the owner; such property to be returned to the person who shall prove to the Commissioner that the same belonged to him, on payment of the expenses incurred, and of such reasonable sum as the Commissioner shall award. (Sec. 11.)

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Driver not wearing his metal ticket conspicuously on his breast at all times during his employment, or refusing to produce such ticket for inspection, or refusing to permit any person to note the writing thereon, or wearing ticket with writing not distinctly legible, to forfeit 40s. (6 & 7 Vict. c. 86 s. 17.)

Every person using or wearing a ticket without having a license in force relating to such ticket, or wearing a ticket resembling the tickets issued by the Commissioner of Police, to forfeit 5l.: such ticket may be seized by any constable or person employed for the purpose by the Commissioner of Police. (Sec. 18.)

Driver allowing another person to act as driver in his place, also any person acting as driver without consent of proprietor of the carriage, to forfeit 40s. (Sec. 27.)

Person acting unlawfully as driver may be taken into custody by a constable, and charged before a magistrate.

Driver of hackney carriage permit or suffer any person to ride or be carried in, upon, or about such carriage, without express consent of person hiring the same; penalty 20s. (1 & 2 Wm. IV. c. 22 s. 50.)

Driver guilty of wanton or furious driving, or using hurt or damage by carelessness or wilful misbehaviour; or drunk during his employment, making use of insulting or abusive language or gesture, or any misbehaviour, to forfeit 3l., or to be imprisoned for 2 months with or without hard labour, at discretion of justice; and in case of such injury or damage, justice may order compensation, not exceeding 10l., to be paid by the proprietor, to be recovered by him from the driver, by whose fault such sum shall have been paid. (Sec. 28.)

Driver of hackney carriage shall stand or ply his carriage, or suffer same to stand across any street, common passage, or alley; or shall feed the horses in any street, road, or common passage, or shall hold out of a bag, or with any other thing shall hold or deliver with his hand; or shall refuse to give way, if he conveniently may to any other carriage, or shall obstruct or hinder the driver of any other hackney carriage in taking down any person; or shall wrongfully or in a forcible or clandestine manner, take the fare from any other proprietor or driver: to forfeit 20s. (Sec. 51.)

Any driver of a hackney carriage who shall hire elsewhere than at some standing or appointed for that purpose, or who by loitering or any wilful misbehaviour shall cause any obstruction in or upon any public street, road, or common passage, shall for every such offence forfeit the sum of 40s. (6 & 7 Vict. c. 86 s. 38.)

Driver of hackney carriage leaving it unattended in any street or road, or at any place of resort, whether hired or not: penalty 40s.; and if the carriage be damaged, the driver shall be liable to pay the cost of repairs. (1 & 2 Wm. IV. c. 22 s. 55.)

**HUMAN HAIR** (Ger. haare, menschen-haar; Fr. cheveux; Ital. capelli umani; Sp. cabelllos; Lat. capilli). Human hair is a very considerable article in commerce, especially since the mode of perriques (and chignons) has become so general. Hair of the growth of the northern parts of Europe, as England &c., is valued much beyond the more southern ones, as Italy, Spain, &c. and neither too coarse nor too slender, rendering it less susceptible of the curl, and disposing it rather to frizzle; the length should be about 25 inches; the curls short of this the less value it bears, the

In 1866, 18,500 lbs. of human hair were imported into the United Kingdom, at an average value of 8s. per lb.

**HAIR OF BEASTS** (Ger. haare, hulbaare; Dutch, haire; Fr. poil; Ital. and Span. pelo; Lat. pelles). The hair of horses is extensively used in the manufacture of chairs, sofas, saddles &c.; while the hair or wool of beavers, hares, rabbits &c. is much employed in the manufacture of hats &c. [WOOL.] In 1866 we imported 386,392 lbs. of camel's hair, worth 10,500l.; and we exported 475,926 yards of hair cloth, worth 43,427l.

**HAIR-POWDER** (Ger. puder; Fr. poudre à poudrer; Ital. polvero di cipri; Span. polvos de peluca) is used as an ornament for the hair, and generally made from starch pulverised, and sometimes perfumed. A tax of 1l. 3s. 6d. a-year is levied upon all persons who wear hair-powder. Different statutes prohibit the mixing of hair-powder with starch or alabaster, and hair-powder makers are prohibited having alabaster in their custody.

**HAKODADI** or **HAKODATE**, the most northerly of the Japanese treaty ports, is situated in the island of Yeso, lat. 41° 47' 8" N., long. 140° 45' 34" E. It is an excellent harbour, having good anchorage in black mud, in about 5 to 6 fathoms water, and had been frequented by whalers before the opening of the Japanese islands to European and American commerce in 1858. The population is reckoned at about 10,000. The chief exports are hides and deer horns, biche de mer and tow, &c. Alcock does not speak very highly of the capacities of Hakodadi.

In 1866, 51 vessels arrived at Hakodadi, of which 20 were British; and 51 cleared, of which 22 were British. The duties and port charges paid the same year were 3,512l. The chief exports were seaweed, silk, and fish; the imports, cottons, woollens, and sugar. (Consul Gower's Report for 1866.)

*Value of Exports from and Imports into Hakodadi in 1865 and 1866.*

	Exports	Imports
1865	107,756	51,861
1866	121,644	7,213

**HALIFAX**. The capital of Nova Scotia, on the south-east coast of that province, lat. 44° 36' N., long. 63° 28' W. It is situated on a peninsula on the west side of Chebucto Bay, and has one of the finest harbours in America. Population in 1861, 25,026. The town is irregularly built, and most of the houses are of wood. The Government-house is one of the most splendid edifices in North America. Halifax was founded in 1749. Nova Scotia now forms one of the provinces of the Confederacy or Dominion of Canada.

**Port.**—The best mark in sailing for Halifax is Sambre light-house, on a small island off the cape to the harbour, in lat. 44° 30', long. 63° 32'. The light, which is fixed, is 210 feet above the level of the sea; and a detachment of artillery, with two 24-pounders, is upon duty at the light-house, firing at regular intervals during the continuance of the dense fogs with which this part of the coast is very much infested. (Coulier, *Tables des principales Positions Géographiques*, p. 78.) The course into the harbour for large ships after passing Sambre Macnab's Island on the east. On a spit projecting from the latter a light-house has recently been constructed; and when this is seen, ships may run in without fear. The harbour is defended by several strong forts. Ships usually anchor abreast of the town, where the harbour is rather more

than 1 mile in width. After gradually narrowing to about  $\frac{1}{4}$  that width, it suddenly expands into a noble sheet of water, called Bedford Basin, completely land-locked, with deep water throughout, and capable of accommodating the whole navy of Great Britain. The harbour is accessible at all times, and is rarely impeded by ice. There is an extensive royal dockyard at Halifax, which during war is an important naval station, being particularly well calculated for the shelter, repair, and outfit of the fleets cruising on the American coast and in the West Indies. Mr. McGregor has severely, and we believe justly, censured the project for the removal of the dockyard from Halifax to Bermuda.

*Trade &c. of Halifax and Nova Scotia.*—Halifax is the seat of a considerable fishery; but the British colonists seem to be, for what reason it is not easy to say, less enterprising and successful fishers than the New Englanders. The principal trade of the town and province is with the West Indies, Great Britain, and the United States. To the former they export dried and pickled fish, lumber, conls, cattle, flour, butter, oats, potatoes &c. They export the same articles to the southern ports of the United States, and gypsum to the eastern ports of New England. To Great Britain they send timber, deals; whale, cod, and seal oil; furs &c. The principal exports of timber are from Pictou on the St. Lawrence. The imports consist principally of colonial produce from the West Indies; all sorts of manufactured goods from Great Britain; and of flour, lumber &c. from the United States, principally for exportation to the West Indies.

In 1826 a company was formed for making a canal across the country from Halifax to the basin of Minas, which unites with the bottom of the Bay of Fundy. The navigation is formed, for the most part, by Shubenacadie lake and river.

The Legislature gave 15,000*l.* to this undertaking. The excavated part of the canal is 60 feet wide at top, 36 feet at bottom, and admits vessels drawing 8 feet water. It seems very questionable whether this canal will be profitable to the shareholders, but it is of very considerable service to the trade of Halifax. The extent of the Nova Scotia Railway in working order in 1865 was 99 miles.

There are 2 private banking companies at Halifax. Accounts are kept in pounds, shillings, and pence, the same as in England, and the weights and measures are also the same.

About 120 large square-rigged vessels, and also the same number of large schooners, with several smaller craft, belong to Halifax.

The steam ships conveying the mails to British North America ply between this port and Boston in the United States and Liverpool. At present (Sept. 1868) five steamship companies ply steamers from the latter, so that 2 start on Tuesday and Wednesday, and 1 each Thursday, Friday, and Saturday; the ports of destination being New York and Boston, Halifax, Quebec, and Montreal. The fare to Halifax or Boston from Liverpool, including provisions and steward's fee (but excluding wines and liquors), is  $\text{£}18\text{t}$ , to 26*l.* first class. On arriving at Halifax passengers are conveyed across the Peninsula to Pictou, whence they are carried by steamer to Quebec and Montreal. A steam intercepter is also kept up in summer with Boston. In 1865 the value of the total imports into Nova Scotia was 14,381,662 dollars, or 2,876,332*l.*, of which 11,530,495 dollars represent the imports into Halifax. [COLONIES; PAINTS, COLONIES.]

During 1865, 6,851 ships, if the aggregate burden of 929,929 tons, entered the ports of the colony (principally Halifax) from all countries, 149 of which were from the United Kingdom.

Account of the Quantities and Values of the Principal Articles Exported from the United Kingdom to Nova Scotia, and principally to Halifax, in the Year 1865 and 1866.

Articles	Quantities		Value	
	1865	1866	1865	1866
Apparel and haberdashery	—	—	£	—
Copper, wrought and unwrought	—	—	—	—
Cordage and twine	—	—	—	—
Cotton yarn	—	—	—	—
Cottons, entered by the yard	—	—	—	—
Drugs and chemical products	—	—	—	—
Fishing tackle	—	—	—	—
Furniture and porcelain	—	—	—	—
Glass manufactures	—	—	—	—
Hardware and cutlery, unenumerated	—	—	—	—
Hats of all sorts	—	—	—	—
Iron, wrought and unwrought	—	—	—	—
Leath <sup>r</sup> wrought and unwrought	—	—	—	—
Linen, entered by the yard	—	—	—	—
Machinery and mill work	—	—	—	—
Oil, seed	—	—	—	—
Painters' colours (not otherwise described)	—	—	—	—
Paper of all sorts (including paper hangings)	—	—	—	—
Silk	—	—	—	—
Silk manufactures	—	—	—	—
Soap	—	—	—	—
Woolens, entered by the yard	—	—	—	—
All other articles	—	—	—	—
Total	—	—	—	—

Total Value of Nova Scotian Imports and Exports (including Bullion and Specie) from the Country in the Years ended September 30, 1863, 1864, and 1865.

Countries	Imports			Exports	
	1863	1864	1865	1863	1864
United Kingdom	—	—	—	—	—
British Possessions	—	—	—	—	—
West Indian	—	—	—	—	—
North American	—	—	—	—	—
United States	—	—	—	—	—
Other Countries	—	—	—	—	—
Total	—	—	—	—	—

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Value	
1865	1866
£	£
252,725	187,225
163,000	125,000
31,269	40,000
11,552	12,000
133,125	100,000
16,700	15,000
7,300	10,000
15,607	10,000
19,053	20,000
8,051	10,000
35,175	20,000
10,285	10,000
91,509	10,000
20,170	10,000
48,601	10,000
9,361	10,000
5,858	10,000
10,811	10,000
9,855	10,000
7,284	10,000
8,991	10,000
2,751	10,000
175,065	10,000
5,699	10,000
92,215	10,000
1,061,253	10,000

(and Specie) from  
 and 1865.

Exports	
1861	
	£
68	66,105
71	378,876
72	341,745
73	487,534
74	137,155
75	1,434,243
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# HAMBURG

Account of the Quantities and Value (in Sterling) of the Principal Articles Imported into the United Kingdom from Nova Scotia, and principally from Halifax, in 1865 and 1866.

Principal and other Articles	Quantities		Value	
	1865	1866	1865	1866
Wheat, &c. - cwts.	91	5,276	4	4
Wheat - bushels	14,937	5,174	233	40,633
Rye, grass or clover - tons	93	39	11,796	6,213
Barley - do.	—	—	5,914	1,097
Peas - do.	2,109	3,919	1,041	1,812
Maize - do.	283	305	211	493
Beans - do.	291	305	211	493
Other sorts - do.	3,654	7,508	581	1,409
Wheat, unground - cwts.	1	—	2,725	9,239
Wheat and timber: Flour or meal - loads	4,031	3,788	18,219	11,503
Wheat, butter, &c.	—	—	—	—
Wheat or oil - do.	21,851	22,725	63,897	63,991
Wheat or oil - do.	574	381	781	919
Wheat or oil - value	—	—	5,512	8,184
Total	—	—	108,078	111,880

and all sorts of German manufactured goods, Rhinish wines &c. Most sorts of Baltic articles, such as grain, flax, iron, pitch and tar, wax &c., may generally be bought as cheap at Hamburg, allowing for difference of freight, as in the ports whence they were originally brought. The total annual value of the import and export trade of the port (including that of Altona, the merchants of which conduct their business on the Hamburg exchange) carried on by sea may be estimated at 50,000,000, sterling, or upwards; and as the largest portion by far of this immense trade is in our hands, it will be necessary that we should be a little fuller than ordinary in our details in regard to this great emporium.

Hamburg was visited by a most destructive fire in May 1812; but, notwithstanding the heavy losses that were in consequence incurred, and the paralysis it occasioned in trade and industry, the shock was less severe than might have been anticipated. The system of mutual insurance having been generally adopted, the proprietors of houses and other property were subjected to a tax, to defray the interest of a loan of 31,000,000 mares banco raised to indemnify the sufferers, and to enable them to rebuild their houses. All traces of the devastation have thus long ago disappeared; and here, as in most other places exposed to a similar calamity, it has led to a great improvement of the town, which is now better built and more commodiously laid out than formerly. On January 1, 1866, the public debt of Hamburg was 4,023,980*l.*; the revenue and expenditure chiefly derived from customs, excise, and stamps, averaged about 600,000*l.* for the three years 1862-4.

*Navigation of the Elbe, Pilotage &c.*—The mouth of the Elbe is encumbered with sand-banks. The channel leading to Cuxhaven is bounded on the north by the Vogel Sands and North Grounds, and on the south by the Schaarhorn Sands and Newwerk Island. On the latter there are 2 light-houses and 2 beacons, and on the Schaarhorn is another beacon. The lighthouses on Newwerk Island are about 700 yards apart; the most southerly, which is also the most elevated, being in lat. 53° 54' 57" N., long. 8° 29' 40" E. It is 128 feet high, being twice the height of the other. The channel is, in some places, hardly  $\frac{1}{2}$  of a mile wide. The outer red buoy in the middle of the channel at its mouth bears from Heligoland S.E. by S., distant nearly 20 miles. But the best mark in entering the Elbe is the floating light, or signal ship, moored 2 miles N.W. by N. of the red buoy, in 11 fathoms at low water. This vessel never leaves her station unless compelled by ice in winter. By night she exhibits a lantern light, 38 feet above deck, and in foggy weather rings a bell every quarter of an hour. A second signal ship is stationed  $\frac{1}{2}$  miles S.E. by E. from the first, at the westernmost point of a sand-bank dividing the fair way of the river. She is rigged like a galliot, to distinguish her by day from the first signal ship; and during night she exhibits two lights, one 18 feet above the other. The distance from the outer red buoy to Cuxhaven is about 16 miles; thence to Glückstadt the course is east, 28 miles; from the latter to Stade the course is south-easterly, 9 miles; and then easterly to Hamburg, 18 miles. The channel throughout is marked with black and white buoys, which are numbered and specified in the charts. The black ones are to be left, in passing up the river, on the starboard or right-hand side, and the white on the larboard side.

All vessels coming from sea into the Elbe, which measure above 60 commerce lasts at 6,000 lbs.

HAMBURG. One of the Hanse Towns, but since July 1, 1867, joined to the States of the German Confederation, on the north bank of the river Elbe, about 70 miles from its mouth, lat. 53° 31' N., long. 9° 58' 37" E. Population Dec. 3, 1867, including the suburbs of St. Nikolai and St. Paul, but excluding the territory about the city, 223,763. Hamburg is the most commercial city of Germany, and the largest of the Continent. She owes this distinction principally to her situation. The Elbe, which may be navigated by lighters as far as the city in Bohemia, renders her the entrepôt of a large extent of country. Advantage, too, has been taken of her natural facilities that extend still farther to the westward; a water communication has been established, by means of the Spreewitz, by artificial cuts and sluices, between the Elbe and the Oder, and between the latter and the Baltic; so that a considerable part of the produce of Silesia destined for foreign markets, and even that of Poland, are conveyed to Hamburg. [CANALS.] There is also a communication by means of the Steknitz Canal with the Baltic, and consequently with Lübeck and Rostock. But the great lines of railway which connect Hamburg with Berlin, Leipsic, Lübeck, and all the interior of Germany, and which have greatly extended her connections, and are of even more importance than her water communication, are the Elbe and canal navigation. Vessels of 14 feet water come up to the town at all seasons, and vessels drawing 18 feet may come up with the spring tides. The largest vessels sometimes load from and unload into the port at Cuxhaven, Glückstadt, and Bremerhaven. The trade of Hamburg embraces every part of Germany either sells to or buys from the same. The imports consist principally of wool, stuffs, and yarn; wool, woollen, and cotton goods; coffee, sugar, silk and silk goods; hides, iron, and hardware, machinery, wine, brandy, rum, dyeswoods, tea, pepper, &c. Large quantities of coal are imported from the United Kingdom. Being brought from distant places, there is a great variety of sorts of the grain found at Hamburg, but a great portion of the wheat is inferior. Some of the barley is very good, and fit for malting. The rye is of various qualities. With the exception of coal, the exports consist of the same as the imports, Hamburg not being a great place of distribution. In the case of colonial produce, British manufactured goods, &c., they include wool, iron, bark, spelter, cattle, butter, salted fish, wooden clocks and toys, linens,



each, must pay pilotage whether they require a pilot or no; and however well the signals, lights, beacons, and buoys may be arranged, the services of an experienced pilot are very necessary, especially in the case of fogs or stormy weather. To assist in getting vessels supplied with this indispensable functionary, a schooner was directed, in 1855, to cruise between Heligoland and the mouth of the river, to be in readiness to supply ships with pilots and instructions; and this plan having been found to answer extremely well, a second schooner has since been employed for the same purpose. Previously to this arrangement vessels had to heave-to by the pilot-galliot, moored near the river's mouth; and when, owing to the state of the tide or the weather, they could not do this, they had to sail to Cuxhaven and there get a pilot. But the schooners being extremely good sea-boats, and always on the look out, their employment has greatly reduced the inconveniences that formerly attended the shipping of pilots.

*The Charges on account of Pilotage* vary, of course, with the vessel's draught of water, the distance she has been piloted, and sometimes also with the nature of the cargo. They are in all cases very moderate. The charge for towage is fixed per agreement.

Down to a late period there were no docks or quays at Hamburg, but they are now in course of construction. At present there is a quay about 3,000 feet long, intended chiefly for sea-going steamers, in the course of erection; and when completed, there is no doubt that further works of the same kind on the Grasbrook will be commenced without delay. Vessels moored in the river outside of piles driven into the ground a short distance from shore; and in this situation they were not exposed to any danger unless the piles gave way, which rarely happens. There was a sort of inner harbour formed by an arm of the Elbe which runs into the city, where small craft discharged their cargoes. Larger vessels loaded and unloaded from their moorings by means of lighters. These carry the goods from and to the warehouses which front the various small arms and channels of the river, and the canals carried from it into different parts of the city. The charges on account of lighterage are extremely moderate. But, whatever inconveniences may have attached to this state of things, either have been, or are on the eve of being, materially abated by the formation of a new harbour, in which ships will lie alongside the quays, and their loading and unloading be greatly facilitated.

*Elbe Duties.*—The Stade duties on the Elbe, against which we protested in former editions of this work, have been abolished since July 1, 1861, and the various duties levied on the upper part of the river have been simplified and reduced since July 1, 1863. At present all vessels, whether going up or down the river, have to pay toll only at the custom-house of Wittenberg, where they have to stop, at any rate, on account of customs revision. The Elbe duties are levied there in three different classes, namely, in the first (normal class) at the rate of 16 silver pfennig (360 = 1 thaler courant, or 30 thaler stand.) per toll-centner of 100 lbs. metrical weight; in the second at the rate of 8 silver pfennig; and in the third at the rate of 2 silver pfennig. Below Wittenberg the traffic on the river is entirely free. Now that Prussia stands in the place of Hanover and Denmark in regard to these tolls, it is believed (says Mr. Consul-General Ward in his *Reports* of February 1867, and May 15, 1868) that a modification, if not an entire abolition of them will soon be effected.

*Money and Banks.*—Money is generally reckoned in Hamburg in mares, of 16s, each of 12 pfennigs; and is of 2 sorts, *banco* and *courant*. The former consists of the sums inscribed in the books of the Bank opposite to the names of those who have deposited specie or bullion in the Bank, or got it transferred to them at the rate of 25 mares banco to the Cologne marc of fine silver. The value of the marc banco, taking silver at 160 per oz., is consequently 1s. 5 1/2d., which makes the par of exchange 13 mares 10 1/2 schill. banco for the sterling. There is always a considerable agio in favour of banco.

The state currency was regulated by a law of the year 1856, according to which the Prussian thaler (60 to 1 kilogramme of fine silver) became the legal coin. But the monetary unit is formed by the marc courant, 2 1/2 of which are equal to the Prussian thaler. Hamburg for a long time had only issued small coin sufficient to supply the local demand.

1 marc of fine silver (fixed value)	= 27 mares 18 schill.
1 marc of fine gold	= 450 mares banco
100 Hamburg mares banco	= 74, 22, 52, sterling
100 " " " courant	= 54, 174, 84, "
100 Prussian dollars	= 14, 14, 36, "

The weight for gold or silver will be the same as at London from July 1, 1868.

In addition to the *Giro*, or deposit bank of Hamburg, which was founded so far back as 1765, [BANKS], two joint-stock banks were established here in 1856. One of these, the North German Bank, has a capital of 20,000,000 m. marks, or 1,500,000*l.*, which has been wholly paid up. The other, the Union Bank, is a joint-stock bank of the same amount, but only 4,000,000 m. marks, or 300,000*l.*, of it has been paid up. They discount bills, make advances on goods, and transact all sorts of banking business.

*Measures and Weights.*—A new regulation of these was effected by an Act passed in 1858.

There were before in Hamburg 3 different kinds of pound weights:—

1. The bank or silver weight (formed by the Cologne weight).
  2. The commercial weight.
  3. The apothecary weight.
- One pound bank, or silver weight = 2 mares (Cologne) is 233.85489 grains of avoirdupois weight, or 128 quarters of Dutch As. = 100 mares = 62.6554 English pounds.

The old relation between the commercial and bank weight, by which the commercial was equal to 33 1/2 oz. bank weight, has been altered by the Act of 1843.

1 centner = 112 pounds; 1 pound = 16 ounces; 1 ounce = 4 drachms; 1 drachm = 4 pfennigs.

100 commercial lbs.	= 106.578 English lbs. avoirdupois
100 " "	= 88.469 kilograms
100 " "	= 86.555 lbs. Vienna
100 " "	= 96.9219 lbs. German Cologne

1 'schiffpfund,' in commerce = 2 1/2 'riespfund' of 14 lbs. each, or 280 lbs. each; 1 'schiffpfund' by land carriage = 20 'riespfund,' each of 16 pound; is, therefore, 320 lbs. A pipe of oil is 820 lbs.; 1 barrel of willow and hoops is taken at 224 lbs. common hoops at 280 lbs. nett.

But the inconveniences of such a system are obvious to require being pointed out, and to obviate them, provision was made in 1856, included in 1856, by the Government of Prussia, in regard to these tolls, it is believed (says Mr. Consul-General Ward in his *Reports* of February 1867, and May 15, 1868) that a modification, if not an entire abolition of them will soon be effected.

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# HAMBURG

their introduction, besides its other effects, has, of course, reduced the various duties charged by weight in this city, and the other countries referred to, in the proportion now stated.

The English equivalents of the Hamburg measures and weights will be found in the subjoined

**Measures.**

10 feet in length	= 91-021 feet British
square	= 88-100 feet square
cubic	= 871-11 feet cubic
100 ails (of cloth)	= 62-681 yards
100 barrels (last of corn)	= 18-901 imperial quarters
100 quarters (vierte) of liquid	= 159-170 imperial gallons
1 commercial last of 6,000 lbs.	= 3 tons burden
1 schip last of 4,000 lbs.	= 2 tons burden
1 corn last	= 1½ imperial quarters
1 coal last of 12 tons	= 2 tons avoirdupois

**Weights.**

10 new lbs. or 1 centner	= 110-252 avoirdupois
10 marks (last weight)	= 62-655 lbs. troy

**Long Measure.**—The Hamburg foot, divided into 12 inches, of 8 parts each = 0-28657 metres  
 17-766 Parisian lines = 11-289 Eng. inches

10 Hamburg feet = 91-021 English feet
100 " " = 28-657 French metres
100 " " = 91-507 Prussian or Rhinish feet
100 " " = 30-661 Vienna feet

The Hamburg ell (short ell) = 2 Hamburg feet.  
 614 metres = 254-072 Paris lines. 100 Hamburg ells = 62-681 Eng. yards.

The Prussian ell (or long ell) most commonly used in Hamburg in measurement of piece goods = 685 Eng. inches.

**Liquid Measure.**—1 fuder = 6 aums, 1½ aum = 4 eimers or cimers; 1 anker = 5 viertels; 1 viertel = 2 stübchen; 1 stübchen = 2 kannens; 1 kannen = 4 quarters of Oessel; 1 eimer = 4 viertels; 1 eimer = 1½ aums, or 6 ankers, or 30 viertels, or 60 quarters or bottles.  
 1 stübchen contains 266 Hamburg cubic inches = 3-62 litres.

Hamburg:

1 aum = 119-39 English imperial gallons.
1 eimer = 72-118 French litres.
1 kannen = 62-343 Prussian quarters.
1 stübchen = 511-88 Vienna mass.

A full beer barrel contains 48 stübchen, or 128 quarters; the small barrel only 32 stübchen, or 64 quarters.

A wine barrel contains 30 stübchen, or 120 quarters.

A whole and fish oil barrel contains 32 stübchen, or 128 quarters; 2 whole oil barrels = 1 fish oil barrel.

**Measure.**—Corn is now (1867) sold by weight, and the last is supposed to contain in

1 bushel	3,400	Meat	3,000
1 quarter	3,400	Wheat	3,000
1 peck	3,400	Peas	3,000
1 gallon	3,400	Beans	3,000

The Hamburg last is taken at 11 imperial quarters, 31 hectolitres, 57 Prussian schiefel barrels, and 16½ Russian chetverts. A barrel contains (when the 1,453 Hamburg inches of head or heaped measure is used) 488 cubic inches.

The Hamburg ship last, or last of commerce, contains 6,000 pounds, or 3 tons (not 4,000 lbs., as is generally stated).

The exports of grain from Hamburg consist of the harvests from Hamburg and the Elbe, but more, perhaps, of the harvests of other countries. In our customs accounts, the corn &c. from the Hanseatic Towns is taken at full ¾ or ¾ of the whole.

The important trade in German linens from the former American possessions has greatly fallen off. This is a conse-

quence of the competition of England, who, by means of her superior machinery, is able not only to spin, but to produce cloth cheaper than any other country. On the other hand, however, the import of linen yarns from England is being progressively augmented.

**Lastage and Custom House Charges.**—British and other foreign vessels pay the same as Hamburg vessels. For clearing in and clearing out, no separate charges are made; visiting the port is considered as one voyage, and the charges on vessels are paid as follows:—

For vessels arrived seaward with cargoes according to measurement for every commerce—last of 6,000 lbs. 8s. courant (40s. = 1 thaler courant).

It is difficult to determine the exact ratio of a last to a ton, but it may be taken at about 3 or 2½ to 1. But in Hamburg all vessels are measured by the harbour-master; and it is upon his report that the lastage is calculated. The following deductions are allowed:—

1. Only ½ the duty is paid for vessels arriving seaward, the cargoes of which consist exclusively of cement, cement stone, tiles, guano, herrings, bricks, salt, slates, stones, or other articles taken in as ballast.

2. Entirely free from duty are all vessels arrived seaward, the cargoes of which consist exclusively of coal and cinders, in case they leave in ballast, as well as all vessels arriving in ballast, if they also leave in ballast.

There are no duties upon the river navigation. For all vessels laden with coals, wood, or turf, no lastage is paid, provided they do not take return cargoes.

**Half Lastage.**—Vessels arriving in ballast and departing with a cargo pay ½ the above lastage, according to their destination.

**N.B.**—Exclusive of the above dues, which are all remarkably moderate, vessels coming to the port of Hamburg are obliged to pay certain dues to Hanover, called Stade or Brunshausen dues. (See post.)

**Duties.**—The import and export duty was before the year 1824 1½ per cent. (courant for banco, or 1½ on 125) on goods imported and exported by sea, and ½ per cent. (courant for banco) for such as were received and transported by land or river conveyance; but for some years these duties have been greatly reduced, and are now only ½ per cent. on imports. The greater part of the imports are, however, entirely free even of these low duties, as is evident from the following statements:—  
 All export duties are abolished. (December 31, 1856.)

According to the latest customs regulations, of December 31, 1862, the articles passing duty free are:—

1. Wool, raw cotton, silk, flax, yarn and manufactured goods of flax, hemp, rags, old ropes, used linen cloth, and empty bags.
2. Corn, potatoes, and empty bags.
3. Unmanufactured copper and brass, copper ore, rough spelter and old zinc, nickel and nickel ore, cobalt and cobalt ore, bell metal, and old metal vessels &c. for smelting.
4. Bullion and coin, unworked gold and silver, waste derived from the precious metals, gold dust, silver ore and ore containing silver, precious stones not set, pearls, and jewels.
5. Printed books, music, maps &c.
6. Oil cakes, bark, bones, offal of various kinds, guano, and blood manure.
7. Coals, cinders, turf, timber, staves, and wood for burning, chalk and lime stone, slates, cement and cement stone.
8. Live animals, with the exception of oysters

and leeches, game and poultry, fresh fruit, and various agricultural productions.

9. Passenger luggage, dowries and heritages; but in part under certain conditions and restrictions.

**Goods in Transit.**—The rate of customs duty upon foreign goods imported into Hamburg (with the exception of certain duty-free articles) continues at  $\frac{1}{4}$  per cent. currency on banco *ad valorem*; but a modification of the former regulations touching the declaration of goods *in transitu* has lately been made, according to which not only Hamburg citizens, but foreigners, are enabled to declare goods *in transitu* upon payment of a fee of 25 mares courant on the transaction, and depositing or giving security to the Government for 1,000 mares banco.

The levy of duties in Hamburg is conducted in the simplest manner, and on the most liberal footing. No vexatious forms check the free intercourse or the free course of trade; the entry for duty is merely a declaration of the current value at the time; transitu articles remaining in warehouse for exportation require a mere declaration to that effect by a burgher or citizen.

In levying duties, no advantage is claimed by Hamburg for vessels bearing her own flag; goods by all vessels, from whatever quarter of the world, paying the same duties. Though she now carries the Federal flag, she, like the other Hanse Towns, remains a free port outside the Customs frontier until she signifies a wish to be admitted to it. But for this privilege she is obliged to pay an annual sum, called an *aversum*, equivalent to the customs duties that would otherwise have been levied within its territory. It amounted to 710,160 dollars, or 106,530*l*.

The low rates of duty in Hamburg is a proof of her anxious desire to encourage trade with all nations; and the more so when we consider the great expense she is put to in keeping up buoys along the Lower Elbe, and other necessary charges for navigating that river; expenses which considerably exceed the total sum received for duties. The total amount of customs duties received in 1867 at Hamburg was 578,175 mares courant, or  $2\frac{1}{2}$  per mille *ad valorem*.

**Custom House Regulations.**—On a vessel's arrival at Hamburg the broker reports her to the Custom House, gives his guarantee for payment of the duties, delivers her papers, and the vessel is allowed to unload. On clearing, a manifest of the outward cargo, together with the consul's certificate of the regularity of the ship's papers, must be produced at the Custom House by the broker, who obtains in return a clearance certificate, authorising the vessel to go to sea.

**Credit, Brokerage &c.**—Almost all goods are sold for ready money, with an allowance of 1 per cent. for discount. Sometimes, but not frequently, sales are made at 2 or 3 months' credit, and in such cases a higher price is obtained than for cash.

Brokers are positively forbidden to act as merchants or factors. They are licensed, and must conform to the established regulations.

**Brokerage** is paid wholly by the seller, and amounts to—

\* Five sixths per cent. on cotton, cotton-twist, cocoa, cochineal, copper, hides, indigo, manufactured goods, nankeens, sugar, and tea.

\* One per cent. on anatto, camphire, cinnamon, cardamoms,\* cassia,\* cloves,\* drugs not denominated,\* deer skins, dyewoods,\* ginger,\* jalap,\* mace,\* nutmegs,\* pepper, pimento, potashes, Peruvian bark, quercitron bark, rice,\* saltpetre, sarsaparilla,\* shellac,\* tamarinds,\* tobacco in

leaves\* and tobacco stems,\* of the growth of the United States of America, whale oil,\* vanillobes,\*

\* N. B.—Tobacco stems\* of all other origins, cigars, and other manufactured tobacco, pay 2 per cent.; all other leaf and roll tobacco\*  $\frac{1}{2}$  per cent.

\*  $\frac{1}{4}$  per cent. on wine, brandy, rum, and arrack, if sold in parcels amounting to 3,000 mares banco and upwards.

\* 2 per cent. on ditto, for sales of and under 3,000 mares banco.

\* In auction the selling broker is entitled to  $\frac{1}{4}$  per cent. and the purchasing broker to 2 per cent., without regard to the amount.\*

All articles marked (\*) pay the brokerage before mentioned, if the quantity sold amounts to 600 mares banco, or higher; for smaller lots of less than 600 mares banco, and down to 150 mares banco, the brokerage is paid, with the addition of  $\frac{1}{2}$ , and under 150 mares banco the double is allowed. All other merchandise pays  $\frac{1}{4}$  per cent., at least for sales not exceeding 150 mares banco.

It is, however, to be observed, that all augmentations, in proportion to the amount sold, are understood to be applicable to sales by private contract only, and not to those by auction; and even not to such private sales where a broker has made the purchase of a larger quantity of goods above the said amount of 600 mares banco, and has afterwards divided it into smaller lots.

**Conditions of Sale.**—Coffee is sold per pound in schill. banco; discount, 1 per cent.; good weight is  $\frac{1}{2}$  per cent. Tare is as follows: viz. on casks, real weight; on bags of 130 lbs. or less, 3 lbs.; above 130 lbs. and not above 180 lbs., 3 lbs.; above 180 lbs. and not exceeding 200 lbs., 4 lbs.; On Mocha bales of about 300 lbs., 14 lbs.; if 600 lbs., 50 lbs. On Bourbon single bales, 2 lbs.; double, 4 lbs.

Cotton is sold per lb. in schill. banco; discount, 1 per cent.; good weight, 1 per cent.; tare of bales, West Indian and North American,  $\frac{1}{2}$  per cent.; on square bales, 6 per cent.; on Bombay and Surat bales, 8 per cent.; on Bourbon bales and Manilla serons, 6 per cent.; on Caracas and Guiana small serons, 10 per cent.

East India piece goods are sold per piece, mares banco; discount, 1 per cent.

Flour is sold per 100 lbs. in mares currency; certain agio; discount, 1 per cent.; good weight, 4 per cent.; tare, 20 lbs. per barrel.

Fustic is sold per 100 lbs. in mares currency; agio, 20 per cent.; discount, 1 per cent.; good weight, 1 per cent.; and frequently an allowance in weight is made, if the wood is not very soft.

Indigo is sold per lb.; discount, 1 per cent.; good weight,  $\frac{1}{2}$  per cent.; tare, if in serons upward of 120 lbs., 22 lbs.; in  $\frac{1}{2}$  serons less than 120 lbs.; in chests, real tare.

Logwood is sold like fustic. Pepper is sold per lb. in schill. banco; discount, 1 per cent.; good weight,  $\frac{1}{2}$  per cent.; tare, single bales of 300 lbs., 3 lbs.; in double bales, 6 lbs.

Quercitron bark is sold per 100 lbs. in mares currency; agio, 20 per cent.; discount, 2 per cent.; good weight, 1 per cent. To determine the value of the American tare is reduced to Hamburg weight.

Rice is sold per 100 lbs. in mares banco; discount, 1 per cent.; good weight, 1 per cent.; real; and super tare for tices, 4 lbs. for 100 lbs., 2 lbs.

Rum is sold per 50 quarts in six doll. currency; agio uncertain.

Sugar, raw and clayed, is sold per lb. in mares banco; discount, 1 per cent., and sometimes

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cent; Brazil or Havannah chest, good weight, 3 per cent.; real tare; super-tare, 10 lbs. for Brazil, and 5 lbs. for Havannah sugar, per chest. Muscovado in casks, good weight, 1 per cent.; tare, if the casks weigh upwards of 1,000 lbs., 18 per cent.; if less, 20 per cent. Clayed sugars, good weight, 1 per cent.; tare, 16 per cent. East India sugars, in bags, good weight, 3 per cent.; tare for white, 4 to 5 lbs.; for brown, 6 to 7 lbs.

Tea, per lb. in schill.; discount, 1 per cent.; good weight, 1 per cent. Tare of bohea, in chests of 400 lbs., 70 lbs.; of 150 to 180 lbs., 45 lbs. All black tea, 28 lbs. tare; green, 24 lbs.

Tobacco.—Leaf tobacco is sold per lb. in schill. banco, agio uncertain; discount, 1½ per cent.; good weight, 1 per cent.; tare per cask, 80 lbs. Brazil leaf in serons; tare, 5 per cent. In rolls; canister, in baskets of about 100 lbs.; good weight, 1 lb. per basket; tare, 14 lbs. if the basket is packed in linen, and 12 lbs. if without linen. Porto Rico rolls, good weight, 1 per cent.; no tare, as the rolls are weighed by themselves. Brazil rolls, in serons of 400 to 600 lbs., are sold per lb., in schillings banco; good weight, 3 per cent.; tare, 8 lbs. per seron. Tobacco stems per 100 lbs.; agio, uncertain; discount, 1½ per cent.; good weight, 1 per cent.; tare, if in casks, real weight; if packed up with cords, 2 to 4 per cent. according to the thickness of the rope. With tobacco in rolls, only the number of packages containing roll tobacco, and the nett weight, without mentioning the number of rolls, should appear in the bill of lading.

Glass (window) is sold per chest, in mares; other glass ware per piece, doz., or 100, in schillings or mares currency, with uncertain agio; discount, per cent.

Hans' wool is sold per 2 lbs. in mares; discount, per cent.

Hare skins (German, grey) are sold per 100 skins in rixdall. banco; Russian, grey, per 104 skins, in rixdall. banco; white, in mares currency, agio uncertain; discount, 1 per cent.

Iron is sold per 100 lbs.; discount, 1 per cent.

Copper is sold per 100 lbs. in schill. banco; discount, 1 per cent.

The exchange business done at Hamburg is very great; for, besides the business of the place, a great number of the merchants in the inland towns have bills negotiated there.

The usual charge for commission is, on sales 2 per cent., and 1 per cent. for *del credere*, if such assistance be required; on purchases, 2 per cent. for particular agreements, the rates sometimes considerably from the above.

**Citizenship.**—Foreigners cannot establish themselves as merchants, or carry on any business in their own names, at Hamburg, without becoming citizens; and to be manufacturers, they must also be citizens. The guild or corporation peculiar to the trade which they mean to follow, must, to become a burgher, pay certain fees, which do not, in all, exceed 100 rixdall. He then becomes, in the eye of the law, a burgher subject, and enjoys all the rights and privileges of a native.

**Insurance.**—All sorts of insurances are effected at Hamburg. A municipal regulation compels the insurance of all houses within the city, the amount according to the number of fires and the amount of loss. Marine insurance is principally effected by joint-stock companies, of which there are several; their competition has reduced the premiums to the lowest level, and the business is understood to be profitable. The high rate on policies of insurance in this country has induced the insuring of a good many English

ships at Hamburg. The value of the property assured at Hamburg against sea risks in 1866 was 668,358,300 marcs banco, of which 543,898,900 were insured by companies, and 124,659,400 by private insurers. Life insurance is not prosecuted in Germany to any considerable extent; but some of the English companies have agents here, who are said not to be very scrupulous.

**Bankruptcy.**—Considering the vast number of merchants and tradespeople at Hamburg, bankruptcy is not, in general, of frequent occurrence.

Much of the business transacted at Hamburg being on commission and for account of houses abroad, the failure of foreign merchants is a prevalent source of bankruptcy. Another source of bankruptcy is losses on goods imported or exported on speculation, and occasionally losses in the funds, in which a good deal of gambling goes on here. Expensive living is not nearly so prevalent a source of bankruptcy here as in London.

The law of Hamburg makes three classes of bankrupts—the unfortunate, the careless, and the fraudulent. The first class consists of those whose books show that misfortune alone has occasioned the bankruptcy; that the party has all along lived within his probable income, and can account to his assignees completely for all his losses. Who class (which contains but few in number) is considered entirely free from his debts, and is not subject to be called upon hereafter. The second class (which contains those termed 'careless' bankrupts, or those who have entered into speculations exceeding their means, who have gone on for a considerable time after they found their affairs in arrear, who have lived beyond their income, and so forth. They are liable to be confined in prison for a period of 3 or 6 months; and provided they have not paid a dividend of 40 per cent., may be called upon for payment of their debt after 5 years from their discharge. If a claim of the bankrupt is obliged to pay whatever sum he is able for the benefit of his creditors. He must swear that he cannot pay anything, or not above a certain sum, without depriving himself and his family of necessaries. Every 5 years the claim may be repeated. All careless bankrupts are disabled from holding offices of honour. The third class contains the 'fraudulent' bankrupts, who are liable to be imprisoned, according to the extent of their frauds, for a limited period, or even for life, besides being rendered incapable of holding any office whatever. Should a bankrupt abscond, he is called upon by public advertisement to appear by a certain day, in default of which he is adjudged a fraudulent bankrupt, and his name is posted up on a black board on the Exchange.

**I. SHIPPING AND NAVIGATION.**

The obstructions and dangers that attach to the navigation of the Elbe have long been a subject of anxious consideration to the Senate and people of Hamburg. Hitherto, however, but little has been done to effect any material improvement; and the difficulties to be overcome are so very great, so very heavy, that it is not, perhaps, very likely that anything on a great scale will be speedily attempted. A plan for deepening the channel of the river and forming a new harbour at Cuxhaven, to be accomplished at an estimated expense of 640,000*l.*, was proposed by Mr. Rendell, C.E., in 1854; but the death of that gentleman, and the







prices of commodities, immediately fell back to their ordinary level.

But severe as the crisis of 1857 was at the moment, its effect has been most salutary. It has put an end, at least for a while, to the wild speculation and overtrading that are inconsistent with all sound commercial pursuits; and it is to be hoped that the Government and people of the town will exert themselves to prevent a revival of so ruinous a system, by subjecting those whose bankruptcies may be traced to recklessness, either in overtrading or in expenditure, to the severest penalties.

The effects of the English financial crisis of 1866 were felt on the German exchanges throughout 1867, especially as the monetary condition during the latter half of 1867 was not satisfactory.

We have derived the materials for this article from various sources, but principally from the communications of eminent merchants, and the able and elaborate Reports of her Majesty's late and present consul at Hamburg.

It will be useful as well as interesting to record the leading articles in which the trade of Hamburg has increased during the last 20 or 25 years, as well as those of which the importation has fallen off within the same period. These particulars will be found in the following comparative table:—

Articles Imported	Average of Years 1841 to 1845	Year 1865
Coffee	618,044	985,079
Tea	11,165	25,255
Sugar, raw	621,549	447,265
" refined	177,418	78,551
Molasses	57,617	100,057
Rice	165,338	261,032
" of Ind	49,082	90,815
" of Java	46,085	291,000
" of Siam	91,793	111,050
" of other parts	2,516,949	115,975
" of other parts	2,496,148	5,965,181
Woolens	4,815	3,155,809
" of the East	113,235	26,058
" of the West	156,221	389,872
" of the East	27,915	565,918
" of the West	109,291	109,291
" of the East	190,687	252,279
" of the West	1,549	9,151
" of the East	20,899	161,547
" of the West	561,141	1,865,208
" of the East	68,397	303,895
" of the West	127,415	84,175
" of the East	716,328	255,348
" of the West	5,971	2,600,735
" of the East	185,256	17,768
" of the West	4,591	282,787
" of the East	12,914	51,475
" of the West	141,099	327,852
" of the East	212,558	326,157
" of the West	371,523	769,691
" of the East	326,112	379,508
" of the West	75,387,251	121,508,710
" of the East	2,515,508	4,867,980
" of the West	153,912	921,150
" of the East	1,786,952	2,089,289
" of the West	1,215,678	2,141,660
" of the East	5,047,912	7,127,750
" of the West	88,559	165,559
" of the East	4,205,474	4,988,910

The principal trade between the United Kingdom and Hamburg is carried on through Hull, a communication being maintained between the two cities by lines of steamers that sail twice a week. She is connected in the same way with London, Liverpool, Newcastle, and other ports, which is partly carried on by steamers and partly by sailing ships, is also extensive. The same may be said of her trade with Havre and the principal continental ports. She has, further, some trade with India,

China, and the Eastern Archipelago. [ZOLLVEREIN.]

HAMS. [BACON AND HAMS.]

HANKOW. This is the most important among the river ports in China opened by the Treaty of Tientsing. The Chinese reckon it among the five chief commercial cities of the empire. It commands the most extensive river communication in the world. Its latitude is 30° 32' 51" N., longitude 114° 19' 55" E. Its distance from Shanghai is 582 geographical miles. It is nearly in the centre of China, at the junction of the Han and Yangtze. It was first visited by Lord Elgin on November 7, 1858. In 1861 a site for a British settlement was selected, with 800 yards frontage to the river, by 400 to 500 yards in depth.

Hankow, with two other cities in its immediate neighbourhood, is estimated to contain 1,000,000 inhabitants, of which 600,000 belong to Hankow itself. The depth of the river at the mouth of the Han, according to the Chinese Pilot, is 11 fathoms in December, and much more in July. In the summer of 1866 the river was 50 feet above its depth in the following winter.

The export trade of Hankow consists chiefly in tea, silk, wood, oil, tobacco, and vegetable tallow, and amounted in value to 13,452,814 taels in 1864, and 12,685,231 taels in 1865. Of this amount more than half is represented by tea. Much of this tea has been transhipped at Shanghai, but some has been loaded at Hankow for London direct.

Exports of Tea from Hankow.

Year	Total	To England direct
1861	29,539,705 lbs.	6,407,077
1862	35,886,111	10,549,975
1865	36,166,190	10,912,350

The imports are chiefly cotton piece goods, woollens, silks, opium, copper cash, and sugar. They amounted in 1864 and 1865 to 10,862,216 and 11,007,300 taels respectively. The importance of Hankow as a market for cottons and woollens is rapidly increasing, especially for the latter. The importation of copper cash is required for the teas in the interior.

The navigation of the Yangtze is difficult and somewhat dangerous. So many losses occurred in 1866, that the rates of insurance on sailing vessels rose to an almost prohibitive amount, i. e. from 1 to 2½ per cent. The regulations for conducting British trade on the Yangtze river are given in Williams's Chinese Commercial Guide.

The trade with Hankow, according to Messrs. Mayers, Demys, and King (Treaty Ports of China and Japan), is seriously hindered by the practice of affording long credits to the native buyers of imports. (Consul Medhurst's Report, 1866, dated April 18, 1867.)

Three foreign banks have agencies at Hankow. HANSEATIC LEAGUE. An association of the principal cities in the north of Germany, Prussia &c. for the better carrying on of commerce, and for their mutual safety and defence. This confederacy, so celebrated in the early history of modern Europe, contributed in no ordinary degree to introduce the blessings of civilisation and good government into the North. The extension and protection of commerce was, however, its main object; and hence a short account of it may not be deemed misplaced in a work of this description.

Origin and Progress of the Hanseatic League. —Hamburg, founded by Charlemagne in the ninth, and Lübeck, founded about the middle of the twelfth century, were the earliest members of the League. The distance between them not

being very considerable, and being alike interested in the repression of those disorders to which most parts of Europe, and particularly the coast of the Baltic, were a prey in the twelfth, thirteenth, and fourteenth centuries, they early formed an intimate political union, partly in the view of maintaining a safe intercourse by land with each other, and partly for the protection of navigation from the attacks of the pirates, with which every sea was at that time infested. There is no very distinct evidence as to the period when this alliance was consummated; some ascribe its origin to the year 1169, others to the year 1200, and others to the year 1241. But the most probable opinion seems to be that it would grow up by slow degrees, and be perfected according as the advantage derivable from it became more obvious. Such was the origin of the Hanseatic League, so called from the old Teutonic word *hansa*, signifying an association or confederacy.

Adam of Bremen, who flourished in the eleventh century, is the earliest writer who has given any information with respect to the commerce of the countries lying round the Baltic; and from the errors in it which he has fallen in describing the northern and eastern shores of that sea, it is evident they had been very little frequented, and not at all known, in his time. But from the beginning of the twelfth century the progress of commerce and navigation in the North was exceedingly rapid. The countries which stretch along the bottom of the Baltic, from Holstein to Russia, and which had been occupied by barbarous tribes of Slavonic origin, were then subjugated by the kings of Denmark, the dukes of Saxony, and other princes. The greater part of the inhabitants being exterminated, their place was filled by German colonists, who founded the towns of Stralsund, Rostock, Wismar &c. Prussia and Poland were afterwards subjugated by the Christian princes and the Knights of the Teutonic Order. So that, in a comparatively short period, the foundations of civilisation and the arts were laid in countries whose barbarism had ever remained impervious to the Roman power.

The cities that were established along the coast of the Baltic, and even in the interior of the countries bordering upon it, eagerly joined the Hanseatic confederation. They were indebted to the merchants of Lübeck for supplies of the commodities produced in more civilised countries, and they looked up to them for protection against the barbarians by whom they were surrounded. The progress of the League was in consequence singularly rapid. Previously to the end of the thirteenth century it embraced every considerable city in all those vast countries extending from Livonia to Holland, and was a match for the most powerful monarchs.

The Hanseatic confederacy was at its highest degree of power and splendour during the fourteenth and fifteenth centuries. It then comprised from 60 to 80 cities, which were distributed into 4 classes or circles. Lübeck was at the head of the first circle, and had under it Hamburg, Bremen, Rostock, Wismar &c. Cologne was at the head of the second circle, with 29 towns under it. Brunswick was at the head of the third circle, consisting of 13 towns. Dantzic was at the head of the fourth circle, having under it 8 towns in its vicinity, besides several that were more remote. The supreme authority of the League was vested in the deputies of the different towns assembled in congress. In it they discussed all their measures; decided upon the sum that each city should contribute to the common fund, and upon the questions that arose between the confederacy and

other powers, as well as those that frequently arose between the different members of the confederacy. The place for the meeting of congress was not fixed, but it was most frequently held at Lübeck, which was considered as the capital of the League, and there its archives were kept. Sometimes, however, congresses were held at Hamburg, Cologne, and other towns. They met once every 3 years, or oftener if occasion required. The letters of convocation specified the principal subjects which would most probably be brought under discussion. Any one might be chosen for a deputy; and the congress consisted not of merchants only, but also of clergymen, lawyers, artists &c. When the deliberations were concluded, the decrees were formally communicated to the magistrates of the cities at the head of each circle, by whom they were subsequently communicated to those below them, and the most vigorous measures were adopted for carrying them into effect. One of the burghmasters of Lübeck presided at the meetings of congress; and during the recess the magistrates of that city had the sole, or at all events the principal, direction of the affairs of the League.

Besides the towns already mentioned, there were others that were denominated confederated cities, or allies. The latter neither contributed to the common fund of the League, nor sent deputies to congress; even the members were not all on the same footing in respect to privileges; and the internal commotions by which it was frequently agitated, partly originating in this cause and partly in the discordant interests and conflicting pretensions of the different cities, materially impaired the power of the confederacy. But in spite of these disadvantages, the League succeeded for a lengthened period, not only in controlling its own refractory members, but in making itself respected and dreaded by others. It produced able generals and admirals, skilful politicians, and some of the most enterprising, successful, and wealthy merchants of modern times.

As the power of the confederated cities was increased and consolidated, they became more ambitious. Instead of limiting their efforts to the mere advancement of commerce and their own protection, they endeavoured to acquire the monopoly of the trade of the North, and to exercise the same sort of dominion over the Baltic that the Venetians exercised over the Adriatic. For this purpose they succeeded in obtaining, partly in return for loans of money and partly by force, various privileges and immunities from the Northern sovereigns, which secured to them almost the whole foreign commerce of Scandinavia, Denmark, Prussia, Poland, Russia &c. They exclusively carried on the herring fishery of the Sound at the same time that they endeavoured to obstruct and hinder the navigation of foreign vessels in the Baltic. It should, however, be observed that the immunities they enjoyed were mostly inapplicable to the security of their commerce, in consequence of the barbarism that then prevailed, and notwithstanding their attempts at monopoly there cannot be the shadow of a doubt that the progress of civilisation in the North was prodigiously accelerated by the influence and ascendancy of the Hanseatic cities. They not only have broken out again had their power been thrown before civilisation was fully established, they accustomed the inhabitants to the principle and set before them the example, of good government and subordination; they introduced to them conveniences and enjoyments unknown to their ancestors or despised by them, and they

them with a taste for literature and science; they did for the people round the Baltic, what the Phœnicians had done in remoter ages for those round the Mediterranean, and deserve, equally with them, to be placed in the first rank amongst the benefactors of mankind.

'In order,' as has been justly observed, 'to accomplish their purpose of rendering the Baltic and industrious pursuits, it was necessary to instruct men, still barbarous, in the rudiments of industry, and to familiarise them in the principles of civilisation. These great principles were laid by the confederation, and at the close of the fifteenth century the Baltic and the neighbouring seas had, by its means, become frequented routes of communication between the North and the South. The people of the former were enabled to follow the progress of the latter in knowledge and industry. The forests of Sweden, Poland &c. gave place to corn, hemp, and flax; the mines were wrought, and in return the produce and manufactures of the South were imported. Towns and villages were erected in Scandinavia, where and the wolf were exchanged for woollens, linens, and silks; learning was introduced; and printing was hardly invented before it was practised in Denmark, Sweden &c.' (Cateau, *Tableau de la Mer Baltique*, tom. ii. p. 175.)

The kings of Denmark, Sweden, and Norway were frequently engaged in hostilities with the Hanse Towns. They regarded, and it must be admitted not without pretty good reason, the privileges acquired by the League, in their kingdoms, as so many usurpations. But their efforts to abolish these privileges served, for more than two centuries, only to augment and extend them.

'On the part of the League there were union, concord, and money; whereas the half-ravage Scandinavian monarchies were full of dissensions, factions, and troubles; revolution was immediately followed by revolution, and feudal anarchy was at its height. There was another circumstance, not less important, in favour of the Hanseatic cities. The popular governments established amongst them possessed the respect and confidence of the inhabitants, and were able to direct the public energies for the good of the state. The astonishing prosperity of the confederated cities was not wholly the effect of commerce. To the undisciplined armies of the princes of the continent to their lords—the cities opposed, by the inferior nobles, whose services they manly rewarded, citizens accustomed to danger, resolved to defend their liberties and property. Their military operations were combined and directed by a council composed of men of talents and experience, devoted to their country, responsible to their fellow-citizens, and deserving their confidence. It was chiefly, however, their marine forces that the cities derived. They employed their ships indifferently for war or commerce, so that their naval armaments were fitted out at comparatively small expence. Exclusive, too, of these favourable circumstances, the fortifications of the principal cities were looked upon as impregnable; and as commerce supplied them abundantly with provisions, it need not excite our admiration that Lübeck alone was able to carry on war with the surrounding monarchs, and to maintain them with honour and advantage; and that the League should long have enjoyed a decided preponderance in the North.'

(*L'Art de vérifier les Dates*, 3me partie, tom. viii. p. 201.)

As already explained, the extirpation of piracy was one of the objects which had originally led to the formation of the League, and which it never ceased to prosecute. Owing, however, to the barbarism then so universally prevalent, and the countenance openly given by many princes and nobles to those engaged in this infamous profession, it was not possible wholly to root it out. But the vigorous efforts of the League to abate the nuisance, though not entirely successful, served to render the navigation of the North Sea and the Baltic comparatively secure, and were of signal advantage to commerce. Nor was this the only mode in which the power of the confederacy was directly employed to promote the common interests of mankind. Their exertions to protect shipwrecked mariners from the atrocities to which they had been subject, and to procure the restitution of shipwrecked property to its legitimate owners, though, most probably, like their exertions to repress piracy, a consequence of selfish considerations, were in no ordinary degree meritorious, and contributed no less to the advancement of civilisation than to the security of navigation.

A series of resolutions were unanimously agreed to by the merchants frequenting the port of Wisby, one of the principal emporiums of the League, in 1287, providing for the restoration of shipwrecked property to its original owners, and threatening to eject from the *consodalitate mercatorum* any city that did not act conformably to the regulations laid down.

*Factories belonging to the League.*—In order to facilitate and extend their commercial transactions, the League established various factories in foreign countries, the principal of which were at Novogorod in Russia, London, Bruges in the Netherlands, and Bergen in Norway.

Novogorod, situated at the confluence of the Volkof with the Imler Lake, was, for a lengthened period, the most renowned emporium in the north-eastern parts of Europe. In the beginning of the eleventh century the inhabitants obtained considerable privileges which laid the foundation of their liberty and prosperity. Their sovereigns were at first subordinate to the grand dukes or czars of Russia; but as the city and the contiguous territory increased in population and wealth, they gradually usurped an almost absolute independence. The power of these sovereigns over their subjects seems, at the same time, to have been exceedingly limited; and, in effect, Novogorod ought rather to be considered as a republic under the jurisdiction of an elective magistrate than as a state subject to a regular line of hereditary monarchs possessed of extensive prerogatives. During the 12th, 13th, and 14th centuries, Novogorod formed the grand entrepôt between the countries to the east of Poland and the Hanseatic cities. Its fairs were frequented by an immense concourse of people from all the surrounding countries, as well as by numbers of merchants from the Hanse Towns, who engrossed the greater part of its foreign commerce, and who furnished its markets with the manufactures and products of distant countries. Novogorod is said to have contained, during its most flourishing period, of 400,000 souls. This, however, is most probably an exaggeration. But its dominions were then so great and well established, and the city itself so impregnable, as to give rise to a proverb, Who can resist the Gods and great Novogorod? 'Quis

contra Deos et magnam Novogordiam? (Coxe's *Travels in the North of Europe*, vol. ii. p. 80.)

But its power and prosperity were far from being so firmly established as its eulogists, and those who had only visited its fairs, appear to have supposed. In the latter part of the 15th century, Ivan Vassilievitch, czar of Russia, having secured his dominions against the inroads of the Tartars, and extended his empire by the conquest of some of the neighbouring principalities, asserted his right to the principality of Novogorod, and supported the his pretensions by a formidable army. Had the inhabitants been animated by the spirit of unanimity and patriotism, they might have defied his efforts; but their dissensions facilitated their conquest; and rendered them an easy prey. Having entered the city at the head of his troops, Ivan received from the citizens the charter of their liberties, which they either wanted courage or inclination to defend, and carried off an enormous sort of superstitious veneration as the palladium of the city. But notwithstanding the despotism to which Novogorod was subject during the reigns of Ivan and his successors, it continued for a considerable period to be the largest as well as a most commercial city in the Russian empire. The famous Richard Chancellour, who passed through Novogorod in 1554, in his way from the court of the czar, says, that 'next unto Moscow, the city of Novogorod is reputed the chiefest of Russia; for although it be in majesty inferior to it, yet in greatness it is beyond it. It is the chiefest and greatest mart town of all Muscovy; and albeit the emperor's seat is not there, but at Moscow, yet the commodiousness of the river falling into the Gulf of Finland, whereby it is well frequented by merchants, makes it more famous than Moscow itself.'

But the scourge of the destroyer soon after fell on this celebrated city. Ivan IV., having discovered, in 1570, a correspondence between some of the principal citizens and the King of Poland relative to a surrender of the city into his hands, punished them in the most inhuman manner. The slaughter by which the bloodthirsty barbarian sought to satisfy his revenge was alike extensive and indiscriminating. The crime of 25,000 or 30,000, a pretext for the massacre from this dreadful Novogorod never recovered from this dreadful blow. It still, however, continued to be a place of considerable trade, until the foundation of Petersburg, which immediately became the seat of that commerce which formerly had centred at Novogorod. The degradation of this ill-fated city is now complete. It is at present an insupportable place, with a population of about 8,000 or 9,000, and is remarkable only for its history and antiquities.

The merchants of the Hanse Towns, or Hansards, as they were then commonly termed, were established in London at a very early period, and their factory here was of considerable magnitude and importance. They enjoyed various privileges and immunities; they were permitted to govern themselves by their own laws and regulations; the custody of one of the gates of the city (Lishopsgate) was committed to their care; and the duties on various sorts of imported commodities were considerably reduced in their favour. These were necessarily excited the ill-will and animosity of the English merchants. The Hansards were every now and then accused of acting with bad faith; of introducing commodities of their own that were really the produce of others, in order to enable them to evade the duties with which they ought to have been charged; of

capriciously extending the list of towns belonging to the association; and obstructing the commerce of the English in the Baltic. Efforts were continually making to bring these disputes to a termination; but as they really grew out of the privilege granted to and claimed by the Hansards, this was found to be impossible. The latter were expanded to many indignities; and their factory, which was situated in Thames Street, was not infrequently attacked. The League exerted themselves vigorously in defence of their privileges; and having declared war against England, they succeeded in excluding our vessels from the Baltic, and acted with such energy that Edward IV. was glad to come to an accommodation with them, on terms which were anything but honourable to the English. In the treaty for this purpose, negotiated in 1474, the privileges of the merchants of the Hanse Towns were renewed, and the king assigned to them, with the buildings upon it, in Thames Street, denominated the Steel Yard, whence the Hanse merchants have been commonly denominated the Association of the Steel Yard; and property of their establishments at Boston and Lynn was also secured to them; the king engaged to allow no stranger to participate in their privileges; one of the articles bore that the Hansards should be no longer subject to the jurisdiction of the English Admiralty Court, but that a particular tribunal should be formed for the speedy settlement of all disputes that might arise between them and the English; and it was further agreed that the particular privileges awarded to the Hanse merchants should be preserved, as often as the latter judged proper in the sea-port towns of England, and such Englishmen as infringed upon them should be punished. In return for these concessions, the English acquired the liberty of freely trading in the Baltic and especially in the port of Danzig and Prussia. In 1498, all direct commerce with the Netherlands being suspended, the trade fell into the hands of the Hanse merchants, whose commerce was in consequence very greatly extended. But, according as the spirit of commercial enterprise awakened in the nation, and as the result of the prosecution of foreign wars came to be better known, the privileges of the Hanse merchants became more and more noxious. They were in consequence considerably modified in the reigns of Henry VII. and Henry VIII., and were at length wholly abolished in 1597. (Anderson's *Hist. Com.* anno 1474 & 1597.)

The different individuals belonging to the factory in London, as well as those belonging to other factories of the League, lived together in common table, and were enjoined to observe the strictest celibacy. The direction of the League in London was intrusted to an alderman, six assessors, and 9 councillors. The latter were selected from the cities forming the different branches of the League was divided. The business of the functionaries was to devise means for extending and securing the privileges and commerce of the association; to watch over the operations of the merchants; and to adjust any disputes that might arise amongst the members of the confederation between them and the English. The League endeavoured at all times to promote, as far as possible, the employment of their own ships in the pursuit of this object, they went so far as to forbid the importation of English merchandise into the confederated cities except by their vessels. But a regulation of this sort could not be carried into full effect, and was enforced according as circumstances were favourable

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verse to the pretensions of the League. Its very existence was, however, an insult to the English nation; and the irritation produced by the occasional attempts to act upon it contributed materially to the subversion of the privileges the Hanseatic merchants had acquired amongst us.

By means of their factory at Bergen, and of the privileges which had been either granted to or usurped by them, the League enjoyed for a lengthened period the monopoly of the commerce of Norway.

But the principal factory of the League was at Bruges in the Netherlands. Bruges became, at a very early period, one of the first commercial cities of Europe, and the centre of the most extensive trade carried on to the north of Italy. The art of navigation in the thirteenth and fourteenth centuries was so imperfect, that a voyage from Italy to the Baltic and back again could not be performed in a single season; and hence, for the Hanseatic merchants determined on establishing a magazine or storehouse of their respective products in some intermediate situation. Bruges, which it seems to have owed as much to the favour of the Government of the Low Countries, as to the convenience of its situation. In consequence of this preference, Bruges speedily rose to the very highest rank among commercial cities, and became a place of vast wealth. It was at once a staple for English wool, for the woollen and linen manufactures of the Netherlands, for the flax, hemp and flax, pitch and tar, tallow, corn, ashes &c. of the North; and for the spices and manufactures imported by the Italian merchants. Bruges were the best frequented ports in Europe. Ludovico Guicciardini mentions, in his *Description of the Low Countries*, that in the year 1318 no fewer than 5 Venetian galleasses, vessels of very considerable burden, arrived at Bruges in order to dispose of their cargoes at the fairs of the Hanseatic merchants; they disposed of their great rivers into the heart of Germany. The regular intercourse opened between the nations in the north and south made them sensible of their mutual wants, and afforded a wonderful stimulus to the spirit of industry. This was particularly the case with respect to the Netherlands. Manufactures of wool had been established in that country as early as the age of Charlemagne; and the resort of the merchants to their markets, and the great addition that was thus opened for their manufactures, made them be carried on with a vigour and success that had been hitherto unknown. Circumstances, combined with the free spirit of the League, and the moderation of the Government, so greatly promoted every elegant and useful art, that the Netherlands early became a civilized, best cultivated, richest, and most populous country of Europe.

*The Hanseatic League.*—From the thirteenth century the power of the League, though still very formidable, began to decline. This was not owing to any misconduct of its leaders, but to the progress of the improvement which it had done so much to promote, and the superiority enjoyed by the League over the anarchy, confusion, and disorder that prevailed throughout the king-

doms of the North, as from the good government and order that distinguished the towns. But a distinction of this sort could not be permanent. The civilisation which had been at first confined to the cities, gradually spread from them, as from so many centres, over the contiguous country. Feudal anarchy was every where superseded by a system of subordination; arts and industry were diffused and cultivated; and the authority of Government was at length firmly established. This change not only rendered the princes superior to it in power, but the inhabitants of the countries amongst which the confederated cities were scattered, having learned to entertain a just sense of the advantages derivable from commerce and navigation, could not brook the superiority of the association, or bear to see its members in possession of immunities of which they were deprived; and in addition to these circumstances, which must speedily have occasioned the dissolution of the League, the interests of the different cities of which it consisted became daily more and more opposed to each other. Lübeck, Hamburg, Bremen, and the towns in their vicinity, were latterly the only ones that had any interest in its maintenance. The cities in Zealand and Holland joined it, chiefly because they would otherwise have been excluded from the commerce of the Baltic; and those of Prussia, Poland, and Russia did the same, because, had they not belonged to it, they would have been shut out from all intercourse with strangers. When, however, the Zealands and Hollanders became sufficiently powerful to vindicate their right to the free navigation of the Baltic by force of arms, no sooner had the ships of the Dutch, the English, and the Prussian Hanse towns than these nations also embraced the first opportunity of withdrawing from it. The fall of this great confederacy was really, therefore, a consequence of the improved state of society, and of the development of the commercial spirit in the different nations of Europe. It was most serviceable so long as those for whom its merchants acted as factors and carriers were too barbarous, too much occupied with other matters, or destitute of the necessary capital and skill, to act in these capacities for themselves. When they were in a situation to do this, the functions of the Hanseatic merchants ceased as a matter of course; their confederacy fell to pieces; and at the middle of the 17th century the cities of Lübeck, Hamburg, and Bremen were all that continued to acknowledge the authority of the League. To this day they preserve the shadow of its power; having been acknowledged in the act for the establishment of the Germanic Confederation, signed at Vienna June 8, 1815, as free Hanseatic cities. But their enforced embodiment since 1866 in the North German Confederation, and association with the other Germanic States in the Zollverein, will cause even this shadow to lessen very rapidly. (From an article in No. 13 of the *Foreign Quarterly Review*, contributed by the author of this work. See also Mallet, *La Ligne Hanséatique*; Lappenberg's *Urkundliche Geschichte des Hanseatischen Statthaltes zu London*; and *Report for 1867* of Mr. Consul-General Ward of Hamburg.)

**HARBOUR, HAVEN, or PORT.** A piece of water communicating with the sea, or with a navigable river or lake, having depth sufficient to float ships of considerable burden, where there is convenient anchorage, and where ships may lie,

load, and unload, screened from the winds, and without the reach of the tide.

**Qualities of a good Harbour.**—There is every variety in the form and quality of harbours. They are either natural or artificial; but, however formed, a good harbour should have sufficient depth of water to admit the largest ships at all times of the tide; it should be easy of access, without having too wide an entrance; the bottom should be clean and good; and ships should be able to lie close alongside quays or piers, that the expense and inconvenience of landing and unloading by means of lighters may be avoided. Ships lying in a harbour that is land-locked, and surrounded by high grounds or buildings, are at once without the reach of storms, tides, and currents, and may in most cases be easily protected from hostile attacks. Bar harbours are those that have bars or banks at their entrances, and do not, therefore, admit of the ingress or egress of large ships except at high water. These are most commonly river harbours; the sand and mud brought down by the stream, and driven back by the waves, naturally forming a bar or bank at their mouths.

**Best British Harbours.**—Good harbours are of essential importance to a maritime nation, and immense sums have been expended in all countries in their improvement and formation. Portsmouth, Milford Haven, and the Cove of Cork are the finest harbours in the British Islands, being surpassed by very few, if any, in the world. Of these, Portsmouth is entitled to the pre-eminence. This admirable harbour is about as wide at its mouth as the Thames at Westminster Bridge, expanding within into a noble basin, almost sufficient to contain the whole navy of Great Britain. Its entrance is unobstructed by any bar or shallow; and it has, throughout, water adequate to float the largest men of war at the lowest tides. The anchorage ground is excellent, and it is entirely free from sunken rocks, sand-banks, or any similar obstructions. The western side of the harbour is formed by the island of Portsea; and on its south-western extremity, at the entrance to the harbour, are situated the town of Portsmouth, and its large and important suburb Portsoken. Here are docks and other establishments for the building, repair, and outfit of ships of war, constructed upon a very large scale, and furnished with every convenience. The fortifications protecting this great naval dépôt are superior, both as respects strength and extent, to any other in the kingdom. 'Thus,' to use the words of Dr. Campbell, 'it appears that Portsmouth derives from nature all the prerogatives the most fertile wits and most intelligent judges could devise or desire; and that these have been well seconded by art, without consideration of expense, which, in national improvements, is little to be regarded. Add to all this the striking excellence of its situation, which is such as if Providence had expressly determined it for that use to which we see it applied—the bridling the power of France, and if I may so speak, the peculiar residence of Neptune.' (*Survey of Great Britain*, vol. i. p. 370.)

Portsmouth harbour has the additional and important advantage of opening into the celebrated road of Spithead, between the Hampshire coast and the Isle of Wight, forming a safe and convenient retreat for the largest fleets.

Milford Haven deeply indents the southern part of Pembrokeshire. It is of great extent, and has many subordinate bays, creeks, and roads. The water is deep, and the anchorage ground ex-

cellent; and being completely land-locked, ships lie as safely as if they were in dock.

Cork harbour has a striking resemblance to that of Portsmouth, but is of larger extent: it has, like it, a narrow entrance, leading into a capacious basin, affording a secure asylum for any number of ships.

Plymouth, which, after Portsmouth, is the principal naval dépôt of England, has an admirable double harbour. The roadstead in Plymouth Sound has within the present century been much improved by the construction, at a vast expense, of a stupendous breakwater, more than 1,500 yards in length. This artificial bulwark protects the ships lying inside from the effects of the heavy swell thrown into the Sound by southerly and south-easterly winds.

London stands at the head of the river ports of Great Britain. Considering the shortness of the course of the Thames, there is, probably, no river that is navigable for large ships to so great a distance from sea, or whose mouth is less obstructed by banks. London is mainly indebted for her unrivalled magnitude to her favourable situation on this noble river, which not only gives her all the advantages of an excellent port, accessible at all times to the largest ships, but renders her the emporium of the extensive, rich, and populous country comprised in the basin of the Thames.

The Mersey, now the first commercial river in the empire, is more incommoded by banks than the Thames, and is in all respects inferior, as a channel of navigation, to the latter, still it gives to Liverpool very great advantages; and the channels being well buoyed and marked, the largest ships have little difficulty in reaching the port. The principal channels are laid down in the map of Liverpool and its environs attached to the article DOCKS in this work.

Bristol and Hull are both river ports. Owing to the extraordinary rise of the tide in the Bristol Channel, the former is accessible to the largest ships. The Humber is a good deal impeded by banks, but it also is navigable as far as Hull by large vessels. The Tyne admits vessels of very considerable burden as far as Newcastle, at the mouth of the Wear, is the principal ship-building port in the United Kingdom, and has, after Liverpool and London, the greatest amount of shipping.

The shallowness of the Clyde from Glasgow up to Glasgow has been a serious drawback on the commercial progress of the latter. Large sums have been expended in attempts to correct the course and to deepen the bed of the river, and they have been so far successful that vessels drawing 19 and even 20 feet have come up to Glasgow, which is one of the principal commercial ports in the empire. Now (1868) vessels drawing 19 feet water can reach the Breemhead, and those drawing 17 feet are considered as traders.

Generally speaking, the harbours in the empire, both of Great Britain and Ireland, with the exception of the Thames, very inferior to those on their south and west coasts. The harbours on the shores of Sussex, Kent, &c., that once admitted large ships, are now completely choked up by sand. Great sums have been expended upon the ports of Yarmouth, Boston, Sunderland, Leith, Dundee, &c. &c. Dublin harbour being naturally obstructed by a bar, a new harbour has been formed, at a great expense, at Kingstown, out the bar, in deep water.

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used by our ancestors, has been in no ordinary degree advantageous. But it is not in this respect only that the cheapness and improvement of hardware are essential. Many of the most

powerful and indispensable tools and instruments used by the labourer come under this description, and every one is aware how important it is that they should be at once cheap and efficient.

Account of the Real Values of the Various Descriptions of Iron, Brass and Copper, Hardware and Cutlery &c., the Produce and Manufactures of the United Kingdom, Exported during each of the 5 Years ending with 1866.

Principal Articles	1862	1863	1864	1865	1866
	£	£	£	£	£
Iron: Oil and broken, for remanufacture -	98,464	57,729	13,818	12,557	62,774
Pig and puddled -	1,205,611	1,287,968	1,412,352	1,599,191	1,744,413
Bar (except railroad), angle, bolt, and rod -	2,250,964	2,568,034	2,568,019	2,199,877	2,708,773
Railroad, of all sorts -	2,817,877	3,278,301	3,395,986	3,501,263	4,187,074
Castings and articles of cast iron -	374,142	749,310	679,311	792,581	875,000
Wire and manufactures of wire -	314,895	409,139	416,615	414,993	467,992
Hoops, sheets, and boiler plates -	1,318,917	1,749,881	1,776,632	1,605,964	1,675,336
Wrought, of other kinds -	1,957,517	2,134,754	2,257,406	2,156,292	2,178,828
Steel, ingots, bars, and sheets -	818,253	935,617	890,593	908,129	925,411
Brass of all sorts -	204,781	241,935	231,013	224,290	1,919,077
Copper, unwrought: -					
Ingot, cakes, or slabs -	497,915	1,188,713	586,117	496,118	587,001
Wrought or partly wrought: -					
Sheets, nails, bars, rods &c. -	1,140,273	1,775,628	2,110,378	1,849,159	1,717,122
Mixed or yellow metal -	842,158	935,157	891,761	816,610	740,106
Of other sorts -	234,591	73,797	167,256	156,992	187,068
Hardware and cutlery of all sorts -	3,510,512	3,835,119	4,115,707	4,226,741	4,565,550
Tin, unwrought -	177,413	213,872	192,147	198,129	202,000
Plates -	1,214,665	1,209,673	1,203,246	1,181,998	1,209,341
Plated wares -	104,582	118,546	111,980	112,454	111,993
Total -	19,558,498	23,439,671	23,424,717	23,973,739	24,700,000

For further particulars on the character and extent of the hardware manufacture, see the excellent series of essays in the *Birmingham and Midland Hardware District*.

**HARPOONER.** The man who throws the harpoon in fishing for whales. By 35 Geo. III. c. 92 s. 34, no harpooner, line manager, or boat steerer, belonging to any ship or vessel fitted out for the Greenland or Southern whale fisheries, shall be privileged from being impressed so long as he shall belong to, and be employed on board, any ship or vessel whatever in the fisheries aforesaid.

This privilege has lost its significance, as impression is practically obsolete.

**HATS** (Ger. hütte; Dutch, hoeden; Fr. chapeaux; Ital. cappelli; Span. sombreros; Russ. schlopfi). Coverings for the head in very general use in Great Britain and many other countries, and known to every body. They are made of very various forms and sorts of material. They may, however, be divided into two great classes, viz. those felted or made of fur, wool, silk &c., and those made of straw; the former being principally worn by men, and the latter by women.

**1. HATS (FELTED, FUR, SILK &c.).** We possess little information as to the importance of hats, as a distinct branch of manufacture, anterior to the reign of Elizabeth.

Felted hats are stated to have been worn by the Saxons, but the earliest notice we find of 'beaver' hats is in an inventory of the effects of Sir John Falstolf in 1459. Phi's Stubbs, in his *Anatomic of Abuses*, published in 1587, mentions, amongst other varieties, 'beaver hats of 20, 30, and 40 shillings price being fetched from beyond the seas.' In subsequent reigns, and particularly during the Commonwealth, the manufacture of both beaver and felted hats must have arrived at some importance; and not only the quality, but the shape of the hat, began to possess an influence in denoting the religious or political bias of the wearer—a characteristic of this article of dress which obtains even at the present day. An interesting account of hats as worn at different periods of our history is given in the *Archæologia*, and the details of the manufacture, as it is now carried on, are given in a work called *Days in*

*the Factories* (by Mr. George Dodd), published in 1843.

Charles VII. of France wore a hat on his entry into Rouen in 1449, which is believed to have been among the first manufactured in that kingdom. (*Encyclopædie*, art. 'Chapeaux.')

The following details with respect to the export of hats manufactured, their value &c., furnished by a high practical authority, present to the trade as it existed in 1843:—

**1. Stuff Hats.**—This term is applied by trade only to the best description of hats, of those brought to the highest perfection in London. Since the introduction of 'waterproofing,' it is found unnecessary to use so valuable a material as beaver in the foundation or frame of the best hats. Instead of it, fine seasoned hair of English coney wool, red Virginia wool, carroted coney wool, and a small quantity of Saxony lambs' wool, are employed with advantage.

The covering, i.e. the 'napping,' of the qualities is a mixture of check beaver wool and brown stags beaver, or seasoned beaver, commonly called *woolms*. Inferior stuffs are mixed with mixtures of stage beaver, nutria, hare's, and musquash.

Of late years hats have been much reduced in weight. This is principally owing to the method of 'waterproofing,' which is effected by the bodies of the hats prior to their being napped. The elastic properties of the gums employed for this purpose, when dissolved in pure spirits of wine, give a body to the stuffs which allow a good deal of their weight to be dispensed with.

Not 20 years previous to 1843, 96 ounces were worked up into 1 dozen ordinary stuffs for gentlemen. In 1843 from 33 to 34 ounces were required to complete the same quantity. We may remark that the heavy duty on foreign spirits of wine was very injurious to the manufacture, as it caused the employment of inferior solvents, as naphtha and gas spirit, to injure the gums.

The manufacture of the best hats employed in London nearly 1,000 makers and finishers, besides giving employment to nearly 3,000 in Gloucestershire and Derbyshire, in bodying and ruffing. The gross returns amount to about £40,000.

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2. *Plated Hats*.—Next to fine hats are those designated 'plated,' so called from the *plate*, or nappling, being of a distinct and superior nature to the foundation or body. The latter is generally formed of Kent, Spanish, or Shropshire wool; while the former consists of a mixture of fine beaver, hares' wool, musquash, nutria, and English back wool. From the cheapness of coal and the purity of the water in Lancashire, Cheshire, and Staffordshire, the whole of the plating trade is centred by them. The men employed in the 3 countries, including apprentices, do not exceed 2,000. The total returns amounted in 1843 to about 1,080,000*l.*, inclusive of bonnets and children's fancy beaver hats.

3. *Felt Hats and Cordies* are the coarsest species, being made wholly of Kent, Shropshire, and Italian wools. Cordies are distinguished by a fine covering of camel or goat hair. A very large trade was some time carried on in these articles; but since the introduction of caps, and the manufacture of superior plates, the returns have sunk from 2,000,000*l.* to scarcely 150,000*l.* in 1843! Atherton, Bingley, Bristol, and Newcastle-under-Lyme are the principal places where they are

4. *Silk Hats*, made from silk, plush, or shag, manufactured in Coventry, Banbury, and Spitalbaton, formed in 1843 a very important branch of the hat trade. Many thousand dozen were exported to Italy, Gibraltar, the Cape, Sydney, and Vnnemen's Land. Little progress was made in this article for the first quarter of a century after its introduction, in consequence of the hard appearance of the cone and willow framework necessarily used; but now that beaver hat bodies of this difficulty has been overcome, and silk hats as soft an outline, and as great a variety of shapes, as beaver hats. London alone produced in 1843 150,000 dozen silk hats annually; and the city manufactured in Manchester, Liverpool, Birmingham, and Glasgow was estimated in 1843 to have made 250,000 dozen more, making a total of 400,000 dozen. The workmen were distributed from beaver hatters; and owing to the competition of labourers, the trade advanced in a ratio. This branch gave employment to 8,000 men.

5. *Low quality silk hats* were more freely worn; and public taste set strongly in favour of a new and showy kind of silk hat, introduced from France at a duty of 30 per cent. This

which reduced the consumption of both plated hats, probably arose, so far as respects the lower sorts of silk hats, from motives of economy induced by the state of the country, and the higher qualities chiefly from the influence of fashion. But though there was no reason to suppose that this change would be permanent to the trade, especially in the finer branches, where it is extensively used in the preparation of materials for the manufacture, but has been found inapplicable to the manufacture of caps, which, in some processes, requires a great amount of mental dexterity. Particular attention is celebrated for particular branches of the trade, especially from special reasons respecting the inferiority or lowness of wages; but the introduction of competition has of late had a tendency to depress the trade in a few localities rather than to extend it, although it is still rather flourishing. Hitherto the trade has not been exposed to foreign competition in the home market; it has been of late years seriously injured by the Brazilian and West Indian markets.

Few beaver or ruffed hats meet the English manufacturer in the markets referred to, but chiefly hats of silk or felted hares' wool, of styles not adapted to our taste, though suited to that of Europe and South America.

English hats, though to a limited extent and in an unfinished state, have been exported to the Continent. The hats chiefly exported to the colonies are silk, plated, and stuff hats, generally of a light description. Wool stuffs, generally the Emancipation Act were largely exported, have materially decreased, the article termed 'negro felts' being almost extinct.

This trade employs a great amount of labour, ment to not less than 30,000 persons. In the Lancashire district, the first and second manufacturing processes were chiefly carried on in the houses of the workmen. The labour of women and children was very largely employed in the trade generally, but less in the actual manufacture than in the preparation of the material: the proportions may be in both departments, men 50 per cent., women 25 per cent., and children 25 per cent.; and their earnings, on a yearly average, were, men 25*s.*, women 7*s.*, and boys 5*s.* per week. The depression in the finer branches of the manufacture has undoubtedly affected the earnings of the manufacture engaged in them, as a less amount of the workmen labour is required in the production of low silk hats than beavers, and the increased quantity produced in the lower descriptions has not furnished an amount of employment equivalent to the decrease in the higher branch. Combinations on the part of the workmen have occasionally arisen, sometimes from questions affecting wages and disputes arising out of the existence of trade unions, but not to any considerable extent from attempts to introduce machinery.

No data exist on which to form any certain estimate of the value of the different branches of the manufacture or of its aggregate amount; but it is estimated, on good grounds, that on *plated goods*, the cost of the raw material varies from 25 to 40 per cent., the labour and manufacturing expenses from 75 to 60 per cent.; on stuff hats, materials 40 to 50 per cent., labour &c. 60 to 50 per cent.; on silk hats, materials 50 per cent., labour &c. 50 per cent. The proportions in value are estimated as follows, viz.:—Plated hats, 1,200,000*l.*; stuff do., 800,000*l.*; silk do., 900,000*l.*; wool felts, 100,000*l.*; making, in 1843, in all 3,000,000*l.*

The duty on hats, which was formerly 10*s.* 6*d.* each, was reduced in 1842 to 2*s.* 6*d.* on fur and wool hats, and to 3*s.* 6*d.* on silk. In 1836, on fur and dozen hats were exported, of the real or declared value of 148,282*l.*; but in 1841 the real or declared amount to 22,522 dozen, of the value of 81,583*l.* The falling off has been principally in the exports to the West Indies and Brazil.

*Hat Manufacture and Trade in 1866*.—A very extraordinary change has taken place in the state of the hat trade since 1843. This will be evident from the following details, which have been supplied to us by the highest practical authorities:—

*Stuff Hats*.—For this branch of the manufacture there is now a very limited demand. It employs not more than 20 men, and these very irregularly.

*Silk Hats*.—In this branch there are not so many hats manufactured as in 1859, but the greatest change which has taken place is the removal of a large portion of the trade from the provinces to London. The number now employed in silk hat making in the metropolis may be about 1,800 men and 1,000 females, whilst in the provinces they do not exceed 800 men and 500

1855	1856
587	632
191	1,743
857	2,788
263	4,187
281	7,092
1065	487,500
964	1,742,000
2,092	5,678,811
1,139	1,144,719
1,309	277,319
1,118	559,001
4,450	1,171,719
1,610	22,159
9,912	5,746
5,744	4,955,000
8,570	2,584
1,908	1,829,919
2,432	110,000
2,750	21,768,641

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women. The quantity manufactured is estimated to amount to about 450,000 dozens annually, of the value of about 1,800,000*l.* The wages of the men in London are said to be from 3*l.* to 4*l.* per week, and in the country from 2*l.* to 3*l.* per week.

**Plated Hats and Cordies.**—This branch is now said to be wholly extinct.

**Felt Hats.**—It is in this branch that the greatest alteration has taken place. Since 1859 machinery has been introduced, and hats of this class can now be produced with an improved appearance and at less cost. Throughout the country, and particularly in the provinces, felt hats have superseded the use of cloth caps, and the latter trade is in consequence much depressed. The manufacture is confined to the provinces, and gives employment to about 3,500 men and boys, and 2,000 women and girls, the former earning from 20*s.* to 40*s.*, and the latter from 8*s.* to 14*s.* per week. The quantity manufactured may be about 700,000 dozens, of the value of about 1,000,000*l.* per annum.

It is seen above that in 1843 the yearly value of the hat manufacture was estimated at about 3,000,000*l.*, employing in its different departments about 30,000 persons throughout the United Kingdom; and though the most expensive description of hats has been superseded, the trade has been much extended; the reduction which has taken place in prices has led to a great increase in the quantities consumed and exported. The exports, which in 1866 (ex. straw hats) amounted to 148,004 dozen, worth 32,336*l.*, were chiefly to our colonies in Australia, North America, and the West Indies; on the other hand, we imported, chiefly from France, 203,689 felt hats, worth 62,611*l.*

Labour, profit, and interest on capital form perhaps  $\frac{2}{3}$  of the yearly returns. Machinery is used to a greater extent, though the manufacture is almost entirely conducted by manual labour. Wages vary from 8*s.* to 16*s.* weekly for women, and from 2*s.* to 30*s.* for men.

**Straw Hats.**—It is most probable that the idea of plaiting straws was first suggested by the making of baskets of osiers and willow, alluded to by Virgil, in his Pastorals, as one of the pursuits of the agricultural population of Italy. We are ignorant of the period when the manufacture of straw plait first became of importance in that country: but it appears from Coryat's *Cruelties*, published in 1611, that 'the most delicate strawen hats' were worn by both men and women in many places of Piedmont, 'many of them having at least an hundred seams.' It is evident, therefore, that the art of straw plaiting must have arrived at great perfection upwards of two centuries since; but it does not appear to have been followed in England for more than 70 or 80 years previous to 1868, as it is within the remembrance of some of the old inhabitants of the straw districts, now alive, that the habits and daughters of the farmers used to plait wives and daughters their own bonnets, before straw-straw for making them a manufacture. In plaiting became established as a manufacture. In fact, the custom among the women of England of wearing bonnets is comparatively modern: it is scarcely 100 years since hoods and pinnars were generally worn, and it was only the ladies of quality who wore small hats. (*Malcolm's Manners and Customs.*)

In the edition of this work published in 1844 we stated that during the ten years ending with 1843 the manufacture of British straw hats and bonnets had increased perhaps  $\frac{2}{3}$ , and of straw plait about  $\frac{1}{2}$ , compared with the former decennial period. In our edition of 1859 it was confidently

affirmed, on the authority of persons conversant with the trade, that it had increased not less than threefold. It was estimated in 1843 that every score (20 yards) of plait consumed a pound of straw; that every plaiter made 15 yards per diem; that in Hertford, Bedford, and Bucks, the principal seats of the trade, there were at an average 10,000 scores brought to market every day, to make which 13,500 women and children were employed. In Essex and Suffolk the daily produce was estimated at 2,000 scores, to make which 3,000 persons were employed, and about 4,000 persons more must have been employed in converting those quantities into bonnets. In other places where the manufacture was carried on in England, it was supposed there were in 1833, about 30,000 persons engaged in it, while in 1843 there could not be less than from 40,000 to 50,000 persons, including 1,500 sewers in London. In 1859, such had been the improvement in the well as the increase of the manufacture, that the average production of each straw-plaiter was estimated at 20 yards per diem from the same weight of straw in Hertfordshire, Bedfordshire, and Buck, and that the plaiting produced exceeded 25,000 scores, giving employment to an equal number of women and children. During some periods of the year, when out-door work was scarce, men and boys were found among the producers. In Essex and Suffolk the trade had been more stationary; perhaps 3,000 persons were employed, producing about 2,500 to 3,000 scores daily. The range of the earnings of plaiters continued about the same (from 3*d.* to 3*s.* 6*d.* per score, or from 1*s.* 6*d.* to 10*s.* per week), but the average was higher than in the former period, children earning 2*s.*, and grown persons 5*s.* to 6*s.* Sewers in country districts earned from 6*s.* to 10*s.* and averaged about 10*s.*, while the same class in London received from 6*s.* to 40*s.*, and averaged about 11*s.* or 12*s.* Taking into account the various new kinds of plaiting and trimming introduced from Switzerland, it was computed that the number employed in making straw and plaiting bonnets amounted to 160,000 or 180,000, including the London sewers. The annual value of the trade in all its branches was roughly estimated at between 3,000,000*l.* and 4,000,000*l.*, sterling, a greater portion forming the wages of labour.

The improvement and extension of the trade were ascribed to various causes. For several years the practice had arisen of bleaching the straw, and this was instead of bleaching the results. Formerly with the most beneficial results. Formerly anxiety was occasioned lest the straw should become discoloured, and be otherwise affected by the weather before long; this anxiety was now wholly removed by the success of dyeing, while the plaiters succeeded in constant employment. Brown was as introduced, and subsequently grey, both of which now in demand to a great extent both by men and women. Down to 1852 the men's and boys' hats made of Brazilian grass had an improving bough of the trade, but this sensibly declined, owing to the preference for straw hats. Indeed, so fashionable have straw hats become, particularly in London, that dyed straw has been introduced, that it interfered greatly with the silk hat trade, superseding the Brazilian grass hats. In 1858, so rapidly did the fashion spread to the male portion of the population in London, that it was described as almost universal. Another most important cause of improvement in the trade was the reduction which had taken place in the duty on importation of the

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and plait. Instead of 5s. 8d. per hat, and 8s. 6d. per lb. for plait, the duty was reduced to 2s. 6d. per lb. on hats, and 2s. per lb. on plait, and a great impetus was, in consequence, given to the trade both in plaiting and hats, boys' and children's hats being admitted, which formerly, owing to the high duty, were virtually prohibited. These duties have since been abolished. The importation of hats from Leghorn has, however, almost ceased. Tuscan plait has become so reduced in price, that it is no longer necessary to import the straw used for making the plait. Indeed, notwithstanding the diminution in price, Tuscan plait itself is no longer prized as it was a few years since, and the consumption has much declined compared with former years.

Since our last account of this trade was written, the varieties of patterns in straw-plaiting have considerably increased, which with the use of horse-hair (plaited by machinery), woven into light fancy trimmings, gives a distinctive feature to the trade compared with any previous epoch. The use of horse-hair braid has never been superceded since its introduction, about 26 years ago; it has rather gradually increased. In 1858 cotton (in imitation of crinoline and clip plaiting) had been very extensively used by itself, and in combination with straw plait, adding another new feature to the trade. Other woven trimmings of this manufacture have also been introduced in imitation of pillow lace or blond, worked with horse-hair, and afterwards embroidered with straw, &c.

Luton was long the chief seat of the manufacture. There is a tradition that the unfortunate Mary Queen of Scotland, when travelling through the duchy of Lorraine, invited some of the straw-planters there to introduce the art into Scotland. It was not, however, very successful; and it is said that shortly after the accession of James VI. to the throne of England, he encouraged them to move to Luton, where the trade has since maintained itself. In 1843 there were nearly 100 persons connected with the manufacture in its great branches established in that town. Straw-planting in Orisney has entirely ceased.

At this time (1866) some material changes have taken place in the manufacture. In the Bedfordshire District (Beds, Herts, and Bucks), increasing demand for straw hats, which for a series of years had been a cottage employment, has led to the opening of factories and workshops in various parts of the country, in which the plait is sewn up into hats &c., and many who were formerly plaiters are now employed as sewers. The importation of straw from Switzerland, Belgium, and Saxony has largely increased (mostly of the single straw hat make). These are chiefly worked up at Luton, and an advance has taken place in wages of about 7 per cent. Men's and boys' hats, or Brazilian hats, are now almost superceded by the introduction of a much cheaper article, the 'Swiss hat.' A material improvement in manufacture and finish, particularly in straw hats, has taken place during the last two years, giving employment to greater numbers of persons. Machines for blocking or pressing by steam and hydraulic power have been introduced, and it is to be a great improvement upon the old mode of manual labour, a superior and uniform quality being obtained by these processes. The Commercial Treaty with France has also opened new markets for our production, while the shipping trade to Australia and New Zealand are very extensively employing to great numbers of persons hat makers.

In 1866 the imports of straw and other plaiting were 318,652 lbs., valued at 154,508*l.*, besides 718 cwt. of straw or grass for plaiting, worth 5,744*l.* Again, the exports of straw hats and bonnets were 116,382 dozen, valued at 167,264*l.*; on the other hand we imported 300,008 lbs. of straw hats or bonnets, chiefly French, of the value of 1,179,580*l.*

*Italian Manufacture.*—In 1865 the Tuscan plait and hat trade was considered in a prosperous condition. Plaits of different kinds were in good demand for the several continental and New York markets, and hats of different kinds were freely ordered for some continental markets. The return of peace and revival of trade in the United States of America caused a great improvement in the demand for plait. Neither the abolition of duties in England, nor the almost abolition of them in France, seems to have caused any material extension of business in these goods, as Tuscan straw hats and bonnets enter into consumption more as an article of fashion than of necessity, and are ruled by the prevailing taste of the moment, without so much regard to price. The abolition of duties, however, permits the introduction of much cheaper goods, which must lead to a gradually increasing business. The price of Tuscan straws has continued to vary during late years, according to the success of the crops. The price per English lb. (1865) ready for plaiting ranged from 1*s.* 6*d.* to 2*s.* 4*d.* For some years Tuscan straw has ceased to be sent to the English market, particularly since the abolition of duties on manufactured goods. Signor Mariotti, in his pamphlet on the Tuscan Straw Manufacture in 1858, referred to the introduction of men's hats made in imitation of the Panama hats, but the demand was short-lived. The manufacture of hats and plaits in Tuscany has improved during the last seven years, principally in the dressing and shaping them. Machinery of a new construction has been introduced, which has led to larger quantities being finished off than could be done solely by hand. In plaits, delicate colours and some improved designs have been secured to the manufacture. The annual value of the straw trade in Tuscany in 1865 amounted to about 800,000*l.* sterling, but a large per centage of this increase is to be attributed to a considerable advance in the cost price of goods. Since the revolution of 1859, which consolidated the States of Italy, there has been a pretty fair consumption of Tuscan straw goods in various parts of the kingdom, while on the other hand there was a considerable falling off of trade with North America during the civil war in that country. Men's hats at 2*d.* and 8*d.* each have ceased to be made in Tuscany since the American civil war, as they were almost exclusively sent to the United States; but hats at these prices, made in the mountainous district of Bologna, have, since the return of peace, been shipped to America. The straw for these hats is taken from the wheat fields. There are no statistics published in regard to the labouring population of Tuscany, but we, on good authority, think there must be between 70,000 and 80,000 hands employed in the straw industry in one way and another. A portion of this number is not constantly employed in the manufacture. Wages fluctuate considerably in the making of plaits, hats, and trimmings, according to the demands of trade. In 1865 wages, mostly of women and children, were at a high point; plait makers earning from 4*d.* to 1*s.* 6*d.* per day, hat makers from 6*d.* to 1*s.* 8*d.* (the average of the latter may be about 10*d.*), and trimming makers from 6*d.* to 1*s.* per day. Men and boys are, however, employed in assorting straw by machinery, and otherwise preparing it for the

manufacture. They earn from 9d. to 1s. 8d. per diem; they are also employed in bleaching, pressing, and finishing hats; their earnings are from 10d. to 2s. 6d. per day; the bulk from 1s. 6d. to 2s., and for overtime (which often lasts 5 or 6 months) they receive one-third extra. Since 1859 the fashion for women and girls to wear hats in preference to bonnets has been constantly extending, and has conferred an immense advantage on the Tuscan straw industry, both as regards plaits and hats; and owing to the general demand in Europe, America, and Australia, prices have continued to advance since 1862. Tuscan plaits had almost ceased to be used for bonnets, a preference having set in for other kinds of plaits of lighter texture. The demand for hats and plaits for men's and boys' wear is more restricted and precarious. The total value of plaits and hats exported from Tuscany since 1855 (say for nine years) may probably amount to from 3,500,000l. to 4,000,000l. sterling, but the export of raw straw since that date has ceased. These exports are estimated to be made from Italy; the inland trade in these goods will no doubt amount to about 1,000,000l. more.

It is stated in Signor Mariotti's pamphlet, that as far back as 1311 the art of straw plaiting was known in Tuscany; certain kinds of foreign straws were then also imported; in 1737 there was a duty levied upon them, which, however, was repealed by Leopold I. It is shown by a tomb-stone existing in the church of St. Miniato, at Signa, that Domenico Michelacci, a native of Bologna, carrying on business there in the commencement of the eighteenth century, was the first to establish with England the export trade in Leghorn hats. In 1718 this same man raised the first fine straw used in Tuscany. In 1757 and the following year an annual export business in hats commenced, and reached from 15,000l. to 25,000l. sterling. The first hats for ladies (afterwards so largely imported into England) were made only in 1813, of the number of 40 rows. In 1818 the hands employed were estimated at from 50,000 to 60,000, earning from 1s. to 1s. 9d. per day. In 1822 the exportation to America began; and although an increase of hands was the result, the earnings rose from 1s. 4d. to 5s. per day. In 1826-7 the trade in ladies' Leghorn hats reached its climax, and soon after that the Tuscan plait in 11 straws was introduced.

*Swiss and other Manufactures.*—The Swiss straw trade has greatly developed itself during the last 30 years: the returns in some of the most favourable seasons cannot have been less than from 200,000l. to 300,000l. Wohlen (in the Canton d'Argovie) is the central seat for loom and all kinds of fancy trimmings; but within the last 10 years white horse-hair braid (of which the largest manufactory is at Kriens, near Lucerne) has been in great demand. In the Fribourg Canton there is also an interesting straw trade carried on the principal districts being *Bulle* and *Chatel St. Denis*; but being a similar kind of straw to the Belgian and English, the importations into this country are trifling, although a large amount of business is done with Paris and America.

Chip hats and plaiting are also produced at Modena, or rather Carpi, in its vicinity. Though commonly called *paille de riz*, it is simply the wood of the willow cut into strips for the purpose of being plaited, and is of a most beautiful white. These 'chip flats' are chiefly sent to Paris, where they are dressed in a peculiar manner, and shipped to all parts of the world. Some are shipped to England in their natural state, to be stored and sewn into white bonnets, and some also are dyed

black and other colours. The art, it is said, was first introduced by Signor Corston in 1803, and has been of great advantage to the small locality where it is carried on; but the returns, it is believed, cannot exceed from 15,000l. to 30,000l. per annum.

Panama hats have also been imported into England. They are made of a species of bleached grass grown in Central America, nearly quite white, of great tenacity, and very serviceable. They make a capital summer wear for men and boys. Those imported have, however, been mostly re-exported for Australia and the Continent. We suljoin—

*An Account of the Weight and Value of the Straw Hats and Plaiting Imported in 1866, specifying the Countries whence they came, and the Quantities and Values of those brought from each.*

	Quantities	Value
Hats or bonnets of straw:		
From Hamburg	lbs. 1,778	£ 3,556
France	28,173	1,408,650
Tuscany	2,505	1,132,750
St. Thomas	1,510	4,530
United States	1,100	2,200
New Granada	2,211	8,844
Ecuador	1,686	2,734
Other parts	5,299	11,598
Total	400,008	1,775,858

	Quantities	Value
Plaiting, straw:		
From France	lbs. 201,351	£ 102,675
Other parts	6,172	3,086
Total	207,523	105,761
Other kinds:		
From Hamburg	15,661	1,229
France	80,257	45,469
Other parts	1,908	4,701
Total	97,826	51,400

*French Manufacture.*—The chief seats of the French manufacture of hats are Paris, Lyons, Bordeaux, Tarascon, Aix, and Nimes, and the exports of these articles are said to fully equal half of all that are made. The value of the hats exported from France in the year 1864 exceeded 10,000,000 francs. These goods were principally to the United Kingdom, Brazil, the Argentine Confederation. The average of French felt hats was 6s. in 1866, in which 189,888 French hats were imported into the United Kingdom. A few were imported from Belgium and Germany.

The importation of straw hats and bonnets into France has enormously increased of late years. In 1857 only 24,953 lbs. of these articles were imported from that country, and 134,789 lbs. of plaiting. The value of these imports in 1866 was nearly 1,133,000l. sterling. As no duty is levied on straw hats and plaiting, it is not possible to determine how much of the imports are for home consumption.

(We are indebted for this article on Hats to Mr. Robert Slater, of Fore Street, London.)

**HAVANNAH** or **HAVAN**. On the north-west coast of the noble island of Cuba, of which it is the capital, the Morro castle being according to the boldt, in lat. 23° 8' 15" N., long. 82° 22' 30" W. The population of the city and suburbs was estimated in 1861 at 201,500. In 1827 the resident population amounted to 94,029; of these, 5,215 free coloured, 15,347 free whites, 1,010 coloured slaves, and 22,850 blacks. The port of Havannah is the finest in the Indies, or perhaps in the world. The water is pure, but the water is deep, without obstruction of any sort, and within a few miles of the bay, capable of

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But it might be difficult, perhaps, to show what good consequences would result from such a change. It is at all events clear that the commerce of the world and the comforts of all civilised nations would be seriously impaired; and it is by no means clear that the condition of the blacks would be sensibly, or at all, improved.

Besides slaves, the planters employ free labourers, of an Indian mixed breed, who work for moderate wages. Though the want of labourers has been severely felt since the slave trade was condemned, the importation of Chinese coolies has supplied this want to some extent. The yearly wages and keep of the Chinese field labourers are stated to be 236 dols., while those of the free negro are 300 dols., and those of the slave 210 dols. These, however, are little engaged in the fields, but in other branches of labour, and particularly in bringing sugar from the interior to the shipping ports.

The articles principally exported from Cuba are, sugar of the finest quality, coffee, copper ore, tobacco, bees' wax, honey, molasses &c. Of these, the first is decidedly the most important. The following statements show the astonishing increase that has taken place in the exportation of this staple article:—

*Account of the Exportation of Sugar from Havannah at various Periods from 1786 to 1867.*

Period	Boxes	Hds.
From 1786-1790	68,330	400 lbs. = 27,332,000
1800-1810	177,498	" = 71,199,200
1810-1820	207,696	" = 83,078,400
1820-1825	256,584	" = 101,153,600
In 1830	293,732	" = 117,492,800
1830	410,144	" = 164,057,600
1835	467,535	" = 187,014,000
1840	716,405	" = 286,562,000
1850	965,677	" = 386,270,800
1855	872,292	" = 348,916,800
1860	1,146,575	" = 458,630,000
1864	1,158,290	" = 463,316,800
1867		" = 463,316,800

\* besides 16,806 hamsheads.  
† beside 19,000 hamsheads.

But the Havannah has long ceased to be, as it formerly was, the only port in the island for the exportation of sugar. The exports from Matanzas now usually amount to about a third part of those from the Havannah; and there is also a considerable export from Cardenas, Trinidad, St. Jago de Cuba, Cienfuegos, and other ports. In 1867 the entire exports from the island were reckoned at 1,449,162 boxes and 19,084 hds., of which 1,158,290 boxes and 19,084 hds. were shipped from the Havannah. Now if we add to the official export from Cuba, equal to 530,669 tons, as we may safely do, 10 per cent. for the quantities exported without entry or payment of duty, the real export may be estimated at 583,736 tons. The consumption of the island may amount to 25,000 tons; making the total production 608,736 tons. And vast as this quantity is, it might be infinitely increased, could supplies of labour be definitely procured; but it is doubtful, supposing easily procured, whether it would be maintained at its present level. Havannah, Guines, Matanzas, Cardenas, and all the fine sugar-growing country between them, are linked together by different lines of railway, and there are several other lines in the island.

*Account of the Sugar Exported from Cuba in each of the 5 Years ending with 1858, and in 1866 and 1867.*

Year	Boxes	Tons	Hds.	Tons	Total Tons
1854	1,258,959	255,402	180,034	116,722	552,124
1855	1,305,229	247,745	208,732	126,830	576,635
1856	1,111,243	211,763	257,705	116,822	558,585
1857	1,021,941	194,661	253,267	156,398	511,669
1858	1,184,875	225,125	243,739	150,510	576,635
1866	1,421,975	—	435,937	—	545,656
1867	1,119,162	—	413,487	—	530,669

The total productions of the sugar plantations of Cuba shipped in 1867 were sent from the following ports:—

Port	Boxes	Hds.	Molasses
Havannah	1,158,290	19,084	12,000
Matanzas	212,105	69,532	7,411
Cardenas	57,491	44,563	2,758
Sancti Spiritus	275	79,537	2,028
Sancti Spiritus	264	12,189	1,127
Remedios	—	15,469	318
Norvitas	830	11,519	256
St. Jago	6,040	28,910	17,721
Trinidad	3,576	71,334	7,286
Cienfuegos	—	—	—
Total	1,449,162	413,487	297,733

In 1867 the average price of clayed sugar No. 12 to 15 was 73 reals or 11. 2s. sterling per cent free on board without freight; brown and yellow Nos. 12 to 20, 70 reals; and white, 81 to 100 reals.

Next to sugar, coffee was formerly the most valuable vegetable production of Cuba. Its cultivation increased for a while with unprecedented rapidity. In 1800 there were but 80 plantations in the island; in 1817 there were 779; and in 1827 there were no fewer than 2,067, of at least three acres each! In 1800 the exportation from Havannah was 1,250,000 lbs.; in 1809 it amounted to 8,000,000 lbs.; from 1815 to 1820 it averaged annually 18,100,000 lbs.; and in 1827 it amounted to 35,837,175 lbs.! The exports from the other ports increased with equal rapidity; they amounted in 1827 to 14,202,406 lbs.; making the total exportation for that year 50,039,581 lbs. But the destruction of the coffee plantations in the western part of Cuba by the hurricane of 1825, and the low prices of coffee, or rather, perhaps, the greater attention paid to the culture of sugar, not only checked the further increase of the plantations, but caused many of them to be abandoned. The exports of coffee from Cuba in 1867 amounted to 12,787,300 lbs. In 1864, 1,320,000 lbs. were exported from Havannah; while in 1867 only 344,848 lbs. were shipped.

*Quantities of the Principal Articles Exported from the Port of Havannah, distinguishing the Principal Countries to which Exported, in the Year 1867.*

Articles	Countries to which Exported	Quantities
Sugar	Total	1,449,162 boxes and 19,084 hds.
	United States	1,158,290 boxes and 19,084 hds.
	Great Britain	212,105 boxes and 69,532 hds.
	France	57,491 boxes and 44,563 hds.
	Spain	275 boxes and 79,537 hds.
	Other Parts of Europe	264 boxes and 12,189 hds.
Molasses	Total	297,733 hds.
	United States	12,000 hds.
Tobacco	Total	12,000 hds.
	Spain	7,411 hds.
	United States	2,758 hds.
Cigars	Total	17,721 millions
	France	11,519 millions
	United Kingdom	2,802 millions
Coffee	Total	12,787,300 lbs.
	Mexico, South America &c.	11,519 lbs.
	Spain	1,268,300 lbs.
Wax	Total	2,028 tons
	Mexico, South America &c.	1,127 tons
	Spain	901 tons
Honey	Total	511,669 tons
	Hanse Towns	318 tons
	Belgium	156,398 tons
	United States	37,635 tons
Rum	Total	576,635 gallons
	Spain	558,585 gallons

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# HAVANNAH

Tobacco differs much in quality, but the cigars of Cuba are esteemed the finest in the world. This important plant were monopolised by Government; but since 1821 this monopoly has been wholly relinquished, there being no longer any restrictions either on the growth or sale of the article. The cultivator pays a duty, which, however, is to a great extent evaded, which, however, is upon his crop. In consequence of the freedom thus given to the business, the culture

and exportation of tobacco are both rapidly extending. In 1867 there were exported from Havannah alone 7,716,802 lbs. of tobacco, and wax, and honey are also largely produced, and form important articles of trade.

## Quantities of the Principal Articles Exported from Havannah in 1867.

Sugar	- boxes 1,158,290	Coffee	- cwts. 5,079
Tobacco	- lbs. 7,716,802	Honey	- barrels 1,324
Cigars	- million 199,027	Wax	- bunch. 10,918
			- cwts. 8,717

## Quantities of the Principal Articles Imported into the Port of Havannah, distinguishing the Principal Countries whence Imported, in each Year from 1860 to 1864.

Articles	Countries	Years				
		1860	1861	1862	1863	1864
Cod fish	Total					
	British Possessions	quint. 82,131	83,155	42,486	79,031	77,082
	United States	40,476	42,001	32,356	38,519	34,159
Flour	Total					
	Spain	barrels 5,186	4,794	4,274	9,237	2,468
	United States	36,469	36,560	5,956	31,119	42,452
Rice	Total					
	Spain	196,603	247,971	231,109	211,153	231,695
	United States	194,024	247,931	231,108	210,253	230,117
Wine	Total					
	Spain	4,379	40		1,180	1,378
	United States	377,939	369,002	426,358	255,769	425,098
Wool	Total					
	Spain	98,334	47,519	675	57,503	105,494
	United States	60,997	29,638	91,268	198,266	319,874
Wool	Total					
	Spain	219,601	261,615	33,415	57,503	105,494
	United States	421,333	226,892	361,177	278,891	299,268
Wool	Total					
	Spain	99,569	162,554	171,801	113,542	129,361
	United States and North America	7,000 fr. 23,875	49,718	44,947	48,979	64,025
Wool	Total					
	Spain	476,216	15,747	10,561	8,152	2,609
	United States and North America	82,269	47,436	452,003	368,075	11,185
Wool	Total					
	Spain	94,291	48,330	48,330	110,759	60,680
	United States	369,933	138,572	178,679	197,659	45,552
Wool	Total					
	Spain	680	475,192	350,522	148,981	148,981
	United States	3,513	2,167	2,309	20,213	25,659

## Number and Tonnage of Vessels, of each Nation, Entered and Cleared at the Port of Havannah in each of the Years 1863, 1864, and 1865.

Nationality of Vessels	Entered						Cleared					
	1863		1864		1865		1863		1864		1865	
	Vessels	Tons										
British	20	4,127	29	10,557	29	12,656	20	4,125	22	9,743	27	11,492
French	28	9,083	25	8,576	15	6,008			25	6,086	14	5,435
Spanish	17	12,123	29	6,869	11	11,322			25	5,538	30	9,001
Portuguese	13	3,889	15	3,835	34	3,118			9	2,151	10	9,001
Italian	27	5,442	27	3,051	13	3,118			9	2,151	12	4,925
American	26	8,894	12	4,324	25	4,066	15	3,223	20	3,539	12	4,925
Other	6	2,336	6	1,551	3	2,262			2	3,227	21	4,056
Total	54	120,811	60	173,757	51	181,452	56	120,811	53	154,130	54	167,957
British	61	22,287	73	27,388	57	11,117			9	3,227	13	4,925
French			13	1,095	5	20,514			1	619	3	1,147
Spanish			15	3,835	7	1,633			67	24,512	48	16,957
Portuguese	636	153,819	670	164,615	344	3,190			1	619	3	1,033
Italian			9	5,838	3	2,456			502	138,758	261	65,689
American	467	177,210	261	99,531	121	22,740			236	54,150	2	1,978
Other			11	1,096	13	5,213			8	1,054	12	2,914
Total	1,899	329,551	1,908	482,546	1,273	378,699			1,361	115,894	1,119	314,274

The number of vessels which entered Havannah in foreign ports in 1867 was 1,816, of 693,912 including steamers, of which 353, of 156,768 were British. Freights to Cowes or Queens-land from 20s. to 50s. communication with the United States is kept up daily by American steamers from Boston, New York, Baltimore, Philadelphia, and New Orleans. The Spanish mail steamers run regularly, and the British and French lines once, twice between Havannah and Europe. Copper mines near Santiago and in other parts of the island, after having been abandoned for a century, have been reopened, and are producing principally by Englishmen, though produce has fallen off considerably. The most valuable products of the island are copper and iron. It is mostly sent to England to be smelted. In 1866, 11,254 tons were imported into this country from Cuba consist chiefly of corn, and grain of all sorts, with provisions,

principally from the United States, cotton goods from the latter and England; wines from Spain and France; silks from the Hanse Towns and England; hardware and metals, and rice, from England; silks from France and Spain; gold and silver from Mexico; spices, fruits, dye-stuffs, lumber, haberdashery &c.

The admission of slave-grown sugar to our markets has considerably promoted our trade with Cuba. The United States, however, engross the largest share of the trade of the island—a consequence in part of their proximity, but more of their supplying her with large quantities of flour, provisions, lumber &c., and of their being principally indebted to her for their imports of sugar.

**Moneys.**—One dollar = 8 reals plate = 20 reals vellon. 1 doubloon = 17 dollars. The merchants reckon 44 dols. = 100l. of 1 dol. = 4s. 6d. very nearly. There is an export duty of 1 1/2 per cent. on gold, and 2 1/2 per cent. on silver.

**Banks.**—In 1867 there were, besides a Savings Bank and a Private Bank, 2 regular Banking Estab-



Manufacture  
Cuba.

Value	1854
83	79,570
93	156
43	8,310
27	341
189	28,951
143,711	143,711
525	45,913
237	4,920
431	23,367
787	39,278
174	10,013
849	176,696
417	797,411
356	4,976
250	4,000
180	6,700
915	103,385
4,659	13,000
4,413	9,951
1,135	5,313
75,881	71,200
3,068	8,991
1,851	8,991
5,572	21,077

Real Value  
Cuba.

Real Value	1865	1866
25,672	35,000	
11,008	13,300	
175,476	18,868	
4,039	36,908	
127,118	40,000	
74,511	4,000	
1,143	4,000	
10,193	1,000	
7,623	1,000	
6,500	1,000	
275,966	2,000	
9,117	2,000	
291,294	27,100	
61,122	31,000	
74,511	4,000	
59,175	9,000	
5,067,839	4,983,000	

HAVANNAH

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from landing under any pretence whatever; and so rigorously is this order enforced, that such persons, though acting as seamen, are, on their arrival, taken out of the vessel in which they have come, and are kept in custody until her departure, when they are compelled to proceed again on board and landed under license, and no foreigner is exercised unless naturalised in the form prescribed by law. In every commercial town a certain nummulation and trade of the place. In the great cities, the business of merchant is often combined with that of planter; and sometimes, also, the importing merchant keeps a shop or store, where he sells his goods by retail. The foreign merchants are generally regarded as transient visitors; and though as a class they are not considered wealthy, they are almost all in the full enjoyment of credit. The mercantile capital, as well as the proprietary wealth of the island, may be said to be concentrated in the hands of the Creoles. When the emigrants from the Peninsula make fortunes in the island, they seldom think of returning to Europe.

**Customs Duties in 1818, 1850, and 1867.**—The tariff of Cuba, like that of Spain, is exceedingly complex, being divided into a great many classes, and embracing a vast number of articles, many of which are of very trifling importance. All, or almost all, the articles of import are valued in the tariff of 1818 at certain fixed rates, upon which the duties are charged at so much per cent. Hence, the fixed or tariff prices exceed the real prices of the goods, the duties are proportionally increased, and conversely when the tariff prices are under the real prices. The duties vary from 10 to 25 per cent. on goods by foreign vessels from foreign ports; 10 to 15 per cent. on Spanish produce from Spanish vessels; 10 to 15 per cent. on Spanish produce from Spain by foreign ships; and 10 to 15 per cent. on Spanish produce from Spain by foreign ships. A balance duty of 1 per cent. is added to all but the principal exception to the above rule is in the case of flour, which pays a fixed duty of 10 cents per barrel per Spanish ship; 15 cents per barrel per foreign ship from Spain; 20 cents per barrel per Spanish ship from other parts of Spain; and 25 cents per barrel per foreign ship from other parts.

Spain been able to supply Cuba with flour cheaper than other countries, this high discriminatory duty in favour of Spanish flour would have been comparatively little importance. But such was the case. Cuba derives 90 per cent of her supply of flour from the United States, principally from New Orleans; so that the discriminating duty against flour is almost oppressive and impolitic that can be remedied. We are surprised it has not been long since, furnaces, mouths, grate-bars, crown-rolls, shafts, rollers, sugar-bowls, skimmers, and other such articles for sugar mills; also mares, stallions, and asses, are exported from duty. The Gas Company &c, which pays only 10 per cent. on imports, is a monopoly. The principal articles of export, according to the tariff of 1818,

Articles	Domest- ican	Foreign Ships	Spanish Ships
per Mille	cents 50	cents 50	cents 50
Arrob.	18	10 to 8	12
Qil.	20	9	9
Ons.	11	9	9
Hid.	1-37	5 to 6	5 to 6
Ida.	Free	7 to 57	Free
Pape	Free	Free	Free
Bot.	37	27-5	27-5
Qil.	1-50	35	35
Art.	32	18 to 11	12 to 9

But a new or supplementary tariff, issued in 1850, provides as follows, viz. :—  
Art. 1 augments the duties upon all articles of foreign importation at 1 1/2 per cent.  
Art. 2 increases 1/2 the impost upon national im- ports.  
Art. 3 increases the export duty upon each box of sugar 50 cents, which makes now 87 1/2 cents per box.  
Art. 4 increases 25 cents upon each quintal of leaf tobacco imported.  
Art. 5 increases 25 cents upon every 1,000 cigars, making 75 cents per 1,000 export duty.  
Art. 6, Spanish flour to pay 1/2 additional to the duty now paid.  
Art. 7. This extraordinary exaction will continue in force 2 years.

Goods in deposit, withdrawn for consumption, will be subject to the same duties, at and after the period above designated.  
For the better comprehension of dealers, and to facilitate the tax upon national commerce, the im- dues, as equivalent to the 1/2 additional, and upon Spanish flour 25 per cent. per bbl, and upon the usual 1 per cent. upon the total of the cus- tom duties is still retained.

A revised tariff for Cuba came into operation on July 1, 1867; but it is so deficient, that the Custom-house officials cannot themselves under- stand it. Disputes are constantly arising as to the classification of goods, and the commission appointed to settle these matters has already been obliged to issue a supplement, which exceeds in length the original tariff, and does not remedy the evils complained of. Perhaps the Spanish Revolution still (October 1868) in progress may lead to improved tariffs both at home and in her colonies. A revised scale of navigation and port dues, for shipping entering and clearing at any of the ports of Cuba, came into operation on July 1, 1867. The charges are as follow :—

	Foreign	Spanish
1. Ships entering laden, and clearing with cargo, per ton discharged in ballast, per ton measurement	4 700	2 700
2. Ships entering in ballast, and clearing laden, per ton burden	4 600	2 600
3. Ships entering with cargo of coals, for each ton	0 2	0 0
4. Ships laden with coal alone, but in less proportion to their measurement, for every ton not occupied with merchandise, for coal and other goods, for every ton occupied by coals	1 0	1 0
5. Laden with medicinal honey, per ten burden	2 700	1 460
6. Entering and clearing with native produce only	4 700	2 700
7. For every ton of cargo for each ton empty	1 0	0 2
8. Entering and clearing in ballast, per ton burden	0 100	0 100
9. Steamers making periodical voyages to the island, not exporting more than 6 tons of cargo, and carrying correspondents	0 100	0 100
10. Such steamers carrying more than 6 tons of cargo, for every ton	0 100	0 100
11. Spanish postal steamers, under the heads 8, 9, and 10, will be charged according to the port they come from, and that they carry, excluding tonnage occupied by coals and inclinations	3 400	1 250
12. Steamers arriving, and not coming by charged according to the port they come from, and that they carry, excluding tonnage occupied by coals and inclinations	—	1 250

**Customs Regulations.**—Every ship-master is bound to have on his arrival, ready for delivery to the boarding officers of the revenue, a manifest, containing a detailed statement of his cargo and ship stores, and in the act of handing it over has to write thereon an oath that he has no other cargo



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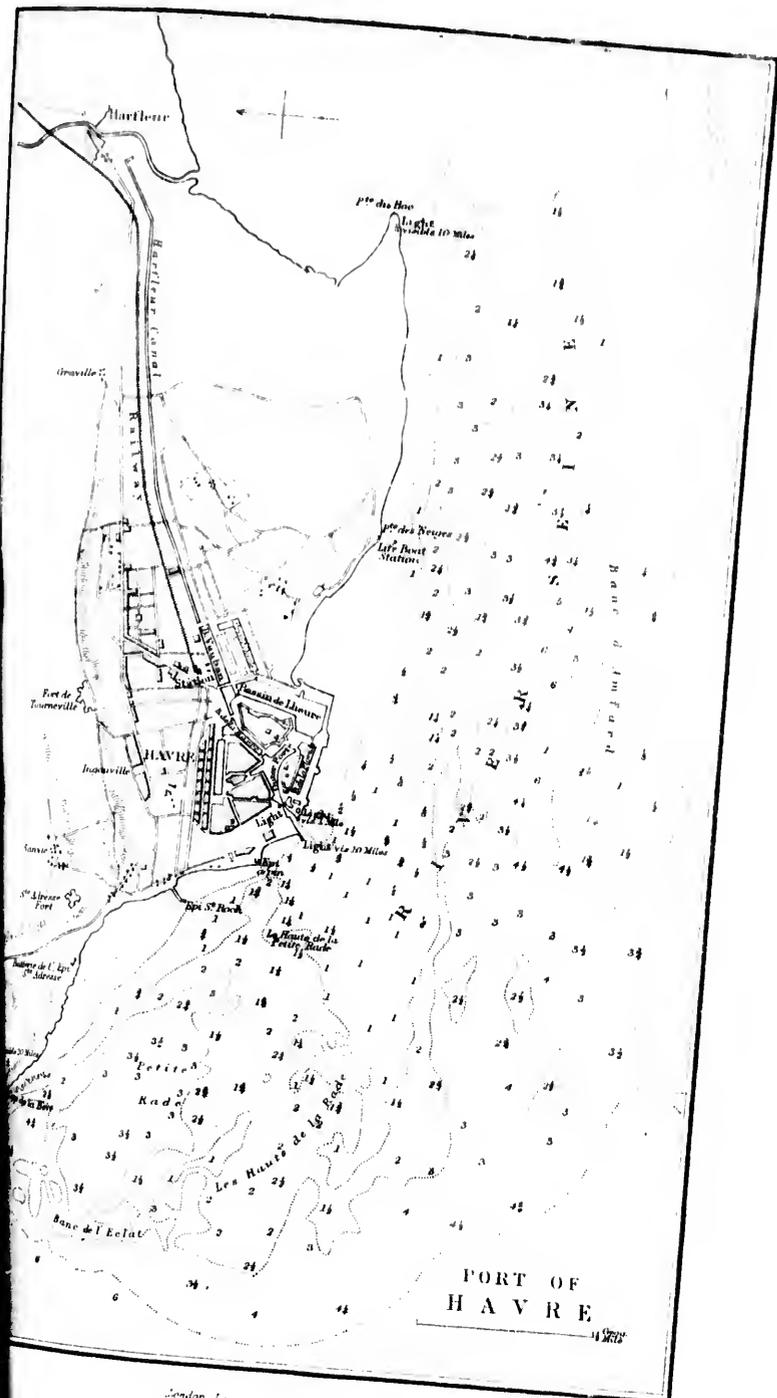
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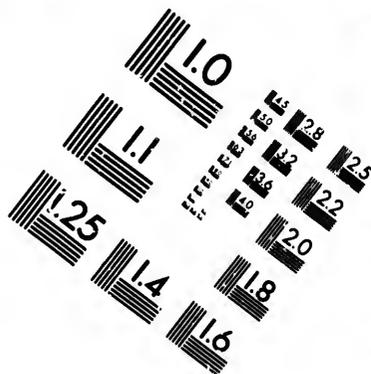
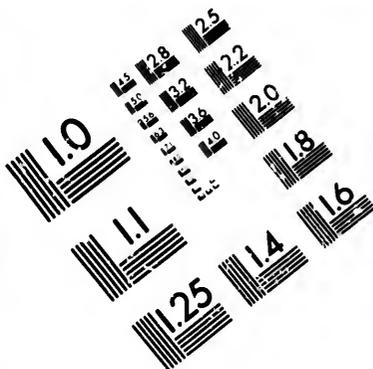
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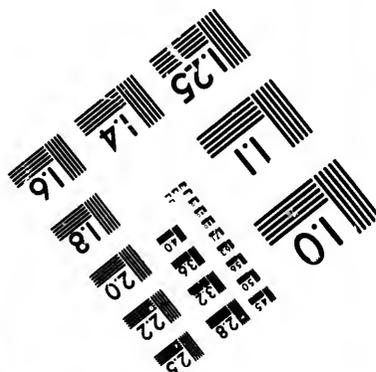
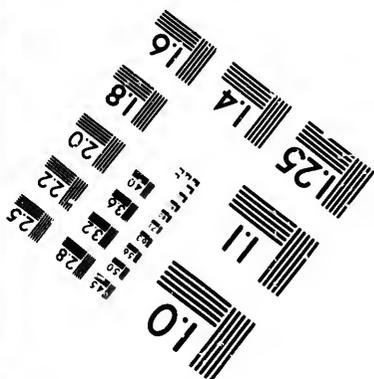
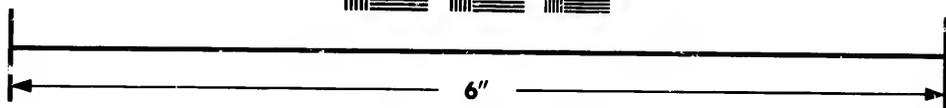
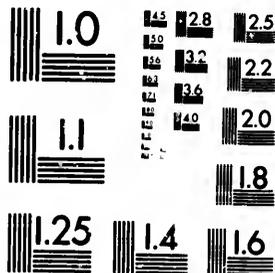
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from the port, and about  $\frac{3}{4}$  mile S.S.E. from Cape la Hève. They are separated by the sand-bank called L'Eclat, between which and the bank called *Les Hautes de la Rade* is the north-west passage to the port. The Hoc, or southern passage, lies between the last-mentioned bank and that of Amfard. In the great road there is from 6 to  $7\frac{1}{2}$  fathoms water at ebb, and in the little from 3 to  $3\frac{1}{2}$ . Large ships always lie in the former.

The Chamber of Commerce of Havre have published the following information and instructions for the use of vessels frequenting the port:—

Five buoys have been moored in the shallows Bayou, under the designation of the Banc de l'Eclat, and Hautes de la Rade.

These buoys are similar in form, but of different colours, viz.: the first to the northward is white; the second, white with a black top; the third is black; the fourth is black with a white top; the fifth is red.

Vessels must always come to anchor at a distance of at least five cables' length outside the line of these buoys, which they may not pass without danger before one hour and a half prior to high water, or four hours after ebb; and they must at all times pass at a distance of five cables' length from the black as well as from the red buoy, both of which are moored on the shallowest parts of these banks. Nevertheless ships may at all hours of the tide frequent the north-western passage, comprised between Cape la Hève and the two northernmost buoys.

All vessels using the north-western passage, and bound into the inner roadstead (Petit Rade), must steer for the white buoy, the farthest north, and after leaving it a little distance on the star-board hand should then stand towards the second white buoy, taking care never to come so close to the shore as altogether to lose sight of the lantern of the north-western lighthouse on Cape la Hève. When the light of the north-western pier-head bears by compass S.E., and the lighthouses on the Hoc bear by compass N.N.E., the ship may be brought to an anchor.

Besides the five buoys herein described, one of lesser dimensions has been moored on the shallows of the inner roadstead, at about five cables' length W.N.W. of the north-west pier-head. Vessels of light draught of water coming to an anchor in that part of the road should give this buoy an anchorage of at least one cable's length.

Most part of the goods imported into Havre are destined for the internal consumption of France. The coasting trade has increased very largely of late years, as is proved by the great increase of French wines, soaps, and other produce imported from Paris from Havre, instead of being sent to the capital by land. The coasting vessels transfer their cargoes partly to steamers and partly to large barges, called *chalands*, which are towed by teams as far as Rouen, and thence by horses to Paris. The foreign trade of the port is also very extensive. Lines of sailing packets are established between Havre and New York, New Orleans &c. regular intercourse by means of steam packets keeps up with London, Southampton, and other ports.

There belonged to the port, on December 31, 1866, 24,308 merchant vessels, of the aggregate burthen of 114,045 tons.

The *Monies, Weights, and Measures of Havre* are the same as those of the rest of France. MONIES; COINS; and WEIGHTS AND MEASURES.

The following is a statement of the number,

tonnage, and crews of the vessels that entered and cleared at Havre in 1867:—

	No.	Tons	Crews
French vessels entered	918	522,050	17,501
cleared	795	287,061	15,736
British vessels entered	1,287	402,131	21,825
cleared	1,278	397,582	21,651
All other foreign vessels entered	609	267,552	9,312
cleared	661	258,959	8,792
Coasting vessels entered	2,984	211,928	17,971
cleared	3,131	277,829	19,172

**Harbour Rules.**—1. It is forbidden to have fire, or lighted candle, or to smoke, on board ships in the harbour.

Bitter complaints are made against this rule. All cooking has to be done on shore, and small sailing vessels, arriving saturated with water, and with the clothes of the crew wet, have no place to dry in. The consequence is that the men quit their vessels, and betake themselves to low drinking shops, to the great demoralisation of the crews, and the profit of a vile set of crimps. (Mr. Consul Bernal's Report.)

2. Vessels coming into and lying in the docks must have the lower and top yards topped up, jibbooms and martingales rigged in, and anchors taken in. The wharf alongside the vessel must be swept every evening.

3. No gunpowder (whatever may be the quantity) is allowed to remain on board, and must be deposited in the gunpowder warehouse.

4. All foreign sailors found away from their ships after 10 o'clock at night from April 1 to October 1, and after 9 o'clock from October 1 to April 1, shall be conveyed to prison and fined. Sailors are forbidden to wear sheathing knives ashore.

5. The manifest of the cargo, signed by the captain, must be exhibited to and signed by the custom-house officers before being taken ashore. The vessel must be reported at the custom-house within 24 hours after arrival.

6. Tobacco, snuff, cigars loose or in boxes, belonging to the captain, officers, and mariners, to be declared as exactly as possible. All the tobacco, snuff, and cigars, declared or not declared, to be exhibited to the custom-house officers when they come and make the visit on board. After such exhibition, if any quantity of tobacco and cigars be found on board, it shall be seized, the captain shall be condemned to pay a fine which may be as high as 500 francs, and the ship shall be confiscated.

The following table shows the average rates of freight during 1866:—

Place	Steamers		Sailing Vessels	
	Frs.	per cent.	Frs.	per ton.
London	20	and 15	11	per ton.
Liverpool	20 to 25	„ 15	15	„
Hamburg	62	„ 25	35	„
Rotterdam	10 to 25	„ 15	„	„
Martinique and Guadeloupe	..	..	20 to 25	and 10 per cent.
Reunion and Mauritius	..	..	35 to 40	do. (cubic metre).
Haiti	..	..	40 to 50	per ton.
New York	50 to 125	and 10	10 to 25	„
Brazil	..	..	45 & 10 per cent.	(cubic metre).
Buenos Ayres	..	..	45	„
Pacific	..	..	52	„

**Port Charges.**—Charges on a British Vessel from England or an English Possession.

Pilotage in	24 fr. for the 1st hundred tons
	25 fr. for the 2nd hundred tons
	25 fr. for the 3rd hundred tons, and above
	14 per cent. for the head pilot
Boats of help in	21 fr. outside the banks
	12 fr. outside the piers
	9 fr. in the harbour
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Weighing anchors	2 50 per each cwt.
Weighing chains	0 50
	and 3 more if there be no buoy rope
Haulers	0 30 per man, besides 1 fr. 50 c. for the haulers

Port Charges—continued.

Bridges	5 60 for each bridge
Ballast unshipped	0 60 per half metre
Ballast shipped	1 14 per half metre for sand
	1 30 per half metre for clean ballast
Board of Health	2 50 for a vessel of 50 tons measurement and under
	5 0 for a vessel of 51 tons measurement and above
	10 0 for a vessel from other countries

Tonnage dues are abolished  
Local dues authorized on January 1, 1855, to liquidate the loan of 8,000,000 francs raised by the town for the improvement of it.

harbour and the docks.	5 00 from British processors in Europe with coal per ton
	1 10 for other cargoes
	0 75 from other ports in ballast and cargo away laden
	2 25 from other parts with cargo
Protect before the court	9 5
Affirmation before the court	5 50
Gunpowder shipped and unshipped	8 0
Brokerage in	0 50 per ton of goods landed
Brokerage out	0 25 per ton of goods shipped
Brokerage on ballast	0 12 per ton of goods measurement

The following table (No. 1), extracted from Consul Brand's Report of 1867, exhibits the tonnage of Havre in the years 1865-66:—

	1865			1866		
	Vessels	Tons	Crew	Vessels	Tons	Crew
French	800	249,131	14,726	829	294,135	15,946
	cleared	727	228,991	782	272,187	15,045
British	1,024	337,460	14,859	1,177	373,019	18,055
	cleared	1,024	287,911	1,181	330,715	17,088
All other Foreign	519	116,901	6,309	573	172,111	12,029
	cleared	335	99,391	371	111,111	10,566
Coasting	3,272	255,837	20,516	3,129	249,230	19,616
	cleared	3,313	274,315	3,227	271,918	20,419

The following tables give a summary of the foreign trade of France:—

II.—Real Value of the Principal Articles Imported into and Entered for Home Consumption in France in each of the Years 1862, 1863, and 1864.

Articles	Imports			Entered for Home Consumption		
	1862	1863	1864	1862	1863	1864
Cotton, raw	119,700,000	503,310,000	397,800,000	126,200,000	261,800,000	211,200,000
Silk and loss silk	329,200,000	332,500,000	339,500,000	326,000,000	292,200,000	287,500,000
Wool, raw	187,700,000	221,000,000	216,400,000	178,700,000	218,800,000	212,500,000
Manufactures of silk	111,000,000	153,200,000	174,000,000	4,500,000	4,600,000	7,500,000
Timber, common	116,700,000	134,800,000	135,800,000	117,600,000	135,200,000	128,000,000
Coal and coke	101,600,000	103,900,000	121,300,000	102,300,000	100,000,000	118,000,000
Waxes and skins, raw	82,000,000	117,400,000	107,400,000	69,300,000	111,000,000	108,600,000
Manufactures of wool	75,000,000	88,400,000	97,600,000	41,000,000	43,000,000	52,000,000
Manufactures of cotton	62,100,000	70,000,000	82,700,000	14,300,000	8,700,000	9,500,000
Animals: oxen, bullocks, and cows	70,900,000	77,700,000	78,300,000	70,000,000	77,100,000	75,000,000
Seeds, oleaginous	52,000,000	48,400,000	53,400,000	49,700,000	40,000,000	52,000,000
Sugar, foreign	77,500,000	65,000,000	71,900,000	65,200,000	66,000,000	75,200,000
Grain	199,600,000	194,700,000	199,500,000	127,300,000	55,000,000	253,000,000
Flax	35,000,000	50,700,000	53,000,000	53,000,000	50,600,000	50,600,000
Copper	36,800,000	41,500,000	51,400,000	34,800,000	28,900,000	46,600,000
Sugar, French colonial	70,100,000	71,700,000	42,800,000	65,700,000	78,800,000	46,800,000
Ginns and other manures	10,700,000	20,700,000	40,200,000	17,000,000	24,500,000	24,500,000
Cinders and ashes	31,600,000	26,000,000	37,100,000	31,600,000	36,000,000	37,300,000
Iron and steel	47,900,000	30,300,000	37,100,000	25,500,000	6,400,000	58,000,000
Oil, olive	78,000,000	81,500,000	75,600,000	72,000,000	74,300,000	82,000,000
Tallow and lard	59,400,000	44,100,000	35,400,000	38,300,000	42,800,000	35,200,000
Clacks	25,400,000	28,900,000	32,800,000	4,800,000	4,600,000	3,700,000
Manufactures of linen &c.	15,500,000	19,800,000	25,000,000	15,500,000	14,500,000	14,200,000
Ores, all kinds	22,200,000	27,600,000	31,000,000	22,500,000	23,500,000	24,000,000
Cheese and butter	18,900,000	19,900,000	22,900,000	15,500,000	14,000,000	15,700,000
Tobacco, leaf	21,000,000	28,200,000	22,400,000	19,200,000	19,200,000	18,800,000
Fish	12,800,000	12,100,000	12,000,000	13,800,000	13,200,000	14,400,000
Seed, for sowing	15,800,000	16,700,000	21,800,000	15,500,000	16,500,000	21,500,000
Indigo	26,100,000	23,200,000	21,600,000	25,800,000	21,400,000	21,500,000
Hats, straw &c.	9,300,000	20,300,000	21,600,000	8,500,000	9,900,000	12,100,000
Yarn, linen and hempen	8,900,000	15,600,000	21,400,000	5,600,000	7,700,000	5,100,000
Archels (earth nut) &c.	19,000,000	20,600,000	20,600,000	18,300,000	19,600,000	18,800,000

III.—Real Value of the Principal Articles Exported from France, distinguishing French Merchandise in each of the Years 1862-64.

Articles	Exports			French Merchandise		
	1862	1863	1864	1862	1863	1864
Apparel, all kinds, made up	103,100,000	96,800,000	121,500,000	91,700,000	89,300,000	107,000,000
Cheese and butter	39,400,000	43,400,000	55,100,000	34,400,000	35,000,000	42,000,000
Chemical products	28,300,000	33,100,000	30,400,000	23,000,000	49,300,000	54,900,000
Colles	50,900,000	32,400,000	37,600,000	—	—	57,000,000
Cotton, raw	65,200,000	94,700,000	109,700,000	41,300,000	52,000,000	57,000,000
Fashions and glass	29,300,000	24,100,000	21,100,000	28,000,000	24,100,000	35,000,000
Grain	93,700,000	93,800,000	98,200,000	41,800,000	48,000,000	56,300,000
Haberdashery, fancy goods &c.	145,300,000	165,600,000	204,100,000	140,600,000	159,700,000	193,800,000
Jewellery, gold, without stones	67,300,000	60,800,000	72,600,000	68,000,000	67,000,000	74,000,000
Machinery	32,100,000	35,600,000	50,400,000	8,300,000	7,500,000	8,200,000
Manufactures: cotton	110,200,000	159,900,000	185,700,000	65,300,000	88,000,000	112,000,000
linen	26,000,000	29,000,000	35,700,000	26,000,000	23,000,000	24,500,000
silk	467,600,000	491,000,000	551,700,000	363,500,000	370,200,000	408,200,000
wool	560,100,000	585,300,000	471,500,000	221,700,000	225,600,000	260,000,000
Paper, all kinds	35,000,000	39,500,000	42,200,000	37,000,000	37,000,000	43,000,000
Silk	149,400,000	147,200,000	146,800,000	49,800,000	96,800,000	101,500,000
manufactured	68,400,000	85,300,000	94,000,000	65,800,000	78,500,000	61,000,000
unmade, crueted &c.	43,500,000	61,900,000	52,800,000	14,000,000	31,300,000	39,500,000
Spirits, all sorts	59,800,000	68,900,000	77,400,000	56,500,000	63,300,000	76,000,000
Sugar, refined	51,700,000	74,600,000	76,000,000	56,600,000	5,600,000	27,000,000
Timber, common	3,500,000	3,500,000	3,500,000	36,000,000	43,500,000	41,000,000
Wares and tools, metal	106,700,000	122,100,000	123,200,000	41,000,000	43,700,000	43,000,000
Wine	211,000,000	231,300,000	236,200,000	210,000,000	223,700,000	234,000,000
Yarn	47,700,000	51,200,000	57,400,000	45,000,000	48,000,000	51,000,000
Yarn, linen	6,100,000	35,600,000	30,200,000	2,100,000	26,600,000	21,200,000

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TRADE BETWEEN FRANCE AND ENGLAND.

Nothing can more strikingly illustrate the mischievous influence of commercial restrictions than the history of the trade between Great Britain and France. Here we have two countries of vast wealth and population, near neighbours, and each possessing many important articles that the other wants, and yet the intercourse between them since 1689 has generally been inconsiderable. At a distant period this was not the case. Previously to the accession of William III. the importation of wine only from France amounted to about 13,500 tuns a-year, our imports of brandy and other articles being proportionally large. But Louis XIV. having espoused the cause of the exiled family of Stuart, the British Government, not recollecting that the blow they aimed at the French would also smite their own subjects, imposed in 1693 a discriminating duty of 8*l.* per tun on French wine, and in 1697 raised it to no less than 33*l.* per tun! It is probable that this excess of duty would have been repealed as soon as the peculiar circumstances in which it originated had disappeared, had not the stipulations in the famous commercial treaty with Portugal, negotiated by Mr. Methuen in 1703, given it permanence. According to this treaty, we bound ourselves for the future to charge 35*l.* per cent, higher duties on the wines of France imported into England than on those of Portugal; the Portuguese, by way of compensation, binding themselves to admit our woollens into their markets in preference to those of other countries at a fixed and invariable rate of duty.

Though very generally regarded at the time as the highest effort of diplomatic skill and address, the Methuen treaty was, undoubtedly, founded on the narrowest and most contracted views of national interest; and it in consequence proved in no common degree injurious to both parties, but especially to England. By binding ourselves to receive Portuguese wines for *two-thirds* of the duty payable on those of France, we in effect gave the Portuguese growers a monopoly of the British market; at the same time that we excluded one of the principal equivalents the French had to offer for our commodities, and enabled them to retaliate. This, indeed, was no difficult task. Unhappily, they were but too ready to embark in that course of vindictive policy of which we set them the example; so that prohibitions on the one side being immediately followed by counter-prohibitions on the other, the trade between the two countries was early annihilated! The indirect were still more injurious than the direct consequences of this wretched policy. It inspired both parties with feelings of jealousy and dislike, and kept them in the frowning attitude of mutual defiance, which enervated the other's prosperity; and being disposed to take fire at even fancied encroachments, the most frivolous pretences were sufficient to engage them in contests that have filled the world with bloodshed and confusion. But things been left to their natural course—had a freer and more extensive commercial intercourse been allowed to grow up between the two countries—the one would have formed so near, so vast, and so profitable a market for the produce of the other, that it could not have remained long at war without suffering the most extensively ruinous distress—distresses which no Government would be willing to inflict on its subjects, and to which, though the Government were willing, it is most probable no nation would be disposed to submit. A free trade between England and France would give these two

great nations *one common interest*. It would occasion not only a vast increase of the industry, and of the comforts and enjoyments, of the people of both countries, but would be the best attainable security against future hostilities. 'We know,' said Mr. Hyde Villiers, in his speech of June 15, 1830, 'that British enterprise will fetch the extreme points on earth in the business of exchange; but here are the shores of France nearer to England than those of Ireland itself—nay, Bordenux is commercially nearer to London than it is to Paris; and, but for the lamentable perversion of the gifts and dispositions of nature, and of the ingenuity of man, the highways of commerce between these countries—the seas which surround Great Britain and Ireland, and wash the shores of France—should literally swarm with vessels, engaged, not only in the interchange of material products, but in diffusing knowledge and stimulating improvement; in creating everywhere new neighbourhoods; in consolidating international dependence; in short, in drawing daily more close the bonds of international peace and confidence, and thus advancing, while they also served to confirm and secure, the peace, the civilisation, and the happiness of Europe.' This was one of the last public appearances made by Mr. Villiers. He died in December 1832, at the early age of 31. His death was a national loss. Few have entered upon public life with better dispositions, more enlarged and comprehensive views, or a more sincere desire to promote the happiness of their species.

The commercial treaty which Mr. Pitt negotiated with France in 1786 was the first attempt to introduce a better system into the trade between the two countries; and it is one of the few treaties of this description that have been bottomed on fair and liberal principles. But the revolution in France, and the lengthened and bloody wars by which it was followed, totally suppressed that mutually beneficial intercourse which had begun to grow up under Mr. Pitt's treaty, and revived and embittered all the old hostile feelings and prejudices inherited by both parties. Since the peace of 1815 the animosities and prejudices in question have, however, been much mitigated. The abolition of the discriminating duty on French wine in 1831 had a considerable influence in bringing about this improved state of things, at least in a commercial point of view; and since then we have given a still greater extension to the same enlightened policy by reducing the oppressive duty formerly laid on brandy, and the high duties on silks and other articles of French produce. It should also be borne in mind that France has profited largely by the repeal of our corn laws. Her exports of wheat and flour to our markets have been much greater than any one anticipated, and have conduced greatly to the advantage of the agriculturists of Normandy, and generally of the north-west departments of France.

There was, in consequence, a very great extension of the trade between the two countries; though it was still trifling compared to what it would have been, had it been allowed to attain to its full development. But the French showed little inclination to reciprocate the liberal policy of which we had set them an example. On the contrary, their policy, if so we may call it, was in some respects more anti-commercial than ever. In 1836, for example, the French Government having considerably reduced the high duties that were then imposed on foreign linens and linen yarn, the imports of both articles rapidly increased, and a powerful stimulus was given to the trade of France. But, as might have been expected, the linen manufacturers and spinners, whose monopoly had been

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81,500,000

IV.—Account of the Quantities and Declared Values of the Principal and other Articles of Produce and Manufactures of the United Kingdom Exported from the United Kingdom to France in each of the 4 Years ending with 1866.

Table with columns: Articles, Quantities (1863, 1864, 1865, 1866), Declared Real Value (£, 1863, 1864, 1865, 1866). Rows include various goods like Alkali, soda, Appareil and haberdashery, Cement, Coals, cinders, and culm, Copper, wrought and unwrought, Cotton, Wheat, Cotton yarn, Cottons, entered by the yard, Drugs and chemical products, Earthenware and porcelain, Hardwares and cutlery, unenumerated, Horses, Iron, wrought and unwrought, Lead and shot, Linen yarn, Linens, entered by the yard, Machinery, Steam engines, Naphtha, paraffin oil, petroleum &c., Painters' colours, Plates, plated ware, jewellery, and watches, Saltpetre, Silk, Yarn, Drawn, Manufactures, Spirits, British and Irish, Telegraphic wire &c., Tin, unwrought, Tin plates, Wool, sheep and lambs', Woolens and worsted yarn, Woolens, entered by the yard, All other articles, Total value.

interfered with, felt aggrieved by this new state of things; and instead of endeavouring to withstand the competition of their foreign rivals by improving their fabrics and cheapening their processes, they found it more convenient to appeal to popular prejudice, and to represent themselves as sacrificed, through a false policy, to the cupidity of foreigners, who, to insure their ruin, sold their products at less than they cost! And this contradictory nonsense induced the Government to retrace its steps; to re-impose the high duties on foreign linens and yarns; and, consequently, to increase the price of a necessary, and to check or prevent the production and exportation of the articles which had been sent abroad in payment of the linens.

The same *velo de se* policy prevailed in regard to the trade in cottons and most other things. But the restrictions on the importation of iron may, notwithstanding the reductions made from their amount in 1853, be regarded as the triumph of the protective system in France. Everybody knows that a cheap and abundant supply of iron is indispensable to anything like successful agriculture or manufactures; and everybody knew, none better than the Emperor of the French, that owing to the scarcity and bad quality of coal in France, and the necessity of using wood in the smelting of minerals, she had no facilities for the production of iron, which consequently cost a very large sum. Under these circumstances it might have been expected that the French would have opened their ports to the iron of all countries, and that if they did not encourage its importation by a bounty, they would have, at all events, taken especial care not to check it by a duty. But no: they were so enamoured of bad and dear ploughs, and of bad and dear implements and machinery of all sorts, that they imposed all but prohibitory duties on foreign iron. Under Napoleon I. duties of 44 fr. and 110 fr. per ton

were laid respectively on bar and sheet-iron; and these, though justly objectionable for their great magnitude compared with its price, were afterwards raised till they amounted, under Napoleon III., to 200 fr. (8*l*.) and 410 fr. (7*l*.) per ton! But these monstrous duties were introduced, as already stated, in 1853, to about 1854. They were still, however, a great deal too high in fact, they ought not to have existed at all. And this forced scarcity and high price of iron culture and all the more important arts brought them almost to a stand. And how was this immense sacrifice incurred?—to gratify the rapacity of a handful of forest proprietors who contended that they would suffer were iron admitted duty free, or at a moderate rate. The French did not kill the goose for the sake of the eggs, but for the offal she had picked up.

It would be a libel on an intelligent people to suppose that such a system could be permanent. The beneficial influence of our reductions of duties on French wines and brandy has been the growing popularity of free trade principles, eventually led to the Treaty of 1860. This may indeed be said to have gone to the extreme, for it stipulated for the entire exemption of many important French products from customs' duties, even when these were not unobjectionable. But however erroneous on a financial point of view, this conduct of ours, combined with the reduction of the duties on British articles imported into France, has proved a powerful stimulus to the trade between the countries.' (Principles of Political Economy, 1864, p. 108.) For the text of the Treaty of 1860, see TREATIES, COMMERCIAL.

The fruits of this Treaty will be best seen by comparing the trade between France and Britain in 1863-66 with that of 1854-57. In addition to the pertion of Western Europe...

V.—Account of the Quantities and Declared Values of the Principal and other Articles of Produce and Manufactures of the United Kingdom Exported from the United Kingdom to France in each of the 4 Years ending with 1866.

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V.—Account of the Quantities and Declared Values of the Principal Articles of the Produce and Manufacture of the United Kingdom Exported to France in each of the 4 Years ending with 1857.

Articles	Quantities				Declared Value			
	1854	1855	1856	1857	1854	1855	1856	1857
Apothecary wares, drugs &c.	—	—	—	—	£ 16,185	10,607	7,742	10,881
Apparel, alaps and haberdashery	—	—	—	—	£ 4,771	48,256	64,794	59,848
Beer and pork	—	—	—	—	£ 26,068	8,917	15,761	1,119
Books, stationery, manufactures of	—	—	—	—	£ 22,414	11,652	12,555	8,432
Cloves, cinchona and culm	814,837	938,180	1,158,513	1,279,133	£ 414,157	521,167	571,446	571,446
Corns, wheat and unwrought	49,283	7,18,18	79,826	106,327	£ 238,159	427,415	410,570	501,940
Copper, wrought and unwrought	17,156	8,1,150	65,662	72,382	£ 57,165	331,062	229,630	200,800
Cotton, raw	16,307	3,907,350	3,907,350	3,907,350	£ 36,014	2,278,5	15,155	1,966
Cotton, cleaned by the yard	5,087,565	7,019,671	9,929,495	17,452,579	£ 112,904	1,35,000	151,000	251,474
at value	—	—	—	—	£ 39,196	55,398	35,765	31,008
Cotton yarn	126,048	171,008	147,306	437,382	£ 38,859	31,132	21,296	56,512
Cloth, dressed and undressed	11,608	25,516	3,040	6,061	£ 66,625	75,661	83,000	12,208
at value	—	—	—	—	£ 7,216	15,116	1,016	11,571
Hoses	2,116	2,955	1,127	755	£ 106,330	136,245	56,985	49,660
Iron, wrought and unwrought, including	—	—	—	—	£ 261,646	908,692	1,193,576	79,019
unwrought sheet	49,874	117,173	75,251	133,639	£ 24,119	94,571	22,716	8,881
Lead and steel	1,418	1,562	969	374	£ 61,631	81,591	71,901	71,901
Lacres, entered by the yard	1,311,832	1,187,258	1,278,919	1,131,827	£ 48,127	49,861	70,989	86,110
Leads	291,985	295,501	561,568	490,901	£ 37,853	32,891	18,612	52,081
Machinery, steam engines	—	—	—	—	£ 101,530	191,531	158,219	216,061
all other sorts	—	—	—	—	£ 5,636	17,671	188,519	102,919
Mill, plated ware, jewellery and watches	—	—	—	—	£ 104,536	21,736	7,415	19,207
at value	—	—	—	—	£ 371,011	297,115	891,306	270,278
Oil, manufactures	46,552	3,068,766	3,155,540	2,624,191	£ 9,195	660,750	598,393	588,574
at value	—	—	—	—	£ 57,999	37,229	58,617	70,116
Oil, unwrought	9,606,751	19,773,858	12,631,299	11,251,551	£ 5,908	747,112	778,351	825,765
at value	—	—	—	—	£ 28,128	29,297	36,819	36,819
Wool, sheep and lambs'	1,156,999	1,051,509	1,289,361	1,157,090	£ 55,877	49,150	62,198	122,656
at value	—	—	—	—	£ 10,605	7,146	5,687	5,687
Woolens, entered by the piece	—	—	—	—	£ 104,514	103,227	171,500	216,704
at value	—	—	—	—	£ 401,513	438,816	1,224,018	1,168,608
Woolen yarn	—	—	—	—	£ 3,175,290	6,012,658	6,432,660	6,215,508
Total value of the above and of all other articles	—	—	—	—	£ 11,621,257	15,638,051	16,292,977	14,897,489

VI.—Account of the Quantities and Declared Values of the Principal and other Articles of Foreign and Colonial Produce Exported from the United Kingdom to France in each of the 4 Years ending with 1860.

Articles	Quantities				Value			
	1863	1864	1865	1866	1863	1864	1865	1866
Bacon	51,618	9,121	4	546	£ 78,329	13,474	12	1,601
Beef, Persian	5,419	5,506	3,307	2,531	£ 18,333	20,198	22,010	20,079
Beef, French (including tongues)	298,967	565,550	597,513	556,116	£ 17,138	29,552	31,752	29,057
Campbell, roamed and unroamed	5,207	7,120	4,265	2,937	£ 35,928	58,667	20,668	20,731
Cashmere	8,417	6,816	6,125	6,740	£ 65,481	62,753	45,229	73,108
Cashmere, shawl	5,628	1,598	5,156	5,156	£ 41,828	26,560	49,074	61,001
Coffee	297,698	514,106	403,917	1,699,432	£ 10,337	8,069	11,781	56,514
at value	—	—	—	—	£ 15,393,376	9,727,588	15,843,210	19,009,118
Copper, unwrought and part wrought	57,767	95,840	117,520	197,680	£ 271,718	461,691	543,546	776,073
Corn, wheat	48,620	4,128	12,116	22,983	£ 23,983	1,501	3	6,843
Cotton, raw	3,407	17,009	96	1,514	£ 5,300	31,288	—	8,800
Cotton, raw	281,126	361,015	773,187	551,114	£ 5,317,543	5,240,122	5,199,894	4,760,787
Cotton, Scotch, black and white	5,989	47,900	6,650	15,298	£ 11,501	11,116	—	5,588
Cloth, dressed and undressed	9,631	12,537	15,086	16,534	£ 26,914	33,111	49,860	49,860
Gins	953	1,379	1,160	4,173	£ 4,560	7,719	7,574	20,517
Gunmetal	80	715	721	731	£ 1,805	18,682	17,507	21,560
Gunmetal and cutch	4,365	5,912	5,825	5,501	£ 35,111	35,691	41,520	41,520
Gunmetal, shell lac	36	2	1,172	1,928	£ 9,207	4,229	36,647	—
Hair, manufactures of, goats' wool	—	—	—	—	£ 20,752	16,800	109,118	30,451
Hemp, dressed and undressed	15,807	7,336	432	69	£ 20,752	16,800	109,118	30,451
Hemp, dressed and undressed	162,491	257,030	379,853	361,228	£ 210,990	292,069	338,788	337,612
Hemp, not dressed	29,775	33,651	14,212	3,865	£ 86,428	101,051	42,801	61,605
Hemp, British, Irish, and other sorts	746	506	755	798	£ 18,380	15,751	20,923	21,801
India, for expressing oil therefrom	2,671	5,365	4,922	8,005	£ 75,033	158,245	148,296	257,982
Oil, Castor	117	1,146	1,101	282	£ 1,898	20,517	16,107	825
at value	—	—	—	—	£ 11,297	17,782	31,561	25,007
Oil, Coconut	18,898	11,029	15,818	19,621	£ 35,512	23,698	28,731	30,808
Oil, Olive	162	205	218	311	£ 10,245	10,161	12,121	19,837
Oil, of bladder and spermaceti	5,930	5,737	1,465	10,065	£ 9,561	8,723	5,190	18,163
Oil, of castor, refined and unrefined	2,311	823	1,010	1,440	£ 4,776	10,281	26,478	22,011
Oil, of linseed, refined and unrefined	413,117	328,865	359,572	398,751	£ 37,439	31,063	37,080	56,091
Oil, of nutmeg	17,657	14,953	28,879	45,685	£ 2,675	27,738	9,590	22,462
Oil, of rose, not in the bulk	331,319	111,091	51,936	41,678	£ 80,171	62,055	35,066	100,208
Oil, of clove	35,555	235	273	292	£ 93,219	797	921	938
Oil, of fennel	15,225	25,024	14,359	3,012	£ 46,501	68,399	59,890	8,760
Oil, of poppy	15,237	11,865	23,725	41,440	£ 38,841	32,414	63,781	117,358
Oil, of saffron	21,699	2,918	1,040	7,553	£ 78,419	1,8615	3,510	29,482
Oil, of turpentine	21,442	46,712	25,185	27,172	£ 35,329	123,613	67,688	75,316
Oil, of vitriol	45,114	48,294	61,541	89,866	£ 135,590	123,117	187,950	217,536
Oil, of kum and hawks	825	636	980	12,023	£ 9,240	7,046	28,279	209,901
at value	—	—	—	—	£ 3,251,490	3,165,645	2,481,190	1,455,036
Iron	196,298	603,764	278,146	65,821	£ 519,805	5,115,919	3,267,295	1,931,527
Iron manufactures:	—	—	—	—	£ 23,841	21,810	22,617	12,283
Brass and bellows, and ribbons	—	—	—	—	£ 4,217	3,000	3,711	18,275
Cashmere shawls, plain and embroidered	—	—	—	—	£ 19,800	15,129	11,670	34,639
Cashmere, shawl	356,000	450,713	329,478	377,259	£ 663,721	43,788	40,636	45,095
Cashmere, shawl	60,853	40,150	44,811	76,309	£ 4,811	5,503	4,332	6,168
Cashmere, shawl	712	18,294	55,470	19,619	£ 12	18,294	35,770	19,619
Cashmere, shawl	151,671	111,709	99,895	205,561	£ 11,671	8,869	8,366	16,135
Cashmere, shawl	147,232	38,849	9,191	530	£ 174,471	53,564	11,501	351
Cashmere, shawl	15,852	3,411	537	3,158	£ 1,917	699	1,235	7,139
Cashmere, shawl	201,095	175,268	219,720	257,125	£ 15,845	13,327	18,314	20,621
Cashmere, shawl	2,579	2,575	2,412	2,567	£ 61,732	81,874	77,172	95,910
Cashmere, shawl	15,098	8,099	11,463	11,661	£ 89,088	96,486	55,531	46,585
Cashmere, shawl	259,862	179,520	1,560,510	376,156	£ 11,369	6,148	52,275	14,111
Cashmere, shawl	7,411	10,148	15,331	30,803	£ 4,628	6,148	9,734	19,551
Cashmere, shawl	39	12	7	7	£ 18,753	5,025	5,025	5,172
Cashmere, shawl	164,101	153,893	176,196	147,461	£ 53,484	51,655	51,001	47,404
Cashmere, shawl	205	486	1,137	2,627	£ 1,296	4,518	10,895	27,255
Cashmere, shawl	31,556,537	38,132,271	50,129,173	47,315,516	£ 2,109,454	3,055,170	3,665,124	3,651,177
Cashmere, shawl	791	—	1,859	331	£ 1,653	3,190	41,308	7,140
Cashmere, shawl	—	—	—	—	£ 482,041	530,186	483,573	490,737
Total	—	—	—	—	£ 11,621,257	15,638,051	16,292,977	14,897,489
Total of British and Foreign produce	—	—	—	—	£ 23,291,666	23,823,392	23,355,072	16,597,429

VII.—Account of the Quantities and Computed Values of the Principal Articles Imported from France into the United Kingdom in each of the 4 Years ending with 1857.

Principal Articles	Quantities				Computed Values			
	1854	1855	1856	1857	1854	1855	1856	1857
Animals, living: oxen and bulls	3,561	4,192	1,187	1,609	4,472	5,799	56,023	35,774
cows and calves	2,709	1,158	795	67	25,796	12,176	—	3,715
horses	2,709	1,158	795	705	50,421	18,600	23,400	17,275
Apples, raw	201,509	93,919	216,629	159,191	40,884	22,115	75,777	87,448
Alphalium or bitumen judaicum	1,975	1,465	2,273	2,435	49,385	70,235	49,385	49,385
Books	1,843	1,767	2,286	2,435	20,119	20,245	23,975	27,401
Butter	45,256	32,499	34,581	26,290	191,258	80,661	137,620	100,725
Canehouse, manufactures of	168,274	164,835	354,134	469,137	39,533	28,441	56,793	23,520
China ware, porcelain, and earthen-ware	5,092	3,888	3,048	3,133	31,519	35,448	39,573	34,729
Clocks	49,736	51,726	82,198	100,295	65,751	64,285	72,750	83,018
Corn: wheat	113,078	261,519	10,007	37,178	515,081	99,733	35,025	90,075
barley	1,810	1,214	2,679	6,251	4,508	5,221	4,421	11,621
malt, or Indian corn	1,041	26,775	27,658	21,187	4,921	50,720	41,252	35,365
other kinds	15,929	29,558	969	4,330	32,053	62,113	1,992	4,001
wheatmeal and flour	219,755	88,196	69,841	327,115	215,293	108,010	83,909	33,242
Cotton, raw	12,182	39,616	18,811	18,811	3,298	11,378	25,026	67,574
Crease of tartar	16,339	4,220	6,451	2,093	91,358	22,155	5,174	49,019
Eggs	153,958	435,715	513,771	565,999	125,238	206,979	211,911	281,029
Embroidery and needlework: Silk net, figured with the needle	3,370	1,491	1,751	2,456	15,166	6,711	7,788	11,035
Curtains, embroidered on muslin or net	91,777	52,607	50,235	57,136	47,389	26,301	25,117	38,278
Unenumerated	26,129	21,697	52,886	34,452	34,632	25,477	48,903	35,959
Flowers, artificial	8,966	12,396	6,025	17,855	69,972	86,772	46,725	138,118
Glass, plate	514,502	418,583	421,252	568,978	19,286	16,569	21,215	13,449
blow, cut and not cut (except bottles)	411,761	396,119	406,853	538,252	9,899	8,217	9,260	8,341
Hats or bonnets of straw	37,399	11,699	19,551	21,953	112,197	41,098	58,062	71,090
Hats, not tanned	502	6,092	9,616	17,738	1,021	15,907	29,521	61,521
tanned, tawed, curried, or in any way dressed	1,116,582	665,557	975,915	1,856,438	105,811	58,961	100,208	215,150
Leather manufactures: Hides	3,711,729	5,511,425	3,939,595	4,136,568	210,835	225,232	296,171	319,978
Hoots, shoes, and goliathes	174,181	125,766	180,514	187,137	32,417	21,231	40,903	47,250
Horn trimmings	538,001	531,676	667,145	552,477	34,014	36,539	89,333	76,563
Linen manufactures: Cambrics and French lawns	136,390	151,825	188,132	151,859	25,857	27,829	33,686	33,508
Madder	65,551	71,227	66,522	62,414	161,102	161,102	167,998	168,259
Madder root	21,853	18,535	6,416	23,202	71,408	35,099	11,874	74,011
Oil, rapeseed	983	2,297	1,530	2,929	18,226	152,028	78,793	19,573
Oil seed cake	11,164	19,515	15,767	15,150	104,150	193,084	116,339	128,181
Paper hangings	153,227	274,236	304,102	306,743	39,650	15,717	15,013	13,527
Plaiting of straw, chip, and other materials	176,226	123,425	118,220	144,538	171,766	180,757	137,839	155,191
Prints and drawings	15,380	8,851	30,051	14,099	35,220	25,155	33,676	40,051
Prints and drawings	57,215	59,860	52,077	48,011	14,301	14,965	17,201	12,403
Seeds: clover	70,984	65,737	57,405	20,012	185,346	216,706	221,355	212,011
grass	22,425	19,181	22,702	37,447	73,224	58,413	68,106	115,201
trefoil	16,123	17,408	22,295	14,318	17,755	29,159	50,202	39,757
Silk, raw	148,195	139,070	157,539	315,665	159,510	158,129	256,073	61,861
waste, knubs, and huiss thrown	4,453	5,209	6,538	7,034	18,203	18,431	19,478	19,481
throw	538,415	12,193	331,018	285,900	686,020	411,056	587,611	652,841
Silk manufactures: Stuffs and ribbons	555,011	504,855	528,708	428,600	1,383,808	1,249,830	1,716,119	1,657,011
Silk plush for making hats	14,015	145,287	170,519	118,142	86,409	87,172	102,312	76,343
Skirts, kid, dressed	857,984	645,782	418,984	265,477	65,910	96,567	71,522	66,341
Spirits: brandy	2,891,201	1,861,590	2,501,190	2,296,011	1,291,717	911,200	1,477,911	1,582,011
sugar, unrefined	4,680	3,093,228	65,214	137,015	5,274	538,191	98,338	20,398
refined, and candy	15,201	32,271	29,725	97,122	29,041	42,195	49,043	2,993
Tallow	51,682	2,277	5,162	6,781	6,781	6,781	6,781	6,781
Watches	109,339	91,140	88,249	87,214	271,821	209,130	212,266	293,807
Wine	1,001,589	555,919	711,912	796,760	619,497	397,119	556,951	333,881
Woolen manufactures: Carpets and rugs	2,513	2,808	7,487	5,059	925	1,123	3,993	1,141
shawls, scarfs, and handkerchiefs	57,376	25,914	16,416	12,802	15,709	8,178	6,071	4,821
Unenumerated	—	—	—	—	438,284	477,348	618,147	592,731
Total value of the above and of all other articles	—	—	—	—	10,147,774	9,146,418	10,585,592	11,853,807

which is included in the French empire, France possesses the colony of Algeria, the island of Corsica, French Guiana, a few islands in the Gulf of Mexico and the Indian Ocean, a strip of land on the coast of Cochin China, and one or two unimportant settlements in British India.

The customs' duties and salt tax of France produced in 1862, 7,468,815*l.*; in 1863, 7,819,769*l.*; in 1864, 6,474,671*l.* The largest sum was contributed by sugar, which reached on an average to nearly one half the total sum received; next coffee, then coal, and textile fabrics: these last two pay nearly the same amount to the revenue.

The following shows the extent of the French mercantile marine:—

Years	Sailing Vessels		Steam Vessels		Total	
	no.	tons	no.	tons	no.	tons
1862	14,794	913,690	338	75,381	15,132	989,071
1863	14,746	900,472	316	84,963	15,062	985,435
1864	14,820	900,635	361	97,884	15,181	998,519

The number of these ships trading with Great Britain and its European possessions is larger than that trading with any other country; but

there is also a considerable trade between France and Italy, Turkey, Egypt, and British India.

The French fisheries are chiefly those for cod. The chief rendezvous of these fisheries is Dunkirk [FISHERIES.]

Of French ports, Marseilles has by far the largest commercial marine. [MARSEILLES.] The tonnage entering the ports of Dunkirk, Boulogne, Dieppe, Calais, Bordeaux, Nantes, Nice, and Cette does not vary considerably. [BORDEAUX NANTES.]

The following are accounts of the real value of imports and exports:—

Years	Merchandise Imported		Specie Imported	
	Value	Value	Value	Value
1862	2,899,000,000	116,000,000	576,000,000	158,000,000
1863	2,226,000,000	129,100,000	398,000,000	230,000,000
1864	3,407,000,000	130,200,000	815,000,000	318,000,000

Years	Merchandise Exported		Specie Exported	
	Value	Value	Value	Value
1862	3,049,000,000	182,000,000	493,000,000	158,000,000
1863	3,526,000,000	141,000,000	653,000,000	154,000,000
1864	3,921,000,000	156,300,000	732,000,000	220,000,000

VIII.—  
Animals, living  
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Corn: wheat  
    barley  
    malt, or Indian  
    other kinds  
    wheatmeal and  
Cotton, raw  
Crease of tartar  
Eggs  
Embroidery and  
    Silk net, figured  
    Curtains, embro  
    muslin or net  
    Unenumerated  
Flowers, artificial  
Garance  
Glass, plate  
    blow, cut and  
    Hats or bonnets  
    Hats, not tann  
    tanned, tawed,  
Leather manufac  
    Hides  
    Hoots, shoes, a  
    Horn trimmings  
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Oil, rapeseed  
Oil seed cake  
Paper hangings  
Plaiting of straw  
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Prints and draw  
Seeds: clover  
    grass  
    trefoil  
Silk, raw  
    waste, knubs, a  
    throw  
Silk manufac  
    Stuffs and ribb  
Silk plush for  
Skirts, kid, dress  
Spirits: brandy  
    sugar, unrefine  
    refined, and can  
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    Carpets and rug  
    shawls, scarfs, a  
    Unenumerated  
Total value of the  
of all other artic

Total value

Of these imports, the wool, timber, and cotton goods constitute the wine, then haberd

VIII.—Account of the Quantities and Computed Values of the Principal and other Articles Imported from France into the United Kingdom in each of the 4 Years ending with 1866. 693

Table with columns: Articles, Quantities (1863, 1864, 1865, 1866), and Computed Real Value (1863, 1864, 1865, 1866). Rows include various goods like animals, wool, cotton, and manufactures.

between France and British India. The principal articles imported from these countries are Dunlop's...

has by far the largest quantities of the real value...

Table with columns: Value, and rows for Specific Imported and Specific Exported goods.

Of these imports, the largest items are cotton, wool, timber, and coffee. By exports, silk and other goods constitute by far the largest item, value, represent, however, though of less aggregate instance clothing, leather, refined sugar, and various agricultural products. It is possible that...



offer goods for sale, or on the demand of any justice, mayor, constable or other peace officer, or any of the customs or excise. By 5 Geo. IV. c. 53 hawkers trading without a license are punishable as vagrants.

To forge or counterfeit a hawker's license incurs a penalty of 300*l.* To lend or hire a hawker's license subjects lender and borrower to 40*l.* each, and the license becomes forfeited. But the servant of a licensed hawker may travel with the license of his master.

Hawkers trading without a license are liable to be seized and detained by any person who may give notice to a constable, in order to their being carried before a justice of peace. Constables refusing to assist in the execution of the Act are liable to a penalty of 10*l.*

Nothing in the Act extends to prohibit persons from selling fish, fruit, or victuals; nor to hinder the maker of any home manufacture from exposing his goods to sale in any market or fair; in every city, borough, town corporate, and market town; nor any tinker, cooper, glazier, plumber, harness-maker, or other person from going about and carrying the materials necessary to their business.

A single act of selling, as a parcel of handkerchiefs to a particular person, is not sufficient to constitute a hawker within the meaning of the statute. (*Hex v. Little*, B. 613.)

By the 52 Geo. III. c. 108 no person, being a trader in any goods, wares, or manufactures of Great Britain, and selling the same by wholesale, shall be deemed a hawker; and all such persons, or their agents, selling by wholesale only, shall go from house to house, to any of their customers who sell again by wholesale or retail, without being subject to any of the penalties contained in any Act touching hawkers, pedlars, and petty chapmen.

No person committed under these Acts for non-payment of penalties can be detained in custody for a longer period than 3 months.

Hawkers exposing their goods to sale in a market-town must do it in the market-place.

Persons hawking tea without a license are liable to a penalty under 50 Geo. III. c. 41; and even though they had a license, they would be liable to a penalty for selling tea in an unentered place. (*Chitty's edition of Burn's Justice*, vol. ii. p. 1113.)

The hawking of tobacco or snuff is prohibited by the 3 & 4 Vict. c. 18 s. 12.

Any person duly licensed to trade as a hawker and pedlar may set up any lawful trade in any place where he is resident, though he have not served any apprenticeship to the same; and if prosecuted, he may plead the general issue and have double costs. (*Chitty's edition of Burn's Justice*, vol. ii. pp. 1102-1124.)

The hawkers' and pedlars' duty produced in 1867-8, 44,746*l.* gross revenue, paid by 17,779 persons; the charges of collection are, however, heavy.

HAY (Ger. *heu*; Dutch, *hovi*; Fr. *foin*; Ital. *fieno*; Span. *heno*; Lat. *foenum*). Any kind of grass, cut and dried for the food of cattle. The best in Middlesex is said to be better understood in England than in any other part of the Kingdom. The great object is to preserve the green colour of the grass as much as possible, and to have it juicy, fresh, and free from all sorts of

impurities.

The sale of hay within the bills of mortality, and 30 miles of the cities of London and Westminster, is regulated by the Act 36 Geo. III. c. 28; 4 & 5 Wm. IV. c. 21; and 19 & 20 Vict. c. 104. The first enacts that all hay shall be sold by the load of 36 trusses, each truss weighing 56

lbs., except new hay, which is to weigh 60 lbs. till September 4, and afterwards 56 lbs. only; so that till September 4 a load of hay weighs exactly 1 ton, but thereafter only 18 cwt. The clerk of the market is bound to keep a regular book for the inspection of the public, specifying the names of the seller, the buyer, the salesman, and the price of each load. Salesmen and factors are prohibited from dealing on their own account.

At the instance of the Veterinary Department of the Council Office, an order in council was issued during the cattle plague, forbidding the landing of hay from Holland without a license. Such licenses are still (1868) called for.

There are 3 public markets in the metropolis for the sale of hay and straw—Whitechapel, Smithfield, and the Haymarket in the vicinity of the Regent's Park. The latter used formerly to be held in the street called the Haymarket.

Straw is sold by the load of 36 trusses, of 36 lbs. each, making in all 11 cwt. 64 lbs.

It is affirmed, we know not with what foundation, that considerable frauds are perpetrated in the sale of hay and straw.

HEMP (Ger. *hanf*; Dutch, *hennip*, *keunip*; Dan. *hamp*; Swed. *hampa*; Fr. *chanvre*; Ital. *cannope*; Span. *canamo*; Russ. *konopli*, *konopel*; Pol. *konope*). A valuable plant (the *Cannabis sativa* of Linnaeus), supposed to be a native of India, but long since naturalised and extensively cultivated in Italy and many countries of Europe, particularly Russia and Poland, where it forms an article of primary commercial importance. It is also cultivated in different parts of America, though not in such quantities as to supersede its importation. It is stronger and coarser in the fibre than flax; but its uses, culture, and management are pretty much the same. When grown pulled green, it is a very exhausting crop; but when ground, it is considered as a cleaner of the deemed profitable; so that, notwithstanding the encouragement it has received from Government, and the excellent quality of English hemp, it is but little grown, except in some few districts of Suffolk and Lincolnshire. The quantity raised in Ireland is also inconsiderable. (*Loudon's Encyclopaedia of Agriculture*.)

Exceedingly good *huckaback* is made from hemp, for towels and common table cloths. Low-priced hempen cloths are a general wear for husbandmen, servants, and labouring manufacturers; the better sorts for working farmers and tradesmen in the country; and the finer ones,  $\frac{7}{8}$  wide, are preferred by some gentlemen for strength and warmth. They possess this advantage over Irish and other linens—that their colour improves in wearing, while that of linen deteriorates. But the great consumption of hemp is in the manufacture of sailcloth and cordage, for which purposes it is peculiarly fitted by the strength of its fibre. English hemp, when properly prepared, is said to be stronger than that of every other country, Russia not excepted, and would, therefore, make the best cordage. It is, however, but little used in that way, or in the making of sailcloth; being principally made into cloth for the uses already stated.

Hemp has been cultivated in Bengal from the remotest antiquity, but not, as in Europe, for the purpose of being manufactured into cloth and cordage. In the Hindoo economy it serves as a substitute for malt; a favourite intoxicating liquor, called *hanga*, being produced from it. This also is the use to which it is applied in Egypt. (*Milburn's Oriental Commerce*; &c.) The price of hemp fluctuated very much during

the war. In consequence of difficulties in the way of its importation, it stood at a very high level from 1808 to 1814. This was the principal circumstance that originally brought iron cables into use, and the extent to which they are now introduced has contributed materially to diminish the consumption and importation of hemp. (Tooke *On High and Low Prices*, 2nd edition, p. 345.)

We borrow the following particulars, with respect to the hemp trade of Petersburg, from the work of Mr. Borrison on the commerce of that city:—

Hemp forms a very important article of export from St. Petersburg, and deserves particular notice. It is assorted, according to its quality, into *clean hemp*, or firsts; *out-shot hemp*, or seconds; *half-clean hemp*, or thirds; and *hemp codilla*.

Of the first 3 sorts there are annually exported about 2,000,000 poods, the greatest part in English and American bottoms. It is brought to Petersburg, from the interior beyond Moscow, by water; and its quality depends very much on the country in which it is produced. That brought from Karatshev is the best; next to this, that produced in Belev; hemp from Gshatsk is considered inferior to the latter.

As soon as the hemp is brought down in the spring, or in the course of the summer, it is selected and made up in bundles; both operations being performed by sworn selectors (*brackers*) and binders appointed by Government for this purpose; and it is a well-known fact that this is done with great impartiality and exactness.

A bundle of clean hemp weighs from 55 to 65 poods; ditto out-shot, 48 to 55 ditto; ditto half-clean, 40 to 45 ditto. (1 pood=36 lbs. avoirdupois.)

Binding of hemp is paid for at the rate of 2 roubles 50 copecks for *clean*, 2 roubles for *out-shot*, and 1 rouble 60 copecks for *half-clean*, per bundle;  $\frac{1}{2}$  is paid by the seller, and the other  $\frac{1}{2}$  by the purchaser, and is charged accordingly by their agents.

The expense of selecting hemp is 50 copecks per bercovitz (or 10 poods), and is the same for every sort. To every bundle of assorted hemp is attached a ticket with the names of the selector, binder, and owner, and the date and year. Every bundle has also affixed to it a piece of lead, stamped on one side with the name of the selector, and on the other with the sort of hemp, and the time when it was selected. The external marks of good hemp are, its being of an equal green colour and free from spills; but its good quality is proved by the strength of the fibre, which should be fine, thin, and long. The first sort should be quite clean and free from spills; the *out-shot* is less so; and the *half-clean* contains a still greater portion of spills, and is moreover of mixed qualities and colours.

As a perfect knowledge of the qualities of hemp

*Account of the Quantities and Values of Hemp, Jute, and Jute Yarn Imported into the United Kingdom in the Four Years 1863-66.*

Year	Hemp		Jute, Raw		Jute Yarn	
	Quantities	Value	Quantities	Value	Quantities	Value
	cwts.	£	cwts.	£	lbs.	£
1863	1,039,862	1,915,743	1,225,333	1,325,996	1,011,464	1,851
1864	1,035,763	1,768,702	2,091,537	2,192,478	1,865,517	58,19
1865	1,065,703	1,711,482	2,108,942	1,771,994	1,958,010	45,19
1866	1,001,298	1,720,521	1,625,903	1,176,111	2,065,161	46,91

From 50 to 75 per cent. of the imports of hemp are of Russian origin. Of the total quantity of hemp (2,737,578 poods, worth 8,049,146 silver roubles) exported from Russia in 1863, 1,462,530

and flax can only be acquired by experience and attention, agents usually employ men constantly occupied in this business, by which means they are sure of getting goods of the best quality, and have the best chance of giving satisfaction to their principals; because, although the hemp is selected by sworn selectors, yet, owing to the quantity of business and the speed with which it must be executed &c., there are often great differences in the same sorts. The charges are in this way somewhat increased; but this is trifling in comparison of the advantage gained. The part separated or picked out in cleaning hemp is called *hemp-codilla*; it is generally made up in small bundles of 1 pood, which are again, when shipped, bound together in large bundles, each consisting of about 30 small ones.

Particular care must be taken to ship hemp and flax in fine dry weather; if it get wet, it heats, and is totally spoiled. For this reason every vessel taking in hemp or flax is furnished with mats to prevent its getting damp. Hemp, being light and bulky, is, when stowed, forced into the hold by means of winches, which renders the operation of loading rather slow.

It may be taken as a general rule that the prices of hemp are highest in the months of May, June, July, and the early part of August; the demand for this article being then greatest, and the exportation to North America being principally effected at this season. Again, the prices of hemp are lowest in the month of September; the reason of which is, that the less opulent hemp-merchants return at the end of this month to their own country in order to make new purchases for the ensuing year, and, rather than be detained, sell the remainder of their stock some roubles below the market price. This causes a general decline; although an unusual demand for the article happening at the same time, or political events or rumours, occasionally produce a contrary effect. Two large warehouses called *umbares* are built in Petersburg; for the special purpose of housing hemp, where the greatest order is observed.

HEMP, ITALIAN.—Hemp from Italy is said to be the finest, strongest, and most durable in existence. It is of very white colour—so white that it has been mistaken for East India sunn fibre, but when tanned it is the best material for fishing purposes. At Chatham the nets of various qualities of hemp gave a superiority of one-fourth to Italian hemp over Russian. There is more difficulty in manufacturing this hemp than in other kinds, but the product is so excellent as to compensate for the increased cost. (*Journal Soc. Arts*, December 1860.)

In 1866, 11,621 cwts. of dressed, and 149,572 cwts. of rough hemp, and 11,658 cwts. of tow or codilla of hemp, were imported into England from Italy, and both kinds of goods fetched a higher price than Russian produce.

poods, valued at 4,387,588 silver roubles, were sent to Great Britain. The second source of supply after Russia is Italy, and particularly Venetia. Sixty poods of hemp and 40 poods of codilla

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Admission duty, 10 p  
Quarantine duty, 1 p

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General, warehouse  
Rough, 50 cts. per  
Rough, 10 cts. per ton  
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Rough, 20 cts. per  
Rough, 10 cts. per

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Provision, 3 per ce

Charges of Import  
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Freight, 10 p  
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HEMP

made a list at Petersburg; 63 poods make an English ton.  
Hemp fetches a higher price than that of Petersburg. It is divided into 3 sort: viz. rehu, rhine or clean, out-shot, and pass or half-clean. The following are the prices of hemp &c., &c. quoted in the London markets:—

	per ton	£	s.	d.
Hemp, St. Petersburg clean		36	10	3
Do. do. do.		36	0	0
Half clean		36	0	0
Rhine		40	0	0
Pass		43	0	0
East Indian, Mann		22	0	0
Java		12	0	0
Sumatra		25	0	0
India		20	0	0
China		14	0	0
St. Petersburg, 12 head		55	0	0
Do. do. 9 head		37	0	0
Egyptian		55	0	0

We subjoin a statement of the various charges on the exportation of hemp from Petersburg, and on its importation into this country:—

Class Hemp.—1 bundle=63 poods=1 ton.

	rou.	cop.
Port Tax, 60 cop. per hectovite		22
Wharf duty, 10 per cent.		2
Quarantine duty, 1 per cent.		0
Custom-house charges, 4 per cent.		2
Insurance, 20, and shipping, 50 rou. per bundle		1
Brokerage, 10 cop. per hectovite		3
Freight, 10 cop. per ditto		3
Lighterage and attendance to Cronstadt, 8 rou. per bundle		4
Insurance, 10 rou. per bundle, 3 charged		1
Brokerage, 60 cop. per ton		0
		60
		45

Brokerage, 1/2 per cent.  
Commission and extra charges, 3 per cent.  
Stamps on drafts, 1/2 per cent.  
Brokerage, 1/2 per cent.

Charges of Importation per Ton, taking the price at 40L per Ton.

	£	s.	d.
Insurance, 10, and policy	0	10	6
Freight, 10, 60 per ton	2	12	6
Customs and Russia dues	4	13	8
Lighting charges	0	10	0
Wharf dues	0	5	0
Insurance, 10 per cent.	1	10	0
Brokerage	0	4	0
		3	8
per ton	21	5	8

In the above calculation no allowance is made for damage, which, if care be taken to select a good vessel and an early season, does not amount to much. The estimates are nearly the lowest rates of charge. The insurance, indeed, is sometimes as low as 12s. 6d. per cent., and policy, that, however, is only in the very earliest part of the season: it rises to 5l. per cent. in the autumn.

	rou.	cop.
Out-shot Hemp.—1 bundle=63 poods=1 ton.		46
Half clean Hemp.—1 bundle=63 poods=1 ton.		49

HEMP, MANILLA.—The leaves of several kinds of plantain (*Musa*) yield a strong fibre, susceptible of various economical uses, and of great importance in tropical countries. Of these, the most valuable is the *Musa textilis*, known by the local name of Abaca, a shrub or tree which grows abundantly in the interior to about the 20th degree of north latitude. The inhabitants of the Philippine Islands are said to pay their tribute, and supply themselves with every necessary of life, from the sale of such or Manilla hemp. In 1864, 516,745 piculs, or about 620,000 cwts., valued at 2,673,745 dols. (£441,000), were exported from these islands.

Manilla hemp is procured from both wild and cultivated trees, the former being considered

HERRINGS

private property. The plant is cut down when about a year and a half old, just before it flowers, the strength of the fibre being said to be inferior after the fructification of the plant. The fibre is in fact the petioles of the leaves. The outer fibres are hardest and strongest, are called *bandula* by the natives, and are used for cordage. The inner layer of the fibres is called *topis*, which are used for delicate fabrics. According to many authorities, Manilla rope is superior in strength and endurance to that constructed from hemp. The fruit of the *Musa textilis*, unlike that of other fibre is of great and increasing importance.

HEMP-SEED (Fr. chenevis, chenevi; Ger. hanfsaat; Ital. cannupecchia; Lat. semen canu-hinum; Russ. konopljanoe semja). The seed of hemp. The best hemp-seed is that which is brightest, and will not break when rubbed. It is used either as seed, or for crushing, for oil, or as food for fowls. Previously to 1832 it was loaded with a duty of 2l. per quarter, which was then reduced to 1s. per ditto, and in 1845 was wholly repealed.

In 1866 we imported 11,083 quarters of hemp-seed, of which Holland supplied 5,696 quarters. It was valued at 40s. per quarter. Our exports during the same year amounted to only 47 quarters.

HERRINGS AND HERRING FISHERY. The herring (*Clupea harengus* of Linnaeus) is a fish too well known to require any description. It is everywhere in high esteem, both when fresh and when salted.

Herrings are found from the highest northern latitudes yet known, as low as the northern coasts of France. They are met with in vast shoals on the coast of America as low as Carolina. In Chesapeake Bay is an annual inundation of these fish, which cover the shore in such quantities as to become a nuisance. We find them again in the seas of Kamtschatka, and probably they reach Japan. The great winter rendezvous of the herring is within the Arctic Circle: there they continue for many months, in order to recruit themselves after the fatigue of spawning; the seas within that space swarming with insect food in a far greater degree than those of our warmer latitudes. This mighty army begins to put itself in motion in spring. They begin to appear off the Shetland Isles in April and May. These are only the forerunners of the grand shoal, which comes in June; and their appearance is marked by certain signs, such as the numbers of birds, like gannets and others, which follow to prey on them; but when the main body approaches, its breadth and depth are such as to alter the appearance of the very ocean. It is divided into distinct columns of 5 or 6 miles in length, and 3 or 4 in breadth; and they drive the water before them, with a kind of rippling. Sometimes they sink for the space of 10 or 15 minutes, and then rise again to the surface; and in fine weather reflect a variety of splendid colours, like a field of the most precious gems.

The first check this army meets in its march southward is from the Shetland Isles, which divide it into two parts: one wing takes to the east, the other to the western shores of Great Britain, and fill every bay and creek with their numbers: the former proceed towards Yarmouth, the great and ancient mart of herrings; and then pass through the British Channel, and after that in a manner disappear. Those which take towards the west, after offering themselves to the Hebrides, where the great stationary fishery is, proceed to the north of Ireland, where they

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Year	Value
1864	2,673,745
1865	58,159
1866	62,250
1867	1,620

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meet with a second interruption, and are obliged to make a second division; the one takes to the western side, and is scarcely perceived, being soon lost in the immensity of the Atlantic; but the other, that passes into the Irish Sea, rejoins and feeds the inhabitants of most of the coasts that border on it. These brigades, as we may call them, which are thus separated from the greater columns, are often capricious in their motions, and do not show an invariable attachment to their haunts.

'This instinct of migration was given to the herrings that they might deposit their spawn in warmer seas, that would mature and vivify it more assuredly than those of the frozen zone. It is not from defect of food that they set themselves in motion; for they come to us full of fat, and on their return are almost universally observed to be lean and miserable. What their food is near the Pole, we are not yet informed; but in our seas they feed much on the *Oniseus marinus*, a crustaceous insect, and sometimes on their own fry.

'They are full of roe in the end of June, and continue in perfection till the beginning of winter, when they deposit their spawn. The young herrings begin to approach the shores in July and August, and are then from  $\frac{1}{2}$  an inch to 2 inches long. Though we have no particular authority for it, yet, as very few young herrings are found in our seas during winter, it seems most certain that they must return to their parental haunts beneath the ice. Some of the old herrings continue on our coast the whole year.' (Pennant's *British Zoology*.)

The herring was unknown to the ancients, being rarely, if ever, found within the Mediterranean. The Dutch are said to have engaged in the fishery in 1164. The invention of pickling or salting herrings is ascribed to one Benckels, or Beukelson, of Biervliet, near Sluys, who died in 1397. The Emperor Charles V. visited his grave, and ordered a magnificent tomb to be erected to his memory. Since this early period the Dutch have uniformly maintained their ascendancy in the herring fishery; but, owing to the Reformation and the relaxed observance of Lent in Catholic countries, the demand for herrings upon the Continent is now far less than in the fourteenth and fifteenth centuries.

*Herrings, Dutch.*—In 1863 the number of vessels engaged in the fishery was 86; the exportation 35,089 tons, of which 21,000 were sent to Germany, 5,000 to Belgium, 3,891 to Hanover, Bremen &c., 709 to Sweden and Norway, and 2,219 to the United States. But of this amount 16,699 tons were imported chiefly from Great Britain. The fresh herring trade secured 38,500,000 fish, the average price being 18s. *Ad. per 1,000.* (*Annales du Commerce Extérieur*.)

*Herrings, Norwegian.*—The Acting Consul-General at Christiania, in his Report for 1866 on Fisheries, stated that the Norwegian herring fishery, though engaging less capital, employs more hands than the cod fishery; the population actually engaged being estimated at 60,000. He gives the average annual export of spring herrings at 300,000, and of summer herrings at 200,000 barrels; Russia, Sweden, and Prussia being the chief consumers. In Norway the telegraph is most usefully employed to give notice to the fishermen of the movements of the shoals.

*Importance of the Herring Fishery.* *Progress of it in Great Britain.*—There is, perhaps, no branch of industry the importance of which has been so much over-rated as that of the herring fishery. For more than two centuries, company after com-

pany has been formed for its prosecution, fishing villages have been built, piers constructed, boards and regulations established, and vast sums expended in bounties; and yet the fishery never got into a healthy state till it was left to its own resources. The false estimates that have been long current with respect to the extent and value of the Dutch herring fishery contributed more, perhaps, than any thing else to the formation of exaggerated notions of the importance of this business. That the Hollanders prosecuted it to a greater extent, and with far greater success, than any other people, is, indeed, most true. There is not, however, the shadow of a ground for believing that they ever employed, as has often been stated, about 450,000 individuals in the fishery and the employments immediately subservient to it. We question whether they ever employed so many as 50,000. At the time when the Dutch carried on the fishery to the greatest extent, the entire population of the Seven United Provinces did not certainly exceed 2,400,000; and deducting a half for women, and from a half to two-thirds of the remaining 1,200,000 for boys and old men, it would follow, according to the statement in question, that every able-bodied man in Holland must have been engaged in the herring fishery! It is astonishing how such ridiculously exaggerated accounts ever obtained any circulation, and still more so that they should have been referred to and quoted without, apparently, any doubt being ever entertained of their authenticity down to our own times! They seem to have been first set forth in a treatise ascribed to Sir Walter Raleigh; and, what is singular, they were admitted by De Witt in his excellent work, *The True Interest of Holland*. They have been implicitly adopted by Sir John Barrow in the article 'Fisheries' in the *Encyclopædia Britannica*. Had they been sifted ever so little, their falsehood would have been obvious, and we should have saved many hundreds of thousands of pounds that have been thrown away in attempting to rival that which never existed.

It would be impossible, within the limits to which this article must be confined, to give a detailed account of the various attempts that have been made at different periods to encourage and bolster up the herring fishery. In 1743, in pursuance of a recommendation in his Majesty's speech at the opening of Parliament, and of report of a committee of the House of Commons, 500,000*l.* was subscribed for carrying on the fisheries: under a corporation called 'The Society of the Free British Fishery.' The Prince of Wales was chosen governor of the Society, which was patronised by men of the first rank and fortune in the state. But this Society did not tr. t. entirely to its own efforts for success. Its duties were remitted upon the salt used in the fisheries; and besides this reasonable encouragement, a high tonnage bounty was granted on every buss fitted out for the deep sea fishery. In consequence, many vessels were sent out, as Adam Smith has truly stated, not to catch herrings but to catch the bounty; and to such an extent was this abuse carried, that in 1759, when the tonnage bounty was 50s., the almost incredible sum of 159*l.* 7s. 6d. was paid as bounty upon 200,000 barrel of merchantable herrings that were produced. (*Wealth of Nations*, p. 231.) Despite this encouragement, such were the waste and mismanagement of the Company's affairs that it was speedily destroyed. Smith says that in 1794 hardly a vestige remained of its having ever been in existence.

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company was formed, for nearly the same objects, in 1766, of which George III. was patron. It has had nearly the same fate. For a season or two, busses were fitted out by the Society; but if every herring caught had carried a ducent to his mouth, the expense of its capture would scarcely have been repaid. The bubble ended by the Society for Fishing in the Deep Sea becoming a kind of building society, for purchasing ground in situations where curers and fishermen find it convenient to settle, and selling or letting it in small lots to them, at such advance of price as yields something better than fishing profits. (See an excellent article on the *Herring Fishery* in the 11th Number of the *Quarterly Journal of Agriculture*.)

In 1808 a fresh attempt was made for the improvement and extension of the fishery. The Act 48 Geo. III. established a distinct set of commissioners for the superintendance of all matters connected with the fishery, and authorised them to appoint a sufficient number of fishery officers, to be stationed at the different ports, whose duty it is to see that the various regulations with respect to the gutting, packing &c. of the herrings, and the branding of the barrels, are duly carried into effect. In 1809 a bounty of 3*l.* per ton was

granted on all vessels employed in the deep sea herring fishery, of above 60 tons burden, but payable only on 100 tons; and in 1820 a bounty of 20*s.* per ton, which, under certain specified circumstances, might be increased to 50*s.*, was granted on all vessels of from 15 to 60 tons fitted out for the shore herring fishery; and, exclusively of these bounties on the tonnage, a bounty of 2*s.* per barrel was allowed on all herrings cured gutted during the 6 years ending April 5, 1815, and a bounty of 2*s. 8d.* per barrel on their exportation, whether cured gutted or ungutted. During the 11 years ending April 5, 1826, the bounty on herrings cured gutted was 4*s.* per barrel.

It is stated in the article already referred to, that the cost of a barrel of cured herrings is about 16*s.*, one half going to the fisherman for the green fish, the other half to the curer for barrel, salt, and labour. The bounty of 4*s.* per barrel was, therefore, equal to half the value of the herrings as sold by the fisherman, and to one-fourth of their value as sold by the curer! In consequence of this forced system, the fishery was rapidly increased. The following statement, extracted from the *Reports of the Commissioners of the Fishery Board*, shows the progress the fishery has made since 1809:—

Account of the Total Quantity of White Herrings Cured, Branded, and Exported, in so far as the same have been granted under the copiosity of the Officers of the Fishery, during the undimentioned Years, ending till 1844 on April 5; since then till 1852, on January 5; and thereafter on December 31; distinguishing each Year, and the Herrings cured Gutted, from those cured Ungutted.

Year	Total Quantity of Herrings Cured			Total Quantity of Herrings Branded	Total Quantity of Herrings Exported
	Gutted	Ungutted	Total		
1811	barrel, 65,430	barrels, 26,597	barrels, 92,027	barrels, 55,664	barrels, 38,315
1812	105,372	52,167	157,539	85,576	54,305
1813	347,190	35,701	382,891	309,700	253,316
1814	305,527	44,268	349,795	270,844	209,015
1815	280,553	48,623	329,176	245,163	181,654
1816	313,114	45,317	358,431	272,850	217,498
1817	555,681	63,279	618,960	468,250	340,631
1818	352,677	68,553	421,230	318,000	272,055
1819	217,242	60,074	277,316	205,094	158,804
1820	399,331	98,250	497,581	392,517	293,353
1821	400,169	107,650	507,819	414,192	329,259
1822	392,000	125,374	517,374	407,743	325,158
1823	582,229	173,330	755,559	553,659	430,730
1824	405,370	138,565	543,935	432,231	352,542
1825	431,157	126,105	557,262	451,093	360,137
1826	489,620	177,674	667,294	510,922	408,736
1827	412,899	181,129	594,028	462,715	371,900
1828	475,556	191,843	667,399	518,098	415,163
1829	411,271	121,375	532,646	422,173	343,194
1830	414,915	196,535	611,450	496,278	385,714
1831	379,989	180,754	560,743	445,004	350,181
1832	392,827	251,511	644,338	513,914	399,991
1833	507,021	265,673	772,694	615,266	480,256
1834	378,187	165,822	544,009	437,914	356,808
1835	417,253	176,797	594,050	461,635	364,204
1836	500,367	217,672	718,039	578,136	444,630
1837	458,579	177,902	636,481	505,522	391,656
1838	582,713	183,988	766,701	600,591	442,264
1839	466,429	143,559	609,988	492,281	377,614
1840	465,293	115,514	580,807	478,152	377,160
1841	470,583	165,730	636,313	513,374	390,204
1842	381,050	110,428	491,478	406,676	322,979
1843	466,116	146,763	612,879	497,912	377,570
1844	519,173	149,658	668,831	545,347	415,132
1845	656,048	174,856	830,904	676,712	494,910
1846	507,225	147,593	654,818	527,808	407,614
1847	478,214	161,587	639,801	517,302	364,507
1848	470,550	151,203	621,753	516,775	353,701
1849	497,914	160,532	658,446	529,510	380,066

On looking at this table, it is seen that the fishery made no progress under the new system till 1815, when the bounty was raised to 4*s.* This is a sufficient proof of the factitious and unnatural state of the business. Its extension, under the circumstances in question, instead of affording any proof of its being in a really natural condition, was distinctly the reverse. Individuals without capital, who obtained the bounty sufficient to enable them to acquire boats, and salt &c. on the credit of the bounty, entered the trade. The market was commonly glutted with fish, and yet the bounty held out by the bounty caused it to

be still further overloaded. Great injury was consequently done to those fish curers who possessed capital; and even the fishermen were injured by the system. Most of the boats employed in the fishery never touch the water but during 6 weeks, from the middle or end of July to the middle of September. They are owned and sailed, not by regular fishermen following that vocation only, but by tradesmen, small farmers, farm-servants, and other landsmen, who may have sufficient skill to manage a boat at that season, but who do not follow the sea except for the 6 weeks of the herring fishery, when they go upon a kind of gambling speculation,

of earning a twelvemonth's income by 6 weeks' work.' (*Quarterly Journal*, No. 11, p. 653.)

It has been often said, in vindication of the bounty system, that by extending the fishery it extended an important nursery for seamen; but the preceding statement shows that such has not been its effect. On the contrary, it has tended to depress the condition of the genuine fisherman by bringing a host of interlopers into the field; and it has also been prejudicial to the little farmers and tradesmen by withdrawing their attention from their peculiar business, that they may embark in what has hitherto been little less than a sort of lottery adventure.

These consequences and the increasing amount of the sum paid for bounties at length induced the Government to adopt a different system. By an Act passed in 1825, the bounty of 2s. 3d. on exported herrings was made to cease in 1826, and 1s. was annually deducted from the bounty of 4s. per barrel paid on gutted herrings, till it ceased in 1830. And the foregoing table shows conclusively that those who contended that the best way to promote the fishery was to let it alone, were in the right; the quantity of herrings cured and the quantity exported having been both nearly doubled since the cessation of the bounties. The fishery is now for the first time placed on a secure foundation; the supply is proportioned to the real demand; while the genuine fishermen, and those curers who have capital of their own, are no longer injured by the competition of landsmen and others allured to the business by factitious encouragement and trading on capital furnished by Government.

The repeal of the salt laws, and of the duty on salt, which preceded the repeal of the bounty, was of signal service to the fishery. It is true that salt used in the fisheries was exempted from the duty; but in order to prevent the revenue from being defrauded, so many regulations were enacted, and the difficulties and penalties to which the fishermen were in consequence subjected were so very great, that some of them chose rather to pay the duty upon the salt they made use of than to undertake compliance with the regulations.

It is to be regretted that when Government repealed the bounty, it did not also abolish the 'Fishery Board,' and the officers and regulations it had appointed and enacted. So long as the bounty existed, it was quite proper that those who claimed it should be subjected to such regulations as Government chose to enforce; but since it has been repealed, we see no reason why the fishery should not be made perfectly free, and every one allowed to prepare his herrings as he thinks best. It is said, indeed, that were there no inspection of the fish, frauds of all sorts would be practised; that the barrels would be ill made, and of a deficient size; that the fish would not be properly packed; that the bottom and middle of the barrels would be filled with bad ones, and a few good ones only placed at the top; that there would not be a sufficiency of pickle &c. But it is obvious that the reasons alleged in vindication of the official inspection kept up in the herring fishery might be alleged in vindication of a similar inspection in almost every other branch of industry. It is, in point of fact, utterly useless. It is an attempt, on the part of Government, to do that for their subjects which they can do better for themselves. Supposing the official inspection were put an end to, the merchants and others who buy herrings of the curers would themselves inspect the barrels; and while any attempt at fraud by the curers would thus be effectually obviated, they would be left at liberty

to prepare their herrings in any way that they pleased, without being compelled, as at present, to follow only one system, or to prepare fish in the same way for the tables of the poor as for those of the rich. So far, indeed, is it from being true that the inspection system tends to put down trickery, that there is much reason to think that its effect is directly the reverse. The surveillance exercised by the officers is anything but strict; and the official brand is often affixed to barrels which, were it not for the undeserved confidence that is too frequently placed in it by the unwary, would lie in what has hitherto been rather a security against the detection of fraud than against its existence.

The grand object of the herring fishery 'Board' has been to enforce such a system of curing as would bring British herrings to a level with those of the Dutch. In this, however, they have completely failed; Dutch herrings generally fetching double the price of British herrings in every market of Europe. Neither is this to be wondered at. The consumers of Dutch herrings are the inhabitants of the Netherlands and of the German towns, who use them rather as a luxury than as an article of food, and who do not grudge the price that is necessary to have them in the finest order. The consumers of British herrings, on the other hand, are the poor of Ireland and Scotland. Cheapness is the prime requisite in the estimation of such persons; and nothing can be more entirely absurd than that a public Board should endeavour to force the fish curers to adopt such a system in the preparation of herrings as must infallibly raise their price beyond the means of those by whom they are bought. Why should not the taste of the consumers be consulted as much in this as in anything else? It would not be more ridiculous to attempt to have all cheese made of the same richness and flavour as Stilton than it is to attempt to bring up all herrings to the standard of the Dutch.

We do, therefore, hope that an end may be put to this system, and that our legislators and patriots will cease to torment themselves with schemes for the improvement of the fisheries. The very best thing they can do for them is to let them alone. It is not a business that requires any sort of adventitious encouragement. Every obstacle to the easy introduction of fish into London and other places should certainly be removed, but all direct interference with the fishery is sure to be in the last degree pernicious.

The commissioners appointed in 1863 to enquire into the deep-sea fisheries of Great Britain—Lord Hobart, and Messrs. Caird and Huxley—in the course of their exceedingly valuable and elaborate Report, concur in the view given in the text as to the inexpediency of continuing the present branding system. Most English curers are decidedly adverse to it; and though the foreign merchants are divided in opinion, the more intelligent are against the practice. As the Report very conclusively says, p. 78, 'The maintainers of the system say that if the British Government will not go on inspecting and guaranteeing the herrings, the Königsberg and Stettin merchants will get some one else to do it for them. And why not? What has the English Government to do with protecting herring merchants against the chicanery of their correspondents in the interior, when it allows merchants of every other description to take their own risks?' About half the barrels cured are branded.

Numerous Acts have been passed with a view to regulating the British white herring fishery from 48 Geo. III. c. 110 onwards.

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This fishery is regulated chiefly by the provisions of 23 & 24 Vict. c. 92.

The close time of the Scotch fisheries is from January 1 to August 31 between Ardnamurchan on the north and the Mull of Galloway westwards, altered by 28 & 29 Vict. c. 22 to February 1 and May 31, or between Ardnamurchan on the south and Cape Wrath on the north, between January 1 and May 20, under the penalties of forfeiture and fine not exceeding 20*l*. The commissioners are intrusted with powers to manage and protect fisheries, and may prohibit trawl, beam, and drag nets. These orders were approved by the Treasury, and published. Fishing boats, sails, buoys, and principal floats must be marked and numbered; names of owners must be painted on boats in letters 2 inches long. The Fishery Board, in their Report of June 1, 1867, advocate the removal of the prohibitions against the use of the seine, or herring trawl net.

Of the 304,801 barrels of herrings exported from the United Kingdom in 1866, 176,731 went to Prussia, 58,256 to Hanover, 26,099 to Denmark, 13,534 to Tuscany. The exportation of herrings to the West Indies, which had of late years rapidly declined, in consequence, no doubt, of the emancipation of the slaves, has now wholly ceased.

The 24 & 25 Vict. c. 72 has the following sections, viz. :—

Sec. 1. Imposing penalties for selling herrings or herring fry during the close time 5*l*. to 20*l*., with forfeiture of nets, boats, and other instruments.

Sec. 3. Imposing penalties on defacing marks or numbers on boats, sails, &c., 2*l*. to 10*l*.

Sec. 5. Permitting sprat fishing within a certain part of the Firth of Forth.

Sec. 6. Declaring the import of 23 & 24 Vict. c. 92 s. 13 to apply to all nets other than usual drift nets, having meshes of the legal size of one inch from knot to knot.

Sec. 7. Empowering constables to exercise the functions created under this Act, when acting by authority of the sheriff. Penalties on resistance, fine not exceeding 50*l*., or imprisonment not exceeding 60 days.

HIDES (Ger. haüte; Dutch, huden; Fr. peaux; Ital. cuoja; Span. pellejos, pieles; Russ. koshii) signify generally the skins of beasts: but the term is more particularly applied to those of large cattle, such as bullocks, cows, horses &c. Hides are raw or green—that is, in the state in which they are taken off the carcass, or dressed with salt, alum, and salt-petre, to prevent them from putrefying; or they are cured or tanned. The hides of South America are in the highest repute, and vast quantities of them are annually imported. The customs duty formerly imposed on hides when imported was repealed by Sir Robert Peel in 1845, and, as was to be expected, the imports have since been very largely increased. The subjoined table shows the sources whence hides are principally brought, and the supplies furnished by each:—

Account of the Various Descriptions of Hides Imported into the United Kingdom in 1866, specifying the Countries whence they were Imported, the Quantities brought from each, and their Values.

	Hides not Tanned, Curried, or Dressed			Hides Tanned or in some way Dressed			
	Wet	Dry	Value	Untanned	Varnished	Tanned	Value
	cwts.	cwts.	£	lbs.	lbs.	lbs.	£
Russia	..	16,216	72,435	132,089	..	32,662	16,119
Prussia	..	5,268	23,110	..	..	32,871	1,574
Denmark	21,997	..	37,721	..	..	..	..
Bohemia	..	..	..	..	..	18,592	898
Spain	..	3,180	..	..	..	61,826	2,486
Hamburg	..	29,773	7,784	86,568	190,382	25,910	225,877
Holland	..	23,563	5,865	65,683	353,256	347,724	62,504
Belgium	..	25,713	2,646	55,502	..	..	18,508
France	..	20,822	8,081	71,983	2,629,432	268,786	186,469
United States	..	6,491	1,409	5,941	..	..	875,891
Central America	..	..	..	15,790	..	..	10,157
British North America	..	..	..	..	..	291,553	..
Brazil	..	125,997	9,225	338,868	..	..	..
Chile	..	9,716	1,544	28,914	..	..	..
Uruguay	..	239,990	..	587,259	..	..	..
Peru	..	6,469	8,182	42,355	..	..	..
Argentine Confederation	..	119,197	1,816	296,622	..	..	..
British Possessions in South Africa	..	12,244	1,593	27,877	..	..	..
India	..	..	178,077	615,911	..	..	457,103
British Settlements	..	..	11,204	39,037	..	..	..
Australia	..	117,410	2,151	225,123	23,578	..	2,175,928
Other parts	..	22,682	10,097	74,324	31,419	12,842	27,324
Total	785,999	270,644	2,711,037	3,435,799	655,262	4,475,553	645,392

N.B.—The importation of infected or diseased hides, skins, hoofs, horns &c. may be prohibited by Order in Council.

Dry hides imported from the north-east of Europe bear the highest price, while the best wet ones are imported from South America and Australia. In 1866 the average price of the former per cwt. was 4*l*. 9*s*., of the latter 2*l*. 8*s*., the best dressed leather is that from France, averaging 1*s*. 8*d*., 6*s*. 6*d*., and 1*s*. per lb. under each of the heads of the foregoing table. Russia dressed leather was worth in the same year 2*s*. 7*d*. per lb.

For the eight years ending with 1866 the imports of hides and leather from the British West Indies have become unimportant, while those from Australia and British India have greatly increased both in quantity and significance. There is but little variation in the annual imports of raw hides from year to year, though the quantity of those imported into the United Kingdom has

considerably increased within the period referred to above.

In 1866 we exported 671,077 hides, mostly foreign, of the value of 722,890*l*.; and in 1867 we imported 975,168, valued at 3,104,246*l*.

HOGSHEAD. A measure of capacity, containing 52½ imperial gallons. A hogshead is equal to a pipe. [WEIGHTS AND MEASURES.]

HOLIDAYS are understood to be those days, exclusive of Sundays, on which no regular public business is transacted at particular public offices. They are either fixed or variable. The variable holidays are, Ash Wednesday, Good Friday, Easter Monday and Tuesday, Holy Thursday, Whit Monday and Tuesday.

No holidays are kept by the Bank of England, the Customs, and the Inland Revenue Department, except Christmas Day, Good Friday, the Queen's birthday, and such days as may be appointed by proclamation for the purpose of a general fast, or by warrant of the authorities.



Kong is precisely similar to that described under the head of CASTOR.

It would appear from the Statistical Abstract that the value of the imports into the United Kingdom from Hong-Kong has fallen from

2,881,929*l.* in 1861, to 183,373*l.* in 1867. Annexed are statements exhibiting the extent of the direct trade between this dependency and the mother country during the three years ending with 1866.

Account showing the Quantities and Values of the Imports into the United Kingdom from Hong-Kong in 1861-66.

Articles	Quantities			Computed Real Value		
	1861	1865	1866	1861	1865	1866
Cannist - - - - -	cwts. 18,399	5,415	4,005	£ 99,074	25,909	21,181
Ceramics - - - - -	lbs. 755,167	756,999	97,973	26,169	28,575	4,225
China porcelain ware and earthenware - - -	cwts. 125	625	497	3,918	6,538	3,749
Coal, raw - - - - -	" 309,112	110,195	19,568	2,576,660	552,609	189,130
Essential, or perfumed: - - - - -						
Fruit - - - - -	lbs. 29,882	25,854	13,571	13,201	9,880	5,129
Ginger - - - - -	" 75,376	16,477	38,743	16,105	4,899	7,328
Other roots - - - - -	" 1,902	341	958	62.29	1,978	7,995
Soda, Amiel - - - - -	" 95	699	179	1,461	17,215	3,741
Silk, raw or barks, and waste silk - - - - -	lbs. 10,853	6,667	16,561	11,556	6,803	19,969
Raw - - - - -	cwts. 3,972	1	17	5,571	1	21
Silk, uncleaned - - - - -	lbs. 1,516,651	925,577	1,033,679	98,537	79,091	85,593
Tin - - - - -	" 399	1,606	1,606	2,805	6,123	6,123
Tin - - - - -	" ..	..	..	37,811	55,128	26,856
Other articles - - - - -	" ..	..	..	2,881,929	775,668	582,273
Total value - - - - -	..	..	..	..	..	..

Account showing the Quantities and Values of the Exports from the United Kingdom to Hong-Kong in 1861-66.

Articles	Quantities			Declared Real Value		
	1861	1865	1866	1861	1865	1866
Arms and ammunition - - - - -	..	..	..	£ 17,915	18,085	21,094
Beer and ale - - - - -	barrels 5,879	8,855	11,977	15,221	25,295	35,288
Beer and ale - - - - -	tons 44,738	55,156	35,102	23,873	31,590	28,316
Clothes, ready and unready - - - - -	cwts. 9,578	15,119	12,213	42,509	58,916	59,971
Cotton, raw - - - - -	lbs. 1,785,001	869,088	4,695,560	219,801	81,652	405,314
Cotton, cleaned by the yard - - - - -	varis 22,618,569	37,235,350	46,410,734	605,115	818,306	1,095,730
Flax - - - - -	..	..	..	972	7,813	5,331
Embroidery and porcelain - - - - -	..	..	..	3,911	3,728	5,835
Iron manufactures - - - - -	..	..	..	13,129	9,124	11,805
Iron, wrought and unwrought - - - - -	cwts. 2,665	2,571	1,516	12,239	32,861	10,650
Iron, wrought and unwrought - - - - -	tons 4,291	6,891	5,821	63,813	63,878	64,213
Iron, cast - - - - -	" 4,293	991	2,129	94,061	20,821	55,418
Iron, cast by the yard - - - - -	yards 397,657	708,560	1,582,119	25,231	36,969	59,655
Paper, of all sorts (including paper - - - - -)	..	..	..	..	..	..
Linen - - - - -	cwts. 619	918	1,011	5,729	4,985	5,586
Tops - - - - -	..	..	..	29,309	5,352	2,915
Woolen, shoddy by the yard - - - - -	yards 3,114,664	2,527,850	3,151,616	280,294	224,319	271,766
Woolen, shoddy by the yard - - - - -	..	..	..	4,135	1,046	4,142
Other articles - - - - -	" ..	..	..	131,197	103,509	161,302
Total value - - - - -	..	..	..	1,618,567	1,818,698	2,387,917

HOPS (Ger. hopfen; Dutch. hoppe; Fr. houblon; Ital. lupuli, brassicandoli; Span. oblon; Russ. chmud; Lat. humulus lupulus). The hop is a perennial rooted plant, of which there are several varieties. It has an annual twining stem, which, when supported on poles or trees, will reach the height of from 12 to 20 feet or more. It is a native of Britain, and most parts of Europe.

When the hop was first used for preserving and improving beer, or cultivated for that purpose, is not known [ALE]; but its culture was introduced into this country from Flanders in the reign of Henry VIII. Hops are first mentioned in the Statute Book in 1552, in an Act 5 & 6 Edward VI. c. 6; and it would appear from an Act passed in 1608 (1 Jas. I. c. 18) that hops were at that time extensively cultivated in England. Walter Blithe, in his *Improver Improved*, published in 1649 (3rd ed. 1655, p. 240), has a chapter upon improvement by plantations of hops, in which there is this striking passage. He observes that 'hops were then grown to be a national commodity; but that it was not many years since the famous city of London petitioned the Parliament of England against two nuisances; and these were, Newcastle coals, in regard to their stench and smell; and hops, in regard they would spoil the taste of drink, and endanger the people: and had the Parliament been no wiser than they, we had been in a measure pined, and in a great measure starved; which is just answerable to the principles of those men who cry down all devices, or ingenious discoveries, as projects, and thereby stifle all such improvement.'

After the hops have been picked and dried, the brightest and finest are put into pockets or fir-bagging, and the brown into coarse or heavy bagging. The former are chiefly used in the brewing of fine ales, and the latter by the porter brewers. A pocket of hops, if they be good in quality, well cured and tight trodden, will weigh about 1½ cwt.; and a bag of hops will, under the same conditions, weigh about 2½ cwt. If the weight of either exceeds or falls much short of this medium, there is reason to suspect that the hops are of an inferior quality, or have been badly manufactured. The brighter the colour of hops, the greater is the estimation in which they are held. Farnham hops are reckoned best. The expense of forming hop plantations is very great, amounting in some instances to from 70*l.* to 100*l.* an acre; and the produce is very uncertain, the crop being frequently insufficient to defray the expenses of cultivation.

In 1861 the hop duty was reduced from 2*d.* per lb., and 5 per cent., to 1½*d.* In the year 1863 the duty was wholly repealed.

The following is a statement of the imports of foreign hops for the ten years ending with 1866:—

Years	cwts.	Years	cwts.
1857	18,711	1862	153,791
1858	13,000	1863	147,281
1859	2,229	1864	38,656
1860	6,918	1865	82,489
1861	149,176	1866	85,687

The price varied considerably: for instance, they were sold at 2*l.* 5*s.* per cwt. in 1853, and at 10*l.* 14*s.* 2*d.* in 1860. Generally they are worth

about 5*l.* 5*s.* The chief supply of foreign hops is from Belgium, Hamburg, and France.

A planter or grower knowingly putting hops of different qualities or values into the same bag or package forfeits 20*l.*; and any person mixing with hops any drug, or other thing, to change or alter the colour or scent, shall forfeit 5*l.* per cwt. on all the hops so changed or altered. The malicious cutting or destroying of hop plantations may be punished by transportation beyond seas for life, or any term not less than 7 years, or by imprisonment and hard labour in a common gaol for any term not exceeding 7 years. (Loudon's *Encyc. of Agriculture*; Stevenson's *Surrey*; Burn's *Justice*; &c.)

The duty on hops of the growth of Great Britain produced, in 1862, 215,800*l.* The land under hops in England amounted in 1867 to 64,273 acres, of which there were in Kent 40,762, in Sussex 9,989, in Hereford 5,335, in Hampshire 2,992, &c.

In 1866 we exported 22,864 cwt. British, and 13,224 cwt. of foreign hops, chiefly to the United States and Australia.

HORN (Dutch, hoorn; Fr. corne; Ger. horn; Lat. cornu). A substance too well known to require any description. Horns are of very considerable importance in the arts, being applied to a great variety of useful purposes. They are very extensively used in the manufacture of handles for knives, and in that of spoons, combs, lanterns, snuff-horns &c. When divided into thin plates, horns are tolerably transparent, and were formerly used instead of glass in windows. Glue is sometimes made out of the refuse of horn. We annually import considerable quantities. In 1866 the imports of foreign horn amounted to 3,761 tons, and the exports to 1,050 tons.

HORSE (Ger. pferd; Dutch, paard; Dan. hest; Swed. hast; Fr. cheval; Ital. cavallo; Span. caballo; Russ. loschad; Pol. kon; Lat. equus; Gr. ἵππος). A domestic quadruped of the highest utility, being by far the most valuable acquisition made by man among the lower animals.

There is a great variety of horses in Britain; the frequent introduction of foreign breeds, and their judicious mixture, having greatly improved

*An Account of the Number of Horses in Great Britain Charged with Assessed Duties in each of the Years ended April 5, 1858 and 1866, and the Amount of Duty.*

	1858		1866	
	Number of Horses	Amount of Duty £ s. d.	Number of Horses	Amount of Duty £ s. d.
Horses exceeding 15 hands, used for riding and drawing carriages, chargeable with duty	159,126	167,082 6 0	188,763	198,801 3 0
Ditto, used by Farmers, clergy men, surgeons &c.	129,631	64,057 17 0	137,362	72,115 1 0
Ditto, exceeding 15 hands, used in trade	172,184	30,506 12 0	221,761	116,438 4 0
Ditto, not exceeding 15 hands	61,056	89,719 16 9	83,178	37,602 0 0
Total	522,000	355,255 11 9	631,071	424,951 8 0

The duty on race horses was transferred from the assessed taxes to the excise by 19 & 20 Vict. c. 82.

*Exemptions.*—Besides the above account of the horses charged with duty, an account is published of the numbers exempted from the duty. This account is not, however, to be relied on; inasmuch as very many of those whose horses are not liable to the duties never think of making any returns. By not attending to this circumstance, we inadvertently, in a former edition of this work, under-rated the number of horses engaged in certain departments of industry.

*Influence of Railroads on Horses.*—The statements now made show the dependence that ought to have been placed on the estimates that were put forth by some of the promoters of railroads and steam carriages. These gentlemen

the native stocks. Our race horses are the fleetest in the world; our carriage and cavalry horses as amongst the handsomest and most active of those employed for these purposes; and our heavy draught horses are the most powerful, beautiful, and docile of any of the large breeds.

*Number and Value of Horses in Great Britain.*—The number of horses used in Great Britain for different purposes is very great, although less so, perhaps, than has been generally supposed. Mr. Middleton (*Survey of Middlesex*, 2nd ed. p. 630) estimated the total number of horses in England and Wales employed in husbandry at 1,200,000, and those employed for other purposes at 600,000. Dr. Colquhoun, contrary to his usual practice, reduces this estimate to 1,500,000 for Great Britain; and in this instance we are inclined to think his guess is pretty near the mark. In 1814, when the horses employed in husbandry were taxed, the numbers of the various descriptions of horses in England and Wales which paid duty amounted to 1,204,307; but this account did not include stage-coach, mail-coach, and hackney-coach horses, nor did it include those used in posting. Poor persons keeping only one horse were also exempted from the duty, as were all horses employed in the regular regiments of cavalry and artillery, and in the volunteer cavalry. In Mr. Middleton's estimate, already referred to, he estimated the number of post-chaise, mail-stage, and hackney-coach horses at 100,000; and from the enquiries we have made, we are satisfied that if we estimate the number of such horses in Great Britain at the like sum, we shall be decidedly beyond the mark.

On the whole, therefore, it may be fairly estimated that there are in Great Britain from 1,300,000 to 1,400,000 horses employed for various purposes of pleasure and utility. They may probably be worth at an average from 10*l.* to 12*l.* making their total value from 13,000,000*l.* to 16,800,000*l.* sterling, exclusive of the young horses.

The duties begin to be charged as soon as horses are used for drawing or riding, and as previously.

*An Account of the Number of Horses in Great Britain Charged with Assessed Duties in each of the Years ended April 5, 1858 and 1866, and the Amount of Duty.*

	1858		1866	
	Number of Horses	Amount of Duty £ s. d.	Number of Horses	Amount of Duty £ s. d.
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Ditto, not exceeding 15 hands	61,056	89,719 16 9	83,178	37,602 0 0
Total	522,000	355,255 11 9	631,071	424,951 8 0

were pleased to tell us that by superseding employment of horses in public conveyances, in the regular carriage of goods, the full scope of their projects would in the end enable 1,000,000 horses to be dispensed with; and that, as 8 horses consumed as much food as 8 men, subsistence for 8,000,000 human beings would be provided. To dwell upon the absurdity of such a statement would be worse than useless; nor should we be thought of noticing it, but that it found its way into a report of a committee of the House of Commons. It is sufficient to observe that stage and mail coaches, and public waggon-vans &c. that have been superseded by steam carriages are not supposed to have displaced more than from 130,000 to 140,000 horses; the notion that 1 horse consumes as much as 8 men, at least if we suppose the men to

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vol. iii. p. 264.)

In 1866 we importe-  
of 56,318*l.*, and expor-  
In 1864, 12,945 hors-  
Metropolitan Cattle M-  
in 1864, 14,947.

In order to obviate  
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HORSE

HUNDRED WEIGHT

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reasonably well fed, is too ridiculous to deserve notice.

The duties at present (1866) imposed on horses are respectively the excise of 3*l.* 17*s.* on race horses, and assessed taxes of 1*l.* 1*s.* and 10*s.* 6*d.* on other horses. The rules for discriminating between the horses liable to the duty of 21*s.* and those liable to the smaller duty of 10*s.* 6*d.* are embodied in the Act 16 & 17 Vict. c. 90. It also contains a lengthened statement of the exemptions from the duty. The latter comprise all horses kept *bonâ fide* for husbandry purposes; but such horses may be ridden, free of duty, to and from any place to which a burden shall have been carried or brought back, or to procure medical assistance. Cavalry horses in Her Majesty's service are also exempted from duty, as are the horses kept by field officers, adjutants, and surgeons serving in militia regiments. Brood mares, while kept for the sole purpose of breeding, are exempted from all duty.

The facility with which horses may be stolen has led to the enactment of several regulations with respect to their sale &c. The property of a horse cannot be conveyed away without the express consent of the owner. Hence a *bonâ fide* purchaser gains no property in a horse that has been stolen unless it be bought in a fair or open market. It is directed that the keeper of every fair or market shall appoint a certain open place for the sale of horses, and one or more persons to take toll there, and keep the place from 10 in the forenoon till sunset. The owner's property in the horse stolen is not altered by sale in a legal fair unless it be openly ridden, led, walked, or kept standing for one hour at least, and led. Sellers of horses in fairs or markets must be known to the toll-takers, or to some other credible person known to them, who declares his knowledge of them, and enters the same in a book kept by the toll-taker for the purpose. Without these formalities the sale is void. The price of a horse stolen may, notwithstanding its legal sale, be redeemed on payment or tender of the price any time within 6 months of the time of the theft. (*Burn's Justice of the Peace*, Chitty's ed., vol. iii. p. 264.)

In 1866 we imported 1,646 horses, of the value of 36,318*l.*; and exported 4,069, valued at 167,384*l.* In 1864, 12,945 horses were brought into the Metropolitan Cattle Market; in 1865, 13,724; and in 1866, 14,947.

In order to obviate the facility afforded by means of slaughtering houses for the disposal of stolen horses, it was enacted in 1786 (26 Geo. III. c. 71) that all persons keeping places for slaughtering horses, geldings, sheep, hogs, or other cattle not killed for butcher's meat shall obtain a license from the quarter sessions, first from the minister and two substantial householders, a certificate of their fitness to be entrusted with the management and carrying on of such business. Persons slaughtering horses or cattle without license are guilty of felony, and may be whipped and imprisoned, or transported. Persons are bound to affix over the door or gate of the place where their business is carried on, in legible characters, the words 'Licensed for slaughtering Horses, pursuant to an Act passed in

the 26th Year of his Majesty King George III.' The parishioners entitled to meet in vestry are authorised to choose annually, or oftener, inspectors, whose duty it is to take an account and description &c. of every living horse &c. that may be brought to such slaughtering houses to be killed, and of every dead horse that may be brought to be flayed. Persons bringing cattle are to be asked an account of themselves, and if it be not deemed satisfactory, they may be carried before a justice. This Act does not extend to curriers, fellmongers, tanners, or persons whose trade or business is the use of or curing of skins of any kind for the purposes of using or curing their hides in their respective businesses; but these, or any other persons who shall knowingly or wilfully kill any sound or useful horse &c., shall for every such offence forfeit not more than 20*l.*, and not less than 10*l.* This Act has been amended by 7 & 8 Vict. c. 87, 12 & 13 Vict. c. 92 s. 7, and 25 & 26 Vict. c. 102.

The stealing of horses and other cattle was formerly a capital crime, punishable by death; but now to steal the carcase or skin, is to be punished, at the discretion of the court, by penal servitude for any term not exceeding 14 years, nor less than 3 years, or by imprisonment for any term not exceeding 2 years; 24 & 25 Vict. c. 96 ss. 10 & 11.

*French Trade in Horses.*—The horses of France are not, speaking generally, nearly so handsome, fleet, or powerful as those of England. Latterly, however, the French have been making great efforts to improve the breed of horses, and in this view, been making large importations from England and other countries. At an average of the 5 years ending with 1827, the excess of horses imported into France above those exported amounted to about 13,000 a-year. (*Bulletin des Sciences Géographiques*, tom. xix. p. 5.) The imports from England have, in some late years, amounted to nearly 2,000 horses. In 1866 they were 1,182.

By 29 Vict. c. 36 the licenses to let horses for hire are altered thus:—

1 horse or 1 carriage	-	-	5
Not exceeding 3 horses or 2 carriages	-	-	10
4 " 3 "	-	-	15
5 " 4 "	-	-	20
6 " 5 "	-	-	25

but beyond these numbers the rates are not altered. HORSE DEALERS. Persons whose business it is to buy and sell horses.

Every person carrying on the business of a horse dealer is required to keep a book, in which he shall enter an account of the number of horses kept by him for sale and for use, specifying the duties to which the same are respectively liable. This book is to be open at all reasonable times to the inspection of the officers, and a true copy of the same is to be delivered quarterly to the assessor or assessors of the parish in which the party resides. Penalty for non-compliance 50*l.* (43 Geo. III. c. 161.) Horse dealers are assessed, if they carry on their business in the metropolis, 27*l.* 10*s.*; and if elsewhere 13*l.* 15*s.*

In the year ended April 5, 1866 there were in the metropolis 59 horse-dealers, in England 968, in Scotland 102, making a total of 1,129.

HUNDRED WEIGHT. A weight of 112 lbs. avoirdupois, generally written cwt.

are the finest cavalry horses as most active of those and our heavy powerful, beautiful, breeds.

Great Britain.—Great Britain for although less so, ly supposed. Mr. r, 2nd ed. p. 639) horses in England dry at 1,200,000, rposes at 600,000. s usual practice, 00,000 for Great e are inclined to e mark. In 1814, husbandry were ous descriptions of which paid duty a account did not h, and hackney- le those used in, only one horse duty, as were all r regiments of volunteer cavalry, ready referred to post-chaise, mail s at 100,000; and e, we are satisfie of such horses in shall be decidedly

may be fairly est. at Britain from ployed for variou They may pro from 10*l.* to 12 in 13,000,000*l.* e of the year

Duties in each ty.

1866	
Amount of Duty	
£	s. d.
198,201	5 0
79,115	1 0
118,083	0 0
37,590	0 0
424,254	6 0

superseing conveyances, e the full adop enable 1,000, and that, as e men, subsid should be provid such a stat should we h it found its of the House observe that public wagg sed by st have discin 00 horses; nes as muc the men



such collector, for the purpose of ascertaining whether any and what amount of duty is due and payable upon such goods; and, upon payment of such deposit, and passing a proper entry for such goods by the importer, consignee, or agent, such collector shall thereupon cease the said goods to be delivered in virtue of such entry. (Sec. 29.)

**Deposits to be carried to Consolidated Fund.**—Where such deposit shall have been made as aforesaid, the same shall be paid by the said collector to the Receiver-General of Customs, to be by him carried to the Consolidated Fund of the United Kingdom; and in case no action shall be brought within the time hereinbefore limited for that purpose, such deposit shall be retained and applied to the use of her Majesty, in the same manner as if the same had been originally paid and received as the duty due and payable on such goods; and in case such action shall be so brought, and it shall thereupon be determined by due course of law that the duty so demanded and deposited was not the proper duty due and payable upon such goods, but that a less duty was payable thereon, then the difference between the sum so deposited and the duty so found to be due, or the whole sum so deposited, as the case may require, shall forthwith be returned to such importer, with interest thereon after the rate of 5 per cent. per annum for the period during which the sum so paid or returned shall have been so deposited; and such payment shall be accepted by such importer in satisfaction of all claims in respect of the importation of such goods and the duty payable thereon, and of all or any damages and expenses incident thereto, except costs of suit, as next hereinafter provided; that is to say, provided always that the party to such action or suit in whose favour a verdict shall be given shall be entitled to his costs of suit as between party and party against the other party to such action or suit—such costs to be taxed by the proper officer of the court in which such action shall be brought in the usual way; and if such verdict shall be given against the plaintiff in such action or suit, the costs so taxed as aforesaid shall be recoverable and recovered against the plaintiff in the same manner as damages and costs in an ordinary action or suit in such court are recoverable by law; but if such verdict shall be given against the collector as defendant in such suit, the costs so taxed as aforesaid shall be paid by the Commissioners of Customs out of any moneys arising from the duties of customs. (Sec. 30.)

**As to COMPLAINTS AND DISPUTES BETWEEN MERCHANTS AND OTHERS AND THE OFFICERS OF CUSTOMS, THE PUBLIC INVESTIGATION THEREOF, AND ENQUIRIES TOUCHING MATTERS RELATING TO THE CUSTOMS, AND THE CONDUCT OF OFFICERS OR OTHERS CONCERNED THEREIN.**

**Disputes and Enquiries in London.**—If in the port of London any dispute arise between any masters or owners of ships, merchants, importers, consignees, shippers, or exporters of goods, or their agents, and any officer of customs, with reference to the seizure or detention of any ship or goods, or to any apparently accidental omission, inadvertence, or non-compliance with the laws or regulations relating to the customs, it shall be lawful for the Commissioners to dispose of or determine such dispute in such manner as they may seem just. (Sec. 31.) N.B.—The licensed agents mentioned in the Act have ceased to exist.

**Power to remit or mitigate Penalties.**—If upon consideration of the facts and circumstances out of which such dispute shall have arisen, the Com-

missioners of Customs shall be of opinion that any penalty or forfeiture has been incurred by any such master, owner, merchant, importer, consignee, shipper, exporter, or agent, the said Commissioners may, in case they shall be of opinion that the penalty ought to be remitted, remit and forego the same accordingly, or in case they shall be of opinion that a mitigated penalty should be imposed and enforced, mitigate any such penalty or forfeiture to such amount as they may deem a sufficient satisfaction for the breach of law or regulation complained of. (Sec. 32.)

**Appeal to open Court.**—In case any such master, owner, merchant, importer, shipper, exporter, or agent shall feel himself aggrieved by the determination of the Commissioners of Customs in any of the cases aforesaid, or have any ground of complaint against any officer of Customs in respect of anything done or omitted to be done by such officer in or about the execution of his duty, the party so feeling himself aggrieved shall, upon an application in writing to the Commissioners of Customs, which application shall state the substance of his complaint, or the reasons of his dissatisfaction with such determination, be entitled to have the facts and circumstances of such complaint or determination enquired into by one of the said Commissioners, in the manner following. (Sec. 33.)

**Commissioner to conduct public Enquiry.**—Upon receipt of such application as aforesaid the Commissioners of Customs shall depute one of such Commissioners to enquire into the subject matter of such application, for which purpose a suitable apartment shall be provided, to which the parties complaining and the parties complained against, and their agents and witnesses, and all other persons interested or desirous of attending, shall have free access; and the Commissioner so deputed shall receive the statement of the complainant or his agent or attorney, and hear any reasons which he or they may advance in support of his complaint, and the said Commissioner shall take or cause to be taken any evidence on oath which the said complainant may offer and adduce in support of his complaint, and write down or cause to be written down and report the substance of such evidence in a narrative form, and his opinion thereon and on the arguments, if any, adduced on the hearing of the case, for the information of the said Commissioners; and in like manner the Commissioner so deputed as aforesaid shall take and write down or cause to be taken down and written, and report for the information of the said Commissioners of Customs, any evidence which may be offered in support of such determination of the Commissioners, or in case of a complaint against an officer such exculpatory evidence as the officer complained against may offer or adduce; and the course of proceeding with respect to the taking of such evidence and the conduct of such enquiry shall be in as close conformity as the nature of such enquiry will admit with the practices adopted before justices on enquiries had before such justices. (Sec. 34.)

**Commissioners to prosecute or decide.**—The Commissioners of Customs, upon the evidence so reported to them, shall either determine to prosecute, if they deem it a proper case for prosecution, or decide the case upon such evidence, and make their order thereon accordingly, which order shall be communicated by a Commissioner in open court either on the same day or a future day to be appointed at the hearing for that purpose; and every order of the Commissioners of Customs, made upon consideration of the facts, circumstances, and evidence so reported by the Commis-



# IMPORTATION AND EXPORTATION

time, or for any of the purposes of this or any Act relating to the customs, it shall become necessary to determine the precise time at which an importation of any goods shall be deemed to have had effect, such time shall be deemed to be the time at which the ship importing such goods had actually come within the limits of the port at which such ship shall in due course be reported and such goods be discharged; and if any question arise upon the arrival of any ship in respect of any cargo, or allowance upon such ship, exclusive of the time at which the report of such ship has been or ought to have been made. (Sec. 42.)

**Importation Direct.**—No goods shall be deemed to be imported from any particular place unless they be imported direct from such place, and shall have been there laden on board the importing ship, as the first shipment of such goods, or after the same shall have been actually landed at such place. (Sec. 43.)

**Prohibitions and Restrictions.**—If any goods enumerated or described in the following table of prohibitions and restrictions as 'goods absolutely prohibited to be imported' shall be imported or brought into the United Kingdom, or if any goods enumerated or described in such table as 'goods prohibited to be imported except in transit,' and subject to such regulations and restrictions as the Commissioners of the Treasury may direct, and duly reported as goods in transit accordingly, shall be imported into the United Kingdom, except in transit, in accordance with such regulations and restrictions, and so reported as aforesaid, or if any goods enumerated or described in such table as 'goods subject to certain restrictions on importation' shall be imported or brought into the United Kingdom contrary to the prohibitions or restrictions contained in such table in respect thereof, then and in every such case such goods shall be forfeited, and shall be destroyed or otherwise disposed of as the Commissioners of Customs may direct. (Sec. 44.)

### A TABLE OF PROHIBITIONS AND RESTRICTIONS INWARDS.

- Goods absolutely prohibited to be imported.*
- Books wherein the copyright shall be first subsisting, first composed or written or printed in the United Kingdom, and printed or reprinted in any other country, as to which the proprietor of such copyright or his agent shall have given to the Commissioners of Customs a notice that such copyright exists, such notice also stating when such copyright will expire.
- Gold, viz.—false money or counterfeit sterling.
- Coin, silver, of the realm, or any money purporting to be such, not being of the established standard in weight or fineness.
- Extracts, essences, or other concentrations of wine, chicory, tea, or tobacco, or any admixture of the same.
- Indecent or obscene prints, paintings, books, maps, lithographic or other engravings, or any other indecent or obscene articles.
- Swiss work.
- Tobacco stalks stripped from the leaf, whether manufactured or not.
- Tobacco stalk flour.
- Articles of foreign manufacture and any packages of such articles bearing any names, brands, marks being or purporting to be the names, initials, or marks of manufacturers resident in the United Kingdom.
- Stamps and watches of any metal impressed with any mark or stamp, appearing to be or to

represent any legal British assay, mark, or stamp, or purporting by any mark or appearance to be of the manufacture of the United Kingdom.

*Goods prohibited to be imported, except subject to the Restrictions on Importation herein contained.*

Infected cattle, sheep, or other animals, and hides, skins, horns, hoofs, or any other part of cattle or other animals, which Her Majesty may, by order in council, prohibit in order to prevent any contagious distemper.

Silk, manufactures of silk, being the manufactures of Europe, unless into the ports of London, Liverpool, Hull, Southampton, Leith, or Dublin, or into the ports of the Commissioners of Customs, or into the ports of Dover or Folkestone direct from Calais or Boulogne, and unless in ships of 50 tons burden or upwards.

Spirits (not being perfumed or medicinal spirits), unless in ships of 50 tons burden at least, and in each of such casks capable of containing liquids, size or content of 20 gallons at the least, and the size or content of 20 gallons at the least, and packed in cases, each of which shall contain not less than 2 gallons of spirits, and being really reported.

Tobacco, cigars, and snuff, unless in whole and complete packages, containing not less than 80 lbs. nett of such tobacco, cigars, and snuff. (18 & 19 Vict. c. 96 s. 2.)

Tobacco, snuff, cigars, cigarillos, or cigarettes of any kind, or from any country or place whatever, unless in ships of not less than 120 tons burden, and imported into such ports only as are or may be approved of by the Commissioners of Customs.

*Arms &c. may be prohibited.*—The importation of arms, ammunition, gunpowder, or any other goods may be prohibited by proclamation or order in council. (16 & 17 Vict. c. 107 s. 45.)

*Printed Lists of prohibited Books to be exposed at Custom Houses.*—The Commissioners of Customs shall cause to be made, and to be publicly exposed at the several ports in the United Kingdom and in Her Majesty's possessions abroad, printed lists of all books wherein the copyright shall be subsisting, and as to which the proprietor of such copyright, or his agent, shall have given notice in writing to the said Commissioners that such copyright exists, stating in such notice when such copyright expires. (Sec. 46.)

*Ship to come quickly to Place of unloading, and bring-to at the Stations for boarding Officers.*—If any ship coming into the United Kingdom or into the Channel Islands shall not come as quickly to the proper place of mooring or unloading as the nature of the port will admit, without touching at any other place, and in proceeding to such proper place shall not bring-to at the stations appointed by the Commissioners of Customs for the boarding of ships by the officers of the Customs, or if after arrival at such place such ship shall remove from such place, except directly to some other proper place of mooring or unloading, and with the knowledge of the proper officer of the Customs, or if the master of any ship on board of which any officer is stationed neglect or refuse to provide every such officer with sufficient room under the deck in some part of the fore-castle or steerage for his bed or hammock, the master of such vessel shall forfeit the sum of 20*l.* (Sec. 47.)

*Officers to board Ships &c.*—The proper officers of the Customs may board any ship arriving at







BILL OF SIGHT.

Part of (Name of Port of Importation). Importer (Name of Importer).				
Wharf, Dock, or Station	Ship's Name	Whether British or Foreign; if Foreign, the Country	Master's Name	Port or Place from whence imported
Here state the Particulars according to the above Headings.				
Marks	Numbers	Number of Packages, with the best Description of the Goods the Importer is able to give		
Here state the Particulars according to the above Headings.				

I, the importer (or agent to the importer) of the goods above-mentioned, do hereby declare that I have not (if importer), or that to the best of my knowledge he has not (if agent), received sufficient invoice, bill of lading, or other advice from whence the quality, quantity, or value of the goods above-mentioned can be ascertained. Dated the \_\_\_\_\_ day of \_\_\_\_\_ 18\_\_\_\_.

(Signed) \_\_\_\_\_ Importer or his Agent.  
(Signed) \_\_\_\_\_ Collector. § 61.

**Warrant for Landing.**—Such entry being delivered to the collector or comptroller, and signed by him, shall be the warrant for provisionally landing such goods to be examined by such importer in the presence of the proper officers; and the importer shall within 3 days, or such further time as may be allowed by the Commissioners of Customs after the landing thereof, and before the same shall be delivered, make full and perfect entry thereof by endorsing upon such bill of lading such particulars of such goods as are required on making perfect entry of goods, whether for payment of duty, or for warehousing, or for delivery free of duty, as the case may be; and to such indorsement he shall affix the date thereof, together with his signature and place of abode; and such indorsement, when signed by the collector or comptroller, shall be taken as the perfect entry for such goods. (Sec. 62.)

**Goods entered by Bill of Sight not to be delivered when Duty is paid or deposited.**—Where any entry for the landing and examination of goods for delivery on payment of duty shall be made by bill of sight, such goods shall not be delivered until perfect entry thereof have been made and the duties due thereon paid, unless the importer or his agent shall have deposited with the proper officer of the customs a sum of money sufficient in amount to cover the duties payable thereon; and if the sum deposited on a bill of sight shall not be equal in amount to the duties payable upon all the goods contained in any package landed or examined thereby, no such goods shall be delivered until a perfect entry or entries is or are made, and the duties paid or deposited for the whole of the goods contained in such package. (Sec. 63.)

**Goods to be taken to Queen's Warehouse in default of perfect Entry within Three Days &c.**—If perfect entry of any goods landed by bill of sight as aforesaid be not made within three days, or such further time as may be allowed by the Commissioners of Customs, after the landing thereof, such goods shall be taken to the Queen's warehouse by the officers of the customs; and if the importer shall not within three days after such landing make perfect entry of such goods, and pay the duties thereon

or on such parts as can be entered for home use together with the charges of removal and of warehouse rent, such goods shall be sold for the payment of such duties and charges (or for exportation if they be such as cannot be entered for home use, or shall not be worth the duties), and the overplus, if any, after payment of such duties and charges, or the charges if sold for exportation, shall be paid to the importer or proprietor thereof: provided always, that when entry be at any time made as and for a full and perfect entry for any goods provisionally landed by bill of sight or deposited in the Queen's warehouse as aforesaid, if such entry shall not be made in manner herein required for the due landing of the goods, the same shall be deemed to be goods landed without entry, and shall be forfeited. (Sec. 64.)

**AS TO THE ENTRY OF GOODS RE-IMPORTED INTO THE UNITED KINGDOM AS FOREIGN OR BY BILL OF STORE.**

**Re-importation of British Goods.**—All British goods brought back into the United Kingdom, being of such a kind and description as, if foreign, would be liable to any duty of customs on importation, shall be deemed to be foreign, and liable to the same duties, rules, regulations, and restrictions as foreign goods of the like kind or description; but if the same shall be brought back within 5 years from the time of the exportation thereof, and it shall be proved to the satisfaction of the Commissioners of Customs that they are British goods returned, the same may be entered by bill of store containing such particulars and in such manner and form as the said commissioners may direct: provided always, that all corn, grain, meal, and flour brought into the United Kingdom shall be deemed and taken to be foreign goods, and all goods brought into the United Kingdom for which any drawback of excise or customs shall have been received on exportation shall be deemed and treated as foreign unless admitted to entry by special permission of the Commissioners of Customs, and on repayment of such drawback. And all foreign goods on re-importation into the United Kingdom, whether they shall have paid duty on their first importation or not, shall be liable to the same



proceeds in like manner: provided always, that for this purpose, if the importing ship and goods be liable to the performance of quarantine, the time for entry and landing of such goods shall be computed from the time at which such ship and goods shall have been released from quarantine: provided always, that if 48 hours or any earlier period after the report of any ship is specified in the bills of lading for the discharge of her cargo or any part thereof, and the importer, owner, or consignee of such goods or his agent shall neglect to enter and land the same within such 48 hours at any port or place approved by the Commissioners of Customs, the master or owner of such ship may immediately, on the expiration of such 48 hours, enter and land such goods.

(Sec. 74.)

*If Goods remain on board importing Ship beyond 14 Days such Ship may be detained for Expenses.*

Whenever any goods shall remain on board any importing ship beyond the period of 14 days after the arrival of such ship, or beyond such further period as the Commissioners of Customs may allow, such ship shall be detained by the proper officer of customs until all expenses of watching or guarding such goods beyond such 14 days, or such further time, if any allowed as aforesaid, not exceeding *vs.* per diem, and of removing the goods, or any of them, to the Queen's warehouse, in case the officers shall so remove them, be paid.

(Sec. 75.)

*As to GOODS UPON WHICH ANY ABATEMENT FOR DAMAGE ON THE VOYAGE OR BY WRECK MAY BE CLAIMED.*

*Abatement of Duty on Damaged Goods.*—No claim for any abatement of duty in respect of any goods imported into the United Kingdom shall be allowed on account of damage unless such claim shall be made on the first examination thereof, and in such form and manner as the Commissioners of Customs shall direct, nor unless it shall be proved to the satisfaction of the Commissioners of Customs or their officers that such damage was sustained after such goods had been shipped in the importing ship and before the landing thereof in the United Kingdom: and all goods doled, jetsam, flotsam, and wreck brought or coming into the United Kingdom, and all droits of Admiralty sold in the United Kingdom, shall at all times be subject to the same duties as goods of the like kind on importation into the same part of the United Kingdom are subject to, unless it shall be shown to the satisfaction of the Commissioners of Customs that such goods are the growth, produce, or manufacture of any country or place by virtue whereof the same may be entitled to be admitted at less than the foreign duty, or duty free, or that the same, if liable to duty, are entitled to an abatement in respect of such damage; and the damage sustained by such goods, whether so imported or doled, jetsam, flotsam, or wreck as aforesaid, shall be assessed by the officers of the customs, if competent thereto; but if not, or if the Commissioners of Customs or the collector or comptroller of the port into which the same shall be imported or brought as aforesaid shall entertain any doubt as to the amount of such damage, they may call upon two indifferent merchants to examine the goods and certify to what extent in their judgment the same are lessened in value by such damage, whereupon the officers of the customs may make an abatement not exceeding  $\frac{1}{3}$  of the duty originally chargeable thereon; but no allowance shall be made for damage on spirits, wine, grain, meal and flour, sugar, cocoa, tea, coffee,

pepper, tobacco, currants, raisins, wine, and figs. (Sec. 76.)

*AS TO THE PRODUCTION OF CERTIFICATES OF ORIGIN IN RESPECT OF GOODS CLAIMING ANY BENEFIT THEREBY ON IMPORTATION.*

*Goods from Possessions Abroad.*—No goods shall be entered as being of or from any British possessions abroad (if any benefit attach to such distinction) except the territories subject to the Government of the presidencies of Bengal, Madras, and Bombay respectively, unless the master of the ship importing the same shall have delivered to the collector or comptroller a certificate, under the hand of the proper officer of the place where such goods were taken on board, of the due clearance of such ship from thence, containing an account of such goods. (Sec. 77.)

*Treasury may require Certificates of Production.*—The Commissioners of the Treasury may by order under their hands declare that a certificate of production shall be required upon the exportation of any goods from any British possession abroad or other place, or upon the importation of such goods into the United Kingdom, and frame such regulations respecting such certificates and goods as they may think fit; and if any goods in respect of which such certificates are required be imported without such certificate, they shall be deemed to be foreign goods and liable to any duty attaching to them as such; and such orders of the Treasury shall be published in the London and Dublin Gazettes 3 times at least within 3 months from the date thereof respectively. (Sec. 78.)

*Certificate of Sugar from Limits of East India Company's Charter.*—Before any sugar shall be entered as being the produce of any British possession within the limits of the East India Company's charter, the master of the ship importing the same shall, so long as any benefit attach to such distinction, deliver to the collector or comptroller a certificate under the hand and seal of the proper officer at the place where such sugar was taken on board, testifying that a declaration in writing, the contents of which he believed to be true, had been made and signed before him by the shipper of such sugar, that the same was really and bona fide the produce of the British possession. (Sec. 80.)

*East India Sugar warehoused at the Cape of Good Hope.*—If any sugar, the produce of any British possession within the limits of the East India Company's charter, so long as any benefit attaches to such distinction, shall have been imported into the Cape of Good Hope from the place of its production, accompanied by such a certificate of origin as would be sufficient for its admission into the United Kingdom at the rate of duty payable upon such sugar if imported direct from the place of its production, and shall have been warehoused at the Cape of Good Hope under the regulations there in force for the warehousing of goods, and shall have been exported from such warehouse, accompanied by a certificate from the proper officer of customs at the Cape of Good Hope, setting forth the particulars of the importation, and of the warehousing and of the exportation of the same, and also setting forth the substance of the certificate of origin before mentioned, and if, on the arrival in the United Kingdom of the ship importing such sugar, the master of such ship shall deliver to the collector or comptroller at the port of importation such certificate from the officer of the customs at the Cape of Good Hope, such sugar shall be admitted at such port of importation in the United Kingdom at



house shall neglect to stow the goods warehoused therein so that easy access may be had to every package and parcel thereof, he shall for every such neglect forfeit the sum of 5*l*. (Sec. 91.)

**Warehousekeeper neglecting to produce Goods deposited, to forfeit 5*l*.**—If the occupier of any warehouse shall not produce to any officer of customs on his request any goods deposited in such warehouse which shall not have been duly cleared and delivered therefrom, such occupier shall for every such neglect forfeit the sum of 5*l*. in respect of every package or parcel not so produced, besides the duties due thereon. (Sec. 92.)

**Goods not duly warehoused, or fraudulently concealed, or removed, forfeited.**—If any goods entered to be warehoused shall not be duly warehoused in pursuance of such entry, or being duly warehoused shall be fraudulently concealed in or removed from the warehouse, or abstracted from any package, or transferred from one package to another or otherwise, for the purpose of illegal removal or concealment, they shall be forfeited. (Sec. 93.)

**Importer or Proprietor of warehoused Goods clandestinely gaining Access thereto to forfeit 100*l*.**—If the importer or proprietor of any goods warehoused, or any person in his employ, shall clandestinely open the warehouse, or, except in the presence of the proper officer of customs acting in the execution of his duty, gain access to the goods, such importer or proprietor shall for every such offence forfeit the sum of 100*l*. (Sec. 94.)

**Duty on Goods taken out of Warehouse without Entry to be paid by Warehousekeeper &c.**—If any goods shall be taken out of any warehouse without due entry of the same with the proper officer of customs, the occupier of such warehouse shall forthwith pay the duties due upon such goods; and every person so taking out any goods without payment of duty, or who shall aid, assist, or be concerned therein, and every person who shall wilfully destroy or embezzle any goods duly warehoused, shall be deemed guilty of a misdemeanor, and shall, upon conviction, suffer the punishment by law inflicted in cases of misdemeanor; but if such person shall be an officer of customs or excise not acting in the due execution of his duty, and shall be prosecuted to conviction by the importer, consignee, or proprietor of such goods, no duty shall be payable for or in respect of such goods, and the damage occasioned by such waste, spoil, or embezzlement shall, with the sanction of the Commissioners of the Treasury, be repaid or made good to such importer, consignee, or proprietor by the Commissioners of Customs. (Sec. 95.)

**If Goods be damaged by Fire, Importer not entitled to Compensation.**—No compensation shall be made by the Commissioners of Customs to any importer, proprietor, or consignee of any goods by reason of any damage occasioned thereto in the warehouse by fire or other inevitable accident. (Sec. 96.)

**Commissioners may remit Duties on warehoused Goods lost or destroyed.**—If any goods warehoused entered to be warehoused, or entered to be delivered from the warehouse, shall be lost or destroyed by unavoidable accident, either on shipment or in landing, or in receiving into the warehouse, or in the warehouse, the Commissioners of Customs may remit or return the duties due thereon. (Sec. 97.)

TO THE REMOVAL OF WAREHOUSED GOODS.

**Goods may be removed from one Port to another.**—Any goods warehoused at any port in the United Kingdom may be removed, by sea or by land carriage to any other port in which the

like kind of goods may be warehoused on importation, to be rewarehoused at such other port, and again as often as may be required at any other such port, to be there rewarehoused, or with the permission of the proper officer of customs from any warehouse in any port to any other warehouse in the same port, under such regulations and with such security as the Commissioners of Customs may direct on the delivery to the proper officer, by the person requiring such removal, of a request note, stating the particulars of the goods required to be removed, the name of the port, or of the warehouse, if in the same port, to which the same are intended to be removed, and with such other information and in such manner and form as the Commissioners of Customs or the proper officer may direct or require. (Sec. 98.)

**Officers at Port of Removal to transmit Account of Goods to Officers at Port of Destination.**—On the delivery of any goods for removal, an account, containing the particulars thereof, shall be transmitted by the proper officers of the port of removal to the proper officers of the port or place of destination, and the person requiring the removal thereof shall enter into bond, with one sufficient surety, in a sum equal at least to the duty chargeable on such goods, for the due arrival and rewarehousing thereof at the port or place of destination within such time as the Commissioners of Customs may direct, such bond to be taken by the collector, comptroller, or other proper officer, either of the port or place of removal, or the port or place of destination, as shall best suit the residence or convenience of the parties interested in such removal; and if such bond shall have been given at the intended port or place of destination, a certificate thereof, under the hand of the collector or comptroller, or other proper officer of such port, shall at the time of the entering of such goods be produced to the collector, comptroller, or other proper officer of the port of removal; and such bond shall not be discharged unless such goods shall have been produced to the proper officer, and duly rewarehoused at the port of destination, within the time allowed for such removal, or shall have been otherwise accounted for to the satisfaction of the Commissioners of Customs, nor until the full duties due upon any deficiency of such goods not so accounted for shall have been paid; but any remover may enter into general bond, with such sureties, in such amount, and under such conditions, as the Commissioners of Customs may approve, for the removal from time to time of any goods from one warehouse to another, and for the due arrival and rewarehousing of the same at the place of destination within such time or times as the said Commissioners may direct. (Sec. 99.)

**Goods, on Arrival at Port of Destination, to be subject to same Regulations as Goods on first Importation.**—Upon the arrival of such goods at the port or place of destination, the same shall be entered and warehoused in the same manner, and under and subject to the same laws, rules, and regulations, so far as the same are or can be made applicable, as are required on the entry and warehousing of goods on the first importation thereof. (Sec. 100.)

**On Arrival of Goods at Port of Destination, they may be entered for Exportation or for Home Use, on Payment of Duties.**—If upon the arrival of goods so removed as aforesaid at the port of destination the parties shall be desirous forthwith to export the same, or to pay duty thereon for home use, without actually lodging the same in the warehouse for which they have been entered and examined to be rewarehoused, the officers of customs

at such port may, after all the formalities of entering and examining such goods for re-warehousing have been duly performed, permit the same to be entered and shipped for exportation, or to be entered and delivered for home use, upon payment of the duties due thereon, as if such goods had been actually lodged in such warehouse; and all goods so exported, or for which the duties have been so paid, shall be deemed to have been duly cleared from the warehouse. (Sec. 101.)

*Warehoused Goods, if not cleared for Home Use or Exportation within 5 Years, must be re-warehoused.*—All warehoused goods shall be cleared either for home use or exportation at the expiration of 5 years from the day on which the same were so warehoused, or within such further period and in such cases as the Commissioners of the Treasury shall direct, unless the owner or proprietor of such goods shall be desirous of re-warehousing the same, in which case the same shall be examined by the proper officers, and the duties due upon any deficiency or difference between the quantity ascertained on landing and the quantity found to exist on such examination, together with the necessary expense attendant thereon, shall, subject to such allowances as are by law permitted in respect thereof, be paid down, and the quantity so found shall be re-warehoused in the name of the then owner or proprietor thereof in the same manner as on first importation. (Sec. 103.)

*Goods in Warehouse not cleared or re-warehoused, or Duties paid on Deficiencies, after 5 Years to be sold.*—If any warehoused goods shall not be duly cleared, exported, or re-warehoused, and the duties ascertained to be due on the deficiencies as aforesaid shall not be paid down at the expiration of 5 years from the previous entry and warehousing thereof, or within such further period as shall be directed as aforesaid, the same, if worth the duty due thereon, shall, after 1 month's notice to the warehousekeeper, with all convenient speed be sold either for home use or exportation, with or without the consent of the warehousekeeper, and the proceeds thereof shall be applied to the payment of the duties, warehouse rent, and charges, and the surplus, if any, shall be paid to the owner or proprietor of such goods, if known; but if such owner or proprietor cannot be found, such surplus shall be carried to the Crown's account, to abide the claim of such owner or proprietor on his appearing and making good his claim thereto; and if such goods shall not be worth the duty, then the same, after such 1 month's notice as aforesaid, may be exported or destroyed, with or without the concurrence of the owner thereof, or the proprietor of the warehouse in which the same were so warehoused, as the Commissioners of Customs shall see fit; and the duties due upon any deficiency thereof not allowed by law shall be forthwith paid by the proprietor of the warehouse. (Sec. 104.)

*Goods in Warehouse may be sorted, repacked &c.*—With the sanction of the Commissioners of Customs, and after such notice given by the respective importers or proprietors, and at such times and under such regulations and restrictions as the Commissioners of Customs shall from time to time require and direct, it shall be lawful in the warehouse to sort, separate, pack, and repack any goods, and to make such alterations therein as may be necessary for the preservation, sale, shipment, or disposal thereof; provided that such goods be repacked in the packages in which they were imported, or in such other packages as the Commissioners shall permit (not being less in any case, if the goods be to be exported or to be re-

moved to another warehouse, than is required by law on the importation of such goods); and also to draw off any wine or any spirits into reputed quart or pint bottles for exportation only; and to draw off and mix brandy with any wine, not exceeding the proportion of 10 gallons of brandy to 100 gallons of wine; and also to fill up any casks of wine or spirits from any other casks of the same respectively secured in the same warehouse; and also to rack off any wine from the lees, and mix any wines of the same sort, crasing from the cask all import brands, unless the whole of the wine so mixed be of the same brand; and also to take such samples of goods as may be allowed by the Commissioners of Customs, with or without entry, and with or without payment of duty, except as the same may eventually become payable as on a deficiency of the original quantity; and the duty on the surplus, if any, of such goods as may be delivered for home use shall be immediately paid, and such surplus shall thereupon be delivered for home use accordingly; and after such goods have been so separated and repacked in proper or approved packages, the Commissioners of Customs may, at the request of the importer or proprietor of such goods, cause or permit any refuse, damage, or surplus goods occasioned by such separation or repacking, or, at the like request, any goods which may not be worth the duty, to be destroyed, and may remit the duty payable thereon. (Sec. 105.)

*Foreign Import or Duty-paid Packages not to be used in repacking.*—No foreign packages or materials whatsoever shall be used in the repacking of any goods in the warehouse, except such shall have been used in the importation of warehoused goods, unless the full duties thereon shall have been first paid. (Sec. 106.)

*Goods in Warehouse may be taken out, under certain Regulations.*—The Commissioners of Customs may permit any goods to be taken out of the warehouse without payment of duty, for such purposes and in such quantities, and under such regulations and restrictions, and with such security by bond for the due return thereof or the payment of the duties due thereon, as they may direct or require. (Sec. 107.)

AS TO THE ENTRY OF WAREHOUSED GOODS FOR HOME CONSUMPTION AND EXPORTATION AND THE DELIVERY THEREOF.

*Entry for Exportation.*—No warehoused goods shall be taken or delivered from the warehouse except upon due entry, and under the care of proper officers, for exportation, or upon due entry and payment of the full duties payable thereon for home use, except goods delivered into the charge of the searchers to be shipped as stores in such quantities as the collector or comptroller shall allow, subject to the directions of the Commissioners of Customs, and under such regulations as they may see fit to make. (Sec. 108.)

*Persons entering warehoused Goods for Home Use to deliver Bill of Entry, and pay down Duties.*—Upon the entry of any goods to be cleared from the warehouse for home use, the person entering such goods shall deliver a bill of entry, and duplicates thereof, in like manner and form, containing the same particulars as are before required in the entry of goods to be delivered for home use, the landing thereof, as far as the same may be applicable, and shall at the same time pay down the proper officer of customs the full duties payable thereon, not being less in amount than the proper officer of customs the full duties payable thereon, not being less in amount than according to the account of the quantity taken from the landing waiter or other proper officer on the first entry and landing thereof, except as may

following goods; viz., tobacco, wine, spirits, figs, currants, raisins, and sugar, the duties whereon, when cleared from the warehouse for home use, shall be charged upon the quantity of such goods ascertained by weight, measure, or strength, at the time of actual delivery thereof, unless there is reasonable ground to suppose that any portion of the deficiency or difference between the weight, measure, or strength ascertained on landing and first examination of any such last-mentioned goods is that ascertained at the time of actual delivery has been caused by illegal or improper means, in which case the proper officer of customs shall make such allowance only for loss as he may consider fairly to have arisen from natural evaporation or other legitimate cause. (Sec. 110.)

**Value of Goods to be estimated by Officers at the Market Price.**—When any deficiency occurs in goods chargeable to pay duty according to the value thereof, the value thereof shall be estimated as nearly as conveniently may be by the officers of customs according to the market price of the like kind of goods. (Sec. 111.)

**Deficiencies in Goods entered for Exportation not to be charged with Duty unless fraudulent.**—No duty shall be charged in respect of any deficiency in goods entered and cleared from the warehouse for exportation unless the officers of customs have reasonable ground to suppose that

such deficiency or any part thereof has arisen from illegal abstraction. (Sec. 112.)

**AS TO THE EXPORTATION AND ENTRY OF GOODS, AND THE CLEARANCE OF SHIPS FROM THE UNITED KINGDOM TO PARTS BEYOND SEAS.**

**Warehoused Goods not to be exported in Ships of less than 50 Tons Burden, except to Guernsey or Jersey.**—No person shall export any warehoused goods, nor enter any such goods for exportation from the United Kingdom to parts beyond the seas, in any ship of less burden than 50 tons, except to the islands of Guernsey and Jersey in ships not being of less than 40 tons burden, regularly trading to those islands. (Sec. 117.)

**Master to deliver Certificate of Clearance of last Voyage, and to make Entry Outwards.**—The master of every ship in which any goods are to be exported from the United Kingdom to parts beyond seas, or his agent, shall, before any goods be taken on board, deliver to the collector or comptroller a certificate from the proper officer of the due clearance inwards or coastwise of such ship of her last voyage, and shall also deliver therewith an entry outwards of such ship, verified by his signature, in the following form or to the same effect, and containing the several particulars indicated or required thereby:—

ENTRY OUTWARDS.

Port of (Name of Port of Exportation):				
Ship's Name		Tonnage	Master's Name	Port of Destination
If British, Name of Port of her Registry	If Foreign, Name of Country to which she belongs			

Place at (Name of Station or Place in Port)

Date of Entry  
If Ship shall be so commencing her lading in any place, Name of such Port

(Signed) \_\_\_\_\_ Master or Agent.

and if such ship shall have commenced her lading at some other port, the master shall deliver to the collector the clearance of such goods from such other port; and if any goods be taken on board any ship at any port before she shall have been cleared outwards at such port (unless a stiffening order, when necessary, shall be issued by the proper officer to lade any heavy goods for exportation on board such ship), the master shall be liable to the sum of 100*l*. (Sec. 118.)

**Goods not to be shipped except on proper Days and Places, nor until Entry and Clearance.**—No goods shall be shipped, put off, or water-borne to be shipped for exportation, from any port or place in the United Kingdom, except on days not being Sundays or holidays, nor from any place except a legal quay, wharf, or other place duly appointed for such purpose, nor without the presence or authority of the proper officer of customs, before due entry outwards of such ship, and the entry of such goods, nor before such goods shall have been duly cleared for shipment; and it shall be lawful for the searcher to open all packages, and fully to examine all goods shipped or put off for shipment at any place in the United Kingdom. (Sec. 119.)

TO THE ENTRY AND CLEARANCE OF GOODS FOR EXPORTATION.

**Entry Outwards, Bond for due shipping and Clearance to be given.**—Before any warehoused

goods, British-wrought plate, goods subject to duties of customs, or entitled to any drawback of customs, on exportation, or exportable only under particular rules, regulations, or restrictions, shall be permitted to be exported, the exporter or his agent shall deliver to the collector or comptroller a bond note or account of such goods, and give security by bond in double the amount of duty payable by law upon the importation of such goods, with one sufficient surety, that such goods shall be duly shipped and exported, and shall be landed at the place for which they are entered outwards, or otherwise accounted for to the satisfaction of the Commissioners of Customs; and such bond note, when certified by the proper officer, shall be the export entry for such goods. (Sec. 120.)

**Exporter to deliver Shipping Bill.**—Before any such goods shall be shipped or water-borne to be shipped for exportation, the exporter or his agent shall deliver to the searcher or other proper officer a SHIPPING BILL of such goods in the form following or to that effect, and containing the particulars indicated therein or required thereby. (Sec. 121.)

**Inland Revenue Drawback.**—No drawback of excise shall be allowed upon any goods cleared for exportation, unless the person intending to claim such drawback shall have given due notice to the officer of excise, and shall have produced to the searcher, at the time of clearing such goods, a proper document under the hand of the officer of excise

than is required by law (such goods) and also spirits into reputed casks only; and to fill up any casks with any wine, not exceeding one gallon of brandy in any cask, and one gallon of brandy in any other cask, and to mix the same with any wine, and to take any of the same with or without entry, and to be allowed by the proper officer of customs, except as otherwise provided, to be chargeable as on a quantity; and the duty on such goods may be paid immediately payable, or may be delivered for a period of 12 months after such goods have been landed, and packed in proper or approved casks, and the Commissioners of Customs may, at the discretion of the importer or proprietor, refuse to admit any refuse, damaged, or spoiled goods, or goods obtained by such separation of goods, any goods which are to be destroyed, and any goods which are liable thereon. (Sec. 105.)

**Duty-paid Packages.**—No foreign packages shall be used in the warehouse, except such as are used in the importation of warehoused goods, and the full duties thereon shall be paid. (Sec. 106.)

may be taken out, under the authority of the Commissioners of Customs, to be taken out of the warehouse, for such purpose, and may appear expedient, and under such regulations as may be made, with such security by bond, as may be required, and the payment of which they may direct or require.

OF WAREHOUSED GOODS, AND EXPORTATION THEREOF.

**Warehoused Goods.**—No warehoused goods shall be delivered from the warehouse, and under the care of the collector, or upon due entry for exportation, or upon due entry for full duties payable thereon, except goods delivered into the warehouse, and to be shipped as stores, or to the collector or comptroller, or to the directions of the Commissioners of Customs, and under such regulations as may be made. (Sec. 109.)

**Warehoused Goods for Exportation.**—Before any goods to be cleared for exportation, the person entering the same, or his agent, shall deliver a bill of entry, and a certificate in like manner and form, containing the particulars as are before required, to be delivered for home use, and as far as the same may be applicable, at the same time pay down the full duties of customs, the full duties being less in amount than the duties on the quantity taken out, or other proper officer on the same, and the full duties thereon, except as to

Shipping Bill for { 1. War-housed or Drawback goods, 2. Foreign Goods not for Drawback, 3. Goods exported under some particular Rule, Regulation, or Restriction. (State as above described the Class to which the goods to be exported belong.)			
Ship's Name	Whether British or Foreign Ship; if Foreign, the Country	Master's Name	The Port or Place of Destination
<i>Here state the Particulars according to the above Headings.</i>			
Marks	Numbers	Description of Packages	Quantity, Quality, and Description of Goods
<i>Here state the Particulars according to the above Headings.</i>			
Total number of packages		I claim drawback on { <i>Here state the quantity and description in words of the length of any goods in respect of which drawback is claimed.</i>	

Station of clearance.

Dated \_\_\_\_\_ day of \_\_\_\_\_

(Signed) \_\_\_\_\_

Exporter or agent.

(Countersigned) \_\_\_\_\_

Searcher.

containing the description of such goods; and if such goods be found to correspond with the particulars of the goods contained in such document, and be duly shipped and exported, the searcher shall, if required, certify such shipment upon such document, and shall transmit the same to the officer of excise. (Sec. 122.)

**Goods not entitled to Drawback if of less Value than claimed.**—No drawback shall be allowed upon the exportation of any goods entered for drawback or as stores which shall be of less value than the amount of the drawback claimed; and all such goods so entered shall be forfeited, and the person who caused such goods to be entered shall forfeit the sum of 200*l.*, or treble the amount of drawback claimed in such case, at the election of the Commissioners of Customs. (Sec. 123.)

**No Drawback on Tobacco not properly manufactured &c.**—No drawback shall be allowed on any tobacco not wholly manufactured from to-

bacco on which the duty on importation shall have been paid, nor on any tobacco mixed with dirt, rubbish, or other substance; and every person who shall enter or ship, or cause to be entered or shipped, any tobacco contrary hereto, shall, over and above all other penalties which he may thereby incur, forfeit treble the amount of the drawback sought to be obtained or 200*l.*, at the election of the Commissioners of Customs, and all such tobacco shall be forfeited. (Sec. 124.)

**Shipping Bill for Free Goods &c. to be delivered to Searcher.**—Before any goods in respect of which no bond is required shall be shipped or warehoused to be shipped for exportation, the exporter or his agent shall deliver to the searcher a shipping bill thereof, with such duplicates as may be required by him, in the following form or to the effect, and containing the several particulars indicated in or required thereby:—

## SHIPPING BILL FOR BRITISH MANUFACTURES OR FOREIGN GOODS FREE OF DUTY.

Ship's Name	Whether British or Foreign Ship; if Foreign, the Country	Master's Name	Port or Place of Destination	
<i>Here state the Particulars according to the above Headings.</i>				
Marks	Numbers	Description of Packages	Quantity, Quality, and Description of Goods	The Value of British Goods and Foreign Goods formerly charged with Duty at Value (if any)
Total number of packages		Total value		s. d.
I declare the value of the British goods above described to be				

Station of clearance

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 18 .

(Signed) \_\_\_\_\_

Exporter or agent.

(Countersigned) \_\_\_\_\_

Searcher.

and such shipping bill shall be the entry for the goods contained therein; provided, that at Liverpool, and (with the sanction of the Commissioners of Customs) at any other port where the docks, quays, and wharfs are in like manner wholly or principally under the control and management of one and the same corporate body, the owner, char-

terer, consignee, broker, agent, or other person engaged in the loading and clearance of the exportation, shall also prepare a full and accurate list or manifest of all such goods from the bills of lading and freight list thereof, and shall sign and deliver the same to the collector of the customs, within 14 days after such ship shall have cleared outwards

correct trans-  
manifest, dist-  
several shipp-  
bills of lading  
list or manife-  
transcript as at  
agent, broker,  
freight the sum  
Shipping Bill  
out for the G  
when filled up,  
agent, or the cor-  
be, in such mann-  
quire, and count  
the clearance for  
and if any of s  
goods, or tobacco  
furnish to the s  
taining the numb-  
ages and the r  
therein, which, w  
shall accompany  
force and effect as  
passing of this Act  
agent shall require  
of any other goods  
searcher shall, on i  
that purpose, cert  
provided always, t  
required to be in a  
declared for the Zo  
state, or under the  
state may be so  
(Sec. 125.)  
**Licensed Lighter-  
goods cleared for draw-  
shall be carried or wat-  
any ship for exportation  
one duly licensed a  
licensed lighterman, or  
any other port at wh  
be so licensed, or b  
employer of such lig  
thorized to act as suc  
every such offence f  
(Sec. 126.)  
**Warehoused Goods sh  
Authority forfeited.**  
warehouse for remo  
removed or shipped  
under the care of the  
in such manner, by  
and by such route  
permit or direct, at  
(Sec. 127.)  
Duties may be remitt  
or destroyed in Rem  
be duly entered for  
for removal or exp  
removed by unavoidab  
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TO THE ISSUE OF  
MENT OF DRAW  
BILLS.  
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entry be prepared by  
certifying in the  
of such goods; a  
have been duly exp  
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correct transcript of such last-mentioned list or manifest, distinguishing therein the names of the several shippers of such goods, according to the bills of lading; and on failure to prepare such list or manifest, and to sign and deliver such transcript as aforesaid, such owner, charterer, consignee, broker, or other person as aforesaid shall forfeit the sum of 20*l.* (Sec. 125.)

**Shipping Bill signed by Searcher to be the Clearance for the Goods.**—The shipping bill or bills, when filled up, and signed by the exporter or his agent, or the consignee of the ship, as the case may be, in such manner as the proper officer may require, and countersigned by the searcher, shall be the clearance for all the goods enumerated therein; and if any of such goods shall consist of tea, coffee, or tobacco, the exporter or his agent shall furnish to the searcher an account thereof, containing the number and description of the packages, and the respective quantities contained therein, which, when certified by the searcher, shall accompany the ship; and have the same force and effect as the cocket in use prior to the passing of this Act; and if the exporter or his agent shall require a similar certificate in respect of any other goods shipped for exportation, the searcher shall, on its being presented to him for that purpose, certify the same in like manner: provided always, that if any such certificate be required to be in any particular form for goods destined for the Zollverein or any other foreign state, or under the name of cocket, such certificate may be so prepared and denominated. (Sec. 126.)

**Licensed Lighterman to carry Goods.**—If any goods cleared for drawback or from the warehouse shall be carried or water-borne to be put on board any ship for exportation by any person not at the time duly licensed and authorised to act as a licensed lighterman, either in the port of London or any other port at which lightermen are required to be so licensed, or by any person not being in the employ of such lighterman at the time duly authorised to act as such, every such person shall, on every such offence forfeit the sum of 20*l.* (Sec. 127.)

**Warehoused Goods shipped for Exportation without Authority forfeited.**—If any goods taken from the warehouse for removal or for exportation shall be removed or shipped except with the authority under the care of the proper officer of customs, in such manner, by such persons, within such time, and by such roads or ways as such officer may permit or direct, such goods shall be forfeited. (Sec. 128.)

**Drawback may be remitted on Warehoused Goods or destroyed in Removal or Shipment.**—If any goods duly entered for delivery from the warehouse for removal or exportation shall be lost or destroyed by unavoidable accident, either in the warehouse or from the shipping therefrom, the Commissioners of Customs may remit the drawback due thereon. (Sec. 129.)

**THE ISSUE OF DEBENTURES FOR AND THE METHOD OF DRAWBACK ON GOODS EXPORTED.**

**Computing and passing Debenture.**—For the purpose of computing and paying any drawback claimed on any goods duly entered, shipped, or exported, a debenture shall in due time after the goods are shipped, be prepared by the collector or comptroller, certifying in the first instance the entry and value of such goods; and so soon as the same shall have been duly exported, and a notice containing the particulars of the goods shall have been delivered by the exporter to the searcher, the

shipment and exportation thereof shall be certified to the collector or comptroller upon such debenture by the searcher, and the debenture shall thereupon be computed and passed with all convenient despatch. (Sec. 130.)

**Declaration as to Exportation and Right to Drawback.**—The person entitled to any drawback on any goods duly exported, or his agent duly authorised by him for that purpose, shall make and subscribe a declaration upon the debenture that the goods mentioned therein have been actually exported, and have not been reloaded, and are not intended to be reloaded, in any part of the United Kingdom, and that such person at the time of entry and shipping was and continued to be entitled to the drawback thereon; and the name of such person shall be stated in the debenture, which shall then be delivered to such person or his agent; and the receipt of such person on the debenture, countersigned by the holder of such debenture, if the same shall have been transferred in the mean time, shall be the discharge for such drawback when paid. (Sec. 131.)

**Payment within Two Years.**—No debenture for any drawback allowed upon the exportation of any goods shall be paid after the expiration of 2 years from the date of the shipment of such goods (Sec. 132.)

**Warehouse or Debenture Goods not exported &c. or reloaded &c., without Entry, forfeited.**—If any goods which have been cleared to be exported for any drawback shall not be duly exported to parts beyond the seas, or shall be unshipped or reloaded in any part of the United Kingdom (such goods not being duly reloaded or discharged as short-shipped under the care of the proper officers), or shall be carried to any of the Channel Islands (not having been duly entered, cleared, and shipped to be exported or carried directly to such islands), the same shall be forfeited, together with any ship, boat, or craft which may have been used in so unshipping, reloading, landing, or carrying such goods from the ship in which the same were shipped for exportation; the master of such ship, and any person by whom or by whose orders or means such goods shall have been so unshipped, reloaded, landed, or carried, or who shall aid, assist, or be concerned therein, shall forfeit a sum equal to treble the value of such goods, or a penalty of 100*l.*, at the election of the Commissioners of Customs. (Sec. 133.)

**Drawbacks of Duties on Wine allowed for Officers in the Navy.**—A drawback of the whole of the duties of customs shall be allowed for wine intended for the consumption of officers of her Majesty's navy on board such of her Majesty's ships in actual service as they shall serve in, not exceeding the quantities of wine in any one year for the use of such officers hereinafter respectively mentioned, viz.—

	Galls.
For every Admiral	1,260
Vice-Admiral	1,050
Rear-Admiral	840
Captain of the 1st and 2nd rate	630
Captain of the 3rd, 4th, and 5th rate	420
Captain of an inferior rate	210
Lieutenant and other Commanding Officer, and for Marine Officer, Master, Purser, and Surgeon	105

unless such wine be taken from the warehouse without payment of duty under such regulations as the Commissioners of Customs may direct: Provided always, that in either case such wine be shipped at ports approved of by the said commissioners. (Sec. 134.)

**Persons entering such Wine for Drawback to declare Name and Rank of Officer claiming the**



CONTENT.

Part of						
Ship's Name	Tonnage and Number of Tons		If British, Port of Registry; if Foreign, the Country	Number of Crew	Name of Master	Number of Passengers or Troops
	Tons.	Guns.				
<i>Here state the Particulars according to the above Headings.</i>						

Warehoused Goods	Drawback and restricted Goods	British Goods and Foreign Goods Free of Duty, and Foreign Goods not for Drawback
<i>If any, state Marks and Numbers of Packages.</i>	<i>If any, state Description of Packages.</i>	<i>If any, state 'Sundry Packages containing,' either Glass or other Cases may be.</i>
<i>If any goods shall have been reported inwards for Exportation in such Ship, they must be so stated.</i>		

Controlled \_\_\_\_\_ Examined \_\_\_\_\_  
(Signed) \_\_\_\_\_ Searcher.

I do declare that the above Content is a true account of all goods shipped or intended to be shipped on board the above-named ship, and correct in all other particulars. (Signed) \_\_\_\_\_ Master.

Signed and declared, this \_\_\_\_\_ day of \_\_\_\_\_ before me, \_\_\_\_\_  
(Signed) \_\_\_\_\_ Collector or Comptroller.

and before clearance the certificates, if any, shall be delivered to the searcher, who shall compare the shipping bills with the content and certificates, if any, and file such certificates, copy of report inwards, if any, of goods reported for exportation in such ship, and the victualling bill, with a label attached and sealed thereto, in the form or to the effect following:—

(To be filled in.)  
Number of Certificates (Number in Figures).  
Ship (Name of Ship).  
Master (Name of Master).  
(Date of Clearance) \_\_\_\_\_ Searcher.  
(Sig.) \_\_\_\_\_ Collector or Comptroller.

such label, when filled up and signed by the searcher and the collector, shall, as to the goods comprised therein, be the clearance and authority for the departure of the ship. (Sec. 142.)

**Goods on board to correspond with Content.**—Any goods liable to duty on importation, or taken from the warehouse to be exported, or entitled to drawback on exportation, or exported under bond, which are enumerated in the content of any ship, shall not be duly shipped before the departure of such ship, or shall not be duly certified by the proper officer as short-shipped, such goods shall be forfeited; or if any such goods shall be taken on board such ship, not being enumerated in such content, the master of such ship shall forfeit the sum of 5*l.* in respect of every package of such goods; and if any goods duly shipped on board such ship shall be unshipped, or landed at any other place than that for which they shall have been cleared, unless otherwise accounted for to the satisfaction of the Commissioners of Customs, the master of such ship shall forfeit a sum equal to treble the value of the goods so landed. (16 & 17 Vict. c. 82 s. 12.)

**Goods shipped contrary to Provisions forfeited.**—If any goods shall be shipped, put off, or waterborne to be shipped, without being duly cleared, or otherwise contrary to the provisions of this Act, the same shall be liable to forfeiture. (16 & 17 Vict. c. 107 & 144.)

**Ships leaving in Ballast.**—Before any ship shall depart in ballast from the United Kingdom for parts beyond the seas, not having any goods on board except stores from the warehouse borne upon the victualling bill of such ship, nor any goods reported inwards for exportation in such ship, the collector or comptroller shall clear such ship in ballast by notifying such clearance and the date thereof on the victualling bill, and deliver the same to the master of such ship as the clearance thereof; and the master of such ship shall answer to the collector or comptroller such questions touching her departure and destination as shall be demanded of him; and ships having only passengers with their baggage on board, and ships laden only with chalk or slate, shall be deemed to be in ballast; and if any such ship, whether laden or in ballast, shall depart without being so cleared, if she have any such stores on board, the master shall forfeit and pay the sum of 100*l.* (Sec. 146.)

AS TO THE BOARDING OF SHIPS AFTER CLEARANCE OUTWARDS.

**Officers may board any Ship after Clearance.**—Any officers of customs may go on board any ship after clearance outwards within the limits of any port in the United Kingdom, or within 4 leagues of the coast thereof, and may demand the ship's clearance; and if there be any goods on board in respect of which certificates are required, not contained in such certificates, or any stores not endorsed on the victualling bill, such goods or stores shall be forfeited; and if any goods contained in such certificates be not on board, the master shall forfeit the sum of 20*l.* for every package or parcel of goods contained in such certificates, and not on board. (Sec. 146.)

**If Officers put Seals upon Stores, and such Seals be broken, Master to forfeit 20*l.***—If any officer of customs shall place any lock, mark, or seal upon any goods taken from the warehouse without payment of duty as stores on board any

ship or vessel departing from any port in the United Kingdom, and such lock, mark, or seal be wilfully opened, altered, or broken, or if any such stores be secretly conveyed away, either while such ship or vessel remains at her first port of departure, or at any other port or place in the United Kingdom, or on her passage from one such port or place to another, before the final departure of such ship or vessel on her foreign voyage, the master shall forfeit the sum of 20*l*. (Sec. 147.)

**Ships not bringing-to at Stations, Penalty 20*l*.**—If any ship departing from any port in the United Kingdom shall not bring-to at such stations as shall be appointed by the Commissioners of Customs for the landing of officers from such ships, or for further examination previous to such departure, the master of such ship shall forfeit the sum of 20*l*. (Sec. 148.)

**Time of Exportation and Departure defined.**—The time at which any goods shall be shipped on board any export ship shall be deemed to be the time of exportation of such goods, and the time of the last clearance of any ship shall be deemed to be the time of departure of such ship. (Sec. 149.)

**Goods Prohibited by Proclamation.**—The following goods may, by proclamation or order in council, be prohibited either to be exported or carried coastwise: arms, ammunition, and gunpowder, military and naval stores, and any articles which her Majesty shall judge capable of being converted into or made useful in increasing the quantity of military or naval stores, provisions, or any sort of victual which may be used as food by man; and if any goods so prohibited shall be exported from the United Kingdom or carried coastwise, or be water-borne to be so exported or carried, they shall be forfeited. (Sec. 150.)

(Then follow the clauses in regard to the COASTING TRADE, COLONIAL TRADE, and SNUGGING.)

The following provisions are contained in the Customs Tariff Amendment Act, 23 Vict. c. 22, as to importation and exportation:—

Sec. 16. There shall be charged, irrespective of any duties of customs or other rates or charges payable by law, upon the importation of all goods into Great Britain and Ireland, except corn, grain, and flour, and timber and wood goods, and goods in transit exported under bond, and goods imported for exportation in the same ship, provided they be so reported, the respective rates and charges following, that is to say:

Goods in packages and parcels, per package or parcel or other unit of entry	s. d.
Goods in bulk by weight or measure or number, for each unit of entry	0 1
Animals per head, or other unit of entry	0 1
And there shall be charged upon every customs bill of lading on the exportation of any goods from Great Britain and Ireland	1 6

Sec. 18. It shall be lawful for the Lords of the Treasury, or the Commissioners of Customs, to fix or adjust the number or quantity of goods which shall constitute the unit of entry chargeable with the rate of 1*l*., having regard to the value of the goods, and from time to time to alter and vary the same as they may see fit, so that the said rate of 1*l*. shall exceed as little as may be in their judgment 5*s*. for every 100*l*. sterling upon the lowest ordinary value of the article to which such charge attaches.

By the 19th section the rates are to be paid by adhesive stamps. The penalty on importing free goods without giving true particulars is by Sec. 20 fixed at 40*s*. The bill of lading, which is defined in Sec. 21, is to be deemed the entry outwards of free goods, but must not include more than one consignment. Neglect in fulfilling all the conditions specified in this section involves a penalty of

5*l*. and treble stamp duty. 'Customs bills of lading' must be delivered within 24 hours after the final clearance, except under certain circumstances, of which notification must be given within 24 hours; but the specification of the goods contained must be delivered six days after such notice under a penalty of 40*s*.

Exporters shipping without Customs bills of lading are liable (sec. 25) to a penalty of 20*l*.

The master or owner of any ship in which goods are shipped for exportation must deliver a manifest duly attested by declaration. Penalty 20*l*.

Customs bills of lading &c. required to be used as evidence in courts of law are liable to fees of inspection—1*s*. for each inspection, and 2*s*. 6*d*. for each 1,080 words of a certified copy.

No customs bill of lading shall be valid without a stamp of the value of 1*s*. 6*d*., nor any other bill of lading be valid without the stamp of 6*d*., thereon, already imposed by law. Penalty 40*s*.

The Commissioners of Customs, agreeably to the powers given them to that effect by the foregoing statute and others, have appointed the under-mentioned places, within the several ports of the United Kingdom, at which vessels coming into or departing out of such ports shall bring-to, for the boarding or landing of customs' officers.

The following clause in the Act 16 & 17 Vict. c. 107 has reference to this matter:—If any ship coming into the United Kingdom or into the Channel Islands shall not come as quickly up to the proper place of mooring or unloading as the nature of the port will admit, without touching at any other place, and in proceeding to such proper place shall not bring-to at the stations appointed by the Commissioners of Customs for the boarding of ships by the officers of customs, or after arrival at such place such ship shall remove from such place, except directly to some other proper place of mooring or unloading, and with the knowledge of the proper officer of the customs, or if the master of any ship on board of which any officer is stationed neglect or refuse to provide every such officer sufficient room under the deck in some part of the fore-castle or steerage for his bed or hammock, the master of such vessel shall forfeit the sum of 20*l*. (Sec. 47.)

ENGLAND.

Ports.	Stations for bringing to.
LONDON	Gravesend Reach, below the Custom-house
ANNESTOWN	On the bar, or a little above the junction of the rivers Ribblesdale and Yarrow.
ABERDEEN	A little to the westward of the town, in the river Donay.
ARUNDEL	The pier on the eastern side of the river, between the revenue watch-house and the Duke of Norfolk's Quay, in the harbour of Littlehampton.
CHICHESTER	Cockshuff Harbour.
BARNSTAPLE	Skern and watch-house, Applinon.
BRISTOL	The Harbour.
BURTON	Opposite the town, at Fryar's Head.
AMSTERDAM	Within the harbour.
CONWAY	In the road-head opposite the town.
HOLYHEAD	In the harbour.
BERWICK	At the entrance of the harbour, near the head.
THORNTON	Skern and watch house, Applinon.
THORNTON	Hull Hole.
SPALDING	Clayhole.
BRIDGWATER	Between Potemal Point, on the coast of Bristol Channel, and Black Rock, about a mile within the mouth of the river Taw.
MILFORD	At the entrance of the harbour.
INTIPPOIC	The outer buoy, distant about 500 yards from the head of the harbour.
CAERDIF	Fill and Kingroad.
BERTRIG	Perrith Head, a little to the eastward of the mouth of the river Taw.
CARDIFF	At Pwllcam, a little inside the bar or harbour mouth.
CARDOBAN	Fisher's Cross.
CARLISLE	In the bay off the town, opposite the Tower, and at Abernethy.
CARRARVOX	At the entrance of the harbour, by the Rock.
EMMETHLY	In the harbour.
BERMOUTH	At the entrance of the river Wyre.
CHASTON	Dowpool, 6 miles from Holyhead.
CHERTON	Coln street, off Haven Stone, near the mouth of the river.
COLEBY	Road-head of Coles, extending from the west about 2 1/2 miles.
COVES (EAST)	

Partial list of ports and locations on the right margin of the page, including names like London, Bristol, Cardiff, and others, partially cut off.

*Ports.*

- Between the mouth of the harbour and Sand-  
gate Point.
- At the mouth of the harbour and Snape Point.  
In the Downs, in open roadstead.
- The outer harbour.
- At the Passage Way, Ramouth.
- In the harbour, off Kilm Quay and watch-  
house.
- Burgan Roads, just at the entrance of the  
river Hel.
- Between the mouth of Faversham Creek and  
the Horse Man in the East Swale.
- At the mouth of Milton Creek in the Swale.
- In the harbour.
- In the harbour.
- Near the Custom-house, not far from the en-  
trance of the harbour.
- Nhapiques Point and Nilmeroad Bay in the  
Harbour of Beachley.
- At the wharf, near the entrance of the har-  
bour.
- Hull Roads.
- Roadstead south of town.
- In the harbour, between the Guard and  
Hilton Ferry.
- Hull Roads, between the east end of the clif-  
side and the entrance to the Humber Dock to  
the westward.
- In the harbour, between the Quam and  
Walton Ferry.

*Ports.*

- In their respective bays.
- Gleason Dock, on the river Lure.
- Pite Coude, near the Isle of Walnes.
- At the entrance of the respective docks.
- Entrance to the harbour.
- Opposite the Jetty, near the entrance of the  
harbour.
- The basin within the pier or cobb of Lyme  
Regis.
- Nottingham Point, intermediate space be-  
tween Common Straith Quay, where the  
esuary narrows into a river, about 3 miles  
below the town, or as near as circumstances  
permit within the point.
- Barrow Hills, opposite Blackwater River,  
Maiden.
- Leigh Nade, or Leigh Swatch, which chan-  
nel is formed by the spit of a sand called  
North End, leading from the east end of  
Carr Island, and nearly opposite to a  
windmill, called the Hamlet Mill, situate  
upon the Cliff, about 3 miles to the west-  
ward of Southend, and about 2 miles from  
Leigh.
- The harbour.
- In the haven, opposite the town of Milford.
- Opposite the watch-house, at the entrance of  
the River Tyne.
- In the stream, between the piers and the tide  
surveyor's watch-house.
- At the watch-house, 1 mile from the Custom-  
house.
- Hawker's Cove, within the harbour.
- Gwasar Lake.
- St Michael's Mount Roads.
- Within the line of the Breakwater, viz. the  
Sound, Catvraze, and Harrowze.
- At the entrance of the harbour, between South  
Down, or opposite Brownness Castle, and the  
Essex buoy, opposite the castle stables.
- Between Blackhouse Point and the north end  
of her Majesty's dockyard.
- Lytham.
- In the harbour.
- In the harbour.
- At the entrance of the harbour.
- Sherrness.
- The outer channel, and in Stag's Hole in the  
inner channel.
- In the open roadstead.
- Entrance of the harbour, opposite the light-  
house, at the end of Vincent's Pier.
- Low Light, North Shields.
- Hithcock, harbour of Hith.
- Near the entrance of the harbour, in the  
western branch, opposite the customs  
watch-house and King's Wharf.
- ichen buoy, or Bursledon buoy.
- Ninth buoy, or opposite Cleveland Port.
- In the bay, within 1 mile of St. Ives pier.
- The straits.
- At the entrance of the harbour, near the  
watch-house on the South river.
- In the harbour.
- Briton Ferry, near the entrance of Neath  
in the harbour.
- At the Point.
- Falmouth Harbour.
- Between the entrance of the harbour and  
Weth Quay.
- Weymouth Roads.
- The harbour.
- In the harbour, between the tongue and bul-  
work.
- At the light houses about 3 miles below the  
station at Sutton Wash.
- Bawdley Ferry, the entrance of the River  
Deben.
- In their respective harbours.
- Yarmouth Roads, between Nelson's Monu-  
ment and the haven's mouth—on the  
Hurd, a short distance within the haven's  
mouth, at the S.E. angle of the river.

*Ports.*

SCOTLAND.

- That part of Aberdeen Bay which falls with in  
the line beginning at the easternmost point of  
the Birdie Ness, and running north 15 miles,  
to a point due east of the centre of the  
Broad Hill.
- Within the River Uthman, opposite to the vi-  
lage Newburgh.
- The bar over.
- South Quay at Ayr.
- The Legal Quays.
- The harbour.
- The harbour.
- The harbour.
- Oban Bay, in the county of Argyll, lying  
within Fishing-house Point on the eastern  
side, and 1/2 mick Point on the western side  
of the said bay.
- The bay of Tibermore, lying and being with in  
Leiding Point to the south-west, Portmore  
Point to the north-west, and the Isle of  
Calve on the east of Tibermore, Isle of  
Mull, county of Argyll.
- Lochgilphead Roads, at the east end of the  
Crian Canal, lying and being within  
Ardrahaig Point, on the western side of  
Lochgilphead, and Kiltunoy Point, on the  
eastern side of the said loch.
- The harbour.
- The Bay of Carne.
- The mouth of the river.
- Either the bay or the harbour.
- Anchamain Bay or Baclany Bay.
- The Quay.
- Inughy Ferry.
- The Fall of the Bank within the port of  
Greenock.
- Entrance of the harbour.
- The harbour.
- From Great Point to the eastward of the  
town of Greenock, in the county of Inver-  
clyde, to Kemock Point, being the western  
point of Great Bay, including therein  
Carradyke Bay, Greenock Roads, the an-  
chorage at the Fall of the Bank, and Tior-  
ock Bay.
- Northay Bay, lying and being within Boyan  
Point, on the east of the town of Northay,  
in the Isle of Bute, county of Inverclyde,  
and Ardmallah Point on the west of the said  
town.
- The harbour.
- The harbour.
- Entrance of the harbour.
- Northam Roads.
- Kirkcaldy Bay.
- Largo Bay.
- The Bay of Kirkwall Roads, extending along  
the coast, in a north-east direction to  
Thlie's Holm, and in a westerly direction to  
Quarterness Skerry, thence in a southerly  
direction to the Legal Quays.
- The bay called Cairton Roads.
- Between the martello tower and chain pier at  
Newhaven.
- In the harbour.
- In the bay, opposite the Custom-house.
- Within the bar, at the entrance of the river  
South Esk, which is called the Minn.
- The harbour.
- Caroline Roads, 1 1/2 miles to the eastward of  
the harbour of Dundee.
- The bay.
- The Fall of the Bank within the port of  
Greenock.
- The harbour.
- The harbour.
- The harbour.
- Wick Bay, when abreast or within the head-  
land called the Old Man of Wick.
- Bay or Harbour of Wigtown.
- Pict Bay.
- Their respective harbours.

IRELAND.

- Inniscrone, Bay of Killala, outside the en-  
trance to the Moy River.
- Glarmoye Roads, in Belfast Lough.
- Fort Rush Bay, outside the harbour.
- Between the South buoy and the town of Cove.
- Upper Cove on the eastern side of the harbour.
- Within the entrance of the harbour, between  
Blackhall Head to the eastward and Ferry  
Point.
- North Crook, at the entrance of the Boyne.
- Pigeon-house, between the harbour lighthouse  
and the end of the North Wall.
- Soldiers' Point.
- To the eastward, or under the shelter of  
Mutton Island.
- Farbert.
- Cullmore.
- Warren Point Roads.
- Passage in the port of Waterford.
- Baltimore and Castletownsend.
- Harbour.
- Oyster Island.
- In the river, abreast of Ward Town house.
- Hollymore Bay or Audley's Town Bay.
- Passage.
- Linnisgoth Harbour immediately within the  
bar thereof and abreast of Inniscrogh Har-  
bour lighthouse.
- South Bay, about 10 miles from Wexford.

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Computed Real Values of Principal Imports into the United Kingdom &c.—continued.

Articles	1865	1866	1867	Articles	1865	1866	1867
Sisal, rope	529,745	1,307,486	1,597,889	Melasses	446,163	579,553	2,907,710
Sisal, raw	10,181,855	7,245,199	7,536,482	Tallow	3,125,282	3,008,807	2,119,594
Yarn	127,165	138,333	439,987	Tea	10,014,462	11,208,815	10,066,213
Wool Manufactures:				Teeth, elephants', sea cow, sea horse, or sea morse	522,266	445,355	360,580
of Europe, Head stuffs	4,919,710	6,826,954	5,445,114	Timber and wood:			
Ribbons	2,310,473	2,365,403	2,610,987	Not sawn or split, of Foreign Countries	2,899,617	2,231,513	1,771,591
Other manufac- tures	1,075,261	879,259	910,371	of British Posses- sions	2,041,322	1,939,738	1,621,243
Total of all manufac- tures of Europe	8,355,417	9,312,618	8,984,475	Total of timber, not sawn or split	4,911,029	4,171,271	3,423,236
India, headstuffs, crack, shoppas, Tur- kish cloths, towels and squares	65,596	47,091	56,034	Sawn or split of For- eign Countries	4,259,712	4,066,638	3,934,881
Sarees	392,321	275,599	165,587	of British Posses- sions	2,300,219	2,220,863	1,969,783
Shawl, shawl, undressed	222,913	320,560	305,510	Total of timber, sawn or split	6,559,931	6,287,923	5,994,666
Tanned, raw, or dressed	82,754	98,840	145,743	Teak	629,275	512,101	123,282
Lamb, undressed	31,276	59,551	50,015	Staves	619,010	930,858	696,137
Tanned, raw, or dressed	3,812	5,294	9,004	Mahogany	507,921	527,954	480,858
Sat, in the hair, un- dressed	86,655	95,719	174,998	Tin in blocks, ingots, bars, or slabs	529,803	444,478	481,344
Wool, undressed	99,096	115,165	78,009	Tobacco, manufactured, cigars and snuff	517,341	538,695	539,370
Wool, dressed	204,427	224,293	239,355	Unmanuf.ured	2,781,968	1,101,351	1,841,912
of thread	43,411	12,546	25,579	Wine	5,914,196	4,755,173	4,935,451
Spun, Coarse, India	90,507	82,707	73,692	Wool: Sheep and lamb, (including alpaca and Himala wool)	14,930,439	17,550,871	16,178,051
(medium)	49,168	18,846	18,446	Woolen rags, torn up to be used as wool	453,899	399,763	279,721
Coarse	42,621	31,788	23,417	Woolen manufactures not made up	1,704,758	1,899,675	1,299,917
Wool, fine	265,815	216,916	205,370	Yams, dried	232,228	234,429	242,116
Spun, Ram	874,667	691,412	692,466	All other articles	25,874,860	22,735,511	26,847,946
Other Foreign and Colonial wools	853,693	1,409,410	1,376,260	Total	27,197,285	29,020,274	27,521,855
Wool of Indian and Chinese	191,333	155,985	190,355				
Wool of British and Foreign Countries	5,639,174	5,583,561	5,081,387				
Wool of Foreign Countries	5,653,450	4,911,151	4,540,512				
Total of all manufac- tures	11,307,624	10,739,015	11,501,261				

Account of the Quantities of the Principal Articles of Foreign and Colonial Merchandise Imported into the United Kingdom in 1862-6.

Articles	1862	1863	1864	1865	1866
Wool, raw, sorted and put up in bales	161,113	176,534	176,327	113,779	101,073
of other sorts	14,820	25,160	30,280	35,216	13,666
Wool, raw, unsorted	1,978	1,441	1,357	1,332	1,646
Wool, raw, sorted and put up in bales, raw	97,887	150,898	231,733	282,271	237,759
and calves	299,472	426,213	912,710	912,710	730,980
Wool, raw, sorted and put up in bales, dressed	28,840	17,491	14,398	40,004	18,240
Wool, raw, sorted and put up in bales, undressed	11,378	15,410	16,800	23,222	31,980
Wool, raw, sorted and put up in bales, woolen	1,135,455	1,631,091	895,630	691,854	579,272
Wool, raw, sorted and put up in bales, woolen	310,911	286,132	174,760	91,492	37,519
Wool, raw, sorted and put up in bales, woolen	99,593	326,192	331,186	430,810	540,103
Wool, raw, sorted and put up in bales, woolen	87,853	30,383	30,383	35,511	13,797
Wool, raw, sorted and put up in bales, woolen	2,441,971	2,657,322	3,127,611	3,369,321	3,408,387
Wool, raw, sorted and put up in bales, woolen	189,761	288,369	346,821	244,131	232,948
Wool, raw, sorted and put up in bales, woolen	67,320	77,494	68,870	74,308	80,316
Wool, raw, sorted and put up in bales, woolen	3,771	6,294	6,294	6,294	6,294
Wool, raw, sorted and put up in bales, woolen	36,044	30,021	19,667	20,627	28,430
Wool, raw, sorted and put up in bales, woolen	1,067,597	847,722	792,592	981,106	1,237,166
Wool, raw, sorted and put up in bales, woolen	2,478,415	2,517,185	2,916,185	2,266,184	2,676,361
Wool, raw, sorted and put up in bales, woolen	1,037,571	986,770	1,054,617	1,083,717	1,165,081
Wool, raw, sorted and put up in bales, woolen	11,840,261	15,544,077	14,412,510	11,092,247	13,085,619
Wool, raw, sorted and put up in bales, woolen	15,455	16,435	10,968	10,252	7,466
Wool, raw, sorted and put up in bales, woolen	15,100	34,883	48,892	41,623	61,030
Wool, raw, sorted and put up in bales, woolen	59,703	65,849	71,007	71,392	72,176
Wool, raw, sorted and put up in bales, woolen	719,974	754,611	630,519	868,689	792,249
Wool, raw, sorted and put up in bales, woolen	703,909	736,285	834,844	853,277	872,542
Wool, raw, sorted and put up in bales, woolen	45,565	131,638	136,272	95,063	105,763
Wool, raw, sorted and put up in bales, woolen	2,478,415	15,290	20,277	18,133	18,254
Wool, raw, sorted and put up in bales, woolen	247,265	314,201	375,922	231,356	254,534
Wool, raw, sorted and put up in bales, woolen	161,258	160,648	153,755	143,770	171,013
Wool, raw, sorted and put up in bales, woolen	24,394	27,689	24,232	26,910	32,751
Wool, raw, sorted and put up in bales, woolen	9,912,508	9,592,565	7,920,712	7,464,982	10,508,228
Wool, raw, sorted and put up in bales, woolen	91,011,883	117,556,217	109,277,592	137,997,451	127,011,810
Wool, raw, sorted and put up in bales, woolen	90,123	118,501	118,240	113,873	131,920
Wool, raw, sorted and put up in bales, woolen	117,438	104,999	93,504	92,218	129,547
Wool, raw, sorted and put up in bales, woolen	13,739	12,788	25,437	22,858	21,679
Wool, raw, sorted and put up in bales, woolen	4,903	4,225	5,212	6,103	6,241
Wool, raw, sorted and put up in bales, woolen	1,265,229	1,457,226	1,311,723	2,014,276	2,694,128
Wool, raw, sorted and put up in bales, woolen	41,035,203	24,361,171	23,196,714	20,968,964	23,156,329
Wool, raw, sorted and put up in bales, woolen	25,842,735	30,232,971	19,300,277	24,610,430	34,733,935
Wool, raw, sorted and put up in bales, woolen	7,207,112	2,218,978	4,515,361	3,901,474	4,072,290
Wool, raw, sorted and put up in bales, woolen	15,525	1,476	1,476	11,292	8,072
Wool, raw, sorted and put up in bales, woolen	4,678,333	5,978,222	7,075,931	8,731,949	12,295,803
Wool, raw, sorted and put up in bales, woolen	1,216,748	875,353	321,754	465,880	539,265
Wool, raw, sorted and put up in bales, woolen	377,600	1,696,655	5,117,174	2,159,328	3,315,664
Wool, raw, sorted and put up in bales, woolen	327,882	317,317	55,391	65,770	83,997
Wool, raw, sorted and put up in bales, woolen	471,423	2,027,400	2,805,081	4,726,402	41,070,019
Wool, raw, sorted and put up in bales, woolen	76,285	36,011	49,137	49,165	55,272
Wool, raw, sorted and put up in bales, woolen	1,936,010	2,228,411	2,791,539	3,033,444	3,637,321
Wool, raw, sorted and put up in bales, woolen	455,182	462,693	451,233	438,085	475,325
Wool, raw, sorted and put up in bales, woolen	7,722	7,351	8,786	13,193	12,470
Wool, raw, sorted and put up in bales, woolen	1,798,521	1,438,964	1,842,947	1,913,132	2,517,598
Wool, raw, sorted and put up in bales, woolen	233,404	233,404	233,404	233,404	233,404
Wool, raw, sorted and put up in bales, woolen	41,843	43,670	43,670	41,114	48,710





## Value of Exports of Produce and Manufactures of the United Kingdom—continued.

Articles	1865	1866	1867	Articles	1865	1866	1867
Glass, Window	60,857	77,191	87,138	Metals			
Common bottles	310,743	378,395	531,110	Iron, red and white			
Plate	71,887	85,772	97,914	Lead, and litharge	186,173	229,073	218,571
Habitashery and millinery	5,030,710	5,366,775	4,138,112	Tin, unwrought	198,570	282,924	385,311
Hardware and cutlery	4,576,141	4,866,501	5,033,733	Plates	1,181,098	1,806,192	2,093,160
Tools of all sorts	383,391	400,430	519,991	Zinc, unwrought and			
Horses	185,361	167,381	177,838	newwrought	91,859	150,859	155,883
Leather, unwrought	409,749	436,170	428,268	Oil, seed	1,541,581	1,436,961	1,479,712
Wrought, boots and shoes	1,469,105	908,888	950,791	Paper (other than hangings)			
of other sorts	240,999	310,992	358,841	Books and sources	417,741	630,511	563,518
Saddlery and harness	330,531	329,484	290,275	Plate, plated ware, Jewellery, and watch cases	508,381	468,150	520,218
Linen	2,535,521	2,371,132	2,453,081	Provisions, not otherwise described	419,820	414,295	416,661
Linen manufactures	9,156,990	9,576,445	7,473,106	Silk			
Steam engines	1,938,535	1,760,612	1,991,981	Silk, thrown	37,531	386,926	345,000
Of other sorts	3,264,100	2,998,179	2,968,998	Wool and yarn	477,596	382,608	414,172
Iron and steel	15,171,559	14,818,417	15,199,912	Silk manufactures	290,468	216,912	179,313
Metals				Soup	1,101,381	1,118,086	1,076,742
Copper, unwrought, ingots, cakes, or state				Spices, British	184,279	141,009	188,747
Wrought or partly wrought	496,148	558,034	781,250	Stationery, other than Paper	914,101	131,075	167,411
Iron, rails, sheets, nails &c.	1,480,130	1,174,732	1,219,270	Sugar, refined	405,667	386,108	378,311
Mixed or yellow metal	816,640	771,986	471,903	Telegraphic wire	219,677	291,163	295,201
Of other sorts	136,999	87,816	53,919	Wool, shorn and lambs' skins	148,678	312,288	295,201
Brass, of all sorts	329,209	228,118	216,635	Woolen and worsted manufactures	901,660	895,356	760,011
Lead, pig, sheet, pipe, and shot	581,681	661,266	653,170	Woolen and worsted yarn	5,129,501	4,731,162	4,817,217
				Woolen and worsted manufactures	20,104,130	21,796,411	20,194,960
				Other articles	7,129,851	8,936,821	7,927,206
				Total	165,835,273	188,917,536	181,385,971

## VII.—Account of the Computed Values of Produce Imported into the United Kingdom from Foreign Countries and British Possessions in each of the 3 Years ending with 1867, specifying the Amounts Imported from each.

Countries	1865	1866	1867	Countries	1865	1866	1867
France	17,519,801	15,359,516	11,923,293	United States and California	21,651,125	16,638,218	14,027,561
Russia: Northern Ports	5,033,896	6,272,164	10,163,633	Mexico	3,216,914	313,478	310,000
Southern Ports	3,634,056	5,013,215	6,477,583	Central America	604,215	560,443	310,000
Sweden and Norway	4,811,987	2,991,909	3,588,221	Haiti and San Domingo	230,867	199,138	310,000
Denmark, Prussia, and Iceland from 1861	113,877	107,493	184,830	New Granada	1,566,913	1,512,661	983,000
Danish West Indies	6,146,805	6,866,753	7,385,619	Venezuela	241,531	209,438	187,000
Prussia				Brazil	40,715	120,493	105,000
Schleswig and Holstein, with Lauenburg from 1861	1,015,230	887,120	980,137	Uruguay (Monte Video)	1,119,711	1,840,150	1,212,000
Hanover	343,041	211,537	559,433	Argentine Confederation	1,014,599	1,073,013	919,000
Hanse Towns	8,837,784	10,576,831	9,321,298	Chili	27,988,911	2,913,013	1,912,000
Holland	19,115,301	11,768,213	10,897,583	Peru	4,048,150	3,012,011	3,201,000
Java and Sumatra	276	8,134	15,762	China	10,677,995	10,466,388	9,803,000
Belgium	7,551,815	7,906,867	7,535,207	Japan	618,113	27,213	312,000
Spain	31,625,231	37,016,274	53,710,600	Western coast of Africa	1,318,540	1,432,937	1,477,000
Algeria	90,505	48,105	53,357	Other countries	967,135	1,107,540	1,200,000
Possessions in India	43,635	43,255	27,779	Total of Foreign Countries	198,231,488	213,084,558	214,462,000
Portugal	2,471,801	2,217,928	2,324,090	BRITISH POSSESSIONS			
Azores and Madeira	378,435	400,501	375,617	Channel Islands	414,591	450,700	484,000
Spain and Historic Islands	4,769,277	5,355,133	6,988,389	Gibraltar	140,229	85,993	112,000
Canary Islands	239,374	293,630	281,740	Malta	82,993	115,636	112,000
Fernando Po	28,618	34,457	41,221	North American Colonies	6,350,178	6,867,363	4,807,000
Cuba and Porto Rico	5,063,839	7,961,538	4,267,684	West India Islands and Guyana	7,199,398	6,325,291	5,677,000
Philippine Islands	1,253,204	1,196,577	760,314	British Honduras	211,536	259,239	1,000,000
Italy: Sicily	222,515	519,795	509,267	Australia	10,273,113	11,423,208	10,800,000
Tuscany	580,140	613,889	475,222	British India	57,295,452	56,201,297	55,000,000
Papal States	1,688,198	2,275,103	1,607,295	Singapore and the Straits Settlements	2,155,051	1,609,465	1,815,000
Venetia	483,515	558,481	611,272	Ceylon	3,207,717	3,266,250	3,015,000
Adriatic Ports of Ancona and the Romagna	26,141	44,579	160,281	Hong Kong	773,068	767,273	490,000
Papal Ports on the Adriatic	23,921	5,191	5,162	Mauritius	1,446,929	1,200,718	490,000
Austrian Territories: Mylia, Croatia, and Dalmatia, including Venetia from 1861 to 1860	677,521	1,369,831	1,801,383	Cape of Good Hope and Natal	4,145,485	4,719,233	5,710,000
Greece	41,071,833	4,879,598	21,216,083	Gambia	30,552	49,613	50,000
Turkey	5,438,150	5,504,500	4,086,975	Sierra Leone	76,291	85,617	70,000
Wallachia and Moldavia	348,185	441,988	325,867	Possessions on the Gold Coast	49,619	38,500	39,000
Syria and Palestine	74,247	137,808	130,811	Other British Possessions	68,299	57,291	160,000
Egypt	21,775,280	13,368,824	15,198,222	Total of British Possessions	78,807,797	77,807,371	68,500,000
Morocco	412,882	366,082	241,322	Total of Foreign Countries and British Possessions	277,043,285	290,891,927	282,962,971

\* Including the Ionian Islands, ceded to Greece June 1, 1861.

been going on in other countries; so that while we send more goods to the foreigner, we get back more of his in return. Instead of being an evidence of decline, increased facilities of production and increased cheapness are the most characteristic and least equivocal marks of commercial prosperity.

*Causes of the Magnitude of British Commerce.*—The immediate cause of the rapid increase and vast magnitude of the commerce of Great Britain is doubtless to be found in the extraordinary

improvement, and consequent extension of manufactures since 1770. The cotton manufacture may be said to have grown up during an intervening period. It must also be borne in mind that the effect of an improvement in the production of any article in considerable demand is not confined to that particular article, but extends itself to others. Those who produce it accordingly to the old plan are undersold unless they produce the same or similar improvements; and the improved article, by coming into competition

others for which energy into the market to put both a preserve his own the stupendous quantities, Arkwright's but we should their inventions were was limited ingated a powerful industry. The Wellwood, government in all nations whose factories had been possession and an engrave seals, and the air, every thing man did. And apparatus to wear a metal connection have extended among by the invention steam-engine.

The immense capital place since has been at once a demand trade and effect on the individual capital centers on the only in preserving trade. It enables them by larger quantities; and, on the other hand, the decided superiority of British manufactures is scarce, and the importance with the manufacturer an increase in the number of his works in the best business on such a proper distribution are among different countries are strikingly history of Great Britain; and thus it is maintained by means of its own, enrichment, vigour, and the improvement of the mode of living since the commencement of the present century. It has been partly the effect of the improvement of the mode of commerce, and the accommodations ingeniously would be the circumstances attending with every country, till, in the progress of the human mind, the progress of the human mind with previous constant increase of demand for new inventions and continued advancement in one age, been the fact of Queen Elizabeth's time, by contemporary industry, the severer his circle without them. They pressing upon the higher.

continued.

1866	1867
£	£
329,662	318,503
382,984	285,341
1,896,191	2,063,860
150,450	159,993
1,256,564	1,170,712
556,349	561,569
639,515	569,754
408,150	339,638
414,293	416,641
286,498	509,944
264,155	431,772
897,608	254,667
1,107,912	179,111
1,318,806	1,098,749
241,109	298,243
131,073	165,411
288,106	378,711
294,163	395,531
312,288	299,646
895,356	174,019
4,781,162	5,431,807
21,296,912	20,134,660
8,036,921	7,097,200
88,912,256	101,483,971

from Foreign Countries, specifying the

1866	1867
£	£
46,834,918	40,677,218
213,547	313,111
260,445	260,445
288,158	819,212
1,512,664	903,531
809,498	838
120,859	102,612
7,232,255	8,896,262
1,360,820	1,274,726
1,073,015	918
2,943,942	4,475,712
2,019,017	3,501,000
10,846,384	9,360,262
972,210	572
1,489,037	1,470,712
1,101,510	1,290,262
243,084,824	104,483,971
430,701	494
104,017	67
115,638	84
0,867,565	4,867,212
6,373,794	3,572,712
239,750	180
11,412,788	18,000,000
36,901,997	15,000,000
1,609,865	1,100,000
3,856,224	3,710,000
787,625	100,000
1,530,215	800,000
7,719,215	6,710,000
41,615	50,000
89,617	70,000
348,500	190,000
37,931	100,000
72,805,712	60,800,000
95,910,474	175,800,000

extension of the cotton manufactory during the last century, but also been a considerable improvement in the demand for the article, but the produce it secured unless they were subjected to competition

others for which it may be substituted, infuses new energy into their producers, and impels every one to put forth all his powers, that he may either preserve his old or acquire new advantages. The cotton manufacture may be said to be the result of the stupendous inventions and discoveries of Hargreaves, Arkwright, Crompton, and a few others; but we should greatly underrate the importance of their inventions if we supposed that their influence was limited to this single department. They imparted a powerful stimulus to every branch of industry. Their success, and that of Watt and Wedgwood, gave that confidence to genius so essential in all great undertakings. After machines had been invented for spinning and weaving cottons whose fineness emulates the web of the gossamer, and steam-engines had been made to engrave seals, and to lift a ship like a baulk in the air, every thing seemed possible—*nil arduum erant*. And the unceasing efforts of new agents to wealth and distinction, and the intimate connection of the various arts and sciences, have extended and perpetuated the impulse given by the invention of the spinning-frame and the steam-engine.

The immense accumulation of capital that has taken place since the close of the American war has been at once a cause and a consequence of our increased trade and manufactures. Those who reflect on the advantages which an increase of capital confers on its possessors can have no difficulty in perceiving how it operates to extend trade. It enables them to buy cheaper, because they buy larger quantities of goods, and pay ready money; and, on the other hand, it gives them a decided superiority in foreign markets, where capital is scarce, and credit an object of primary importance with the native dealers. To the manufacturer an increase of capital is of equal importance by giving him the means of constructing works in the best manner, and of carrying on his business on such a scale as to admit of the most proper distribution of whatever has to be done among different individuals. These effects have been strikingly evinced in the commercial history of Great Britain during the last half-century; and thus it is that capital, originally accumulated by means of trade, gives it, in its turn, nourishment, vigour, and enlarged growth. The improvement that has taken place in the mode of living since the beginning of this century has been partly the effect, and partly the cause, of the improvement of manufactures and the extension of commerce. Had we been contented with the accommodations as our ancestors, exertion and industry would long since have been at an end, and routine have usurped the place of invention. Happily, however, the desires of man vary in the circumstances under which he is placed, and every extension of the means of becoming all but illimitable. This endlessness of the human mind, its inability to rest satisfied with previous acquisitions, combined with the constant increase of population, renders the world a scene of new inventions and discoveries as in one period as at another, and provides for the continued advancement of society. What is a day in the life of Queen Elizabeth having worn the silks stockings was reckoned deserving of notice by contemporary historians; while, in the latter part of this century, no gentleman, how much sorer his circumstances, could go to bed without them. The lower classes are continually pressing upon the middle, and these, in turn, upon the higher; so that invention is

racked, as well to vary the modes of enjoyment, as to increase the amount of wealth. That this competition should be in all respects advantageous is not to be supposed. Emulation in show, though carried to excess, and has certainly been ruinous to many individuals, obliged sometimes, perhaps, by their situation, or seduced by example, to incur expenses beyond their means. But the emulation in England, is, after all, confined within tolerably narrow limits; while the beneficial influence resulting from the general diffusion of improved accommodations adds to the science, industry, wealth, and enjoyments of the whole community.

We are also inclined to think that the increase of taxation during the late war contributed to the improvement of manufactures and the extension of trade. The gradually increasing pressure of the public burdens stimulated the industrious efforts to preserve their place in society, and I should have in vain attempted to excite by any less powerful means. Had taxation been very oppressive, it would not have had this effect; but, or despair, though it was at the same time sufficiently heavy to render a considerable increase of exertion and parsimony necessary to prevent it, or, at all events, from diminishing the rate at which they were previously accumulating. To the world, the fear of falling superadded an additional and powerful stimulus; and the two together produced results that could not have been produced by the unassisted operation of either. No evidence has been or probably can be produced to show that the capital of the country would have been materially greater than it is, had the tranquillity of Europe been maintained uninterrupted from 1793 to the present moment.

We do not state these circumstances to extenuate the evils of war or of oppressive taxation, but merely to show the real influence of taxation on industry when gradually augmented and kept within reasonable bounds. Under such circumstances it has the same influence over a nation that an increase of his family or of his unavoidable expenses has over a private individual.

But after every fair allowance has been made for the influence of the causes above stated, and for the influence of a similar description, still it is abundantly certain that a liberal system of government, affording full scope for the expansion and cultivation of every mental and bodily power, and securing all the advantages of superior talent and address to their possessors, is the grand sine qua non of commercial and manufacturing prosperity. Where oppression and tyranny prevail, the inhabitants, though surrounded by all the means of civilization and wealth, are invariably poor and miserable. In respect of soil, climate, and situation, Spain is perhaps superior, or at all events but a miserable contrast does the former present when compared with the latter! The despotism and intolerance of her rulers, and the want of good order and tranquillity, have almost extinguished every germ of improvement in the Peninsula, and sunk the inhabitants to the level of the Turks and Moors. It remains to be seen whether the revolution now (October 1868) in progress may not be a prelude to happier times for that country. Let us hope it may. Had a political system similar

to that of Spain been established in England, we should have been equally depressed. Our superiority in science, arts, and arms, though promoted by subsidiary means, is, at bottom, the result of freedom and security—freedom to engage in every employment, and to pursue our own interest in our own way, coupled with an intimate conviction, derived from the nature of our institutions and their opposition to everything like arbitrary power, that acquisitions, when made, may be securely enjoyed or disposed of. These form the grand sources of our wealth and power. There have only been two countries—Holland and the United States—which have in these respects been placed under nearly the same circumstances as England; and, notwithstanding they inhabit a morass defended only by artificial mounds from being deluged by the ocean, the Dutch have long been, and still continue to be, the most prosperous and opulent people of the Continent; while the Americans, whose situation is more favourable, are advancing in the career of improvement with a rapidity hitherto unknown. In Great Britain we have been exempted, for a lengthened period, from foreign aggression and intestine commotion; the pernicious influence of the feudal system has long been at an end; the same equal burdens have been laid on all classes; we have enjoyed the advantage of liberal institutions without any material alloy of popular licentiousness or violence; our intercourse with foreign nations, though subjected to various restraints, has been comparatively free; full scope has been given to the competition of the home producers; the highest offices have been open to deserving individuals; and, on the whole, the natural order of things has been less disturbed amongst us by artificial restraints than in most other countries. But without security, no degree of freedom would have been of material importance. Happily, however, every man has felt satisfied, not only of the temporary, but of the permanent tranquillity of the country, and of the stability of its institutions. The plans and combinations of capitalists have not been affected by misgivings as to what might take place in future. Moneyed fortunes have not been amassed in preference to others because they might be more easily sent abroad in periods of confusion and disorder; but all individuals have unhesitatingly engaged, whenever an opportunity offered, in undertakings of which a remote posterity was alone to reap the benefit. No one can look at the immense sums expended upon the permanent improvement of the land, on docks, warehouses, canals &c., or reflect for a moment on the settlements of property in the funds, and the extent of our system of life insurance, without being deeply impressed with the vast importance of that confidence which the public have placed in the security of property and the good faith of government. Had this confidence been imperfect, industry and invention would have been paralysed, and much of that capital which feeds and clothes the industrious classes would never have existed. The preservation of this security entire, both in fact and in opinion, is essential to the public welfare. If it be in anywise impaired, the colossal fabric of our prosperity will crumble into dust; and the commerce of London, Liverpool, and Glasgow, like that of Tyre, Carthage, and Palmyra, will at no very remote period be famous only in history. (From the *Treatise on Commerce*, contributed by the author of this work to the Society for the Diffusion of Useful Knowledge.)

*Supposed Danger to our Trade from Foreign Competition.*—A great many statements have been circulated of late years respecting the rapid pro-

gress of manufactures in foreign countries, and many sinister auguries have at the same time been indulged in as to the decay of the manufactures and trade of this country. But though all branches of industry, and especially those dependent on foreign supply and demand, are necessarily exposed to vicissitudes which it is impossible to estimate a priori, or even to foresee, still we think there are no good grounds on which to anticipate that we are at all likely, within any reasonable period, to be outstripped by others in the career of industry. We have it is true, something to fear from the spread of combinations and agitation at home; but supposing domestic security and tranquillity to be preserved, we have little or nothing to fear from foreign competition. Our exports to France, Germany, and Italy have increased rapidly within the last 20 years; and but for restrictions, which, however, are ten times more injurious to themselves than to those with whom they deal, our exports to Spain and other parts of the Continent would have been vastly increased. But it is impossible that these restrictions should be maintained for any very lengthened period. Their days are numbered, and they cannot be many. In the present state of Europe, and with the intimate intercourse that subsists among its different states, we may safely affirm that monopoly, and its necessary consequences, scarcity and high prices, cannot have a very lengthened existence.

We have occasionally seen statements in which some stress has been laid in regard to the progress of the cotton and other manufactures in the United States and elsewhere; and we need no doubt that at some future period the United States will be a great manufacturing country. It is every means and every facility for eventually distinguishing itself in that career; but a result of this sort can only be slowly brought about, as population increases, and as the preponderating advantages now on the side of the ruder species of industry are diminished. Supposing it to have arrived at the destined goal, there are no grounds for supposing that the consequences will be injurious to us. On the contrary, there is every reason to think, seeing the rapid increase of population and wealth in all parts of the world, that there will be 'ample and verge enough' for the fullest display of manufacturing capacities of every people. In the mean time, and for a long while to come, Americans will export few cotton goods except those coarse fabrics the value of which consists of that of the raw material. It is, in fact, an absurdity to suppose that a country like the United States, where labour is comparatively scarce, and profits and wages comparatively low, should be able to come into anything like successful competition with a country like England in the production of any description of article requiring either a good deal of skill or of labour in their manufacture.

*Establishment of Free Trade.*—In the editions of this work we showed that much had been done, much remained to be done to carry out to its full extent the liberal enlightened system of commercial policy which we had entered. We also endeavoured to show that the necessary changes might be made in our corn laws and other restrictive regulations without seriously imperilling the interests of agriculture, or of any other great department of industry. We confess, however, that we did not anticipate that the triumph of philosophy would sound sense over sophistry and selfishness

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at hand. But *novus sacrorum nascitur ordo*. The scarcity in Ireland in 1845-46, coupled with the disinterestedness, the patriotism, and the ability of Sir Robert Peel, made an end of the *coercion laws*; and with them fell the whole system of protection in this country. A few shreds and patches of the fabric may be found here and there for a longer or a shorter period, but all men of sense saw that the idol had been thrown down without the smallest hope of its ever being again resuscitated, and that free commercial principles were everywhere destined to gain the ascendancy.

One thing only was wanted in 1846 to hasten the downfall of the whole system—the experimental and practical success of the new; and that has been afforded in the most ample manner. It would be difficult to exaggerate the advance that has been made in commerce and in most sorts of industry, and the improvement in the condition of society that has taken place since that period. A considerable portion of this advance is no doubt due to the discovery of the Californian and Australian gold-fields. But that was an incident which might have been turned to an equally good account by France, Spain, or any other country. And if it has been peculiarly advantageous to us and to the Americans, it is because our Transatlantic rivals and ourselves were in a situation to profit by it; because our free and untrammelled energies were ready to be directed towards any channel, how remote soever, which held out the promise of an adequate reward.

The moral influence of the new state of things is no less powerful and important than its economical influence. The extension of commerce will do more than anything else to diffuse the blessings of civilisation, to bind together the universal society of nations by sharpening, and at the same time gratifying, their mutual wants and desires, and to maintain undisturbed that tranquillity so indispensable to its full development.

**IMPRESSMENT.** The forcible taking away of seamen from their ordinary employment, and compelling them to serve, against their will, in Her Majesty's ships.

*Regulations as to Impressment.*—This practice is not expressly sanctioned by any Act of Parliament; but it is so indirectly by the numerous statutes that have been passed, granting exemptions from it. According to Lord Mansfield, it is 'a power founded upon immemorial usage,' and is understood to make a part of the common law. All seafaring men are liable to impressment unless specially protected by custom or statute. Seamen executing particular services for Government not unfrequently get protections from the Admiralty, Navy Board &c. Some are exempted by local custom, and *ferry-men* are every where privileged from impressment. The statutory exemptions are numerous.

*Every ship in the coal trade* has the following seamen protected, viz. 2 able seamen (such as the master shall nominate) for every ship of 100 tons and upwards; and any officer who presumes to press any of the above shall forfeit to the master or owner of such vessel 10*l.* for every man impressed; and such officer shall be incapable of holding any place, office, or employment in any of Her Majesty's ships of war. (6 & 7 Wm. III. c. 19.) In order that these men shall be protected, it is necessary for the master to have them before they are impressed: this is to be done by going before the mayor or other chief magistrate of the place, who is to give the master

a certificate, in which are contained the names of the particular men whom he thus nominates; and this certificate will be their protection.

2. *No parish apprentice* shall be compelled or permitted to enter into the Royal Navy till he arrives at the age of 18 years. (2 & 3 Anno c. 6 s. 4.)

3. Persons voluntarily binding themselves apprentices to sea service shall not be impressed for 3 years from the date of their indentures; but no persons above 18 years of age shall have any exemption or protection from her Majesty's service if they have been at sea before they became apprentices. (2 & 3 Anno c. 6 s. 15; 4 Anno c. 19 s. 17; and 13 Geo. II. c. 17 s. 2.)

4. *Persons employed in the Fisheries.*—The Act 50 Geo. III. c. 108 grants the following exemptions from impressment, viz.:

1. *Masters of fishing vessels* or boats, who, either themselves or their owners, have, or within 6 months before applying for a protection shall have had, 1 apprentice or more under 16 years of age, bound for 5 years, and employed in the business of fishing.

2. All such apprentices, not exceeding eight to every master or owner of any fishing vessel of 50 tons or upwards; not exceeding seven to every vessel or boat of 35 tons and under 50; not exceeding six to every vessel of 30 tons and under 35 tons; and not exceeding four to every vessel or boat under 30 tons burden during the time of their apprenticeship, and till the age of 20 years; they continuing, for the time, in the business of fishing only.

3. *One mariner*, besides the master and apprentices, to every fishing vessel of 10 tons or upwards, employed on the sea-coast, during his continuance in such service.

4. *Any landsman* above the age of 18, entering and employed on board such vessel, from 2 years from his first going to sea; and to the end of the voyage then engaged in, if he so long continue in such service.

An affidavit sworn before a justice of the peace, containing the tonnage of such fishing vessel or boat, the port or place to which she belongs, the name and description of every such mariner and landsman respectively, and the time of such landsman's first going to sea, is to be transmitted to the Admiralty, who, upon finding the facts correctly stated, grant a separate protection to every individual. In case, however, 'of an actual invasion of these kingdoms or imminent danger thereof,' such protected persons may be impressed; but except upon such an emergency, any officer or officers impressing such protected persons shall respectively forfeit 20*l.* to the party impressed if not an apprentice, or to his master if he be an apprentice. (Secs. 2, 3, 4.)

5. *General Exemptions.*—All persons 55 years of age and upwards, and under 18 years. Every person being a foreigner, who shall serve in any merchant ship, or other trading vessel, or privateer, belonging to a subject of the Crown of Great Britain; and all persons, of what age soever, who shall use the sea, shall be protected for 2 years, to be computed from the time of their first using it. (13 Geo. II. c. 17.)

6. *Harpooners*, line managers, or boat steersers, engaged in the Southern whale fishery, are also protected. (26 Geo. III. c. 50.)

7. *Mariners employed in the herring fishery* are exempted while actually employed. (48 Geo. III. c. 110.)

*Policy of Impressment.*—This practice, so subversive of every principle of justice, is vindicated on the alleged ground of its being absolutely necessary to the manning of the fleet; and if this allegation were really well founded, it would be quite sufficient for its justification. But it may be doubted whether such was ever really the case, and, at all events, it is no longer so.

I. The difficulty formerly experienced in manning the fleet at the breaking out of a war resulted from the sudden demand for a great number of sailors. This, however, has been more an artificial than a real difficulty, and was occasioned by the peace establishment being arranged on too low a scale. Had it been kept up at from a third to a half of the force usually required during war, and made to consist wholly, or almost wholly, of thorough-bred seamen, it would have been an easy matter, by taking on board the usual complement of landsmen and marines, to have put the fleet on a war footing without resorting to impressment, or injuring the merchant service by offering high bounties to the men that entered the navy. It was not necessity, but an ill-judged spirit of parsimony, and the adoption of an improper system, that made impressment necessary in bygone times. But the secure asylum afforded to such of our seamen as choose to resort to the ships of the United States must now, were there nothing else to be considered, make an end of impressment in time to come.

II. Apart from these considerations, the change which the introduction of steam has effected in navigation has made the adoption of a new system alike easy and indispensable. Thorough-bred seamen, or those expert alike in the handling of sails and the manœuvring of ships, are no longer necessary to anything like the same extent as formerly. Ships are now navigated from the engine-room, and a small part only of the crews need to be expert seamen. What are now mainly required in ships of war are crews thoroughly trained to the management of guns and the sword exercise; and these important qualifications may be attained in the highest perfection by those who can neither go aloft, nor distinguish one rope from another. All that they require are sea-legs, or such a degree of familiarity with the sea that they may be able to keep their footing, and perform their peculiar duties on board, without being annoyed by sickness or otherwise inconvenienced.

And hence the true plan is to keep the sailing ships on the peace establishment always fully manned with thorough-bred seamen, and to train a large proportion, if not the whole, of the army to the sea as well as to the land service. The marines are equally serviceable at sea and on shore, and why not add largely to their numbers? In this view large bodies of troops might be kept in garrisons or in barracks in seaport towns, who, being embarked occasionally in ships of war, instructed in the art of gunnery and the duty of marines, and accustomed to a seafaring life, would not fail to become a most valuable and efficient description of force.

It may be worth while, perhaps, to mention that a plan similar to that now referred to appears to have been adopted by Augustus and his successors at the great naval stations of Ravenna and Misenum. (Gibbon's *Decline and Fall*, cap. iv.) And, however this precedent may apply, there can be no doubt that the course suggested above may be followed with equal facility and advantage. Supposing we had a sea-going militia of 50,000 men—that is, 50,000

men having the use of sea-legs and familiar with the practice of gunnery on board ship, and with the ordinary parts of a seaman's duty—we should be able, by withdrawing a part, say a half, of the thorough-bred seamen employed in sailing ships, and distributing them among those propelled by steam, to send to sea the most powerful fleets at the shortest notice and with the least difficulty. The duty of a soldier should no longer be restricted to service on land—he should be a sort of amphibious animal, and be made to exhibit his courage and daring on sea or on shore as circumstances may require. If we adopt a system of this sort, we shall do the most which, perhaps, can be done to strengthen our means of defence, and to render our coasts secure against invasion.

For further details and statements in regard to this matter we beg to refer to the very able paper of W. S. Lindsay, Esq., formerly M.P. for Sunderland, *On the Manning of the Navy*, (Papers printed by Command, Sess. 1859.) The subject is discussed in it by one who is equally at home in all that respects its theory and practice.

The practice of impressment will probably be abandoned, should such occasions hereafter arise as would justify it on such public grounds as were heretofore alleged. The establishment indeed, of the Naval Reserve, is in effect the surrender of the system.

**INDEMNITY.** Is where one person secures another from responsibility against any particular event: thus a policy of insurance is a contract of indemnity against any particular loss. Where one person also becomes bail for another, a bond of indemnity is frequently executed; and when a bond or bill of exchange has been lost or mislaid, the acceptor or obligee would not act prudently in paying it without being secured by bond of indemnity.

**INDIA-RUBBER.** [CAOUTCHOUC.]

**INDIGO** (Fr. indigo; Ger. indigo; Sansc. Arab. neel; Malay, taroom). The drug which yields the beautiful blue dye known by that name. It is obtained by the maceration in water of certain tropical plants; but the indigo of commerce is almost entirely obtained from leguminous plants of the genus *Indigofera*; that cultivated in India being the *Indigofera tinctoria*, and that in America the *Indigofera anil*. The Indian plant has pinnate leaves and a slender ligneous stem; and it successfully cultivated, rises to the height of 6 and even 6 feet.

It appears pretty certain that the culture of indigo plant, and the preparation of the drug, has been practised in India from a very remote period. It has been questioned, indeed, whether the *dicum* mentioned by Pliny (*Hist. Nat. lib. x. c. 6*) was indigo, but, as it would seem, without any good reason. Pliny states that it was brought from India; that when diluted it produced an admirable mixture of blue and purple colour; (*diluendo misturam purpure cœruleque mirabilis reddi*); and he gives tests by which the genuine drug might be discriminated with sufficient precision. It is true that Pliny is egregiously taken as to the mode in which the drug is produced; but there are many examples modern as well as ancient times to prove the possession of an article brought from a distant country implies no accurate knowledge of its nature, the processes followed in its manufacture. (Linnæus and Dr. Bancroft (*Permanent Colours*, vol. i. 241–252) have each investigated this subject with great learning and sagacity, and agree in the conclusion that the *indicum* of Pliny was

indigo, prepared there can into modriously to the Cape it was cast to height but by de ceased, ar sold. It that indigo use without powers of u to prohibit Imperial edic the use of in great care to importation, in word is le money carried rates of Nurem the dross of the pot to use ind down to a late presentation o of imitation of wa prohibited F bill 1737 that ti tery to dye with ay, as they pl (2.) Let not th their eyes over th nce of their nees namber. How m countries at this rny important a an were alleged in the importation of Indigo is produc riness subject to on the 20th to the the porance of T rument; in Jay the Philippine Isl the Cancaes, in Co were, the great dly produced in rly inconsiderable they had been intr uval was of op nimals, but this is all species of indi and; and the Span ink, very soon at East Politiq p. 54, 2nd ed.) ver the first 20 year of Bengal, the sigo, now of such branch of British but trifling. Th period principa 1763, however, the to be directed to cesses pursued by those followed by intelligence, and c stages. In their h on of indigo beca tant employment, of 1500, except th which could be y (the culture an a monopoly). supplies the i

and not, as has been supposed, a drug prepared from the *isatis* or woad. At all events, there can be no question that indigo was imported into modern Europe, by way of Alexar 'ria, previously to the discovery of the route to India by the Cape of Good Hope. When first introduced, it was customary to mix a little of it with woad to heighten and improve the colour of the latter; but by degrees the quantity of indigo was increased, and woad was at last entirely superseded. It is worth while, however, to remark that indigo did not make its way into general use without encountering much opposition. The powers of woad prevailed on several governments to prohibit the use of indigo! In Germany an Imperial edict was published in 1654, prohibiting the use of indigo, or 'devil's dye,' and directing great care to be taken to prevent its clandestine importation, 'because,' says the edict, 'the trade in woad is lessened, dyed articles injured, and money carried out of the country!' The magistrates of Nuremberg went further, and compelled the dyers of that city to take an oath once a year not to use indigo, which practice was continued down to a late period. In 1698, upon an urgent representation of the States of Languedoc, at the solicitation of the woad growers, the use of indigo was prohibited in that province; and it was not till 1737 that the dyers of France were left at liberty to dye with such articles, and in such a way, as they pleased. (Beckmann, vol. iv. p. 12.) Let not those who may happen to throw their eyes over this paragraph smile at the ignorance of their ancestors. *Mutato nomine, de te fabula narratur.* How much opposition is made in most countries at this moment to the introduction of many important articles, for no better reasons than were alleged in the sixteenth century against the importation of indigo!

Indigo is produced in Bengal, and the other provinces subject to the presidency of that name, from the 20th to the 30th degree of north latitude; in the province of Tinnevely, under the Madras government; in Java; in Luconia, the principal of the Philippine Islands; and in Guatemala, and the Caraccas, in Central America. Bengal is, however, the great mart for indigo, and the quantity produced in the other places is comparatively inconsiderable. Humboldt was of opinion that the culture of indigo had been introduced into America by the Spaniards; but this is undoubtedly an error. Several species of *indigofera* belong to the New World; and the Spaniards used it as a substitute for indigo, very soon after the conquest. (Humboldt, *Essai Politique sur la Nouvelle Espagne*, t. iii. p. 34, 2nd ed.) For the first 20 years after the English became masters of Bengal, the culture and manufacture of indigo, now of such importance, were unknown to the British industry, and the exports were but trifling. The European markets were in that period principally supplied from America. It was, however, the attention of the English to be directed to this business; and though the processes pursued by them be nearly the same as those followed by the natives, their greater intelligence, and capital give them immense advantages. In their hands, the growth and preparation of indigo became, and continued down to the period of the cotton famine, the most important employment, at least in a commercial point of view, except the cultivation and export of opium, which could be freely carried on in the East Indies (the culture and preparation of opium being a monopoly). The indigo made by the natives supplies the internal demand; but a

portion of that which is raised by them, with all that is raised by Europeans, is exported.

In the Delta of the Ganges, where the best and largest quantity of indigo is produced, the plant lasts only for a single season, being destroyed by the periodical inundation; but in the dry central and western provinces, one or two *ratoon* crops are obtained; and owing to this circumstance, the latter are enabled to furnish a large supply of seed to the former.

During the 9 years which preceded the opening of the trade with India, in 1814, the annual average produce of indigo in Bengal for exportation was nearly 6,600,000 lbs.; but after the ports were opened, the indigo produced for exportation increased more than a half, the exports during the 16 years ending with 1829-30 being above 7,500,000 lbs. a-year. The following statement shows the rate of this increase, taking the average produce of each 4 years:—

Year	lbs.	Year	lbs.
1811	7,010,000	1822	8,000,000
1812		1823	
1813		1824	
1814		1825	
1815	6,700,000	1826	9,000,000
1816		1827	
1817		1828	
1818		1829	

In the years 1862-3 and 1863-4, the exports of indigo from India, and the destination of the supplies, were as follow:—

	1862-3		1863-4	
	Quantity	Value	Quantity	Value
	lbs.	£	lbs.	£
United Kingdom	8,337,133	1,627,083	6,935,958	1,318,818
America	134,061	26,949	169,034	32,302
Arabian and Persian Gulf	345,037	53,345	418,099	60,210
France	1,921,180	371,396	1,239,269	246,191
Germany	85,080	15,503	42,210	8,321
Russia	293,229	51,738	330,331	61,660
Other places	9,377	815	9,151	928
Total	11,521,880	2,126,870	9,172,615	1,756,158

The value of the exports in 1860 was 1,861,501l.

It deserves to be remarked, that since the opening of the trade, Indian capitalists have betaken themselves to the manufacture of indigo on the European method, and that at present a considerable part of the whole annual produce is prepared by them.

The culture of indigo is very precarious, not only in so far as respects the growth of the plant from year to year, but also as regards the quantity and quality of the drug which the same amount of plant will afford even in the same season. Thus the produce of 1825-26 was 41,000 chests, while that of 1826-27 was but 25,000 chests; and in 1842 the produce was only 79,000 maunds, while that of the following year was no less than 172,249 maunds! The price of indigo in India increased for a while in a far greater ratio than the quantity. In 1813-14 the real value of that exported from Calcutta was 1,461,000l.; but in 1827-28, although the quantity had increased but 20 per cent., the value rose to 2,920,000l., or was about doubled. There was no corresponding rise in the price in Europe, but, on the contrary, a decline; and this circumstance is to be accounted for by the restraints that were then placed on the investment of capital in the production of colonial articles suited to the European market, the consequent difficulty of making remittances from India, and an unnatural flow of capital to the only great article of Indian produce and export that was supposed capable of bearing its application.

The consumption of indigo has not increased in this country during the 10 years ending with 1867.

This stationary demand, notwithstanding the fall in the price of the drug and the increase of population, is principally to be ascribed to the decreasing use of blue cloth, in the dyeing; of which it is principally made use of. Its consumption in France is about as great as in Britain. Besides the exports to Great Britain, France, Germany, and the United States, a good deal of Bengal indigo is exported to the ports on the Persian Gulf, whence it finds its way to southern Russia. It is singular that it is not used by the Chinese, with whom blue is a favourite colour. We sub-join

*An Account of the Imports and Exports of Indigo into and from the United Kingdom in each of the 7 Years ending with 1867.*

	1861	1862	1863	1864	1865	1866	1867
Imports - cwt.	83,109	69,589	85,593	76,214	66,506	71,250	71,995
Exports - do.	67,135	59,808	51,063	57,664	66,517	56,640	62,692
Remains for home consumption -	15,974	9,781	34,530	18,550	-	14,610	9,303

Average for the seven years, 14,956 cwt., or 1,675,072 lbs. a-year.

Of 71,995 cwt. indigo imported into Great Britain in 1867, 53,961 cwt. were from India, 499 ditto from United States, 10,381 ditto from Central America, and 1,338 from New Granada. The duty to which it was formerly subject was repealed in 1845.

The indigo of Bengal is divided into two classes called, in commercial language, *Bengal and Oude*; the first being the produce of the southern provinces of Bengal and Bahar, and the last that of the northern provinces and of Benares. The first is, in point of quality, much superior to the other. This arose at one time, in a considerable degree, from the practice which prevailed in the northern provinces of the European planter purchasing the wet fecula from the ryot or native manufacturer, and completing the processes of curing and drying the drug. This is at present in a great measure discontinued; and the Oude indigo has, in consequence, considerably improved in quality. Its inferiority is probably more the result of soil and climate than of any difference in the skill with which the manufacture is conducted. The production of indigo in Bengal and Oude is supposed to have amounted at an average of the 10 years ending with 1851 to 121,900 maunds (of 82 lbs. each) a-year.

In addition to the indigo raised in Bengal, a considerable quantity is now raised in Madras; the value of the exports from the latter in the 5 years 1861-5 having amounted to an average of 281,000l. a-year. The indigo of Madras is not so good as that of Bengal, and brings a much less price. Indigo is also exported from Java, the Philippine Islands, Central America, and other places. In 1854 the exports from Batavia amounted to 1,077,848 lbs.; in 1863 they were 904,200 lbs. In 1864 the exports from Manilla were estimated at about 308,864 lbs. According to Humboldt, 1,800,000 lbs. indigo were exported from Guatemala in 1825; but if so, which is, perhaps, doubtful, its production must have fallen off greatly in the interval. In 1866 our imports of indigo from the whole of Central America, inc. Honduras, amounted to 6,040 cwts., or 672,480 lbs. Indigo is produced in some of the West India islands, but in small quantities.

Good indigo is known by its lightness or small specific gravity, indicating the absence of earthy impurities; by the mass not readily parting with its colouring matter when tested by drawing a streak with it over a white surface; but above

all, by the purity of the colour itself. The first quality, estimated by this last test, is called, in commercial language, *fine blue*; then follow *fine purple, purple and violet, violet, strong copper, and ordinary copper*. These distinctions refer to Bengal indigo only, the Oude being distinguished merely into *fine and ordinary*. The indigo of Madras, which is superior to that of Manilla, is about equal to ordinary Bengal indigo. The indigo of Java is superior to these.

For further information as to indigo, see Colebrooke's *Husbandry of Bengal*, p. 154; Millburn's *Orient Com.*; Wilkinson's *Commerce of Bengal*; Wilson's *Review of do.*; evidence of Gillian MacLaine, Esq., before East India Committee, 1830-31; *Parl. Papers*, &c.

The fixed capital required in the manufacture of indigo consists of a few vats of common masonry for steeping the plant, and precipitating the colouring matter; a boiling and drying house, and a dwelling house for the planter. These, in a factory of ten pair of vats, capable of producing at an average, 12,500 lbs. of indigo, worth the spot about 2,500l., will not cost above 1,000 sterling. The buildings and machinery necessary to produce an equal value in sugar and rum would probably cost about 4,000l. This, therefore, without any reference to municipal regulations, affords a ready answer to the question which has been frequently put, why the British planters in India have seldom engaged in the manufacture of sugar.

INK (Dutch, *ink*; Fr. *encre*; Ger. *ink*; Ital. *inchostro*; Lat. *atramentum*; Russ. *чёрная*; Span. *tinta*; Swed. *blak*).

Every liquor or preparation used for writing printing is distinguished by the name of Common practice ink, which is only black and blue. Of black ink there are three principal kinds: 1. Indian ink; 2. Printers' ink; and 3. Writing ink. The Indian ink is used in China for writing with a brush, and for painting upon the soft paper of Chinese manufacture. It is ascertained as well from experiment as from information, the cakes of this ink are made of lampblack and size or animal glue, with the addition of fumes or other substances not essential to quality as an ink. The fine soot from the flame of a lamp or candle received by holding a piece of parchment or glove-leather not dyed, will give an ink equal to that imported. Good printing ink is a black paint, smooth, and uniform in composition, of a firm black colour, and possessing a singular aptitude to adhere to paper though impregnated with moisture.

Common ink for writing is made by adding an infusion or decoction of the nut-gall to sulphuric iron, dissolved in water. A very fine black ink is thrown down, the speedy subsidence of which is prevented by the addition of a quantity of gum Arabic. Lampblack is the common material to give the black colour, of which 16 ounces are sufficient for 16 ounces of the vermilion is a good red. They are ground together on a stone with a muller, in the same manner as oil paints. Among the amusing experiments of the art of chemistry, the exhibition of synthetic inks holds a distinguished place. In these the writing is invisible until some substance gives it opacity. These inks have been proposed as the instruments of secret correspondence, but they are of little use in this respect, as the properties change by a few days rest on the paper; most of them have more or less of a tinge when thoroughly dry; and many of them resist the test of heating the paper.

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**INKLE.** A sort of broad linen tape, principally manufactured at Manchester and some other towns in Lancashire.

**INSOLVENCY AND BANKRUPTCY.** A bankrupt is, in a general sense, a person who is unable to pay his collective debts.

A creditor is a person who trusts another with his property, and who thereupon puts himself in a position which is, as contrasted with the debtor, naturally and comparatively defenceless. To sustain and protect him, the law, in all civilised communities, lends its power to constrain the debtor into the fulfilment of his contract.

The law takes cognizance of contracts in such a sense as to consider all persons who have incurred obligations of any kind as liable to the penalties which municipal regulations visit on insolvency, whether that insolvency be incapacity to pay, or unwillingness to fulfill contracts. What it strictly and primarily does, is to take away the control which the debtor would otherwise have over his own property. It vests the debtor's property either in a public officer who is empowered to seize it, and make compensation from it; or in judicial persons, who are entrusted with the duty of collecting and distributing it; or in the creditors themselves.

But it compels the creditor to prove his debt, partly in the interest of the debtor, who might otherwise become liable to false, fraudulent, or exaggerated claims, partly in the interest of other creditors, who, if the bankrupt's or debtor's estate be insufficient to fully satisfy all claims, might be deprived of their quota by fictitious or extravagant demands.

The strictness of the early Roman law of bankruptcy has already been commented on.

The English general law was early modified in the case of traders. In the reign of Edward I. the trader was allowed to pledge his land, in particular forms, known as *statute merchant* and *statute staple*, and could be arrested if the pledge be insufficient to discharge the debt.

The first statute of bankruptcy is that of 34 Henry VIII. c. 4, and the principle of this early law was that of securing and dividing the bankrupt's assets.

The statute of Henry VIII. was materially altered by the Act of 13 Eliz. c. 7, which defines the persons who may be made bankrupts, and the provisions of this statute were further enlarged by 1 Jas. I. c. 15, and 21 Jas. I. c. 19.

By the statute of 10 Anne c. 15, when an attempt was made to distinguish between the honest but unfortunate bankrupt, and the dishonest and fraudulent debtor, and by 6 Geo. IV. c. 16, the provisions of bankruptcy were defined, persons liable to become bankrupt were distinguished, and the court administering this part of mercantile law was remodelled.

From 1831 the lord chancellor or lord keeper exercised the jurisdiction; but then an Act was passed vesting a chief judge, three other judges, commissioners, and thirty official assignees, in the exercise of the jurisdiction. A chief judge and his colleagues formed a court of review, with a final appeal in a limited number of cases to the chancellor.

The Consolidation Act of 1849, repealing nearly all the then existing statutes, abolished the jurisdiction of the chancellor, and vested it in the Court of Bankruptcy. This Act also provided for the making of voluntary arrangements or compositions, either with or without the intervention of the court.

**Insolvency.**—The Act of 1849, like other Acts

preceding it in order of time, defined with exactness who were the persons liable to bankruptcy, and what were the precise acts which constituted bankruptcy.

There was a radical difference between the bankruptcy law and that of insolvents. The bankrupt, unless convicted of fraud, was secured not only from arrest, but in the possession of property acquired after his bankruptcy, while the insolvent was never discharged from his liability until every creditor had been discharged in full, though he was secured from arrest.

**Legislation of 1861.**—The Act of 1861 introduced several fundamental changes into the law of bankruptcy—changes which have, unfortunately but beyond all dispute, so favoured debtors as to give the most powerful stimulant to recklessness in trading, fraud, and dishonesty. The distinction between traders and non-traders is done away, and this perhaps is only reasonable; but all debtors are now enabled to obtain a complete discharge of debts and liabilities by giving up their property if they have any, and by going through the form of it if they have none.

The following is a brief account of the more important provisions of the Act, which is lengthy, containing 230 sections.

1. The jurisdiction of the Court of Bankruptcy includes that of the Court for the Relief of Insolvent Debtors.

3-7. Extension of the jurisdiction of county courts in matters of bankruptcy.

19-27. Supersede the functions of the Insolvent Debtors' Court.

37-41. Fees and stamps. These are simplified.

45-47. General orders. These are to be framed by the lord chancellor with two of the commissioners, and must be laid before Parliament.

69. Abolishes the distinction between traders and non-traders.

70-75. Acts of bankruptcy, and rules to be observed before adjudication.

76-85. Acts of bankruptcy by non-payment of judgment debtor summons.

86-107. Petitions for adjudication of bankruptcy and proceedings thereon. The first clause gives power to a debtor to petition an adjudication of bankruptcy against himself, without any previous declaration of insolvency. The 89th determines the amount of creditors' debts which shall justify a petition. The 97th defines the character of debts for the purpose of petition. The 98th and 99th describe the proceedings of a petitioner in forma pauperis. The 100th decrees that gaolers shall make a return of prisoners for debt. The 101st, that the registrar shall inspect prisoners with a view to making prisoners for debt bankrupts, by order of adjudication. The 106th and 107th deal with the cases of lunatic debtors.

108-115. Proceedings after adjudication. The official assignee is to take possession of the bankrupt's assets. The creditors shall meet, give proof of debts, resolve (110) if the major part in value agree, to take no further proceedings in bankruptcy, and if on further notice a majority of three-fourths in value accede, shall be empowered to suspend the bankruptcy and administer the estate at their own discretion.

116-139. Choice of creditors' assignee, by majority in value of creditors, with the powers and duties of his office.

140-143. Proceedings at the last examination.

144-156. Proof of debts.

157-172. Proceedings in the discharge of the bankrupt.



# INSOLVENCY AND BANKRUPTCY

## Number of Trust Deeds.

741

	1861			1865		
	Number of Deeds Registered	Amount of Stamp Duty	Gross Value of Estate and Effects	Number of Deeds Registered	Amount of Stamp Duty	Gross Value of Estate and Effects
Deeds of Assignment	2,908	£ 2,316 10	2,158,600	2,233	£ 1,723 15	2,919,500
Composition	1,318	2,095 15	1,198,500	2,511	2,018 15	2,166,100
Importers' bills	46	1,167 15	16,500	127	5,518 5	2,210,000
Total	3,600	5,580 0	3,300,000	4,871	92,588 15	9,035,700

## Revenue and Expenditure of the Court of Bankruptcy.

Receipts	1864		1865		Payments	
	£	s. d.	£	s. d.	1864	1865
Commissioners of Inland Revenue, duty	36,731	11 7	52,100	0 0	Salaries	£ 81,550 10 5
Dividend on stock	45,270	10 10	47,110	7 6	Compensation	14,796 5 11
Official assignees, per centage fees	956	4 2	1,021	1 8	Hearings minutes	14,169 17 9
Official assignees, surplus remuneration for extra payment of	92,806	19 5	17,993	0 4	<b>Expenses.</b>	
Official assignees and office expenses	17,261	14 6	15,565	15 6	London courts and offices	2,190 11 0
Debtors' surplus fees	66	10 6	70	10 0	District courts	5,460 0 0
Chief register, not of premises situated (Birmingham)	25	0 0	100	0 0	Travelling expenses of clerks, clerks, registrars, &c., of district courts	2,767 5 2
Chief register	81	14 11	50	11 1	Allegation of courts and offices	3,260 6 4
Fees received by clerks of Insolvent Debtors Court	337	8 11	490	15 11	Attorneys	758 10 6
Provisional assignees, for salaries	2,272	0 4	1,107	0 4	Bank commutation	1,591 17 3
Provisional assignees, for compensation and printing committee, two years	37,102	0 0	16,772	0 0	Holders for future prisoners (London and country)	4,867 14 4
Provisional assignees, for the 16th Section Account	8,426	19 6	—	—	Costs of prosecutions	407 13 7
Provisional assignees, for the 11th Section Account	350	16 4	—	—	Fees to County Court Registrars	6,247 8 0
County Court, registrars' fees received	25	14 11	20	10 0	High bailiffs	613 15 4
Debtors' fees	—	—	101	0 0	Costs of clerks	423 14 4
Debtors' fees	—	—	1,069	19 8	Investigation of accounts of the official assignees and trustees: Expenses of visiting goods (two years)	—
Debtors' fees	—	—	5,638	1 2	Provisional assignees, compensations maintained for the years 1862-3, 1863-4	1,172 10 10
Debtors' fees	—	—	—	—	Fees returned	1,928 14 2
Debtors' fees	—	—	—	—	Investment (in Consols in the credit of 'The Chief Registrar's Account')	140,891 2 2
Debtors' fees	—	—	—	—	Total	25,000 0 0
Debtors' fees	—	—	—	—		30,000 0 0
Debtors' fees	—	—	—	—		165,891 2 2
Debtors' fees	—	—	—	—		415,366 1 2

## Money Received and Paid by the Court of Bankruptcy.

General Account.	1864		1865	
	£	s. d.	£	s. d.
Official assignees, creditors' assignees, &c., and 53,050, 17s. for property sold under various estates	537,052	2 2	—	—
Chief Registrar's Account	—	—	712,516	12 3
Unclaimed Dividend Account	168,388	18 3	—	18,925 0 0
Official assignees	—	—	—	166,178 13 2
Transfer from the 'General Account'	1,197	6 5	3,339	19 2
Purpose of the 16th Section Account	—	—	54,285	4 0
Provisional Assignees' Indemnity Fund Account	3,535	18 1	—	37,525
Total	1,593	18 7	—	4,291
	764,468	3 6	—	—

### Payments

General Account.	1864		1865	
	£	s. d.	£	s. d.
Official assignees (costs, expenses of realising property, and 105,092, 4s. 6d. paid out in exchange bills)	166,355	11 0	321,638	17 1
Chief Registrar's Account	537,661	11 8	451,932	12 10
Unclaimed Dividend Account	140,891	2 2	198,066	1 2
Official assignees	25,000	0 0	30,000	0 0
Transfer from the 'General Account'	737	6 2	—	158,066 1 2
Purpose of the 16th Section Account	10,000	0 0	—	—
Provisional Assignees' Indemnity Fund Account	—	—	3,390	11 6
Total	463	15 10	—	38,290 11 6
	877,471	5 6	—	60 7 6
	—	—	—	441 11 4
	—	—	—	953,459 1 5

of all kinds of insolvency under the common law, are manifest conveniences that the Legislature has given far too great facilities to debtors, especially under the system of deeds of assignment and inspection. This has

Cash and Stock Balances on October 11, in each Year.

	1864			1865		
	Cash	Exchequer Bills	Stock	Cash	Exchequer Bills	Stock
Bankruptcy fund account -	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
General account -	26,126 7 4	59,000 0 0	1,552,492 5 2	50,206 9 8	123,701 0 0	1,332,492 5 2
Chief registrar's account -	24,774 6 2	—	28,303 6 7	24,199 18 2	—	27,167 8 11
Unclaimed dividend account -	2,624 5 3	—	140,715 19 2	1,838 16 11	—	24,004 18 11
The purposes of the 26th section account -	3,010 9 7	110,300 0 0	10,419 17 10	7,263 2 1	101,900 0 0	15,684 12 9
Provisional assignees' indemnity fund account -	1,130 4 9	—	—	688 17 5	—	—

become so apparent that we cannot doubt that at an early period the law will undergo farther revision.

**Bankruptcy in Scotland.**—The legal process by which an insolvent is declared bankrupt in Scotland is called a *sequestration*, and is derived in its general outline from the *cessio honorum* of the civil code. The debtor may apply, by means of this process, for liberation from prison, and for protection against the arrest of his person. His liberation will depend upon his conduct, which, if marked by fraud, extravagance, or concealment of his property, will disentitle him to relief. If his prayer is granted, his estate is handed over to a trustee, in order to be divided among his creditors. But this process does not free him from his liabilities. Further, the debtor may bring about a sequestration of his estates, and obtain liberation from prison, and protection from arrest, and ultimately a discharge of his debts. To sue out this sequestration he requires the concurrence of a creditor to the extent of 50*l.*, or of two whose united debts amount to 70*l.*, or of three to the extent of 100*l.* In the process of a sequestration there is no difficulty in obtaining personal protection until the first meeting of his creditors, unless some creditor makes out a *prima facie* case of fraud against him. If he has been imprisoned, there is rather more difficulty in obtaining liberation. In any case protection from arrest or liberation from prison are refused in case of fraud or gross negligence. The sequestration may be annulled, and its advantages withheld from the debtor, within forty days after it is awarded; three months in case the debtor's creditors reside for the most part in England or Scotland, provided cause be shown.

The 'sequestration' of the Scotch law supplies three official powers: the trustee, who manages the estate, and is liable to the creditors in case of negligence or misconduct, being also entitled to adequate remuneration for the discharge of his office; three commissioners, who form a council to the trustee, and are elected from the creditors; and the court, which may be the Court of Session or the Sheriffs' Court, as may be chosen.

The process of a sequestration may be interrupted by a deed of arrangement, which can be entered into by a majority (four-fifths in value) of the creditors who have vouched their debts. In the space of two months a deed is prepared, which, if it be signed by the above-named four-fifths in number and value, will be confirmed as binding on all the creditors.

Again, when the process of sequestration has been carried further, a composition may be offered. If nine-tenths of the creditors in number and value agree at the first meeting, it is proposed anew at a second meeting of creditors, when an equal number of those present must agree to the completion of it. If the offer of composition be made at the second meeting of creditors, four-fifths of the creditors may carry it. But in case any offer of composition be re-

jected by the creditors, the court will not entertain the first offer from the bankrupt unless nine-tenths of his creditors signify their assent in writing. Should the court be satisfied, it makes an order of discharge, and frees the insolvent of his debts. As the bankrupt gives a bond for the satisfaction of the composition, he is reinstated in his estates.

If the debtor does not obtain his discharge by means of a composition, and the sequestration completed, he is entitled to petition the court for his discharge. To effect this he must obtain a certificate as to his conduct from the trustee. The certificate must be followed by the consent of the creditors to his petition. If the whole court can immediately petition the court. If he delays for six months, he needs the assent of four-fifths only. At the expiration of twelve months two-thirds are sufficient, of eighteen months a majority, at two years no consent at all is required. The court has power to suspend, postpone, or refuse the discharge, or to annex any conditions to which may be deemed expedient. Though the English Bankruptcy Bills (3) at present (18) under consideration of Parliament may probably be abandoned, on account of the impending dissolution, it may be well to state that Lord Cairns, their promoter, has in view the return to some extent of the distinction between trader and non-trader, and the separation of business connected with bankruptcy from that of insolvency. On the other hand, the Commercial Committee, in their Report of March 21, 1865, favoured the assimilation of the English to the Scotch law of bankruptcy. [BANKRUPTCY.]

**INSURANCE.** A contract of indemnity, which one party engages, for a stipulated sum, to insure another against a risk to which he is exposed. The party who takes upon him the risk is called the *Insurer, Assurer, or Underwriter*; and the party protected by the insurance is called the *Insured, or Assured*; the sum paid is called the *Premium*; and the instrument containing the contract is called the *Policy*.

- I. INSURANCE (GENERAL PRINCIPLES)
- II. INSURANCE (MARINE).
- III. INSURANCE (FIRE).
- IV. INSURANCE (LIFE).

#### I. INSURANCE (GENERAL PRINCIPLES)

It is the duty of Government to assist, by means in its power, the efforts of individuals to protect their property. Losses do not arise from accidental circumstances, but are frequently occasioned by the crimes and misdeeds of individuals; and there are no means so effectual for their prevention, when they arise from the source, as the establishment of a vigilant force of police, and of such an administration of justice as may be calculated to afford those who are injured a ready and cheap method of obtaining every practicable redress, and, as far as possible, of insuring the punishment of culprits. But

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in spite of all that may be done by Government, and of the utmost vigilance on the part of individuals, property must always be exposed to a variety of casualties from fire, shipwreck, and other unforeseen disasters; and hence the importance of enquiring how such unavoidable losses, when they do occur, may be rendered least injurious.

The loss of a ship, or the conflagration of a cotton mill, is a calamity that would press heavily upon the richest individual. But were it distributed among several individuals, each would feel it proportionally less; and provided the number of those among whom it was distributed were very considerable, it would hardly occasion any sensible inconvenience to any one in particular. Hence the advantage of combining to lessen the injury arising from the accidental destruction of property; and it is the diffusion of the risk of loss over a wide surface, and its valuation, that forms the employment of those engaged in insurance.

Though it be impossible to trace the circumstances which occasion those events that are on that account termed accidental, they are, notwithstanding, found to obey certain laws. The number of births, marriages, and deaths; the proportions of male to female, and of legitimate to illegitimate births; the ships cast away; the houses burnt; and a vast variety of other apparently accidental events; are yet, when our experience embraces a sufficiently wide field, found to be nearly equal in equal periods of time; and it is easy, from observations made upon them, to estimate the sum which an individual should pay, either to guarantee his property from risk, or to secure a certain sum for his heirs at his death.

It must, however, be carefully observed that no confidence can be placed in such estimates unless they are deduced from a very wide induction. Suppose, for example, it happens that during the present year one house is accidentally burnt, in a town containing 1,000 houses; this would afford very little ground for presuming that the average probability of fire in that town was 1 to 1,000. For it might be found that not a single house had been burnt during the previous 10 years, or that 10 were burnt during each of these years. But supposing it were ascertained that, at an average of 10 years, 1 house had been annually burnt, the presumption that 1 to 1,000 was the real ratio of the probability of fire would be very much strengthened; and if it were found to obtain for 20 or 30 years together, it might be held, for all practical purposes at least, as indicating the precise degree of probability.

Besides its being necessary, in order to obtain the true measure of the probability of any event, that the series of events, of which it is one, should be observed for a rather lengthened period, it is necessary also that the events should be numerous, and of pretty frequent occurrence. Suppose it were found, by observing the births and deaths of 100,000 individuals taken indiscriminately from among the whole population, that the mean duration of human life was 40 years; we should have very slender grounds for concluding that this ratio would hold in the case of the next 10, 20, or 30 individuals that are born. Such a number is so small as hardly to admit of the operation of what is called the law of average. When a large number of lives is taken, those that exceed the medium term are balanced by those that fall short of it; but when the number is small, there is comparatively little room for the principle of compensation, and the result cannot, therefore, be depended upon.

It is found, by the experience of all countries

in which censuses of the population have been taken with considerable accuracy, that the number of male children born is to that of female children in the proportion nearly of 22 to 21. But unless the observations be made on a very large scale, this result will not be obtained. If we look at particular families, they sometimes consist wholly of boys, and sometimes wholly of girls; and it is not possible that the boys can be to the girls of a single family in the ratio of 22 to 21. But when, instead of confining our observations to particular families, or even parishes, we extend them so as to embrace a population of 500,000, these discrepancies disappear, and we find that there is invariably a small excess in the number of males born over the females.

The false inferences that have been drawn from the doctrine of chances have uniformly, almost, proceeded from generalising too rapidly, or from deducing a rate of probability from such a number of instances as do not give a fair average. But when the instances on which we found our conclusions are sufficiently numerous, it is seen that the most anomalous events, such as suicides, deaths by accidents, the number of letters put into the post-office without any address &c., form pretty regular series, and consequently admit of being estimated a priori.

The business of insurance is founded upon the principles thus briefly stated. Suppose it has been remarked that of forty ships, of the ordinary degree of seaworthiness, employed in a given trade, 1 is annually cast away, the probability of loss will plainly be equal to one-fortieth. And if an individual wish to insure a ship, or the cargo on board a ship, engaged in this trade, he ought to pay a premium equal to  $\frac{1}{40}$  of the sum he insures, exclusive of such an additional sum as may be required to indemnify the insurer for his trouble, and to leave him a fair profit. If the premium exceed this sum, the insurer is overpaid; and if it fall below it, he is underpaid.

Insurances are effected sometimes by societies, and sometimes by individuals, the risk being in either case diffused amongst a number of persons. Companies formed for carrying on the business have generally a large subscribed capital, or such a number of proprietors as enables them to raise, without difficulty, whatever sums may at any time be required to make good losses. Societies of this sort do not limit their risks to small sums; that is, they do not often refuse to insure a large sum upon a ship, a house, a life &c. The magnitude of their capitals affords them the means of easily defraying a heavy loss; and their premiums being proportioned to their risks, their profit is, at an average, independent of such contingencies.

Individuals, it is plain, could not act in this way unless they were possessed of very large capitals; and besides, the taking of large risks would render the business so hazardous, that few would be disposed to engage in it. Instead, therefore, of insuring a large sum, as 20,000*l.*, upon a single ship, a private underwriter or insurer may not, probably, in ordinary cases, take a greater risk than 200*l.* or 500*l.*; so that, though his engagements may, when added together, amount to 20,000*l.*, they will be diffused over from 40 to 100 ships; and supposing 1 or 2 ships to be lost, the loss would not impair his capital, and would only lessen his profits. Hence it is, that while one transaction only may be required in getting a ship insured by a company, 10 or 20 separate transactions may be required in getting the same thing done at Lloyd's, or by private individuals. When conducted in this cautious manner, the business of

insurance is as safe a line of speculation as any in which individuals can engage.

To establish a policy of insurance on a fair foundation, or in such a way that the premiums paid by the insured shall exactly balance the risks incurred by the insurers, and the various necessary expenses to which they are put, including, of course, their profit, it is necessary, as previously remarked, that the experience of the risks should be pretty extensive. It is not, however, at all necessary that either party should enquire into the circumstances that lead to those events that are most commonly made the subject of insurance. Such a research would, indeed, be entirely fruitless; we are, and must necessarily continue to be, wholly ignorant of the causes of their occurrence.

It appears, from the accounts given by Mr. Scoresby, in his valuable work on the *Arctic Regions*, that of 386 ships which sailed from the various ports of Great Britain for the Northern whale fishery during the 4 years ending with 1817, 8 were lost (vol. ii. p. 131)—being at the rate of about 1 ship out of every 73 of those employed. Now, supposing this to be about the average loss, it follows that the premium required to insure against it should be *1l. 7s. 4d.* per cent., exclusive, as already observed, of the expenses and profits of the insurer. Both the insurer and the insured would gain by entering into a transaction founded on this fair principle. When the operations of the insurer are extensive, and his risks spread over a considerable number of ships, his profit does not depend upon chance, but is as steady, and may be as fairly calculated upon, as that of a manufacturer or a merchant; while, on the other hand, the individuals who have insured their property have exempted it from any chance of loss, and placed it, as it were, in a state of absolute security.

It is easy, from the brief statement now made, to perceive the immense advantage resulting to navigation and commerce from the practice of marine insurance. Without the aid that it affords, comparatively few individuals would be found disposed to expose their property to the risk of long and hazardous voyages; but by its means insecurity is changed for security, and the capital of the merchant, whose ships are dispersed over every sea, and exposed to all the perils of the ocean, is as secure as that of the agriculturist. He can combine his measures and arrange his plans as if they could no longer be affected by accident. The chances of shipwreck, or of loss by unforeseen occurrences, enter not into his calculations. He has purchased an exemption from the effects of such casualties, and applies himself to the prosecution of his business with that confidence and energy which nothing but a feeling of security can inspire. 'Les chances de la navigation entravaient le commerce. Le système des assurances a paru; il a consulté les saisons; il a porté ses regards sur la mer; il a interrogé ce terrible élément; il en a jugé l'inconstance; il en a senti les orages; il a épié la politique; il a reconnu les ports et les côtes des deux mondes; il a tout soumis à des calculs savans, à des théories approximatives; et il a dit au commerçant habile, au navigateur intrépide: Certes, il y a des désastres sur lesquels l'humanité ne peut que gémir; mais quant à votre fortune, allez, franchissez les mers, déployez votre activité et votre industrie; je me charge de vos risques. Alors, Messieurs, s'il est permis de le dire, les quatre parties du monde se sont rapprochées.' (*Code de Commerce, Exposé des Motifs*, liv. ii.)

Besides insuring against the perils of the sea,

and losses arising from accidents caused by the operation of natural causes, it is common to insure against enemies, pirates, thieves, and even the fraud, or, as it is technically termed, *barratry*, of the master. The risk arising from these sources of casualty being extremely fluctuating and various, it is not easy to estimate it with any considerable degree of accuracy; and nothing more than a rough average can, in most cases, be looked for. In time of war, the fluctuations in the rates of insurance are particularly great; and the intelligence that an enemy's squadron, or even a single privateer, is cruising in the course which the ships bound to or returning from any given port usually follow, causes an instantaneous rise in the premium. The appointment of convoys for the protection of trade during war necessarily tends, by lessening the chances of capture, to lessen the premium on insurance. Still, however, the risk in such periods is, in most cases, very considerable; and as it is liable to change very suddenly, great caution is required on the part of the underwriters.

Provision may also be made, by means of insurance, against loss by fire, and almost all casualties to which property on land is subject.

But, notwithstanding what has now been stated, it must be admitted that the advantages derivable from the practice of insuring against losses by sea and land are not altogether unmixed with evil. The security which it affords tends to relax the vigilant attention to the protection of property which the fear of its loss is sure otherwise to excite. This, however, is not its worst effect. The records of our courts, and the experience of all who are largely engaged in the business of insurance, too clearly prove that ships have been repeatedly sunk, and houses burned, in order to defraud the insurers. Despite the temptation of inattention and fraud which is thus afforded, there can be no doubt that, on the whole, the practice is, in a public as well as private point of view, decidedly beneficial. The frauds that are occasionally committed raise in some degree the rate of insurance; still it is exceedingly moderate; and it is most probable that the precautions adopted by the insurance offices for the prevention of fire, especially in great towns, where it is most destructive, outweigh the chance of increased conflagration arising from the general tendency to carelessness and crime.

The business of life insurance has been carried to a far greater extent in Great Britain than in any other country, and has been productive of the most beneficial effects. Life insurance admits of various kinds. Individuals without any near connections, and possessing only a moderate fortune, are sometimes desirous, or are sometimes driven, from the necessity of their situation, to accumulate annually to encroach on their capitals. They should the life of such persons be extended beyond the ordinary term of existence, they might be totally unprovided for in old age; and to guard themselves against this contingency, they purchase an insurance company the whole or a part of their capital, on condition of its guaranteeing them, as long as they live, a certain annuity proportioned partly, of course, to the amount of the sum paid, and partly to their age when they commence the annuity.

But though sometimes serviceable to individuals, it may be questioned whether insurances of this sort are, in a public point of view, really advantageous. So far as their influence extends to obvious tendency is to weaken the principle of accumulation; to stimulate individuals to consume their capitals during their own life, with

thinking of successors. In general, it is lessively run which most families and strong security prevalent. In this selfish p adventuresly opening of Gov families, or in of fortunes. B this sort is giv be any very g the sale of an: associations can of accumulation. Luckily, howe referred to is bu that which has a professional perso nges, such as la rnal officers, cler with these incom with their lives, a either not possesser of their capital at various of providin for the comfortable the event of their physician or lawyer, perhaps, 1000, or 2, and suppose that he this individual attain ment his life, he may n will provide for the ac his death. But w which will be the case the may except and suppose that he we his family woul be against such the insurance is i individual possesser the death, agrees to p an insurance office; pay to his family, a under deduction of and the profits of s small contributions, a would amount and the common an Though he were insurance has been effe ously provided for as his accumulation any duration. In al insured die before their gain is obvio in which their live m term, they a have been without from the time, down to the tin against the risk of families sufficiently which they pay afte term is nothing more the security they p who insure houses ag tion only have occu for losses actual sum of a security ag stant is a sufficient m

thinking or caring about the interest of their successors. Were such a practice to become general, it would be productive of the most extensively ruinous consequences. The interest which most men take in the welfare of their families and friends affords, indeed, a pretty strong security against its becoming injuriously prevalent. Yet there can be little doubt that this selfish practice may be strengthened by adventitious means; such, for example, as the opening of Government loans in the shape of life annuities, or in the still more objectionable form of mortgages. But when no extrinsic stimulus of this sort is given to it, there do not seem to be any very good grounds for thinking that the sale of annuities by private individuals or associations can materially weaken the principle of accumulation.

Lately, however, the species of insurance now referred to is but inconsiderable compared with that which has accumulated for its object. All professional persons, or those living on salaries or wages, such as lawyers, physicians, military and naval officers, clerks in public or private offices &c. whose incomes must, of course, terminate with their lives, and a host of others, who are either not possessed of capital or cannot dispose of their capital at pleasure, must naturally be desirous of providing, so far as they may be able, for the comfortable subsistence of their families in the event of their death. Take, for example, a physician or lawyer, without fortune, but making perhaps 1,000, or 2,000*l.* a-year by his business; and suppose that he marries and has a family: if this individual attain to the average duration of human life he may accumulate such a fortune as will provide for the adequate support of his family to his death. But who can presume to say that this will be the case?—that he will not be one of the many exceptions to the general rule?—that he will not be hurried into an untimely grave, his family would necessarily be destitute. Life insurance is intended chiefly to provide, for the individual possessed of an income terminating at his death, agree to pay a certain sum annually to an insurance office; and this office binds itself to pay to his family, at his death, a sum equivalent to the deduction of the expenses of management and the profits of the insurers, to what these annual contributions, accumulated at compound interest, would amount to, supposing the insured to reach the common and average term of human life. Though he were to die the day after the insurance has been effected, his family would be amply provided for as it is likely they would if his accumulations were his life of the ordinary duration. In all cases, indeed, in which the insured die before attaining to an average term, his gain is obvious; but even in those cases in which their lives are prolonged beyond the ordinary term, they are not losers—they then pay for a security which they must otherwise have been without. During the whole of the time when they effect their insurance, they are exposed down to the time when they arrive at the average duration of human life, they are protected against the risk of dying without leaving behind them families sufficiently provided for; and the security they pay after having passed this term is nothing more than a fair compensation for the security they previously enjoyed. Of those who insure their houses against fire, a very small portion only have occasion to claim an indemnity for losses actually sustained; but the security of a security against loss in the event of a fire is a sufficient motive to induce every

prudent individual to insure his property. The case of life insurance is in no respect different. When established on a proper footing, the extra sums which those pay whose lives exceed the estimated duration is but the value of the previous security.

In order so to adjust the terms of an insurance that the party insuring may neither pay too much nor too little, it is necessary that the probability of his life failing in each subsequent year should be determined with as much accuracy as possible.

To ascertain this probability, various observations have been made in different countries and periods, showing, out of a given number of persons born in a particular country or place, how many complete each subsequent year and how many die in it, till the whole be extinct. The result of such observations, when collected and arranged in a tabular form, are called Tables of Mortality; and being entitled, of course, to more or less confidence according to the number and species of lives observed; the period when, and the care with which, these tables were made &c. But, supposing the observations to be formed with sufficient accuracy, the expectation of life at any age, or its mean duration after such age, may be readily learned from them; and hence, also, the value of an annuity, or an assurance on a life of any age. Thus, Mr. Milne, of the Sun Life Office, and which is believed to represent the average law of mortality in England with very considerable accuracy, out of 10,000 persons born together, 4,000 complete their 56th year; and it further appears that the number of such persons who die in their 60th year is 124; so that the probability that a life now 56 years of age will terminate in the 10th year hence is  $\frac{124}{4,000}$ . But reckoning interest at 4 percent, it appears [INTEREST AND ANNUITIES] that the present value of 100*l.* to be received 10 years hence is 67*·*556*l.*; consequently, if its receipt be made to depend upon the probability that a life now 56 years of age will fail in the 66th year, its present value will be reduced by that contingency to  $\frac{124 \times 67 \cdot 556}{4,000} = 2 \cdot 094$ , or 2*l.* 1*s.* 10*d.* The present value of 100*l.* receivable upon the life of a party now 56 years of age terminating in the 57th or any subsequent year of his life, up to its extreme limit (which, according to the Carlisle Table, is the 105th year), being calculated in this way, the sum of the whole will be the present value of 100*l.* receivable whenever the life may fail, that is, of 100*l.* insured upon it, supposing no additions were made to it for the profits and expenses of the insurers.

More compendious processes are resorted to for calculating tables of insurances at all ages, but the above statement sufficiently illustrates the principle on which they all depend. In practice, a life insurance is seldom made by the payment of a single sum when it is effected, but almost always by the payment of an annual premium during its continuance, the first being paid down at the commencement of the insurance. (For the method of calculating these annual premiums, see *POST, INTEREST AND ANNUITIES.*) If the Table of Mortality adopted by the insurers fairly represent the law of mortality prevailing among the insured, it follows that when a party insured does not attain to the average age according to the table, the insurers will either lose by him or realise less than their ordinary profit; and when, on the other hand, the life of an insured party is prolonged beyond the tabular average, the profits of the insurers are proportionally increased. But if their business be so extensive as to enable the



originally been usual to refer all disputes that arose with respect to insurances to the decision of 'grave and discreet' merchants appointed by the Lord Mayor. But abuses having grown out of this practice, the statute authorised the Lord Chancellor to appoint a commission for the trial of insurance cases; and in the reign of Charles II. the powers of the commissioners were enlarged. But this court soon after fell into disuse; and, what is singular, no trace can now be discovered of any of its proceedings. (Marshall *On Insurance*, Prelim. Disc. p. 26.)

Few questions as to insurance seem to have come before the courts at Westminster till after the middle of last century. The decisions of Lord Mansfield may, indeed, be said to have fixed and in a considerable degree formed, the law upon this subject. His judgments were not grounded on narrow views, or on the municipal regulations of England, but on those great principles of public justice and convenience which had been sanctioned and approved by universal experience. His deep and extensive information was acquired by consulting the most intelligent merchants, and the works of distinguished foreign jurists; and by carefully studying the famous French Ordinance of 1681, the most admirably digested body of maritime law of which any country has ever had to boast. Hence the comprehensiveness and excellence of his decisions, and the respect they have justly commanded in all countries. (Emérigon's famous *Traité des Assurances*, tome ii. p. 67.) In his hands the law of insurance became, in a far greater degree than any other department of English law, a branch of that national or public law of which Cicero has said, "Non erit alia lex Romæ, alia Athenis, alia nunc, alia posthac, sed et omnes gentes et omni tempore una lex et sempiterna, et immutabilis continebit, imperisque erit communis quasi magister et imperator omnium Deus." (Præm. lib. iii. de Republicâ.)

Insurance against fire and upon lives is of much later origin than insurance against the perils of the sea. The former, however, has been known and carried on amongst us, to some extent at least, for nearly a century and a half. The Equitable Society, for insurance upon lives, was established by charter of Queen Anne in 1706; the Royal Exchange and London Assurance Companies began to make insurances upon lives in the reign of George I.; and the Equitable Society was established in 1762. But the advantages of life insurance, and the principles on which the business should be conducted, were not very ill understood; and the practice can only be said to have obtained any firm footing amongst us till the Equitable Society, by adopting the judicious suggestions of Dr. Price, began its career of prosperity about 1775. Notwithstanding the example of England, life insurance has made comparatively little progress on the Continent. It was, indeed, expressly forbidden by the French Ordinance of 1681 (liv. tit. 6, art. 10); by the regulations as to insurances issued at Amsterdam in 1612 (art. 24); and it is doubtful whether the practice be not inconsistent with the 334th art. of the *Code de Commerce*, though it be now extensively carried on in France. But we are inclined to think that we want of security, more than any positive regulations, has been the principal cause of the slow progress of life insurance on the Continent. Whatever disadvantages our large public debt may be productive of, it is not to be doubted that the facilities it has afforded for making investments, and the punctuality with which the

national engagements have been fulfilled, have been the principal causes of the extraordinary extent to which the business of life and even fire insurance has been carried in this country.

## II. INSURANCE (MARINE).

There are few persons who are not acquainted in some degree with fire and life insurances. The security which they afford to individuals and families is a luxury which nobody in tolerably comfortable circumstances is willing to be without. Hence the great increase, in our days, of companies professing to afford this security; and hence the knowledge, on the part of the public generally, of the nature and principles of the engagements into which these companies enter. But marine insurance is a subject which is of more immediate interest only to merchants, ship-owners, and underwriters; unless, indeed, we should refer to that small portion of the community who have occasion to transport themselves beyond seas with capital and effects for purposes of colonisation, or to fill some official situation. Hence the comparative indifference on the part of the public as to this subject. The general principles, however, of all insurance are the same; and in treating of marine insurance, it will be necessary to notice little beyond such topics as are peculiar to that branch of the business.

*Individual Insurers or Underwriters.*—The first circumstance that cannot fail to strike the general enquirer into the practice of marine insurance in this country is that, while all fire and life insurances are made at the risk of companies, a large proportion of marine insurances is made at the risk of individuals; that risk, however, being split up so as to include in the guarantee a large number of persons. [UNDERWRITING.]

*Prohibition of Companies.*—Till 1824, all firms and companies, with the exception of the two chartered companies, the Royal Exchange and London, were prohibited by law from taking marine insurances. Towards the latter end of that year the prohibition was removed, and the business of marine insurance was placed on the same legal footing as other descriptions of business. While the restriction lasted, the two chartered companies did so little business that marine insurance might in fact be said to be wholly in the hands of individuals. These companies were so much higher in their premiums, and so much more exclusive in the risks they were willing to undertake, than their individual competitors, that merchants and ship-owners were obliged to resort to individual underwriters. And it was only when the repeal of this absurd restriction was proposed, that the companies showed, by defending it, that they set any value upon their privilege. The underwriters at Lloyd's joined them in this opposition; and pamphlets were written, and speeches made, to demonstrate how much merchants and ship-owners would suffer, were the law to allow them the free use of their discretion in insuring their property, and how much more conducive to their interests it was that they should deal with Lloyd's rather than companies.

*Formation of Companies.*—There are at present (1868) 20 marine insurance companies in London. These number among their proprietors or shareholders some of the most eminent merchants and ship-owners of the city of London, who have united for the double purpose of providing security for their property, and ascertaining whether the insurance business might not be

made to yield a fair return to the capital employed in it. Several similar companies have also been formed since 1824 in different parts of the kingdom.

**Mode of conducting Business.**—We shall now give an account of the existing arrangements for conducting the business of marine insurance, as well by individuals as the companies in London.

**Lloyd's.**—The individual underwriters meet in subscription-rooms at Lloyd's, and under the name of underwriters are included the joint-stock companies. The joint affairs of the subscribers are managed by a committee chosen by the subscribers, the insurance companies being included in the list, as they in fact must depend upon the office entirely for their information. Agents (who are commonly styled Lloyd's agents) are appointed in all the principal ports of the world, who forward regularly to Lloyd's accounts of the departures from and arrivals at their ports, as well as of losses and other casualties; and, in general, all such information as may be supposed of importance towards guiding the judgments of the underwriters. These accounts are regularly filed, and are accessible to all the subscribers. The principal arrivals and losses are, besides, posted in two books, placed in two conspicuous parts of the room; and also in another book, which is placed in an adjoining room, for the use of the public at large.

The rooms are open from 10 o'clock in the morning till 5 o'clock in the afternoon, but the most considerable part of the business is transacted between 1 and 4. A slip showing the particulars of the insurance required is in the first place submitted to the underwriter, and is initialed by him in accepting the risk, and when the policy is presented for subscription he compares it with the slip which he has already initialed. Though the initial to the slip is not legally binding, no underwriter would refuse to recognise his liability if the loss occurred between the initialing of the slip and the signing of the policy. The form of the policy is subjoined to this article.

The premium is not always paid to the underwriter in ready money, but is passed to account. Nor does the underwriter debit the account of the person to whom he subscribes a policy with the whole amount of the premium, but with the premium less 5 per cent. Whenever losses occur which more than absorb the premiums on any one account, the underwriter is called upon to pay the balance. But should the underwriter's account be what is called good, that is, should the premiums exceed the claims, he sends round, during the spring and summer, to collect from his various debtors either the balance of his last year's account, or money on account, according to his judgment; but, upon what he receives, he makes an allowance of 12 per cent. An underwriter, if prudent, therefore, before he consents to receive, will not only look to the goodness of his account, but to the probability of its continuing so.

**Insurance Brokers.**—The larger part of the insurances at Lloyd's is effected by brokers. Some merchants, however, transact their own insurance business. But the majority give their orders for insurance to others, who undertake it for them, and are responsible for its proper management. These latter persons are called insurance brokers, and some of them manage the business of a number of principals. To them likewise are transmitted the orders for insurance from the outports and manufacturing towns. They charge the whole premium to their principals, and their profit consists in 5 per cent. upon the premium, 12 per cent. upon the money that they pay to the under-

writers, and 3 per cent. that they deduct from the claims which they recover from the underwriters. It is proper to remark that this is the established or regular profit; but competition has occasioned numerous deviations from it by the brokers, many of whom consent to divide the profit with the principals who employ them. The insurance brokers are not unfrequently underwriters also; and as some insurances are considered far more lucrative than others to underwriters, and as the brokers have particular facilities, in some respects, of judging of the goodness of their own risks, so likewise have they an inducement to play into one another's hands and they do so accordingly. [BROKERS.]

**Clubs.**—Besides the individual underwriters and companies above noticed, there are clubs or associations formed by ship-owners, who agree each entering his ships for a certain amount, to divide among themselves one another's losses. These clubs are institutions of long standing, but, since the alteration of the law in 1805, appear to be on the decline. As a rule, they insure ships only. Their formation originates in a twofold reason: 1, that the underwriters charged premiums more than commensurate with the risk; and, 2, that they did not afford adequate protection. To avoid the first of these two evils, instead of paying a fixed premium, they pay among themselves the actual losses of their several members as they occur, and to avoid the second, they lay down certain principles of settlement in accordance with the views of indemnity. Each member of one of these clubs gives his power of attorney to a selected manager, and this manager issues a policy for each ship, which policy is subscribed by him as attorney for all the members, the premium inserted in the policy being understood to be nominal. These clubs are open to the head objections that apply to individual underwriters for the members are not collectively, but individually, liable to those of their number who happen to sustain a loss; and the delay of settlement is such, that more than 12 months have been known to elapse before the payment of a loss has been obtained from all the members.

**Rate of Premium.**—Little need be said of the circumstances that influence the rate of premium demanded by the insurers. It must be self-evident that premiums will vary according to the seasons, the quality of the vessel, the known character of the captain, the nature of the commodity, and the state of our political relations. All these, of course, are matters upon which individual must exercise his own discretion, partly from general experience and partly from particular information; exaggeration of risk, consequent exorbitancy of premium for a length of time, being out of the question. So many individual underwriters, in addition to the companies, are in competition with another, and where the merchants have means at hand of effecting their insurances abroad. The premium, which in a small community is generally arranged by consent of insurance offices and clubs on the spot, at Lloyd's is fixed in the general market. In fact, Lloyd's is an open market for insurance. We have already taken notice of the intelligence of which Lloyd's is the focus. In addition to this, there is a description register book for shipping maintained by the principal merchants, ship-owners, and underwriters. This book professes to give an account of the tonnage, build, age, repairs, and quality of almost all the vessels that frequent our ports; and, although exceedingly defective

In many respects, is a material assistance to the insurers, who have no means of ascertaining by their own observation the particulars of 1 in 100 of the ships they are called upon to insure.

#### CONTRACT OF INSURANCE.

Having thus given a general outline of the mode of transacting business between the insurer and insured, and the means used to enable both parties to come, as near as possible, to the estimate of the risk to be insured against, we now to explain the nature of the contract, and the bearing of its more important clauses.

It is unnecessary to state that the object of those who are engaged in commerce, or in moving articles of merchandise from one part of the world to another, is to buy at such a price that, after paying all the expenses of transport, the sale price may leave them a surplus in the shape of profit. If there were no such contrivance as insurance, merchants would be obliged to calculate upon the probability of the occasional loss of their property, and to regulate their transactions accordingly; but it must be obvious that enterprise, under such circumstances, would be very much crippled. Now, insurance, in as far as it approaches perfection in guaranteeing the merchant against all loss except that of the market, substitutes a fixed charge for uncertain and contingent loss, and enables him to confine his attention exclusively to price and quality, and to the charges of transport; in which latter, of course, the premium of insurance is included. But in practice, insurance is by no means a perfect protection, either to the merchant or shipowner, against all loss that may occur *in transitu*, there are, even after insurance, some contingencies remaining to be taken into consideration; and we do not know that we can do better, by way of explaining the contract of insurance, than to state, as briefly and succinctly as possible, what are the losses against which the merchant and shipowner are not protected by an insurance effected in this country.

**1. Acts of our own Government.**—All losses arising from the acts of our own Government, such as an embargo were laid on vessels about to sail for a particular quarter, and the merchant is compelled to unload his goods; or if his goods are condemned to be destroyed in quarantine; or if, purposely destroyed at sea by some of our cruisers; no part of his loss would be made good by the insurer. The insurer in this country, is not liable for the acts of foreign powers, though liable for such acts directed against the property of their own subjects. Thus, if French vessels, insured in this country, were confiscated by the French Government, the owner would have no remedy against his insurer.

**2. Breaches of the Revenue Laws.**—All losses arising from a breach of the revenue laws. It may be observed, that if the owner of the ship, by his act, exposes the goods of the merchant to seizure, although he can recover from his insurers, may claim from the owner of the vessel, by his act, to which neither the ship nor the merchant is a party, and such case are bound to make good the loss; the insurers being liable for all damage arising from illegal acts of the captain and crew, supposed to be the owner of the ship not to be accessory. Illegal acts of the captain and crew, contrary to the instructions and without the consent of the owner, are termed 'barratry' in the policy.

**3. Breaches of the Law of Nations.**—All losses arising from a breach of the law of nations. Thus, if any port is declared by a foreign nation to be in a state of blockade, and such blockade is acknowledged by our Government; and if a ship, the blockade, and is taken in the attempt; the insurer is not liable to the loss. It will often happen, when a port is under blockade, that the profit is so great upon goods introduced in defiance of the blockade as to tempt adventurers to break it, and to enable them to afford a very high premium to insure against the risk. But as in our courts of law, when effected, they are understood to be *policies of honour*. The same kind of policy is adopted by the underwriters to protect foreign merchants who prefer insuring in this country against British capture.

**4. Consequences of Deviation.**—All losses subsequent to any deviation from the terms of the policy. Thus, if a merchant, in a policy on produce from the West Indies to London, warrant the ship to sail on or before August 1, and the ship sail after that day and be lost, the insurer is exonerated. Or, if a merchant insure from London to Lisbon, and the ship call at Havre and is afterwards lost, the ship call at liable. It will be understood, of course, that the owner of the ship is liable to the merchant for any breach of contract on his part, as well as that the insurer is liable for the barratry of the master; tended for the benefit of the owner, and not into his instructions, being considered barratry. The owner of the goods neglect to describe accurately the voyage for which he wishes to be insured, the loss would be a consequence of his own negligence.

There is a doctrine connected with barratry which it will here be proper to notice. A captain, cannot commit an act of barratry. In other words, the insurers are not in such a case liable for an act of his which would otherwise be barratrous. The equity of this doctrine, as far as regards the interests of the captain himself, cannot be called in question; but it is difficult to understand why the merchant who ships goods on board such a captain's vessel should not be permitted to insure, among other risks, against the captain's illegal acts. We have heard that a clause has occasionally been introduced into policies to protect merchants against captain-law owners, and we do not suppose that our courts of law would refuse to enforce such a clause. In party, we cannot discover any reason why every power of insuring against the consequences of illegal acts of the captain. We believe that from among the life offices which protect themselves from loss by suicide and the hands of justice, there are some which make a distinction in favour of those who merely hold policies on the lives of others as a collateral security. The propriety of such a distinction must strike every body.

**5. Unseaworthiness.**—All losses arising from unseaworthiness. Unseaworthiness may be caused in various ways, such as want of repair, want of stores, want of provisions, want of nautical instruments, insufficiency of hands to navigate the vessel, or incompetency of the master. It might be supposed, at first sight, that insurance affords a much less perfect security than it really does, seeing on how many pleas it is possible for the insurer to dispute his

liability; but when it is considered that the proof of unseaworthiness is thrown upon the defendant, and that the leaning of the courts is almost always in favour of the insured, it will be easy to suppose that no respectable insurers would ever plead unseaworthiness unless they could make out a case of more than ordinary strength and clearness. The degree of uneasiness felt by merchants and ship-owners at their liability to be involved in loss by cases of unseaworthiness may be guessed from the fact that although the Indemnity Assurance Company at one time precluded themselves from pleading unseaworthiness by a special clause in the policy, not only did they obtain no additional premium in consequence thereof, but they did not even obtain a preference over other companies and individuals at the same premium. At least, this fact must either be admitted as a proof of the absence of uneasiness on this head, or of that inveteracy of habit which seems to lead the great bulk of mankind always, if possible, to continue undeviatingly in those courses to which they are accustomed, even where the benefits to be derived from a deviation are undeniable.

6. *Protraction of the Voyage.*—All loss arising from unusual protraction of the voyage. Thus, if a ship meet with an accident in the Baltic, and the repairs detain the vessel till the close of the season, when the passage home is rendered impracticable by the ice till the opening of the ensuing season, no payment is made to the merchant in mitigation of his loss from interest of money, loss of market (if the market fail), or deterioration in the quality of his goods (unless arising from actual sea damage); nor to the ship-owner, in mitigation of his loss from the extra wages and maintenance of his crew. In most foreign countries the ship-owner is remunerated by the insurers for the wages and maintenance of his crew while his ship is detained in consequence of any loss for the making good of which they are liable.

7. *Liability for doing Damage to other Vessels.*—All loss to which the ship-owner is liable when his vessel does damage to others. According to our laws, the owner of every ship not in charge of a pilot, that does damage, by negligence of the master and crew, to any description of craft or vessel, is liable to make good the same to the extent of the value of his own ship and freight; for beyond this he is not liable. The common policy in use among the underwriters at Lloyd's does not protect the shipowner from this loss. But there is now a collision clause in many of the companies' policies. The clubs or associations, too, before mentioned almost universally take this risk. Indeed, this is one of the purposes which gave rise to their formation. Even they, however, limit their liability to the amount of the policy; so that if a ship insured with them were to run down another, and to sink herself in the collision, the owner would only receive the value of his own vessel from the club, and still be liable to the owner of the other vessel. A custom has gained ground, both among the underwriters at Lloyd's and the Insurance Companies, to admit their liability by a clause in their policies for  $\frac{2}{3}$  of the loss which the owner of the vessel insured with them may sustain from damage done by his vessel to those of others. If such a case as the one just supposed should occur, the insured would receive by virtue of this clause the value of his own vessel and  $\frac{2}{3}$  of the loss to be made good by him to the owner of the other vessel.

8. *Average Clause.*—The next description of loss of which we shall treat, against which the

insured are not protected, is described in the following clause of the policy: 'Corn, fish, salt, seed, flour, and fruit are warranted free from average, unless general, or the ship be stranded; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under 5 per cent., unless general, or the ship be stranded; and all other goods, also the ship and freight, are warranted free from average under 3 per cent., unless general, or the ship be stranded.'

The language employed in this clause, being technical, requires explanation to render it intelligible to the general reader. Average is a name applied to certain descriptions of loss, to which the merchant and ship-owner are liable. There are two kinds of average, general and particular.

*General Average* comprehends all loss arising out of a voluntary sacrifice of a part of either vessel or cargo, made by the captain for the benefit of the whole. Thus, if a captain throw part of his cargo overboard, cut from an anchor and cable, or cut away his masts; the loss sustained, being voluntarily submitted to for the benefit of the whole, is distributed over the value of the whole ship and cargo, and is called 'general average.'

*Particular Average* comprehends all loss occasioned to ship, freight, and cargo, which is not so serious a nature as to debar them from reaching their port of destination, and when the damage to the ship is not so extensive as to render it unworthy of repair. Losses where the goods are saved, but in such a state as to be unfit to forward to their port of destination, and where the ship is rendered unfit to repair, are called 'particular or salvage loss.' The leading distinction between particular average and salvage loss is that, in the first, the property insured remains the property of the assured—the damage sustained, or part thereof, as the case may be, and as will be hereafter explained, being made good by the insurer; and in the second, the property insured is abandoned to the insurer, and the value insured claimed from him, retaining the property so abandoned, or value.

*Particular Average on Goods.*—A few examples illustrative of the method of stating a claim for particular average will best explain the nature of this description of loss, and will at the same time show the reader what the practical distinction is between particular average and salvage loss.

The property insured we shall suppose to be a *ton of hemp*, the cost of which at Petersburg is 30*l.*, for which sum it is insured from Petersburg to London, and that the duty, freight, and charges to which the merchant is subject on landing at London are 10*l.* We shall then suppose that the hemp, on its arrival at London, is damaged as not to be worth more than half its value had it been sound. The insurer would then be called upon to make good to the insured 15*l.*, or 50 per cent. upon the value of the hemp, and the merchant would be insured. But it does not follow that this sum of 15*l.* would indemnify the merchant for the loss sustained, that it would not more than indemnify him for the loss sustained.

If the hemp upon arrival in this country would have fetched in a sound state	30 0
Less duty, freight, and charges	10 0
But in its damaged state is only worth	15 0
Less duty, freight, and charges	10 0

The merchant's loss by the damage is 15*l.* Whereas he only receives from the insurer 15*l.* Upon the occurrence of a salvage loss he would also receive 15*l.*

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INSURANCE

If the hemp would have fetched in a sound state	£	s.	d.
Less duty, freight, and charges	90	0	0
But in its damaged state is only worth	10	0	0
Less duty, freight, and charges	10	0	0
The merchant's loss by the damage is	80	0	0
Where he recovers from the insurer 15%. Upon the principle of a gross loss he would receive 30%.	£10	0	0

If the hemp would have fetched in a sound state	£	s.	d.
Less duty, freight, and charges	90	0	0
But in its damaged state is only worth	15	0	0
Less duty, freight, and charges	10	0	0
The merchant's loss by the damage is	75	0	0
And he recovers from the insurer 15%. Upon the principle of a gross loss he would receive 35%.	£15	0	0

It will be observed that the merchant's loss by the damage of his goods varies with the state of the market. It may also be observed, that in general the merchant will not receive from the insurer the whole amount of the loss that he sustains. Whenever his market is a profitable one (and that it must usually be so will be obvious to everybody)—whenever, indeed, his market is not a decidedly losing one, his policy does not afford him a complete protection.

The argument in favour of this mode of settling claims for particular average—and it should be observed that the subject has been discussed, and the principle acknowledged, in the courts of law—is that the insurer's liability is to be guided by the amount upon which he has received a premium or consideration; that he is not to be affected by the rise or fall of markets; but that the gross market price of the sound and the gross market price of the damaged goods, are to be the test by which the rate of damage upon the amount insured is to be adjusted; the insurer being liable, besides, for all the extra charges arising out of the damage.

In the first case stated, the merchant's loss by damage is 25% upon 100, or 62½ per cent.; in the second, 10% upon 100, or 100 per cent.; in the third, 15% upon 200, or 75 per cent. If the duty, freight, and charges were diminished in proportion to the diminished value of the goods, the loss in each case would be 50 per cent. upon the nett price, or 50 per cent. upon the gross price. As far as the duty is concerned, Government, upon some articles, reduces it in proportion to the diminution of the value of the goods; and if the freight were allowed in a similar manner, the merchant would always be indemnified for his loss by the insurer.

As the practice with regard to freight in this country admits of no such arrangement; freight being paid according to the quantity delivered. To make the principle upon which claims for particular average are adjusted, and its bearing, all clearer, we shall illustrate it by a few more cases. Suppose two packages to be insured at cost—one a cask of rice and a cask of sugar—each weighing 100 cwt.; the cost of each at the port of export delivery, both articles free from duty, to arrive at a market where no more than half the price is realised; assuming that both packages are damaged 50 per cent.—the rice by loss of weight, the sugar by loss of weight—the state-

100 cwt. of rice, had it arrived sound, would have produced	£	s.	d.
Less freight on 10 cwt. at 10s. per cwt.	15	0	0
Being damaged, did only produce	5	0	0
Less freight on 10 cwt. at 10s. per cwt.	7	10	0
Merchant's loss	5	0	0
Where he recovers from the insurer 15%.	£7	10	0

100 cwt. of sugar, if sound, would have produced	£	s.	d.
Less freight on 10 cwt. at 10s. per cwt.	15	0	0
Being damaged, did only weigh 50 cwt.	5	0	0
Less freight on 50 cwt. at 10s. per cwt.	7	10	0
Merchant's loss	2	10	0
Where he recovers from the insurer 15%.	£5	0	0

In each case the merchant is entitled to recover from his insurer 50, or 50 per cent., upon 100, the sum insured, which, although an indemnity to him for his loss on the sugar, is far from being so contrivance as to shap; his contract with the ship-owner for freight as to reduce the freight in proportion to the depreciation in the value of the protected. The ship-owner might on his side protect himself by insurance from loss by reduction of quality, as he now does from loss by reduction of quantity. But we have already more than once adverted to the difficulty of breaking in upon established practices. The merchants go on from year to year complaining of the losses to which they are subjected from this awkward contrivance, while no steps are taken to improve it. To show that the principle is equitable as between the merchant and his insurer, we subjoin one more statement, where the damage is taken at 100 per cent.

10 cwt. of rice, if sound, would have produced	£	s.	d.
Less freight on 10 cwt. at 10s. per cwt.	15	0	0
Being totally spoiled did produce nothing.	0	0	0
The merchant being still liable for the freight	10	0	0
Making his loss	15	0	0
He recovers 10% only from the insurer.	£15	0	0

10 cwt. of sugar, if sound, would have produced	£	s.	d.
Less freight on 10 cwt. at 10s. per cwt.	15	0	0
The barrel being washed out produces nothing.	0	0	0
The merchant, however, not being liable to pay freight	0	0	0
His loss is only	15	0	0
Which he recovers from the insurer.	£15	0	0
It will be observed that in each case the insurer pays 10% of the full sum upon which he receives the premium.			

When whole cargoes, or parcels of goods of considerable value, are insured, the clause in the policy which protects the insurer from particular average under a certain percentage is often particularly set aside. Thus, if a cargo of 600 hogsheds of sugar, valued at 10,000, were damaged to the extent of 460, the merchant, supposing the protecting clause to remain in force, would recover nothing from the insurer, the loss not amounting to 5 per cent. The additional written clause, by which it is the practice to modify the printed clause, is as follows: 'Particular average, payable upon each 10 hds. sugar, 10 casks and 50 bags of coffee, and 10 bags cotton, following numbers, and of indigo, bag of wool or silk, the same as if separately insured.' Such clauses may be, and are, introduced ad libitum by mutual consent of insurer and insured, the premium or consideration being arranged accordingly.

The protecting clause is considered, on the other hand, by the insurers, exceedingly unsatisfactory in some respects; and they, as occasion requires, insist upon additional protection. Thus, saltpetre, hides, cocoa, and tin plates are generally warranted free from particular average, unless the ship be stranded; and upon tobacco, it is customary for the insurers to make themselves liable only to such part of the particular average as exceeds 5 per cent., throwing 5 per cent. upon the merchant.

**Particular Average on Freight.**—The clause, as far as it affects 'freight,' calls for no particular comment. Particular average upon freight can only arise, according to prevailing practice, from loss of weight; and whenever the loss of weight amounts to 3 per cent. or upwards, the ship-owner is entitled to recover from his insurer. The ship-owner, upon the arrival of the ship at its port of destination, is entitled to hold the goods as security until the freight is paid. If the owner of the goods should prove insolvent, and the goods

should be entirely spoiled by sea damage during the voyage, and the ship-owner thus lose his freight, he has no claim upon the insurer; because, although his collateral security is destroyed by a peril of the sea, his right to receive freight remains unimpaired, and it is against the loss of impairing of this right that the insurer protects him.

**Particular Average on Ships.**—Particular average upon ships is a subject somewhat more beset with difficulties. There is scarcely a ship which makes a voyage of any length, that does not sustain some damage. The clause in the policy warranting the ship free from particular average under 3 per cent., unless stranded, protects the insurer from the constant recurrence of petty claims; but in addition to this, it is the practice to class the damage that a ship sustains in the prosecution of her voyage under two heads: ordinary damage, or wear and tear; and extraordinary damage, or particular average. The splitting of sails, the breaking of anchors and cables, the upsetting of windlasses, are losses that come under the first head. The carrying away of masts and bulwarks, damage to the copper sheathing and hull from striking on rocks, come under the second.

When a ship sustains damage, if she be on her first voyage, the whole expense of the repairs is made good by the insurers; but if she be not on her first voyage, it is the established custom that the insurer pays no more than  $\frac{1}{3}$  of the repairs, the owner of the vessel having, as it is thought, an equivalent for the  $\frac{2}{3}$  which falls upon him, in the substitution of new work for old. Where the nature of the damage is such as to require that the copper should be stripped off the ship's bottom, the insurer pays the difference between the price of the old and the new copper on the weight of the old copper stripped off; the excess in weight of the new over the old copper is paid for by the ship-owner; and the labour of stripping and replacing the copper is paid for on the principle already mentioned. In any general rule of this kind it must be obvious that the ship-owner will sometimes gain and sometimes lose by an accident. As soon as the ship-owner, or his captain, learns that his vessel has met with an accident, or as soon after as possible, he summons regular surveyors to examine his vessel and report all defects, discriminating between those defects that have arisen from perils of the sea, and those from wear and tear. The first only are made good by the insurer, together with all charges, such as surveyors' fees, dock dues &c., caused by the necessity of undergoing repair. It has been already observed that when a ship is obliged in the progress of her voyage to put into port for the purpose of repair, although the owner of the ship be subjected to great expense for the wages and maintenance of his crew during the detention, he can recover no part of this expense from the insurer; the doctrine being, that the owner of the ship is bound to navigate his vessel, and that the insurer does not undertake to guarantee that the voyage shall be completed within any specific time. Such is the doctrine, at least, in this country, and the practice is founded upon it; but in all other countries the doctrine and practice are the reverse. For in them allowance is made to the ship-owner for the wages and maintenance of the crew during the whole period that the ship is under repair. Where a vessel sustains damage and undergoes repair in the progress of her voyage, and is subsequently lost, the insurer is liable both for the particular average and a total loss. Or the owner of the ship may, if he please, insure the amount expended in repair; and then, in the event of

subsequent loss, the insurer is liable for the total loss only; but in the event of subsequent safe arrival, the average is augmented by the charge of insurance.

The operation of the clause warranting the ship free from average under 3 per cent., unless general, or the ship be stranded, may now be clearly seen. If a ship be insured and valued at 10,000*l.*, and the repairs of the vessel do not, after all the deductions above referred to, amount to 3 per cent., there is no claim upon the insurer unless the vessel shall have been stranded. [AVENAGE.]

**Stranding.**—The term stranded is not well chosen, admitting of more than one construction, and the clause of which it forms a part is imperfectly conceived. And in settlements of accounts when differences arise, the parties who discuss them are more apt to strive for that interpretation of terms and clauses which is favourable to their interests than for that which is best adapted for general purposes. It is commonly understood that merely striking the ground and coming up is not a stranding; it being necessary, in order to fall within that term, that the ship should remain on the ground or rock, as it may happen, and that efforts should be made to float her. Striking on an anchor and leaking dangerously is not a stranding. We shall only adduce two illustrations, for the purpose of showing how adapted this clause is as a means to an end. Cases and other such articles are warranted free from particular average unless the ship be stranded, because the insurers, considering these articles to be peculiarly susceptible of damage, will not consent to take that risk except on some extraordinary occasion. A ship laden with corn makes a very stormy passage from the Baltic to London, and damages the whole of her cargo. Upon her arrival off our coast she is stranded, but got off without straining or sustaining any damage. The insurer is held to be liable for the damage to the corn, under the clause of the policy. On another occasion, after a very favourable passage to our coast, a ship strikes upon a shoal, but is not stranded, sustaining, however, so much damage that she arrives at London with 6 feet water over her hold, and her cargo almost wholly spoiled. The insurer is held not to be liable under the clause of the policy.

**General Average.**—The insurer is bound to make good all general average without exception, however trifling the amount. General average is treated as though altogether unconnected with particular average; and damage to the goods amounting to 3 per cent. is not payable by the insurer, although there may be also a general average, and the general and particular averages together may amount to more than 3 or 5 per cent. General average is a charge which must be paid by the merchant and ship-owner, even if the ship be insured; although, when insured, he transfers it, in virtue of his insurance, the charge falling from himself to his insurer. All the elements that can by possibility enter into general average may be classed under four heads:—1. Sacrifice of part of the ship and stores; 2. Sacrifice of part of the cargo and freight; 3. Remuneration of services required for general preservation; 4. Expenses incurred for raising money to replace what has been sacrificed, and to remunerate services.

1. When any part of the ship is sacrificed for the general benefit, the owner is entitled to receive (deducting, of course, his share of contribution) the amount of his outlay in the replacement of such sacrifice; allowance being made, on the principle stated above, where old works and materials are replaced with new. The deduction of

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however, does not invariably apply. For instance, if only is taken off the price of an iron cable that is shipped from for the general benefit, because iron cables are calculated to last for a great number of years; and no reduction is ever made from the price of anchors, or of replacing the loss may amount to considerably more than the value lost, computing the value at the place where the ship was originally fitted. Thus the cost of replacing an anchor and cable shipped from in the Downs is frequently double the value of the anchor and cable at London. But whatever the charge may be, such charge forms the basis of settlement.

2. Sacrifice of the cargo and freight takes place in jettison, or where part of the cargo is flung overboard to lighten the vessel. Upon arrival in port, after such jettison, the owner of the goods jettisoned is entitled to receive (deducting his share of contribution) what the goods would have produced nett to him, supposing them to have arrived sound; and the owner of the ship is entitled to receive (deducting his share of contribution) the freight to which he would have been entitled upon the safe delivery of the goods.

3. Remuneration of services and other charges.

When a ship loses her anchors and cables, very large sums are frequently awarded to boatmen who venture off to her with new ones at the imminent hazard of their lives. A ship disabled at sea is towed into port by another, and remuneration for such service is awarded according to the value saved, the detention occasioned, and the loss sustained. The ship rendering the service may be laden with fish or fruit, that may be totally spoiled by the detention, or may be in ballast. A ship captured by the enemy may be recaptured by a man-of-war or armed merchant vessel: here, salvage is awarded according to the circumstances of the case. All these charges are general averages; that is to say, must be distributed over ship, freight, and cargo. When a ship with a cargo is driven on shore, the expense of attempting to get her off is general average, if she cannot be got off without discharging, the expense of discharging is general average; but the expense of getting the ship off after the cargo has been taken out falls exclusively upon the ship, the warehousing of the cargo, and other expenses incurred for its preservation, are charges exclusively upon the cargo. The expense of reloading the cargo in distress, the pilotage inwards is general average; the pilotage outwards is a charge upon the freight. This distribution of charges has been settled into a tolerably well established practice; and upon this principle claims are settled at the courts, and at Lloyd's.

The money required to meet the above charges is sometimes attainable without expense, if the accident happen near home, and the ship-owner be respectable, he advances the money and repays from the various parties concerned so far as the accounts can be made up; or if the accident happen in a foreign port, where the owner of the ship is well known, the captain's bill to him will sometimes be received in payment of the charges incurred. But where such facilities do not exist, the captain is empowered to pledge the ship, freight, and cargo as security to anyone who will prevail upon to supply the necessary funds. This pledge is termed a bottomry bond, and the captain admits the receipt of the money; and he is bound to the payment of a premium (which varies with the distance of the port of destination, the risk of the voyage, the respectability of the parties, and the necessities of the captain); and

assigns the ship, freight, and cargo as security for the repayment of the money advanced and the stipulated premium. Should the captain consider the bottomry premium demanded of him exorbitant, or should he deem it preferable in other respects, he may sell a portion of the cargo for the purpose of raising such money as he may stand in need of towards the prosecution of his voyage. The expense of raising the requisite funds, whether by commission, by bottomry premium, or by loss on the sale of the cargo, is charged to those parties for whose interest the money is required. Thus, if a ship, having struck upon a rock, puts into port in distress, and is obliged to unload to repair; supposing the particular average upon the ship to amount to 500*l*.; the general average, consisting of assistance into port and expense of unloading, 200*l*.; particular charges on freight, consisting of expense of reloading and pilotage outwards, 100*l*.; and particular charges on cargo, consisting of warehouse rent and repair of packages, 200*l*.; and the expense of raising money should be 20 per cent.: these sums would be severally increased by this addition, and would be raised to 600*l*., 240*l*., 120*l*., and 240*l*. [Bottomry.]

It still remains to be enquired in what proportion the general average is to be paid by the different owners of the cargo, and the owner of ship just at the ship's port of destination, and the values of the ship and cargo are taken at what they would produce in their actual state upon arrival, and the freight according to what is actually receivable, less the wages of the captain and crew; the general average being distributed in proportion to these values. Should the cargo be altogether worthless, it cannot be made to contribute; and should the wages of the crew exceed the freight, then the freight is not liable to contribute. In case of jettison, the party whose property has been sacrificed for the general benefit receives indemnity on the same principle; the party would have produced *nett*, supposing it to have been sold on the arrival of the vessel—the same value serving for the basis of his proportion of contribution. Some few cases occur where the general average is adjusted at the port of destination. Thus, if a ship, outward bound to the British colonies, cut from an anchor and cable in the Downs, or incur other general average on our own coast, the insurances being principally effected in this country, it is the custom to adjust it on the spot, by which means both delay and expense are avoided. On these occasions the values at the port of shipment are taken as the basis of contribution. A total loss, subsequently to a general average, does not exonerate the insurer from his prior liability; and although it is customary with the ship-owner, or his agent, specifically to insure the money expended in average, for the purpose of protecting the insurer against any greater liability than 100 per cent., he is not absolutely obliged to do so. When the average funds are raised by bottomry, the party advancing them takes the ship, freight, and cargo as security, and charges a premium to cover the risk of the ship's non-arrival at her port of destination; and thus, on such an occasion, a subsequent total loss relieves the insurer from all liability to average.

The laws and customs by which averages are adjusted vary in different countries; but the insurer in this country is only liable for the averages adjusted according to our laws. The merchant, however, whose goods arrive at a foreign port is

obliged to submit to the laws of that port. He may thus be a considerable loser; paying general average according to one law, and receiving from his insurer according to another. And he never can be a gainer, because, before he is entitled to recover from his insurer, he must prove that he has paid to the owner of the ship. This is one of the many inconveniences to which mercantile men are exposed, which cannot be entirely removed without, what it may be hoped will gradually take place, an assimilation of the commercial laws of different countries. A partial remedy for this grievance has been found in the introduction of a clause into policies when the ship is bound to a foreign port, to this effect: general average to be paid according to the foreign statement.

**Proof of Loss.**—The policy of insurance is the instrument under which the merchant and ship-owner claim indemnification for all losses that are not specially excepted. The proof that the loss has been sustained must also be exhibited; such as the title to the vessel and cargo, and the evidence of the captain and crew to establish the circumstances out of which the claim arises. If A were to insure his vessel for the space of 12 months, and at the expiration of 6 months were to sell his ship to B: A's interest in the vessel having ceased, so also does his insurer's liability, unless the policy be sold with the ship; and B, if he wish to be protected, must make a new insurance, or purchase A's policy. Proof of ownership, therefore, is an essential preliminary to the recovery of a claim. In general practice no difficulty arises from this, because the fact of ownership is sufficiently notorious. The bill of lading is, in most cases, satisfactory proof that the cargo was on board, as well as of the amount of freight.

**Valued and Open Policies.**—If an insurance for 2,000*l.* be effected upon 100 hhd. of sugar, valued at 20*l.* per hhd., the bill of lading, showing that the vessel had 100 hhd. on board, establishes the interest at 2,000*l.*, and the policy is termed a valued policy. But if an insurance for 2,000*l.* be effected on 100 hhd. of sugar, and nothing be expressed as to value, the bill of lading only establishes that 100 hhd. are on board without establishing the amount of interest. The production of the invoice, showing the cost of the goods, is necessary to that end, the policy being termed an open one.

**Return of Premium for Short Interest.**—In a valued policy, when the whole of the property insured does not appear to have been shipped, the difference between the quantity insured and the quantity shipped is termed short interest. Thus, if 2,000*l.* be insured upon 100 hhd. of sugar, valued at 20*l.* per hhd., and 80 hhd. only be shipped; as the insurer's liability does not extend beyond 1,600*l.*, so he is obliged to return the premium upon 400*l.* to which no risk attaches. This return of premium is called a return for short interest.

**For Over-Insurance.**—In an open policy, where the value shipped is not equal to the value insured, the difference is termed over-insurance. If a merchant, A, make an insurance for 5,000*l.* upon goods, without specifying any value, from Calcutta to London, the premium being 60*s.* and the stamp duty 4*s.* per cent., the amount of interest that attaches to the policy is so fixed that he is neither to gain nor lose by the transaction in the event of the vessel's loss, supposing his insurance to be sufficient. To entitle him to recover a profit, the profit to be insured must be stipulated in the policy. The expense of insurance upon 100*l.* being 84*s.*, it is clear that

every 100*l.* insurance covers 96*l.* 16*s.* original cost; that is to say, protects the merchant from loss to that extent in case of the loss of the vessel. If, then, we assume the invoice of the goods shipped to be 40,000 rupees, or, at the exchange of 2*s.* per rupee, 4,000*l.*, the interest attaching to the policy is ascertained as follows: If 96*l.* 16*s.* cost is insured by 100*l.* insurance, what will the 4,000*l.* cost be insured by? Answer, 4,132*l.* Under such circumstances, although a policy exist for 5,000*l.*, the insured is not able to prove interest for more than 4,132*l.*; and consequently, the insured being entitled to recover no more than the sum in case of loss, the insurer is called upon to make a return of premium for over-insurance upon 868*l.*

Although we have treated separately of return for short interest and over-insurance, we should observe that these terms in practice are used indiscriminately; and indeed we cannot say that we perceive much advantage in making the distinction, or preserving the distinctive appellation.

It sometimes happens that the property expected in a vessel is not all insured at one time in one policy. But this makes no difference in the principle of settlement according to our law, although, according to the laws of most other countries, the policies take precedence of another according to their dates, the whole interest falling upon the policy or policies first effected. The foreign law, in this instance, appears to us the more equitable and reasonable of the two; and that our reason for thinking so may be intelligible, and thus gain assent to meet with refutation, we shall state a case of short interest upon a number of policies, such as not unfrequently appears.

A merchant, A, orders his correspondent at Calcutta to ship for him a quantity of sugar, not exceeding 1,000 tons, at a price not exceeding 20*l.* per ton. At due time he receives a letter from his correspondent acknowledging the receipt of his order, expressing confident hopes of being able to purchase the quantity, or the greater part of it, within the limits prescribed, and promising to advise him as he proceeds. A, on receipt of this letter, on January 1, makes a provisional insurance for 5,000*l.* upon sugar valued at 20*l.* per ton. He continues to order sugar, and without further advice, and fearing his correspondent's letter should have miscarried, and that he might have property at sea, makes on February 1, March 1, and April 1, three similar insurances, thus covering the whole quantity. He subsequently receives advice that his correspondent had not been able to purchase more than half the quantity ordered, at his limit; he recovers from his insurers half the premium upon each policy. Now, it was not at all probable that he might have received advice from his correspondent, as he expected, much earlier. And if he had received advice in the middle of February of the shipment of 500 tons, and the ship which contained them was totally wrecked on the river Hooghly, the insurers upon the first policies would have been liable for the whole loss. And it appears to us a defective arrangement by which a party, who is at all times exposed to a total loss, should at all times be compelled to return half his premium. It is not the merchant may, if he please, insert in his policies a clause by which the policies should be made to succeed one another; but we should observe that the law, in insurance cases, as in the case of the property of deceased persons, ought to be the best general disposition, leaving to individuals the right of modification according to particular circumstances.

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**Return for Double Insurance.**—Besides returns for short interest and over-insurance, there are returns for double insurance. They are, in fact, to all intents and purposes, the same thing. Double insurance exists where the party, through forgetfulness, makes an insurance upon his property twice over; or where the shippers and consignees of goods, effect each an insurance upon them; or where the captain of a vessel in foreign parts, where the captain's advices should not reach his owner, effects an insurance upon it, and the owner at the same time, acting with equal caution, effects one also. The observations already made upon returns for short interest, and upon the difference between our laws and those of other countries, apply with equal force here.

We have now gone over all the principal topics connected with marine assurance. Those who peruse this article with ordinary attention will, we hope, gain a tolerably clear insight into the principles and practice of the business; but a perfectly familiar acquaintance with it can only be acquired by those who are daily conversant with its details.

**Duty on Policies of Marine Insurance.**—This is regulated by the Act 30 Vict. c. 23. The Act of 1867 provides that—

On the passing of this Act the stamp duties now payable for policies of sea insurance shall cease and determine, and the several Acts and parts of Acts specified in the schedule marked (D.) of this Act annexed are hereby repealed, save so far as respects any policy made prior to the passing of this Act, and as respects any forfeiture or penalty incurred in respect of any offence against any enactment so repealed.

In this Act the expression 'sea insurance' means any insurance (including re-insurance) made upon any ship or vessel, or upon the machinery, tackle, or furniture of any ship or vessel, or upon any goods, merchandise, or property, of any description whatever, on board of any ship or vessel, or upon the freight of or any other interest which may be lawfully insured in or relating to any ship or vessel; and the word 'policy' means any instrument whereby a contract or agreement for sea insurance is made or entered into.

The Commissioners of Inland Revenue shall provide blank policies, printed on paper, in the form set forth in Schedule (E.) to this Act, and stamped to the duty payable under this Act; and any person may buy such blank policies, stamped with the duty which he may require, at the price of the duty: provided always, that before any stamped blank policies shall be issued, and before any vellum, parchment, or paper which is to be brought to be stamped shall be delivered to any officer of inland revenue, he shall mark or write thereon the day, month, and year of such issue or delivery, and if he wilfully neglects so to do he shall forfeit the sum of 100*l*.

The said commissioners shall keep an office in the City of London for the distribution of such policies, stamped as aforesaid, to persons engaged in the business of insurance within the City; and purchasing the same, subject to the allowance made on purchase of stamps.

Any contract or agreement for sea insurance made after the 1st day of January 1868, shall be void unless the same is expressed in a policy; and every policy shall specify the particular risk or adventure, the names of the shippers or underwriters, and the sum or sums insured; and in case any of the above-mentioned particulars shall be omitted in any policy, such

policy shall be null and void to all intents and purposes.

No policy shall be made for any time exceeding 12 months, and every policy which shall be made for any time exceeding 12 months shall be null and void to all intents and purposes.

No policy shall be pleaded or given in evidence in any court, or admitted in any court to be good or available in law or in equity, unless duly stamped; and it shall not be lawful for the said commissioners or any officer of inland revenue to stamp any policy at any time after it is signed or underwritten by any person, on any pretence whatever, except in the two cases following; that is to say,

1st. Any policy of mutual insurance having a stamp or stamps impressed thereon may, if required, be stamped with an additional stamp or stamps, provided that at the time such additional stamp or stamps shall be required, the policy shall not have been signed or underwritten to an amount exceeding the sum or sums which the stamp or stamps previously impressed thereon will warrant.

2nd. Any policy made abroad, and chargeable with duty by virtue of Section 15 of the Act of the 28th and 29th years of her Majesty's reign, cap. 96, may be stamped within the time specified in that Act.

Nothing in this Act shall extend or be construed to extend to prohibit the making of any alteration which may lawfully be made in the terms and conditions of any policy after the same shall have been underwritten; provided that such alteration be made before notice of the determination of the risk originally insured, and that it shall not prolong the time covered by the insurance thereby made beyond the period of 6 months in the case of a policy made for a less period than 6 months, or beyond the period allowed by this Act in the case of a policy made for a greater period than 6 months, and that the articles insured shall remain the property of the same person or persons, and that no additional or further sum shall be insured by reason or means of such alteration.

Where any sea insurance is made for a voyage and also for time, or to extend to or cover any time beyond 24 hours after the ship shall have arrived at her destination and been there moored at anchor, the policy shall be chargeable with duty as a policy for a voyage, and also with duty as a policy for time.

Where any carrier by sea or other person shall, in consideration of any sum of money paid or to be paid for additional freight or otherwise, agree to take upon himself any risk attending goods, merchandise, or property of any description whatever while on board any ship or vessel, or engage to indemnify the owner of any such goods, merchandise, or property from any risk, loss, or damage, such agreement or engagement shall be deemed to be a contract for a sea insurance.

If any person shall become an assurer upon any sea insurance, or shall subscribe or underwrite, or otherwise sign or make, or enter into any contract, agreement, or memorandum, for or of any sea insurance, or shall receive or contract for any premium or consideration for any sea insurance, or shall receive or charge, or take credit in account for any such premium or consideration as aforesaid, or any sum of money as or for any such premium or consideration as aforesaid, or shall wilfully or knowingly take upon himself any risk, or render himself liable to pay, or shall pay or allow, or agree to pay or allow, in account or otherwise, any sum of money upon any loss, peril, or contingency relative to any sea in-

insurance, unless such insurance shall be written on vellum, parchment, or paper duly stamped, or if any person shall be concerned in any fraudulent contrivance or device, or shall be guilty of any wilful act, neglect, or omission, with intent to evade the duties payable on policies under this Act, or whereby the duties may be evaded, every person so offending shall for every such offence forfeit the sum of 100*l*.

Every person who shall make or effect, or knowingly procure to be made or effected, any sea insurance, or shall give or pay, or render himself liable to pay, any sum of money, premium, or consideration whatever in the nature of a premium for or upon any sea insurance, or shall enter into any contract or agreement whatever for any sea insurance, unless the same insurance, contract and agreement for insurance, respectively, shall be written on vellum, parchment, or paper, being first duly stamped, shall for every such offence forfeit and pay the sum of 100*l*.; and every broker, agent, or other person negotiating or transacting any sea insurance contrary to the true intent and meaning of this Act, or writing any agreement for any sea insurance upon vellum, parchment, or paper not duly stamped, shall for every such offence forfeit the sum of 100*l*.

If any person shall make or issue, or cause to be made or issued, any document purporting to be a copy of a policy, and there shall not be in existence, at the time of such making or issue, a policy duly stamped whereof the said document shall be a copy, he shall for such offence forfeit the sum of 100*l*. in addition to any other penalty which he may have incurred under this Act.

It shall not be lawful for any broker, agent, or other person negotiating or transacting or making any sea insurance to charge his employer any sum of money for brokerage or agency, or for his pains or labour in negotiating, transacting, or making such insurance, or writing the same, or for any moneys expended or paid by way of premium or consideration in the nature of a premium for such insurance, unless the same shall be written on vellum, parchment, or paper, duly stamped; and all and every sum and sums whatever paid by such employer on any such account to any broker, agent, or other person negotiating or transacting or making any insurance contrary to this Act shall be deemed to be paid without consideration, and shall remain the property of such employer, his executors, administrators, or assigns.

This duty was reduced in 1833, and again in 1844, 1865, and 1867, and is now (1868) less than half what it was formerly.

*Schedule B, containing the Stamp Duties granted by this Act.*

For every policy of sea insurance for or upon any voyage—

In respect of every full sum of 100*l*. and in respect of any fractional part of 100*l*. thereby insured. . . . . 3

For every policy of sea insurance for time—

In respect of every full sum of 100*l*. and in respect of any fractional part of 100*l*. thereby insured—

Where the insurance shall be made for any time not exceeding 6 months . . . . . 3

Where the insurance shall be made for any time exceeding 6 months and not exceeding 12 months . . . . . 6

But if the separate and distinct interests of two or more persons shall be insured by one policy for a voyage or for time, then the duty of 3*d*. or the duty of 3*d*. or 6*d*., as the case may require, shall be charged thereon in respect of every full sum of 100*l*. and every fractional part of 100*l*. thereby insured upon any separate or distinct interest.

These reductions must, of course, be beneficial. But the tax is altogether wrong in prin-

...ple, and should be repealed altogether. Its obvious tendency is to discourage the coasting trade, by imposing a duty on goods carried by sea, from which those carried by land and canal are exempted. But the influence of the tax on vessels engaged in the foreign or colonial trade is still more objectionable. It is immaterial to a merchant sending a ship to sea, whether he insures in London, Amsterdam, or Hamburg; and as policies executed in the last two cities are either wholly exempted from duties, or subject to such as are merely nominal, the effect of the duty is to transfer to the Continent a considerable part of the business of marine insurance, that would otherwise be transacted in London. It is plain, therefore, that this duty operates to strip a valuable branch of business from amongst us, and though it had no such effect, still it is sufficiently clear that a tax on providence, or on endeavour to guarantee the safety of property at sea, is not one that ought to exist in any country, and least of all in so commercial a country as England.

(This article on Marine Insurance has been revised by a gentleman thoroughly conversant with the principles and details of the business.)

*Form of a Policy of Insurance executed at Lloyd's*

S. G. Be it known that as well in own name, as for and in the name

£ names of all and every other persons or persons to whom the same doth

Delivered the day of 1866 ) or shall appertain, in part or in all, make assurance and cause

(No. ) and them and every of them, to be insured, lost or not lost, at and from

upon any kind of goods and chandises, and also upon the body, apparel, ordnance, munition, artillery

boat and other furniture, of and in a good ship or vessel called the

whereof is master, under God for present voyage, or whose

else shall go for master in the said or by whatsoever other name or

the same ship, or the master thereof shall be named or called, beginning

adventure upon the said goods and chandises from the loading thereof

the said ship said ship, &c.

so continue and endure, during her there, upon the said ship &c.; and

ther, until the said ship, with her ordnance, tackle, apparel &c. and

and merchandises whatsoever, she arrived at upon the

ship &c., until she hath moored at twenty-four hours in good safety

upon the goods and merchandises the same be there discharged and

landed; and it shall be lawful said ship &c. in this voyage to

and sail to and touch and stay ports or places whatsoever

without prejudice to this insurance said ship &c., goods and merch

&c., for so much as concerns the by agreement between the assured

assurers in this policy, are and valued at

teaching ventures and perils which we the are contented to bear and do take

in this voyage, they are, of the men-of-war, fire, enemies, pirates, thieves, jettisons, letters of ma

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ordnance munition  
other furniture  
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arrests, restraints and detentions of all kings, princes, and people, of what nation, condition, or quality soever, barratry of the master and mariners, and of all other perils, losses, and misfortunes that have or shall come to the hurt, detriment, or damage of the said goods and merchandises and ship &c. or any part thereof; and in case of any loss or misfortune it shall be lawful to the assured, their factors, servants and assigns, to sue, labour, and travel for, in, and about the defence, safeguard, and recovery of the said goods and merchandises and ship &c. or any part thereof, without prejudice to this insurance; to the charges whereof we, the assurers, will contribute each one according to the rate and quantity of his sum herein assured. And it is agreed by us, the insurers, that this writing or policy of assurance, shall be of as much force and effect as the surest writing or policy of assurance heretofore made in Lombard Street, or in the Royal Exchange, or elsewhere in London. And so we the assurers are contented, and do hereby promise and bind ourselves, each one for his own part, our heirs, executors, and goods, to the assured, their executors, administrators, and assigns, for the true performance of the premises, confessing ourselves paid the consideration due unto us for this assurance by the assured at and after the rate of

Is Witness whereof, we the assurers have subscribed our names and sums assured in.

X.B.—Corn, fish, salt, fruit, flour, and seeds are warranted free from average, unless general, or the ship be stranded; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under five pounds per cent.; and all other goods, also the ship and freight, are warranted free from average under three pounds per cent., unless general, or the ship be stranded.

of Policy of the Royal Exchange Assurance Company.

By the Corporation of the Royal Exchange Assurance.

in the Name of God Amen.

as well in and in the name and names of all and every other person or persons to whom the same doth may or shall appertain in part or in all doth make assurance and causeth and them and every of them to be assured lost or not lost at and from

Including risk of craft to and from the ship. Free of capture and seizure and the consequences of attempt thereof.

upon any kind of goods and merchandises whatsoever laden or to be laden and also upon the body tackle apparel ordnance munition artillery boat and other furniture of and in the good ship or vessel called the

barthen whereof is master (under God) for this present voyage

or whosoever else shall go for master in the said ship or by whatsoever other name or names the same ship or the master thereof is or shall be named or called, beginning the adventure upon the said goods and merchandises from and immediately following the loading thereof on board the said ship

and upon the said ship &c. and so shall continue and endure during her abode there upon the said ship &c. And further until the said ship with all her ordnance tackle apparel &c. and goods and merchandises whatsoever shall be arrived at

Upon the said ship &c. until she hath there moored at anchor twenty-four hours in good safety, and upon the goods and merchandises until the same be there discharged and safely landed; and it shall be lawful for the said ship &c. in this voyage to proceed and sail to and touch and stay at any ports or places whatsoever without prejudice to this assurance. The said ship &c. goods and merchandises &c. for so much as concerns the assureds (by agreement made between the assureds and the said Corporation in this policy) are and shall be rated and valued at sterling, without further account to be given by the assureds for the same.

Touching the adventures and perils which the said Corporation are intended to bear and do take upon them in this voyage they are of the seas men of war fire enemies pirates rovers thieves jettisons letters of mart and counter-mart surprisals takings at sea arrests restraints and detentions of all kings princes and people of what nation condition or quality soever barratry of the master and mariners and of all other perils losses and misfortunes that have or shall come to the hurt detriment or damage of the said goods and merchandises and ship &c. or any part thereof; and in case of any loss or misfortune it shall be lawful to the assureds their factors servants and assigns to sue labour and travel for in and about the defence safeguard and recovery of the said goods and merchandises and ship &c. (or any part thereof) without prejudice to this assurance to the charges whereof the said Corporation will contribute according to the rate and quantity of the sum herein assured. And it is agreed by the said Corporation that this writing or policy of assurance shall be of as much force and effect as the surest writing or policy of assurance heretofore made in Lombard Street or in the Royal Exchange or elsewhere in London; and so the said Corporation are contented and do hereby promise and bind themselves and their successors to the assureds their executors administrators and assigns for the true performance of the premises,

confessing themselves paid the consideration due unto them for this assurance by

at and after the rate of \_\_\_\_\_ per cent.

IN WITNESS whereof the said Corporation have caused their COMMON SEAL to be herunto affixed and the sum or sums by them assured to be hereunder written at their office in the Royal Exchange of London this

\_\_\_\_\_ day of \_\_\_\_\_ in the year of our Lord one thousand eight hundred and sixty-eight.

The said Corporation are content with this assurance for

Free from all average on corn flour fish salt fruit and seed, unless general or the ship be stranded. Free from average on sugar rum hides skins hemp flax and tobacco under five per cent. and on all other goods, the ship and freight under three per cent., unless general or the ship be stranded.

By order of the Court of Directors.

III. INSURANCE (FIRE).

Insurance against fire is a contract of indemnity, by which the insurer, in consideration of a certain premium received by him, either in a gross sum or by periodical payments, undertakes to indemnify the insured against all loss or damage he may sustain on his houses or other buildings, stock, goods, and merchandise, by fire up to a certain amount during a specified period.

Insurances against fire are almost invariably made by Joint-Stock Companies, many of which are established in London, but operate by agencies throughout the country, whilst some have their chief offices in a few of the principal towns in the empire. Of these, the greater number insure at their own risk and for their own profit; but there are others, partaking more of the character of mutual insurance offices, in some of which the assured by annual policies, and in others those by septennial policies, only participate in the profit of the concern. The number of such offices is gradually diminishing. How far the insured in such companies as members become liable for the losses of the same, can only be decided by the provisions in the respective deeds of settlement.

The conditions on which the different offices insure are contained in their proposals, and are also printed on the back of every policy; and it is in most instances expressly conditioned that they undertake to pay the loss, not exceeding the sum insured, 'according to the exact tenor of their printed proposals, or according to the conditions.'

Nothing can be recovered from the insurers, in the event of loss, unless the party insured had an interest or property in the thing insured at the time when the insurance was effected, and when the loss happened. It often occurs that one office will not insure to the full amount required by an individual who has a large property; and in such case the party, to cover his whole interest, is obliged to insure at different offices. But, in order to prevent the frauds that might be practised by insuring the full value in various offices,

there are, in the proposals issued by all the companies, articles, which declare that persons insuring must give notice of any other insurance made elsewhere upon the same houses or goods, that the same may be specified and allowed by indorsement on the policy, in order that each office may bear its rateable proportion of any loss that may happen; and sometimes a clause is added, providing that unless such notice be given of each insurance to the office where another insurance is made on the same effects, the insurance made without such notice will be void.

Any trustee, mortgagee, reversioner, factor or agent, has sufficient interest in the goods under his custody to effect a policy of insurance, provided the nature of such interest be distinctly specified at the time of executing such policy.

Most of the offices stipulate in their proposals against making good any loss occasioned by 'invasion,' 'foreign enemy,' 'civil commotion,' &c.; and under this condition the Sun Fire Office was exonerated from the loss occasioned by the disgraceful proceedings of the mob in 1780.

The risk commences in general from the time the proposal is accepted by the office, unless there be some other time specified.

Policies of insurance may be effected for any period. If for a year (which is most customary) or for a term of years by a single payment it is usual for the office, by way of indulgence to allow fifteen days after each year, or term of years, for the payment of the premium of the next period in succession; and provided the premium be paid within that time the assured is considered within the protection of the office.

A policy of insurance is not in its nature assignable, not can it be transferred without express consent of the office. When, however, any person dies, his interest remains in his executors or administrators respectively, who succeed or become entitled to the property; provided their representatives respectively procure their rights to be indorsed on the policy.

(For further details, see Marshall *On Insurance*, book iv.; Park *On Insurance*, c. 23; *Law of Fire Insurance*, by C. J. Banyon.)

The nature and mode of operation of fire offices may be described as follows:—

They insure against loss or damage by fire in Great Britain and Ireland all descriptions of buildings, including mills and manufactories, goods, wares, and merchandise in the same; also in harbour or in dock; craft on navigable rivers and canals, and the goods laden on the same; waggons travelling the roads and railways; their contents; and farming stock of all descriptions.

Insurances are generally divided into *common*, *hazardous*, and *doubly hazardous*. The distinguishing characteristics of these may be described as follows:—

Common or 1st class. Buildings of brick or stone, and covered with tiles, slates, or metal.  
Hazardous or 2nd class. Buildings partly of brick or wholly constructed of timber, but covered with tiles, slates, or metal; and 1st class buildings which hazardous trades are carried on.  
Doubly hazardous, or third class. Buildings covered with thatch.

The ordinary rates when such buildings are in private occupation are:—

1st class	1s. 6d. per cent. per annum.
2nd "	2s. 6d. " "
3rd "	4s. 6d. " "

Sun	...
Albert (dis.)	...
Almace	...
Alm	...
Bank of London	...
Bank Station (dis.)	...
British Provident	...
Church of England	...
City and County	...
Commercial Union	...
County	...
Defender (dis.)	...
Emerson	...
Emery (dis.)	...
Equitable (dis.)	...
European (dis.)	...
Financial (dis.)	...
Friend in Need (dis.)	...
General	...
Globe (dis.)	...
Guarantee	...
Hand-in-Hand	...
Hibernia	...
Home and Colonial	...
Imperial	...
Law	...
Law Union	...
London	...
London and Lancashire	...
London and Southwark	...
Maritime	...
Maritime Union (dis.)	...
Notariats	...
North British and Mercantile	...
Phoenix	...
Providence	...
Prize (dis.)	...
Royal Exchange	...
Bees Farmers	...
Star (dis.)	...
Time (dis.)	...
Thames (dis.)	...
Union	...
United Kingdom Provident	...
Unity (dis.)	...
Valentine Service and Guarantee	...
Waters	...
Windsor	...
York	...

The nature of the duties the classification of charges are excluded by Act. c. 30, to Government the amount of stamp duty of 1d. on every receipt for (amount) or memorandum is effected. the office. Agriculture are, by 3 & 4 Agricultural products, and utensils may be insured, with duty, proportionate to the loss on goods or utensils undergoing an operation of fire-heat insurance office be li

*L-Duties paid to Government by the following London Fire Insurance Offices for the 9 Years ending at Christmas 1867.*

Offices	1859	1860	1861	1862	1863	1864 Duty on Stock reduced to 1s. 6d. per cent.	1865 Part at 3s. and part at 1s. 6d.	1866 Duty at 1s. 6d.	1867
Sun	205,437	206,210	206,668	209,612	205,402	195,276	118,908	108,437	112,058
Albert (dis.)	—	—	—	—	—	2 grs. 1	1,331	857	—
Alliance	45,833	46,787	46,502	46,224	47,938	50,753	46,578	37,053	39,358
Assurance	41,084	41,632	41,157	40,724	40,554	38,092	28,373	21,776	22,567
Bank of London (dis.)	—	—	—	—	—	—	—	—	—
British Nation (dis.)	—	—	—	—	—	3 grs. 990	3 grs. 991	—	1 gr. 247
British Provident (dis.)	—	—	—	—	—	—	—	—	—
Church of England	4,580	4,886	5,058	5,532	5,539	5,109	4,146	3,059	3,182
City and County (dis.)	—	—	—	—	—	602	514	3 grs. 331	—
Commercial Union	—	—	—	—	—	—	—	—	—
County	66,014	67,557	69,184	70,675	72,381	71,457	53,829	40,000	44,181
Edwards (dis.)	—	—	—	—	—	—	—	—	—
Empire	571	704	742	796	854	924	777	651	623
Empire (dis.)	—	—	—	—	—	—	—	—	—
Equitable (dis.)	2,342	3 grs. 1,796	—	—	—	—	—	—	—
Essex (dis.)	—	—	—	—	—	—	2,027	3,232	3,147
Financial (dis.)	—	—	—	—	—	—	—	107	—
Forest in Steel (dis.)	—	—	—	—	—	5 grs. 52	88	95	3 grs. 71
General	15,619	17,013	17,823	18,064	19,084	18,240	15,954	11,519	12,114
Gloucester	39,555	40,612	42,798	41,892	42,180	42,379	—	—	—
Guarantee	33,034	34,171	34,487	33,060	35,189	31,001	25,463	19,172	20,477
Hand-in-Hand	10,839	10,484	10,350	9,904	10,405	9,645	6,664	4,979	5,512
Hermes	—	—	—	—	—	2 grs. 307	715	801	884
Home and Colonial (dis.)	—	—	—	—	—	2 grs. 561	1,108	3 grs. 840	—
Imperial	55,371	57,999	62,735	59,028	61,472	58,777	43,598	34,449	34,594
Law	32,918	35,637	36,225	40,410	42,125	43,245	35,702	24,907	26,559
Law (dis.)	6,554	7,187	8,002	8,453	9,360	10,180	8,234	6,523	7,315
London	31,926	32,363	33,513	33,213	31,464	33,634	25,512	20,096	20,859
London and Lincashire	—	—	—	4,294	9,060	10,393	9,230	11,298	11,187
London and Southwark	—	—	—	—	—	1 gr. 332	1,167	1,418	1,699
Mercantile	—	—	—	—	—	—	—	—	—
Mercantile Union (dis.)	—	—	—	—	—	2 grs. 820	—	—	—
Netherlands	—	—	—	—	—	1 gr. 40	42	64	100
North British and Mercantile (London)	134,318	138,561	137,547	136,251	142,217	138,079	128,458	107,586	112,344
Phoenix	32	23	45	68	3 grs. 56	133	72	46	51
Providence	—	—	—	—	—	—	—	—	—
Royal Exchange	80,591	81,016	81,863	80,597	81,275	77,414	57,320	42,781	42,820
Royal Farmers	12,097	12,268	12,518	12,562	12,751	12,379	9,549	6,727	6,877
Star (dis.)	4,797	5,475	5,912	—	—	—	—	—	—
Times (dis.)	—	—	—	—	—	—	—	—	—
Triumph (dis.)	—	—	—	—	—	—	—	—	—
Union	29,610	30,693	31,638	31,808	31,877	29,857	20,828	15,922	16,718
United Kingdom Provident (dis.)	1,158	1,373	1,594	1,425	—	—	—	—	—
Unity (dis.)	15,334	15,564	16,076	—	—	—	—	—	—
Valence Service and General (dis.)	—	—	—	—	—	—	—	—	—
Warr	—	—	—	—	—	—	—	—	—
Warrington	32,437	33,053	31,809	33,062	32,503	31,290	21,261	17,415	18,178
Total	801,285	925,364	943,151	962,966	979,805	922,957	698,328	546,501	568,230

The nature of the tenure of a building materially affects the classification thereof for rating. These charges are exclusive of the duty payable, under Act. c. 30, to Government of 1s. 6d. per cent. on the amount of the policy. There is also a stamp duty of 1d. on each policy. There is also a stamp duty, as a contract stamp, of 1d. on every receipt for money (however small the amount) or memorandum issued when an insurance is effected. These stamp duties are borne by the office. Agricultural produce and stock on farms are, by 3 & 4 Wm. IV., exempt from duty. Agricultural produce, farming stock and implements, and utensils of husbandry, on any farm, may be insured, without the average clause, except from duty, provided it be insured to a fair value. The insurance office will not be subject to loss on goods or utensils damaged or destroyed whilst undergoing any process in which the application of fire-heat is necessary, nor will the insurance office be liable for loss on hay, corn,

seeds, or other property, occasioned by its own natural heating, but the loss on any property in consequence (except that which, by its own natural heating, has been the cause of the fire) will be made good, as well as losses from lightning, where the buildings or other effects insured have been actually set on fire thereby, and losses by explosion of gas on the premises insured.

Insurances may also be made by special agreement on the following risks, and on others of a similar description, not included in the 2nd and 3rd heads of insurances, viz. on mills of all kinds, and the stock and utensils in them; also on buildings containing kiln, steam-engine, stove, or oven, used in the process of any manufacture, and the stock therein; sugar refiners, sea biscuit bakers, distillers, varnish makers, chemists' laboratories, theatres, coach painters, colour manufacturers, varnishers, musical instrument makers, refiners of saltpetre, spermaceti, wax, and oil, barge and boat builders, carpenters, cabinet makers, coach

II.—Duties paid to Government by the following Country Fire Insurance Offices for the Years 1862, 1863, 1864, 1865, 1866, and 1867.

Offices	1862	1863	1864 Duty on Stock reduced to 1s. 6d. per cent.	1865 Part as 3s. and part as 1s. 6d.	1866 Duty at 1s. 6d.	1867
<b>ENGLAND</b>						
Birmingham (dis.)	16,231	16,552	15,761	11,828	10,343	—
Birmingham Alliance	—	—	{ 2 qrs. } 7,951	1,506	1,431	—
Birmingham District (dis.)	1,237	9,431	9,096	—	—	1,706
Essex and Suffolk	1,233	7,413	{ 2 qrs. } 7,350	5,129	3,991	4,077
Hants, Sussex, and Dorset (dis.)	2,358	3,351	{ 1 q. } 1,186	—	—	—
Kent	15,210	15,510	15,666	11,691	8,659	9,558
Leicestershire	23,838	24,911	21,940	15,392	19,050	21,029
Leeds and Yorkshire (dis.)	31,302	31,617	{ 1 q. } 10,584	—	—	—
Liverpool and London and Globe	71,424	81,525	151,099	96,492	85,081	—
Manchester	41,156	41,265	37,764	28,217	21,783	24,993
Middleland Counties, late Lincolnshire	5,062	5,303	5,225	3,885	2,803	3,431
Norwich Friendly	3,161	3,189	3,102	2,486	1,803	2,431
Norwich Union	85,972	81,154	81,567	61,128	45,003	17,591
Nottinghamshire and Derbyshire	3,175	5,555	6,307	3,149	5,114	6,099
Oldham	—	{ 1 q. } 14	17	10	11	11
Provincial	8,650	9,885	9,406	6,756	6,079	6,777
Queen	10,352	11,906	15,167	12,408	11,558	12,782
Royal Insurance, Liverpool	69,463	81,276	77,561	64,461	61,408	13,558
Salop	4,139	4,903	4,198	3,385	3,154	3,769
Sheffield (dis.)	5,728	5,926	—	—	—	—
Shropshire and North Wales	2,100	2,199	2,136	1,614	1,179	1,411
West of England	53,869	53,914	49,461	26,590	27,975	28,511
Yorkshire	25,211	23,750	22,690	16,613	12,822	13,052
<b>SCOTLAND</b>						
Scottish Union	31,917	35,909	33,776	25,515	19,414	19,579
North British and Mercantile (Edinburgh)	34,128	33,840	33,365	26,681	19,306	21,504
Caledonian	4,409	14,568	14,609	11,193	8,582	5,007
Scottish Provincial	10,140	11,010	11,005	8,592	6,796	6,833
Northern	23,981	25,782	24,513	17,341	16,608	18,002
Scottish National	7,350	7,109	7,311	5,915	4,220	4,627
Stewarton, Dunlop, and Fenwick	{ 2 qrs. } 3	3	3	3	1	1
Town and County; Dundee (dis.)	{ 1 q. } 125	252	267	—	—	—
Scottish	—	—	{ 1 q. } 492	1,370	1,505	2,001
Scottish Commercial	—	—	—	{ 1 q. } 461	2,299	3,091
Scottish Imperial	—	—	—	—	{ 3 qrs. } 715	1,539
<b>IRELAND</b>						
Emu	—	—	—	—	{ 3 qrs. } 40	1,007
National	7,019	6,893	6,062	4,218	3,423	3,551
Patriotic	6,082	5,647	4,241	3,389	2,893	2,511
Total	628,822	663,961	668,368	487,241	408,476	457,321

makers, coopers, cork burners, floor-cloth painters, jappers, lampblack makers, letter-press printers, machine makers, melters of tallow and of rough fat, candle makers, cart-grease makers, oilmen, soap-boilers, rope and sail makers, ship chandlers, hemp and flax dressers, oil leather dressers, medals, curiosities, pictures, prints, drawings, statuary work, spinners of cotton, flax, lint, and wool, throughout all the operations attending the manufacturing of these materials, from the raw state into thread for the weaver, and such other risks as, by reason of the nature of the trade, the narrowness of the situation, or other dangerous circumstances, may increase the hazard thereof: all which special hazards must be inserted in the policy to render the same valid and in force.

Gunpowder, and buildings in which it is made, cannot be insured on any terms; neither do offices insure writings of any kind, books of accounts, ready money, bonds, bills, or any other securities for money.

Insurances may be made for more years than one by a single payment, and in such cases a discount is allowed on the premium and duty for every year except the first.

Rent may be insured by a special agreement for a term not exceeding 1 year, the amount being specified in the policy.

*Insurance of mills, factories, risks of special hazard &c.*—In consequence of the very frequent changes to which the rates for mills and factories of all kinds, mercantile risks &c. are necessarily subject, arising out of the ever-varying character of the processes, nature of goods &c. on which the degree of hazard depends, details of the rates for

such risks cannot be given in any serviceable form.

N.B.—Several companies likewise insure property in foreign countries, which is not subject to the annual duty unless the same be situated in British colony, and the policy be executed in Great Britain or Ireland.

A fire insurance policy consists of—

1. *Preamble or inductive clause*, reciting the names of the parties to the contract, the payment of a certain sum as the consideration for the insurance of certain property afterwards described for a certain period and for a specified sum followed by the description of the property arranged under various heads or items whereof is of various kinds.

2. *The operative clause or obligation*; by which the company contracts, subject to the conditions annexed to the policy, to pay or make good or damage to the property insured up to the amount insured during the period for which the contract is made, or may be subsequently renewed by payment by the assured, and acceptance by the company, of the amount of premium for such renewal.

Clauses are sometimes added defining or limiting the liability of each shareholder or proprietor. The contract is then executed by the signature of 2 or more directors of the company.

3. *The conditions* printed at the foot of or on the back of the policy embrace the following points:—  
(1.) The voiding of the policy if there shall be any misrepresentation or omission in the description of the property on which the estimate of the risk is based.

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10. Prop  
11. Damag  
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12. No lia  
fire stock  
insure  
13. No lia  
H. Notice  
tion or under  
15. Goods in  
16. Average  
17. Condition  
due at time of  
18. Petition  
19. Statement  
reported by proo  
20. Arbitration  
21. Cause for re  
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INSURANCE

1866	1867
Duty at 1s. 6d.	Duty at 1s. 6d.
£ 4,383	£ 4,383
1,431	1,708
3,952	4,077
8,659	9,203
19,050	21,373
85,981	88,995
21,783	21,782
2,803	2,841
1,903	1,751
45,603	46,989
5,114	5,155
11	11
6,979	6,977
12,608	12,598
61,458	63,909
2,454	2,593
1,179	1,181
27,973	26,518
12,882	12,867
19,441	19,579
19,998	21,701
8,382	9,007
9,106	9,925
16,605	16,919
4,290	4,627
1	1
1,505	1,761
2,999	3,104
{ 3 qrs. } 715	259
{ 4 qrs. } 40	197
3,423	3,383
2,937	2,814
408,476	425,131

(2.) As to payment of premium, and the period during which the policy is in force.

(3.) Modification of the liability of the company when there are other insurances on the same property.

4. As to assignments, transfer of interest in policies in case of death, removal of property to a place other than that described &c., to be notified to the company, whose consent (of which it reserves the option to itself) is to be signified by endorsement on the policy.

5. Goods held in trust to be so stated.

6. Risks not covered specifically detailed, such as damage by invasion, foreign enemy, riot, civil commotion, or any military or usurped power.

7. Articles not insured (as pictures, china &c.) to be specially enumerated.

8. No liability for prints, paintings &c., beyond a certain amount on each, unless specifically insured.

9. Insurable articles—books of accounts, money &c.

10. Gunpowder—limit as to quantity.

11. Damage by lightning allowed when the property insured is set on fire thereby; but not damage by explosion.

12. No liability under a farming stock policy for fire stock above a certain price, unless specifically insured.

13. No liability for growing crops.

14. Notice to be given if building near completion or undergoing repair.

15. Goods in case of fire not to be abandoned.

16. Average clause.

17. Condition that in case of goods, the market value at time of fire to be the criterion of value.

18. Definition of period when insurance expires.

19. Statement of claim—how to be made and supported by proofs.

20. Arbitration clause.

21. Clause for reinstating at option of company. With reference to 'No. 16, Average Clause,' mentioned, it may be stated that frequently mercantile insurances, and sometimes for other purposes, the policy covers property in a variety of things or places in one undivided sum. The sum insured is then made subject to the average or 'pro rata' conditions under Act 9 Geo. IV. c. 13.

These sums must be insured on each separate thing, and on the contents thereof, unless excepted to the following average clause.

**Conditions of Average.**—1. It is hereby declared and agreed that whenever a sum insured is made subject to the conditions of average, the property so covered shall, at the breaking out of any fire, be collectively of greater value than the sum insured thereon, then the insurance shall pay or make good such a proportion of the loss or damage as the sum so insured bears to the whole value of the said property at the time when such fire shall first happen.

But if it is at the same time declared and agreed that if any property included in such policy shall, at the breaking out of any fire, be covered by any other policy which, whether subject to average or not, shall apply to part only of the things or places, or of the property to which the average extends, then this policy shall not cover the same excepting only as regards any excess of value beyond the amount of such other insurance, which said excess is declared to be for the protection of this policy, and subject to the average as aforesaid.

And if it is further declared and agreed that the insured shall claim under this policy for damage to property embraced in the terms of an average policy extending as well to other

buildings or places, or to other property not included in the terms of this insurance, and if at the breaking out of any fire there shall not be any such other property actually at risk to be protected by such policy, then, so far as regards the settlement and liability thereof shall be held to be concurrent in all respects with those of such other policy.

The generality of insurances in the United Kingdom are not, however, subjected to these conditions, although on the Continent and many other places abroad the pro rata condition in some form is applied to every insurance.

**Amount of Property insured.** Duty.—Insurance against fire has been practised in England for about 13 century, and is now very much adopted throughout the country.

Introduced at considerably later dates into the different countries on the Continent and in America, it is only in recent years that it has there experienced any active development.

Fire insurance was at an early period after its institution considered, though most erroneously, as we have shown in former editions of this work, to be a legitimate subject for taxation.

The amount of this oppressive and impolitic tax varied frequently, till in the 55 Geo. III. (1815) the duty was fixed at 3s. per cent., at which it remained until the year 1864, when it was reduced, for insurances on stock in trade, to 1s. 6d. per cent., and in the following year the duty was fixed at 1s. 6d. per cent. on insurance on every class of property, except farming stock, which had so far back as 1833 been, and still remains, entirely exempted from duty.

By the official accounts it appears that in the year 1863, the last entire year for which the duty of 3s. per cent. was collected, the gross amount received for insurances was as follows:—

In Great Britain	£ 1,631,817
Ireland	83,865
Total duty	1,715,182
Giving a sum covered of about	1,115,414,666

Whilst the amount insured on—

Farming stock in Great Britain and Ireland	£ 74,785,409
Total sum insured	1,218,200,075

For the year 1866, which was entirely at 1s. 6d. per cent. duty, the amount collected was for—

Great Britain	£ 918,266
Ireland	50,887
Total duty	969,153
Giving a sum insured of about	1,331,301,000
On farming stock in Great Britain and Ireland	77,379,410
Total	1,410,176,410

Much property, however, still remains uninsured, giving great scope for a further expansion of this branch of commerce.

Even if there be not, as there should be, a total abolition of this tax, no long time can probably elapse before a considerable further reduction must be made in the amount of a burden the principle of which has already been condemned by all parties.

An abstract of the duty paid to Government (almost exclusive of Ireland) during the last few years is given in Tables I. and II.

IV. INSURANCE (LIFE).

That part of the business of life insurance which consists of granting annuities upon lives is treated of under INTEREST AND ANNUITIES; so that we have only to treat, in this place, of the insurance of sums payable at the death of the insurers or their nonlives.



think very highly of the prudence of those who proceeded to insure on such an assumption. Security, we take leave again to repeat, is, in life insurances, the paramount consideration. It is, we believe, admitted on all hands that the premiums were at one time too high; but we doubt whether the tendency at present be not to sink them too low. A great relaxation has taken place, even in the most respectable offices, as to the selection of lives; and the advertisements daily appearing in the newspapers, and the practices known to be resorted to in different quarters to procure business, ought to make every prudent individual consider well what he is about before he decides upon the office with which he is to insure. Attractive statements, unless where they emanate from individuals of unquestionable character and science, ought not to go for much. Life insurance is one of the most deceptive of businesses; and offices may for a long time have all the appearance of prosperity, which are, notwithstanding, established on a very insecure foundation. If a man insure a house or a ship with a society, or an individual, of whose credit he gets doubtful, he will forthwith insure somewhere else. But life insurance is quite a different affair. The bargain is one that is not to be finally concluded for, perhaps, 50 years; and any mobility on the part of an establishment in extensive business to make good its engagements would be productive of a degree of misery not easy to be imagined.

Life insurance companies are divided into three classes. The first class consists of joint-stock companies, who undertake to pay fixed sums upon the death of the individuals insuring with them; the profits made by such companies being wholly divided among the proprietors. The second class are also joint-stock companies, with proprietary policies; but instead of undertaking, like the former, to pay certain specified sums upon the death of the insured, they allow the latter to participate, to a certain extent, along with the proprietors, in a share of the business. The mode in which this class of mixed companies allot the profits granted to the insured is not the same in all; and in some, the principle on which the allotment is made is altogether different. The Rock, Sun, Royal Exchange, Liverpool and London and Globe, Alliance, Guarantee, and Scottish Union &c. belong to this mixed class. The third species of company is that which is formed on the basis of mutual insurance. In this class of company there is no proprietary body distinct from the insured; the latter share among themselves the whole profits of the concern, after deducting the expenses of management. The Equitable Society, the Norwich Union, Scottish Widows Fund &c. belong to this class. The advantage to a person insuring in any one of these establishments, when compared with another, must plainly depend upon the comparison between the premiums demanded, and the conditions of the policy, and, above all, the security which it holds out. It may appear, on a superficial view, as if the mutual insurance companies would be in all respects the most eligible to be chosen, inasmuch as they have no proprietors to whom any share of the profits from the insured would be paid; but, however, whether this advantage be more than balanced by disadvantages incident to such establishments. Every one being a partner in the lives of all the other members, and in this capacity, should the affairs of the company get into disorder, incur some very serious liabilities. The management, too, of such a company is very apt to get into the hands of a junto, and to be conducted without the greater number of interested knowing anything of the matter.

There is also considerable difficulty, in constituting such societies, in distinguishing clearly between the rights of old and new members; for supposing the society to be prosperous, it is but reasonable that those who have belonged to it while it has accumulated a large fund should object to new entrants participating in this advantage. But the affairs of a society conducted in this way, or making distinctions in the rights of the members during a long series of years, could hardly fail of becoming at last exceedingly complicated; nor is it, indeed, at all improbable that the conflicting claims of the parties in some of the societies of this sort now in existence may ultimately have to be adjusted in the courts of law, or by an Act of the Legislature.

Supposing the premiums demanded by the societies which retain the whole profits to themselves, to be fairly proportioned to the values insured, we should be inclined to think that they are, on the whole, the most advisable to insure in. The subscribed capital of such associations as the Royal Exchange, Sun, Scottish Union &c. and the wealth of the partners (which is all liable, except in the case of the chartered companies, to the claims of the insured) afford unquestionable security. Individuals dealing with them know exactly what they are about. They know the precise premiums they will have to pay, and the exact amount of the sums that will be paid to their assignees in the event of their death. They incur some very unprecedented and unlooked-for change in their responsibility of any kind whatever; for, unless they may reckon with certainty on the terms of the policy being fulfilled to the letter.

But, as already observed, everything depends, in matters of this sort, on a comparison of the premium with the advantages to be realised. And carelessness or intentionally, in order to provide for the safety of the establishment, to be a little too high, it may be more expedient, perhaps, to deal with a mixed company. The subscribed capital and fortunes of the proprietary body afford a guarantee on which the public may depend in dealing with any respectable company of this sort; while by receiving a share of the profits, the insured gain by the flourishing condition of the association, and it is of less consequence to them though the premiums should be too high.

It should, however, be borne in mind, that an individual insuring with a mixed company, on condition of his getting a proportion of the profits, becomes a partner of such company; and being so, incurs responsibilities. In dealing with such associations as the Alliance, the Rock, Scottish Union, and a few others, this responsibility can hardly be said to amount to anything. But there are companies of this class in the field, and holding out very tempting baits to the unwary, those insured in which may find, at some future period, that this responsibility is by no means a light matter.

A highly respectable company of this mixed class, with a large subscribed capital—the Guardian—inserts in all its policies the following condition, viz.: 'That the responsibility of the individual members shall, in all cases, be limited to their respective shares.' It may be doubted whether this condition be good in law; but if it be, it materially affects the security afforded by the company, which otherwise would justly claim a place in the very first class of offices. As no one attempts to secure himself against a contingency which he is satisfied cannot happen, the existence of a condition of this sort implies a doubt on the part of the proprietary

body of the perfect solidity of the establishment. Such a doubt may be, and we believe really is, very ill-founded; but the public will, most likely, be inclined to think that the proprietors ought to know better than anyone else.

The allotment of profit to the insured made by the mixed companies is sometimes effected by a diminution of the premiums, and sometimes by increasing the sum in the policy; and individuals should, in dealing with such societies, select, other things being equal, the association with which to insure, according as they wish to insure a large sum, or to get the premiums reduced.

We subjoin, from Mr. Habbage's work on *Life Assurance*, the following statement of the terms of the various mixed companies, as to the division of the profits with the insured. They are, for the most part, exceedingly vague. (This work of Mr. Habbage contains a good deal of useful information, intermixed, however, with not a few errors and misstatements. It was most ably reviewed in the 90th Number of the *Edinburgh Review*.) We also subjoin an account of the conditions, in respect of profits, under which new entrants are admitted into the Equitable.

**Alliance.**—At the periods of participation of the Company in the profits of its concerns, every policy for the whole term of life, which shall have paid 5 entire annual premiums, shall, if the allowance be made in reduction of annual premium, be entitled to such reduction from the original charge as shall then, and from time to time, be declared; but if the allowance be in addition to the amount assured, that addition shall also be continually declared from time to time.

Persons assuring their own lives have the option of declaring at the time of effecting the assurance, whether they will participate in the profit by an addition to their policy, or by a reduction of premium.

**Atlas.**—Persons assuring for the whole term of life for 100l. and upwards, in Great Britain and Ireland respectively, will be entitled, at the end of every 5th year, to participate in the surplus premiums, to be then ascertained by actual valuation.

**Crown.**—Two-thirds of such profits as shall periodically be declared divisible will be apportioned amongst assurers for the whole term of life, and may be applied to the reduction of the future annual premiums, or to the increase of the sum assured, as may be desired.

**Economic.**—At present  $\frac{1}{3}$  of the savings and profits divided amongst the assured entitled to participate therein, by additions to their policies, proportioned to their respective contributions, and in order to afford them the immediate benefit of such additions, interest thereon applied annually in reduction of their premiums.

**Equitable.**—That in case any prospective addition shall hereafter be ordered to be made to the claims upon policies of assurance in this Society, such order shall not take effect with respect to any policy granted after December 31, 1816, until the assurances existing in the Society prior in number and date to such policy, and if of the same date, prior in the number thereof, shall be reduced to 5,000; but as soon as such reduction shall have been ascertained in manner hereinafter mentioned, the said policy shall be within the effect and operation of the order for such addition, as to the payments made thereon subsequent to such ascertained reduction; so that if such order should be made to take effect generally from January 1, 1820, for the space of 10 years then next following, a policy effected in the year 1817 shall not be within the operation of such order until the assurances exist-

ing prior to the number and date of the policy, as aforesaid, shall have been reduced to 5,000; but such policy shall be within the operation thereof from the time when the reduction shall have been ascertained, in manner hereinafter mentioned, as to the payments made thereon subsequent to such ascertained reduction. And the like as to other cases. And this by law shall be considered as a part of every such order, and shall be virtually incorporated therein, although the same may not be thereby expressly referred to.

That in case any retrospective addition shall hereafter be ordered to be made to claims upon policies of assurance in this Society, such order shall not take effect with respect to any policy granted after December 31, 1816, until the assurances existing in the Society prior in number and date, and if of the same date, prior in the number thereof, shall be reduced to 5,000; but when the said reduction shall have been ascertained in manner hereinafter mentioned, such policy shall be within the effect and operation, and entitled to the benefit of such order, with respect to every payment made thereon subsequent to such ascertained reduction; so that if such order shall be made to take effect generally as to payments made before January 1, 1820, a policy effected in the year 1817 shall not be within the effect and operation thereof, unless the life assured shall exist, and the payments continue to be made, until the assurances existing in the Society prior to the number and date of the policy, as aforesaid, shall be reduced to 5,000; but as soon as such reduction shall have been ascertained, in manner hereinafter mentioned, such policy shall be within the effect and operation of such order for the several payments made thereon as aforesaid. And the like as to other cases. And this by-law shall be considered as a part of every such order, and shall be virtually incorporated therein, although the same may not be thereby expressly referred to.

That an enquiry be made on April 1 in every year in order to ascertain the number of assurances made and existing in this Society; and when the same shall have been ascertained by such enquiry, the assurances existing prior to January 1, 1817, were, on December 31 immediately preceding such enquiry, reduced below the number of 5,000, the actuary do report the same to the court of directors, who shall communicate such report to the court of general court, to be holden in the June following; and that as many of such policies as had been made subsequent to December 31, 1816, and were existing in the Society on December 31 immediately preceding such enquiry, be added to the number, according to their dates and dates of issue, and if of the same date, according to their priority in their numbers, to those above mentioned, as shall be sufficient to complete the number to 5,000; and that the persons having the policies so added shall be considered the same as entitled to such additions as shall hereafter be made in respect of all the payments made subsequent to such ascertained reduction, and, under the same restrictions, to the privileges of attending at the general court, and of being eligible to the office of directors.

That after the vacant numbers in the assurance existing in the Society on Jan. 1, 1817, shall have been filled up agreeably to the foregoing provisions, the actuary, on April 1 in every succeeding year, do ascertain the vacancies which have taken place in the preceding year in the policies consisting of the 5,000 mentioned in the 5th resolution, and report the same to the court of directors, who shall communicate such report to the court of general court in the month of June following.

and that as to the prior of the same numbers, a number to those policies entitled to be made in respect of the 5th of the same resolution, the office of directors, provided that the same be continued to be assured by an number of payments the present by-law made.

X.B.—Those members at the least, in addition to a claim, payments shall be qualified to the number of persons interested.

Guardian.—Persons of life will be entitled to participate in the deduction of the guarantee of the estate; the deed of settlement.

The share of the annual sum either their respective policies applied in reduction of the sum payable on such policy, as declared in writing after the division of the profits, or if such option be taken, the profits will be added to the sum.

Imp.—The business of the Imperial Assurance.—Upon every year of life, the profits of the Corporation made to the actuary of such clear gains of the Imperial Assurance.—At stated in the annual report, arising from the accumulation beyond the necessary to answer the claims, they will be ascertained, and the savings as may be made, for the security of the insurance, from the proprietors' contributions, in the following manner: the proprietors' guaranties, equal to the sum, shall be added to the profits, and if it has been 3 years ascertained.

London Life Association.—The term of life will be ascertained from its transactions, and the members during life, so as to be added to the sum assured as aforesaid.

Medical and Clerical.—The term of life will be ascertained from the proprietors' contributions, in proportion to the amount of the contributions.

British Union.—The sum is added at stated intervals, and the members, in proportion to their respective contributions.

and that as many policies shall be added, according to the priority of their dates and numbers, and if of the same date, according to the priority in their numbers, as shall be sufficient to complete the number to 5,000; and that the persons holding those policies shall thenceforward be considered as entitled to such additions as shall be thereafter made in respect of all payments made subsequent to the 31st of the preceding December, and, under the same restrictions, to the same privileges of attending the general courts, and being eligible to the office of director.

Provided that nothing hereby ordered shall be construed to authorise an addition to the sum assured by any policy, upon which policy the number of payments required in that respect by the present by-laws of the Society shall not have been made.

**S.R.**—Those by-laws require that 6 annual payments at the least shall have been made before any addition to a claim can take place; and when such payments shall have been made, the party will be qualified to be received, in his turn, into the number of persons entitled to additions as aforesaid.

**Guardian.**—Persons assured for the whole term of life will be entitled at the end of every 5 years to participate in the profits of the Company, after deduction of such sum per annum, for the maintenance of the capital, as the directors may think reasonable; the extent of which is, however, limited by the deed of settlement.

The share of the profits to be so allowed to the assured may either be added to the amount of their respective policies, or the value thereof be applied in reduction of the premiums hereafter to be payable on such policies, provided such option be declared in writing within 3 calendar months next after the dividend shall have been declared; but if such option be not declared, such share of profits will be added to the amount of policies.

**Hope.**—The business of this office has been transferred to the Imperial.

**Imperial.**—Upon every policy effected for the whole term of life, the assured will participate in the profits of the Company by having periodical additions made to the sums insured to the amount of such clear gains and profits.

**Life.**—At stated periods, the surplus of the sum insured arising from the premiums of assurance, and the accumulation beyond what may be thought necessary to answer the expected claims upon the policy, will be ascertained; and as large a portion of the savings as may be deemed consistent with the security of the institution will be divided between the proprietors and the assured in the following manner:—1 will be transferred to the proprietors' guarantee fund; and rever- sionary sums, equivalent to the remaining 3, will be added to the policies of those who shall have been 3 years assured for the whole term of life.

**London Life Association.**—The distinguishing feature of this Society is, that the benefits resulting from its transactions shall be enjoyed by the assured during life, so as to render life insurance as profitable to the assured as a due regard to security and interest.

**General and Clerical.**—Persons assured for the whole term of life will be entitled to share with the proprietors the general profits of the business in proportion to the amount of their respective contributions.

**North British.**—The whole of the surplus profits is added at stated periods to the policies of the members, in proportion to the sums they respectively contributed.

**Rock.**—That the said bonus shall be short of the actual surplus profits at the time of making the same, by the sum of 5,000*l.* at least.

That the bonus so declared shall be divided into 3 equal parts.

That one of the said parts shall be added to and consolidated with the subscription capital stock. (This is the proprietors' fund.)

That the remaining 2 be allotted to the policies in the manner described in the deed.

That the sum to which any person assured by the Company may become entitled under any such distribution shall be paid by the Company without interest, at the time when the sum assured by the policy shall become payable, and not before.

**Union.**—Those who assure with this Company will participate with the proprietors in the profits of the establishment, which will be added every 7 years to the respective policies.

**University.**—As it is intended that the capital advanced shall be repaid to the shareholder with a bonus of 100*l.* per cent. 3/4 of the profits, when ascertained by a valuation of all existing risks, will every 5 years be applied to form a fund for that purpose.

The remaining 1/8 of the profits to be divided between the assured and the shareholder, in the proportion of 8 parts to the former and 1 to the latter.

The profit or bonus to the assured to be given either by a diminution of the rate of premium, or by an increase of the amount of policy, at the option of the party.

**Westminster.**—By a regulation taking effect from May 9, 1832, this Society makes a positive addition of 10 per cent. every 10th year to all sums insured on single lives, for the whole term of life, by policies issued after that date; but it no longer grants any new policies.

In order to hinder the growth of gambling transactions upon life insurance, it was judiciously enacted by stat. 14 Geo. III. c. 48 that—

No insurance shall be made by any person or persons, bodies politic or corporate, on the life or lives of any person or persons, or any other event or events whatsoever, where the person or persons, for whose use or benefit, or on whose account, such policy or policies shall be made, shall have no interest, or by way of gaining or wagering; and that every insurance made contrary to the true intent and meaning of this Act shall be null and void to all intents and purposes whatsoever. (Sec. 1.)

It shall not be lawful to make any policy or policies on the life or lives of any person or persons, or other event or events, without inserting in such policy or policies the name or names of the person or persons interested therein, or for what use, benefit, or on whose account such policy is so made or underwritten. (Sec. 2.)

In all cases where the insured has an interest in such life or lives, event or events, no greater sum shall be recovered or received from the insurer or insurers than the amount or value of the interest of the insured in such life or lives, or other event or events. (Sec. 3.)

A creditor has an insurable interest in the life of his debtor; but it was decided, in a case which arose out of a policy on the life of the late Mr. Pitt, that if, after the death of a debtor whose life is insured by a creditor, and before any action is brought on the policy, the debt be paid, no action will lie.

All insurance offices either insert in their policies or refer in them to a declaration signed by the insured, setting forth his age, or the age of the party upon whom he is making an insurance;

whether he has or has not had the small-pox, gout, &c.; 'that he is not afflicted with any disorder that tends to the shortening of life; that this declaration is to be the basis of the contract between him and the society; and that, if there be any untrue averment in it, all the money paid to the society upon account of the insurance shall be forfeited to them. (See Form, post.)

The condition as to the party not being afflicted with any disorder that tends to the shortening of life is vague, and has given rise to a good deal of discussion. But it is now settled that this condition is sufficiently complied with if the insured be in a reasonably good state of health; and although he may be afflicted with some disease, yet if it can be shown that this disease does not tend to shorten life, and was not, in fact, the cause of the party's death, the insurer will not be exonerated: 'Such a warranty,' said Lord Mansfield, 'can never mean that a man has not in him the seeds of some disorder. We are all born with the seeds of mortality in us. The only question is, whether the insured was in a *reasonably good state of health*, and such a life as ought to be insured on common terms.' (Marshall *On Insurance*, book iii.; Park *On Insurance*, c. 22.)

Policies of life insurance must be on stamped paper, the duty being as follows:—

When the sum insured shall not exceed 500*l.*, for every 50*l.*, and any fractional part of 50*l.*, 6*d.*

Exceeding 500*l.* and not exceeding 1,000*l.*, for every 100*l.* and any fractional part of 100*l.*, 1*s.*

Exceeding 1,000*l.*, for every 1,000*l.* and any fractional part of 1,000*l.*, 10*s.*

We subjoin a statement of the terms and conditions on which the Sun Life Assurance Society transacts business, and a copy of one of its policies upon the life of a person aged 30, insuring his own life for 1,000*l.* The conditions of most of the other societies are similar, and may be learned by any one, on applying either at the head offices in town or at their agents' in the country. The premiums demanded by the principal offices are exhibited in Table V.

*Sun Life*.—An assurance for a term of years, or for the whole continuance of life, is a contract on the part of the office to continue the assurance during that term, on the payment of a certain annual premium, but the assured may drop it whenever the end is answered for which the assurance was made.

An assurance for the whole duration of life may be effected either with or without participation in the profits of the society, and at an annual, half-yearly, or quarterly premium, at a premium payable during a limited number of years only, or at a single premium.

#### Conditions of Assurance.

Persons effecting assurances on the lives of others must have a pecuniary interest in the lives to the full amount assured.

Assurances effected by persons on the lives of others are not void in case of death by suicide, duelling, or the hands of justice.

In the event of the death by suicide, duelling, or the hands of justice, of persons to whom assurances have been granted on their own lives, the assurances, although void so far as respects such persons, remain in force so far as any other person or persons shall then have a bona fide interest therein, acquired three months previously to such decease by assignment, or legal or equitable lien, upon due proof of the value of such interest being made to the satisfaction of the managers, according to the claimant's debt or purchase-money, with interest, and premiums paid by him; and if any

person assured upon his own life, and who shall have been so for at least five years, die by his own hands, and not *felo de se*, the managers are at liberty, if they think proper, to pay for the benefit of his family any sum not exceeding what the society would have paid for the purchase of his interest in the policy, if it had been surrendered to the society the day previous to his decease; provided the interest in such assurance then be in the assured, or in any trustee or trustees for him, or for his wife or children.

Assurances which have become void by non-payment of the premium within fifteen days after the time stipulated in the policy, may be renewed on production of satisfactory proof to the manager of the health of the person on whose life the assurance was made, and payment of the premium within three calendar months, together with the additional sum of 10*s.* upon every 100*l.* assured by the policy.

Claims are paid within three months after certificates (according to the required forms) of the death and burial of the deceased are approved by the managers.

No assurance can take place until the first payment is made.

A certificate of birth or baptism should be produced, if possible, before the policy is issued.

Name of the life to be assured.

Profession or occupation.

Present residence.

Place of birth.

Date of birth.

Age next birth-day.

Sum.

Term.

Name and addition of the usual medical attendant of the life proposed.

Name and addition of two non-medical referees.

Has your medical referee often attended you professionally?

When did he last see you professionally, for what complaint or disease?

Has he ever attended you for any serious illness?

What was the nature of it?

Have you ever had any serious illness?

What was the nature of it?

By whom were you then attended?

Have you ever had rheumatic fever, asthma, or any fit or fits?

Have you ever been afflicted with rupture?

Have you ever exhibited any symptom of consumption or other disease of the lungs?

Are your parents living?

If not, state the diseases of which they and their ages at the time of death?

How many brothers and sisters have you had?

Have you lost any?—if so, state the nature of the diseases of which they died; and their ages at the time of death.

Have any of your near relations died of consumption of the lungs, or other pulmonary disease? If so, state the relationship, and the ages at which they died.

Are you afflicted with any disorder tending to shorten life?

Are you afflicted with disease or disorder of any kind?

What is the state of your health generally?

Have you had the small-pox or been vaccinated?

Has your life been declined by any other insurance office, or accepted at an increased premium?

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I do hereby certify that I am now in good health, that I do ordinarily enjoy a good state of health, that I am sober and temperate in my habits of life, and that I am not aware of any circumstance tending to shorten my life or to render an assurance on it more than usually hazardous.

And I do hereby further certify that I have had occasion for medical advice or assistance during the last

Also that I know no other medical practitioner so competent to certify as to my health, habits, and constitution as

in whose name is the policy desired,

Signed

Date of proposal,  
Annual notices to be sent to

Declaration to be made and signed by or on behalf of a person who proposes to make an assurance on the life of another.

I described on the other side hereof, being desirous of insuring with the Sun Life Assurance Society on the life of

also described on the other side, do hereby declare that I have an interest in his life to the full amount of the said sum of £ ; that to the best of my knowledge and belief he

ago does not exceed years; that he is now in good health, that he does ordinarily enjoy a good state of health, that he is sober and temperate in his habits of life, that the whole of the statements on the other side hereof are true, and that I am not aware of any other circumstance tending to shorten his life, or to render an assurance on it more than usually hazardous; and this declaration to be the basis of the contract between me and the said society; and if any untrue averment is contained in this declaration, or in the statements on the other side hereof, in setting forth his age, state of health, habits, profession, occupation, or other circumstances, then all moneys which shall have been paid to the society upon account of the assurance made in consequence thereof shall be void.

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\* Insert age next birthday.

subject and liable to pay and make good to the executors, administrators, or assigns of the said assured, within three months after the demise of the said assured shall have been duly certified to the managers aforesaid, at their said office, the sum of one thousand pounds sterling, of lawful money of Great Britain, with such addition or additions as the managers for the said Society may from time to time make thereto, under the powers vested in them by an Act of Parliament made and passed in the seventh year of King William IV. cap. 47.

It is hereby agreed that this policy may continue in force from year to year, until the expiration of the term first above-mentioned, provided that the said assured shall duly pay, or cause to be paid, to the managers, at their said office, on or before the nineteenth day of October next ensuing, the sum of twenty-four pounds eleven shillings and eight-pence sterling, and the like sum annually, on or before the day aforesaid; which annual payments shall be accepted, at every such period, as a full consideration for such assurance.

And it is hereby further agreed that the assurance by this policy shall be extended during peace to the risk of the above-named A. B. Esq., dying upon the sea in passing between any one part of Europe to any other part of Europe.

Provided nevertheless, that should the said assured, within the term for which this policy is granted, depart beyond the limits of Europe, die upon the seas (except as above stated), or engage in any military or naval service whatsoever, other than in the militia or in any yeomanry or volunteer corps acting within the United Kingdom of Great Britain and Ireland; or should the assurance have been obtained through any misrepresentation of the age, state of health, or description of the said assured; or should the said assured die by duelling, suicide, or the hands of justice; then this policy, and every thing appertaining thereto, shall cease, be void, and of none effect, so far as respects the said assured; but in case the said assured die by suicide, duelling, or the hands of justice, this policy shall remain in force so far as any other person or persons shall then have a bona fide interest therein, acquired three months previously to such decease by assignment, or by legal or equitable lien, upon due proof of the value of such interest being made to the satisfaction of the managers according to the claimant's debt or purchase money, with interest, and premiums paid by him. And if the said assured shall have been so for at least five years, and shall die by his own hands, and not *felo de se*, the managers shall be at liberty, if they shall think proper, to pay for the benefit of his family any sum not exceeding what the Society would have paid for the purchase of his interest in the policy if it had been surrendered to the Society the day previous to his decease, provided such interest shall then be in the assured, or in any trustee or trustees for him.

In witness whereof, we, three of the managers for the said Society, have hereunto set our hands and seals, this day of 18

*N.B. This Society is in no case bound by notice of any assignment of this policy, unless the same be delivered in writing at their office in Threadneedle Street, London.*

Signed, sealed, and delivered, being first duly stamped, in the presence of

The following are the premiums demanded by the Sun Life Assurance Society for insurances on joint lives and survivorships.

III.—Joint Lives (with Profits).—A Table of Annual Premiums payable during the Joint Continuance of 2 Lives, for assuring 100l., to be paid as soon as either of the two shall drop.

Age next Birth-day	Age next Birth-day	Annual Premium	Age next Birth-day	Age next Birth-day	Annual Premium
10	10	£ 2 7 5	25	50	£ 5 14 7
15	2 11 0	2 11 0	25	55	6 19 7
20	2 11 6	2 11 6	25	60	8 13 11
25	2 19 4	2 19 4	30	30	3 19 10
30	3 5 3	3 5 3	35	35	4 5 6
35	3 11 11	3 11 11	40	40	4 13 10
40	4 1 1	4 1 1	45	45	5 18 3
45	4 11 5	4 11 5	50	50	7 3 1
50	5 7 2	5 7 2	55	55	8 17 5
55	6 12 5	6 12 5	60	60	
60	8 6 11	8 6 11			
15	15	2 14 5	35	35	4 10 9
20	2 17 9	2 17 9	40	40	4 18 6
25	3 2 5	3 2 5	45	45	5 7 5
30	3 8 3	3 8 3	50	50	6 1 11
35	3 11 9	3 11 9	55	55	7 6 11
40	4 3 10	4 3 10	60	60	9 0 6
45	4 14 0	4 14 0	40	40	5 5 8
50	5 9 8	5 9 8	45	45	5 13 10
55	6 14 11	6 14 11	50	50	6 7 9
60	8 9 6	8 9 6	55	55	7 11 8
20	20	3 0 11	60	60	9 5 5
25	3 5 4	3 5 4	45	45	6 1 0
30	3 10 11	3 10 11	50	50	6 13 11
35	3 17 3	3 17 3	55	55	7 16 11
40	4 6 1	4 6 1	60	60	9 9 8
45	4 16 1	4 16 1	50	50	7 5 6
50	5 11 7	5 11 7	55	55	8 7 4
55	6 16 8	6 16 8	60	60	10 18 11
60	8 11 1	8 11 1	55	55	9 8 2
25	25	3 9 6	60	60	12 8 10
30	3 14 10	3 14 10			
35	4 0 11	4 0 11			
40	4 9 6	4 9 6			
45	4 19 3	4 19 3			

IV.—Survivorships (without Profits).—A Table of Annual Premiums payable during the Joint Continuance of the 2 Lives, for assuring 100l., to be paid at the decease of 1 person A, provided another B be then living.

Age of A, the Life against which the Assurance is to be made	Age of B, the Life against which the Assurance is to be made	Annual Premium	Age of A, the Life against which the Assurance is to be made	Age of B, the Life against which the Assurance is to be made	Annual Premium
10	10	£ 1 3 5	40	10	£ 2 13 7
15	1 2 2	1 2 2	40	20	2 9 10
20	1 0 7	1 0 7	40	30	2 7 7
25	0 19 5	0 19 5	40	40	2 7 7
30	0 18 0	0 18 0	40	50	1 16 6
35	0 16 7	0 16 7	40	60	1 12 8
40	0 15 3	0 15 3	40	70	1 10 2
45	0 14 1	0 14 1	50	10	3 18 6
20	10	1 7 0	50	20	3 18 4
25	1 7 6	1 7 6	50	30	3 15 0
30	1 6 0	1 6 0	50	40	3 13 6
35	1 4 0	1 4 0	50	50	3 5 6
40	1 2 2	1 2 2	50	60	2 15 5
45	1 0 5	1 0 5	50	70	2 6 3
50	0 18 9	0 18 9	50	80	1 18 11
55	0 17 4	0 17 4	60	10	6 13 8
60	1 18 3	1 18 3	60	20	6 13 7
65	1 17 11	1 17 11	60	30	6 10 9
70	1 16 0	1 16 0	60	40	6 10 6
75	1 14 8	1 14 8	60	50	6 3 9
80	1 9 9	1 9 9	60	60	5 12 0
85	1 6 11	1 6 11	60	70	4 17 10
90	1 4 8	1 4 8	60	80	4 4 11

From the specimens of premiums in the two preceding tables, the reader will easily judge of the proportional premium for any combination of two ages not inserted in them.

Equitable Assurance Society.—The following is the declaration required to be made and signed in the office, by or on the behalf of a person who proposes to make an assurance on his or her own life:—

I being desirous of becoming a member of the Society for Equitable Assurances on Lives and Survivorships, and intending to make assurance in the sum of

upon and for the continuance of my own life, and having perused and considered that clause of the deed of settlement of the said Society which requires a declaration in writing of the age, state of health, and other circumstances attending the person whose life shall be proposed to be assured, do hereby declare and set forth That my age does not exceed ; that I have

had the small-pox; and have had the gout; and that I am not afflicted with any disorder which tends to the shortening of life; and I do hereby agree that this declaration be the basis of the contract between the said Society and me, and that if any untrue averment is contained in this declaration, all moneys which shall have been paid to the Society upon account of the assurance made in consequence thereof shall be forfeited. In the Lord day of in the year of our

The following are the premiums demanded by the Equitable Society for insuring 100l., or an equivalent annuity on the contingency of one life's surviving the other:—

Life to be Assured	Ages	Life against which the Assurance is to be made	Premium	Annuitiy equivalent to 100l., to be paid from the death of Life Assured, during the remainder of the other Life	
				£ s. d.	£ s. d.
10	10	10	£ 1 9 6	£ 4 6 6	£ 4 6 6
	20	20	1 9 1	6 14 10	6 14 10
	30	30	1 7 8	7 11 11	7 11 11
	40	40	1 6 11	8 0 6	8 0 6
	50	50	1 6 11	11 17 0	11 17 0
	60	60	1 6 0	15 15 3	15 15 3
	70	70	1 4 11	17 17 0	17 17 0
	80	80	1 3 4	20 10 6	20 10 6
20	10	10	1 16 6	5 6 10	5 6 10
	20	20	1 17 0	6 8 1	6 8 1
	30	30	1 15 9	8 2 9	8 2 9
	40	40	1 13 8	9 4 11	9 4 11
	50	50	1 12 6	10 1 9	10 1 9
	60	60	1 10 6	12 0 7	12 0 7
	70	70	1 8 3	18 14 4	18 14 4
	80	80	1 8 3	20 9 6	20 9 6
30	10	10	2 6 0	5 5 9	5 5 9
	20	20	2 6 0	6 6 7	6 6 7
	30	30	2 4 6	6 17 4	6 17 4
	40	40	2 2 9	8 0 3	8 0 3
	50	50	2 0 11	9 0 8	9 0 8
	60	60	1 18 10	13 0 0	13 0 0
	70	70	1 16 7	18 18 9	18 18 9
	80	80	1 13 9	20 3 9	20 3 9
40	10	10	2 19 2	5 7 4	5 7 4
	20	20	2 19 10	5 12 9	5 12 9
	30	30	2 18 2	6 16 8	6 16 8
	40	40	2 15 11	8 1 1	8 1 1
	50	50	2 12 10	9 16 6	9 16 6
	60	60	2 9 9	12 14 3	12 14 3
	70	70	2 5 11	18 8 8	18 8 8
	80	80	2 1 10	23 19 9	23 19 9
50	10	10	4 0 11	3 1 4	3 1 4
	20	20	4 1 10	3 18 7	3 18 7
	30	30	4 0 1	6 10 1	6 10 1
	40	40	3 17 10	7 16 9	7 16 9
	50	50	3 13 10	9 12 8	9 12 8
	60	60	3 5 7	12 4 1	12 4 1
	70	70	3 1 6	17 11 5	17 11 5
	80	80	2 15 0	23 12 6	23 12 6
60	10	10	5 16 9	2 15 7	2 15 7
	20	20	5 18 1	3 10 9	3 10 9
	30	30	5 16 3	6 7 7	6 7 7
	40	40	5 11 0	7 10 10	7 10 10
	50	50	5 10 7	8 8 8	8 8 8
	60	60	5 2 4	12 3 8	12 3 8
	70	70	4 9 10	17 0 0	17 0 0
	80	80	3 17 11	23 19 9	23 19 9
70	10	10	8 1 0	4 17 1	4 17 1
	20	20	8 2 9	3 10 4	3 10 4
	30	30	8 0 9	6 4 6	6 4 6
	40	40	7 18 7	7 3 5	7 3 5
	50	50	7 15 6	9 0 8	9 0 8
	60	60	6 18 8	12 0 3	12 0 3
	70	70	6 0 9	17 1 1	17 1 1
	80	80	5 8 9	23 3 11	23 3 11

An addition of 22 per cent. computed upon premium, is charged upon military persons; an addition of eleven per cent. on officers in the army, officers in the militia, fencibles, and the levies; also on persons not having had the small-pox, or having had the gout.

Persons preferring the payment of a gross or single premium upon an assurance for any

term are charged annual premium every person may pay 5s. in the sum assured is charged at But if the per

V.—Premiums demanded by the principal Life Insurance Societies for insuring 100l. at every different Age from 15 to 60, for the whole Term of Life.

Age	Alliance and Sun		Amicable		Crown		Economic		Equitable		Eagle		Guardian		Age
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	
15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	15
16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	16
17	1	17	1	17	1	17	1	17	1	17	1	17	1	17	17
18	1	18	1	18	1	18	1	18	1	18	1	18	1	18	18
19	1	19	1	19	1	19	1	19	1	19	1	19	1	19	19
20	1	20	1	20	1	20	1	20	1	20	1	20	1	20	20
21	1	21	1	21	1	21	1	21	1	21	1	21	1	21	21
22	1	22	1	22	1	22	1	22	1	22	1	22	1	22	22
23	1	23	1	23	1	23	1	23	1	23	1	23	1	23	23
24	1	24	1	24	1	24	1	24	1	24	1	24	1	24	24
25	1	25	1	25	1	25	1	25	1	25	1	25	1	25	25
26	1	26	1	26	1	26	1	26	1	26	1	26	1	26	26
27	1	27	1	27	1	27	1	27	1	27	1	27	1	27	27
28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	28
29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	29
30	1	30	1	30	1	30	1	30	1	30	1	30	1	30	30
31	1	31	1	31	1	31	1	31	1	31	1	31	1	31	31
32	1	32	1	32	1	32	1	32	1	32	1	32	1	32	32
33	1	33	1	33	1	33	1	33	1	33	1	33	1	33	33
34	1	34	1	34	1	34	1	34	1	34	1	34	1	34	34
35	1	35	1	35	1	35	1	35	1	35	1	35	1	35	35
36	1	36	1	36	1	36	1	36	1	36	1	36	1	36	36
37	1	37	1	37	1	37	1	37	1	37	1	37	1	37	37
38	1	38	1	38	1	38	1	38	1	38	1	38	1	38	38
39	1	39	1	39	1	39	1	39	1	39	1	39	1	39	39
40	1	40	1	40	1	40	1	40	1	40	1	40	1	40	40
41	1	41	1	41	1	41	1	41	1	41	1	41	1	41	41
42	1	42	1	42	1	42	1	42	1	42	1	42	1	42	42
43	1	43	1	43	1	43	1	43	1	43	1	43	1	43	43
44	1	44	1	44	1	44	1	44	1	44	1	44	1	44	44
45	1	45	1	45	1	45	1	45	1	45	1	45	1	45	45
46	1	46	1	46	1	46	1	46	1	46	1	46	1	46	46
47	1	47	1	47	1	47	1	47	1	47	1	47	1	47	47
48	1	48	1	48	1	48	1	48	1	48	1	48	1	48	48
49	1	49	1	49	1	49	1	49	1	49	1	49	1	49	49
50	1	50	1	50	1	50	1	50	1	50	1	50	1	50	50
51	1	51	1	51	1	51	1	51	1	51	1	51	1	51	51
52	1	52	1	52	1	52	1	52	1	52	1	52	1	52	52
53	1	53	1	53	1	53	1	53	1	53	1	53	1	53	53
54	1	54	1	54	1	54	1	54	1	54	1	54	1	54	54
55	1	55	1	55	1	55	1	55	1	55	1	55	1	55	55
56	1	56	1	56	1	56	1	56	1	56	1	56	1	56	56
57	1	57	1	57	1	57	1	57	1	57	1	57	1	57	57
58	1	58	1	58	1	58	1	58	1	58	1	58	1	58	58
59	1	59	1	59	1	59	1	59	1	59	1	59	1	59	59
60	1	60	1	60	1	60	1	60	1	60	1	60	1	60	60

and that I am...  
 ch tends to the...  
 hereby agree that...  
 of the contract...  
 and that if any...  
 this declaration...  
 been paid to the...  
 assurance made in...  
 forfeited. Date...  
 in the year of...

premiums demanded by...  
 during 100l., or...  
 contingency of...

Annuitant equivalent...  
 to 100l. to be paid...  
 Life assured, during...  
 the remainder of...  
 the other Life...  
 £ s. d.  
 5 14 6  
 8 14 11  
 7 11 11  
 7 11 11  
 11 15 0  
 13 35 0  
 14 10 4  
 15 10 4  
 16 10 4  
 17 10 4  
 18 10 4  
 19 10 4  
 20 10 4  
 21 10 4  
 22 10 4  
 23 10 4  
 24 10 4  
 25 10 4  
 26 10 4  
 27 10 4  
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 29 10 4  
 30 10 4  
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 51 10 4  
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 53 10 4  
 54 10 4  
 55 10 4  
 56 10 4  
 57 10 4  
 58 10 4  
 59 10 4  
 60 10 4

Age	London, British Life		Narwich	Pelican	Promoter	University	West of England		Scottish Widows' Fund		Scottish Union		Age
	£	s. d.					£	s. d.	£	s. d.	£	s. d.	
15	1	15	1	15	1	15	1	15	1	15	1	15	15
16	1	16	1	16	1	16	1	16	1	16	1	16	16
17	1	17	1	17	1	17	1	17	1	17	1	17	17
18	1	18	1	18	1	18	1	18	1	18	1	18	18
19	1	19	1	19	1	19	1	19	1	19	1	19	19
20	1	20	1	20	1	20	1	20	1	20	1	20	20
21	1	21	1	21	1	21	1	21	1	21	1	21	21
22	1	22	1	22	1	22	1	22	1	22	1	22	22
23	1	23	1	23	1	23	1	23	1	23	1	23	23
24	1	24	1	24	1	24	1	24	1	24	1	24	24
25	1	25	1	25	1	25	1	25	1	25	1	25	25
26	1	26	1	26	1	26	1	26	1	26	1	26	26
27	1	27	1	27	1	27	1	27	1	27	1	27	27
28	1	28	1	28	1	28	1	28	1	28	1	28	28
29	1	29	1	29	1	29	1	29	1	29	1	29	29
30	1	30	1	30	1	30	1	30	1	30	1	30	30
31	1	31	1	31	1	31	1	31	1	31	1	31	31
32	1	32	1	32	1	32	1	32	1	32	1	32	32
33	1	33	1	33	1	33	1	33	1	33	1	33	33
34	1	34	1	34	1	34	1	34	1	34	1	34	34
35	1	35	1	35	1	35	1	35	1	35	1	35	35
36	1	36	1	36	1	36	1	36	1	36	1	36	36
37	1	37	1	37	1	37	1	37	1	37	1	37	37
38	1	38	1	38	1	38	1	38	1	38	1	38	38
39	1	39	1	39	1	39	1	39	1	39	1	39	39
40	1	40	1	40	1	40	1	40	1	40	1	40	40
41	1	41	1	41	1	41	1	41	1	41	1	41	41
42	1	42	1	42	1	42	1	42	1	42	1	42	42
43	1	43	1	43	1	43	1	43	1	43	1	43	43
44	1	44	1	44	1	44	1	44	1	44	1	44	44
45	1	45	1	45	1	45	1	45	1	45	1	45	45
46	1	46	1	46	1	46	1	46	1	46	1	46	46
47	1	47	1	47	1	47	1	47	1	47	1	47	47
48	1	48	1	48	1	48	1	48	1	48	1	48	48
49	1	49	1	49	1	49	1	49	1	49	1	49	49
50	1	50	1	50	1	50	1	50	1	50	1	50	50
51	1	51	1	51	1	51	1	51	1	51	1	51	51
52	1	52	1	52	1	52	1	52	1	52	1	52	52
53	1	53	1	53	1	53	1	53	1	53	1	53	53
54	1	54	1	54	1	54	1	54	1	54	1	54	54
55	1	55	1	55	1	55	1	55	1	55	1	55	55
56	1	56	1	56	1	56	1	56	1	56	1	56	56
57	1	57	1	57	1	57	1	57	1	57	1	57	57
58	1	58	1	58	1</								

VI.—A Table of Annual Premiums payable during the Continuance of Two Joint Lives for Assurances One Hundred Pounds, to be paid when either of the Lives shall drop.

Age	Age	Amount	Age	Age	Amount	Age	Age	Amount	Age	Age	Amount	Age	Age	Amount
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
10	10	2 17 1	15	35	4 3 1	20	67	9 15 9	25	67	9 15 9	45	45	6 2 7
15	3 1 1	40	4 10 4	25	25	4 0 10	30	4 5 0	35	67	7 15 0	50	50	6 2 7
20	3 2 7	45	4 19 5	30	30	4 5 0	35	4 5 0	40	67	9 15 9	55	50	6 2 7
25	3 9 3	50	5 11 3	35	35	4 10 3	40	4 10 3	45	67	9 15 9	60	50	6 2 7
30	3 15 9	55	6 6 1	40	40	4 17 4	45	4 17 4	50	67	9 15 9	65	50	6 2 7
35	3 19 6	60	7 6 0	45	45	5 0 2	50	5 0 2	55	67	9 15 9	70	50	6 2 7
40	4 6 10	67	9 9 5	50	50	5 17 10	55	5 17 10	60	67	9 15 9	75	50	6 2 7
45	4 15 11	70	11 17 5	55	55	6 12 6	60	6 12 6	65	67	9 15 9	80	50	6 2 7
50	5 7 10	75	13 5 5	60	60	7 12 5	65	7 12 5	70	67	9 15 9	85	50	6 2 7
55	6 2 8	80	14 1 9	65	65	8 15 9	70	8 15 9	75	67	9 15 9	90	50	6 2 7
60	7 2 9	85	15 4 3	70	70	9 15 9	75	9 15 9	80	67	9 15 9	95	50	6 2 7
65	8 2 8	90	16 11 3	75	75	10 15 9	80	10 15 9	85	67	9 15 9	100	50	6 2 7
70	9 6 3	95	18 4 6	80	80	11 15 9	85	11 15 9	90	67	9 15 9	105	50	6 2 7
75	10 11 3	100	19 11 3	85	85	12 15 9	90	12 15 9	95	67	9 15 9	110	50	6 2 7
80	11 11 3	105	21 4 6	90	90	13 15 9	95	13 15 9	100	67	9 15 9	115	50	6 2 7
85	12 11 3	110	22 11 3	95	95	14 15 9	100	14 15 9	105	67	9 15 9	120	50	6 2 7
90	13 11 3	115	24 4 6	100	100	15 15 9	105	15 15 9	110	67	9 15 9	125	50	6 2 7
95	14 11 3	120	25 11 3	105	105	16 15 9	110	16 15 9	115	67	9 15 9	130	50	6 2 7
100	15 11 3	125	27 4 6	110	110	17 15 9	115	17 15 9	120	67	9 15 9	135	50	6 2 7
105	16 11 3	130	28 11 3	115	115	18 15 9	120	18 15 9	125	67	9 15 9	140	50	6 2 7
110	17 11 3	135	30 4 6	120	120	19 15 9	125	19 15 9	130	67	9 15 9	145	50	6 2 7
115	18 11 3	140	31 11 3	125	125	20 15 9	130	20 15 9	135	67	9 15 9	150	50	6 2 7
120	19 11 3	145	33 4 6	130	130	21 15 9	135	21 15 9	140	67	9 15 9	155	50	6 2 7
125	20 11 3	150	34 11 3	135	135	22 15 9	140	22 15 9	145	67	9 15 9	160	50	6 2 7
130	21 11 3	155	36 4 6	140	140	23 15 9	145	23 15 9	150	67	9 15 9	165	50	6 2 7
135	22 11 3	160	37 11 3	145	145	24 15 9	150	24 15 9	155	67	9 15 9	170	50	6 2 7
140	23 11 3	165	39 4 6	150	150	25 15 9	155	25 15 9	160	67	9 15 9	175	50	6 2 7
145	24 11 3	170	40 11 3	155	155	26 15 9	160	26 15 9	165	67	9 15 9	180	50	6 2 7
150	25 11 3	175	42 4 6	160	160	27 15 9	165	27 15 9	170	67	9 15 9	185	50	6 2 7
155	26 11 3	180	43 11 3	165	165	28 15 9	170	28 15 9	175	67	9 15 9	190	50	6 2 7
160	27 11 3	185	45 4 6	170	170	29 15 9	175	29 15 9	180	67	9 15 9	195	50	6 2 7
165	28 11 3	190	46 11 3	175	175	30 15 9	180	30 15 9	185	67	9 15 9	200	50	6 2 7
170	29 11 3	195	48 4 6	180	180	31 15 9	185	31 15 9	190	67	9 15 9	205	50	6 2 7
175	30 11 3	200	49 11 3	185	185	32 15 9	190	32 15 9	195	67	9 15 9	210	50	6 2 7
180	31 11 3	205	51 4 6	190	190	33 15 9	195	33 15 9	200	67	9 15 9	215	50	6 2 7
185	32 11 3	210	52 11 3	195	195	34 15 9	200	34 15 9	205	67	9 15 9	220	50	6 2 7
190	33 11 3	215	54 4 6	200	200	35 15 9	205	35 15 9	210	67	9 15 9	225	50	6 2 7
195	34 11 3	220	55 11 3	205	205	36 15 9	210	36 15 9	215	67	9 15 9	230	50	6 2 7
200	35 11 3	225	57 4 6	210	210	37 15 9	215	37 15 9	220	67	9 15 9	235	50	6 2 7
205	36 11 3	230	58 11 3	215	215	38 15 9	220	38 15 9	225	67	9 15 9	240	50	6 2 7
210	37 11 3	235	60 4 6	220	220	39 15 9	225	39 15 9	230	67	9 15 9	245	50	6 2 7
215	38 11 3	240	61 11 3	225	225	40 15 9	230	40 15 9	235	67	9 15 9	250	50	6 2 7
220	39 11 3	245	63 4 6	230	230	41 15 9	235	41 15 9	240	67	9 15 9	255	50	6 2 7
225	40 11 3	250	64 11 3	235	235	42 15 9	240	42 15 9	245	67	9 15 9	260	50	6 2 7
230	41 11 3	255	66 4 6	240	240	43 15 9	245	43 15 9	250	67	9 15 9	265	50	6 2 7
235	42 11 3	260	67 11 3	245	245	44 15 9	250	44 15 9	255	67	9 15 9	270	50	6 2 7
240	43 11 3	265	69 4 6	250	250	45 15 9	255	45 15 9	260	67	9 15 9	275	50	6 2 7
245	44 11 3	270	70 11 3	255	255	46 15 9	260	46 15 9	265	67	9 15 9	280	50	6 2 7
250	45 11 3	275	72 4 6	260	260	47 15 9	265	47 15 9	270	67	9 15 9	285	50	6 2 7
255	46 11 3	280	73 11 3	265	265	48 15 9	270	48 15 9	275	67	9 15 9	290	50	6 2 7
260	47 11 3	285	75 4 6	270	270	49 15 9	275	49 15 9	280	67	9 15 9	295	50	6 2 7
265	48 11 3	290	76 11 3	275	275	50 15 9	280	50 15 9	285	67	9 15 9	300	50	6 2 7
270	49 11 3	295	78 4 6	280	280	51 15 9	285	51 15 9	290	67	9 15 9	305	50	6 2 7
275	50 11 3	300	79 11 3	285	285	52 15 9	290	52 15 9	295	67	9 15 9	310	50	6 2 7
280	51 11 3	305	81 4 6	290	290	53 15 9	295	53 15 9	300	67	9 15 9	315	50	6 2 7
285	52 11 3	310	82 11 3	295	295	54 15 9	300	54 15 9	305	67	9 15 9	320	50	6 2 7
290	53 11 3	315	84 4 6	300	300	55 15 9	305	55 15 9	310	67	9 15 9	325	50	6 2 7
295	54 11 3	320	85 11 3	305	305	56 15 9	310	56 15 9	315	67	9 15 9	330	50	6 2 7
300	55 11 3	325	87 4 6	310	310	57 15 9	315	57 15 9	320	67	9 15 9	335	50	6 2 7
305	56 11 3	330	88 11 3	315	315	58 15 9	320	58 15 9	325	67	9 15 9	340	50	6 2 7
310	57 11 3	335	90 4 6	320	320	59 15 9	325	59 15 9	330	67	9 15 9	345	50	6 2 7
315	58 11 3	340	91 11 3	325	325	60 15 9	330	60 15 9	335	67	9 15 9	350	50	6 2 7
320	59 11 3	345	93 4 6	330	330	61 15 9	335	61 15 9	340	67	9 15 9	355	50	6 2 7
325	60 11 3	350	94 11 3	335	335	62 15 9	340	62 15 9	345	67	9 15 9	360	50	6 2 7
330	61 11 3	355	96 4 6	340	340	63 15 9	345	63 15 9	350	67	9 15 9	365	50	6 2 7
335	62 11 3	360	97 11 3	345	345	64 15 9	350	64 15 9	355	67	9 15 9	370	50	6 2 7
340	63 11 3	365	99 4 6	350	350	65 15 9	355	65 15 9	360	67	9 15 9	375	50	6 2 7
345	64 11 3	370	100 11 3	355	355	66 15 9	360	66 15 9	365	67	9 15 9	380	50	6 2 7
350	65 11 3	375	102 4 6	360	360	67 15 9	365	67 15 9	370	67	9 15 9	385	50	6 2 7
355	66 11 3	380	103 11 3	365	365	68 15 9	370	68 15 9	375	67	9 15 9	390	50	6 2 7
360	67 11 3	385	105 4 6	370	370	69 15 9	375	69 15 9	380	67	9 15 9	395	50	6 2 7
365	68 11 3	390	106 11 3	375	375	70 15 9	380	70 15 9	385	67	9 15 9	400	50	6 2 7
370	69 11 3	395	108 4 6	380	380	71 15 9	385	71 15 9	390	67	9 15 9	405	50	6 2 7
375	70 11 3	400	109 11 3	385	385	72 15 9	390	72 15 9	395	67	9 15 9	410	50	6 2 7
380	71 11 3	405	111 4 6	390	390	73 15 9	395	73 15 9	400	67	9 15 9	415	50	6 2 7
385	72 11 3	4												

It is needless to waste the reader's time by entering into any lengthened arguments to show the inexpediency and mischievous effect of such interferences. This has been done over and over again.

It is plainly in no respect more desirable to limit the rate of interest than it would be to limit the rate of insurance, or the prices of commodities; and though it were desirable, it cannot be accomplished. The real effect of all legislative enactments having such an object in view is to increase, not diminish, the rate of interest. When the rate fixed by law is less than the market or customary rate, lenders and borrowers are obliged to resort to circuitous devices to evade the law; and as these devices are always attended with more or less trouble and risk, the rate of interest is proportionally enhanced.

During the war ended 1815 it was not uncommon for a person to be paying 10 or 12 per cent. for a loan, which, had there been no usury laws, he might have got for 6 or 7 per cent. Neither was it by any means uncommon, when the rate fixed by law was more than the market rate, for borrowers to be obliged to pay more than they really stipulated for. It is singular that an enactment which prohibited the most obvious principles, and had been repeatedly condemned by committees of the legislature, should have been allowed to preserve its place in the Statute Book for so long a period; and at length it was substantially repealed by the 2 & 3 Vict. c. 37, which exempts bills of exchange not having more than 12 months to run, and contracts for loans of money above 10*l.*, from its operation.

**Distinction of Simple and Compound Interest.**—When a loan is made, it is usual to stipulate that the interest upon it should be regularly paid at the end of every year, half-year &c. A loan of this sort is said to be at simple interest. It is of the essence of such loan that no part of the interest accruing upon it should be added to the principal to form a new principal; and though payment of the interest were not made when it becomes due, the lender would not be entitled to charge interest upon such unpaid interest. Thus, suppose 100*l.* lent at simple interest at 5 per cent., payable at the end of each year; the lender would, at the end of 4 years, supposing him to have received previous payments, be entitled to 15*l.* or 20*l.*, or more.

Sometimes, however, money or capital is invested so that the interest is not paid at the end of each year when it becomes due, but is progressively added to the principal; so that at every term a new principal is formed, consisting of the original principal and the successive accumulations of interest upon interest. Money invested in this manner is said to be placed at *compound interest*. It appears not unreasonable that when a borrower does not pay the interest he has contracted for, at the end of each year when it is due, he should pay interest upon such interest. This, however, is not allowed by the law of England; nor is it allowed to make money at compound interest. But this rule is evaded by taking a new obligation for the principal with the interest included, when the interest becomes due. Investments at compound interest are also very frequent. Thus, if an individual buy into the funds, and regularly buy up stock with the dividends, the capital will increase at compound interest; and so in any other case.

**Estimation of Interest.**—Interest is estimated at any rate per cent. per annum, or by dividing the principal into 100 equal parts, and specifying how many of these parts are paid yearly for its use. Thus, 5 per cent., or 5 parts out of 100, means

that 5*l.* are paid for the use of 100*l.* for a year, 10*l.* for the use of 200*l.*, and 2*l.* 10*s.* for the use of 500*l.* for the same period, and so on.

Suppose, now, that it is required to find the interest of 210*l.* 13*s.* for 3½ years at 4 per cent. simple interest. In this case we must first divide the principal, 210*l.* 13*s.*, into 100 parts, 4 of which will be the interest for 1 year; and this being multiplied by 3½ will give the interest for 3½ years. But instead of first dividing by 100, and then multiplying by 4, the result will be the same, and the process more expeditious, if we first multiply by 4, and then divide by 100. Thus—

£	s.	d.	
210	13		principal
		4	rate per cent.
1,00	8,42	12	8 ½ 64 1 year's interest
	20		3
8,52		25	5 64 3 years' interest
	12	4	4 3 3 ½ years' interest
8,71		20	9 9 3 ½ years' interest
	4		
	95		

It is almost superfluous to observe that the same result would have been obtained by multiplying the product of the principal and rate by the number of years, and then dividing by 100.

Hence, to find the interest of any sum at any rate per cent. for a year, multiply the sum by the rate per cent., and divide the product by 100.

To find the interest of any sum for a number of years, multiply its interest for one year by the number of years; or, without calculating its interest for one year, multiply the principal by the rate per cent. and that product by the number of years, and divide the last product by 100.

When the interest of any sum is required for a number of days, they must be treated as fractional parts of a year; that is, we must multiply the interest of a year by them, and divide by 365.

Suppose that it is required to find the interest of 210*l.* for 4 years 7 months and 25 days, at 4½ per cent.—

Principal	210
Rate per cent.	4½
	810
	105
Interest for 1 year	29.45 × 4 = 237.80 ditto for 4 years
Interest for 4 years	= 57.8000
6 months = ½ of 1 year	= 47.250
1 month = ⅙ of 6 months	= 7.875
25 days	= .6472
	£13.9597 = £13 19 <i>s.</i> 2 <i>d.</i>

The interest for 25 days is  $\frac{9.45 \times 25}{365} = .6472$ ;

that is, it is equal to the interest for a year multiplied by the fraction  $\frac{25}{365}$ . Division by 100 is performed by cutting off two figures to the right.

Many attempts have been made to contrive more expeditious processes than the above for calculating interest. The following is the best:—

Suppose it were required to find the interest upon 172*l.* for 107 days at 5 per cent.

This forms what is called in arithmetical books a double rule of three question, and would be stated as follows:—

$$\frac{\text{£ days}}{100 \times 365} :: \frac{\text{£ days}}{172 \times 107} : 2 \text{ 10 } 4\frac{1}{2} \text{ the interest required}$$

Hence, to find the interest of any sum for any number of days at any rate per cent., multiply the sum by the number of days, and the product by the rate, and divide by 36,500 (365 × 100); the quotient is the interest required.

When the rate is 5 per cent., or  $\frac{1}{20}$  of the principal, all that is required is to divide the product of the sum multiplied by the days by 7,300 (365, the days in a year, multiplied by 20). Five per cent. interest being found by this

extremely simple process, it is usual in practice to calculate 4 per cent. interest by deducting  $\frac{1}{4}$ ; 3 per cent. by deducting  $\frac{1}{3}$ ;  $2\frac{1}{2}$  per cent. by dividing by 2; 2 per cent. by taking the half of 4, and so on.

In calculating interest upon accounts current, it is requisite to state the number of days between each receipt, or payment, and the date (commonly December 31) to which the account current is made up. Thus, 172*l.* paid on September 15, bearing interest to December 31, 107 days. The amount of such interest may, then, be calculated as now explained, or by the aid of tables. The reader will find in the article BOOK-KEEPING

an example of interest on an account current computed as above, without referring to tables. June 30 is, after December 31, the most usual date to which accounts current are made up, and interest calculated. In West India houses April 30 is the common date, because at that season the old crop of produce is generally sold off, and the new begins to arrive.

It is of great importance, in calculating interest on accounts current, to be able readily to find the number of days from any day in any one month to any day in any other month. This may be done with the utmost ease by means of the annexed table.

Table for ascertaining the Number of Days from any one Day in the Year to any other Day.

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32	60	91	121	152	182	213	244	274	305	335	17	48	76	107	137	168	198	229	260	290	321	351
2	33	61	92	122	153	183	214	245	275	306	336	18	49	77	108	138	169	199	230	261	291	322	352
3	34	62	93	123	154	184	215	246	276	307	337	19	50	78	109	139	170	200	231	262	292	323	353
4	35	63	94	124	155	185	216	247	277	308	338	20	51	79	110	140	171	201	232	263	293	324	354
5	36	64	95	125	156	186	217	248	278	309	339	21	52	80	111	141	172	202	233	264	294	325	355
6	37	65	96	126	157	187	218	249	279	310	340	22	53	81	112	142	173	203	234	265	295	326	356
7	38	66	97	127	158	188	219	250	280	311	341	23	54	82	113	143	174	204	235	266	296	327	357
8	39	67	98	128	159	189	220	251	281	312	342	24	55	83	114	144	175	205	236	267	297	328	358
9	40	68	99	129	160	190	221	252	282	313	343	25	56	84	115	145	176	206	237	268	298	329	359
10	41	69	100	130	161	191	222	253	283	314	344	26	57	85	116	146	177	207	238	269	299	330	360
11	42	70	101	131	162	192	223	254	284	315	345	27	58	86	117	147	178	208	239	270	300	331	361
12	43	71	102	132	163	193	224	255	285	316	346	28	59	87	118	148	179	209	240	271	301	332	362
13	44	72	103	133	164	194	225	256	286	317	347	29	88	119	149	180	210	241	272	302	333	363	
14	45	73	104	134	165	195	226	257	287	318	348	30	89	120	150	181	211	242	273	303	334	364	
15	46	74	105	135	166	196	227	258	288	319	349	31	90	151		212	243	274	304	335	365		
16	47	75	106	136	167	197	228	259	289	320	350												

By this table may be readily ascertained the number of days from any given day in the year to another. For instance, from January 1 to August 14 (first and last days included) there are 226 days. To find the number, look down the column headed January, to number 14, and then look along in a parallel line to the column headed August—you find 226, the number required.

To find the number of days between any other two given days, when they are both after January 1, the number opposite the first day must, of course, be deducted from that opposite to the second. Thus, to find the number of days between March 13 and August 19, deduct from 231, the number in the table opposite to 19 and under August, 72, the number opposite to 13 and under March, and the remainder, 159, is the number required, 1st day included.

In leap years, one must be added to the number after February 28.

For the mode of calculating discount, or of finding the present values of sums due at some future date, at simple interest, see DISCOUNT.

In counting-houses, interest tables are very frequently made use of. Such publications have, in consequence, become very numerous. Most of them have some peculiar recommendation, and are selected according to the object in view.

When interest, instead of being simple, is compound, the first year's or term's interest must be found, and being added to the original principal, makes the principal upon which interest is to be calculated for the second year or term; and the second year's or term's interest being added to this last principal, makes that upon which interest is to be calculated for the third year or term; and so on for any number of years.

But when the number of years is considerable, this process becomes exceedingly cumbersome and tedious, and to facilitate it tables have been constructed, which are subjoined to this article.

The first of these tables (No. I.) represents the amount of 1*l.* accumulating at compound interest at 2 $\frac{1}{2}$ , 3, 3 $\frac{1}{2}$ , 4, 4 $\frac{1}{2}$ , 5, and 6 per cent. every year, from 1 year to 70 years, in pounds and decimals of a pound. Now, suppose that we wish to know how much 500*l.* will amount to in 7 years at 4 per cent. In the column marked 4 per cent. opposite to 7 years, we find 1-315,932*l.*, which that 1*l.* will, if invested at 4 per cent. compound interest, amount to 1-315,932*l.* in 7 years; and consequently, 500*l.* will, in the same time, and at the same rate, amount to 500  $\times$  1-315,932, or 657,966 that is, 657*l.* 19*s.* 4*d.*

For the same purpose of facilitating calculation the present value of 1*l.* due any number of years, hence, not exceeding 70, at 2 $\frac{1}{2}$ , 3, 3 $\frac{1}{2}$ , 4, 4 $\frac{1}{2}$ , 5, and 6 per cent. compound interest, is given in the subjoined Table, No. II. Let it, for example, be required to find the present worth of 500*l.* due hence, reckoning compound interest at 4 per cent. Opposite to 7 years, and under 4 per cent. we find .75991,781*l.*, the present worth of 500*l.* due at the end of 7 years; and multiplying this sum by 500*l.*, the product, being 379,955,890 379*l.* 19*s.* 2*d.*, is the answer required.

ANNUITIES.

1. *Annuities certain.*—When a sum of money is to be paid yearly for a certain number of years, it is called an annuity. The annuities usually met with are either for a fixed number of years, or are called *annuities certain*; for they are to be

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so long as one or more individuals shall live, and are therefore called *contingent annuities*.

By the amount of an annuity at any given time is meant the sum to which it will then amount, supposing it to have been regularly improved at compound interest during the intervening period.

The present value of an annuity for any given period is the sum of the present values of all the payments of that annuity.

Nos. III. and IV. of the subjoined tables represent the amount and present value of an annuity of 1*l.* reckoning compound interest at 2½, 3, 4, 4½, 5, and 6 per cent. from 1 year to 70. These, as well as Nos. I. and II., are taken from *Tables of Interest, Discount, and Annuities*, by John Smart, Gent. 4to. London, 1726. They are carried to 8 decimal places, and I enjoy the highest character, both here and on the Continent, for accuracy and completeness. The original work is now become very scarce.

The uses of these tables are numerous, and they are easily applied. Suppose, for example, it were required to tell the amount of an annuity of 10*l.* a year for 17 years at 4 per cent. compound interest.

Opposite to 17 (Table III.) in the column of years, and under 4 per cent., is 23·69751,239, being the amount of an annuity of 1*l.* for the given time at the given rate per cent.; and this multiplied by 50 gives 1181·8756195, or 1,181*l.* 17*s.* 6*d.*, the amount required.

Suppose, now, that it is required what sum one must pay down to receive an annuity of 50*l.* to continue for 17 years, compound interest at 4 per cent.?

Opposite to 17 years (Table IV.) and under 4 per cent. is 124666,886, the present value of an annuity of 1*l.* for the given time and at the given rate per cent.; and this multiplied by 50 gives 6,233,344,3, or 608*l.* 5*s.* 8*d.*, the present value required.

When it is required to find the *time* which must elapse in order that a given sum improved at a fixed rate of compound interest may increase to some other given sum, divide the latter sum by the former, and look for the quotient, or the number nearest to it, in Table No. I. under the rate per cent., and the years opposite to it will be the answer.—Thus,

What time will 523*l.* amount to 1,087*l.* 5*s.* 7*d.* at 4 per cent. compound interest?

Divide 1087·2794 &c. by 523, and the quotient will be 20769 &c. which, under 5 per cent. in Table No. I. is opposite to 15 years, the time required. Had it been required to find the time in which an annuity, improved at a certain rate of compound interest, would have increased to some given sum, the question would have been answered in the same manner, as above, the given sum by the former, and looking for the quotient (not in Table No. I. but in Table No. III., under the rate per cent., it would be found on a line which would give the answer.—Thus

What time will 1,000*l.* and resolves to appropriate 10*l.* of his income to its discharge: in what time will the debt be extinguished, reckoning compound interest at 4 per cent.?

1,000 divided by 10 gives 100, the number in Table No. III. under 4 per cent., and nearest to which is 99·8265 &c. opposite to 41 years, the time required. Had the rate of interest been 5 per cent., the debt would have been discharged somewhat less than 37 years. This example is given by Dr. Price (*Annuities*, 6th ed. vol. II. p. 100) and on this principle the whole fabric of the sinking fund was constructed.

Of the abstract truth of the principle there cannot, indeed, be a doubt: but everything depends on the increasing sums annually produced being immediately invested on the same terms; and this, when the sum is large, and the period long, is altogether impracticable.

Let it next be required to find an annuity which, being increased at a given rate of compound interest during a given time, will amount to a specified sum: in this case we divide the specified sum by the amount of 1*l.* for the time and rate given, as found in Table III., and the quotient is the answer.—Thus,

What annuity will amount to 1,087*l.* 5*s.* 7*d.* in 15 years at 5 per cent. compound interest?

Opposite to 15 years in Table III., and under 5 per cent., is 21·5785 &c., the amount of 1*l.* for the given time and rate; and dividing 1087·2794 &c. by this sum, the quotient 50·387 &c., or 50*l.* 7*s.* 9*d.*, is the annuity required.

*Deferred Annuities* are those which do not commence till after a certain number of years; and *reversionary annuities*, such as depend upon the occurrence of some uncertain event, as the death of an individual &c.

The present value of a deferred annuity is found by deducting, from the value of an annuity for the whole period, the value of an annuity to the term at which the reversionary annuity is to commence.—Thus,

What is the present value of an annuity of 50*l.* to continue for 25 years, commencing at 7 years from the present time, interest at 4 per cent.?

According to Table No. IV., the value of an annuity of 1*l.* for 25 years at 4 per cent. is 15·62207,995, and that of 1*l.* for 7 years is 0·00205,467, which being deducted from the other, leaves 9·62002,528, which multiplied by 50 gives 481,001,294, the answer required.

Supposing the annuity, instead of being for 25 years, had been a perpetuity, it would have been worth 1,250*l.*, from which deducting 300*l.* 2*s.*, the value of an annuity for 7 years at 4 per cent., there remains 949*l.* 18*s.*, the value of the reversion.

For a selection of problems that may be solved by tables of annuities certain, see Smart's *Tables*, pp. 92—100.

2. *Life Annuities*.—After what has been stated in the article on *INSURANCE (GENERAL PRINCIPLES OF)*, respecting tables of mortality, it will be easy to see how the value of a life annuity is calculated. Supposing—to revert to the example given before [*INSURANCE, PRINCIPLES OF*]—that it were required to find the present value of 1*l.*, the receipt of which is dependent on the contingency of a person, now 56 years of age, being alive 10 years hence, taking the Carlisle Table of Mortality, and interest at 4 per cent.: Now, according to that table, of 10,000 persons born together, 4,000 attain to 56, and 2,894 to 66 years of age. The probability that a person, now 56 years, will be alive 10 years hence, is, consequently,  $\frac{2,894}{4,000}$ ; and

the present value of 1*l.*, to be received certain 10 years hence, being 0·675564*l.*, it follows that if its receipt be made to depend on a life 56 years of age attaining to 66, its value will be reduced by that contingency to  $\frac{2,894 \times 0.675564}{4,000} = 0.488771$ ,

or 9*s.* 9*d.* If, then, we had to find the present value of an annuity of 1*l.* secured on the life of a person now 56, we should calculate in this way the present value of each of the 48 payments, which, according to the Carlisle table, he might receive, and their sum would, of course, be the present value of the annuity.

Sept.	Oct.	Nov.	Dec.
260	260	261	261
261	261	262	262
262	262	263	263
263	263	264	264
264	264	265	265
265	265	266	266
266	266	267	267
267	267	268	268
268	268	269	269
269	269	270	270
270	270	271	271
271	271	272	272
272	272	273	273
273	273	274	274
274	274	275	275
275	275	276	276
276	276	277	277
277	277	278	278
278	278	279	279
279	279	280	280

of years is considered as exceedingly small, and the tables are subjected to (No. 1) representing at compound interest, and decimals at we wish to know to in 7 years at 4 per cent. and 1·315,932*l.*, which at 4 per cent. compound interest, will amount to 1·315,932*l.* in 7 years, and at the same time, and 1·315,932*l.* or 65*l.* facilitating calculation of any number of years at 2½, 3, 3½, 4, 4½, interest, is given in Let it, for example, worth of 500*l.* compound interest at 4 per cent. and under 4 per cent. present worth of 500*l.*; and multiplying the result, being 379·500*l.* required.

**ANNUITIES.**  
When a sum of money is to be paid in a certain number of years, or annuities usually, the number of years, or the time, is to be

This statement is enough to show the principle on which all calculations of annuities depend; and in which all calculations, in fact, the method according to which they were calculated, till Mr. Simpson and which they were calculated, till Mr. Simpson and M. Euler invented a shorter and easier process, determining from the value of an annuity at any age, that of an annuity at the next younger age. There is a considerable discrepancy in the sums at which different authors, and different insurance offices, estimate the present value of life annuities payable to persons of the same age. This does not arise from any difference in the mode of calculating the annuities, but from differences in the tables of mortality employed. These can only be accurate when they are deduced from multiplied and careful observations made, during a long series of years, on a large body of persons; or when the average numbers of the whole population, and the average number of deaths at every age, for a lengthened period of the deaths at every age, for a lengthened period have been determined with the necessary care. It is to be regretted that governments, who alone have the means of ascertaining the rate of mortality by observations made on a sufficiently large scale, have been singularly inattentive to their duty in this respect; and until a very few years since, when Mr. Finlaison was employed to calculate tables of the value of annuities from the tables of the nominees in public tontines, and of ages of the nominees in Government had individuals on whose lives Government had granted annuities, all that had been done in this country to lay a solid foundation on which to construct the vast fabric of life insurance had been the work of a few private persons, who had, of course, but a limited number of observations to work upon.

The celebrated mathematician Dr. Halley was the first who calculated a table of mortality, which he deduced from observations made at Breslan, in Silesia. In 1724, M. de Moivre published his first edition of his tract on *Annuities on Lives*. In order to facilitate the calculation of their values, M. de Moivre assumed the annual decrements of life to be equal; that is, he supposed that out of 86 (the utmost limit of life on his hypothesis) persons born together, one would die every year till the whole were extinct. This assumption agreed pretty well with the true values between 30 and 70 years of age, as given in Dr. Halley's table, but was very remote from the truth in the earlier and later periods. Mr. Thomas Simpson, in his work *On Annuities and Reversions*, originally published in 1742, gave a table of mortality deduced from the London bills, and tables founded upon it of the values of annuities. But at the period when this table was calculated, the mortality in London was so much higher than in the rest of the country, that the values of the annuities given in it were far too small for general use. In 1746, M. Deparcieux published, in his *Essai sur les Probabilités de la Durée de la Vie Humaine*—a work distinguished by its perspicuity and neatness—tables of mortality deduced from observations made on the mortuary registers of several religious houses, and on lists of the nominees in several tontines. In this work separate tables were first constructed for males and females, and the greater longevity of the latter rendered apparent. M. Deparcieux's tables were a very great acquisition to the science, and are decidedly superior to some that are still extensively used. Dr. Price's famous work on *Annuities*, the first edition of which was published in 1770, contributed powerfully to direct the public attention to enquiries of this sort, and was in this respect of very great utility. Of the more recent works, the best are those of Mr. Baily and Mr. Milne, which, indeed, are both excellent.

The latter, besides all that was previously known as to the history, theory, or practice of the science, contains much new and valuable matter, and to it we beg to refer such of our readers as wish to enter fully into the subject.

The table on which Dr. Price laid the greatest stress was calculated from the burial registers kept in the parish of All Saints, Northampton, containing little more than half the population of the town. There can be no doubt, however, that well from original defects in the construction of the table as from the improvement that has since taken place in the healthiness of the public that the mortality represented in the Northampton table is, and has long been, decidedly above the average rate of mortality in England. Mr. Morgan, indeed, the late learned actuary of the Equitable Society, contended that this was not the case, and that the Society's experience shows that the Northampton table is still remarkably accurate. But the facts Mr. Morgan discusses in his *View of the Rise and Progress of the Equitable Society* (p. 42), published in 1828, are in entire variance with this opinion; for he there states that the deaths of persons insured in the Equitable Society, from 50 to 60 years of age, during 12 years previously to 1828, were 521; whereas according to the Northampton table, they should have been 545! And Mr. Milne has endeavoured to show (art. 'Annuities,' new ed. of *Encyc. Brit.*) that the discrepancy is really much greater.

The only other table used to any extent in England for the calculation of life annuities, that framed by Mr. Milne from observations by Dr. Haysman on the rate of mortality at Bristol. It gives a decidedly lower rate of mortality than the Northampton table, and there are grounds for thinking that the mortality which it represents is not very different from the rate throughout most parts of England; though it cannot be supposed that a table founded on so narrow a basis should give a perfectly fair average mortality of the entire Kingdom.

In life assurance, the first annual premium always paid at the commencement of the assurance, and the others at the termination of each year, so long as the party assured survives. Hence, beginning of the assurance, the whole of the annual premiums payable for it exceed the value of an equal annuity on the life by one purchase; and, therefore, when the value of an annuity in present money is given, the equivalent annual premium during the whole of the number of years' purchase an annuity on a life is worth, increased by 1. Thus for an annuity of 100*l.* on a life 40 years of age, according to the Carlisle Table of Mortality, at 4 per cent. interest, requires 5344*l.* in present money. Now, according to that table, an annuity on a life just 40 years of age is worth 15.074 years' purchase, so that the equivalent annual premium is  $\frac{5344}{15.074} = 354.6$

3*l.* 6*s.* 8*d.* The annual premium may be derived directly from the value of an annuity, without first calculating the present value of the assurance. (Mr. Milne's *Art. Annuities*, or the art. 'Annuities' in the edition of the *Encyc. Britannica*.)

In order to exhibit the foundations of tables of life annuities and insurance, founded in this and other countries, given, in No. VII. of the following table, of mortality that has been observed to among 1,000 children born together, or bers alive at the end of each year, till

become extinct, according to the greater part of the Dr. Hutton m 'Life Annuities.' in his work, with the Report of the Com. Friendly Societies, Carlsruhe, represents that observed annuities approach nearest to observations already and those of M. in order to calculate a person of any higher age, number of persons that column of question, by the r given age, and the We have prefixed

Table showing

Year	1/2 per Cent.
1	102500
2	102062
3	101625
4	101188
5	100751
6	100314
7	99877
8	99440
9	99003
10	98566
11	98129
12	97692
13	97255
14	96818
15	96381
16	95944
17	95507
18	95070
19	94633
20	94196
21	93759
22	93322
23	92885
24	92448
25	92011
26	91574
27	91137
28	90700
29	90263
30	89826
31	89389
32	88952
33	88515
34	88078
35	87641
36	87204
37	86767
38	86330
39	85893
40	85456
41	85019
42	84582
43	84145
44	83708
45	83271
46	82834
47	82397
48	81960
49	81523
50	81086
51	80649
52	80212
53	79775
54	79338
55	78901
56	78464
57	78027
58	77590
59	77153
60	76716
61	76279
62	75842
63	75405
64	74968
65	74531
66	74094
67	73657
68	73220
69	72783
70	72346
71	71909
72	71472
73	71035
74	70598
75	70161
76	69724
77	69287
78	68850
79	68413
80	67976
81	67539
82	67102
83	66665
84	66228
85	65791
86	65354
87	64917
88	64480
89	64043
90	63606
91	63169
92	62732
93	62295
94	61858
95	61421
96	60984
97	60547
98	60110
99	59673
100	59236



*Commons on Friendly Societies*, gives a comparative view of the results of some of the most celebrated tables of mortality, in relation to the rate of mortality, the expectation of life, the value of an annuity &c. The coincidence between the results deduced from M. Deparcieux's table and that for Carlisle is very striking; and to render the information on these subjects laid before the reader as complete as the nature of this work will admit, we have given tables (Nos. XI.—XVII.) of the value of an annuity of 1*l.* on a single life, at every age, and at 3, 4, 5, 6, 7, and 8 per cent., according to the Northampton and Carlisle tables; we have also given tables of the value of an annuity of 1*l.* on 2 equal lives, and 2 lives differing by 5 years, at 3, 4, 5, and 6 per cent., according to the same tables. It is but seldom, therefore, that our readers will require to resort to any other work for the means of solving the questions that usually occur in practice with regard to annuities: and there are not many works in which they will find so good a collection of tables. We subjoin one or

two examples of the mode of using the tables of life annuities.

Suppose it were required, what ought a person, aged 45, to give, to secure an annuity of 50*l.* a-year for life, interest at 4 per cent., according to the Carlisle table?

In Table No. XII., under 4 per cent., and opposite 45, is 14.104, the value of an annuity of 1*l.*, which being multiplied by 50, gives 705.2, or 705*l.* 4*s.* the value required. According to the Northampton table, the annuity would only have been worth 614*l.* 3*s.*

The value of an annuity on 2 lives of the same age, or on 2 lives differing by 5 years, may be found in precisely the same way.

Some questions in *reversionary* life annuities admit of an equally easy solution. Thus, suppose it is required to find the present value of A's interest in an estate worth 100*l.* a-year, falling to him at the death of B, aged 40, interest 4 per cent., according to the Carlisle table?

The value of the perpetuity of 100*l.* a-year

II.—Table showing the Present Value of 1*l.* receivable at the end of any given Year, from 1 to 70, reckoning Compound Interest at 2, 3, 3½, 4, 4½, 5, and 6 per Cent.

Years	2½ per Cent.	3 per Cent.	3½ per Cent.	4 per Cent.	4½ per Cent.	5 per Cent.	6 per Cent.
1	0.97560,976	0.97087,379	0.96618,357	0.96153,840	0.95693,760	0.95238,993	0.94789,603
2	0.95181,410	0.94299,591	0.93511,070	0.92725,221	0.91941,293	0.91159,164	0.90388,604
3	0.92859,911	0.91511,165	0.90194,270	0.88899,636	0.87629,661	0.86383,740	0.85161,700
4	0.90595,066	0.88848,705	0.87114,223	0.85400,159	0.83706,711	0.82033,016	0.80379,366
5	0.88385,124	0.86153,874	0.84029,877	0.81927,711	0.79846,571	0.77785,561	0.75744,761
6	0.86229,687	0.83518,192	0.81350,084	0.79251,731	0.77220,446	0.75216,133	0.73237,861
7	0.84126,523	0.80919,951	0.78599,691	0.76351,731	0.74174,846	0.72076,133	0.70053,661
8	0.82074,452	0.78367,423	0.75709,293	0.73237,731	0.70846,571	0.68533,016	0.66294,366
9	0.80072,836	0.75861,673	0.73007,097	0.70258,114	0.67603,446	0.65033,016	0.62544,366
10	0.78119,840	0.74009,591	0.70811,881	0.67756,671	0.64739,768	0.61759,125	0.58814,366
11	0.76214,478	0.72424,126	0.69194,571	0.66128,005	0.63101,874	0.60114,293	0.57171,700
12	0.74355,580	0.70937,288	0.68178,530	0.65139,735	0.62151,293	0.59211,125	0.56318,366
13	0.72542,438	0.69520,131	0.67109,519	0.64197,109	0.61274,446	0.58409,125	0.55591,366
14	0.70772,720	0.68111,381	0.66178,120	0.63369,608	0.60494,293	0.57714,125	0.54981,366
15	0.69046,536	0.66718,195	0.65099,002	0.62330,159	0.59494,446	0.56754,125	0.54011,366
16	0.67362,433	0.65339,433	0.63919,818	0.61001,818	0.58204,293	0.55514,125	0.52811,366
17	0.65719,246	0.64001,615	0.62700,373	0.60001,373	0.57244,446	0.54614,125	0.52011,366
18	0.64116,591	0.62739,461	0.61536,114	0.59001,373	0.56294,293	0.53714,125	0.51111,366
19	0.62552,172	0.61520,403	0.60416,859	0.57914,212	0.55214,125	0.52614,125	0.50011,366
20	0.61027,091	0.59367,575	0.58366,583	0.56838,655	0.54144,286	0.51614,125	0.49011,366
21	0.59538,620	0.57351,024	0.56453,090	0.54883,560	0.52177,443	0.49614,125	0.47011,366
22	0.58086,467	0.55928,259	0.55151,063	0.53538,633	0.50777,443	0.48214,125	0.45611,366
23	0.56669,724	0.54569,175	0.53859,263	0.52247,539	0.49433,011	0.46914,125	0.44311,366
24	0.55285,335	0.53273,374	0.52629,713	0.50981,447	0.48094,293	0.45614,125	0.43011,366
25	0.53932,059	0.52040,536	0.51461,699	0.50001,373	0.47174,446	0.44714,125	0.42111,366
26	0.52609,472	0.50839,173	0.50336,872	0.48681,212	0.45814,286	0.43414,125	0.40811,366
27	0.51316,973	0.49718,890	0.49281,655	0.47361,063	0.44514,125	0.42114,125	0.39511,366
28	0.50052,778	0.48677,875	0.48316,434	0.46121,747	0.43214,125	0.40814,125	0.38211,366
29	0.48816,125	0.47701,636	0.47414,125	0.44938,655	0.41914,125	0.39514,125	0.36911,366
30	0.47601,509	0.46789,676	0.46567,811	0.44728,001	0.41714,125	0.39314,125	0.36711,366
31	0.46411,481	0.45699,714	0.45523,035	0.43586,967	0.40514,125	0.38114,125	0.35511,366
32	0.45247,353	0.44633,573	0.44509,071	0.42505,791	0.39314,125	0.36914,125	0.34311,366
33	0.44119,498	0.43551,025	0.43471,217	0.41491,511	0.38214,125	0.35814,125	0.33211,366
34	0.43026,554	0.42539,130	0.42501,605	0.40538,209	0.37174,443	0.34714,125	0.32111,366
35	0.41967,107	0.41549,840	0.41567,581	0.39641,511	0.36144,125	0.33714,125	0.31111,366
36	0.40937,372	0.40618,215	0.40683,972	0.38798,872	0.35144,125	0.32714,125	0.30111,366
37	0.40006,709	0.39789,299	0.39895,127	0.37991,212	0.34174,443	0.31714,125	0.29111,366
38	0.39164,192	0.38951,615	0.39106,194	0.37228,533	0.33244,125	0.30714,125	0.28111,366
39	0.38401,139	0.38255,355	0.38411,250	0.36501,411	0.32344,125	0.29814,125	0.27511,366
40	0.37714,062	0.37655,981	0.37811,210	0.35818,901	0.31474,443	0.28914,125	0.27011,366
41	0.37091,625	0.37126,800	0.37281,137	0.35179,792	0.30644,125	0.28014,125	0.26311,366
42	0.36534,183	0.36655,222	0.36811,010	0.34571,425	0.29844,125	0.27214,125	0.25611,366
43	0.36036,886	0.36239,494	0.36401,599	0.34001,373	0.29074,443	0.26514,125	0.24911,366
44	0.35599,720	0.35877,175	0.36051,431	0.33474,443	0.28344,125	0.25914,125	0.24311,366
45	0.35211,140	0.35541,862	0.35721,521	0.32981,212	0.27644,125	0.25314,125	0.23711,366
46	0.34874,554	0.35274,592	0.35461,787	0.32521,063	0.26974,443	0.24714,125	0.23111,366
47	0.34587,921	0.35011,321	0.35201,908	0.32091,511	0.26344,125	0.24114,125	0.22511,366
48	0.34347,116	0.34759,880	0.34951,643	0.31691,476	0.25744,125	0.23514,125	0.21911,366
49	0.34147,370	0.34519,929	0.34711,721	0.31311,114	0.25174,443	0.22914,125	0.21311,366
50	0.33987,624	0.34281,018	0.34481,525	0.30951,212	0.24634,125	0.22314,125	0.20711,366
51	0.33864,606	0.34141,518	0.34341,580	0.30611,212	0.24114,125	0.21714,125	0.20111,366
52	0.33771,519	0.34011,249	0.34201,824	0.30281,572	0.23614,125	0.21114,125	0.19511,366
53	0.33711,876	0.33881,029	0.34071,969	0.29971,001	0.23114,125	0.20514,125	0.18911,366
54	0.33674,928	0.33761,619	0.33961,467	0.29671,173	0.22614,125	0.20014,125	0.18311,366
55	0.33647,199	0.33651,117	0.33851,814	0.29381,001	0.22114,125	0.19514,125	0.17711,366
56	0.33627,855	0.33541,019	0.33741,520	0.29101,477	0.21614,125	0.19014,125	0.17111,366
57	0.33614,537	0.33431,193	0.33631,435	0.28831,292	0.21114,125	0.18514,125	0.16511,366
58	0.33607,889	0.33321,689	0.33521,293	0.28571,063	0.20614,125	0.18014,125	0.15911,366
59	0.33606,568	0.33211,808	0.33411,701	0.28321,001	0.20114,125	0.17514,125	0.15311,366
60	0.33606,359	0.33101,309	0.33301,431	0.28081,040	0.19614,125	0.17014,125	0.14711,366
61	0.33606,150	0.33001,184	0.33201,184	0.27841,125	0.19114,125	0.16514,125	0.14111,366
62	0.33606,041	0.32901,572	0.33101,435	0.27601,114	0.18614,125	0.16014,125	0.13511,366
63	0.33606,031	0.32811,477	0.33011,511	0.27371,063	0.18114,125	0.15514,125	0.12911,366
64	0.33606,021	0.32711,994	0.32911,586	0.27141,063	0.17614,125	0.15014,125	0.12311,366
65	0.33606,011	0.32621,625	0.32811,667	0.26911,063	0.17114,125	0.14514,125	0.11711,366
66	0.33606,001	0.32531,371	0.3271,750	0.26681,063	0.16614,125	0.14014,125	0.11111,366
67	0.33606,001	0.32441,225	0.3261,834	0.26451,063	0.16114,125	0.13514,125	0.10511,366
68	0.33606,001	0.32351,187	0.3251,917	0.26221,063	0.15614,125	0.13014,125	0.09911,366
69	0.33606,001	0.32261,159	0.3241,999	0.26001,063	0.15114,125	0.12514,125	0.09311,366
70	0.33606,001	0.32171,139	0.3231,081	0.25781,063	0.14614,125	0.12014,125	0.08711,366

interest annuity per cent. leaves 99 A person of a surplus bit at 4 per cent. The value is 10.852.

III.—Table showing the Present Value of 1*l.* receivable at the end of any given Year, from 1 to 70, reckoning Compound Interest at 2, 3, 3½, 4, 4½, 5, and 6 per Cent.

Years	1 per Cent.	2 per Cent.	3 per Cent.	4 per Cent.	5 per Cent.	6 per Cent.
1	0.99010,000	0.98010,000	0.97010,000	0.96010,000	0.95010,000	0.94010,000
2	0.98010,000	0.96010,000	0.94010,000	0.92010,000	0.90010,000	0.88010,000
3	0.97010,000	0.94010,000	0.91010,000	0.88010,000	0.85010,000	0.82010,000
4	0.96010,000	0.92010,000	0.88010,000	0.84010,000	0.80010,000	0.76010,000
5	0.95010,000	0.90010,000	0.85010,000	0.80010,000	0.75010,000	0.70010,000
6	0.94010,000	0.88010,000	0.82010,000	0.76010,000	0.70010,000	0.64010,000
7	0.93010,000	0.86010,000	0.79010,000	0.72010,000	0.65010,000	0.58010,000
8	0.92010,000	0.84010,000	0.76010,000	0.68010,000	0.60010,000	0.52010,000
9	0.91010,000	0.82010,000	0.73010,000	0.64010,000	0.55010,000	0.46010,000
10	0.90010,000	0.80010,000	0.70010,000	0.60010,000	0.50010,000	0.40010,000
11	0.89010,000	0.78010,000	0.67010,000	0.56010,000	0.45010,000	0.34010,000
12	0.88010,000	0.76010,000	0.64010,000	0.52010,000	0.40010,000	0.28010,000
13	0.87010,000	0.74010,000	0.61010,000	0.49010,000	0.36010,000	0.24010,000
14	0.86010,000	0.72010,000	0.58010,000	0.46010,000	0.32010,000	0.19010,000
15	0.85010,000	0.70010,000	0.55010,000	0.44010,000	0.29010,000	0.16010,000
16	0.84010,000	0.68010,000	0.52010,000	0.42010,000	0.26010,000	0.13010,000
17	0.83010,000	0.66010,000	0.49010,000	0.40010,000	0.23010,000	0.10010,000
18	0.82010,000	0.64010,000	0.46010,000	0.38010,000	0.20010,000	0.07010,000
19	0.81010,000	0.62010,000	0.43010,000	0.36010,000	0.17010,000	0.04010,000
20	0.80010,000	0.60010,000	0.40010,000	0.34010,000	0.14010,000	0.01010,000
21	0.79010,000	0.58010,000	0.37010,000	0.32010,000	0.11010,000	0.00010,000



INTEREST AND ANNUITIES

Present Value of an Annuity of 1*l.* per Annum &c.—continued.

Years	2 1/2 per Cent.	3 per Cent.	3 1/2 per Cent.	4 per Cent.	4 1/2 per Cent.	5 per Cent.	6 per Cent.
11	9-3129,871	9-2562,110	9-09155,103	8-76017,671	8-52991,692	8-3-611,472	7-9465,457
12	10-2774,469	9-03181,398	8-66337,833	8-34507,776	8-11830,478	7-89029,801	7-5463,427
13	10-9818,197	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
14	11-6999,217	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
15	12-3517,725	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
16	13-0550,296	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
17	13-7129,774	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
18	14-3389,365	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
19	14-9389,151	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
20	15-5196,228	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
21	16-1815,857	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
22	16-7515,018	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
23	17-3409,583	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
24	17-9517,611	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
25	18-4217,611	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
26	18-9618,865	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
27	19-4781,391	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
28	19-9688,865	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
29	20-4331,391	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
30	20-9509,279	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
31	21-5010,711	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
32	21-9191,706	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
33	22-4988,308	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
34	22-7437,628	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
35	23-1451,734	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
36	23-5465,107	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
37	23-9971,811	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
38	24-3860,341	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
39	24-7031,415	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
40	25-1497,940	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
41	25-4662,400	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
42	25-8950,683	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
43	26-1661,669	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
44	26-5038,145	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
45	26-8330,340	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
46	27-1516,992	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
47	27-1674,255	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
48	27-1715,371	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
49	28-07136,947	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
50	28-3623,168	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
51	28-61618,771	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
52	28-9270,072	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
53	29-1934,918	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
54	29-1658,877	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
55	29-1597,928	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
56	29-9848,571	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
57	30-0966,120	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
58	30-4187,722	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
59	30-6813,200	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
60	30-9865,619	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
61	31-13030,657	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
62	31-51672,836	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
63	31-5778,777	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
64	31-76368,148	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
65	31-9617,706	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
66	32-166,296	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
67	32-351,766	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
68	32-531,099	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
69	32-730,511	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318
70	32-9478,698	11-5909,572	10-39275,845	9-98347,783	9-64971,412	9-39635,299	8-9768,318

V.—Table of the Progressive Decrement of Life among 1,000 Infants of each Sex, born together according to Mr. Finlaison's Observations on the Mortality of the Nominces in the Government Tontines and Life Annuities in Great Britain.

Age	Males	Females												
0	1000	1000	17	860	870	31	696	745	51	532	616	68	522	413
1	961	941	18	854	856	32	679	732	52	514	608	69	505	428
2	963	977	19	846	844	33	673	716	53	508	595	70	498	428
3	949	955	20	837	844	34	667	708	54	502	582	71	493	419
4	937	945	21	827	831	35	658	700	55	497	569	72	487	419
5	927	935	22	818	827	36	650	695	56	492	556	73	482	419
6	919	928	23	808	827	37	643	688	57	487	543	74	477	419
7	912	919	24	798	813	38	636	681	58	482	530	75	472	419
8	906	913	25	788	805	39	629	674	59	477	517	76	467	419
9	901	908	26	778	805	40	622	667	60	472	504	77	462	419
10	896	903	27	768	798	41	615	660	61	467	491	78	457	419
11	891	899	28	758	791	42	608	653	62	462	478	79	452	419
12	886	895	29	748	784	43	601	646	63	457	465	80	447	419
13	881	892	30	738	777	44	594	639	64	452	452	81	442	419
14	876	887	31	728	770	45	587	632	65	447	439	82	437	419
15	871	882	32	718	763	46	580	625	66	442	426	83	432	419
16	866	876	33	707	755	47	573	618	67	437	413	84	427	419

VI.—Table showing the Expectation of Life at every Age, according to the Observations at Northampton.

Age	Expect.								
0	25-18	17	25-20	33	26-72	40	18-49	65	10-85
1	24-74	18	24-58	34	26-68	41	17-50	67	9-86
2	37-79	19	23-99	35	26-64	42	17-02	68	8-60
3	39-53	20	32-90	36	26-60	43	16-54	69	8-60
4	41-58	21	32-59	37	26-56	44	16-06	70	8-60
5	40-81	22	31-98	38	26-52	45	15-58	71	8-17
6	41-07	23	31-36	39	26-48	46	15-10	72	7-35
7	40-36	24	30-83	40	26-44	47	14-62	73	6-94
8	39-74	25	30-35	41	26-40	48	14-15	74	6-94
9	39-14	26	29-92	42	26-36	49	13-67	75	6-94
10	38-54	27	29-50	43	26-32	50	13-20	76	6-94
11	37-93	28	29-10	44	26-28	51	12-72	77	5-81
12	37-33	29	28-72	45	26-24	52	12-24	78	5-81</

Table of Mortality; showing the Number of Persons alive at the end of every Year from 1 to 100 Years of Age, out of 1,000 born together, in the different Places, and according to the Authorities undermentioned.

Age	England			France		Sweden	Vienna	Berlin	Switzer-land	Silesia	Holland	
	Ex. Fami. London	Price Northampton	Hobbs's Carlisle	Dressing Amnutt's, &c.	Paris Part Population	Danziger Whole Population	Prague's Whole Population	Suavia	Suavia	Mout. Pays de Vaud	Italy Brescia	Frankenm. Life Annuities
1	513	743	816	745	731	768	730	512	633	811	740	804
2	431	641	779	709	638	678	630	471	508	725	638	768
3	398	582	725	682	591	635	585	430	485	735	611	736
4	379	550	701	662	567	599	571	400	454	713	585	709
5	372	530	680	617	519	583	536	373	405	701	563	689
6	368	521	668	631	523	573	511	357	387	688	546	676
7	367	509	659	691	511	566	631	311	376	677	532	661
8	365	499	654	615	501	560	605	307	367	667	523	652
9	363	492	619	607	494	556	618	331	361	659	515	616
10	357	487	616	600	488	551	611	327	356	653	508	659
11	355	483	595	585	483	547	606	324	353	644	493	652
12	353	478	640	560	480	543	602	318	350	643	497	627
13	351	474	637	583	479	538	597	314	347	639	492	621
14	350	470	631	581	476	531	594	310	344	635	488	616
15	348	465	620	578	472	529	589	308	341	631	483	611
16	346	461	626	574	468	524	586	302	338	626	479	606
17	344	457	622	570	461	519	582	299	335	622	474	601
18	342	452	618	565	459	514	574	295	332	618	470	596
19	340	446	613	561	455	508	574	291	328	614	465	590
20	338	441	609	556	452	502	570	288	324	610	461	585
21	336	437	605	551	448	496	565	284	320	606	456	577
22	334	432	601	545	438	490	560	280	315	602	451	571
23	332	428	596	540	434	484	554	276	310	597	446	566
24	329	425	592	534	430	478	548	273	305	592	441	559
25	327	421	588	529	419	471	542	269	300	587	436	551
26	324	417	583	523	414	465	535	265	295	582	431	544
27	321	413	579	517	408	458	528	261	287	577	426	535
28	318	409	575	512	402	452	520	256	281	572	421	526
29	315	405	570	506	396	445	512	251	275	567	415	517
30	313	401	566	500	388	438	519	247	269	563	409	508
31	310	397	559	495	384	432	513	243	264	558	403	499
32	307	393	553	489	377	425	507	239	259	553	397	490
33	304	389	547	481	371	418	501	235	254	548	391	481
34	301	385	542	474	366	411	495	231	249	543	384	474
35	298	381	536	467	359	404	488	226	243	539	377	465
36	294	377	531	460	353	397	482	221	237	533	370	460
37	291	373	525	454	347	390	477	216	230	527	363	453
38	288	369	519	447	341	383	471	211	223	520	356	444
39	284	364	514	440	335	376	465	206	216	515	349	439
40	281	360	508	434	329	369	459	199	209	509	342	432
41	278	355	503	427	323	362	453	193	202	503	335	425
42	275	351	497	420	317	355	447	187	195	497	328	419
43	272	347	491	413	311	348	441	181	187	491	321	413
44	269	343	485	406	305	341	435	175	180	485	314	407
45	266	339	479	399	300	334	428	170	172	479	307	400
46	263	335	473	392	294	327	422	171	177	473	300	393
47	260	331	467	385	288	320	415	165	172	467	293	386
48	257	327	461	378	282	313	408	160	167	461	286	378
49	254	323	455	371	276	306	402	155	162	455	279	370
50	251	319	449	364	270	299	395	150	157	449	272	363
51	248	315	443	357	264	292	388	145	152	443	265	355
52	245	311	437	350	258	285	381	140	147	437	258	347
53	242	307	431	343	252	278	374	135	142	431	251	339
54	239	303	425	336	246	271	367	130	137	425	244	331
55	236	299	419	329	240	264	360	125	132	419	237	323
56	233	295	413	322	234	257	353	120	127	413	230	315
57	230	291	407	315	228	250	346	115	122	407	223	307
58	227	287	401	308	222	243	339	110	117	401	216	300
59	224	283	395	301	216	236	332	105	112	395	209	292
60	221	279	389	294	210	229	325	100	107	389	202	284
61	218	275	383	287	204	222	318	95	102	383	195	276
62	215	271	377	280	198	215	311	90	97	377	188	268
63	212	267	371	273	192	208	304	85	92	371	181	260
64	209	263	365	266	186	201	297	80	87	365	174	252
65	206	259	359	259	180	194	290	75	82	359	167	244
66	203	255	353	252	174	187	283	70	79	353	160	236
67	200	251	347	245	168	180	276	65	74	347	153	228
68	197	247	341	238	162	173	269	60	69	341	146	220
69	194	243	335	231	156	166	262	55	64	335	139	212
70	191	239	329	224	150	159	255	50	59	329	132	204
71	188	235	323	217	144	152	248	45	54	323	125	196
72	185	231	317	210	138	145	241	40	49	317	118	188
73	182	227	311	203	132	138	234	35	44	311	111	180
74	179	223	305	196	126	131	227	30	39	305	104	172
75	176	219	299	189	120	124	220	25	34	299	97	164
76	173	215	293	182	114	117	213	20	29	293	90	156
77	170	211	287	175	108	110	206	15	24	287	83	148
78	167	207	281	168	102	103	199	10	19	281	76	140
79	164	203	275	161	96	96	192	5	14	275	69	132
80	161	199	269	154	90	90	185	0	9	269	62	124
81	158	195	263	147	84	84	178	0	4	263	55	116
82	155	191	257	140	78	78	171	0	0	257	48	108
83	152	187	251	133	72	72	164	0	0	251	41	100
84	149	183	245	126	66	66	157	0	0	245	34	92
85	146	179	239	119	60	60	150	0	0	239	27	84
86	143	175	233	112	54	54	143	0	0	233	20	76
87	140	171	227	105	48	48	136	0	0	227	13	68
88	137	167	221	98	42	42	129	0	0	221	6	60
89	134	163	215	91	36	36	122	0	0	215	0	52
90	131	159	209	84	30	30	115	0	0	209	0	44
91	128	155	203	77	24	24	108	0	0	203	0	36
92	125	151	197	70	18	18	101	0	0	197	0	28
93	122	147	191	63	12	12	94	0	0	191	0	20
94	119	143	185	56	6	6	87	0	0	185	0	12
95	116	139	179	49	0	0	80	0	0	179	0	4
96	113	135	173	42	0	0	73	0	0	173	0	0
97	110	131	167	35	0	0	66	0	0	167	0	0
98	107	127	161	28	0	0	59	0	0	161	0	0
99	104	123	155	21	0	0	52	0	0	155	0	0
100	101	119	149	14	0	0	45	0	0	149	0	0

Sex, born together in the Year

Age	Male	Female
413	67	66
408	66	65
403	65	64
398	64	63
393	63	62
388	62	61
383	61	60
378	60	59
373	59	58
368	58	57
363	57	56
358	56	55
353	55	54
348	54	53
343	53	52
338	52	51
333	51	50
328	50	49
323	49	48
318	48	47
313	47	46
308	46	45
303	45	44
298	44	43
293	43	42
288	42	41
283	41	40
278	40	39
273	39	38
268	38	37
263	37	36
258	36	35
253	35	34
248	34	33
243	33	32
238	32	31
233	31	30
228	30	29
223	29	28
218	28	27
213	27	26
208	26	25
203	25	24
198	24	23
193	23	22
188	22	21
183	21	20
178	20	19
173	19	18
168	18	17
163		





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1.2 12.2  
1.0 12.0  
0.8

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VIII.—Table showing the Expectation of Life at every Age, according to the Observations made at Carlisle.

Age	Expect.										
0	38.72	18	42.87	36	30.92	55	18.97	70	9.19	85	3.71
1	41.68	19	42.17	37	29.64	54	19.28	71	8.65	84	3.59
2	47.55	20	41.46	38	28.96	55	17.58	72	8.16	83	3.47
3	49.82	21	40.75	39	28.28	56	16.89	73	7.72	82	3.35
4	50.56	22	40.05	40	27.61	57	16.21	74	7.33	81	3.23
5	51.25	23	39.31	41	26.97	58	15.55	75	7.01	80	3.11
6	51.17	24	38.59	42	26.34	59	14.92	76	6.69	79	3.00
7	50.80	25	37.86	43	25.71	60	14.34	77	6.40	78	2.89
8	50.24	26	37.14	44	25.09	61	13.82	78	6.12	77	2.78
9	49.57	27	36.41	45	24.46	62	13.31	79	5.86	76	2.67
10	48.82	28	35.69	46	23.82	63	12.81	80	5.61	75	2.56
11	48.01	29	35.00	47	23.17	64	12.30	81	5.37	74	2.45
12	47.27	30	34.31	48	22.50	65	11.79	82	5.13	73	2.34
13	46.51	31	33.62	49	21.81	66	11.27	83	4.89	72	2.23
14	45.75	32	33.01	50	21.11	67	10.75	84	4.65	71	2.12
15	45.00	33	32.36	51	20.39	68	10.23	85	4.42	70	2.01
16	44.27	34	31.68	52	19.68	69	9.70	86	4.19	69	1.90
17	43.57	35	31.00								

IX.—English Life Table, denoting the Expectation of Life at every Age, compiled by Dr. Farr from the Returns of Deaths, and published by and for the Government, 1864.

Age or past life-time	Mean after lifetime		Age or past life-time	Mean after lifetime		Age or past life-time	Mean after lifetime		Age or past life-time	Mean after lifetime	
	Males	Females									
	years	years									
0	39.91	41.85	26	35.11	36.79	52	18.44	18.44	79	5.51	5.88
1	46.65	47.31	27	34.77	25.75	53	17.67	17.67	80	5.21	5.58
2	48.83	49.40	28	34.10	5.0-10	54	17.06	18.08	81	4.93	5.26
3	49.61	50.99	29	33.13	31.46	55	16.15	17.93	82	4.66	4.98
4	49.81	50.45	30	32.76	23.81	56	15.56	16.79	83	4.41	4.73
5	49.71	50.33	31	32.09	55.17	57	15.26	16.17	84	4.17	4.49
6	49.39	50.09	32	31.42	22.53	58	14.68	15.55	85	3.95	4.21
7	48.92	49.53	33	30.74	31.88	59	14.10	14.94	86	3.73	3.98
8	48.37	48.98	34	30.07	31.25	60	13.53	14.34	87	3.53	3.72
9	47.74	48.35	35	29.40	30.50	61	12.96	13.75	88	3.34	3.50
10	47.05	47.67	36	28.73	29.74	62	12.41	13.17	89	3.16	3.30
11	46.31	46.95	37	28.06	29.29	63	11.87	12.60	90	3.00	3.10
12	45.54	46.20	38	27.39	28.64	64	11.34	12.05	91	2.84	3.01
13	44.76	45.41	39	26.72	27.99	65	10.82	11.51	92	2.69	2.83
14	43.97	44.66	40	26.06	27.34	66	10.32	10.98	93	2.55	2.65
15	43.18	43.91	41	25.39	26.65	67	9.83	10.47	94	2.41	2.55
16	42.40	43.14	42	24.73	26.03	68	9.36	9.97	95	2.29	2.42
17	41.61	42.40	43	24.07	25.38	69	8.90	9.48	96	2.17	2.31
18	40.90	41.67	44	23.41	24.72	70	8.45	9.02	97	2.06	2.21
19	40.17	40.97	45	22.76	24.06	71	8.01	8.57	98	1.95	2.10
20	39.48	40.29	46	22.11	23.40	72	7.62	8.13	99	1.85	2.00
21	38.80	39.63	47	21.46	22.74	73	7.22	7.71	100	1.76	1.90
22	38.13	38.98	48	20.82	22.08	74	6.85	7.31		1.67	1.80
23	37.46	38.33	49	20.17	21.42	75	6.49	6.93		1.58	1.70
24	36.79	37.68	50	19.54	20.75	76	6.15	6.56			
25	36.12	37.01	51	18.90	20.09	77	5.82	6.21			

X.—Table giving a Comparative View of the Results of the undermentioned Tables of Mortality, in relation to the following Particulars.

	By Dr. Price's Table, founded on the Registrar of Births and Burials at Northampton	By the First Swedish Tables, as published by Dr. Price; for both sexes	By Mr. De-parcieux's Table, founded on the Mortality in the French Tonnies, prior to 1745	By Mr. Milne's Table, founded on the Mortality observed at Carlisle	By Mr. Griffith Davies's Table, founded on the Experience of the Equitable Life Insurance Office	By Mr. Finlaison's Table, founded on the Experience of the Government Life Annuity	According to his First Investigation, as mentioned in his Evidence in 1825	According to his Second Investigation, as mentioned in his Evidence in 1837	Mean of both sexes	Mean of both sexes
Of 100,000 persons aged 25 there would be alive at the age of 65	34,285	43,137	51,033	51,355	49,330	53,470	55,630			
Of 100,000 persons aged 65, there would be alive at the age of 80	28,734	23,704	29,827	31,577	37,267	38,615	35,518			
Expectation of life at the age of 25 years	30.85	34.58	37.17	37.86	37.45	38.33	38.18			
Expectation of life at the age of 65	10.88	10.10	11.25	11.79	12.35	12.81	12.57			
Value of an annuity on a life aged 25, interest being at 4 per cent.	£15,458	£16,839	£17,380	£17,645	£17,191	£17,434	£17,504			
Value of an annuity on a life aged 65, interest being at 4 per cent.	£7,761	£7,398	£8,059	£8,307	£8,635	£8,896	£8,711			
Value of a deferred annuity commencing at 65, to a life now aged 25, interest at 4 per cent.	£0.55424	£0.65842	£0.85452	£0.89823	£0.88723	£0.99078	£0.98378			

Note.—In all the Tables above mentioned, it is to be observed that the mortality is deduced from an equal, or nearly equal, number of each sex; with the single exception of Mr. Davies's Table, founded on the experience of the Equitable, in which office, from the practical objects of life insurance, it is evident the male sex must have composed the vast majority of lives subjected to

mortality. But as it is agreed on all hands that the duration of life among females exceeds that of males, it follows that the results of Mr. Davies's Table fall materially short of what they would have been, if the facts on which he has reason to have comprehended an equal number of each sex. The Tables have not, in all cases, been compared at 4 per cent., the rate allowed by Government

XI.—Table showing the Expectation of Life at every Age, according to the Observations made at Carlisle.

Age 3 per

1 1641

2 1833

3 1993

4 2098

5 2177

6 2247

7 2307

8 2358

9 2401

10 2436

11 2464

12 2485

13 2500

14 2510

15 2516

16 2519

17 2519

18 2516

19 2510

20 2500

21 2485

22 2464

23 2436

24 2401

25 2358

26 2307

27 2247

28 2177

29 2098

30 1993

31 1833

32 1641

33 1411

34 1151

35 851

36 551

37 251

38 151

39 51

40 1

41 0

42 0

43 0

44 0

45 0

46 0

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497

XL.—Table showing the Value of an Annuity on a Single Life, according to the Northampton Table of Mortality.

Age	3 per Cent.	4 per Cent.	5 per Cent.	Age	3 per Cent.	4 per Cent.	5 per Cent.	Age	3 per Cent.	4 per Cent.	5 per Cent.
1	16091	13465	11563	31	16343	11517	12740	65	8504	7761	7276
2	16098	13433	11520	34	16112	11495	12763	66	7994	7488	7034
3	16105	13402	11478	35	15928	11479	12804	67	7692	7211	6787
4	16110	13371	11437	36	15759	11468	12857	68	7401	6930	6536
5	16115	13341	11397	37	15602	11461	12920	69	7121	6647	6281
6	16120	13311	11358	38	15456	11458	12993	70	6851	6361	6023
7	16125	13281	11319	39	15321	11457	13075	71	6591	6075	5761
8	16130	13251	11280	40	15196	11457	13166	72	6341	5790	5504
9	16135	13221	11241	41	15081	11458	13265	73	6091	5507	5251
10	16140	13191	11202	42	14976	11460	13372	74	5851	5230	5000
11	16145	13161	11163	43	14881	11463	13487	75	5621	4962	4744
12	16150	13131	11124	44	14796	11467	13610	76	5391	4710	4491
13	16155	13101	11085	45	14721	11472	13741	77	5171	4472	4241
14	16160	13071	11046	46	14656	11478	13880	78	4961	4247	4000
15	16165	13041	11007	47	14601	11485	14027	79	4761	4033	3761
16	16170	13011	10968	48	14556	11493	14182	80	4571	3830	3521
17	16175	12981	10929	49	14521	11502	14345	81	4391	3637	3281
18	16180	12951	10890	50	14496	11512	14517	82	4221	3452	3041
19	16185	12921	10851	51	14481	11523	14698	83	4061	3275	2801
20	16190	12891	10812	52	14476	11535	14888	84	3911	3105	2561
21	16195	12861	10773	53	14481	11548	15087	85	3771	2941	2321
22	16200	12831	10734	54	14496	11562	15295	86	3641	2782	2081
23	16205	12801	10695	55	14521	11577	15512	87	3521	2629	1841
24	16210	12771	10656	56	14556	11593	15739	88	3411	2481	1601
25	16215	12741	10617	57	14601	11610	15976	89	3301	2338	1361
26	16220	12711	10578	58	14656	11628	16223	90	3201	2200	1121
27	16225	12681	10539	59	14721	11647	16480	91	3101	2067	881
28	16230	12651	10500	60	14796	11667	16747	92	3011	1939	641
29	16235	12621	10461	61	14881	11688	17024	93	2921	1815	401
30	16240	12591	10422	62	14976	11710	17311	94	2831	1695	161
31	16245	12561	10383	63	15081	11733	17608	95	2741	1579	11
32	16250	12531	10344	64	15196	11757	17915	96	2651	1467	1

XIII.—Table showing the Value of an Annuity on a Single Life, according to the Carlisle Table of Mortality.

Age	3 per Cent.	4 per Cent.	5 per Cent.	Age	3 per Cent.	4 per Cent.	5 per Cent.	Age	3 per Cent.	4 per Cent.	5 per Cent.
1	18005	16556	13992	36	18183	13856	13987	70	7123	6709	6356
2	18010	17229	14983	37	17998	13843	14013	71	6757	6358	6015
3	18015	17911	15984	38	17769	13825	14041	72	6401	6026	5675
4	18020	18603	16995	39	17505	13802	14071	73	6054	5725	5335
5	18025	19305	18016	40	17205	13774	14103	74	5715	5458	5000
6	18030	20017	19047	41	16870	13741	14137	75	5382	5209	4671
7	18035	20739	20088	42	16500	13703	14173	76	5054	4974	4341
8	18040	21471	21139	43	16095	13660	14211	77	4731	4752	4011
9	18045	22213	22190	44	15655	13612	14251	78	4411	4541	3681
10	18050	22965	23241	45	15180	13559	14293	79	4091	4339	3351
11	18055	23727	24292	46	14670	13501	14337	80	3771	4141	3021
12	18060	24499	25343	47	14125	13438	14383	81	3451	3947	2691
13	18065	25281	26394	48	13555	13370	14431	82	3131	3757	2361
14	18070	26073	27445	49	12960	13297	14481	83	2811	3571	2031
15	18075	26875	28496	50	12340	13219	14533	84	2491	3389	1701
16	18080	27687	29547	51	11695	13136	14587	85	2171	3211	1371
17	18085	28509	30598	52	11025	13048	14643	86	1851	3037	1041
18	18090	29341	31649	53	10330	12955	14701	87	1531	2867	711
19	18095	30183	32700	54	9610	12857	14761	88	1211	2701	381
20	18100	31035	33751	55	8875	12754	14823	89	891	2539	51
21	18105	31897	34802	56	8125	12646	14887	90	571	2381	1
22	18110	32769	35853	57	7360	12533	14953	91	251	2227	1
23	18115	33651	36904	58	6580	12415	15021	92	111	2077	1
24	18120	34543	37955	59	5795	12292	15091	93	1	1931	1
25	18125	35445	39006	60	4995	12164	15163	94	1	1789	1
26	18130	36357	40057	61	4180	12031	15237	95	1	1651	1
27	18135	37279	41108	62	3350	11893	15313	96	1	1517	1
28	18140	38211	42159	63	2515	11750	15391	97	1	1387	1
29	18145	39153	43210	64	1675	11602	15471	98	1	1261	1
30	18150	40105	44261	65	830	11449	15553	99	1	1139	1
31	18155	41067	45312	66	1	11291	15637	100	1	1021	1

XIII.—Table showing the Value of an Annuity on the Joint Continuance of Two Lives of Equal Ages, according to the Northampton Table of Mortality.

Ages	3 per Cent.			4 per Cent.			5 per Cent.		
	per Cent.	per Cent.	per Cent.	per Cent.	per Cent.	per Cent.	per Cent.	per Cent.	
65 and 65	5471	5201	4960	65 and 65	5471	5201	4960		
66 and 66	5231	4982	4759	66 and 66	5231	4982	4759		
67 and 67	4989	4769	4555	67 and 67	4989	4769	4555		
68 and 68	4755	4537	4348	68 and 68	4755	4537	4348		
69 and 69	4504	4312	4140	69 and 69	4504	4312	4140		
70 and 70	4261	4087	3930	70 and 70	4261	4087	3930		
71 and 71	4021	3868	3724	71 and 71	4021	3868	3724		
72 and 72	3781	3639	3510	72 and 72	3781	3639	3510		
73 and 73	3548	3421	3304	73 and 73	3548	3421	3304		
74 and 74	3314	3181	3074	74 and 74	3314	3181	3074		
75 and 75	3081	2941	2841	75 and 75	3081	2941	2841		
76 and 76	2841	2701	2601	76 and 76	2841	2701	2601		
77 and 77	2601	2461	2361	77 and 77	2601	2461	2361		
78 and 78	2361	2221	2121	78 and 78	2361	2221	2121		
79 and 79	2121	1981	1881	79 and 79	2121	1981	1881		
80 and 80	1881	1741	1641	80 and 80	1881	1741	1641		
81 and 81	1641	1501	1401	81 and 81	1641	1501	1401		
82 and 82	1401	1261	1161	82 and 82	1401	1261	1161		
83 and 83	1161	1021	921	83 and 83	1161	1021	921		
84 and 84	921	781	681	84 and 84	921	781	681		
85 and 85	681	541	441	85 and 85	681	541	441		
86 and 86	441	301	201	86 and 86	441	301	201		
87 and 87	201	61	1	87 and 87	201	61	1		
88 and 88	1	1	1	88 and 88	1	1	1		
89 and 89	1	1	1	89 and 89	1	1	1		
90 and 90	1	1	1	90 and 90	1	1	1		

Dr. Farr

after

time

Females

Years

of Mortality

By Mr. Fitzhugh's Table, founded on the Experience of the Government Life Annuity

Account

of his Son's

Interest, as

mentioned in

his Evidence in

1825

Men of

both Sexes

55,470

28,225

19,311

217,534

283,896

200,978

on all hands

values exceeds that

of Mr. Davison's

of what they were

he has reason

number of each

has been computed

by Government

XIV.—Table showing the Value of an Annuity on the Joint Continuance of Two Lives of Equal Ages, according to the Carlisle Table of Mortality.

Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.
1 and 1	14.079	11.921	10.499	36 and 36	14.477	12.919	11.627	70 and 70	4.556	4.367	4.191
2 2	16.154	13.671	11.793	37 37	14.471	12.914	11.627	71 71	4.247	4.049	3.874
3 3	18.030	15.269	13.162	38 38	13.981	12.525	11.309	72 72	3.964	3.766	3.591
4 4	19.065	16.147	13.932	39 39	13.727	12.322	11.144	73 73	3.631	3.434	3.259
5 5	19.984	16.801	14.507	40 40	13.545	12.165	10.981	74 74	3.300	3.103	2.928
6 6	20.546	17.112	14.789	41 41	13.525	12.150	10.959	75 75	3.000	2.803	2.628
7 7	20.780	17.242	14.917	42 42	13.536	12.172	10.970	76 76	2.740	2.543	2.368
8 8	20.785	17.253	14.931	43 43	13.572	12.212	11.010	77 77	2.520	2.323	2.148
9 9	20.140	17.179	14.808	44 44	13.630	12.270	11.070	78 78	2.320	2.123	1.948
10 10	19.963	17.049	14.680	45 45	13.700	12.340	11.140	79 79	2.140	1.940	1.765
11 11	19.714	16.891	14.581	46 46	13.779	12.415	11.215	80 80	1.980	1.780	1.605
12 12	19.525	16.722	14.508	47 47	13.870	12.500	11.300	81 81	1.840	1.640	1.465
13 13	19.327	16.582	14.440	48 48	13.971	12.590	11.390	82 82	1.720	1.520	1.345
14 14	19.116	16.425	14.373	49 49	14.080	12.685	11.485	83 83	1.610	1.410	1.235
15 15	18.990	16.272	14.305	50 50	14.195	12.785	11.585	84 84	1.510	1.310	1.135
16 16	18.842	16.131	14.242	51 51	14.320	12.890	11.690	85 85	1.420	1.220	1.045
17 17	18.672	16.007	14.181	52 52	14.450	12.995	11.795	86 86	1.340	1.140	0.965
18 18	18.505	15.890	14.120	53 53	14.585	13.105	11.905	87 87	1.270	1.070	0.895
19 19	18.342	15.778	14.062	54 54	14.725	13.220	12.020	88 88	1.210	1.010	0.835
20 20	18.193	15.670	14.007	55 55	14.870	13.340	12.140	89 89	1.160	0.960	0.785
21 21	18.048	15.566	13.954	56 56	15.020	13.465	12.265	90 90	1.120	0.920	0.745
22 22	17.908	15.466	13.902	57 57	15.175	13.595	12.395	91 91	1.080	0.880	0.705
23 23	17.772	15.370	13.852	58 58	15.335	13.730	12.530	92 92	1.040	0.840	0.665
24 24	17.640	15.278	13.804	59 59	15.500	13.870	12.670	93 93	1.000	0.800	0.635
25 25	17.512	15.188	13.757	60 60	15.670	14.015	12.815	94 94	0.960	0.760	0.605
26 26	17.388	15.099	13.712	61 61	15.845	14.165	12.965	95 95	0.920	0.720	0.575
27 27	17.268	15.012	13.668	62 62	16.025	14.320	13.120	96 96	0.880	0.680	0.545
28 28	17.152	14.927	13.625	63 63	16.210	14.480	13.280	97 97	0.840	0.640	0.515
29 29	17.040	14.844	13.583	64 64	16.400	14.645	13.445	98 98	0.800	0.600	0.485
30 30	16.932	14.762	13.542	65 65	16.595	14.815	13.615	99 99	0.760	0.560	0.455
31 31	16.828	14.681	13.502	66 66	16.795	14.990	13.790	100 100	0.720	0.520	0.425
32 32	16.728	14.601	13.462	67 67	16.995	15.170	13.970	101 101	0.680	0.480	0.395
33 33	16.632	14.522	13.423	68 68	17.200	15.355	14.155	102 102	0.640	0.440	0.365
34 34	16.540	14.444	13.384	69 69	17.410	15.545	14.345	103 103	0.600	0.400	0.335
35 35	16.452	14.367	13.346								

XV.—Table showing the Value of an Annuity on the Joint Continuance of Two Lives, when the Difference of Age is Five Years, according to the Northampton Table of Mortality.

Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.
1 and 6	12.346	10.741	9.479	32 and 37	11.775	10.659	9.716	62 and 67	2.905	2.825	2.745
2 7	13.461	11.581	10.109	33 38	11.591	10.508	9.591	63 68	2.625	2.545	2.465
3 8	14.609	12.519	11.054	34 39	11.420	10.354	9.451	64 69	2.365	2.285	2.205
4 9	15.789	13.575	12.165	35 40	11.260	10.210	9.318	65 70	2.125	2.045	1.965
5 10	16.974	14.733	13.315	36 41	11.110	10.075	9.188	66 71	1.905	1.825	1.745
6 11	18.160	15.996	14.517	37 42	10.970	9.950	9.062	67 72	1.705	1.625	1.545
7 12	19.347	17.363	15.762	38 43	10.840	9.830	8.940	68 73	1.525	1.445	1.365
8 13	20.534	18.836	17.112	39 44	10.720	9.715	8.825	69 74	1.365	1.285	1.205
9 14	21.721	20.419	18.567	40 45	10.610	9.605	8.715	70 75	1.225	1.145	1.065
10 15	22.908	22.112	20.122	41 46	10.510	9.500	8.610	71 76	1.105	1.025	0.945
11 16	24.095	23.915	21.777	42 47	10.420	9.400	8.510	72 77	1.005	0.925	0.845
12 17	25.282	25.828	23.542	43 48	10.340	9.305	8.415	73 78	0.925	0.845	0.765
13 18	26.469	27.851	25.417	44 49	10.270	9.215	8.325	74 79	0.855	0.775	0.695
14 19	27.656	29.984	27.402	45 50	10.210	9.130	8.240	75 80	0.795	0.715	0.635
15 20	28.843	32.227	29.517	46 51	10.160	9.050	8.160	76 81	0.745	0.665	0.585
16 21	30.030	34.580	31.670	47 52	10.120	8.975	8.090	77 82	0.705	0.625	0.545
17 22	31.217	37.043	33.963	48 53	10.090	8.905	8.020	78 83	0.675	0.595	0.515
18 23	32.404	39.616	36.396	49 54	10.070	8.840	7.955	79 84	0.645	0.565	0.485
19 24	33.591	42.299	38.979	50 55	10.060	8.780	7.895	80 85	0.615	0.535	0.455
20 25	34.778	45.092	41.712	51 56	10.060	8.725	7.840	81 86	0.585	0.505	0.425
21 26	35.965	47.995	44.595	52 57	10.070	8.675	7.790	82 87	0.555	0.475	0.395
22 27	37.152	51.008	47.628	53 58	10.090	8.630	7.745	83 88	0.525	0.445	0.365
23 28	38.339	54.131	50.811	54 59	10.120	8.585	7.700	84 89	0.495	0.415	0.335
24 29	39.526	57.364	54.154	55 60	10.160	8.540	7.660	85 90	0.465	0.385	0.305
25 30	40.713	60.707	57.657	56 61	10.210	8.495	7.620	86 91	0.435	0.355	0.275
26 31	41.900	64.160	61.320	57 62	10.270	8.450	7.580	87 92	0.405	0.325	0.245
27 32	43.087	67.723	65.153	58 63	10.340	8.405	7.540	88 93	0.375	0.295	0.215
28 33	44.274	71.396	69.166	59 64	10.420	8.360	7.500	89 94	0.345	0.265	0.185
29 34	45.461	75.179	73.359	60 65	10.510	8.315	7.460	90 95	0.315	0.235	0.155
30 35	46.648	79.072	77.742	61 66	10.610	8.270	7.420	91 96	0.285	0.205	0.125
31 36	47.835	83.075	82.325								

XVI.—Table showing the Value of an Annuity on the Joint Continuance of Two Lives, when the Difference of Age is Five Years, according to the Carlisle Table of Mortality.

Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.
1 and 6	16.928	14.269	12.331	34 39	14.420	12.775	11.508	67 72	4.580	4.386	4.191
2 7	18.087	15.318	13.398	35 40	14.148	12.514	11.253	68 73	4.291	4.103	3.908
3 8	19.100	16.214	14.019	36 41	13.812	12.301	11.041	69 74	4.035	3.847	3.652
4 9	19.984	16.914	14.492	37 42	13.579	12.209	10.956	70 75	3.800	3.612	3.417
5 10	20.771	17.500	14.930	38 43	13.416	12.140	10.897	71 76	3.580	3.392	3.197
6 11	21.505	17.989	15.331	39 44	13.317	12.083	10.853	72 77	3.375	3.187	2.992
7 12	22.192	18.375	15.696	40 45	13.286	12.041	10.820	73 78	3.185	2.997	2.802
8 13	22.837	18.660	16.030	41 46	13.310	12.010	10.795	74 79	3.005	2.817	2.622
9 14	23.440	18.854	16.330	42 47	13.385	12.080	10.865	75 80	2.835	2.647	2.452
10 15	23.999	18.958	16.590	43 48	13.510	12.155	10.940	76 81	2.675	2.487	2.292
11 16	24.514	19.072	16.815	44 49	13.680	12.235	11.020	77 82	2.525	2.337	2.142
12 17	24.985	19.196	17.000	45 50	13.890	12.320	11.105	78 83	2.385	2.197	1.992
13 18	25.412	19.330	17.148	46 51	14.130	12.410	11.195	79 84	2.255	2.067	1.862
14 19	25.795	19.474	17.260	47 52	14.400	12.505	11.290	80 85	2.135	1.947	1.742
15 20	26.134	19.628	17.335	48 53	14.695	12.605	11.390	81 86	2.025	1.837	1.632
16 21	26.429	19.791	1								

The Northampton Table (No. VI.), by underwriting the duration of life, was a very advantageous guide for the insurance offices to go by in insuring lives; but to whatever extent it might be beneficial to them in this respect, it became equally injurious when they adopted it as a guide in selling annuities. And yet, singular as it may seem, some of the insurance offices granted annuities on the same terms that they insured lives; not perceiving that, if they gained by the latter transaction, they must obviously lose by the former. Government also continued for a lengthened period to sell annuities according to the Northampton Tables, and without making any distinction between male and female lives! A glance at the Tables of M. Deparcieux ought to have satisfied them that they were proceeding on entirely false principles. But, in despite even of the admonitions of some of the most skillful mathematicians, this system was persevered in for many years. We understand that the loss there arising to the public may be moderately estimated at 2,000,000*l.* sterling. Nor will this appear a large sum to those who recollect that, supposing interest to be 4 per cent., there is a difference of no less than 9*l.* in the value of an annuity of 50*l.* for life, to a person aged 45, between the Northampton and Carlisle Tables.

INVOICE. An account of goods or merchandise sent by merchants to their correspondents at home or abroad, in which the peculiar marks of each package, with other particulars, are set forth. [BOOK-KEEPING.]

IONIAN ISLANDS. The name given to the islands of Corfu, Paxo, Santa Maura, Ithaca, Cephalonia, Zante, Cerigo, and their dependent islets. With the exception of Cerigo, which lies opposite to the south-eastern extremity of the Morea, the rest lie pretty contiguous, along the western coasts of Epirus and Greece; the most northerly point of Corfu being in lat. 39° 48' 15" N. and the most southerly point of Zante (Cape Kier) on which there is a light-house being in lat. 37° 38' 35" N. Kapsali, the port of Cerigo, is in lat. 36° 7' 30" N., long. 23° E.

The area and population of the different islands may be estimated as follows:—

Islands	Area in Square Miles	Population in 1863
Corfu	227	75,553
Cephalonia	311	71,667
Zante	161	39,732
Santa Maura	156	37,502
Ithaca	44	11,264
Cerigo	116	11,720
Paxo	26	4,986
Total	1,041	237,541*

\* Of whom 9,827 were aliens and strangers.

Soil and Climate.—These are very various. Zante is the most fruitful. It consists principally of an extensive plain, occupied by plantations of oranges, and having an air of luxuriant fertility and richness. Its climate is comparatively equal and fine, but it is very subject to earthquakes. Corfu and Cephalonia are more rugged and less fruitful than Zante; and the former from its proximity to the snowy mountains of Epirus, and the latter from the Black Mountain in its interior, are exposed in winter to great and sudden variations of temperature; the frost sometimes amounting to a great extent the oranges and vines of these islands and those of Santa Maura. The latter is, in the hot season, exceedingly unhealthy as a consequence of the vapours arising from the marshes and the shallow seas to the N.E. Cerigo is rocky and sterile; it is subject to continued rains, and the currents seldom permit its waters to remain unruined.

History, Government &c.—These islands have undergone many vicissitudes. Corfu, the ancient Coreyra, was famous in antiquity for its naval power, and for the contest between it and its mother state Corinth, which eventually terminated in the Peloponnesian war. Ithaca, the kingdom of the mythical Ulysses; Cephalonia, sometimes called Dulichium, from the name of one of its cities; Zante, or Zacynthus; Santa Maura, known to the ancients by the names of Leucas or Leucadia, celebrated for its promontory surmounted by a temple of Apollo, whence Sappho, it is said, precipitated herself into the ocean; and Cerigo, or Cythera, sacred to Aphroditè, have all acquired an immortality of renown. But, on comparing their present with their former state, we may well exclaim—

Heu quantum luce Niobe Niobe distabat ab illis!

After innumerable revolutions, they fell early in the fifteenth century, under the dominion of Venice. Since the downfall of that republic they have had several protectors, or rather masters, being successively under the dominion of the Russians, the French, and the English. By the Treaty of Paris, in 1815, they were formed into a sort of semi-independent state, with an internal Government of their own, under the protection of Great Britain; a Lord High Commissioner, appointed by the English Government, having charge of the foreign relations, and of the internal, maritime, and sanitary police. The British commander-in-chief had the custody of the fortresses, and the disposal of the forces. It was stipulated in the Treaty of Paris that the islands may be called upon for the pay and subsistence of 3,000 men, as well as for the repair of their fortresses occupied by the British troops. The executive Government was vested in a president nominated by the Commissioner, and a senate of 5 members (1 for each of the larger islands of Corfu, Cephalonia, Zante, and Santa Maura, and 1 representing collectively the smaller ones of Ithaca, Cerigo, and Paxo, by each of which he was elected in rotation). The senators were elected at the commencement of every quinquennial Parliament (subject to a negative from the Commissioner) from a legislative chamber of 40 members, themselves elected by the constituencies of the different islands, for 5 years. The senate and legislative assembly, together with the Commissioner, were thus the supreme authority: they were, when united, termed the Parliament, and as such, passed, amended, and repealed laws, in the mode prescribed by the constitution of 1817. Besides the General Government, there was in each island a local administration, composed of a regent, named by the senate, and from 2 to 5 municipal officers elected by their fellow-citizens. On June 1, 1864, these islands were voluntarily ceded to the kingdom of Greece by the British Government.

The State of Society in these islands is far from being good, and was formerly the most depraved imaginable. The people, when they were placed under the ægis of England, were at once lazy, ignorant, superstitious, cowardly, and bloodthirsty. Their vices may, we believe, be in great degree ascribed to the Government and religion established amongst them. The latter consisted of little more than a series of fasts and puerile observances; while the former was both weak and corrupt. The Venetians appointed to situations of power and emolument belonged mostly to noble and decayed families, and looked upon their offices merely as means by which they might repair their shattered fortunes. Hence the grossest corruption pervaded every department. There was no crime

es of Equal

4	5
per Cent.	per Cent.
4367	4191
4420	2391
3763	2638
3197	3521
3279	3165
3172	3143
2966	2870
2853	2711
2822	2492
2537	2160
2391	2721
2292	2465
2079	2067
1929	1982
1782	1741
1619	1593
1470	1411
1359	1352
1301	1273
1225	1129
1106	1062
1028	1007
996	1021
1191	1121
1271	1219
1353	1323
1391	1391
1568	1519
1319	1225
1272	1222
11	976
1079	970
1072	972
1017	916

Two Lives, when of Mortality.

3	4	5
per Cent.	per Cent.	per Cent.
505	523	1591
265	507	1738
265	729	1938
72	427	1574
450	4319	1960
1298	1121	2560
4069	3291	3524
3265	3685	3524
3529	3421	331
3586	3270	3119
3173	2970	2970
2965	2969	2580
2743	2659	1596
2385	2418	1386
2355	2252	1216
2131	2077	1023
1917	1939	1216
1793	1810	1142
1615	1668	1123
1210	1475	1142
1365	1036	1142
1291	1299	1216
1187	1134	1142
1071	1043	1142
992	992	1142
9755	9756	9751
9561	9558	9749
9317	9321	9751
9179	9177	9751
9000	9000	9751

Two Lives, when of Mortality.

3	4	5
per Cent.	per Cent.	per Cent.
4580	4586	1575
4297	4125	3291
4035	4078	3291
3804	3761	3291
3568	3439	3291
3352	3257	3291
3138	3097	3291
2928	2837	3291
2790	2714	3291
2618	2530	3291
2411	2401	3291
2318	2253	3291
2153	2160	3291
1993	1943	3291
1851	1750	3291
1698	1693	3291
1499	1474	3291
1308	1307	3291
1185	1185	3291
1025	1029	3291
872	878	3291
722	728	3291
572	572	3291
421	421	3291
270	270	3291
120	120	3291
70	70	3291
20	20	3291
0	0	3291

for which impunity might not be purchased. Justice, in fact, was openly bought and sold; and suits were decided, not according to the principles of law or equity, but by the irresistible influence of faction or of gold. In consequence, the islands became a prey to all the vices that afflict and degrade a corrupt and semi-barbarous society. Sandys, one of the best English travellers who ever visited the Levant, having touched at Zante in 1610, expresses himself with respect to the inhabitants as follows: 'In habite they imitate the Italians, but transcend them in their revenges, and infinitely less civil. They will threaten to kill a merchant that will not buy their commodities; and make more conscience to breake a fast than commit a murder. He is weary of his life that hath a difference with any of them, and will walke abroad after daylight. But cowardice is joined with their cruelty, who dare doe nothing but sodainly upon advantage; and are ever privately armed. They are encouraged to villanies by the remissnesse of their laws. The labourers do go into the fields with swords and partizans, as if in an enemies country; bringing home their oils and wines in hogskins, the inside turned out.' (P. 7, ed. 1637.)

If the Zantiotes did not deteriorate during the next two centuries, which, indeed, was hardly possible, they certainly did not improve. Dr. Holland, by whom they were visited in 1812, tells us that he heard, 'on sure authority, that the number of assassinations in Zante has been more than 1 for each day of the year, though the population was only 40,000!' (*Travels in the Ionian Isles*, &c., 4to. ed. p. 23.)

Matters were, if not quite so bad, very little better in the other islands. In Cephalonia, the inhabitants were divided into factions, entertaining the most implacable animosities, and waging a war of extermination against each other. A little vigour on the part of their rulers would have served to suppress their murderous contests. But this was not an object they wished to attain; on the contrary, their selfish and crooked policy made them seek to strengthen their own power by fomenting the dissensions that prevailed amongst their subjects. (Bellin, *Description du Golfe de Venise*, p. 165.) Considering the state of society at home, we need not wonder that the Cephalonians, who were distinguished among the islanders for activity and enterprise, were much addicted to emigration. The Venetians attempted to check its prevalence; but as they neglected the only means by which it could be prevented—the establishment of security and good order at home—their efforts were wholly unsuccessful.

The islanders did not, however, satisfy themselves with attempting to stab and prey upon each other. They were much addicted to piracy, particularly the inhabitants of Santa Maura and Cerigo; and it has been alleged that the Venetian Government participated in the profits of this public robbery, which, at all events, they took little pains to suppress.

A long series of years will be required to eradicate vices so deeply rooted, and to effect that thorough change in the habits and morals of the people that is so indispensable. The power and influence of the British Government had, however, a very decided effect. Piracy was suppressed; and assassination, though still bursting forth, especially in periods of political excitement, with renewed violence, was, speaking generally, a good deal less prevalent. A spirit of industry, sincerity, and fair dealing began to manifest itself. The present generation of nobles possess a degree of information, and a knowledge of the true interests

of their country, which, though not all that might be wished for, was, at least, unknown to their fathers. But there is, notwithstanding, a vast deal of intrigue and faction, which was kept alive and fostered by the contentions in their noble Parliament. It is not easy to exaggerate the difficulties with which the successive British governors, from Sir Thomas Maitland down to Sir Henry Storks, had to contend. They were opposed by every means that feudal rancour, corruption and pseudo-patriotism could throw in their way. Not that we mean to say they always acted discreetly, or that the public expenditure was as judicious and economical as it might have been. But they, at all events, acted openly and in a straightforward manner; and with an earnest desire to maintain the public tranquillity, and to promote the prosperity of the commonwealth. And now that the responsibility has fallen on the Greeks themselves, it may perhaps be hoped by the more sanguine that the influence of our example, of our unbiased execution of the law, and of the education so generally diffused, may in the end help to accomplish the regeneration of these islanders.

*Manufactures &c.*—These islands possess few manufactures properly so termed. The wives of the villani, or peasants, spin and weave a coarse kind of woollen cloth, sufficient in great part for the use of their families. A little soap is made at Corfu and Zante. The latter manufactures considerable quantity of silk gros-de-Naples and handkerchiefs; the art of dyeing is, however, little studied, and the establishments are on a small scale. The peasantry, in general, are lazy, vain, delighting in display, and very superstitious. Those of Zante and Cephalonia are more industrious than the Corfiotes; in the first particularly; their superior condition is probably to be ascribed, in part at least, to the nobles residing more on their estates in the country, and contributing, by their example, to stimulate industry. In Corfu, the taste for the city life which prevailed in the time of the Venetian Government, still operates to a great degree. The Corfiote proprietor resides but little in his villa; his land is neglected, while he continues in the practice of his forefathers, who preferred watching opportunities at the seat of a corrupt Government to improving their fortunes by the more legitimate means of honourable exertion and attention to their patrimony. In this respect, however, material change for the better has taken place during the last 20 years.

*Imports of Grain &c.*—Great part of the land held under short tenures, on the *metayer* system, the tenant paying half the produce to the landlord. Owing to the nature of the soil, and the superior attention given to the culture of olives and currants, the staple products of the islands most part of the grain and cattle required for their consumption is imported. The hard wheat of Odessa is preferred, and large sums are annually sent to the Black Sea in payment. The Parliament, in March 1833, repealed the duties on introduction of corn; and the grain monopoly at Corfu, which had been established in favour of the Venetian Government, in order to provide against the possibility of a general or partial scarcity, was then suffered to expire. These two measures of reform, while they existed, did not probably produce more than 20,000*l.* annually.

*Cattle.*—They are similarly dependent on Greece and Turkey for supplies of butchers' meat, a small number only of sheep and goats being bred in the islands. Oxen, whether for agriculture or the slaughter-house, are principally

brought from Turkey. The beeves eaten by our troops were 6 weeks or 2 months walking down to the Danube, and the provinces that skirt the shores of Epirus, where they remained in pasture until fit for the table.

**Exports.**—The staple exports from these islands are oil, currants, wine, soap, salt, and valonia. The first is produced in great abundance in Corfu and Paxos, and in a less quantity in Zante, Santa Maura, and Cephalonia. Corfu has, in fact, the appearance of a continuous olive wood; a consequence, partly, of the extraordinary encouragement formerly given to the culture of the plant by the Venetians. Although there is a harvest every year, the great crop is properly biennial; the tree generally reposing for a year after its activity is of 2 and 3 years. During 5 or 6 months, from October till April, the country, particularly in Corfu, presents an animated appearance, persons of all ages being busily employed in picking up the fruit. The average produce may be about 17, 11s. per barrel. Under the old Venetian system, the oil could only be carried to Trieste. It is charged with an ad valorem duty of 1s per cent., payable on the export. The quality might be much improved by a little more care in the manufacture, the trees being generally more than in any other country. In 1863 the produce of oil was 80,385 barrels.

**Currants** originally introduced from the Morca, are grown in Zante and Cephalonia. The plant is a vine of small size and delicate nature, the cultivation of which requires much care. Six or seven years elapse after a plantation has been made before it yields a crop. In the beginning of October the earth about the roots of the plant is loosened, and gathered up in small heaps, away from the vine, which is pruned in March; after which the ground is again laid down smooth and level. The blight called the 'brina,' and rainy weather in harvest, produce great mischief. In a Report for December 18, 1867, Sir Charles Blegden, British consul at Cephalonia, shows how precarious this species of crop must be. The currants are gathered towards September, and being hung carefully picked, are thrown singly on a stone floor, exposed to the sun in the open air. The drying process may occupy a fortnight longer, if the weather be not favourable. A heavy shower or thunder-storm (no unfrequent occurrence at that season) not only interrupts it, but sometimes causes fermentation. The fruit is not only fit to be given to animals. Should it be exposed to these risks, it is deposited in magazines or 'magazines,' until a purchaser casts up. The proprietor, or warehouse keeper, delivers to the buyer a paper acknowledging the receipt for the quantity delivered, which passes currently in exchange from hand to hand till the time of export. Under the old Venetian Government, the export of traffic in this produce was exceedingly restricted. In Zante 5 persons, chosen out of the nobles, regulated what should be the price; those who wished to purchase were under necessity of describing to the Government the quality they desired. This system was called *collegio*. The export duties consisted of an ad valorem duty of 9 per cent. ad valorem; a *dazio fisso* of about 4s. 4d. per cwt.; and a *dazio* of 10s. per cwt., or most recent duty, of 12s. per cwt. This latter was remitted in favour of vessels bringing salt fish &c. from the ports (chiefly English, Danes, and others). It was afterwards relaxed in favour of vessels from Odessa, and abandoned

altogether as vexatious and unproductive. The *provoditure* received in addition 2 per cent., and that of his 2 Venetian councillors 1 per cent.; so about 9s. per cwt., the original cost of which was than 18s. or 19s. Even under British protection, the fruit, which some years before had fetched as much as 30s. or 32s. per cwt., but had declined in 1832 to 8s. per cwt., was burdened with the *dazio fisso* of 4s. 4d., and a duty of 6 per cent. ad valorem, being equivalent together, at that price, to an ad valorem duty of nearly 60 per cent. In raised, in 1829, the import duties in England were per cwt., which, at the same low price, made an ad valorem duty of 500 per cent. The consequences were rapidly visible: a decline took place in the culture of the plant, as well as in the circumstances of the proprietors, whose staple export and means of existence were almost annihilated. As the necessitous grower was obliged to borrow money at high interest from foreign merchants, or from the Jews, who were, consequently, able to dictate the price at which they would take his produce. A legislative enactment on a scale commensurate with the difficulties which it had to grapple with, was, after much deliberation, matured and adopted by the Ionian Legislature in 1834. It commuted the duties upon currants for an ad valorem tax of 19½ per cent. (since reduced to 18 per cent.), being the same as that laid upon oil. The same Act increased, in a small degree, the duties previously paid on the importation of coffee, tea, and sugar, and upon foreign wines, silks, and gloves—articles which, being chiefly consumed by the affluent, were more appropriately subjected to an increase of duty, to supply in part the defalcation of revenue consequent on the reduction of the currant duty. The good effects of this enactment had been universally admitted. The duty on currants imported into the United Kingdom was reduced by Sir Robert Peel, in 1844, from 22s. 6d. to 15s. 9d. per cwt. (15s. + 5 per cent.), and it was lowered to its present rate of 7s. in 1860. The same rate of duty is levied on raisins, thus equalising the duties on raisins and currants, thus advocated in the last edition of this work.

The currant crop of 1863 was 33,638,708 lbs., and was derived almost entirely from Cephalonia and Zante; and the crop of 1866 in the former was 7,854 tons, and exceeded that of 1865 by about 700 tons.

**Salt** may be obtained in considerable quantities in Corfu, Zante, and Santa Maura, for exportation: the latter island alone produced it until the late Act of Parliament, which provided that Government should let the salt-pans in all the Islands to those bidders who should offer, by sealed tenders, to supply it at the lowest rate to the consumer, paying it at the same time the highest price to Government. No export duty is charged upon it. In 1863, 84,560 lbs. were manufactured.

These statements show that heavy duties are levied upon the exportation of the staple products of the islands—an objectionable system, and one which, if it is to be excused at all, can only be so by the peculiar circumstances under which they are placed. There is no land tax or impost on property in the Ionian Islands, such as exists in many other rude countries; and, supposing it were desirable to introduce such a tax, the complicated state of property in them, the feudal tenures under which it is held, and the variety of usages with respect to it, oppose all but invincible obstacles to its imposition on fair and equal principles. At the same time, too, a large amount of revenue is



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the citadel is erected. The style of building is chiefly Italian; and the interior of the city displays everywhere great neatness, and even a certain degree of magnificence. Population estimated at about 20,000. It has a mole or jetty of considerable utility, at the extremity of which a lighthouse is erected; and a lazaretto, situated a little to the south-west. The harbour of which ships anchor opposite the town at from 500 to 1,000 yards' distance, in from 12 to 15 fathoms, when the wind is from the N.E.

The total value of the imports from all countries in 1863 was estimated at 1,232,220*l.*, and that of the exports at 930,556*l.* But a considerable part of the imports was not destined for the consumption of the islands, but sent either merely as to a convenient entrepôt, being intended for the supply of the contiguous provinces of Greece and Turkey. The amount of exports depends materially on the circumstance whether the year be one in which there is, or is not, a crop of olives, and on the goodness of the currant crops.

Money.—Accounts are kept in English money, but in Spanish dollars and oboli, 100 oboli being = 1*l.* = 4*s.* 4*d.*: a doubloon = 1 dollar. (Tate's Compend.)

Weights.—English weights and measures are sometimes made use of, though with Italian denominations; but the following are most generally used.

The pound *peso grosso*, or great weight of 12 oz. = 7,584 grains troy: 9*l.* 8 lbs. = 100 lbs. avoirdupois.

The pound *peso sottile*, or small weight, used for precious metals and drugs, is  $\frac{1}{2}$  lighter than the *peso grosso*. It weighs 12 oz. *peso sottile* corresponding to 8 *peso grosso*.

The oleo, used in the southern islands, weighs about 18,500 grains troy, or 2*l.* 7 lbs. avoirdupois. The Levant cantar, or quintal, should contain 44 lbs.

The *migliajo* (1,000 lbs.), for currants in Zante, is 1*ve.* cent. lighter than for other articles.

Measures of Length.—The Venetian foot is 12 *lines* = 13 inches English.

The *Passo* = 3 Venetian feet.

Measures for cloths &c. = 27 $\frac{2}{3}$  inches English.

Measures for silks = 25 $\frac{2}{3}$  inches English.

Land is measured by the *misura* or  $\frac{1}{8}$  moggio, or bacile, 100 square *passi* being 1 *misura*, or about  $\frac{2}{10}$  of an acre English.

Measures are measured by the *zappada*; 3 *zappada* (a computed day's work) being 1 *misura*.

Wood is measured by the square *passo*, which, however, only 2 feet thick, this depending on the quality of the wood.

Capacity is measured by the *passo cubo*.

Measures of Capacity:—Corfu and Paxo; Moggio of 8 *misure*, or 3 Winchester bushels.

Ugentina: Bacile should contain 80 lbs. *peso grosso*, best quality wheat.

Santa Maura: Cado, of 8 *crivelli*, 4 = 3 moggio; = 34 bushels English.

Corfu: 5 *Bacile* = 1 moggio.

Corfu: Chilo, the measure of Constantinople, = 1 moggio.

Corfu and Paxo: 32 quartucci = 1 jar, = 1 barrel = 18 English wine gallons.

Ugentina and Ithaca: 2 quartucci = 1 bocciale = 1 secchio; 6 secchio = 1 barrel = 18 English wine gallons.

Ugentina: 13 quartucci = 1 lire; 40 quartucci = 1 jar = 1 barrel = 17 $\frac{1}{2}$  English wine gallons.

Santa Maura: 22 quartucci = 1 stamno; = 1 barrel = 18 English wine gallons.

IRON

Corigo: 2 agosten = 1 boccia; 30 boccie = 1 barrel = 18 English wine gallons.

Oil.—Corfu and Paxo: 4 quartucci = 1 mitro; 6 mitri = 1 jar; 4 jars = 1 barrel = 18 English wine gallons.

Cephalonia: 9 pagliazzi = 1 barrel = 18 English wine gallons.

Zante: 9 lire, or 3 jars of 46 qu. each = 1 barrel = 17 $\frac{1}{2}$  English wine gallons.

Santa Maura: 7 stanni = 1 barrel = 18 English wine gallons  
Ithaca: 13 pagliazzi = 1 " = 11 " "  
Corigo: 24 bozze = 1 " = 11 0.5 " "

Salt.—Centinajo, about 4,000 lbs. Venetian peso grosso.

Limc.—Corfu, measure of 4 English cubic feet. In compiling this article, we have consulted, besides the works referred to above, the *Voyage Historique, Pittoresque &c.*, by Saint Sauveur—a diffuse but valuable work. The account of Zante, in the last volume (tome iii. pp. 101-278), is particularly good. We have also looked into the *Archives de Scrofani*, 3 tomes, Paris, 1801; *before the Finance du Commerce*; the *Papiers laid C. Scbrigth's Report for 1866*. But the most important part of the information we have been unable to lay before the reader was derived from manuscript notes obligingly communicated by Earl Lovelace, who (when Lord King) was secretary to the British Government in these islands.

IPPECACUANIA (Fr. *ipecaacuanha*; Ger. *Americanische brechwurzel*; Ital. *ipecaacanna*; Port. *cipo de camaras, ipecaacuanha*; Span. *ipecaacuanha, raiz de oro*). The root of a perennial plant (*Cephaelis ipecaacuanha*) growing in Brazil and other parts of South America. It is, from its colour, usually denominated *white, grey, or ash-coloured, and pale-brown*. Little of the first variety is found in the shops. The grey and brown varieties are brought to this country in bales from Rio Janeiro. Both are in short, wrinkled, variously bent and contorted pieces, which break with a resinous fracture. The grey is about the thickness of a small quill, full of down to a white, woody, vascular cord that runs through the heart of each piece; the external part is compact, brittle, and looks smooth; the brown is smaller, more wrinkled, of a blackish brown colour on the outside, and whitish within: the white is woody, and has no wrinkles. The entire root is inodorous; but the powder has a faint nauseous odour, and a somewhat bitter and acrid taste. In choosing *ipecaacuanha*, the larger roots, which are compact and break with a resinous fracture, having a whitish-grey, somewhat semi-transparent appearance in the outside of the cortical part, with a pale straw-coloured medullary fibre, are to be preferred. The medicinal virtues of the drug chiefly reside in the outer bark. When pounded, *ipecaacuanha* forms the mildest and safest emetic in the whole materia medica. Though probably employed in America from time immemorial, it was not introduced into Europe till the time of Louis XIV., when one Grenier, a French merchant, brought 150 lbs. of it from Spain, with which trials were made at the Hôtel Dieu. Helvetius first made known its use in dysentery, for which Louis XIV. munificently rewarded him by a douceur of 1,000*l.* sterling. (Thomson's *Dispensatory*; Thomson's *Chemistry*; *British Pharmacopoeia*, 1867.) 51,819 lbs., valued at 22,937*l.*, were imported in 1866, and 22,855 lbs. exported.

IRON (Dan. *jern*; Dutch, *zyzer*; Fr. *fer*; Ger. *eisen*; Ital. *ferro*; Lat. *ferrum, mars*; Pol. *zelazo*; Port. *ferro*; Russ. *scheleso*; Span. *hierro*;

Swed. jern; Gr. σιδηρος; Sansc. loha; Arab. he-deed; Pers. ahm). The most abundant and most useful of all the metals. It is of bluish white colour; and, when polished, has a great deal of brilliancy. It has a styptic taste, and emits a smell when rubbed. Its hardness exceeds that of most other metals; and it may be rendered harder than most bodies by being converted into steel. Its specific gravity varies from 7.6 to 7.8. It is attracted by the magnet or loadstone, and is itself the substance which constitutes the loadstone. But when iron is perfectly pure, it retains the magnetic virtue for a very short time. It is malleable in every temperature, and its malleability increases in proportion as the temperature augments; but it cannot be hammered out nearly as thin as gold or silver, or even as copper. Its ductility is, however, more perfect; for it may be drawn out into wire as fine at least as a human hair. Its tenacity is such, that an iron wire 0.078 of an inch in diameter is capable of supporting 549.25 lbs. avoirdupois without breaking.

*Historical Notices.*—Iron, though the most common, is the most difficult of all the metals to obtain in a state fit for use; and the discovery of the method of working it seems to have been posterior to the use of gold, silver, and copper. We are wholly ignorant of the steps by which men were led to practise the processes required to fuse it and render it malleable. It is certain, however, that it was prepared in ancient Egypt, and some other countries, at a very remote epoch; but it was very little used in Greece till after the Trojan war. (See the admirable work of M. Goguet on the *Origin of Laws, Arts &c.*, vol. i. p. 140.)

*Species of Iron.*—There are many varieties of iron which artists distinguish by particular names; but all of them may be reduced under one or other of the 3 following classes: *cast or pig iron, wrought or soft iron, and steel.*

1. *Cast or pig iron* is the name given to this metal when first extracted from its ores. The ores from which iron is usually obtained are composed of oxide of iron and clay. The object of the manufacturer is to reduce the oxide to the metallic state, and to separate all the clay with which it is combined. This is effected by a peculiar process; and the iron, being exposed to a strong heat in furnaces, and melted, runs out into moulds prepared for its reception, and obtains the name of cast or pig iron.

The cast iron thus obtained is distinguished by manufacturers into different varieties, from its colour and other qualities. Of these the following are the most remarkable:—

*a. White cast iron*, which is extremely hard and brittle, and appears to be composed of a congeries of small crystals. It can neither be filed, bored, nor bent, and is very apt to break when suddenly heated or cooled.

*b. Grey or mottled cast iron*, so called from the inequality of its colour. Its texture is granulated. It is much softer and less brittle than the last variety; and may be cut, bored, and turned on the lathe. Cannons are made of it.

*c. Black cast iron* is the most unequal in its texture, the most fusible, and least cohesive, of the three.

2. *Wrought or soft iron* is prepared from cast iron by a process termed a refinement or finery. The wrought iron manufactured in Sweden is reckoned the finest in the world.

3. *Steel* consists of pieces of wrought iron hardened by a peculiar process. The Swedish iron imported into this country is mostly used in

the manufacture of steel. [STEEL.] (Thomson's *Chemistry*.)

*Uses of Iron.*—To enumerate the various uses of iron would require a lengthened dissertation. No one who reflects for a moment on the subject can doubt that its discovery and employment in the shape of tools and engines have been of the utmost importance to man, and have done more, perhaps, than anything else, to accelerate his advance in the career of improvement. Locke has the following striking observations on this subject: 'Of what consequence the discovery of one natural body, and its properties, may be to human life, the whole great continent of America is a convincing instance: whose ignorance in useful arts, and want of the greatest part of the conveniences of life, in a country that abounded with all sorts of natural plenty, I think may be attributed to their ignorance of what was to be found in a very ordinary despicable stone—I mean the mineral of iron. And whatever we think of our parts or improvements in this part of the world, where knowledge and plenty seem to vie with each other, yet, to anyone that will seriously reflect upon it, I suppose it will appear not past doubt, that, were the use of iron lost among us, we should in a few ages be unavoidably reduced to the wants and ignorance of the ancient savage Americans, whose natural endowments and provisions came no way short of those of the most flourishing and polite nations; so that he who first made use of that one contemptible mineral may be truly styled the father of arts and author of plenty.' (*Essay on the Understanding*, book iv. c. 12.)

*Manufacture of Iron in Great Britain.*—We are ignorant of the period when iron began to be made in England, but there is authentic evidence to show that iron works were established by the Romans in the Forest of Dean, in Gloucestershire, and in other parts of the kingdom. (Pennant's *Wales*, ed. 1810, vol. i. p. 83.) They were also established, at an early period, in Kent and Sussex; these counties being well supplied, not only with iron ore, but (which was at the time of still greater importance) with timber, the only species of fuel that was then used in the furnace. It is to this latter circumstance that the increase in the production of iron in England during a lengthened period, is to be ascribed. Complaints were very early made of the destruction of timber by the iron works; and in the reign of Elizabeth, when an unusual demand for timber for the navy, and for merchant vessels, also, took place, the decrease of timber excited a great deal of attention. At length, in 1591, an Act was passed prohibiting the manufacture of iron from using any but small wood, and for establishing any new works anywhere within 10 miles of the city of London, and 14 miles of the river Thames, and in several parts of Sussex specified in the Act. Soon after this, Edward Lord Dudley, invented a process for smelting iron ore with pit-coal instead of timber; and it is difficult to point out many inventions that have been so advantageous. The patent which the lordship obtained in 1619 was exempted from the operation of the Act of 1629 (21 Jas. I. c. 24) setting aside monopolies; but though, in consequence, it has proved of immense value to the country, the works of the inventor were destroyed by an ignorant rabble, and he was nearly ruined by his efforts to introduce his perfect his process. (*Report of Committee of House of Commons on Patents*, p. 168 &c.) The invention seems, in consequence, to have been many years almost forgotten. The complaints of the destruction of timber continued; so much

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Number of Iron Furnaces and Make of Pig Iron in Great Britain in 1867.

Counties	No. of Iron Works Active	No. of Furnaces built in District	No. of Furnaces in blast	Tons of Pig Iron Produced
<b>ENGLAND</b>				
Northumberland	2	18	3	51,027
Durham	11	71	39	477,531
Yorkshire				
North Riding	14	67	50	640,899
West Riding	12	36	25	107,002
Derbyshire	11	43	20	160,028
Leicestershire	4	25	19	218,803
Cambridgeshire	3	18	8 3-5	107,839
Shropshire	11	29	22	125,001
North Staffordshire	6	33	23	807,532
South Staffordshire	49	177	91	272,532
Northamptonshire	4	9	5	27,181
Lincolnshire	3	6	5	65,038
Gloucestershire	3	10	6	27,579
Wiltshire	1	4	3	71,186
Somersetshire	1	2	1	
<b>Total</b>	<b>158</b>	<b>550</b>	<b>331 3-5</b>	<b>2,810,916</b>
<b>WALES</b>				
North Wales				
Denbighshire	3	9	5	32,843
South Wales				
Anthracite Furnaces	13	25	11	55,006
Gloucestershire	1	76	49	405,050
Brecknockshire	1	15	5	69,113
Monmouthshire	14	71	50	418,235
<b>Total</b>	<b>35</b>	<b>196</b>	<b>171</b>	<b>919,077</b>
<b>SCOTLAND</b>				
Ayrshire	8	45	31	
North Ayrshire	14	96	67	
Fife	3	13	3	
Linlithgowshire	1	4	2	
West Lothian	2	7	5	
Haddingtonshire	1	1	1	
Argyleshire	1	1	0	
<b>Total</b>	<b>30</b>	<b>167</b>	<b>112</b>	<b>1,031,000</b>
<b>Grand Total</b>	<b>203</b>	<b>913</b>	<b>563 3-5</b>	<b>4,761,023</b>

This quantity, estimated at the mean average cost at the place of production, would have a value of 11,902,557L.

According to *Thom's Almanac* for 1868, the produce in 1866 of the iron mines in Ireland was 25,225 tons of ore, valued at 5,313L. It is added that considerable quantities of blackband ironstone are now shipped from Belfast to Scotland, and that 112,686 tons of iron pyrites, value 59,036L, were obtained in 1866 from the mines of Wieklow.

This astonishing increase has been owing to a great variety of causes, among the more prominent of which may be specified the greater cheapness of iron, and its consequent application to a great many purposes, including the construction of various descriptions of agricultural implements, pipes for the conveyance of water, and the building of ships, for which it was not formerly supposed to be applicable. Unquestionably, however, the unprecedented demand of iron for railways in this country, and in the United States and the Continent, has given the most powerful stimulus to the manufacture; and, if only half the railway projects on foot in 1847 had been executed, the production of the iron, vast as it has been, would have been quite inadequate to supply the demand.

It will readily occur to the reader that a demand for iron for railways, depending as the formation of the latter does on many varying circumstances, must necessarily be both capricious and fluctuating; and hence it is not really possible to infer from the state of the iron trade at any given period what may be its state a few months after. In 1842 and 1843 the price of pig iron had sunk from 2l. to 2l. 10s. per ton, and the manufacturers in the least favoured districts were involved in the greatest difficulties. But subsequently the price of iron doubled or trebled; and though it has again receded, larger fortunes have been made in this than in any other department of industry. Similar mutations will,

that, in 1687, the exportation of iron without license was prohibited, and fresh restrictions were laid on the felling of timber. But the evil could not be abated by such means; and, in the early part of last century, complaints of the destruction of timber by the iron works became more prevalent than ever, and their total suppression began to be contemplated as a lesser evil than the continued decrease of the stock of timber. At this period more than  $\frac{1}{3}$  of the iron made use of was imported, and the condition of the manufacture was most unpromising. But the growing scarcity and high price of timber, coupled with the increasing demand for iron, at last succeeded in drawing the attention of some ingenious persons to Lord Dudley's process; and, about 1740, iron was made at Colebrook Dale, and one or two other places, by means of pit-coal, of about as good a quality as that made with timber.

From this period the business steadily increased; at first, however, its progress was comparatively slow, and the furnaces of Kent and Sussex were not wholly relinquished for more than 30 years after iron began to be largely produced by means of pit-coal. The great demand for iron occasioned by the late war, and the obstacles which it threw in the way of supplies from abroad, gave the first extraordinary stimulus to the manufacture, which has now become of vast importance and great value. In 1740 the quantity of pig iron made in England and Wales amounted to about 17,000 tons, produced by 59 furnaces. Since this epoch the increase is believed to have been nearly as follows: viz. In 1750, 22,000 tons; in 1788, 68,000 tons, produced by 85 furnaces; in 1796, 125,000 tons, produced by 121 furnaces; in 1806, 250,000 tons, produced by 169 furnaces; and in 1820 about 400,000 tons were produced but there is no account of the number of furnaces.

The author attributes this chiefly to the removal of the trade to the coal country. The iron trade is now one of the greatest branches of industry carried on in the northern portion of the United Kingdom. It is chiefly confined to the western counties, the great majority of the smelting furnaces and malleable works being in Lanark and Ayr. Glasgow is its central mart.

Notwithstanding its present magnitude, the smelting and manufacture of iron in Scotland are of very recent origin. So late as 1830 there were only 16 blast furnaces in Scotland, the produce of which scarcely reached 40,000 tons. In 1867 there were 112 in blast, producing 1,031,000 tons of pig iron, which, at the average price for the year (which was unusually low), represents a value of 3,051,337L.

With the exception of a small work at Wilson, which was unsuccessfully attempted there in a somewhat remote period, almost nothing was done in Scotland in the manufacture of malleable iron till 1830, and even so late as 1842 the produce did not exceed 35,000 tons. During the year 1842, however, the production of malleable iron reached 122,400 tons; and taking the average of all sorts, including plates for shipbuilding, there have been 10L per ton, the gross amount of the produce would be 1,224,100L. The number of men employed in this branch was about 4,000, the rate of wages paid about 18s. In 1858 there was a falling off in the production.

The increase in the interval has been, if possible, greater than that exhibited above. And in this we have merely to direct the reader's attention to the following, compiled from returns collected by Mr. Hunt, Keeper of Mining Records, and published by the highest authority on such subjects.



Account of the Number of Furnaces, and of the Quantities of Iron in Tons produced in Great Britain in 1825, 1840, and 1848.

Place	Total Furnaces in 1825	Produce of Iron in 1825	Total Furnaces in 1840	Produce of Iron in 1840	Total Furnaces in 1848	Produce of Iron in 1848
Forest of Dean	107	230,112	4	15,000	—	—
South Wales	11	17,756	163	505,000	—	—
Northumberland	—	—	15	26,500	196	796,680
Yorkshire	54	35,101	6	11,000	11	16,110
Derbyshire	19	24,672	32	56,000	56	100,000
Staffordshire	107	184,156	18	31,000	28	66,560
Shropshire	48	80,596	121	427,650	30	85,000
Worcestershire	25	33,510	70	87,750	34	58,840
Total	351	615,236	493	1,111,000	170	88,000
				1,395,900	623	2,008,200

For produce in 1867, see p. 789.

2,000,000. And if we recollect that wrought iron is to the hardware manufacture what nilit is to the manufacture of beer, and leather to that of shoes, we shall be satisfied alike of its paramount importance in the arts and as a most prolific source of employment and of public wealth.

From extensive enquiries made by Government and others connected with the iron trade, the following statements have been deduced, which exhibit the districts in which iron was made, the number of furnaces, and the total quantity produced in 1825, 1840, and 1848.

Previously to 1845, the imports of foreign iron usually varied from 23,000 to 25,000 tons a-year. But at that epoch the duties on foreign iron (20s. a ton on iron in bars) were repealed; and there has since been an increase in the imports of Swedish bar iron, which is especially well fitted for being made into steel. Our imports of unwrought foreign iron amounted in 1867 to 71,702 tons, and in 1866 to 64,178 tons; while of wrought or manufactured iron and steel, 12,108 tons were imported in 1867. In 1866, 51,533, and in 1867, 60,406, tons of bar iron came from Sweden.

Perhaps in nothing has the fall of price, consequent on the diminution of the cost of production, been taken place since the peace of 1815, been more conspicuous than in hardware. At an average, articles of hardware are at present (1868) from 50 to 75 per cent. lower than in 1820. And it may be safely affirmed that there are very few descriptions of articles in which a fall of price would have been so advantageous.

**IRON-WOOD** (Ger. eisenholz; Dutch, yserhout; Fr. bois de fer; Ital. legno di ferro; Span. A. species of wood of a reddish cast, so called on account of its corroding as that metal does, and its being remarkably hard and ponderous—even more so than ebony. The tree which produces it grows principally in the West India Islands, and is likewise very common in South America, and in some parts of Asia, especially about Siam.

**ISINGLASS** (Ger. hausenblase, hausblase; Fr. colle de poisson, carlock; Ital. cola di pesce; Russ. klei rybii, karluk). One of the purest and best of the animal glues. It is a product the preparation of which is almost peculiar to Russia. It is made of the air-bladders and sounds of different kinds of fish which are found in the large rivers that fall into the North Sea and the Caspian. That prepared from the sturgeon is generally esteemed the best; next to that the beluga; but isinglass is also prepared from sterlets, shad, and other fish, though not so good. The best is usually sold in little ringlets; the second sort is laid together like the leaves of a book; and the common sort is dried without any care. When dry, it is of a white colour, semi-transparent and dissolves readily in boiling water, and is used extensively in cookery. It is also used for making sticking-plaster, chemical

amounted to 47s. 6d. per cwt., was wholly repealed in 1853. In 1867 the imports and exports were respectively 2,732 cwt. and 122 cwt. The price varies from 16l. 3s. to 44l. 16s. per cwt. (Thomson's *Chemistry*; *British Pharmacopœia*; *Tooke's View of Russia*, 2nd ed. iii. 343 &c.)

**ISLE OF MAN.** [MAN, ISLE OF.]

**ITALY.** [FLORENCE; GENOA; NAPLES; VENICE; &c.]

**IVORY.** The name given to the teeth or tusks of the elephant, and of the walrus or sea-horse. Each male elephant comes to maturity has 2 tusks. These are hollow at the root, tapering, and of various sizes, depending principally on the age of the animal. Colour externally yellowish, brownish, and sometimes dark, internally white. The best are large, straight, and light-coloured, without flaws; not very hollow in the stump, but solid and thick. The most esteemed come from Africa, being of a closer texture, and less liable to turn yellow, than those from the East Indies.

The trade in London thus divide them:—  
First sort, weighing 70 lbs. or upwards; second sort, weighing 56 lbs. to 60 lbs.; third sort, weighing 38 lbs. to 56 lbs.; fourth sort, weighing 28 lbs. to 37 lbs.; fifth sort, weighing 18 lbs. to 27 lbs.

All under 18 lbs. are called *scrivelloes*, and are of the least value. In purchasing elephants' teeth, the ends, or cracked and decayed in the inside, may be rejected; and care taken that lead or any other substance has not been poured into the hollow. The freight is rated at 16 cwt. to the ton. (Milburn's *Orient. Com.*)

**Supply of Ivory.**—The imports of elephants' teeth amounted in 1867 to 10,343 cwt. The medium weight of a tusk may be taken at about 60 lbs., so that the importation of 1867 may be taken at 19,300 tusks; a fact which presumes the destruction of at least 9,500 male elephants &c. Occasionally tusks are accidentally broken, one lost in this way being replaced by a new one; a good many are also obtained from elephants that have died in the natural way; and some more are the produce of the walrus. Still it is sufficiently certain, that the supply from the last mentioned sources is not very large; and if to the quantity of ivory required for Great Britain, we add that required for the other countries of Europe, America, and Asia, the slaughter of elephants must, after every reasonable deduction is made, appear immense. Inasmuch, however, as this destruction falls only on the males, there is less foundation than might at first be supposed for the surprise that has sometimes been expressed that the breed of this noble animal has not been more diminished. The western and eastern coasts of Africa, the Cape of Good Hope, Ceylon, India, Malacca, are the great marts whence supplies of ivory are derived. The imports from Western Africa into Great Britain in 1866 amounted to 2,078 cwt.; the East Coast furnished 1,024 cwt.;

	Tubes, Pipes, &c.	Light-brasses, &c.	Parts of Works, &c.	Agri-cultural Implements
1	1000	1000	1000	1000
2	1900	265	125	125
3	473	253	973	973
4	355	491	1,550	1,550
5	421	1,550	1,843	1,843
6	491	21	900	900
7	1,550	26	1,287	1,287
8	1,843	145	129	763
9	21	110	—	—
10	900	442	—	—
11	1,287	—	—	—
12	145	—	—	—
13	110	—	—	—
14	442	—	—	—
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Egypt 3,628 cwt.; the Cape &c. 526 cwt.; and India 1,552 cwt. The Chinese market is principally supplied with ivory from Malacca, Siam, and Sumatra. Of that exported from Zanzibar the various kinds are *babliian*, or that intended for export to England or America; *Bombay ivory*, comprising all that is not suitable for other markets; *Cutch ivory*, for armlets, bangles &c.; and *scrivetloes* or small ivory, for billiard balls &c.

The chief consumption of ivory in England is in the manufacture of handles for knives; but it is also extensively used in the manufacture of musical and mathematical instruments, chessmen, billiard balls, plates for miniatures, toys &c. Ivory articles are said to be manufactured to a greater extent, and with better success, at Dieppe than in any other place in Europe. But the preparation of this beautiful material is much better understood by the Chinese than by any other people. No European artist has hitherto succeeded in cutting concentric balls after the manner of the Chinese; and their boxes, chessmen, and other ivory articles, are far superior to any that are to be met with anywhere else.

The following are the duties levied at the port of Zanzibar on ivory. Ivory from the coast, viz. from Kuliva, 3 dols. 50 cents per

frazil of 35 lbs. avoird.; from Unyanwoori, 3 dols. Ivory from the last place, according as bought by Arabs or natives, 12 to 15 dols. The duty on other ivories varies, according to the place of production, from 2 dols. to 8 dols. 50 cents per frazil.

*Historical Notice.*—It is a curious fact that the people of all Asiatic countries in which the elephant is found have always had the art of taming the animal and applying it to useful purposes, but that no such art has ever been possessed by any native African nation. Is this owing to any difference between the Asiatic and African elephants, or to the inferior sagacity of the African people? We incline to think that the latter is the true hypothesis. Alexander the Great is believed to have been the first European who employed elephants in war. It appears pretty certain that the elephants made use of by the Carthaginians were mostly, if not wholly, brought from India; and that they were managed by Indian leaders. Some of the latter were captured by the Romans, in the great victory gained by Metellus over Asdrubal. (See, on this curious subject, two very learned and valuable notes in the *Ancient Universal History*, 8vo. ed. vol. xviii. p. 429, and p. 549. Buffon's article 'On the Elephant' is a splendid piece of composition.)

## J

## JAGGERY. [SUGAR.]

JALAP or JALOP (Ger. jalapp; Fr. jalap; Ital. scarappa; Span. jalapa). The root of *Ipomoea jalapa*, *Pentandria monogynia*, natural order *Convolvulaceae*, so named from Xalapa, in Mexico, whence we chiefly import it. The root, when brought to this country, is in thin transverse slices, solid, hard, weighty, of a brownish colour on the outside, and internally of a yellowish-grey, with dark brown circular striae. The hardest and darkest coloured is the best; that which is light, spongy, and pale-coloured, should be rejected. The odour of jalap, especially when in powder, is very characteristic. Its taste is exceedingly nauseous, accompanied by a sweetish bitterness. (Lewis's *Mat. Med.*; Brande's *Pharmacy*; *British Pharmacopoeia*, 1867.) Jalap is adulterated with various roots of a similar appearance and botanical character. For these adulterations see Pereira's *Materia Medica*, and Ward and Bache's *United States Dispensatory*. The imports of jalap amounted in 1866 to 125,896 lbs., the average price of which was 3s. 11d. per lb.

## JAMAICA PEPPER. [PIMENTO.]

## JAPAN. [NAGASAKI.]

JAPANNE WARES (Ger. japanische ware; Dutch, japansh lakwerk; Fr. marchandises de Japon). Articles of every description, such as tea-trays, clock-dials, candlesticks, snuff-boxes &c., covered with coats of japan, whether plain or embellished with painting or gilding. Birmingham is the grand staple of this manufacture, which is there carried on to a great extent. Pontypool, in Monmouthshire, was formerly famous for japanning; but it is at present continued there on a very small scale only. It is prosecuted with spirit and success at Birston and Wolverhampton.

For information as to the history, extent, and character of the trade in japanned wares, see *Birmingham and the Hardware District*, 1865. In 1867 we imported 850 cwt. of japanned or

laacquered ware, valued at 5,928l., and exported 51 cwt., valued at 860l.

JASPER (Ger. jaspis; Dutch, jaspis; Fr. jaspé; Ital. diaspro; Span. jaspé; Russ. jachma). The stone is an ingredient in the composition of many mountains. It occurs usually in large amorphous masses, sometimes in round or angular pieces; fracture is conchoidal; specific gravity from 2.27. Its colours are various: when heated it does not decrepitate: it is usually divided into species, denominated Egyptian jasper, striped ribbon jasper, porcelain jasper, and common jasper. It is sometimes employed in the formation of seals, and in mosaic work &c. (Emanuel On *Precious Stones*.)

## JERSEY. [GUERNSEY.]

JET or PITCH COAL (Dutch, git, zand barnsteen; Fr. jais, jayet; Ger. gagat; Ital. gagat lustrino; Lat. gagus, gagates). Of a black or dark colour; occurs massive, in plates; sometimes the shape of branches of trees, but without regular woody texture. Internal lustre shining resinous, soft, rather brittle, easily fragilible, specific gravity 1.3. It is used for fuel, and in making vessels and snuff-boxes. In Prussia it is called black amber, and is cut into rosaries and necklaces. It is distinguished by its brilliant and conchoidal fracture. (Thomson's *Chemistry*.)

## JETSAM. [FLOTSAM.]

JETTISON. The act of casting over goods on board to save ship and cargo. [AVERAGE.] In order to justify jettison, it must have been caused by those who act through fear of perishing. 'Je ne suffit pas qu'on ait fait jet, il faut qu'on y été forcé par le crainte de périr.'—*Emerigon*. 'The old sea laws,' says Mr. Arnould, 'with this quaint precaution, lay down in solemn terms, and detail certain powers to be observed by the captain in the storm, before proceeding to make any sacrifice for the general safety. But the comment upon such prescription of ceremonies and celebration in the presence of impending danger'

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the experience of Jarga, who in the course of 60 years, passed as a magistrate in the consulate of the sea at Genoa, had known but four instances of regular jettison, and all of them were suspected of fraud, because the prescribed forms had been too well observed.

The best illustration of a legitimate jettison is given by Emerigon. On February 16, 1782, Joseph Antoine Demoulin, of Marseilles, was pursued by four enemies, who rapidly gained on him. At nightfall, 5 p.m., he launched his long boat, having rigged her with mast and sail, and having fixed a light at a mast head. He then set her adrift, and changed his route. The enemy was deceived, and the captain reached Marseilles in safety. This jettison was considered to have been made for the sake of saving ship and cargo, and was held to be a general average loss. (*Emerigon*, c. 12, sec. 41, l. 623.)

Goods jettisoned still belong to their owners, and may be reclaimed on payment of salvage.

**JEWELLERY.** The manufacture of personal ornaments in gold, silver, and precious stones.

The chief seats of this manufacture are London (Clerkenwell) and Birmingham, the former for the finer, the latter for the medium and commoner kinds of work. It is one of the staple manufactures of Birmingham, employing, according to Mr. Wright, more hands than any other industry in that town. The trade too is in the hands of a large number of small and independent manufacturers. Mr. Wright calculates that 7,500 persons are engaged in the trade, and that, reckoning three persons to each of these workmen, 20,000 persons at least depend on the jewellery manufacture of Birmingham. The gold consumed in this trade is calculated to amount to 600,000*l.* or 700,000*l.* yearly, and the silver at from 100,000*l.* to 500,000*l.*

The exports of jewellery in the year 1867 were valued at 154,586*l.*, the imports at 120,935*l.* The exports were chiefly sent to Egypt, and most of the imports come from Belgium. (For the Birmingham jewellery trade, see Mr. Wright's essay, *Birmingham and the Midland Hardware District*, 63.)

**JUICE OF LEMONS, LIMES, or ORANGES.** By the 30 & 31 Vict. c. 124, to amend the Merchant Shipping Act, it is provided, sec. 4, that the following rules shall be observed with respect to medicines, medical stores, and anti-scorbutics.

1. The Board of Trade shall from time to time issue and cause to be published scales of medicines and medical stores suitable for different ships and voyages, and shall also prepare or sanction a book or books containing instructions for dispensing the same.

2. The owners of every ship navigating between the United Kingdom and any place out of the same shall provide and cause to be kept on board such ship a supply of medicines and medical stores in accordance with the scale appropriate to the said ship, and also a copy of the said book or of one of the said books containing instructions.

3. No lime or lemon juice shall be deemed fit and proper to be taken on board any such ship, for the use of the crew or passengers thereof, unless the same has been obtained from a bonded warehouse for and to be shipped as stores; and no lime or lemon juice shall be so obtained or delivered from any warehouse as aforesaid unless the same is shown by a certificate under the hand of an inspector appointed by the Board of Trade, to be proper for use on board ship, such certificate

to be given upon inspection of a sample after deposit of the said lime or lemon juice in the warehouse; nor unless the same contains fifteen per centum of proper and palatable proof spirits, to be approved by such inspector, or by the proper officer of customs, and to be added before or immediately after the inspection thereof; nor unless the same is packed in such bottles, at such time and in such manner, and is labelled in such manner as the Commissioners of Customs may direct; provided that when any such lime or lemon juice is deposited in any bonded warehouse, and has been approved as aforesaid by the said inspector, the said spirits, or so much of the said spirits as is necessary to make up fifteen per centum, may be added in such warehouse, without payment of any duty thereon; and when any spirit has been added to any lime or lemon juice, and the same has been labelled as aforesaid, it shall be deposited in the warehouse for delivery as ship's stores only, upon such terms and subject to such regulations of the Commissioners of Customs as are applicable to the delivery of ship's stores from the warehouse.

4. The master or owner of every such foreign-going ship (except those bound to European ports or to ports in the Mediterranean Sea, and also except such ships or classes of ships bound to ports on the eastern coast of America north of the 35th degree of north latitude, and to any islands or places in the Atlantic Ocean north of the same limit, as the Board of Trade may from time to time exempt from this enactment) shall provide and cause to be kept on board such ship a sufficient quantity of lime or lemon juice from the warehouse duly labelled as aforesaid, such labels to remain intact until 24 hours at least after such ship shall have left her port of departure on her foreign voyage, or a sufficient quantity of such other anti-scorbutics, if any, of such quality, and composed of such materials, and packed and kept in such manner, as her Majesty by order in council may from time to time direct.

5. The master of every such ship as last aforesaid shall serve or cause to be served out the lime or lemon juice with sugar (such sugar to be in addition to any sugar required by the articles) or other such anti-scorbutics as aforesaid to the crew so soon as they have been at sea for 10 days, and during the remainder of the voyage, except during such time as they are in harbour and are there supplied with fresh provisions; the lime or lemon juice and sugar to be served out daily at the rate of a ounce each per day to each member of the crew, and to be mixed with a due proportion of water before being served out, or the other anti-scorbutics, if any, at such times and in such quantities as her Majesty by order in council may from time to time direct.

6. If at any time when such lime or lemon juice or anti-scorbutics is or are so served out as aforesaid any seaman or apprentice refuses or neglects to take the same, such neglect or refusal shall be entered in the official log book in the manner provided by sect. 281 of the principal Act, and shall be signed by the master and by the mate or some other of the crew, and also by the surgeon or medical practitioner on board, if any.

And if in any such ship as aforesaid such medicines, medical stores, book of instructions,

lime or lemon juice, sugar, or anti-scorbutics as are hereinbefore required are not provided, packed, and kept on board as hereinbefore required, the owner or master shall be deemed to be in fault, and shall for each default incur a penalty not exceeding 20*l.*, unless he can prove that the non-compliance with the above provisions, or any of them, was not caused through any inattention, neglect, or wilful default on his part; and if the lime or lemon juice and sugar or other anti-scorbutics are not served out in the case and manner hereinbefore directed, or if entry is not made in the official log in the case and manner hereinbefore required, the master shall be deemed to be in fault, and shall for each default incur a penalty not exceeding 5*l.*, unless he can prove that the non-compliance with the above provisions, or any of them, did not arise through any neglect, omission, or wilful default on his part; and if in any case it is proved that some person other than the master or owner is in default in any case under this section, then such other person shall be liable to a penalty not exceeding 20*l.*

Any person who manufactures, sells, or keeps or offers for sale any such medicines or medical stores as aforesaid which are of bad quality, shall for each such offence incur a penalty not exceeding 20*l.*

In any British possession out of the United Kingdom the governor or officer administering the government for the time being shall, subject to the laws of such possession, have power to make regulations concerning the supply within such possession of lime or lemon juice and anti-scorbutics for the use of ships; and any lime or lemon

juice or anti-scorbutics duly supplied in accordance with any such regulations, shall be deemed to be fit and proper for the use of ships.

Whenever it is shown that any seaman or apprentice who is ill has, through the neglect of the master or owner, not been provided with proper food and water according to his agreement or with such accommodation, medicines, medical stores, or anti-scorbutics as are required by the principal Act or by this Act, then, unless it can be shown that the illness has been produced by other causes, the owner or master shall be liable to pay all expenses properly and necessarily incurred by reason of such illness (not exceeding in the whole 3 months' wages), either by such seaman himself or by her Majesty's Government, or any officer or other local authority on his behalf, and such expenses may be recovered in the same way as they were wages duly earned: provided that the enactment shall not operate so as to affect the further liability of any such owner or master in such neglect, or any remedy which any seaman already possesses.

Where a seaman is by reason of illness incapable of performing his duty, and it is proved that such illness has been caused by his own wilful act or default, he shall not be entitled to wages for the time during which he is incapable of such illness of performing his duty.

In 1867, 242,093 gallons of juice of lemons, limes, and oranges were imported into the United Kingdom.

JUNIPER BERRIES. [BERRIES.]

## K

### KAURI GUM. [GUM.]

**KELP.** A substance composed of different materials, of which the fossil or mineral alkali or, as it is commonly termed, soda, is the chief. This ingredient renders it useful in the composition of soap, in the manufacture of alum, and in the formation of crown and bottle glass. It is formed of marine plants, which, being cut from the rocks with a hook, are collected and dried on the beach to a certain extent; they are afterwards put into kilns prepared for the purpose, the heat of which is sufficient to bring the plants into a state of semi-fusion. They are then strongly stirred with iron rakes; and when cool, condense into a dark blue or whitish mass, very hard and solid. Plants about 3 years old yield the largest quantity of kelp. The best kelp has an acrid, caustic taste, a sulphurous odour, is compact, and of a dark blue greenish colour. It yields about 5 per cent. of its weight of soda. (Barry's *Orkney Islands*, p. 377; Thomson's *Dispensatory*.)

The manufacture of kelp is, or rather was, principally carried on in the Western Islands, and on the western shores of Scotland, where it was introduced from Ireland, about the middle of last century. Towards the end of the war which closed in 1815, the kelp shores of the island of North Uist let for 7,000*l.* a-year. It has been calculated that the quantity of kelp annually manufactured in the Hebrides only, exclusive of the mainland, and of the Orkney and Shetland Isles, amounted, at the period referred to, to about 6,000 tons a-year; and that the total quantity made in Scotland and its adjacent isles amounted to about 20,000 tons. At some periods during

that war it sold for 20*l.* per ton. (Art. Scotch *Edinburgh Encyclopædia*.)

The foundations on which this manufacture rested were, nevertheless, altogether precarious, existence depended on the maintenance of high duties on barilla and salt. Inasmuch, however, as kelp could not be substituted, while undergoing a very expensive process, for barilla in a great many departments of industry in the use of mineral alkali is indispensable, it became necessary materially to reduce the high wages laid on barilla. The ruin of the kelp manufacture has been ascribed to this reduction; but the barilla had been altogether excluded from the markets, which could not have been done without great injury to the many most important manufactures, the result would have been precisely the same, in so far as kelp is concerned, as the high duty on salt had also been maintained. It was the repeal of the latter that gave the manufacture the coup de grace. The purchase of kelp, so as to render it fit for soap-making, is much more troublesome and expensive than the decomposition of salt; and the greater quantity of alkali used is now obtained by the latter method. Had the duty on salt not been repealed, kelp might still have been manufactured notwithstanding the reduction of duty on barilla.

The manufacture is now almost extinct. That formerly yielded the proprietors a revenue of 200*l.* to 500*l.* a-year, are now worth nothing. The price of kelp since 1822 has been, at an average, above 4*l.* per ton; and the article will, most probably, soon cease to be produced.

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This result, though injurious to the proprietors of the shores, and productive of temporary distress to the labourers employed in the manufacture, is not to be regretted. It could not have been obtained without keeping up the price of some of the most important necessaries of life at a forced and unnatural elevation. The proprietors had not the vestige of a ground for considering that such a state of things would be permanent; they did not expect that Government was to subject the country, during peace, to some of the severest privations occasioned by the war, merely that they might continue to enjoy an accidental advantage.

**KENTLEDGE.** The name sometimes given to the iron pigs cast in a particular form for ballasting ships, and employed for that purpose. **KERNES** (Ger. *scharlachbeeren*; Dutch, *grain scharlackbeessen*; Ital. *grana, chermes, cermese, scharlackbeessen*; Span. *grana kermes, grana de la cosejoja, cochin*; Fr. *grana kermes, grana de la cosejoja*). An insect (*Coccus ilicis*, Linn.), of the same species as the true Mexican cochineal, found upon the *Quercus iliz*, a species of oak growing in Spain, France, the Levant &c. Before the discovery of America, kermes was the most esteemed drug for dyeing scarlet, and had been used for that purpose from a very remote period. Beckmann inclines to think that it was employed by the Phœnicians, and that it excelled even the famous Tyrian purple. (*History of Inventions*, vol. ii. p. 197, Eng. ed.) From the name of *coccum* or *coccus*, cloth dyed with kermes was called *coccinum*, and persons wearing this cloth were said by the Romans to be *coenati*. (*Mart. lib. i. epig. 97, lin. 6.*) It is singular, however, notwithstanding its extensive use in antiquity, that the ancients had the most incorrect notions with respect to the nature of kermes; many of them supposing that it was the grain (*grana*) or fruit of the *ilic*. This was Pliny's opinion; others, after him, considered it in the same light, or as an excrement formed by the fracture of a particular kind of fly, like the gallnut. It was not till the early part of last century that it was finally and satisfactorily established that the kermes is really nothing but an insect assuming the appearance of a berry in the process of drying. The term kermes is of Persian origin. The Arabians had been acquainted with this production from the earliest periods in Africa; and having found it in Spain, they cultivated it extensively as an article of commerce, as well as a dye drug for their own use. But since the introduction of cochineal, it has become an object of comparatively trifling importance. It is still, however, prepared in some parts of Spain, and dyed with kermes are of a deeper colour; but though much inferior in brilliancy to the scarlet dyes dyed with real Mexican cochineal, they retain the colour better, and are less liable to fade. The old tapestries of Brussels, and other manufactures in Flanders, which have scarcely lost anything of their original vivacity, though 200 years old, were all dyed with kermes. The history of this production has been treated with great accuracy by Beckmann (*History of Inventions*, vol. i. pp. 171—191, 1st ed. trans.); and by Dr. Bancroft (*Permanent Colours*, vol. i. pp. 393—409).

**KEY-WEST.** A small island from 4 to 5 miles length, by 1 in width; 56 miles S.W. from Cape Sable in Florida. It is one of the Florida Keys, or of that extensive circular range of low sandy banks, and reefs, which fences the coast of Florida, and forms the northern boundary of the Gulf Stream, from the Tortugas Islands on the N. to Cape Florida on the N. There are

two lighthouses, one on the N.W. passage, another on the S.W. point of the island. About 7½ miles S.W. from Key-West Lighthouse is another, which gives a flash for 10 seconds every alternate minute. The town of Key-West, near the N.W. part of the island, has about 1,600 inhabitants, and an excellent harbour, with about 25 feet water. A safe passage, about 6 miles in length, leads by Key-West from the Gulf Stream to the Gulf of Mexico. It has 12 feet water at ebb tide, and vessels from the N. bound for New Orleans, Mobile &c., or from the latter for the former, by passing through it, avoid the delay and danger of the more westerly passage round the Tortugas.

Owing to the frequent accidents to shipping from coming in contact with the banks and reefs in this dangerous vicinity, the American Government has organised an establishment at Key-West for the assistance of ships in distress, and made it the seat of an admiralty court for the adjudication of claims for salvage. The former consists of above 20 licensed vessels, with crews of about 10 men each. These are kept constantly cruising about on the look-out for ships in distress or wanting pilots; and as their emolument principally depends on the fees they obtain for their assistance, it may be fairly assumed that it will be rendered with the greatest alacrity. But the desirable thing is to hinder vessels from getting on shore, the assisting them when in that predicament being, though an important, a secondary consideration. The latter, however, and not the former, is the main object which the licensed cruisers of Key-West have in view; and it would be preferable could means be devised for making their remuneration depend rather on their success in preventing disasters than, as at present, in mitigating their influence. This is by no means easily done. Shipwrecks will, perhaps, be more effectually prevented by increasing the number of lighthouses, light-vessels, and sea-marks, along the edges of the islands and reefs, than in any other way. We subjoin an account of the ships wrecked, the sums awarded as salvages by the court of Key-West &c., in each of the 14 years ending with 1857.

Year	Number of Vessels	Salvage	Expenses	Value of Vessels and Cargoes
1844	29	dols. 95,742	dols. 169,665	dols. 725,000
1845	26	69,592	105,709	737,000
1846	56	122,892	251,125	1,597,500
1847	37	109,030	200,600	1,624,000
1848	32	125,300	207,560	1,688,000
1849	47	127,870	219,160	1,305,000
1850	50	122,831	200,860	929,800
1851	51	75,832	165,865	911,500
1852	35	80,112	163,000	675,000
1853	57	171,350	230,100	1,973,000
1854	61	82,940	166,365	2,314,000
1855	80	108,065	189,800	2,844,077
1856	71	163,117	292,641	4,797,600
1857	59	101,890	172,984	2,666,450
Total	635	1,556,153	2,683,295	21,599,067

(Blunt's *American Pilot*, p. 25; Hunt's *Commercial Magazine* for February 1858; &c.)

**KINO** (Fr. *gomme de kino*; Span. *quino*; Ger. *kinoharz*; Ital. *chino*). A gum, the produce of trees that grow in the East and West Indies, Africa, Botany Bay &c. The researches of Dr. Pereira and others have shown that kino is a vegetable extract or gum, obtained by boiling twigs of a tree (*Pterocarpus marsupium*) which grows in the East and West Indies, Africa, South America, and Australia. The nut is that exported from Bombay. The substance is found in small angular brittle fragments of a deep scarlet red colour, and of a glistening appearance. When chewed, it tinges the saliva blood-

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red. It has a bitter, highly astringent taste, but leaves a slight sense of sweetness in the mouth. Kino contains a large quantity of a peculiar kind of tannin, 75 per cent, according to some chemists, but is chiefly used in medicine. (*Pereira's Materia Medica*; Wood and Baehre's *United States Dispensary*; *British Pharmacopœia* 1867.)

**KIU KIANG.** This river-port is situated at the outlet of the great Po Yang Lake, which occupies a vast area in the centre of the province of Kiang-si. It is distant 445 geographical miles from Shanghai, and 137 from Hankow. The object which the British ministers had in claiming this as one of the open ports in the treaty of 1861 seems to have been its proximity to the green tea districts of Kiang-si and Ngan-hwei. This important city was almost destroyed by the Taeping rebels, who occupied it from 1853 to 1858. When, however, this rebellion came to an end, the population rose anew from 10,000 to 40,000 souls in 1862. In 1866 there were at Kiu Kiang 8 British mercantile houses or agencies, and 3 United States firms. There is a British consul on the spot.

The following are the exports of tea for the years 1863-6:—

	1863	1864	1865	1866
	lbs.	lbs.	lbs.	lbs.
Black	9,818,008	10,294,555	8,961,558	12,476,400
Green	15,721,415	7,699,003	18,140,790	10,449,666
Leaf	832,635	326,348	152,788	131,513

This return for 1866 is exclusive of tea dust, 823,333 lbs. of which were exported in 1866.

#### Trade of Kiu Kiang, 1864-1866.

	1864	1865	1866
Exports (ex. treasure)	£1,533,053	£2,911,413	£2,009,606
Imports (ex. treasure)	1,041,218	1,161,633	1,301,070

479 vessels (almost exclusively British and American) of 357,875 tons entered, and 477 of 357,016 tons cleared the port in 1866. The chief imports are textile fabrics and opium.

**KNIVES** (Ger. messer; Dutch, messen; Fr. couteaux; Ital. coltelli; Span. cuchillos; Russ. noshi). Well-known utensils made of iron and steel, and employed to cut with; they are principally manufactured in London and Sheffield. Knives are made for a variety of purposes, as their different denominations imply; such as table knives, pen knives, oyster knives, pruning knives &c. Although England at present excels every part of the world in the manufacture of knives, as in most branches of cutlery, the finer kinds were imported until the reign of Elizabeth. It is stated by Mr. Macpherson (*Annals of Com.*, anno 1563) that knives were not made for use in England till 1563; but there can be no doubt that this is an error. They had been made, though probably of a rude and clumsy pattern, for centuries before, in the district called Ilal' shire, of which Sheffield is the centre; and the cutlers of London were formed into a corporation in 1417. (*Manufactures in Metal*, vol. ii. c. i., in Lardner's *Cyclopædia*.)

**KÖNIGSBERG.** The capital of East Prussia, in lat. 54° 42' 11" N., long. 20° 29' 15" E. Population, in 1864, 101,507.

**Port &c.**—Königsberg is situated on the Pregel, which flows into the Frische Hafl, or Fresh Bay, a large lake having from 10 to 14 feet water. The bar at the mouth of the Pregel has only from 10 to 11 feet water, so that vessels of more than that draught of water require to be lightered to come up to Königsberg. Pillau, in lat. 54° 33' 39" N., long. 19° 52' 30" E., on the north side of the entrance from the Baltic to the Frische Hafl, is

properly the port of the town, and since 1866 has been connected with it by railway. Within these few years a lighthouse has been erected on a rising ground a little to the south of Pillau, the lantern of which is elevated 95 feet above the level of the sea. The light is fixed and brilliant. The entrance to the harbour is marked by buoys; those on the larboard side being surmounted by small flags. A Gothic building, 120 feet above the level of the sea, has been erected to serve for a landmark; at a distance it looks like a three-masted ship under sail. There is usually from 15 to 16 feet water between the buoys on entering the harbour; but particular winds occasion material differences in this respect.

**Trade of Königsberg.**—Being situated on a navigable river of considerable importance, Königsberg has a large command of internal navigation, and is the principal emporium of a large extent of country, but her importance will be much increased by the completion of the East Prussian Southern Railway. Wheat, rye, and other species of grain are the chief articles of export. The wheat is somewhat similar to that of Dantzic, but of inferior quality, being larger to the berry, and thicker skinned. The rye is of good quality, but barley, with few exceptions, is thin and light. A few remarkably large and fine pens are exported; but the bulk are of small size and inferior. Oats are common feed, with a slight admixture of tares; but as these last answer in some degree the purpose of beans, the value of the oats is rather enhanced than otherwise by the circumstance. More tares are shipped here than from any other port in the Baltic. The price of all sorts of grain is usually lower at Königsberg than at the neighbouring Prussian ports. Linseed and rapeseed, hemp, flax, linum, oil-cake, oil, bristles, refined sugar &c. are largely exported; with smaller quantities of bones, mares, ashes, feathers, wax, hides and skins &c. The bristles are the best in the Baltic. Timber, deals, and staves are as good as at Memel, but being scarce, few or none are exported. The imports are sugar, tea, herrings, iron and steel, coffee, wines, tin and tin plates, dye woods, tobacco, spices, drugs, coals &c. The Government monopoly of salt has been abolished, and it will for the future, says Mr. Consul Hertzel, be subject to an import duty of 2 thalers or 60 per cwt. In 1866 there arrived at Pillau 1,220 vessels of 154,036 tons, of which one-third were British.

**Money, Weights, and Measures,** same as at DANTZIC.

The following dues are charged on shipping at Königsberg and Pillau.

#### At Pillau.

If with cargo:

On arrival, 4 silbergroschen per last.

On departure, 4 silbergroschen per last.

If in ballast or empty:

On arrival, 2 silbergroschen per last.

On departure, 2 silbergroschen per last.

Ships had formerly to pay, respectively, 10 and 7½ silbergroschen per last, before June 1866, and subsequently, and up to May 15, 1867, 8 and

#### At Königsberg.

River Pregel's Mouth.—Money for vessels coming to Königsberg, in and out—

If with cargo, 3 silbergroschen 6 pfennige per last,

If in ballast, 1 silbergroschen 9 pfennige per last,





against the former dues of, respectively, 5 silver-groschen 6 pfennige, and 2 silvergroschen 9 pfennige per last.

The Königsberg town dues, such as stream and bulwark money, River Pregel Mouth money, and bridge money, are reduced to half of the former rates from May 15, 1867, and Consul Hertlet (Report, April 1867) holds out hope that all local dues will be abolished, and that the harbour dues will be assimilated to those of Hanover.

**KURRACHEE.** A sea-port of British India, at the N.W. extremity of the coast of Sind, lat. 24° 51' N., long. 67° 2' E. Population of town and suburbs in 1853, 22,227. It derives almost all its importance from its being the only safe sea-port on the coast of Sind, and from its adaptation to serve as the grand W. emporium of the vast territories traversed by the Indus. In this respect it holds fair entirely to supersede Tatta, elsewhere described. It is situated about 22 miles E. from Cape Monze, on a level piece of ground at the extremity of the Brahooic mountains. The harbour, which is spacious and secure, has a bar in its mouth, on which there are from 16 to 18 feet water at high-water ordinary tides, and from 20 to 21 feet or upwards at high-water springs. And allowing for the difference in the statements with respect to the depth of water on the bar, still there can be no question that the harbour has been safely entered by ships of from 700 to 800 tons burden or upwards; and it is accessible at all times of the year, even during the season of the monsoons. It appears, indeed, to be sufficiently established, that, with a properly organised pilot establishment, and the employment for one or more years of two or three powerful steam dredging machines to deepen or remove the bar, the port would be constantly available for ships of from 800 to 1,000 tons. Kurrachee has a lighthouse at Massora Fort, visible 16 miles in clear weather.

A railway, certainly the most important for its length (10 miles) of any in India, has been completed, from Kurrachee to Hyderabad on the Indus, the point at which the latter becomes available for large ships, and from which it may be navigated for about 570 miles by steamers built for the purpose. There is, consequently, every prospect of Kurrachee becoming one of the most important of the Eastern emporiums. It would be useless to dwell on the all but boundless extent, the great natural riches, and the immense capacities of improvement of the countries watered by the Indus and its affluents; and it may fairly be doubted, taking these circumstances into account, whether the anticipations of those who regard that the commerce of Kurrachee is depressed, at some future and not very remote period,

to equal that of New Orleans, the emporium of the Mississippi, be really so very wide of the mark as at the first blush of the matter they may seem even at present, its trade is far from inconsiderable.

It has two routes to Tatta, and it has been said that there is a water communication between Kurrachee and the Indus; but this has been denied, and is most probably a mistake. No doubt, however, it would be easy, from the nature of the ground, to cut a canal between an expedient measure. In the mean time the railway, by bringing Kurrachee into contact, as it were, with Hyderabad and the deep water of the Indus, has made it the port of India have been carried in the first instance to Kurrachee.

In 1866-7 the exports consisted principally of wheat and other grain, provisions and oilman's stores, raw silk, raw cotton, oil and oil seeds, saltpetre and wool (which has rapidly increased, and is now by far the most important article), indigo, munjeet or madder, drugs &c. But when the navigation of the Indus is carried on actively, Kashmere shawls, silk, and a great variety of the most valuable articles, will be added to the list of exports.

The imports consist of cotton stuffs and twist, iron, hardware, and machinery, spices, wines &c.

*I.—Account of the Values (in Rupees) of the Imports into and Exports from Kurrachee in each of the 10 Years ending with 1865-6, with Amount of Customs Duties collected.*

Year	Imports		Exports		Total Value	Customs Duty
	Rs.	Rs.	Rs.	Rs.		
1856-7	68,56,657	73,45,222	1,42,01,879	—	1,42,01,879	—
1857-8	1,09,11,012	1,07,74,286	2,15,92,298	—	2,15,92,298	81,550
1858-9	1,51,06,058	1,04,42,181	2,56,18,781	—	2,56,18,781	89,198
1859-60	1,71,27,517	91,75,318	2,66,00,863	—	2,66,00,863	2,06,290
1860-1	1,65,66,881	1,08,09,918	2,68,36,199	—	2,68,36,199	441,599
1861-2	1,51,97,515	1,41,67,998	2,96,65,543	—	2,96,65,543	515,853
1862-3	2,51,29,181	3,28,75,912	5,55,01,136	—	5,55,01,136	515,888
1863-4	2,47,27,377	4,18,80,734	6,66,28,106	—	6,66,28,106	529,390
1864-5	2,51,67,000	2,99,80,100	5,21,47,150	—	5,21,47,150	457,217
1865-6	2,01,95,509	2,79,27,950	4,81,23,145	—	4,81,23,145	541,374
Total	17,28,03,443	19,44,15,266	36,72,18,695	—	36,72,18,695	3,528,156
Average value for 10 years -	1,72,80,343	1,94,41,526	3,67,24,869	—	3,67,24,869	5,38,815
Value for 1866-7, end of April	2,98,71,655	2,52,89,693	5,51,61,348	—	5,51,61,348	4,23,256
Increase in 1866-7 -	1,25,91,312	58,48,167	1,81,36,479	—	1,81,36,479	84,441

The large amount of Customs duty collected from 1859-60 to 1862-3 inclusive was on account of 10 per cent. duty on railway iron, which was reduced by Act 26 of 1863 to 1 per cent.

*—Account showing the Countries having Trade with Sind in 1865-6 and 1866-7, with the Value of the Imports from and Exports and Re-Exports to each.*

Countries	Imports		Exports and Re-Exports	
	1865-6	1866-7	1865-6	1866-7
	Rs.	Rs.	Rs.	Rs.
Other External Ports—				
China Kingdom	—	—	—	—
Free	—	—	—	—
Am	38,21,751	—	—	—
Arabia	6,300	—	—	—
Burma	—	—	—	—
Penan Gulf	—	—	—	—
Assam and Melran	4,903	198	31,192	78,36,381
Arab. Coast of	7,09,301	3,61,301	6,86,371	5,36,182
Arab. Coast of	57,751	39,611	6,03,411	52,148
Arab. Coast of	6,692	9,920	95,119	60,967
Arab. Coast of	—	—	1,475	4,598
Arab. Coast of	1,58,45,194	2,03,70,373	300	—
Arab. Coast of	2,97,605	74,916	1,50,34,342	1,24,87,233
Arab. Coast of	47,367	—	1,125	—
Arab. Coast of	—	—	3,57,419	—
Arab. Coast of	755	1,460	2,709	1,95,251
Arab. Coast of	2,01,95,509	27,56,986	2,79,27,956	795
Total	—	—	—	2,21,21,232

III.—Table showing the Aggregate Value of the Principal Articles of Export from Sindh by Sea in 1866-67 compared with 1865-66.

Articles	1865-6		1866 7		Increase	Decrease
	Rs.	Rs.	Rs.	Rs.		
Apparel	20,878	18,540	..	..	2,338	..
Books and stationery	8,202	7,000	..	..	1,202	..
Borra	21,839	12,255	..	..	12,601	..
Cabinetware	15,110	19,010	..	..	12,450	..
Cotton goods	3,700,104	3,23,871	..	..	47,033	..
Wool	26,53,403	69,99,963	..	..	27,15,140	..
Drugs and medicines	2,51,771	2,29,631	..	..	22,937	..
Ives	14,17,160	12,24,915	..	..	1,65,245	..
Flax and manufac- tures of	..	20,000	20,000	..	..	..
Fruits and vegetables	2,14,850	1,62,350	..	..	75,478	..
Fuel—firewood	..	8,179	8,179	..	..	..
Grain	3,84,735	47,82,737	14,90,000	..	..	..
Gum	17,653	9,202	..	..	8,331	..
Horses and animals	4,61,242	2,26,530	..	..	2,35,012	..
Hides	..	76,293	20,371	..	..	..
Ivory	1,803	2,273	1,070	..	..	..
Jewellery	12,069	75	..	..	11,994	..
Jute and manufac- tures of	11,066	3,397	..	..	10,269	..
Lea	159	1,153	991	..	..	..
Oil	1,01,297	6,17,260	5,12,963	..	..	..
Perfumes and Oil- man's stores	19,05,716	11,95,574	..	..	8,02,159	..
Saltpetre	97,518	51,190	..	..	43,328	..
Seris	16,89,817	31,24,733	15,94,522	..	..	..
Silk and manufac- tures of	3,75,925	7,08,869	3,32,916	..	..	..
Sugar and other sac- charine matters	3,99,162	3,02,747	..	..	96,415	..
Tallow	132	7,105	7,271	..	..	..
Tea	3,916	12,957	9,911	..	..	..
Tobacco	51,530	7,548	..	..	27,182	..
Wood and manufac- tures of	7,670	43,701	36,031	..	..	..
Wool	61,18,801	41,30,829	..	..	22,87,971	..
Sundries	9,11,301	9,09,926	..	..	1,275	..
Total merchandise	2,77,36,511	2,52,28,195	30,10,150	66,08,669	..	..
Treasure	1,31,322	61,794	..	..	69,524	..
Total rupees	2,79,27,936	2,52,89,989	30,10,150	66,78,193	..	..
Deduct increase	..	..	..	10,80,150	..	..
Net decrease	..	..	..	26,38,015	..	..

IV.—Statement of Ships and Tonnage Entered and Cleared from Ports in Sindh in 1866-67.

	Entered		Cleared	
	Vessels	Tonnage	Vessels	Tonnage
<b>SQUARE-RIGGED VESSELS AND STRAMERS.</b>				
Under British colours	71	56,070	69	53,728
French	7	3,194	4	1,774
American	1	1,163	2	2,278
Russian	1	761	1	761
Portuguese	..	..	..	..
British Steamers	39	15,018	37	14,852
Total	120	76,808	113	73,553
<b>MATEE CRUFT.</b>				
Under British colours	612	31,819	614	31,401
Portuguese	7	220	8	161
Dutch	956	49,037	909	51,616
Arab	61	4,017	51	3,751
Mekran	7	155	8	192
Total	1,943	85,268	1,588	90,167
Grand total	1,763	1,62,076	1,701	1,63,720

LABUAN. A small island off the N.W. coast of Borneo, a dependency of the British crown, about 6 miles distant from the nearest point of the mainland, and 30 miles N. from the city of Borneo or Bruni, lat. 5° 12' N., long. 115° 19' 36" E. It is from 25 to 30 miles in circuit, flat, and covered with wood. The anchorage, on the S. side of the island, is protected by a greater and 3 smaller islands; and the town of Victoria has been commenced at the embouchure of a rivulet in a small bay, at the head of the anchorage. Coal of good quality is found on the island, and it is well supplied with fresh water. It was ceded by the Sultan of Borneo to Great Britain in 1844; and the late Sir James Brooke, who negotiated its cession, was afterwards appointed its governor. When it came into our possession it

V.—Table showing the Aggregate Value of the Principal Articles of Imports into Sindh by Sea in 1866-67 compared with similar Imports in 1865-66.

Articles	1865-66		1866-67		Increase	Decrease
	Rs.	Rs.	Rs.	Rs.		
Apparel	2,20,632	2,67,519	..	..	46,817	..
Arms and ammuni- tion	28,919	58,551	..	..	29,632	..
Books and stationery	2,11,019	1,30,972	..	..	80,047	..
Cabinetware	10,959	13,298	..	..	2,339	..
Carriage	..	22,167	..	..	22,167	..
Ceramics	1,28,005	1,61,822	..	..	33,817	..
Coffee	28,538	59,976	..	..	31,438	..
Cur, and manufac- tures of	12,793	21,951	..	..	9,158	..
Corks	8,817	16,945	..	..	8,128	..
Cotton piece goods	85,81,502	0,42,848	..	..	9,01,305	..
Cotton thread, twist, and yarn	..	..	..	..	..	..
Drugs	4,85,119	5,27,500	..	..	42,381	..
Dyes	1,39,379	1,22,229	..	..	17,150	..
Earthenware and porcelain	2,51,078	2,55,297	..	..	24,319	..
Fruits, dried and preserved	26,253	52,133	..	..	25,880	..
Glassware	3,73,279	2,67,515	..	..	1,05,764	..
Ironware	16,083	35,114	..	..	19,031	..
Grain and pulse	2,08,432	29,012	..	..	1,79,420	..
And yarn	5,326	5,827	..	..	501	..
Ivory, and manufac- tures of	..	..	..	..	..	..
Jewellery	57,307	60,200	..	..	2,893	..
Jute, and manufac- tures of	16,561	23,305	..	..	6,744	..
Leather, and manufac- tures of	4,12,732	4,42,999	..	..	30,267	..
Liquors (ales, cider, wines, liqueurs, spirits)	40,176	48,004	..	..	7,828	..
Machinery	8,27,639	8,33,293	..	..	5,654	..
Mate-rails for steam- ers and flats	99,125	4,14,285	3,15,160	..	..	..
Medicinal stores	..	5,61,761	5,61,761	..	..	..
Metals, and manufac- tures of	13,62,605	8,103	..	..	13,54,502	..
Oils	16,21,222	2,28,511	..	..	13,92,711	..
Oilman's stores and provisions	1,66,899	70,919	..	..	95,980	..
Paints and colours	2,97,525	2,37,825	..	..	59,700	..
Perfumery	10,262	14,359	..	..	4,097	..
Raw silk materials	12,64,228	30,01,095	17,36,867	..	..	..
Silk, and manufac- tures of	7,08,132	11,31,578	4,23,446	..	..	..
Spices	5,57,777	4,35,157	..	..	1,22,620	..
Sugar and other sac- charine matters	550,325	7,31,591	1,81,566	..	..	..
Tea	5,22,971	5,23,018	..	..	5	..
Tobacco	76,929	13,227	..	..	63,702	..
Timber and plank	47,114	1,24,422	80,308	..	..	..
Wool, and manufac- tures of	2,88,201	2,65,712	..	..	22,489	..
Sundries	9,77,781	8,92,759	..	..	85,022	..
Total merchandise	1,26,8,236	2,52,56,413	10,42,759	10,42,759	..	..
Treasure	15,17,271	6,15,212	9,02,059	..	..	..
Total rupees	2,01,95,509	3,97,1,655	10,40,818	..	..	..
Deduct decrease	..	..	..	..	..	..
Net increase	..	..	..	..	..	..

We have been indebted for these details, partly to the art. 'Kurrachee' in Thornton's excellent *Gazetteer of India*, and to the work of Mr. Anderton on the *Indus and its Provinces*, and partly on official papers of a later date, and private information. For tariff, see CALCUTTA.

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was uninhabited; but its situation is such that provided it be moderately healthy, it can hardly fail to become an important emporium. It is near the best route for shipping from the Straits of Singapore to China, and, while it is extremely well situated for carrying on trade with the W. N. coasts of Borneo and the Philippine islands, it will serve as a harbour of refuge, and as a convenient station for the steamers and other ships of war required to put down the piracy that has been, to the great injury of commerce, carried on to so great an extent from the ports and rivers of Borneo, and of some of the adjacent islands. In this respect its abundant supply of coal will be of the greatest service. In war the possession of Labuan will give us the entire command of the Chinese sea. (Brooke's Journal, and a paper

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Mr. Crawford in Keppel's *Borneo*, ii. pp. 144, 203.

The total population of Labuan on January 1, 1867, was 3,828 persons, exclusive of military and convicts. The number of vessels which entered and cleared in 1863 was 25 of 7,332 tons, and 24 of 6,567 tons, the shipping gradually increasing. The shipping was chiefly British and from Singapore. The imports were worth, in 1866, 106,134*l.* 12*s.* 4*d.*, the chief items being piece goods, machinery, birds' nests, and specie. The exports were 58,293*l.* in value. In 1866 the coal mines produced 11,317 tons of coal.

Borneo or Bruai, on the adjacent shore of the mainland, the residence of the Sultan of Borneo Proper, has been termed the Venice of the East. It contains from 30,000 to 40,000 inhabitants, mostly Malays, and really seems as if it floated on the waves. It is situated on an estuary, and although built with little regard to regularity, it is intersected crosswise by two main streets, which divide it into 4 portions, 1 only of which stands on dry land. The houses in the other 3 parts are of wood built on piles, which support them above the water, with streets, if so they may be called, to admit the passage of canoes. The steamer which conveyed Sir James Brooke to Borneo, when Labuan was ceded, anchored in the main street in the centre of the town. 'The greatest novelty at Bruni,' says Mr. Marryat, from whom we have borrowed these details, 'is the floating bazaar. There are no shops in the city, and the market is held every day in canoes. These come in at sunrise every morning from every part of the river, laden with fresh fruit, tobacco, pepper, and every other article which is produced in the vicinity; a few European productions, such as handkerchiefs, check-cotton prints &c. also make their appearance. Congregated in the main street, the canoes are tacked together, forming lanes through which the purchasers in their own canoes paddle, selecting and bargaining for goods with as much convenience as if the whole were transacted on terra firma. This is here so valuable that it is used as money, one hundred flat pieces an inch square are valued at a dollar, and among the lower classes these iron pieces form the sole coin. They are unstamped, and that person appears to be at liberty to cut out any iron into money; but whether such is really the case, I cannot vouch.' (Marryat's *Travels*, p. 113.)

Though deficient in iron, the gold mines of Borneo are said to be of the richest description. Stamford Raffles estimated that in his time about 32,000 Chinese labourers were employed in the mines on the W. coast of Borneo; and it is not easy to say how productive they might have been, were the miners in a condition to prosecute their undertakings in safety, and to bring the resources of science and capital to their aid. Mercury is also found in abundance in Borneo, especially in the district of Sarawak, of which Sir James Brooke was rajah; and the diamonds of Borneo rival those of India and Brazil. But independently of its coal, and of its precious and base metals, its vegetable products might alone furnish the materials of an extensive commerce. The sago palm grows in great perfection in many parts of the island, and sago is largely exported through state to Singapore. The areca nut, betel nut, gutta percha, gumi-benjamin, camphor, benzoin &c. are also considerable articles of commerce; and sugar, pepper, and all the products of the tropical regions, might, with a little care, be raised to any extent in most parts of this vast island. The numbers and ferocity of the savages

by whom it is occupied present, indeed, insurmountable obstacles to its improvement; but civilisation is beginning to make its way amongst them; and, though probably slow, its progress cannot well be arrested. Mr. Vico-Consul Martin's *Report* of February 29, 1868, states the value of the exports from Sarawak in 1866 at 74,849*l.*, and that of the imports 83,844*l.*, showing a decrease as compared with 1865 of about 30,000*l.* in each case.

LAC or GUM LAC (Ger. lack, gummilack; Fr. laque, gomme laque; Ital. lacca, gomma-lacca; Span. goma laca; Russ. lakka, gummilak; Arab. lank; Hin. lak'h; Sansc. laksha). A substance, which has been improperly called a gum, produced in Bengal, Assam, Pegu, Siam &c., on the leaves and branches of certain trees, by an insect (*Chermes lacca*). The trees selected by the insect on which to deposit its eggs are known by the names of the bilhar tree (*Croton laciferum*, Linn.), the rael (*Butea frondosa*), bott, and coosim trees &c. After being deposited, the egg is covered by the insect with a quantity of this peculiar substance, or lac, evidently intended to serve, in the economy of nature, as a nidus and protection to the ovum and insect in its first stage, and as food for the maggot in its more advanced stage. It is formed into cells, finished with as much art as a honeycomb, but differently arranged. Lac yields a fine red dye, which, though not so bright as the true Mexican cochineal, is said to be more permanent; and the resinous part is extensively used in the manufacture of sealing-wax and hats, and as a varnish.

Lac, when in its natural state, encrusting leaves and twigs, is called *stick lac*; it is collected twice a-year; and the only trouble in procuring it is in breaking down the leaves and branches, and carrying them to market. When the twigs or sticks are large, or only partially covered, the lac is frequently separated from them, as it always ought to be when shipped for Europe, to lessen the expense of freight. The best stick lac is of a deep red colour. When held against the light, it should look bright, and when broken should appear in diamond-like points. If it be not gathered till the insects have left their cells, it becomes pale, and pierced at the top; and it is of little use as a dye, though probably better for a varnish.

*Lac dye, lac lake, or cake lac*, consists of the colouring matter extracted from the stick lac. Various processes have been adopted for this purpose. It is formed into small square cakes or pieces, like those of indigo. It should, when broken, look dark-coloured, shining, smooth, and compact; when scraped or powdered, it should be of a bright red colour, approaching to that of carmine. That which is sandy, light-coloured, and spongy, and which, when scraped, is of a dull brickdust colour, should be rejected.

Notwithstanding the continued fall in the price of cochineal, the use of lac dye has been extending in this country. The annual consumption may at present (1868) amount to about 1,200,000 lbs., having more than quintupled since 1818. The finest qualities of lac dye are seldom met with for sale in Calcutta, being generally manufactured under contract for the European market.

When stick lac has been separated from the twigs to which it naturally adheres, and coarsely pounded, the native silk and cotton dyers extract the colour as far as it conveniently can be done by water. The yellowish, hard resinous powder which remains, having somewhat of the appearance of mustard seed, is called *seed lac*. When liquefied by fire, it is formed into cakes, and denominated *lump lac*. The natives use the latter

Value of the  
into Sindh by  
similar Imports

Increase	Decrease
No.	No.
46,211	..
5,662	..
3,009	120,171
3,361	..
25,737	..
31,658	..
9,178	..
8,728	..
9,913	..
42,284	10,847
21,419	..
25,890	..
2,930	..
7,753	..
20,459	..
7,830	..
6,500	..
3,154,158	..
5,612,601	..
8,400	..
2,541,511	..
64,158	..
70,980	..
29,841	..
4,992	..
17,76,207	..
4,23,449	..
95,280	..
1,51,268	..
10,294	..
80,381	..
81,850	..
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64,158	..
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in making bangles, or ornaments in the form of rings, for the arms of the lower class of females; the best *shellac* being used in manufacturing these ornaments for the superior classes.

*Shellac* is produced from seed lac, by putting the latter into bags of cotton cloth, and holding it over a charcoal fire, when the lac melts, and being strained through the bag, the resinous part, which is the most liquefiable, is obtained in a considerable degree of purity; it is formed into thin sheets or plates.

The largest consumers of shellac are hatters, sealing-wax and varnish makers.

Shellac is of two kinds—the thin flaky, called orange, garnet and liver; and the thicker sort, called button, which again is of two kinds, the bright amber-coloured and the dark.

Hatters use most the flaky dark, which, if pure, is of the strongest body. Varnish makers prefer the bright button. Sealing-wax makers give a decided preference to the button sorts. The bright button being the finest, requires less vermilion to overcome its strong properties, 25 years ago orange shellac was almost the only sort known in the market.

Shellac is greatly adulterated by resin, more especially the dark button sorts. The best test of the purity of button shellac is its fragrance of smell when on fire. This, with the pure buttons, both the amber and the dark, is most agreeable.

In Bengal, lac is chiefly produced in the forests of Sylhet and Burdwan, and nine-tenths of the shellac in the district round Cawnpore. The finest dye is said to be obtained from the stick lac of Siam and Pegu; but the shellac or resinous part obtained from the latter is inferior to that produced from Sylhet stick lac. It may be obtained in almost any quantity.

The duties formerly charged on lac when entered for consumption were repealed in 1845.

In 1867, 31,633 cwts. of shellac were imported, and 26,660 cwts. exported. During the same year the imports of lac dye were 9,260 cwts. Lac dye does not figure in the exports.

The finest lac dye is distinguished by the mark D. I., the 2nd by T. D., the 3rd by J. Mc. R., C. E. &c. The prices vary from 6*d.* to 2*s.* 5*d.* per lb.

The duties used to be 5 per cent. on lac dye, seed lac, and stick lac; and 20 per cent. on shellac; but it was obviously absurd to charge shellac, which, as already seen, is prepared from the refuse of lac dye, with four times the duty laid upon the latter. In 1842 the duties were reduced to 1*s.* per cwt., and, as already seen, were repealed in 1845. (Bancroft *On Permanent Colours*, vol. ii. pp. 1-60; Ainslie's *Mat. Med.*; Milburn's *Orient. Com.*; and *private information*.)

LACE (Dutch, kanten; Fr. dentelle; Ger. spitzen; Ital. merletti, pizzi; Russ. krushewo; Span. encojes). A plain or ornamented net-work, tastefully composed of many fine threads of gold, silver, silk, flax, or cotton, interwoven, from *Lacinia* (Lat.), the guard hem or fringe of a garment.

The origin of this delicate and beautiful fabric is involved in considerable obscurity; but there is no doubt it lays claim to high antiquity. In Mr. Hope's *Costumes of the Ancients*, many beautiful lace patterns are portrayed on the borders of the dresses of Grecian females; and from the derivation of the word 'lace,' it is probable it was not unknown to the Romans. It is supposed that Mary de' Medici was the first who brought lace into France, from Venice, where, and in the neighbouring states of Italy, it is understood to have been long previously worn; but we find that in England, so early as 1483, 'laces of thread, and

laces of gold, and silk and gold,' were enumerated among the articles prohibited to be imported. (1 Rich. III. c. 10.) It is, therefore, fair to presume that this manufacture had begun in England prior to that period, as this and many subsequent Acts were passed (19 Hen. VII. c. 21; 5 Eliz. c. 7; 13 & 14 Ch. II. c. 13; 4 & 5 Wm. & Mary c. 10 &c.) for the encouragement and protection of our home manufacture; but it may equally be concluded, that as *pinis* (which are indispensable in the process of lace making) were not used in England till 1513, the manufacture of lace must have been vulgar in fabric, and circumscribed in its extent. Tradition says that the lace manufacture was introduced into this country by some refugees from Flanders, who settled at or near Cranfield, now a scattered village on the west side of Bedfordshire, and adjoining Bucks; but there is no certain evidence that we are indebted to the Flemings for the introduction of this beautiful art, though we undoubtedly owe to them most part of our manufactures of articles of dress; we have also imitated many of their lace fabrics, and greatly improved our manufacture by profiting by the superior taste which they had displayed in the production of this article.

In 1626 Sir Henry Borlase founded and endowed the free school at Great Marlow, for 24 boys to read, write, and cast accounts; and for 24 girls to knit, spin, and make *bone lace* (Lewin's *Topography*); so that there is reason to suppose that at this time the manufacture had commenced in Buckinghamshire, which by degrees extended to the adjoining counties of Bedford and Northampton. In 1640 the lace trade was a flourishing interest in Buckinghamshire (Fuller's *Works* and different *Itineraries*); and so greatly had advanced in England, that by a royal ordinance in France, passed in 1660, a mark was established upon the thread lace imported from this country and from Flanders, and upon the point lace from Genoa, Venice, and other foreign countries, in order to secure payment of the customs duty. (*Universal Dictionary*.)

*Pillow Lace*—the original manufacture worked upon a hard stuffed pillow, with silk or cotton threads, according to a parchment pattern placed upon it, by means of pins, bobbins and spindles, which are placed and displaced, weaving, and interweaving the threads, so as to make the pattern designed. This manufacture has long pursued in almost every town and village of the midland counties, particularly in Buckinghamshire, Bedfordshire, and Northampton, besides at Honiton in Devon, and various other places in the west of England. The principal places where it is made in the Netherlands are Antwerp, Brussels, Mechlin, Louvain, Valenciennes, and Lisle. It is also made at Chantilly near Paris (celebrated for veils), Chaville, Sedan, Le Comté de Bourgogne, La Dieppe, Havre, Harfleur, Pont l'Evêque, Fécamp, Caen, Arras, Bapaume &c. in France, and at various places in Spain, Portugal, and Italy. In England and Ireland, besides the places named, it is made in many other places, and has been very greatly encouraged and improved by the manufacture, associations were formed in various places, with the view of exciting a spirit of emulation and improvement, by holding premiums for the production of the best pillow-bone lace; and although smuggling of this lace was carried on to a great extent (in 1720, 72,000 clls of French lace were seized in the parish of Leigh, and lodged in the king's warehouse there, besides numerous other seizures), the British manufacture advanced in an unparalleled degree. (*Gentleman's Mag.* 1751, vol. xxi. p.

tel. xiii. p. 434.) It is imagined that the first lace ever made in this country was of the sort called *Brussels Point*, the net work made by bone bobbins on the pillow, and the pattern and sprigs worked with the needle. Such appears to have been the kind worn by the nobility and people of high rank, as is evident by the different portraits now in existence, painted by Vandyke, in the reign of Charles I., and afterwards by Sir Peter Paul and Sir Godfrey Kneller, in the succeeding reigns of Charles II., Queen Anne, and George I. About a century since, the *grounds* in use were the old Mechlin, and what the trade termed the *fine ground*, which was very similar, if not identical with the *modern Mechlin*, the principal article in the present French manufacture. The *grounds* made in these grounds were singularly rich and durable; the designs of the *old Mechlin* resembled the figures commonly introduced in ornamental carving. Between 70 and 80 years ago a great deterioration was occasioned by the introduction of the *Trolly ground*, which was exceedingly coarse and vulgar, the figures angular, and altogether in the worse taste conceivable. An improvement, however, took place about the year 1776, when the ground, which is probably the most ancient known, was re-introduced; this was other than the one still in partial use, and denominated the *old French ground*. About 1777, or 1778, quite a *new ground* was attempted by the manufacturers of Buckingham and its neighbourhood, which quickly superseded all the others; this was the *point ground*, which had (as is supposed) been imported from the Netherlands. From the first appearance of this ground may be dated the origin of the *modern pillow-lace trade*; but it was not until the beginning of the present century that the most striking improvements were made; for during the last quarter of the 18th century, the article, though certainly much more light and elegant than the construction of the ground, was remarkably poor and spiritless in the design. Soon after the year 1800, a freer and bolder style was adopted; and from that time to 1812, the improvement and consequent success were astonishing and unprecedented. At Honiton, in Devon, the manufacture had arrived at that perfection, was so useful in the design, and so delicate and beautiful in the workmanship, as not to be excelled even by the best specimens of Brussels lace. During the war with France, veils of this lace were sold at from 20 to 100 guineas; they are now sold at from 8 to 15 guineas. The effects of the competition of machinery, however, were about the same felt; and in 1815 the broad laces began to be superseded by the new manufacture. The *point-lace trade* has since been gradually falling into insignificance, compared with its former state 30 years back. It is difficult to form any estimate of the number of persons employed in the lace-making during its prosperity; but in the neighbourhood, presented to Buckingham and Queen Adelaide (1809), it was stated that 120,000 persons were dependent on the trade; but this number has been very greatly diminished.

**Nottingham Lace.**—A frame-work knitter of Nottingham, named Hammond, about the year 1780, was the first who made lace by machinery. Though dissipated and destitute of money, employment, or credit, the idea struck him, while sitting at the broad lace on his wife's cap, that he would fabricate a similar article by means of a frame-work. (Gravener Henson *On Hosiery*, &c. p. 295.) He tried, and succeeded. The machine ostensibly for lace (introduced at Nottingham about the same period) was called a

pin machine, for making single press point net in imitation of the Brussels ground. This machine, although lost here, is still used in France in manufacturing the net called *tulle*. France in the age of experiments; and workmen at their leisure hours employed themselves in forming a complete hexagon, in the hope of perfecting all their efforts to discover. Had hitherto eluded frame was introduced, which is still in use for attempting to make *bobbins net* by machinery; but this was not found to answer. During the succeeding 10 years many alterations were made in the construction of the machines, with no better success, until at length, in 1809, Mr. Heathcoat, of Tiverton, succeeded in discovering the correct principle of the bobbin-net frame, and obtained a patent for 14 years for his invention. Steam power was first introduced by Mr. John Lindley, in 1815-16; but did not come into active operation till 1820. It became general in 1822-23; and trade, owing to the expiration of Mr. Heathcoat's patent, the increased application of power, and the perfection to which the different hand frames had by this time been brought. A temporary prosperity shone on the trade; and numerous individuals—clergymen, lawyers, doctors, and others—readily embarked capital in, and a speculation. Prices fell in proportion as production increased; but the demand was immense; of general supply—rivalling and supplanting, in plain nets, the most finished productions of France and the Netherlands.

**Bobbin Net Manufacture.**—In a former edition of this work, it was estimated that in 1813 there were employed in the production of machine lace 4,000 hands, receiving 165,000*l.* in wages; that the trade was confined to about 15 houses in Nottingham and the neighbourhood, and that the 'estimated total value of the bobbin net and warp lace trade has taken place since that period, owing to the improvements which have been made in the machinery. In an admirable paper on the history of Nottingham (a most competent authority), before the Society of Arts, and published in their Journal for May 1856, he says: 'The era of ornamenting lace upon the machine has certainly been ushered in—the results are now startling and of incalculable importance. Every fancy article, from the narrow lace edging to the two-yard-wide store curtain, requiring some thousands of yards to complete the design, are now as much familiarised to our mechanicians, designers, and workpeople, as they were 20 years ago unthought of or unknown.' Nothing can establish more conclusively the benefit which has resulted to the trade, owing to the improvements in the machinery, than the introduction of the square yard, which has taken place in the price of patented machine was a complex one; it required 60 motions to the formation of a mesh. A workman at one of these machines, 36 inches in width, could produce 1,000 meshes a minute. The motions have gradually been reduced to six, and a machine 5 yards wide will turn off 40,000 meshes per minute with ease. The first finished pieces were sold at 100*s.* the square yard; in 1813, 40*s.*; 1815, 30*s.*; 1818, 20*s.*; 1821, 12*s.*; 1824, 8*s.*; 1827, 4*s.*; 1830, 2*s.*; 1833, 1*s.* 4*d.*; 1836, 10*d.*; 1842, 6*d.*; 1850, 4*d.*; 1856, 6*d.*: the last is about a natural average price.' These reductions, however, have been greatly promoted by the improvements simulta-

neously made in the spinning of fine yarns. In 1810, No. 220 doubled yarn was worth 100s. per lb.; in 1856, only 10s. per lb.; and No. 240 in 1810 brought 140s., while in 1856 its selling price was 13s. only. Mr. Felkin adds:—

‘In 1831 embracing and finishing of lace employed wholly, or in part, about 150,000 hands. They received wages 1,500,000L. in the year. This fell, in 1833, to 550,000L., and 5,000 hands; and in 1836 to 350,000L., and 35,000 hands. Including wages at the machines, as well as the subsequent processes, there has been paid to at least 130,000 hands in 1856, 2,200,000L. in wages alone, in this department of the Nottingham lace trade.

‘In conclusion, the manufacture of bobbin-net lace by machinery is scarcely half a century old. The following will give an approximate idea of what in this brief interval it has become in this country:—

‘At several periods an account of the machines has been taken. In 1815 there were 140; 1820, 1,008; 1826, 2,469; 1831, 4,500—making a return of 3,417,000L.; 1833, 5,000, returning 2,620,000L.; 1836, 3,800, returning 2,212,000L.; in 1841, 4,200, returning 2,995,000L. In 1851 Mr. Birkin, reporting to Section 19 of the Great Exhibition, found 3,200 (34,382 quarters width) at work, returning 2,300,000L., employing about 2,965,915L. capital, and 133,075 hands. Capital in bobbin-net machinery alone was estimated at 1,329,415L.

‘In 1856 the machinery is increased to 3,500 (full 40,000 quarters in width), and greater power in production in the new ones. Also a far larger proportion is employed upon silk materials, and the number of frames making fancy goods forms now far the largest proportion. These changes will serve to account for the very large increase in the returns of the trade this year beyond 1850. 1,350 machines at least are rotary circulars, making plain goods by power in factories. At least 1,050 making fancies are worked by power, probably many more. About 2,158 machines in all, partly “levers,” partly circulars, some pushers, and some traverse warps, make fancy goods now. The materials are all imported, and cost on importation during the past year 920,000L. The returns were 3,680,000L., or thereabouts. This left for wages, interest, and profits, 2,760,000L.

‘If to these figures be added the cost of materials (all imported) in the warp-lace trade, 60,000L., and the ultimate returns, 860,000L., the result of the operations of the entire machine-wrought English lace trade will be: Raw materials used cost, 980,000L.; total returns, 4,040,000L.; paid in wages, interest, wear and tear, and profits, 3,060,000L. The entire number of hands employed may be stated at 135,000.

‘The trade was, until 1850 or thereabouts, cooped up in small unsightly workshops and warehouses for the most part, but has been transferred to a large extent into some of the noblest buildings of which any manufacturing town can boast. Factories, dressing-rooms, and warehouses are all becoming spacious, airy, and, I trust, healthy; at least 250,000L. has been expended within the last 7 years in this class of improvements.

Between 1856, when the above account of the trade was written, and 1859, the wholesale houses had increased from 115 to upwards of 200; and a great many patents had been taken out for improvements in machinery for making fancy lace, for fabrics to be produced from lace machines, for gloves, shirts &c., and also for making gloves complete on the machines without seams. A new combination, by 4 different machines, of an imitation of Maltese lace was produced, and sold at 7s. per yard, which in Paris was readily

sold for 35 francs. This class of machinery has gradually been increasing in Nottingham and its neighbourhood, and Melbourne in Derbyshire; and from the great variety of articles produced, it is likely to go on increasing. In 1856 the machinery in Nottingham and its suburbs had increased by upwards of 300, making an additional amount of 4,200 quarters in width. This number would have been considerably greater, had not the panic in 1857 prevented it. At present very few machines are being built. The increase of machinery may be classed as follows—viz, 200 for making fancy lace, and 100 for plain nets. A few have been exported to France and Barcelona in Spain. The population of Nottingham and its suburbs was estimated in 1859 at about 159,000, the majority of which was employed in the lace and bobbin-net trades, and it was believed that the number of hands employed, as well as the amount of capital increased beyond Mr. Felkin’s estimate, in proportion to the additional number of machinery which had been introduced. Such had been the progress in the manufacture during the few years previous to 1859, that some descriptions of lace, viz, Spanish, Maltese, and Plat, were produced by machinery in such perfection, that they can scarcely be recognised from cushion-made goods. Looking, however, at the competition which exists in the trade, the manufacturers very generally complain of the anomalous position in which they are placed with respect to the French machine-made lace, which is allowed to be imported duty free; while the English manufacture is strictly prohibited from entering France. They complain also of the mode of registering patents, as it prevents their investigation into the character of the machinery which is so essential towards their improvement.

The *Embroidery* branch of the lace trade is employed to many thousands of females in Nottingham and London, and their neighbourhoods, and also at Coggeshall in Essex. Mr. Felkin estimated that in 1813 not less than 20,000 were employed. At the Great Exhibition in (Class XIX.), a most interesting display of specimens of this industrial art was presented to the public, and a very able paper on the lace generally was contributed by the reporter of Section (Richard Birkin, Esq., of Nottingham). There are, however, no statistics which give any accurate estimate of the number of persons (women and children) now engaged in the department. Owing to the great perfection to which machine-made lace has arrived, particularly the successful introduction of the Jacquard machine, it is understood that the embroidery branch of the trade has very greatly declined of late years, although in numerous articles of dress “*Lace*” still continues to maintain its established character.

The remarkable improvements which have gradually introduced into the manufacture machine-made lace have seriously interfered with the *pillow-lace* trade, and many thousands of women and children in the counties of Bedford and Nottingham are now finding a better reward for their labour in straw-plaiting. This applies, however, rather to the *narrow* hand-made lace than to the highest descriptions of this industrial art, which continue in great favour with the fashionable classes. At the Great Exhibition in 1851 specimens of Honiton lace (the most tasteful and flourishing of the British pillow-lace manufactures) were exhibited in flouncings, shawls, scarves, kerchiefs, herties, and a variety of other articles, varying in price from 10 to 200 guineas, and there is a strong feeling, from the specimens displayed in the production of elegant designs

this department, that it will continue to hold its ground notwithstanding the remarkable improvements in that produced by machinery, which from low price is within the demand of the lower classes. But, like works of high art, Honiton lace is recognised by the higher classes as that of a master—the original picture and not the copy, and consequently held in highest estimation. But although on the whole the fabrication of pillow lace has unquestionably fallen off a new department of a kindred nature has sprung up, which has given employment to many thousands of women and children in the United Kingdom, but especially in Ireland. A description of lace termed *crochet* has been introduced to a great extent of late in industrial schools, both in the north and south of Ireland. The famine of 1847 directed the attention of humane persons to the expediency of providing employment for the starving class in that country, and this new department of industrial art is now spread there to a great extent. At the present time (1868) it is believed that not less than 250,000 women and children are engaged in that branch and in the embroidery of fine muslins, to meet the prevailing taste, not only required by our own female population, but for export to all parts of the world. The crisis in 1857, which was attended by the failure of several of the larger houses in Glasgow engaged in the embroidered muslin trade, each of whom employed from 50,000 to 70,000 persons in the north of Ireland, led to great privation to those who were engaged in that branch, but they are now recovering from that depression which on that occasion befall the trade. At the meeting of the Social Science Association, held in 1866, Mr. Felkin read a paper on the state of the Nottingham lace trade:—

The progress of the town and suburbs of Nottingham in population and material wealth during the last century has been much advanced, he said, by the increase of the lace manufactures of the place. Nottingham has a population of about 75,000 within the limits of the municipal borough only; including the suburban parishes, which are specially parts of Nottingham, there are about 250,000 souls. It has risen from 35,000 in 1811. In 1862 there were 1797 circular machines making bobbin net; of these 209 were at Tiverton, 100 at Newark, 360 at Clart, 500 in Derbyshire, and 100 in and near Nottingham. Also 1,588 levers, and 42 traverse warps, 42 pushers, all in Nottingham and the neighbourhood, making a total, with 353 treadles, of 2,149 were making silk lace, and 1,442, and on fancy 2,157, the latter being for imitations of cushion lace than ever before seen; although, since 1862, there have occurred great fluctuations in demand, and the prices of silk and cotton materials have advanced full 50 per cent, the amount of machinery and employment was in 1865 about the same as 1862. The entire production continues to be finished and packed in Nottingham, except that at Tiverton, which is sent to London. The approximate number of hands employed in 1865, for the whole of the lace machinery, may be thus stated:—

Men employed in 180 shops for making machines, bobbins, carriages, points, guides, combs, &c., at average wages of 35s. a week; 300 men and youths at work in 130 larger machines and in lesser machine shops, 1,800 of whom may earn 16s., 5,000 25s., and 3,500 first-class hands 35s. a week on an average. These all work alternate shifts of 4 and 5 hours in the entire day of 18 hours, during

which the engine is going; 4,200 boys clearing, winding, threading bobbins, 6s.; 3,000 women filling bobbins and overlooking, 12s.; 15,000 brown factory menders, who usually receive nets from the factories, and free them from the foul or uneven threads. It is generally supplementary labour to household work, by which 4s. to 8s. may be gained, average 5s. a week. 400 men warpers, tenders of machinery, founders, and superintendents, 35s.; 60 carpenters, 30s.; 360 porters, 17s.; 120 carters, 20s.; 90 watchmen, &c., 20s.; 260 steam engineers, 22s.; 150 bleachers, 20s.; 100 male dressers of lace, 8s. to 30s.; 1,000 female white menders of lace, 8s. to 30s.; 1,000 folders, 10s.; 1,000 paper-box makers of lace, 7s.; 450 warehouse women, 12s.; 250 female overlookers, 15s.; 100 draughtsmen and designers, 40s.; 1,300 warehousemen and clerks taking salaries. There are employed in each finishing lace warehouse from 6 to 600 females, as the size and nature of the business may require. The number cannot be known except by actual census. They are taken from outdoor hands in brown including and other employment on lace. The hours are 8 A.M. to 7 P.M., and the wages are about 9s. on an average; overtime is paid for. The kinds of work must be seen to be understood, but they are in general more wearisome than heavy. In some of the factories and workrooms in lace houses, and in dressing-rooms, the heat is sometimes oppressive. In general ventilation is provided for, but hands do not always care to make use of it. There is a far greater number of females employed, "mistresses," often their own mothers, upon drawing, scapoling, curling &c. processes light and simple enough upon goods which have been obtained from finishing houses. These young people must exercise care and cleanliness on the goods, or they would be spoilt. When they are returned to the warehouse the mistress receives a price, out of which she takes a portion for her labour, risk of damage, fire, light, house room &c. Some of these persons employ 12 to 20 young girls. The total number cannot be known accurately except by census. It being considered domestic employment, they are not under registration or visitation, except upon complaint made on sanitary grounds. A great improvement has been going on in regard to the age at which these children begin to do labour. The change dates from Mr. Grainger's report on this important subject, in 1844. The remaining department of female labour in combroderers with hook or needle, seam-joiners, or reduced to a sixth of that number. Their average weekly earnings in 1837 was 4s.; now it is doubled, and more for the better kinds of work. As fast as the improved machinery produced figured work, nearly finished on the machines ready for sale, the lace embroiderers were cast aside. About 1840 an emigration set into Nottingham from all the districts within 50 miles to supply the increasing warehouse and outdoor female labourers required in both the lace and hosiery trades. There has thus been added to the already surplus female population of the place 13,000 within the last 26 years. In these 3 classes are computed from 90,000 to 100,000 females, which, added to the 38,000 above enumerated, makes a total of about 135,000 employed in the lace trade of Nottingham in 1865. The materials worked up cost about 1,715,000l.; the wages and profits amounted to 3,415,000l. or thereabouts, and the net returns may be stated at 5,130,000l.

Our imports of lace, chiefly from Belgium and France, during the year 1867 were estimated at 191,607*l.*, of which 1,290*l.* worth was re-exported. Our exports of cotton lace and patent net wire in 1867 were valued at 476,420*l.*: more than half of this amount was shipped to the United States, France, and Holland.

**Foreign Lace Trade.**—The application of the Jacquard mounting to the bobbin-net machine has been attended with a great increase in the French manufacture, and in a very superior taste, in imitation of the most favoured 'grounds,' particularly at Calais, St. Pierre de Calais, Lyons, and Cambrai. The Calais machines numbered in 1839, 765; 1844, 801; 1851, 603. Many have been replaced by wider and speedier machines. They had 8 pushers, 14 traverse warps, 124 common circulars, 141 Jacquard circulars, and 321 levers; 50,000 females were employed, besides the ordinary proportion of machine hands and attendants. There were 800 other machines at Boulogne, St. Omer, Douay, Lille, St. Quentin, Caen, and Lyons. More expensive goods are produced on French machines than on ours; and English plain nets, which were formerly extensively smuggled into France, are now supplanted by the own. They have applied the Jacquard apparatus to their machinery with much success, and of late years have ceased to copy Nottingham patterns, turning their own taste in designs to good use and profit. There were at Brussels in 1850, 16; at Termonde, 8; at Malines, 5; at St. Josse, 4—in all 31 machines in Belgium—chiefly making 3-twist Brussels net, upon which cushion flowers were applied. In bobbin-net machinery there are probably in Switzerland, 80; in Saxony, 70; Austria, 100; Prussia and Russia, 30; in Spain and other countries, 80—altogether 360. (Felkin.) Since 1856 these branches have been steadily increasing. **Embroidery work** has also considerably increased, and for some years past has extended to the departments of La Meurthe, La Moselle, La Meuse, and Des Vosges. In the latter, forming the ancient province of Lorraine, this beautiful branch of industry has arrived at great perfection. It is estimated to give employment to from 150,000 to 180,000 females, spread over more than 20 departments of France, who earn from 8*d.* to 1*s.* per day, and double that sum in Paris. (Birkin.)

**Hand-made Lace** may give employment to upwards of 200,000 females of all ages, who earn from 6*d.* to 1*s.* a day. It is principally carried on at Caen and Bayeux, Chantilly and neighbourhood, Lille, Arras, Mirecourt, Du Puy, Bouleau, and Alençon. The lace of Alençon is the only fabric not made on the pillow, being worked entirely with the needle. It was introduced by Colbert in 1660 from Venice and Genoa, and is the only lace made with pure linen thread (handspun)—the thread being worth from 100*l.* to 120*l.* per pound. (Birkin.) Some beautiful specimens of hand-made lace were exhibited from Switzerland; and so great is now the demand for the article, that the manufacturers are forced to employ large numbers of females in the western provinces of Austria and the southern provinces of the Duchy of Baden. Perhaps 40,000 persons earn their living by the embroidery branch, first-class hands receiving 1*s.* per day, and second-class from 3*d.* to 8*d.* 100,000 pairs of curtains alone are estimated to be imported into Great Britain. But the Swiss also export largely to America, Germany, Italy, Spain, and other southern countries. Specimens of lace and embroidery were also exhibited from Saxony, Spain, Hamburg, Austria, and Malta. Belgium continues to sustain its high character in the production of that beautiful art, and (with the exception of poin. d'Alençon,

made in the north of France) Brussels produces the most valuable known lace. Mechlin laces are made at Malines, Antwerp, and the vicinity; Valenciennes, at Ypres, Menin, Courtray, Bruges, Ghent, and Alost. The village of Grammont is remarkable for great improvements made in white thread lace, and also in black-point trimming laces. Some beautiful specimens of hand-made lace are now also imported from Madeira.

We are indebted for the greater portion of this learned and very excellent article to Mr. Robert Slater, of Fore Street, London.

**LACK or LAC.** A word used in the East Indies to denote the sum of 100,000 rupees, which, supposing them standard, worth 2*s.* each, amounts to 10,000*l.* sterling.

**LADING, BILL OF.** [BILL OF LADING.]

**LAGAN.** [FLOTSAM.]

**LA GUAYRA.** The principal seaport of the republic of Venezuela, in the province of Caracas, on the Caribbean Sea, lat. 10° 36' 19" N., long. 67° 8' 45" W. Population estimated at 8,000. In 1810 the population is believed to have amounted to 13,000; the reduction being a consequence of the loss of life caused by the tremendous earthquake of 1812, and the massacres and persecutions incident to the revolutionary war. The population of the city of Caracas, of which La Guayra may be considered as the port, fell off from the same causes, from 43,000 in 1810, to 23,000 in 1830; but they are now both increasing.

**Port.**—There is neither quay nor mole at La Guayra. Ships moor E.N.E. and W.S.W. with their heads to the N. at from  $\frac{1}{2}$  to  $\frac{3}{4}$  mile from the land, in from 9 to 18 fathoms. The holding ground is good; and notwithstanding the openness of the road, vessels properly found with anchors and cables run very little risk of being driven from their moorings.

**Trade.**—The principal articles of export are coffee, cotton, cocoa, indigo, hides, sarsaparilla &c. The principal imports are cotton, linen, woollen and silk stuffs, with hardware and cutlery, wine, haberdashery &c. La Guayra shares the trade of Venezuela with the ports of Cumana, Puerto Cabello, Maracaibo &c., having about  $\frac{1}{4}$  of the entire amount, which, however, is insignificant. In 1867 the estimated value of our imports from Venezuela amounted to 85,948*l.*, while in 1866 they amounted to 202,086*l.*; and the value of our exports thither in 1867 amounted to 283,111*l.* while in 1866 they were valued at 416,770*l.*

The gross value of the imports of La Guayra in 1864 amounted to 5,023,779*l.* do*l.*, in 207 vessels, 55,784 tons. The imports were chiefly corn, flour, provisions, textile fabrics, cutlery; and tanned skins. The chief exports are coffee, cotton, cocoa, indigo, dye woods, skins and hides. The exports to the port are loaded with heavy duties, and most imports are severely taxed. The following are admitted duty free: corn and provisions. The following are prohibited: salt, cocoa, oil, indigo, sugar, honey, syrup, molasses, and rum.

**Port Regulations.**—On casting anchor, a vessel is paid by the collector of customs, or his agent, accompanied by other officers, who take from the master his register, manifest, and muster-roll, and an officer is left on board until the vessel is discharged. The master must swear to his manifest within 24 hours after his arrival, when a permit to discharge is granted, and within 3 days all invoices must be presented. The discharge completed, the same officers repair on board to examine the vessel, and all being found in order the officer is withdrawn. The clearing of a vessel outwards (that has entered with cargo) in ballast is then completed by paying the port charges.

LAGUNA DI TERMINOS

LAMAR

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[BILL OF LADING.]

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LAGUNA DI TERMINOS or LAGUNA DI  
 ARMEN. A seaport on the S. shore of the  
 Gulf of Mexico, State of Yucatan, lat. 18° 33' 44"  
 long. 91° 51' 22" W. It derives its name  
 from being situated about 1 mile within the S.W.  
 extremity of Carner Island, on the most westerly  
 of the straits or entrances leading into the basin  
 of the lagoon of Terminos. Population about 3,000.  
 The port, which is secure and one of the best on  
 the Gulf, has from 12 to 14 feet water over the  
 bar at the entrance to the lagoon. Vessels of  
 100 tons draught load and unload by means of  
 cranes, outside the bar, in from 3 to 4 fathoms,  
 in a good holding ground.  
 To enter the Port.—Run in over the bar with  
 the lighthouse bearing by compass S. ½ E., till  
 the light bears S. E. ¼ S., and then steer for  
 the light, but in, haul up for the anchorage off the town,  
 head is a safe guide on the W. side of the  
 island, but not on the E.  
 The chief trade of the town consists in the  
 export of logwood, known in foreign markets  
 by the name of Campechy wood, from its having  
 been originally cut down in the vicinity of that  
 place and shipped from it. But Campechy has  
 now become an entrepôt for logwood. It is now

proof whereof being produced, the permission to  
 sail is signed by the governor and harbour master.  
 If the vessel take cargo on board, then the same  
 formality, as to visiting, is pursued, as on the  
 coast of a vessel.

Credit.—Goods imported are almost invariably  
 sold upon credit; those exported are, on the other  
 hand, always sold for ready money. The terms  
 of credit vary from 2 to 6 months, or more.  
 Bankruptcy is very rare.

Money, Weights, and Measures.—The currency  
 of the country consists of silver money, known by  
 the name of *macuena*, divided into dollars of 8  
 reales, ½ do. of 4 reales, besides reals, ½ reals, and  
 quatuorcentos or ¼ reals. This money is of very un-  
 equal weight and purity, the coins issued since  
 the commencement of the revolutionary war  
 having been often a good deal defaced. The real  
 should be worth 5s. sterling.

Weights and measures same as those of Spain.  
 Tare.—Real tare is taken both at the Custom  
 House and by the merchant.

Commercial Prospects.—The commerce and in-  
 dustry of Venezuela suffered severely from the  
 revolutionary struggle of which she was the  
 theatre. But the country has been for some time  
 passing comparatively tranquil. As the riches of  
 Venezuela consist entirely of the products of her  
 agriculture, the Legislature has wisely exerted  
 itself to give it encouragement, by abolishing  
 duties, the tobacco monopoly &c. But the want  
 of a supply of efficient labour, arising out of the  
 abolition of slavery, is the grand obstacle to the  
 progress of industry. An able-bodied man can  
 earn enough by a day's labour to keep himself  
 for a week; and such being the case, can anyone  
 expect industry to flourish, unless some sort of  
 system for the supply of compulsory labour be  
 resorted to? In countries like this, freedom and  
 industry are synonymous. The British consul at  
 Maracaibo (report for 1867) says that the increase  
 of commerce there has been equal to that at any  
 other port of Venezuela. The import and export  
 of 1867, would, it is stated, have reached 1,000,000  
 dollars, but for the smuggling, connived at by  
 the authorities, and the custom-house employes.  
 We have derived these details partly from  
 the Consul's Returns, and partly from private infor-  
 mation.

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 place and shipped from it. But Campechy has  
 now become an entrepôt for logwood. It is now

principally cut down on the mainland adjoining  
 the lagoon of Terminos; and being thence con-  
 veyed to Laguna in coasting schooners, is sent  
 from it to all parts of the world.

Vessels arriving with cargoes must bring a  
 general manifest and invoice in triplicate, certified  
 by the Mexican Consul at the port of departure.  
 Those arriving from a foreign port in ballast, must  
 produce a clearance from the Mexican Consul,  
 or the authorities either from the Mexican Con-  
 came, showing that they bring no cargo.

Pilotage 1 dollar 75 cents per foot; other port  
 charges, such as harbour master's fees, anchorage,  
 board of health &c, about 25 dollars each vessel.  
 Ships arriving direct from a foreign port pay 1  
 dollar 50 cents per ton for tonnage dues.

LAMAR. Formerly CONTAJA; a seaport of the  
 republic of Bolivia, the dependent Upper Peru, on  
 the west coast of South America, lat. 22° 39' 30"  
 S., long. 70° 12' W. Population about 5,000.

In 1833 Lamar was declared a free port, and in  
 it centres almost the whole direct foreign trade  
 of the republic. Its situation is, however, very  
 unfavourable. It suffers greatly from want of  
 fresh water; and is obliged to import all its pro-  
 visions by sea, either from Valparaiso, on the one  
 hand, or from Arica on the other. The desert of  
 Atacama lies between it and the internal and  
 populous part of the country, where the towns of  
 Potosi, Cochabamba, Charcas &c, are situated.  
 The produce imported at Lamar is conveyed  
 across the desert on the backs of mules to the  
 interior; the gold and silver of the mines being  
 brought in the same way to the port to be shipped.  
 These, with copper, saltpetre, chinchilli, skins,  
 and wool, form the principal articles of export.  
 Saltpetre is found in large quantities in the desert;  
 the copper is found near the coast, and, owing to  
 the scarcity of fuel, most part of it is exported in  
 the shape of ore.

Peru possesses a long narrow slip of land,  
 stretching along the coast of the Pacific from  
 Arequipa to the Bay of Pica, which ought  
 naturally to belong to Bolivia, being, in fact, the  
 littoral of the latter. The Bolivian Government  
 has set on foot various negotiations to obtain the  
 cession of this tract, which, besides greatly im-  
 proving the frontier of the republic, would, at the  
 same time, render her mistress of Arica, which  
 is, in all respects, much better fitted than Lamar  
 for becoming the entrepôt of her trade. Hitherto,  
 however, these negotiations have proved abortive,  
 so that, as already stated, Lamar, at present,  
 engrosses most part of the foreign trade of the  
 state, which, however, is but inconsiderable. Our  
 total imports from Bolivia in 1867 were valued at  
 140,043l., and our total exports at 3,966l.

We subjoin the decree constituting Lamar a  
 free port:—

1. From and after July 1 of this present year, 1833, Port Lamar shall be absolutely free and open.
2. Vessels of every nation may enter this port and remain as long as they please, without being subjected to any tax whatever, either on entrance, or during their stay, or on their departure.
3. They shall be free from all duties of anchorage, tonnage, shifting, unloading, or reloading, of cargo, deposit, storage, or any other, of whatever denomination.
4. Goods may be deposited in private warehouses, without any intervention on the part of the Government.
5. The Custom House of Port Lamar is suppressed. In its stead will be a Commissioner's office, for the purpose of distributing permits for the transportation of goods into the interior.

6. Whenever goods are to be sent into the interior, they must first be submitted to the Commissioner, together with the invoice corresponding.

7. The Commissioner will register them in a book, together with their valuation made by two merchants of the place, and the names of their owners, of the person to whom, and the place where they are to be sent. This is to be signed by the person entering the goods, who at the same time binds himself to have them transported direct to the Custom House for which they are destined, without opening any of the cases, bags, or other envelopes, each of which shall be sealed, marked, and numbered before departure. These points are to be expressed in the permit.

8. The Commissioner shall by the earliest post send a notice to the collector of the Custom House for which any merchandise is destined, specifying the numbers, characters, quantities, and qualities of the several articles.

9. The goods must not be carried by any unaccustomed roads, but only through Calama and the public thoroughfares: and whenever they pass through any place at which a guard or commissioner is stationed, the permits must be exhibited, in order that their arrival with their seals unbroken may be ascertained.

10. Merchants, either in person or by a representative, must produce to the Commissioner of the port a certificate of the delivery of the goods at the Custom House for which they are destined within 6 months from the day of their entry; in case they do not, they must at the end of that period pay the whole of the duties on them.

11. From and after July 1, 1833, all goods entered at Port Lamar shall pay a duty of only 5 per cent. over and above that of  $\frac{1}{2}$  per cent. to the consular.

12. The duty of 5 per cent. shall be paid thus: at the port, 2 per cent. on the valuation made as aforesaid; and the other 3 at the Custom House in the interior for which the goods are destined. In each case one half at the end of 3, the other half at the end of 5 months.

13. All goods carried from Port Lamar by land to any of the adjoining republics shall only pay a transit duty of 2 per cent.

14. A duty of 2 per cent. shall be paid on  $\frac{3}{4}$  of all gold and silver money entered at any of the Custom Houses in the interior for exportation through Port Lamar.

15. It is absolutely prohibited to export gold or silver, in bullion or plate, except in small quantities for the use of the person carrying it out. It will be seized wherever it is found on this side the districts of San Antonio, San Vincente, Atoca, Agua de Castilla, Lequepate, or the line of the canal.

16. All hardware for agriculture and mining, machinery, instruments of science or the arts, iron, steel, quicksilver, and moral books, may be introduced free of duty into the republic, and productions of Bolivia may be exported likewise free.

17. A premium of 2 per cent. on their value shall be allowed on the exportation through Port Lamar of cascarilla, wool, tin, cocoa, and coffee, in the shape of remission from duties to the amount on goods carried into the interior from the same port.

The remaining articles of the decree are of a purely local nature.

**LAMB-SKINS** (Ger. lammsfelle; Fr. peaux d'agneaux; Ital. pelli agnelline; Span. pieles de corderos). The value of lamb-skins varies according to the fineness, brilliancy, and colour of

the wool. Black lamb-skins are more generally esteemed than those of any other colour. English lamb-skins are seldom to be met with perfectly black; but since the introduction of Merino sheep into this country, many of the white fleeces have in point of quality, arrived at a pitch of perfection which justly entitles them to be ranked with some of the best fleeces in Spain. The importation of lamb-skins is very large. The great bulk supplied by Italy. Thus, of 1,011,308 undressed skins imported in 1867, no fewer than 582,722 were from Italy, the large proportion being from Tuscany. They are mostly used in the glass manufacture. The total value of our imports of lamb-skins undressed and dressed was, in 1866, 64,645*l.*, and in 1867, 59,049*l.*

**LAMP** (Ger. Lampe; Fr. lampe; Ital. lucerna; Span. lampara; Russ. lampada). An instrument used for the combustion of liquid inflammable bodies, for the purpose of producing artificial light.

It is unnecessary to give any description of instruments that are so well known. We may, however, remark that the discovery of Sir H. Davy, who by covering the flame with wire gauze, succeeded in producing a lamp that may be secured in coal mines charged with inflammable gas, is one of the most ingenious and valuable that ever been made. The following extracts from a communication of the late Mr. Buddle, an able and well-informed coal engineer, evince the importance of Sir Humphry Davy's invention.

'Besides the facilities afforded by this invention to the working of coal mines abounding in damp, it has enabled the directors and superintendents to ascertain, with the utmost precision and expedition, both the presence, the quantity, and correct situation of the gas. Instead of cutting inch by inch with a candle, as is usual in the galleries of a mine suspected to contain damp, in order to ascertain its presence, we can now firmly go on with the safe lamps, and, with the most confidence, prove the actual state of the mine. By observing attentively the several appearances upon the flame of the lamp, in a continuation of this kind, the cause of accidents, which happened to the most experienced and cautious miners is completely developed; and this has hitherto been in a great measure a matter of mere conjecture.

'It is not necessary that I should enlarge upon the national advantages which must result from an invention calculated to procure a supply of mineral coal, because I think that it is needless to every reflecting mind; but I cannot conclude without expressing my highest sense of admiration for these talents which have developed the properties, and controlled the operations of one of the most dangerous elements of human enterprise has hitherto had to encounter.

**LAMP-BLACK** (Ger. kienrus; Fr. fumée; Ital. nero di fumo, negrofumo; Span. de humo). 'The finest lamp-black is produced by collecting the smoke from a lamp with a wick, which supplies more oil than can be perfectly consumed, or by suffering the flame against a metallic cover, which impedes combustion, not only by conducting off part of the heat, but by obstructing the current of air. Lamp-black, however, is prepared in a much simpler way for the demands of trade. The smoke remains after the eliquation of pitch, or other pieces of fir-wood, are burned in furnaces of peculiar construction, the smoke of which is drawn through a long horizontal flue, and is condensed in a close boarded chamber. The roof of the chamber is made of coarse cloth, through

the current of air escapes, while the soot remains." (Encyc. Dictionary of Chemistry.)

**LAND-WAIVER** or **LANDING-WAIVER**. A name formerly given to searchers attached to the Customs.

**LAPIS LAZULI**. [ULTRAMARINE.]

**LAST**. An uncertain quantity, varying in different countries, and with respect to different articles. Generally, however, a last is estimated at 4,000 or 6,000 lbs.; but there are great discrepancies.

The following quantities of articles in cases make a last, viz.: 14 barrels of pitch, tar, or ashes; 12 dozen of hides or skins; 12 barrels of cod-fish, perch, or meal; 20 cades, each of 1,000 herrings; every 1,000 ten hundred, and every 100 five score; 10 quarters of coal-seed; 10 quarters of corn or of corn go to a last; 12 sacks of wool; 20 dickers (every dicker 12 skins) of leather; 18 barrels of un-packed herrings; 10,000 pilchards; 24 barrels (each barrel containing 100 lbs.) of gunpowder; 1,000 lbs. of feathers or flax.

**Last** is sometimes used to signify the burden of a ship.

**LATH, LATHS** (Dutch, latten; Fr. lattes; Ger. latten; Ital. corenti; Russ. slegt). Long thin and narrow slips of wood, nailed to the rafters of a roof or ceiling, in order to sustain the covering.

Laths are distinguished into various sorts according to the different kinds of wood of which they are made, and the different purposes to which they are to be applied. They are also distinguished according to their length, into 5, 4, and 3 feet laths. Their ordinary breadth is about an inch, and their thickness  $\frac{1}{4}$  of an inch. Laths are sold by the bundle, which is generally called a hundred; but 7 score or 140, are computed in the hundred for 3 feet laths; 6 score or 120, in such as are 4 feet; and for those which are denominated for the common hundred, or 5 score. In 1867 were imported, chiefly from Russia, 68,949 loads of lath wood, valued at 119,844.

**LATTEN**. A name sometimes given to tin plates or thin plates of iron, tinned over. [Tin.]

**LAW**. [MORNING LAW; NEUTRALITY; &c.]

**LAWY** (Ger. and Fr. linon; Ital. linone, renza; Span. cantry, estopilla, clarin). A sort of clear open worked cambric, which, till of late years, was exclusively manufactured in France and Flanders. At present, the lawn manufacture is established in Scotland and in the north of Ireland.

These articles of this kind are brought to such a degree of perfection as nearly to rival the productions of the French and Flemish manufactories. The manufacture of lawns finer flaxen thread used than in that of cambric. In 1866 we exported, chiefly to the United States, 7,570,245 yards of cambric and lawns, valued at 352,643.

**LAZARETTO**. [QUARANTINE.]

**LEAD** (Ger. blei, blei; Dutch, lood, loot; Fr. plomb; Ital. piombo; Span. plomo; Russ. svinetz; Pol. olo; Lat. plumbum; Arab. auuk; Hin. aisa; Pers. surt). One of the most useful metals. It is of a bluish-white colour, and when newly cast is very bright, but it soon becomes tarnished by exposure to the air. It has scarcely any taste, but emits, on friction, a peculiar smell. It is used in paper or the fingers of a bluish colour. When taken internally it acts as a poison. It is one of the softest of the metals; its specific gravity is 11.35. It is very malleable, and may be reduced to thin plates by the hammer; it may also be drawn out into wire, but its ductility is not very great. Its tenacity is so small that a lead wire of such diameter is capable of supporting only 1 lb. without breaking. It melts at 612° (Johnson's Chemistry.)

Lead is a metal of much importance in the arts. Its durability and malleability make it very suitable for the roofing of buildings, the construction of gutters, and such like purposes. It used to be very extensively employed in the formation of water-pipes and cisterns. But though water has no direct action on lead, it facilitates the action of the external air; and hence the lead of cisterns and of pipes from which the air is not entirely excluded becomes oxidised, and is covered with a white crust at the point where the surface of the water comes into contact with the air. Inasmuch, however, as this oxide is extremely deleterious, lead pipes and cisterns are now very generally superseded by those of cast iron. At present, perhaps, lead is more extensively used in the manufacture of small shot than in any other way. Its salts, though poisonous, are used in medicine to form sedative external applications; and frequently not a little, by the disreputable wine merchant, to stop the progress of acetous fermentation. Wine thus poisoned may, however, be readily distinguished; a small quantity of the bicarbonate of potash producing a white precipitate, and sulphuretted hydrogen a black one. Pure wine will not be affected by either of these tests.

The oxide of lead enters into the composition of white glass, which it renders clearer and more fusible; it is also used in glazing common earthen vessels; hence the reason that pickles kept in common red pans become poisonous. Lead, with tin, and a small quantity of some of the other metals, forms pewter; with antimony, it forms the alloy of which printing types are made.

(Joyce's Chemistry: Mineralogy.)

Mines of this valuable mineral have been wrought in England from the era of the Romans. It does not, however, appear that it was obtained anywhere except in Derbyshire, till 1289, when it was discovered in Wales; and the fact that silver was found intermixed with the Welsh ores having transpired, gave a new stimulus to the business; but in other respects the discovery of silver was of no use; the quantity obtained being insufficient to defray the cost of its separation from the lead. At present, the most productive English lead mines are situated in Allendale, and other western parts of Northumberland; at Aldstone Moor, &c. in Cumberland; in the western parts of Durham; in Swaledale, Arkendale, and other parts of Yorkshire; in the hundred of High Peak in Derbyshire, in Salop, and in Cornwall.

The Welsh mines are principally situated in the counties of Flint, Cardigan, and Montgomery; those of Scotland in Ayr, Kirkcudbright, and Lanark; and those of Ireland, in Wicklow, Down, and Limerick. Lead mines are also wrought to considerable advantage in the Isle of Man. We subjoin an abstract, deduced from the accounts furnished by the Museum of Practical Geology, of the

Quantities of Lead, Lead Ore, and Silver produced in the United Kingdom in 1867.

	Lead Ore		Lead		Silver
	tons	cwt.	tons	cwt.	oz.
England	68,712	6	42,839	15	469,547
Wales	26,054	1	19,551	0	147,009
Isle of Man	3,799	0	2,834	0	165,170
Ireland	1,882	12	1,508	0	12,140
Scotland	2,951	2	2,107	19	11,428
Total	83,452	1	68,440	14	805,394
Valued at	£1,158,066		£1,337,509		£215,400

In 1867, 45,158 tons of lead were imported, and 38,950 tons were exported. English pig lead was worth, in the London market, in December 1867, 19l. 1s. 8d. per ton. In 1832 it was only worth 13l. 10s. per ton.

Account of the Real Value of the Lead exported from the United Kingdom in each of the 7 Years ending with 1867.

Articles	1861	1862	1863	1864	1865	1866	1867
Pig, pipe, sheet, shot	£ 425,121	765,448	775,861	779,144	881,684	661,536	675,479
Red and white lead	146,731	174,633	128,213	167,680	186,923	229,067	218,793
Total	570,122	959,121	932,077	946,824	767,807	890,523	814,472

Russia, France, the United States, China, Australia, British India &c. are the markets to which our exports of lead are principally sent.

Lead, when first extracted from its ore, always contains a certain portion of silver, varying from a few grains to 45 oz. or more in the ton. When the silver mixed up with the lead is sufficient to repay the expense, it is usual to separate it, which is effected by the process known by the name of its inventor, Mr. Pattison. The lead of some of the English mines, especially those of Cornwall, and also, of the Isle of Man, contains very considerable quantities of silver; and our readers will, perhaps, be surprised to learn that it has been estimated by the highest authority that, in 1867, the United Kingdom furnished no fewer than 805,394 oz. of silver, obtained from lead, worth 215,400*l.* (*Statement compiled by Robert Hunt, Esq. of the Museum of Practical Geology.*)

Of the 45,158 tons of lead imported in 1867, Spain sent us 35,651 tons. The lead mines of Granada would, in truth, be they properly wrought, be among the most productive in the world. Those of Murcia were in 1863 much more productive of lead than all the others put together. And as it is, next to wine, the most important article which Spain has to offer in exchange for foreign products. In 1863, for example, the value of the exports of wool from Spain, once the most important article, had declined to 25,300,896 reals, while that of the exports of lead had risen to 120,891,195, that of wine to 322,019,254 reals.

In 1863, Spain sent about 20,000 tons of lead to France, i.e. about two-thirds of the imports.

The lead mines of the United States are principally situated in Illinois and Wisconsin, and that of Upper Mississippi. Their produce, and that of the other mines in the Union, may, perhaps, amount to from 18,000 to 20,000 tons a-year.

LEAD, BLACK, or PLUMBAGO. [BLACK LEAD.]

LEAD, RED, or MINIMUM. [MINIMUM.]

LEAGUE. A measure of length containing more or fewer geometrical paces according to the customs of different countries. [WEIGHTS AND MEASURES.]

LEAKAGE. In Commerce, an allowance in the Customs, granted to importers of wine, for the waste and damage the goods are supposed to receive by keeping. (*Warehousing Act*, art. WAREHOUSING SYSTEM.)

LEATHER (Ger. leder; Dutch, leder, leër; Swed. läder; Fr. cuir; Ital. cuojo; Dan. læder; Russ. kosha; Lat. corium). The skins of various quadrupeds, dressed in a particular manner for the use of manufacturers, whose business it is to make them up, according to their different employments.

The leather manufacture of Great Britain is of very great importance, and ranks either third or fourth on the list; being inferior only in point of value and extent to those of cotton, wool, and iron, if it be not superior to the latter. Sir F. M. Eden, in his work on *Insurance*, estimated the value of the different articles manufactured of leather, in 1823, at 12,000,000*l.*; and there is reason to think that this statement was not very wide of the mark.

In 1867, the transactions of the various leather trades all over the kingdom were estimated to be represented by from 15,000,000*l.* to 20,000,000*l.* a-year in the aggregate. (This amount, we suspect, is understated.) There are upwards of a quarter of a million of persons engaged in making and selling hoots and shoes in the kingdom, and about 16,000,000*l.* is calculated to be expended in that branch of the trade alone. There are between 200 and 300 leather sellers' shops in London, and there are about 500 tanneries in various parts of the kingdom, employing about 400,000 persons directly and indirectly, in preparing and dressing at least 80,000 tons of leather, the consumption of which in 1867 amounted to upwards of 476,000 cwt., and in the same year 272,333 cwt. of untanned hides were exported. (*Stat. Soc. Journal*, June 1867; and *Parl. Papers*.)

In speaking of the leather manufacture, Dr. Campbell has the following striking observations: 'If we look abroad on the instruments of husbandry, on the implements used in most mechanic trades, on the structure of a multitude of engines and machines; or if we contemplate at home the necessary parts of our clothing—breeches, shoes, boots, gloves—or the furniture of our houses, the books on our shelves, the harness of our horses, and even the substance of our carriages, what do we see but instances of human industry exerted upon leather? What an aptitude has this single material in a variety of circumstances to the relief of our necessities, and supplying our conveniences in every state and stage of life? What it, or even without it in the plenty we have it, what difficulties should we be exposed? (*Political State of Great Britain*, vol. ii. p. 176.)

Leather was long subject to a duty; the manufacture being, in consequence, necessarily conducted under the surveillance of the excise. In 1812, the duty, which had previously amounted to 1*½d.* per lb., was doubled; and continued at 3*½d.* per lb. till July 1822, when it was again reduced to 1*½d.* per lb. The reduced duty produced a revenue of about 360,000*l.* It is clear, however, that either the duty ought not to have been reduced in 1822, or that it ought to have been totally repealed. The continuance of any such vexatious regulations required to insure the collection of the revenue, while the reduction of the cost of preparing a pound of leather was trifling as hardly to be sensible. It is, however, unnecessary to enter into any discussion on the extreme inexpediency of laying any duty on an article so indispensable to the labouring industry, as leather; and still less to show the inexpediency of subjecting so very important a manufacture to the vexatious regulations of revenue laws, for the sake of only 360,000*l.* a-year. Luckily, these have become obsolete of history. The leather duties were abolished in 1830; and as the manufacture

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Account of the Real Value of the Leather Exported from the United Kingdom in each of the 7 Years ending with 1867.

Articles	1861	1862	1863	1864	1865	1866	1867
Leather: tanned, unwrought	£ 361,455	£ 405,658	£ 440,797	£ 381,849	£ 409,219	£ 458,179	£ 498,968
Weight: boots, shoes		£ 11,637,550	£ 1,105,809	£ 1,481,121	£ 1,462,103	£ 398,888	£ 830,731
of other sorts	£ 1,926,847	£ 1,175,618	£ 115,089	£ 196,093	£ 210,299	£ 318,922	£ 238,511
Saddlery and harness	£ 307,756	£ 345,613	£ 341,669	£ 315,350	£ 250,531	£ 252,181	£ 220,172
Total	£ 2,196,038	£ 2,538,137	£ 2,553,265	£ 2,409,306	£ 2,467,181	£ 2,030,161	£ 1,858,078

has since been relieved from every sort of trammel and restraint, it has rapidly increased. It is to be hoped that no future necessity may arise to occasion the reimposition of the leather duty.

Account of the Number of Pounds Weight of Leather charged with Duties of Excise in England in 1824-29.

1824	55,429,570	1827	47,616,516
1825	32,374,977	1828	50,235,690
1826	41,927,216	1829	46,300,843

The quantity annually charged with duty in Scotland during the same period was, at an average, about 6,000,000 lb.

Australia is by far the most extensive market for our exports of leather; and next to it, but at a great distance, are the Cape Colony, British North America, the West Indies, Brazil &c.

LEDGER. The principal book of accounts kept by merchants and tradesmen, wherein every person's account is placed by itself, after being extracted from the journal. [BOOK-KEEPING.]

LEECH FISHERY (Fr. sangue; Ger. blutegel; Dutch, bloedzuiger; Russ. pivritza; Dan. blodiglar; Span. sanguijuela; Port. sanguisuga; Ital. mignatta). The demand for the medicinal leech (*Hirudo medicinalis*) is so great as to afford employment to a considerable number of persons in catching and selling the animal. It is common throughout Europe, America, and India, inhabiting lakes and pools. Norfolk supplies the greater part of the leeches brought to the London market; but some are taken in Kent, Suffolk, Essex, and Wales; and large quantities are imported from Bordeaux and Lisbon. They are caught in spring and autumn, by people who wade into the pools and allow them to fasten on their ankles; or more generally the catchers beat, as they wade in, the surface of the water with poles, which sets the leeches in motion, and brings them to the surface; when they are taken with the hand and put into bags. As they come to the surface just before a thunder-storm, this is regarded as a good time for collecting them. (Johnson's *Dispensatory*.)

We extract from the *Gazette des Hôpitaux* the following interesting account of the fishery of leeches at La Brenne, in France:—

The country about La Brenne is, perhaps, the most uninteresting in France. The people are scabrous-looking, the cattle wretched, the fish as bad—but the leeches are admirable.

If ever you pass through La Brenne, you will see a man, pale and straight-haired, with a woollen cap on his head, and his legs and arms naked; he is wading along the borders of a marsh, among the reeds, which are left dry by the surrounding waters, but he is not to be seen where the vegetation seems to be the subject of his undisturbed: this man is the leech-fisher. To see him from a distance—

—his singular gestures—you would take him for a patient who had left his sick bed in a fit of despondency. If you observe him every now and then, you might suppose him a fool; but he is an intelligent leech-fisher. The leeches are taken to his legs and feet as he moves through the haunts; he feels their presence from

their bite, and gathers them as they cluster about the roots of the bulrushes and sea-weeds, or beneath the stones covered with green and gluey moss. Some repose on the mud, while others swim about; but so slowly, that they are easily gathered with the hand. In a favourable season, it is possible, in the course of 3 or 4 hours, to stow 10 or 12 dozen of them in the little bag which the gatherer carries on his shoulder. Sometimes you will see the leech-fisher armed with a kind of spear or harpoon; with this he deposits pieces of decayed animal matter in places frequented by the leeches; they soon gather round the prey, and are presently themselves gathered into a little vessel half full of water. Such is the leech fishery in spring.

In summer, the leech retires into deep water; and the fishers have then to strip themselves naked, and walk immersed up to the chin. Some of them have little rafts to go upon; these rafts are made of twigs and rushes, and it is no easy matter to propel them among the weeds and aquatic plants. At this season, too, the supply in the pools is scanty; the fisher can only take the few that swim within his reach, or those that get entangled in the structure of his raft.

It is a horrid trade, in whatever way it is carried on. The leech-gatherer is constantly more or less in the water, breathing fog and mist and fetid odours from the marsh; he is often attacked with ague, catarrhs, and rheumatism. Some indulge in strong liquors, to keep off the noxious influence, but they pay for it in the end by disorders of other kinds. But, with all its forbidding peculiarities, the leech-fishery gives employment to many hands: if it be pernicious, it is also lucrative. Besides supplying all the neighbouring pharmacians, great quantities are exported, and there are regular traders engaged for the purpose. Henri Chartier is one of those persons; and an important personage he is when he comes to Meobecq, or its vicinity; his arrival makes quite a fête—all are eager to greet him.

Among the interesting particulars which I gathered in La Brenne relative to the leech trade, I may mention the following: One of the traders—what with his own fishing and that of his children, and what with his acquisitions from the carriers, who sell quantities *second-hand*—was enabled to hoard up 17,500 leeches in the course of a few months; he kept them deposited in a place where, in one night, they all became frozen en masse. But the frost does not immediately kill them; they may generally be thawed into life again. They easily, indeed, bear very hard usage.

I am told by one of the carriers, that he can pack them as closely as he pleases in the moist sack which he ties behind his saddle; and sometimes he stows his cloak and boots on top of the sack. The trader buys his leeches *pêle-mêle*, big and little, green and black—all the same; but he afterwards sorts them for the market. Those are generally accounted the best which are of a green ground, with yellow stripes along the body.

A tract published at Paris in 1845, by M. Joseph Martin, leech merchant, contains a great variety of curious and instructive details in regard to the natural history of leeches, the trade carried on in them, and the frauds of the dealers. They are,

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An Account showing the Trades that cannot be carried on in the United Kingdom without Excise Licenses; the Sums charged for such Licenses; and the Number of Licenses granted for carrying on each Trade in the Year ending March 31, 1866; with the Total Amount of Revenue derived therefrom.

Description of License	Rate of Duty per Annum	England	Scotland	Ireland	United Kingdom
		Number of Licenses granted	Number of Licenses granted	Number of Licenses granted	Total Number of Licenses granted
Agents -	£ 4 0 0	4,015	455	408	4,904
Agents and house agents -	10 0 0	5,142	284	31	5,751
Dealers -	10 0 0	117	117	33	248
Dealers -	10 0 0	95	15	27	117
Dealers -	0 10 0	632	120	33	775
Dealers in wine stills -	0 10 6	16	16	3	35
Dealers -	10 10 0	3,222	333	476	4,031
Additional to retail foreign liquors -	2 2 0	3	..	..	3
Additional to retail in bottles -	3 2 0	1,863	..	..	1,863
Special license: publicans -	2 4 1 to 11 0 6	66,479	..	15,112	81,591
Special license: publicans -	4 4 0 to 13 13 0	..	11,704	..	11,704
Special license: Scotland -	9 18 3 to 14 5 7 1/2	..	..	298	298
Beer dealers, wholesale -	3 6 1 1/2	5,220	80	699	5,999
Additional retail license -	1 2 0 1/2	1,503	..	539	1,932
Additional retail license -	0 5 0	4,170	919	..	5,089
Retail of table beer -	1 2 0 1/2 to 3 6 1 1/2	72,531	..	15,178	87,709
Beer retailers, 45 Vict. IV. cap. 85 -	1 2 0 1/2 to 3 6 1 1/2	47,091	..	..	47,091
Beer retailers, 45 Vict. IV. cap. 85 -	1 2 0 1/2 to 3 6 1 1/2	400	..	..	400
Beer retailers -	2 10 0 to 4 4 0	3,241	501	..	3,742
Beer retailers -	2 10 0 to 2 4 0 1/2	30,524	62	133	30,719
Beer retailers -	4 8 2 1/2 to 1 2 0 1/2	5,758	5,602	..	11,360
Beer retailers -	2 2 0 to 5 5 0	39	..	116	155
Beer retailers -	5 5 0	89	..	..	89
Beer retailers -	1 1 0	9,905	97	84	10,086
Beer retailers -	1 1 0	205	99	40	304
Beer retailers -	0 10 0 to 1 1 0	5,865	..	85	5,950
Beer retailers -	0 10 0 to 1 1 0	343	114	106	563
Beer retailers -	0 5 0 to 10 31 0	227,561	19,125	24,813	269,499
Beer retailers -	0 5 0 to 10 31 0	5,570	401	150	6,091
Beer retailers -	0 7 10 1/2 to 4 14 6	13	..	9	22
Beer retailers -	10 0 0	11	1	..	12
Beer retailers -	0 10 6 to 78 15 0	..	..	..	..
Beer retailers -	0 12 6	..	..	..	..
Beer retailers -	1 7 6	..	..	..	..
Beer retailers -	2 0 0	..	..	..	..
Beer retailers -	0 15 0	37,447	224	96	37,767
Beer retailers -	0 14 0	..	..	..	..
Beer retailers -	0 15 0	..	..	..	..
Beer retailers -	1 0 0	491	18	18	527
Beer retailers -	5 10 3	12	1	4	17
Beer retailers -	3 3 0	..	..	..	..
Beer retailers -	0 0 6	2,376	232	No duty	2,608
Beer retailers -	0 0 0 1/2	..	..	..	..
Beer retailers -	7 10 0 to 70 0 0	8,814	961	..	9,805
Beer retailers -	at decreasing rates	..	..	1,971	1,971
Beer retailers -	and 5 per cent.	..	..	..	..
Beer retailers -	1 0 0	7,160	..	..	7,160
Beer retailers -	0 7 10 1/2	..	..	..	..
Beer retailers -	0 6 0	..	..	..	..
Beer retailers -	5 per cent. on receipts	..	..	No duty	..
Beer retailers -	0 2 6 and 0 11 6 1/2	126,999	19,119	23,876	149,994
Beer retailers -	2 0 0	43,231	4,017	3,493	50,741
Beer retailers -	2 0 0	3,217	1,139	368	4,724
Beer retailers -	2 0 0	1,839	205	69	2,113
Beer retailers -	3 0 0	..	..	..	..
Beer retailers -	2 2 0	140	34	7	181
Beer retailers -	4 4 0	316	56	89	392
Beer retailers -	4 4 0	174	21	96	291
Beer retailers -	5 5 0	55	7	1	63
Beer retailers -	2 0 0 to 4 0 0	16,539	1,421	901	17,961
Beer retailers -	0 5 0 to 2 0 0	10,757	761	No duty	11,518
Beer retailers -	1 0 0	6,289	818	635	7,742
Beer retailers -	0 2 6	7,161	990	378	8,529
Beer retailers -	2 6 0 to 5 15 0	2,761	336	621	3,724
Beer retailers -	7 10 0 to 15 0 0	..	..	..	..

Total amount received for licenses in 1866, 2,233,817.

power and authority conferred upon us by the said Act, and in exercise of the same, do hereby revoke the warrants or appointments, and the continuances thereof (renewed before referred to, whereby the persons in London, Dublin, Dover, Folkestone, Southampton and Shoreham, or any of them, were appointed or declared to be, and be continued in the United Kingdom, ports or places in the United Kingdom in which persons acting as agents in the entry or clearance of any ships or of any goods or baggage, or any business relating thereto, are required to be duly licensed for that purpose.

Witness our hands and the seal of the said Treasury Chambers, dated this 14th day of March, 1867.

(Signed) 'J. BAGWELL,  
WM. DUNBAR.'

'The board directs that copies of their Lordships' warrant be inserted in the London and Dublin Gazettes.'

The total number of excise licenses existing on March 31, 1867, was in England, 779,466; Scotland, 72,874; Ireland, 97,331. Total number, United Kingdom, 949,671; total revenue ditto, including licenses for fractional parts of a year, and surcharges, 2,325,521.

There are, also, in the United Kingdom, sundry businesses which cannot be carried on without a stamp license, such as bankers, attorneys, &c. The license duty paid by these parties amounted in the year ended March 31, 1866, to 134,101.

LIGHTHOUSE. A tower situated on a promontory or headland on the sea coast, or on rocks or banks in the sea, for the reception of a light for

the guidance of ships at night. 'Usus ejus, nocturno navium cursu ignes ostenders, ad prænuntianda vada, portusque introitum.' (Plin. *Hist. Nat.* lib. xxxvi. c. 13.) There are also floating-lights, or lights placed on board vessels moored in certain stations, and intended for the same purposes as those on shore.

**Historical Notices.**—The lighting of fires for the direction of ships at night is of such obvious utility, that we need not wonder at the practice having originated at a very remote era. The early history of lighthouses is, however, involved in much obscurity; but it is reasonable to suppose that no long period would elapse after fires were lighted for the premonition and guidance of mariners, till towers would begin to be constructed for their reception. The most celebrated of all the ancient lighthouses was that erected by Ptolemy Soter, on the small island of Pharos, opposite to Alexandria, 'nocturnis ignibus cursum navium regens.' (Plin. lib. v. c. 31.) It was of great height, and is said to have cost 800 talents. Dr. Gillies tells us (*Hist. of Alexander's Successors*, vol. ii. p. 138, 8vo. ed.), that the tower was 450 feet in height; that each side of its square base measured 600 feet, and that its 'beaming summit' was seen at the distance of 100 miles! It is almost needless to add, that there is no authority for such statements, which indeed carry absurdity on their face. Its celebrity was such that Pharos rapidly became, and still continues to be in many countries, a generic term equivalent to lighthouse. In the ancient world, there were lighthouses at Ostia, Ravenna, Puteoli, Caprea, Rhodes on the Thracian Bosphorus &c. (See *Suetonii Opera*, ed. Pitiscus, tom. i. p. 755; and the *Ancient Universal History*, ix. 366, 8vo. ed.)

The *Tour de Cordouan*, at the entrance of the Gironde, the Eddystone Lighthouse, opposite to Plymouth Sound, that more recently constructed on the Bell Rock, opposite to the Frith of Tay, and that on the Bishop Rocks to the S.W. of the Scilly Islands, are the most celebrated modern lighthouses. The *Tour de Cordouan* was begun in 1584, by order of Henry III., and was completed in 1610. It was at first 169 feet (Fr.) high; but in 1727 it was enlarged, by the addition of an iron lantern, to the height of 175 French, or 186½ English feet. It used to be lighted by a coal fire, but it is now a revolving dioptric light of the first order. It is altogether a splendid structure; and is, besides, remarkable for being the first lighthouse on which a revolving light was exhibited. [BORDEAUX.]

The first lighthouse erected on the Eddystone rocks only stood about 7 years, having been blown down in the dreadful storm of November 27, 1703; a second, erected in 1708, was burnt down in 1755. The present lighthouse, constructed by the celebrated engineer Smeaton, was completed in 1759. It is regarded as a masterpiece of its kind; and bids fair to be little less lasting than the rocks on which it stands.

The Bell Rock Lighthouse was built by Mr. Stevenson on the model of the Eddystone, and that on the Bishop Rocks was completed by Messrs. Walker and Burgess in 1858. The Skerryvore and Smalls Rock lighthouses are also of similar design to Eddystone.

Numerous lighthouses, marking the most dangerous points and the entrance to the principal harbours, are now erected in most civilised maritime countries. They are particularly abundant in the Baltic and in the Sound, and have contributed, in no ordinary degree, to render their navigation comparatively safe. Within these few years several new ones have been erected on the

British coasts, and on those of France, the United States &c.

**Precautions as to Lighthouses.**—Many fatal accidents have arisen from ships mistaking one light for another; and hence the importance of those on the same coast being made to differ distinctly from each other, and of their position and appearance being accurately laid down as described. The modern inventions of revolving, intermitting, and coloured lights, afford facilities for varying the appearance of each light unknown to our ancestors, and have been, in that respect, of the greatest importance. For some interesting details on this subject, we would refer to 'Captain Close on Lighthouses and Coast Illuminations' in vol. iv. of *Reports on the Paris Exhibition* 1867.

**Chart of Lighthouses &c.**—A good descriptive work on lighthouses, beacons &c., is a desideratum. That of Coulier, *Guide des Marins pendant Navigation nocturne*, Paris 1829, is perhaps the best. It must not be judged by its price, which is as bad as possible; consisting of scraps from the most fantastical parts of Bryant's *Mythology*, and of attacks on us for our conduct in relation to Parga, and the alleged ill-treatment of the crew of a vessel wrecked on the island of Alderney. The book is really pretty good, which could be anticipated from such a commencement. The reader will find the existing English and Irish lighthouses, and the greater number of those belonging to Scotland, laid down in the chart attached to the article CANALS in this work. Accuracy may be depended upon; for it has been copied from the official chart of the lighthouses the British and contiguous coasts published the Trinity House.

**Law as to British Lighthouses.**—The 8 & c. 13 empowered the Corporation of the Trinity House to erect beacons &c. to prevent access to ships; and though the Act does not expressly mention lighthouses, it has been held to extend to them; and on its authority, and the privilege attached to the office of buoyage and beacon conferred on the Trinity House in 1594, the Corporation erects lighthouses. The tolls for maintenance have been generally collected under the authority of letters patent from the Crown, those for the support of the Eddystone light, some others in different parts of the kingdom being, however, established by Act of Parliament. The first lighthouses erected by the Trinity House were built at Caistor, in Norfolk, in 1600.

All the lighthouses, floating-lights &c. extensive of harbour-lights, from the Fens Islands to the coast of Northumberland, round by Beal Head and the Land's End, to the east of Loughshire, have always belonged to the Trinity House, with the exception of about a dozen lights, at Tynemouth, Spurn (shore), Winterton, and Ford, Harwich, Dungeness, Skerries &c. The lights have been partly public and partly private property; but they have latterly been all acquired by the Trinity House. (See below.) The dues on their account have been, for the most part, always payable to the Trinity collectors.

The Act of 1853, 16 & 17 Vict. c. 131, and the Mercantile Shipping Act of 1854, have made the Trinity House directly subordinate in many respects to the Board of Trade. The dues for beaconage &c., formerly payable to the Trinity House, are at present carried to the account of the Mercantile Marine Fund, which is charged with the cost of maintaining beacons, buoys &c., and it, also, is to be charged with the pensions hitherto paid by the Trinity House. The latter is in future to prepare estimates

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no expense is to be allowed which has not previously been sanctioned by the Board of Trade. The charges for lights &c. are to be revised and fixed by her Majesty in council, who is also to fix the tolls to be taken for new lights. The attention that will thus be drawn to the different charges on shipping cannot fail to be advantageous; and will, no doubt, bring about their reduction to the lowest point consistent with the production of the important objects for which they have been imposed. The most important clause of the Mercantile Shipping Act, the 17 & 18 Vict. c. 104, and of the 25 & 26 Vict. c. 63, having reference to lighthouses, are as follow, viz.:

**Management of Lighthouses, Buoys, and Beacons, in the Trinity House &c.**—Subject to the provisions herein contained, and subject also to any powers or rights now lawfully enjoyed or exercised by any person or body of persons having by law or usage authority over local lighthouses, buoys, or beacons, herein termed "local authorities," the superintendance and management of all lighthouses, buoys, and beacons shall be vested in the following bodies, viz.:

In England and Wales, and the islands of Jersey, Guernsey, Sark, and Alderney, and the adjacent seas and Islands, and in Heligoland and Gibraltar, in the Trinity House:

In Scotland and the adjacent seas and Islands, and in the Isle of Man, in the Commissioners of Northern Lighthouses.

In Ireland and the adjacent seas and islands, in the Port of Dublin Corporation, now (1868) called Commissioners of Irish Lights. And, subject to the provisions herein contained, the said Trinity House, Commissioners, and Corporation, therein termed General Lighthouse Authorities, shall respectively continue to hold and maintain all property now vested in them in that behalf, in the same manner and for the same purpose as they have hitherto held and maintained the same. (17 & 18 Vict. c. 104 s. 389.)

**Commissioners of Northern Lighthouses.**—The persons holding the following offices shall be a body corporate, under the name of the Commissioners of Northern Lighthouses; that is to say:

1. The Lord Advocate and the Solicitor-General for Scotland;

2. The Lords Provosts of Edinburgh and Glasgow, and the Provosts of the cities of Aberdeen, Inverness, and Campbelltown;

3. The eldest bailies of Edinburgh and Glasgow;

4. The sheriffs of the counties of Edinburgh, Dumfriesshire, Dumfries, Bute, Argyll, Inverness, Ross, Shetland, Caithness, Aberdeen, Ayr, Fife, Forfar, Angus, Sutherland, Kincardine, Kirkcubright, and Elgin;

5. And shall have a common seal; and any 5 of such commissioners shall constitute a quorum, and shall have power to do all such matters and things as might be done by the whole body of commissioners. (Sec. 390.)

**Power to elect certain new Members.**—In addition to the persons above mentioned, it shall be lawful for the said commissioners, at any time after the Act comes into operation, to elect the provost or chief magistrate of any royal or parliamentary burgh, or on or near any part of the coasts of Scotland, and the sheriff of any county abutting on such coasts. (Sec. 391.)

**Trinity House may inspect Lighthouses in Scotland and Ireland.**—The Trinity House, their officers, workmen, and servants, may at all times enter any lighthouses within the jurisdiction of

the said commissioners or corporation, to view the condition thereof, or otherwise, for the purposes of this Act. (Sec. 392.)

**Board of Trade may appoint Persons to inspect Lighthouses &c.**—The Board of Trade may, upon complaint to the effect that any lighthouse, buoy, or beacon under the management of any of the said general lighthouse authorities, or any work connected therewith, is inefficient or improperly managed or unnecessary, authorise persons to inspect the same; and every person so authorised may inspect the same accordingly, and make such enquiries in respect thereof as he may think fit; and all officers and others having the care of such lighthouses, buoys, or beacons, or concerned in the management thereof, shall furnish all such information and explanations in relation thereto as he may require; and the said general lighthouse authorities and their respective officers shall at all times give to the Board of Trade all such returns, explanations, or information in relation to the lighthouses, buoys, or beacons within their jurisdiction and the management thereof, as such Board may from time to time require. (Sec. 393.)

The 25 & 26 Vict. c. 63 s. 43 provides that the following rules shall be observed with respect to the inspection of local lighthouses, buoys, and beacons; that is to say—

1. It shall be the duty of each of the general lighthouse authorities, or of such persons as may be authorised by such authority for the purpose, to inspect all lights, buoys, and beacons situate within the limits of the jurisdiction of such general authority, but belonging to or under the jurisdiction of any local authorities, and to make such enquiries in respect thereof and of the management thereof as they may think fit;

2. All officers and others having the care of such lighthouses, buoys, or beacons, or concerned in the management thereof, shall furnish all such information and explanations concerning the same as they may require;

3. All such local authorities and their respective officers shall at all times give to the inspecting authority all such returns, explanations, or information concerning the lighthouses, buoys, and beacons within their jurisdiction, and the management thereof, as the said authority may from time to time require;

4. The inspecting authority shall communicate to each local authority the results of its inspection of the lighthouses, buoys, and beacons within its jurisdiction, and shall also make general reports of the results of its inspection of local lighthouses, buoys, and beacons to the Board of Trade; and such reports shall be laid before parliament;

5. The powers given by sec. 394 of the principal Act to the general lighthouse authorities shall, so far as the same are applicable, extend and apply to the case of local buoys and beacons, other than local buoys and beacons placed or erected for temporary purposes, as well as to the case of local lighthouses. (25 & 26 Vict. c. 63 s. 43.)

**Power to General Lighthouse Authorities to control Local Authorities.**—Each of the said general lighthouse authorities, upon giving due notice of their intention, shall have power, with the sanction of the Board of Trade, to compel any local authority having jurisdiction in the matter of lighthouses, buoys, or beacons at any place situate within the jurisdiction of such general lighthouse authority, to lay down buoys or to remove or discontinue any existing lighthouse or beacon, or to make any variation in the character of any lighthouse or in the mode of exhibiting lights

therein; and no such local authority as aforesaid shall erect any new lighthouse, or remove or discontinue any lighthouse, or vary the character of any lighthouse or the mode of exhibiting lights therein, without the sanction of the general lighthouse authority within whose jurisdiction the same is situate. (17 & 18 Vict. c. 104 s. 394.)

*In case of Default by Local Bodies, Local Lighthouses may be transferred to General Lighthouse Authorities.*—If any local authority having power to erect, maintain, or place any local lighthouse, buoy, or beacon at any place within the jurisdiction of one of the said general lighthouse authorities fails so to do, or fails to obey any direction given by such authority under the last preceding section, her Majesty may, upon application from such general lighthouse authority, by order in council direct that such power as aforesaid shall be transferred to such last-mentioned authority; and such power, together with all powers of levying and receiving dues in respect of such lighthouse, buoy, or beacon, shall thereupon become vested in such last-mentioned authority; and such lighthouse, with its appurtenances, and also such buoy or beacon, and all dues leviable in respect thereof, shall thenceforth be subject in all respects to the same regulations as other lighthouses and light dues, buoys, and beacons provided for by this Act. (Sec. 395.)

*Dues to be levied.*—Subject to any alterations to be made under the powers hereinafter contained, the said general lighthouse authorities shall, in respect of the existing lighthouses, buoys, or beacons within their respective jurisdictions, continue to levy dues, herein called light dues, after the rate at which the same are levied at the time when this Act comes into operation; and such light dues shall be payable in respect of all ships whatever, except ships belonging to her Majesty and ships hereby exempted from payment thereof. (Sec. 396.)

The 25 & 26 Vict. c. 63 ss. 44 & 45 provides that the following persons shall be liable to pay light dues for any ship in respect of which light dues are payable; (that is to say), the owner or master, or such consignees or agents thereof as have paid or made themselves liable to pay any other charge on account of such ship in the port of her arrival or discharge, and in default of payment such light dues may be recovered in the same manner as penalties of the like amount may be recovered by virtue of the principal Act. (25 & 26 Vict. c. 63 s. 43.)

Every consignee and agent (not being the owner or master) hereby made liable for the payment of light dues in respect of any ship may, out of any moneys in his hands received on account of such ship, or belonging to the owner thereof, retain the amount of all dues so paid by him, together with any reasonable expenses he may have incurred by reason of such payment or liability. (Sec. 45.)

*Light Dues to be subject to Revision by her Majesty in Council.*—Her Majesty may, with the advice of her Privy Council, from time to time reduce all or any of the dues for the time being payable in respect of existing or future lighthouses, buoys, or beacons, for the time being under the management of the said general lighthouse authorities; and may also, with the like advice, from time to time increase or vary any of such dues, so that no dues payable in respect of any lighthouse, buoy, or beacon existing at the time when this Act comes into operation, are made to exceed the amount which has at any period previous to such time been received in respect thereof,

or to which the said dues might during any part of such period as last aforesaid lawfully have been raised. (17 & 18 Vict. c. 63 s. 397.)

By 25 & 26 Vict. c. 63 ss. 46, 47, it is enacted that if any lighthouse, buoy, or beacon is erected or placed, or reconstructed, repaired, or replaced by any local authority having jurisdiction in the matter of lighthouses, buoys, or beacons, her Majesty may, by order in council fix such dues to be paid to the said local authority in respect of every ship which enters the port or harbour under the jurisdiction of such local authority or the estuary where such lighthouse, buoy, or beacon is situate, and which passes the said lighthouse, buoy, or beacon, and derives benefit therefrom, as her Majesty may deem reasonable:

The dues for the time being fixed by any such order in council as aforesaid shall be paid accordingly by the master of the said ship or other person or persons by whom the said light dues, levied by one of the general lighthouse authorities, would be payable, and shall be recoverable in the same manner as light dues payable to the general authorities are recoverable.

All light dues leviable by any local authority under this Act shall be applied for the purposes of the construction, placing, maintenance, and improvement of the lighthouses, buoys, and beacons in respect of which the same are levied, and for no other purpose:

The local authority to whom the same are payable shall keep a separate account of the receipt and expenditure of such dues, and shall once in every year, or at such other time as the Board of Trade may determine, send a copy of such account to the Board of Trade, and shall send the same in such form and shall give such particulars in relation thereto as the Board of Trade may require:

Her Majesty may by order in council from time to time reduce, alter, or increase all or any such dues, so that the same may, so far as is practicable, be sufficient and not more than sufficient for the payment of the expenses incurred by the local authority in respect of the lighthouses, buoys, or beacons for which the dues are levied. (Secs. 46 & 47.)

*Powers of General Lighthouse Authorities to alter and regulate Dues.*—Each of the said general lighthouse authorities shall have power, with the consent of her Majesty in council, to do any of the following things; that is to say—  
To exempt any ships or any classes of ships from the payment of light dues receivable by such authority, and to annex any terms or conditions to such exemptions:

To alter the times, places, and modes at which the light dues receivable by such authorities are payable:

To substitute any other dues or class of dues whether by way of annual payment or otherwise in respect of any ships or classes of ships, for such dues payable to such authority for the time being. (17 & 18 Vict. c. 63 s. 398.)

*Publication of Dues and Regulation.*—Tables of all light dues, and a copy of the regulations for the time being in force in respect thereof, shall be posted up at all custom-houses within the United Kingdom; and each of the said general lighthouse authorities shall from time to time, on occasion requires, furnish copies of such tables and regulations to the Court of Customs and Excise, and to the principal officers of customs resident at all places where light dues are levied on account of such lighthouse authorities, and such copies shall be posted up by the

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Commissioners at the Custom-house in London, and by such officers at the custom-houses of the places at which they are respectively resident. (Sec. 393.)

**Ship not to be cleared without Production of Receipt for Light Dues.**—A receipt for light dues shall be given by the person appointed to collect the same to every person paying the same, and no officer of customs at any port where light dues are payable in respect of any ship shall grant a clearance or transire for any such ship, unless the receipt for the same is produced to him. (Sec. 400.)

**Power of Distress for Light Dues.**—If the owner or master of any ship falls on demand of the authorised collector to pay the light dues due in respect thereof, it shall be lawful for such collector, in addition to any other remedy which he has the authority by whom he is appointed is enabled to use, to enter upon such ship, and detain the goods, guns, tackle, or any other thing of or belonging to or on board such ship, and to detain such ship until the said light dues are paid; and if payment of the same is not made within the period of 3 days next ensuing such distress, he may, at any time during the continuance of such non-payment, cause the same to be appraised by two sufficient persons or sworn appraisers, and thereupon sell the same, and apply the proceeds in payment of the light dues due, together with all reasonable expenses incurred by him under this section, paying the surplus (if any) on demand to the said owner or master.

Clause 401 regulates the mode in which light dues are to be paid over and accounted for.

**Application of Light Dues.**—All light dues coming to the hands of any of the said general lighthouse authorities under this Act shall be carried to the account of the Mercantile Marine Fund hereinafter mentioned, and shall be dealt with in manner hereinafter described. (Sec. 402.)

**Power to Lighthouse Authorities to erect and repair Lighthouses, Buoys, and Beacons.**—Each of the said general lighthouse authorities shall have power, within its jurisdiction, to execute the following powers, and do the following things; that is to say—

1. To erect or place new lighthouses, with all requisite works, roads, and appurtenances, or alter or remove any existing lighthouses;
2. To erect or place any new buoys or beacons, or alter or remove any existing buoys or beacons;
3. To take and purchase any land which may be necessary for the above purposes, or for the continuance of the works or the residence of the lighthouse keepers;
4. To vary the character of any lighthouse or mode of exhibiting lights therein;
5. To sell any land belonging to it;
6. The exercise of the above power shall, in the case of the said commissioners and corporation, be subject to the restrictions hereinafter contained. (Sec. 403.)

Clause 406 directs that the powers given by the foregoing clause shall, in the case of the commissioners and corporation, be subject to approval of the Trinity House, with appeal to the Board of Trade.

Sections 406 to 409 relate to proceedings between the said commissioners &c. and the Board of Trade.

**Power of Her Majesty by Order in Council for the Construction of New Lighthouses.**—Upon the recommendation of any new lighthouse, buoy, or beacon, her Majesty may, by order in council, fix the amount of the light dues in respect thereof, to be paid by the

master or owner of every ship which passes the same or derives benefit therefrom, as her Majesty may deem reasonable, and may from time to time alter the amount thereof; and such dues shall be paid and collected in the same manner, by the same means, and subject to the same conditions in, by, and subject to which the light dues authorised to be levied by this Act are paid and collected. (Sec. 410.)

**No Dues to be levied in the Channel Islands without Consent of the States.**—No dues for any lighthouse, buoy, or beacon to be erected or placed in or near the islands of Guernsey, Jersey, Sark, or Alderney, shall be taken in the said islands of Guernsey or Jersey without the consent of the states of the said islands respectively; nor shall any powers hereinbefore given to the Trinity House in respect of any lighthouse, buoy, or beacon erected or placed in the islands of Guernsey or Jersey, or hereafter to be erected or placed in such islands, be exercised without the consent of her Majesty in council. (Sec. 411.)

**Incorporation of 8 & 9 Vict. cc. 18 & 19.**—The Lands Clauses Consolidation Act, 1845, and the Lands Clauses Consolidation Act (Scotland), 1845, shall be incorporated in this Act, and shall apply to all lighthouses to be constructed and all land to be purchased under the powers thereof. (Sec. 412.)

Clause 413 relates to the surrender of local lighthouses to general lighthouse authorities.

**Penalty for injuring Lights, Buoys, and Beacons.**—If any person wilfully or negligently commits any of the following offences; that is to say—

1. Injures any lighthouse or the lights exhibited therein, or any buoy or beacon;
2. Removes, alters, or destroys any light ship, buoy, or beacon;
3. Rides by, makes fast to, or runs foul of any light ship or buoy;

He shall, in addition to the expenses of making good any damage so occasioned, incur a penalty not exceeding 50*l.* (Sec. 414.)

**Lighthouse Authorities may prohibit false Lights.**

—Whenever any fire or light is burnt or exhibited at such place or in such manner as to be liable to be mistaken for a light proceeding from a lighthouse, it shall be lawful for the general lighthouse authority within whose jurisdiction such place is situate, to serve a notice upon the owner of the place where the fire or light is burnt or exhibited, or on the person having the charge of such fire or light, either personally or by delivery at the place of abode of such owner or person, or by affixing the same in some conspicuous spot near to such fire or light, and by such notice to direct such owner or person, within a reasonable time to be therein specified, to take effectual means for the extinguishing or effectually screening such existing light, and for preventing for the future any similar fire or light; and any owner or person disobeying such notice shall be deemed guilty of a common nuisance, and in addition to any other penalties or liabilities of any kind thereby incurred, shall incur a penalty not exceeding 100*l.* (Sec. 415.)

**If not obeyed, they may abate such Lights.**—If any owner or person served with such notice as aforesaid, neglects for a period of 7 days to extinguish or effectually screen the fire or light therein mentioned, it shall be lawful for the general lighthouse authority within whose jurisdiction the same may be, by their servants or workmen, to enter upon the place whereon the same may be, and forthwith to extinguish such fire or light, doing no unnecessary damage and



into the Mercantile Marine Fund account, so, nevertheless, that the whole sum for the time being due in respect of such advances shall never at any one time exceed 200,000*l.*; and upon any advance so made, the sum advanced and the interest shall be a charge on the Mercantile Marine Fund, and upon the dues, rates, fees, and payments carried thereto as aforesaid; and the Board of Trade shall make such provision for the repayment thereof out of the said fund, either by forming a sinking fund or otherwise, as the Treasury may require; provided that no such advance shall prevent any lawful reduction of any of the said dues, rates, fees, or payments, if such reduction be assented to by the Treasury. (See 424.)

Clause 425 gives power to the Board of Trade to borrow money on the credit of the fund.

Clause 426 gives power to public works loan commissioners to advance money for such purposes on the credit of the fund.

**Lighthouse Authorities to account for Receipts and Expenditure to the Board of Trade.**—Each of the said general lighthouse authorities shall account to the Board of Trade for their receipts from the said light dues and ballastage rates, and for their expenditure as regards expenses paid out of the said fund, in such form, and at such times, and with such details, explanations, and vouchers as the Board of Trade requires, and shall, when required by such Board, permit all books of accounts kept by or under their respective direction to be inspected and examined by such persons as the said Board appoints for that purpose. (See 427.)

Clause 428 directs that the accounts of the Mercantile Marine Fund be audited by commissioners of audit.

Clause 429 directs that the accounts of the fund be laid before Parliament.

Clause 430 directs that all property used for the purposes of lighthouses, buoys, beacons, light dues &c. is to be exempt from all rates and taxes.

The following provisions relative to lighthouses are contained in the Merchant Shipping Act Amendment Act before referred to, 25 & 26 Vict. c. 61.

It is to be the duty of each of the general lighthouse authorities, or such persons as may be authorized, to inspect all lights, buoys, and beacons, though they may belong to local authorities, and the local authorities are bound to furnish all requisite information. The inspecting authority is to communicate the results of its inspection to the local authority.

Light dues are payable from the owner or charterer, or such consignee or agents as have agreed to make themselves liable to pay any other dues.

Consignees or agents may detain the amount of light dues paid by them, together with reasonable expenses out of moneys in their hands received on account of the ship.

Local authorities may, by order in council, make regulations for local lighthouses, buoys, and beacons.

Expenses of such local dues to be applied shortly to the construction, placing, maintenance, and repair of the lighthouses, buoys, and beacons.

The local authority must keep an account of the receipts and expenditure, and forward a copy to the Board of Trade.

The Queen in council may reduce, alter, or increase the rates for local authorities &c.

**Account of Lighthouses.**—A wish to keep

the charges on native ships as low as possible, and to insure them a preference, seems to have given rise to the practice that long existed, of exacting comparatively high duties from the foreign shipping entering our ports. But whatever may have been the motives for making this distinction, its policy seems more than questionable. It is quite right that the foreign ships coming to our shores for commercial purposes should be made to pay, as they now do, the same light and harbour duties as British vessels; but the imposition of comparatively high duties on them was decidedly injurious, inasmuch as it provoked retaliatory measures on the part of other states, obstructed the resort of foreigners to our markets, and consequently, checked the growth of commerce.

This system was very properly condemned in a report by a committee of the House of Commons in 1822. There are, in the evidence annexed to that report, some well-authenticated instances of foreign ships having been totally lost, from the disinclination of the captains to enter a British port, while it was in their power, on account of the heavy charges to which they would have been exposed for lights &c. Down indeed to 1835, all ships, whether native or foreign, coming into any British port by *stress of weather*, were charged with full light duties; but this inhospitable regulation was repealed by an order in council of February 7 of that year (issued at the recommendation of the Trinity House), which exempted such vessels on account of lights. Our whole policy as to light duties, port charges &c., has within these few years been materially improved, and is now the very reverse of illiberal. The discriminating duties on foreign ships have been abolished: but even previously, in consequence of the general establishment of reciprocity treaties, the distinction had become nominal rather than real, and affected very few of the ships using our seas.

Large deductions, too, have been at different times made from the light duties; and after being still further augmented, these deductions were fixed by an order in council of February 2, 1859, at 50 per cent. on vessels making oversea, and at 35 per cent. on those making coasting, voyages; and again by order in council, which came into operation on April 1, 1868, the abatement of 50 per cent. from the tolls, was made uniform on coasting and oversea vessels, whether British or foreign: so that all invidious distinctions are now at an end. [NAVIGATION LAW.] It is indeed quite essential to their utility, that these duties should be moderate. They have the same influence upon the intercourse carried on by sea, that tolls have upon that carried on by land; and it is needless to add, that oppressive tolls are amongst the most effectual of all the engines by which rapacious ignorance has contrived to injure a country. There is nothing new in this statement: 'Avara manus portus claudit; et cum digitis contrahit, navium simul vela concludit; merito enim illa mercatores cuncti refugium quasi sibi disperdenda esse cognoscunt.' (Cassiodorus, *Varia*, lib. vii.)

**Charges on account of Collection &c.**—The lighthouse revenue, though formerly believed to be much greater than was necessary for keeping the establishment in a state of perfect efficiency, now just meets the expenditure, and the abatement allowed is so regulated as to secure the fund against a surplus. The surplus revenue was formerly, in so far at least as depended on the Trinity House, very judiciously expended in maintaining decayed seamen, and other useful purposes. But considering the vast importance of low shipping



Account of the Lighthouses and Floating Lights &c.—continued.

Lights &c.	OVERSEA		COASTING		Lights &c.	OVERSEA		COASTING	
	Rate per Ton, 10ths of 1d.		Rate per Ton, 10ths of 1d.			Rate per Ton, 10ths of 1d.		Rate per Ton, 10ths of 1d.	
	British and Foreign Vessels	Per Ton	Per Ton	10ths of 1d.		British and Foreign Vessels	Per Ton	Per Ton	10ths of 1d.
<b>S. &amp; W. Coast of IRELAND—cont.</b>					<b>Duties for special voyages—cont.</b>				
Black Rock - 1 lighthouse	3	1	..	..	Tougue - 1 floating light	2	1	..	..
Capo Island, South "	3	1	..	..	Girdler - "	2	1	..	..
Capo Island, North "	3	1	..	..	Bishop Rock - 1 lighthouse	4	1	..	6
Malin O'Ruane "	3	1	..	..	Morcombe Bay - 1 floating light	4	1	..	..
Portlaoine "	3	1	..	..	Bahama Bank - "	2	1	..	..
Portlaoine "	3	1	..	..	Point of Ayres (I. of Man) - 1 lighthouse	..	1	..	..
Portlaoine "	3	1	..	..	Little Ross - "	..	1	..	..
Portlaoine "	3	1	..	..	MacArthur's Head - "	..	1	..	..
<b>Lights the duties for which are payable only for special voyages.</b>					Skerrulla - "				
Brown Sound - 1 lighthouse	8	..	..	..	Sound of Islay, North (Rhu Vaal) - "	8	1	..	..
Islands - "	8	1	..	..	Phialda - "	8	1	..	..
Capo - "	4	..	..	..	Lismore - "	8	1	..	..
Point of Islay - 1 floating light	4	..	..	..	Corra - "	8	1	..	..
Point of Islay - 1 lighthouse	16	..	..	..	Sound of Mull - "	8	1	..	..
Point of Islay - 1 floating light	8	..	..	..	Isle Ormsay - "	8	1	..	..
Point of Islay - 1 lighthouse	8	1	..	..	Kyrrakin - "	8	1	..	..
Point of Islay - 1 floating light	2	1	..	..	Rona - "	8	1	..	..
Point of Islay - 1 lighthouse	2	1	..	..	Monach - "	16	2	..	..
Point of Islay - 1 floating light	2	1	..	..	Uisgalter - "	..	1	..	..

From 1824, collected in 1856, including that for the Local Lights belonging to the three Boards, 286,404l. 13s. 8d. Abatement.—Until her Majesty, with the advice of her Privy Council, may see fit otherwise to determine, there shall be allowed to every person paying such Tolls (being those specified in the foregoing Tables) an Abatement or Discount upon the amount payable by him; which Abatement or Discount shall, in the case of every Oversea or Coasting Vessel, be 50 per cent. In proof of the effect of Trade on Lighthouse Revenue it may be mentioned that when the Trinity House were authorized to buy up all private messuage Lights, they had to pay in 1811 about 450,000l. for the 'Steries' off the Angles Coast, a light which half a century ago was but one of little money value, but for which the patentees had the right to levy a toll on nearly all the Liverpool trade, and realised an annual income, that a jury awarded them in compensation the above enormous amount.

because very valuable properties. The most valuable were—

The *Sheries*, on a small islet or rock to the north-west of the Island of Anglesey, was granted to the ancestor of its late proprietor, to be for ever holden by him, his heirs and assignees, by the Act 3 Geo. II. c. 36, which also gave the proprietor power to charge certain rates on all vessels passing the light. Previously to its purchase by the Trinity House, this light produced a nett revenue of about 20,000l. a year.

*Harwich Lights* were held by General Rebow, under lease from the Crown, for 22 years from January 5, 1827, paying the Crown  $\frac{2}{3}$  of nett duty collected.

*Dungeness Light* was held under lease from the Crown by the Earl of Leicester for 20 years from August, 1829. Nett produce of the duties equally divided between the Crown and the leasee. The duties were reduced at the renewal of the lease from 1d. to  $\frac{1}{2}$ d. per ton, and it was provided, that at its termination the lighthouses and buildings connected therewith, and the ground on which they are erected, should become the property of the Crown.

*Waterloosness and Orfordness Lights* were held by Lord Braybrooke under a lease from the Crown, which would have expired on June 1, 1849. Nett produce of the duties equally divided between the Crown and his lordship. The duties were reduced at the last renewal of the lease in 1828, from 1d. to  $\frac{1}{2}$ d. per ton. At the expiration of the lease, the lighthouses, grounds &c. were to become the property of the Crown.

*Elwaston Cliff Light* was held by S. Lane, Esq., under a lease from the Crown, which would have expired in 1859. From October 16, 1837, the nett produce would have gone to the Crown; and the lighthouses &c. would have become, at the expiration of the lease, the property of the Crown, as in the case of the Dungeness and Waterloosness lights.

**Abatement.**—Until her Majesty, with the advice of her Privy Council, may see fit otherwise to determine, there shall be allowed to every person

paying such tolls (being those specified in the foregoing tables) an abatement or discount upon the amount payable by him; which abatement or discount shall, in the case of every Oversea vessel, be 50 per cent.; and on every Coasting vessel 35 per cent.

**The Scotch or Northern Lights** are under the management of a body of parliamentary commissioners. By 6 & 7 Wm. IV. c. 79 s. 40, and subsequent Acts, ending with the 25 & 26 Vict. cap. 63, all vessels, British or foreign, not wholly in ballast, which shall pass any Scotch lighthouse, or derive any benefit therefrom, shall pay at the rates specified in the prefixed and annexed tables, Nos. I. & II.

**Irish Lights.**—The various Acts regulating these lights range from 50 Geo. III. c. 95 to the 25 & 26 Vict. c. 63. They are under the management of the Commissioners of Irish Lights, formerly called the Dublin Ballast Board, or Port of Dublin Corporation. The rates of charges will be found in the prefixed and annexed tables.

**Compensation to Private Parties.**—The authority acquired by certain individuals and public bodies under letters patent, Acts of Parliament, and otherwise, of levying certain duties on account of lights, beacons, pilotage, harbour dues, &c. entitled them, for the most part, to demand higher fees from foreign than from British shipping. When, therefore, we entered into reciprocity treaties with foreign Powers, Government had to compensate the parties in question for the diminution that consequently took place in their charges on foreign ships. But this payment has now ceased, the Trinity Corporation having long since relinquished their claim to compensation; and the Act 6 & 7 Wm. IV. c. 79 having forbid such compensation being made to them, to the Commissioners of Northern Lights, and to the Commissioners for managing the Irish Lights.—(For some account of the Trinity Corporation, the reader is referred to the article TRINITY HOUSE; see also BEACONS, BALLAST, DOCKS, PILOTAGE, and other charges on SHIPPING, SHIPS &c.)





## British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lamps	Fixed, Flashing, Fl. & Int., Alt., Revoiling	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any Peculiarity of Light-house	Height in feet, in terms of Lamp above High Water	Height in feet, in terms of Building from Base to Vane	Year
Alderney	Draye Harbour, one on Old Pier, the other on N.E. corner of Reading-room	49 43 30	2 12 6	2	F.	..	5 or 9	..	55 25	..	1859
Guernsey	St. Peter Port (Old Harbour, Pier Head N. side of entrance, Inner Harbour)	..	..	1	F.	..	3	Timber, White	34	21	1820
	St. Peter Port New Harbour, N. side of entrance, extremity of Castle Cornes Breakwater	49 27 13	2 31 31	1	F.	..	9	Granite, Circular, Dark	46	40	1867
	S.W. rock of Harzot, or Harzot's Rocks, W. end of Guernsey	49 26 2	2 42 10	1	Rev.	Every 45 seconds	12	Circular, Gray granite	100	117	1860
	Veduit Breakwater, Outer end, St. Catherine's Bay	49 13 16	2 0 32	1	F.	..	10 to 12	Octagonal, White	60	50	1850
Jersey	Gouray Pier Head - St. Helier; on Victoria or New South Pier	49 10 29	2 45	1	F.	..	6	..	55	..	1850
	St. Helier; Albert or North Pier, just within Pier Head	..	..	1	F.	..	3	Iron Lamp-post	31	..	1850
	One on Western angle of Albert Pier. The other within on the Esplanade Farquet Upper Pier Road	..	..	2	F.	..	3	Iron Lamp-post	23 38	..	1850
Minquiers	Light Vessel, S.W. part of Plateau	48 53 38	2 17 29	2	F.	..	8 or 10	Lamp-post, 600 yards E.N.E. of Victoria's Pier	39 26	..	1850
Needles Channel: Isle of Wight	Outer Needle Rock - Fortifications	50 39 42	1 35 27	1	F.	..	White Red 9 13 10	Granite	80	200	1850
Hurst	Lantern within the Fortifications	50 42 26	1 32 56	2	F.	..	..	High, Conical, Red.	76 47	54	1850
Yarmouth	Outer Light near Castle Wall, West side on outer part of Quay. Inner one in the corner of a house	..	..	2	F.	..	..	Lamp post	12	..	1850
Calshot	Light Vessel, in 3½ fathoms, off Calshot Castle	50 48 0	1 16 0	1	Rev.	Every minute	9	Red; carries a Ball	31	..	1850
Southampton	Royal Pier	50 54 0	1 21 0	2	F.	..	..	Iron Posts	..	..	1850
Ryde	On Pier	..	..	1	F.	..	6 or 7	Lamp-post	21	..	1850
Stokes Bay	On Pier	..	..	2	F.	..	..	Lamp-posts	..	..	1850
Southsea	In Castle	50 47 0	1 3 0	1	F.	..	9	..	31	..	1850
Bredling Haven	On Fort	..	..	1	F.	..	..	Small tower	38	..	1850
Nonsans Land	On Fort	..	..	1	F.	..	..	..	38	..	1850
Horse Sand	On Fort	..	..	1	F.	..	..	..	34	..	1850
Spit Sand	On Fort	..	..	1	F.	..	..	Small tower	31	..	1850
Clarence	On Pier	..	..	3	F.	..	..	Lamp-posts	..	..	1850
Esplanade	On Pier	..	..	2	F.	..	..	Lamp-post	..	..	1850
Victoria	On Pier	..	..	1	F.	..	..	Lamp-post	..	..	1850
Outer Town, Camber	On Pier	..	..	1	F.	..	..	Lamp-post	..	..	1850
King's Stairs	On Pier	..	..	1	F.	..	..	Lamp-post	..	..	1850
Clarence Victualling Yard	On Pier	..	..	1	F.	..	..	Lamp-post	..	..	1850
Gosport	Foot of High Street near Town Hall	..	..	1	F.	..	..	Lamp-post	..	..	1850
Warner	Light Vessel, in 13 fathoms, on eastern part of Shoal	50 43 50	1 4 0	1	Rev.	Every minute	8	Red; carries a Ball	38	..	1850
Nab	Light Vessel, in 5½ fathoms, off Point near Nab Rock	50 42 15	0 59 20	2	F.	..	8 6	Red; carries a Ball of each Mast Head Stone	175 115	..	1850
St. Catherine, Isle of Wight	On Point	50 31 30	1 17 47	1	F.	..	19	..	..	..	1850
Owers	Light Vessel, in 19 fathoms, S.E. end of Shoals	50 38 50	0 40 0	1	F.	..	10	Red; carries a Ball	38	..	1850
Littlehampton	N. end of E. Pier	50 48 0	0 32 0	1	F.	..	7	White, Dome Green	50	40	1850
Worthing	On Pier	50 48 30	0 23 0	1	F.	..	..	..	..	..	1850
Shoreham	Opposite entrance of Harbour	50 50 0	0 15 0	2	F.	..	10	White Gryseous	23 3	..	1850
Brighton	Chain Pier Head	50 49 0	0 8 0	1	F.	..	10	..	53 22	..	1850

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LIGHTHOUSE

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude E.	Number of Lights	Fixed, Flashing, Fl. & Int., Revolving	Interval of Revolution or Flash	Miles seen in clear weather	Colour, or any peculiarity of Light-house	Height in feet, Centre of Lantern above High Water	Height in feet, of building from base to top	Year lighted
West Pier	Western	50 47 0	0 3 25	2	F.	..	10	Wooden	30	53	1861
Eastern Pier	Western	..	..	1	F.	..	5	Stone colour, Wooden, Octagon White	17 18	..	1862
Beltous Cliff	North Head	50 44 15	0 12 38	1	Rev.	Every 2 minutes, 15 seconds, bright, 1 minute 45 seconds dark	23	..	385	47	1828
..	Eastern	50 45 0	0 17 0	1	F.	..	2	..	10	..	..
Upper Light on the W. Hill above Town; Lower on Beach	..	50 52 0	0 36 0	2	F.	..	12 5	A small hand lantern Octagonal, White	160 50	20 Lower 25	..
Entrance	..	50 57 0	0 44 0	2	F.	..	5	White	47 21 15	24 18 28	..
East side, 35 fathoms from Old Pier Head, and at the extremity of Green.	..	..	..	2	F.	..	2 to 3	On a Mast, White	15	..	1860
W. entrance to harbour	..	..	..	1	F.	..	2 to 3	On a Mast, Black	10	50	1864
Extreme Point, 237 yds from H. W.	..	40 51 47	0 38 18	1	F.	..	15	Red and white horizontal bands	92	107	1792
Light Vessel, in 16 fathoms, near W. end S. Pier Head	..	50 36 18	1 16 20	1	Rev.	Every 20 seconds	10	Red; carries a Ball at Mast Head White	36	..	1860
Extremity of new Pier	..	51 4 0	1 11 35	2	F.	..	5 each	Iron Skeleton	57 33 31	51 25	1848 1860
Outer extremity of Admiralty Pier	..	..	..	1	F.	..	6	..	..	..	1819
S. Pier	..	51 7 0	1 19 0	1	F.	..	18	White	40	12	1852
S. Pier	..	..	..	1	F.	..	3	..	12	..	1812
New Cock Tower	..	..	..	1	F.	..	36	High; square, White.	37 23 275	69 49	1852 1793
On Head	..	51 8 23	1 22 22	2	F.	..	33	Low; Octagonal; both castellated	..	..	..
On the Iron Pier, 367 yds. from esplanade	..	..	..	1	F.	..	..	..	..	..	1865
Light Vessel, in 13 fathoms, off S. end of Sand	..	51 9 55	1 28 10	1	F.	..	10	Red; carries a Ball	38	..	1832
Light Vessel, in 8 fathoms, near W. edge of Sand	..	51 16 30	1 30 0	1	Rev.	Every 20 seconds	7	Red; carries a Ball at the Mast Head	36	..	1809
Light Vessel, in 9 fathoms, off N. end of Sand	..	51 19 23	1 35 27	3	F.	..	10	Red; carries a Ball at each Mast Head	F. 28 M. 42 M. 36	..	1793
W. Pier Head	..	51 19 42	1 25 23	1	F.	..	7	Granite Column on Iron pillar	38 25	37 12	.. 1867
E. Pier Head	..	..	..	1	Fl.	Every 5 seconds, and 5 dark	5	..	..	..	..
On head	..	51 22 28	1 26 48	1	F.	..	19	White, Octagonal stone column	156 85	65 70	1790 1829
W. end of pier	..	51 21 0	1 23 0	1	F.	..	10	Red; carries a Ball	38 14	..	1818
Light Vessel, in 10 fathoms	..	51 29 0	1 19 0	2	F.	..	10	Red; carries a Ball	38	..	1856
Light Vessel, in 31 fathoms, N. side of Channel between Trowse and Girleed Lights	..	..	..	1	Rev.	Every 20 seconds	10	..	..	..	..
Light Vessel in 19 ft.	..	51 29 0	4 7 10	1	Rev.	Every 1/2 minute	10	Red; carries a Ball	38	..	1848
Light Vessel, in 31 fathoms, E. end of Sand	..	51 29 0	0 48 0	1	Rev.	Every 1/2 minute	10	Red; carries a Ball	38	..	1732
Leil Demi Bastion	..	..	..	1	F.	..	5	..	..	..	..
Southern Pier Head	..	51 26 48	0 44 42	1	F.	..	..	..	..	..	..
Chapman Head	..	..	..	1	F.	..	11	..	26	..	1859
..	..	..	..	1	F.	..	..	..	40	..	1840
..	..	..	..	1	F.	..	..	..	40	..	1849
Macking Flat	..	..	..	1	F.	..	11	Red; on Piles with black band under the Lantern; on Piles Lamp Lantern	40 53	..	1849
In fact on a flagstaff	..	..	..	1	F.	..	..	..	..	..	1852
India Arms wharf	..	..	..	1	F.	..	..	..	..	..	1859

## British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude E.	Number of Lights	Fixed, Flashing, Fl. Int., Alt., Re-voicing	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Light-house	Height in feet of lantern above High Water	Height in feet of building from base to vane	Year
Mouse	Light Vessel, in 4 fathoms, W. end of Sand	51 32 0	1 0 0	1	Rev.	A flash every 30 seconds	10	Red; carries a Ball	38	..	1870
Maplín	S. E. part of Sand	51 35 0	1 3 0	1	F.	..	10	Red; carries a Ball	36	69	1870
Swio, Middle	Light Vessel, in 4 fathoms, W. end of Sand	51 39 0	1 7 0	1	Rev.	Every minute	10	Red; carries a Ball	38	..	1870
Ganfleet	S. E. part of Sand	51 45 50	1 20 0	1	Rev.	Every 30 seconds	10	Red; carries a Ball	41	72	1870
Sunk	Light Vessel, in 9½ fathoms, Fairway of E. Swin	51 49 28	1 31 8	1	F.	..	10	Red; carries a Ball	37	..	1870
Kentish Knock	Light Vessel, in 11 fathoms, E. side of Sand	51 40 50	1 40 30	1	Rev.	Every minute	10	Red; carries a Ball	37	..	1870
Galloper	Light Vessel, in 20 fathoms, S.W. part of Shoal	51 45 0	1 56 0	2	F.	..	10	Red; carries a Ball at each mast-head	36	..	1870
Harwich	On the shore abreast Dovercourt	..	..	2	F.	..	12	White; on piles	43	..	1870
	70 fathoms within Landguard Point	51 56 15	1 19 0	1	F.	..	9	White; on piles	27	..	1870
Cork	Light Vessel, in 4 fathoms, Near ledge	51 56 0	1 23 0	1	Rev.	Every ½ minute	10	White; carries a Ball	38	..	1870
Shipwash	Light Vessel, in 9½ fathoms, Off N. E. end of Sand	52 1 30	1 38 0	1	F.	..	10	Red; carries a Ball	38	..	1870
Orfordness	On Ness	52 5 0	1 34 30	2	F.	..	14	Red and White horizontal bands	91	99	1870
	High Light	..	..	..	..	..	15	..	60	72	1870
Kesingland or Pakesfield Gut	Cliff N. E. side of Kesingland Flashes	52 24 50	1 43 50	1	F.	..	9	..	68	..	1870
Lowestoft	Each Pier of Harbour	52 29 14	1 45 21	2	F.	..	16	White	119	53	1870
	Light on Cliff - Lower on Ness	..	..	..	..	..	11	White, on Piles	49	48	1870
Corton Gateway	Abreast Hopton Gap	..	..	2	F.	..	..	White, Timber frame	87	51	1870
Corton	Light Vessel, in 15 fathoms, Outside Corton Patch	52 31 15	1 50 10	1	Rev.	Every 30 seconds	10	Red; carries a Ball at each mast-head	38	..	1870
Hewett Channel or St. Nicholas Gut Yarmouth	Light Vessel, in 10 fathoms, Inner end of Channel	52 31 15	1 46 50	2	F.	..	10	Red; carries a Ball at each mast-head	35	..	1870
	S. Pier at Gorleston	52 34 25	1 41 20	1	F.	..	2	Ball	..	..	1870
Cockle	Light Vessel, in 5 fathoms, N. entrance, E. side	52 41 50	1 47 0	1	Rev.	Every minute	10	White; flood stream is running into haven	36	..	1870
Winterton Newarp	Near Ness	52 45 0	1 41 30	1	F.	..	14	Red; carries a Ball	110	69	1870
	Light Vessel, in 17 fathoms, Near N. Cross Sand	52 45 0	1 53 0	3	F.	..	10	Red; carries a Ball at each mast-head	34; 34; 34	..	1870
Hasborough	S. S. E. of Hasborough Church	52 49 0	1 32 0	2	F.	..	17	White	137	68	1870
Hasborough	Light Vessel, in 15 fathoms, Near N. end of Sand	52 58 0	1 36 0	2	F.	..	10	Red; carries a Ball at each mast-head	38	..	1870
Leman and Ower	Light Vessel, in 16 fathoms, Between Lemn and Ower Sands	53 8 45	2 1 0	2	High Rev.	Every minute	10	Red; carries a Ball at each mast-head	37	..	1870
Cromer	Near Cliff	52 56 0	1 19 0	1	Rev.	Every minute	23	White, Octagonal	274	59	1870
Lynnstanton	On Point	52 56 54	0 29 50	1	F.	..	16	White	109	65	1870
Lynn Well	Light Vessel, in 17½ fathoms, Off Hook of Long Sand, Lynn Deep	53 1 25	0 25 10	1	Rev.	Every 20 seconds	10	Red; carries a Ball at the mast-head	35	..	1870
Lyno	East side of entrance to Cut	..	..	2	F.	..	5	..	..	..	1870
Boston	Hob Hole	..	..	2	F.	..	3	..	..	..	1870
Dudgeon	Light Vessel, in 9 fathoms, One mile S.W. of shoalest part	53 15 0	0 56 0	1	F.	..	10	Red; carries a Ball	38	..	1870
Outcr Dowling	Light Vessel, in 9 fathoms, W. side of shoal	53 28 15	1 2 40	1	Rev.	Every 30 seconds	10	A half Ball over usual Ball at mast-head	38	..	1870
Humber river Spurn	Light Vessel, in 9 fathoms, Off Point	53 34 0	0 13 0	1	Rev.	Every minute	10	Red; carries a Ball	38	..	1870
Spurn	On Point	53 34 44	0 7 10	2	F.	..	15	High, Red, Low, White	53	117	1870
	High Light	..	..	..	..	..	14	..	54	76	1870
Bull Sand	Light Vessel, in 5½ fathoms, S. E. end	53 34 0	0 8 0	1	F.	..	8	Red; carries a Ball	21	..	1870

\* May be suddenly discontinued by being undermined by the sea.

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Flashed, Flashing, Fix., Int., Alt., Rev., or Rotating	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Light-house	Height in feet, (Centre of Lantern above High Water)	Height in feet of building from base to same	Year lighted
Grimby	Pier Heads -	0 0 0	0 0 0	2	F.	..	..	..	..	..	..
At Ferry	-	53 37 0	0 10 0	1	F.	..	..	..	..	..	1849
Sullisburgh Light, Salin	S. Killingsholm	53 59 0	0 12 0	3	F.	..	11	High Lighthouse and N. tower, Red, S. E. tower White	65 35 37	77 45 45	1836 1856 1852
..	Near S.W. end of village	53 43 0	0 13 0	1	F.	..	7	Red	36	30	1836
..	Light Vessel, in 5 fathoms, S. side of Channel	53 44 0	0 16 0	1	F.	..	5	Red; carries a Ball	16	..	1839
..	N.W. end of Brick and Tile Works	..	..	1	F.	..	..	..	..	..	1863
..	Edge of marsh	..	..	2	F.	..	..	On white triangles, Lower moveable	..	..	1862
..	East side of Creek	..	..	2	F.	..	..	On white triangles, Lower moveable	..	..	..
..	Light Vessel, S. shore, Off Whitton Middle	..	..	2	F.	..	..	Red; carries a Ball	..	..	1865
..	(mile above ferry new pier	..	..	2	F.	..	..	On white triangles, Lower moveable	..	..	1862
..	Between Whitton Ferry and Walker Dyke Clough	..	..	1	F.	..	..	On a pile	..	..	1863
..	Fairlie Ness	..	..	1	F.	..	..	Box and Post	..	..	1863
..	North Pier Head	54 5 12	0 11 42	1	F.	..	8	White	94	..	1852
..	On Head	54 7 0	0 5 0	1	Rev.	Every 2 minutes	21	White	214	57	1806
..	West Pier Head	51 17 0	0 23 0	1	F.	..	13	White	58	56	1806
..	West Pier Head	54 30 0	0 37 0	1	F.	..	10	Yellowish Stone	83	60	1831
..	East Pier Head	..	..	1	F.	..	8	White	54	..	1855
..	High Whitty near Lang Hill	51 28 40	0 34 10	2	F.	..	23	White	240 each	68 46	1858
..	West part of Sand	54 58 0	1 13 0	2	..	..	..	Wood, High Lighthouse striped Black and White vertically; Low Lighthouse Red and White horizontally	55 58	60 45	1839
..	Slag Wall behind the 5th Buoy	54 37 56	1 10 30	1	F.	..	7	Red, on Piles	26	..	1866
..	On Sand, 1,800 yards S.W. of 5th Buoy	..	..	1	F.	..	..	Red and White, Horizontal	42	..	..
..	High Light 1/2 mile inland, and Low Light on shore near Beaton Caves	54 40 0	1 12 0	2	F.	..	13	Horizontal Stone	89 54	70	1839
..	North Pier Head, West Harbour	..	..	1	F.	..	..	..	..	26	1855
..	Pier Head, Old Harbour	54 41 0	1 11 0	1	F.	..	7	Yellow	37	..	1836
..	Harbour	54 41 51	1 10 19	2	F.	..	15	Yellow	84 62	73	1847
..	South Pier Head	54 50 0	1 19 0	1	F.	..	4	..	..	..	1846
..	Red Cove Point	..	..	2	High F. Low Rev.	Every 1/2 minute	14	Stone	94 49	58	1845 1857
..	North and South Pier Heads, also South outlet	54 55 1	1 20 0	3	F.	..	13 10	Yellow	73 58	84 25	1804
..	On Point	54 58 10	1 21 30	1	..	..	..	..	..	..	..
..	Castle Yard	55 1 0	1 25 0	1	Rev.	Every minute	18	Square, White	151	79	1802
..	North Pier Works	..	..	3	F.	..	..	..	..	..	1861
..	Middle of North Pier	..	..	1	F.	..	..	..	..	..	1865
..	Front of Deckway	55 0 30	1 26 0	2	F.	..	16	White	123 77	49 76	1808
..	Square, lowest near Clifford Fort	..	..	..	..	..	15	..	..	..	..
..	South end of Town	55 7 0	1 30 0	2	F.	..	11	White	48 7	41	1788
..	S.W. part of Island	55 20 6	1 32 0	1	F.	..	14	Square White tower, with turret parapet	46 35 83	55 72	1811
..	North end of South Pier	55 21 0	1 35 0	1	F.	..	1	..	..	..	1848
..	Higher near S.W. Foot of Island, Lower near N.W. Point	55 37 0	1 39 0	2	High Rev. Low F.	Every 1/2 minute	15 12	White, L. Octagonal	87 45	43 27	1776 1810
..	On Rock	55 39 0	1 37 0	1	Rev.	Every 1/2 minute	14	Red	75	65	1826
..	Pier Head	55 46 0	1 59 0	2	F.	..	12	Stone	48	44	..
..	Corner of a House, and West Pier Head	55 52 25	2 5 0	2	F.	..	10 8	Red top	28 ..	..	1857

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Height in Feet	Flashed, Flashing, Fl. & Int., Alt., Re-voiting	Interval of Revolution of Flash	Miles seen in clear Weather	Colour, or any Peculiarity of Light-house	Height in Feet of Centre of Lantern above High Water	Height in Feet of building from base to vane	Year erected
St. Abbs Head	On Head	55 55 0	2 8 0	1	Fl.	Flash every 10 seconds	10	White	121	29	1861
Dunbar	Old Harbour	56 0 0	2 30 40	1	F.	..	5	White	43	37	1832
Cockenzie	Victoria Harbour	..	..	1	F.	..	8	Lamp-post	15	..	..
Firth of Forth	Eastern pier head	..	..	1	F.	..	..	..	..	..	..
Fishertown	Pier head	55 56 55	3 4 0	1	F.	..	8	Lamp-post	30	..	..
Leith	E. Pier inner part, about 674 yards from extremity	55 59 0	3 10 0	1	F.	..	..	White	22	13	1878
	Eastern IV. Pier	..	..	1	F.	..	8	Red	17	..	..
	On Pier	55 59 0	3 11 0	1	F.	..	10	White	24	19	1849
Newhaven	On Main Pier head	55 59 0	3 15 0	1	F.	..	5	White	20	11	..
Granton	On outer Pier heads	..	..	2	F.	..	..	Stone	53	40	1843
Inchkeith	Summit of Island	56 2 0	3 8 0	1	Rev.	Every minute	20	Stone	210	38	1866
Grangemouth	Entrance of River Carron, end of S. embankment	..	..	1	F.	..	10	White. Stone	54	50	1849
Charleston	End of outer Pier	..	..	1	F.	..	..	..	..	..	..
Everkeithing St. David	W. Quay of Harbour	..	..	2	F.	..	..	..	..	..	..
	Head E. Pier of Harbour	58 4 0	3 14 0	1	F.	..	8	White	19	..	..
Burnt Island	Ferry Pier	..	..	1	F.	..	..	..	..	..	..
	New Pier	..	..	1	F.	..	..	Stone	15	9	1861
Pattycroft	On Pier	..	..	1	F.	..	..	..	..	..	..
Kitticady	E. Pier head	66 7 0	3 7 0	1	F.	..	5	Lamp-post	55	..	..
Dysart	Pier head	..	..	1	F.	..	..	..	..	..	..
West Wemyss	Pier head	..	..	1	F.	..	..	..	..	..	..
Buckhaven	On Farapet, E. Pier ad	56 10 6	3 1 41	1	F.	..	9	Lion tower.	17	9	1861
St. Monans or Monance	One on Pier head; the other on the side of a house	56 12 30	3 46 15	2	F.	..	6	White Lamp-post	20	..	..
Pittensween	East Pier head	56 13 0	2 45 30	1	F.	..	6	Red box	35	7	1861
	S.W. angle of a disused saw mill	..	..	1	F.	..	6	Lantern on wall	74	..	..
E. Anstruther	W. Pier head. And shore street	56 13 16	2 41 55	2	F.	..	4	White lamp-post	16	..	..
Callartyke	On side of house on W. part of Harbour	56 14 0	2 40 0	1	F.	..	..	..	..	..	..
Isle of May	Summit of Isle, and N.E. side	56 11 9	2 53 22	2	F.	..	..	Stone	211	78	1861
Bell Rock	Near North end of Reef	56 28 3	2 25 6	1	Rev.	Every 2 minutes	13	White	93	117	..
	Pier head	56 20 3	2 47 0	1	F.	..	6	Black with white top	30	11	..
St. Andrews	Turret in Cathedral wall	..	..	1	F.	..	5	..	10	..	..
Firth of Tay	On Ness	56 28 0	2 45 0	2	F.	..	15	White	103	164	..
Buchanans, or Tay	S. side of Ferry	56 27 0	2 49 0	2	F.	..	12	White tower	80	75	..
Port-un-Craig	..	..	..	..	..	..	10	White on piles	50	..	..
Newport	On W. Ferry Pier	56 26 0	2 57 0	2	F.	..	7	White	19	..	..
Dundee Harbour	Middle and E. Piers	56 28 0	2 58 0	2	F.	..	7	Green post	10	..	..
	Canperdown Dock	..	..	2	F.	..	5	Yellow, blue top	19	18	..
	S.W. elbow, outer Harbour	56 35 0	2 35 0	1	F.	..	8	Grey stone	21	22	..
Arbroath	West side of Inner Harbour	..	..	2	F.	..	..	..	..	..	..
Scoury Ness	On Ness	56 42 0	2 26 0	1	F.	..	..	..	..	..	..
Montrose	N. side of entrance	56 42 0	2 27 0	2	F.	..	10	White	50	61	..
Stonehaven	Inner side of Harbour	56 58 0	2 12 0	2	F.	..	8	..	18	..	..
	On Ness	57 8 15	2 3 2	2	F.	..	19	Stone	153	120	..
	End of N. Pier head	57 8 20	2 3 55	1	F.	..	8	White tower	115	89	..
Aberdeen	Torry, half a mile up Harbour on S. shore	..	..	2	F.	..	6	White	47	..	..
Buchanans	On Ness	57 26 15	1 46 11	1	Fl.	Every 5 seconds	16	White	130	113	..
	S. Harbour, Elbow of W. Pier	57 30 0	1 46 0	1	F.	..	10	Stone	91	86	..
Peterhead	N. Harbour, W. Pier Head	..	..	1	F.	..	10	Stone	25	21	..
Fraserburgh	Pier Head and Middle Pier	57 41 30	2 0 0	2	F.	..	5	Two Pillars	56; 51	23	..
Kinnaird Head	On Head	57 41 51	2 0 6	1	F.	..	15	White	149	74	..
Macduff	N. Pier Head	57 40 0	2 30 0	1	F.	..	6	Stone	25	..	..
	N. Pier Head	57 40 0	2 31 0	1	F.	..	8	Stone	25	..	..
Danff	Upper part of new Harbour	57 40 5	2 31 6	2	F.	..	..	Post	..	..	..
Elgin and Lossiemouth	S. Pier Head	..	..	1	F.	..	..	..	..	..	..
Corrycaan	Craig Head	57 43 15	3 20 20	1	Rev.	Every minute	18	Stone	160	118	..
Chanonry	On Point	57 51 30	4 5 0	1	F.	..	11	Stone	40	..	..
Crosarty	On Point at Town	57 41 0	4 2 0	1	F.	..	9	Stone	60	..	..

LIGHTHOUSE

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Order of Light	Flash. Fla. & Int. Alt. Rev. voicing	Interval of Revolution or Flash	Miles seen in Clear Weather	Colour, or any peculiarity of Light-house	Height in feet, Centre of Lantern above High Water	Height in feet of building from base to vane	Vane Lighted
Light Vane	On Point	0 57 51 54	0 3 46 30	1	Int.	Visible 24 minutes, dark 4 minutes	15 to 18	White	175	154	1830
Black Ferry	N. side of Entrance	57 56 0	4 0 0	2	F.	..	..	..	..	..	..
Light-house	S. Head	57 16 10	3 22 55	1	F.	..	4	Common Lanterns White	19	..	..
Light-house	N. Pier Head, End of new Breakwater	58 26 0	3 5 0	2	F.	..	..	..	..	..	..
Light-house	On Head	58 29 38	3 5 5	2	F.	..	8	Stone Lantern	55	31	1851
Light-house	On Island	58 41 22	2 55 25	2	Rev.	Every 4 minutes	18	..	175	68	1849
Light-house	On Head	58 40 18	..	..	F.	..	18	Stone	170	114	1794
Light-house	On Little Head, W. side Thurso Bay	58 36 50	3 22 20	1	F.	..	11	..	110	88	..
Light-house	On Head, S.E. extremity of South Walls, Hay I.	58 47 0	3 7 45	1	Rev.	Every minute	15	Brick White	115	73	1828
Light-house	High Light, stands on N.E. Point of Greena I., and Low Light on its N.W. Point	58 56 9	3 16 33	2	F.	..	15	Stone	115	55	108 38
Light-house	On South part of Island	58 59 10	2 57 30	1	F.	..	9	Stone White with	22	27	854
Light-house	On E. Point Sanday Island	59 16 39	2 22 25	1	F.	..	16	White	110	112	1867
Light-house	On N. Point of Orkneys	59 25 15	2 25 38	1	Fl.	Every 10 seconds	17	Brick	100	91	1506
Light-house	S.W. Point of Shetland, E. side of Entrance to Lerwick Sound Sherry	59 51 0	1 18 0	1	F.	..	22	Stone	300	55	1821
Light-house	Mulle Flugga, N. part of Island	60 25 24	0 44 0	1	Rev.	Every minute	15	Brick White	105	53	1858
Light-house	N.W. Point of Scotland	60 31 20	0 53 5	1	F.	..	17	Brick White	145	98	1854
Light-house	North end of South Tar	58 14 10	5 23 0	1	Rev.	Every 2 minutes	30	White	230	61	1854
Light-house	N.E. Point of Island	57 34 31	5 57 25	1	Fl.	..	..	..	400	65	1828
Light-house	S.W. Point, Gillian Island, W. Entrance of Seal Sound	57 16 39	5 44 28	1	F.	Every 12 seconds	20	White	290	42	1857
Light-house	On Island, N.W. part of Seal Sound	57 8 39	5 46 50	1	F.	..	11	White	53	70	1857
Light-house	N. Point of Hebrides	58 30 40	6 16 0	1	F.	..	12	White	58	65	1857
Light-house	Light on Arnish Point and Beacon on Arnish Reef	58 11 28	6 22 10	1	Rev.	Every 4 minutes	18	White	170	120	1862
Light-house	Shilly Island off W. Coast of North Uist	57 31 54	7 41 38	2	Upper Fl.	Every 10 seconds	17	White	36	45	1859
Light-house	E. Point Island	57 51 25	6 38 28	1	F.	..	12	White	150	153	1864
Light-house	E. side, South Uist	57 17 55	7 11 31	1	F.	..	16	White	130	100	1789
Light-house	Highest part of Bertern Island, S. Point of Hebrides	56 47 8	7 39 9	1	Fl.	Visible 23 minutes, dark 4 minutes, Every minute	18	White Stone	176	39	1857
Light-house	On Rock, 12 miles W. N.W. from Tyree Island	56 19 22	7 6 52	1	Rev.	..	17	Stone	680	60	1853
Light-house	On Point	56 8 0	6 38 30	..	..	..	..	..	150	158	1844
Light-house	Rona Gal Rock, 50 yards seaward of high water mark of Mull	56 43 38	6 13 29	1	F.	..	..	..	..	..	..
Light-house	On Mull Island	56 38 0	6 4 0	1	F.	..	12	Stone	190	118	1842
Light-house	Loch Ril	56 27 19	5 36 22	1	F.	..	11	White	55	65	1857
Light-house	To Pier	56 43 16	5 14 22	1	F.	..	..	..	..	..	..
Light-house	S. end of Jura Sound	56 25 0	5 31 0	2	F.	..	10	White	38	66	1833
Light-house	E. side	56 14 48	5 40 51	1	F.	..	11	Lantern	42	42	1858
Light-house	S. side	56 5 30	5 33 0	1	F.	..	4	White	42	42	1860
Light-house	Jura	55 52 30	5 50 0	1	Rev.	Every minute	13	Stone White	25	..	1851
Light-house	Rhoad Mhail, N. Point of Islay	55 36 6	6 7 30	1	F.	..	15	White	73	..	1865
Light-house	S. end of Islay	55 45 30	6 2 30	1	F.	..	17	White	117	115	1859
Light-house	On Oranay Island, off S.W. Point of Islay	55 40 20	6 30 46	1	Fl.	Every 5 seconds	17	White	128	42	1861
Light-house	..	..	..	..	..	..	..	..	150	96	1825

## British and Irish Lighthouse and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Order	Plan, Flashes, &c. of Light, Alt., &c. involving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or size, or position of Light house	Height in feet, or of Lantern above High Water	Height in feet of Beacon from base of tower	Year of Construction
Lady in Daul Port Ellen	Dunrobin Point Eastward End of Harbour	57 46 45 57 37 15	6 39 10 6 42 41	1	F.	..	..	..	..	..	1842
Mull of Galloway	W. W. Headland of Mull	55 18 59	5 48 0	1	F.	..	27	White	297	76	1776
St. Andrew's	St. Andrew's Head	55 16 30	5 34 55	1	F.	..	17	Stone tower, White	165	40	1842
St. Andrew's	N.E. part of Island	55 23 45	5 39 10	1	F.	Every 4 minutes	15	..	..	..	1842
Compton	Old Pier Head	55 25 30	6 33 30	1	F.	..	5	A common lantern	18	15	..
Ardsling Florida	Pier Head Island off N.E. Point of Ardsling	56 0 45 55 29 0	6 29 30 6 7 9	1	F.	..	..	..	..	..	1842
Upple River	W. side of Little Cumbrae Island	55 43 16	4 58 6	1	F.	..	15	White	115	36	1776
Forward	The Point	55 51 45	4 59 12	1	Rev.	Every 20 seconds	10	White	70	65	1842
Black	The Point	55 56 55	4 59 39	1	F.	..	10	White	76	76	1842
Black	About a mile N.W. of Custom House	55 57 0	4 59 49	2	F.	..	8	White	49	59	1842
Hessloch	At the foot of Custom House	..	..	1	F.	..	4	Lamp on Iron Pillar	36	36	1842
Port Glasgow	W. Head Pillar Head	55 50 15	4 14 0	1	F.	..	5	Lamp on Iron Pillar with White Top	18	18	1842
Howling Bay	E. entrance of Howling Harbour on Firth of Clyde Island in 1800 B. from end	..	..	1	F.	..	..	Lamp	96	16	1842
Broomielaw	Kilmarnock and Broomielaw	55 38 27	4 59 28	1	F.	..	5	Iron Lamp White	..	23	1842
North Point	The end of Pier	55 57 59	4 17 21	1	F.	..	6	White	30	19	1842
From the Point	Between end of Pier and at Pier Head	55 55 0	4 11 0	2	Rev.	Every 40 seconds and 20 seconds	9	White	35	35	1842
At Harbour	N. Pier	55 38 17	4 58 26	3	F.	..	..	White	14	4	1842
Lady in Daul	On the Point, W. side entrance to Lady Bay	57 47 45 57 0 0	5 2 0 5 9 28	1	F.	..	10 15	White	46 110	50 110	1842
Port Patrick	Inner Light-house N. angle of Harbour 120 yards within outer Light-house, which is not lighted	56 50 30	5 7 9	1	F.	..	8	Stone White	37	50	1776
Mull of Galloway	S. Point	54 58 0	4 54 20	1	Int.	Two minutes and a half visible, and half minute eclipsed Every 5 seconds	23	Stone	515	86	1776
Little Ross	On Island	54 46 0	4 5 0	1	F.	..	18	White	175	65	1776
Annan River	Darvel, or Annan Foot	54 57 40	5 16 0	1	F.	..	..	..	..	..	1842
St. Andrew's	Near Nith	54 58 50	5 25 0	1	F.	..	9	White Wood	40	32	1842
100 Near	On Rocks	54 59 0	5 25 0	1	F.	..	6	On Piles	25	45	1842
Salway	Light House, in 40 fathoms	54 48 0	5 39 0	1	F.	..	..	..	..	..	1842
Maryport	Bay of Annan Kilmoryie of South Wooden Pier Inner South Stone Pier	54 43 0 .. ..	5 30 30 .. ..	1 1 1	F. F. F.	.. .. ..	6 12 ..	White White Red	51 51 14	17 30 ..	1842
Workington	North Tosses North of John and Warden Piers Stone Pier Head	54 39 0 .. 54 37 0	5 55 0 .. 5 34 0	2 1 1	F. F. F.	.. .. ..	11 .. ..	.. .. On an Iron Pedestal	.. .. 44	36 .. 37	1842
Whithaven	West Pier Head Old Quay On Head	54 33 0 .. ..	5 36 0 .. ..	1 1 1	Rev. F. F.	Every 4 minutes .. ..	19 .. ..	White .. ..	52 .. ..	.. .. ..	1842
St. Bees	On Head	54 50 50	5 28 0	1	F.	..	25	Square White	356	53	1842
Point of Ayr	A quarter of a mile S.W. of Point	54 54 56	4 29 1	1	Rev.	Every 4 minutes	15	White	106	80	1842
Peel	N. side of Entrance Kilmoryie of Breakwater	54 15 0 ..	4 42 0 ..	1 1	F. F.	.. ..	6 5 to 7	White Arched Lamp	11 25	11 25	1842
Calf of Man	W. side Calf I.	54 5 0	4 40 0	2	Rev.	Every 2 minutes	21	White	275	20	1842
St. Mary Port	Pier Head	54 4 0	4 44 0	1	F.	..	2	White	35	31	1842
Castletown Harbour	New Pier Head	54 5 0	4 39 0	1	F.	..	8	Grey Stone	52	20	1842



## British and Irish Lighthouses and Floating Lights—continued

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fl. & Fl. Int., Alt., Rev., or Solving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or peculiarity of Light-house	Height in feet, Centre of Lantern above High Water	Height in feet, of building from base of lantern	Year of Construction
Stack	South Stack Rock, off N.W. point of Holyhead Island	53 18 0	4 42 0	1	Rev.	Every 2 minutes	20	White	201	11	1809
Caernarvon Harb'ry	On Island	53 8 0	4 21 40	1	F.	..	5	..	50	..	1816
	On Pier Head	53 4 0	4 45 0	1	F.	..	..	..	..	..	1800
	On Island	52 45 0	4 45 0	1	F.	..	17	Square White Tower	129	59	1800
Aberystwith-Caradigan Bay	Buenaes of Harbour Light Vessel, in 26 fathoms	52 25 0 52 22 30	4 5 0 4 51 0	2 1	F. Rev.	.. Every 30 seconds	9	Red, carries a ball at the Mast head	About 25	..	1860
South Bishop	On Rock	51 51 0	5 25 0	1	Rev.	Every 30 seconds	18	White	111	56	1790
Smalls	On Rock	51 45 20	5 40 5	1	F.	..	15	Granite, Red and White horizontal Bands	115	111	1770
Hristol Channel—St. Ann's	On Point, Milford Haven	51 41 0	5 10 25	2	F.	..	20 18	White, L. Octagonal	192 159	75 59	1775
	Dockyard	..	..	2	F.	..	3	..	..	..	..
Milford Haven	On Island, South part	51 37 56	4 40 57	1	F.	..	20	White	214	52	1800
Tenby	Pier Head	..	..	1	F.	..	3	..	..	..	..
Saundersfoot	South Pier Head	51 45 0	4 42 0	1	F.	..	..	..	..	..	..
Pembrey Harbour	Entrance of Berry River	51 41 0	4 15 0	1	F.	..	9	White, Black top	55	11	..
Thurly Port	..	..	..	..	..	..	..	..	..	..	..
Llanelli	South end of Breakwater	51 40 0	4 10 25	1	F.	..	7	..	36	50	1800
Hwlwick	Whiteford Point	..	..	1	F.	..	7	On piles	50	..	..
	Light Vessel in 163 fathoms, W. end of Sand	51 51 0	4 21 0	1	Rev.	Every minute	10	Red; carries a Ball	35	..	..
Mumbles	On Island	51 31 5	3 58 10	1	F.	..	15 to 18	White	111	26	1790
	New Cut Head	51 37 0	3 56 0	1	F.	..	5 to 7	White	21	20	1790
Swansea	S. Dock Entrance	..	..	2	F.	..	..	Red top	..	..	..
	N. Dock Entrance	..	..	2	F.	..	..	Lamp Post	..	..	..
Scarweather	New Cut Bridge	..	..	1	F.	..	..	Lamp Post	..	..	..
	Light Vessel in 15 fathoms, Western Edge	51 26 53	3 55 21	1	Rev.	Red flash 3 times in a minute	10	A half globe over the usual globe	58	..	..
Porthcawl Harbour	S. E. end of new outer breakwater	..	..	1	F.	..	11	..	..	..	..
	N. W. end of breakwater	..	..	2	F.	15 feet apart	..	..	..	..	..
Nash	On Point	51 24 0	3 55 0	2	F.	..	19	White	41	..	..
Cardiff	Near Docks	51 27 35	3 9 42	2	F.	..	..	..	182	68	..
	W. side of entrance of River	51 32 0	3 0 0	2	F.	..	..	White	47	..	..
Breagea	Light Vessel in 8 fathoms, near W. end	51 19 48	3 17 42	2	Rev. F.	Flash every 15 seconds	11	..	29	..	..
English and Welsh Fronts Aven	Light Vessel in 5 fathoms, South side of Channel	51 26 30	2 58 0	1	Rev.	Every minute	10	On a pedestal	58	..	..
	East side of Entrance	51 30 0	2 42 0	1	F.	..	13	Octagonal, White	75	65	..
New Passage Pier	Charstane Rock	..	..	1	F.	..	..	..	..	..	..
Flatholm or Humham	On Island, S. Point	51 22 36	3 7 0	1	F.	..	18	White	156	99	..
	East side of Entrance of River Parret	51 15 0	3 0 0	2	Upper F. Lower F.	Visible 34 minutes, then suddenly eclipsed 4 a minute	17 9	Upper White, Lower Square, with Black streak vertically	91 25	59 36	..
Watchet Harbour	End of Breakwater	..	..	1	F.	..	4	..	50	..	..
Hfracombe	Lantern Hill, North side of Harbour	51 13 0	4 7 0	1	F.	..	10	Black base with White	137	29	..
Hildeford	Hraunton Sands, N. side of River	51 4 0	4 12 0	2	F.	..	14	H. Octagonal, White	63 41	66 13	..
Lundy	Ridge of Island	51 10 7	4 40 15	2	Upper F. Lower F.	Every 2 minutes	31	White	510 470	96 ..	..
Hartland Point	On Point	51 1 21	4 31 50	1	F.	..	..	..	..	..	..
Trevoose Head	N.W. part	50 52 55	5 2 3	2	F.	..	20	White	204	87	..
Godrevy	On Island	50 14 0	5 21 0	1	Fl.	A Flash every 10 seconds	15	Octagonal, Stone	122 120	86 ..	..
Hoyle	Lelant sand hills or Towans	50 11 30	5 26 0	2	F.	..	8	Wood, Triangular, Red, Square, Black	50 29	11 ..	..
St. Ives	Pier Head, 36 ft. from the end	50 12 0	5 28 0	1	F.	..	..	..	25	23	..

British and Irish Lighthouses and Floating Lights—continued.

Height in feet of lantern above High Water	Height in feet of building from base to vane	Year lighted	Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Flashed, Flashing, Fl. & Int., Alt., Re-voicing	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or Peculiarity of Light-house	Height in feet of lantern above High Water	Height in feet of building from base to vane	Year lighted
201	81	1809	Summit of Rock		51 2 28	9 36 25	1	Rev.	Every 2 minutes	18	Circular, in the middle a broad horizontal red belt	188	92	1851
50	105	1806	8. point of Old Head		51 36 11	8 31 58	1	F.	..	21	White, with 2 red belts	236	100	1693
129	99	1810	Port Charles, East side of Harbour		51 41 48	8 29 50	1	F.	..	14	White	98	48	1801
..	..	1801	Rocky Point, East side of Entrance		51 47 53	8 15 14	2	Rev. F.	Every minute	10	White	98	49	1817
..	..	1801	East Elbow of Split Bank, off Queens-town, in 9 ft.		51 50 41	8 16 26	1	F.	..	5	White, on screw piles; upper part Grey, piles Red	60	32	1818
111	56	1811	Lough Mahon, off Slough Bank 100 ft. from Channel		51 53 0	8 19 14	1	F.	..	2	White, on piles	21	..	1859
115	141	1870	Donkhal, North side Channel		51 54 0	8 20 15	1	F.	..	2	White, on piles	24	..	..
192	75	1870	Black Rock Castle		51 51 0	8 20 34	1	F.	..	3	White, on piles	71	..	1863
159	59	1870	King's Quay, on Navigation Wall		51 53 23	8 21 0	1	F.	..	1	Lamp	..	..	..
..	..	1870	Total of Outer Island		51 54 0	8 21 30	1	F.	..	1	Lamp	195	50	1850
..	..	1870	Outer Island		51 49 30	7 59 0	1	F.	A Flash every 10 seconds	18	Circular, Red projecting gallery and up to bottom of lantern	..	..	..
214	52	1860	W. side of Entrance		51 56 34	7 50 34	1	F.	..	6	Circular, Stone Colour	78	..	1858
..	..	1860	S. side of Head		51 59 33	7 55 8	1	Int.	Every minute	21	..	285	68	1850
..	..	1860	Bullinacurry Point N. Entrance		52 4 47	7 35 5	1	F.	..	10	Circular	52	41	1858
114	56	1870	Hook Tower, E. side of Entrance		52 7 25	6 55 53	1	F.	..	16	White, with 3 horizontal Red Belts, Lantern Red	152	115	1791
..	..	1870	Dunmore, Pier Head W. side of Entrance		52 9 0	6 59 30	1	F.	..	5	White	44	51	1826
..	..	1870	Durcannon Fort E. side of Channel		52 13 13	6 58 0	2	F.	..	10	White	53	25	1774
..	..	1870	Durcannon N., 4 or 5 mile N.N.E. & E. of fort		..	..	1	F.	..	16	White	126	35	1838
..	..	1870	Light Vessel in 32 fathoms, off Corling-ber Bank, southernmost of Saltee Islands		52 2 25	6 41 0	2	F.	..	..	On piles	..	..	1867
152	111	1860	Light Vessel near the Shoals		52 12 9	6 12 21	1	Rev.	Every 2 minutes	15	Circular, White	101	110	1815
136	68	1860	Light Vessel near the Shoals		52 21 25	6 9 30	1	F.	..	..	Hull Black, with White stripe, 3 masts with globe at Main mast head	..	..	1868
156	99	1860	Light Vessel in 19 fathoms, N.E. part, 3 miles E. & S. of Black Buoy		52 30 10	6 5 0	1	F.	..	9	Hull Black, with White stripe, and 3 masts, 2 globes at Main mast head	53	..	1857
156	99	1860	Light Vessel in 25 fathoms, 2 miles from S. end of Bank		52 40 45	5 57 10	1	Rev.	Every minute	10	Hull Black, with White stripe, 4 globe over a globe at Main mast head, with 3 masts	..	..	1824
117	39	1860	Light Vessel in 18 fathoms, from N. end of Bank, S.E. by E. & E. 2 miles		52 53 0	5 50 20	2	F.	..	..	Hull Black, with White stripe, 3 masts, with a globe on the Fore and Main mast	38	22	1867
254	127	1860	On the Head		52 57 50	6 0 5	1	Int.	10 seconds bright, and 5 dark	16	White	121	45	1815
117	39	1860	Light Vessel in 8 fathoms, 2 1/2 miles S.E. by S. from S. end of Bank		53 4 40	5 45 40	1	Rev.	Every 20 seconds	9	Hull Black, with White stripe, 3 masts, with a globe and a 4 globe at Main mast head	39	..	1867

## British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fl. Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Light-house	Height in feet of lantern above High Water	Height in feet of building above Base of Vane
Dublin Bay : Kish	Light Vessel, in 10 fathoms, off N. point of Kish bank	53 18 48	5 56 50	1	Rev.	Every minute	10	3 Mast. A Hall at Mastmast head Granite	56	111
Kingstown Poolbeg	E. Pier head of Harbour	53 18 0	6 8 0	1	Rev.	Every 4 minutes	9	Granite	41	118
	W. Pier head - End of S. wall, entrance to river Liffey	53 20 30	6 9 16	2	F. F.	..	2 12	White High Light	56 63	112
	Near the eastern extremity of N. wall	53 21 0	6 14 0	1	F.	..	10	Iron, circular, grey stone colour	68	98
Bailey	S.E. point of Howth Peninsula	53 21 40	6 3 20	1	F.	..	15	White	131	112
Howth	E. Pier head	53 24 0	6 4 0	1	F.	..	11	White	47	57
Balbriggan	Pier S. side of entrance	53 36 45	6 11 0	1	F.	..	10	White	42	55
Rockabill	Summit of larger rock	53 35 45	6 0 30	1	F.	Every 12 seconds	18	Circular, grey stone	118	103
Drogheda	Sand hills, S. side of Boyne river	53 43 0	6 15 0	3	Fl.	..	6 to 7	On timber framings	27	30
	Entrance of Channel	53 58 40	6 18 0	1	Fl.	Every 15 seconds	9	On screw piles. White	40 53	33
Dundalk										
Carlingford	Haulbowline Rock	54 1 0	6 5 0	2	F. F.	..	15 9	White	101 29	111 41
	Greenore Point	54 1 55	6 7 52	1	Rev.	Every 45 seconds	9	White	29	41
Dundrum Bay	St. John's Point	54 13 10	5 40 0	1	Int.	Every minute	12	White	62	..
Strangford Lough	Head of Harbour	54 15 10	5 36 50	1	F.	..	6	On piles	..	18
	Carstown Point	.. ..	.. ..	1	F.	..	..	..	..	..
South Rock	On Rock	54 23 55	5 25 4	1	Rev.	Every minute and 3/4	12	White	52	60
Donaghadee Harbour	S.E. Pier head	54 38 45	5 32 1	1	F.	..	12	Grey	56	53
Capelmallock	Small Capelmallock I.	54 41 44	5 32 0	1	F.	..	16	White	131	52
Belfast Bay	Hollywood Bank	54 39 0	5 53 0	1	F.	..	5	On screw piles	47	..
Larne Lough Maidens	Farn Point	54 51 7	5 47 21	1	F.	..	11	White	42	50
	On Rocks - Western Light	54 55 47	5 41 18	2	F.	..	14 13	White with Red central light	95 94	75 68
Rathlin	Altacroy Head, N.E. point Island	55 18 10	6 10 45	2	Upper Int. F.	Every minute; bright 50 seconds, dark 10 seconds	21	Circular, A Red Belt under the gallery	233 182	58
Foyle Lough : Inishowen	Dunagree Point	55 13 38	6 55 38	2	F.	..	13 each	Circular, White	67 50	49
Warren Point	On Point	..	..	1	F.	..	..	On a pole	..	..
Red Castle	Outer edge of Ridge Shoal	..	..	1	F.	..	..	Red Wood Piles	25	..
White Castle	E. side Channel	..	..	1	F.	..	..	On Piles	26	..
Ture	On flats, S.E. side Channel	..	..	1	F.	..	..	Black Wood Piles	25	..
Cunneberry	On flats, N.W. side Channel	..	..	1	F.	..	..	Red Wood Piles	33	..
Culmore	On Point	..	..	1	F.	..	..	Red Slate and lantern	45	..
Culkeeragh Boom Hall	E. side Entrance	..	..	1	F.	..	..	Red brick	50	..
Rosse Key	Light Vessel	..	..	1	F.	..	..	..	29	..
Near Rock Mill	..	..	..	1	F.	..	..	..	15	..
Inishull	N.E. part of Island	55 25 55	7 13 37	1	Rev.	Every 2 minutes	18	White	151	11
Lough Swilly	Fanad Point	55 16 33	7 37 53	1	F.	..	11	White	91	26
Tory Island	N.W. Point	55 16 26	8 15 0	1	F.	..	16	White	120	57
Aranmore I.	Rinawros or N.W. Point of Aran Island	55 0 52	8 33 48	1	Fl.	Every 20 seconds	16	Circular, White	233	71
Rathlin-o-Birne	On Island	54 39 47	8 49 52	1	F.	..	16	Circular, Red, Dome and under the Light	116	65
Killybegs	St. John's Point	54 34 8	8 27 35	1	F.	..	14	White	56	47
	Rotten I.	54 35 51	8 26 23	1	F.	..	12	White	56	47
	Black Rock, in Silgo Bay	54 18 0	8 37 0	1	F.	..	13	White	79	44
Silgo	Oyster Island	54 18 5	8 34 4	2	F.	..	17	White	49	44
Breadhaven	Gubacashel Point, on W. side of Entrance	54 16 0	9 53 0	1	F.	..	12	Stone Colour	47	39
Eagle	Eagle Rock, W.S.W. 3 miles from Erris Head	51 17 0	10 5 31	2	F.	..	20	White	220	57
Black Rock	Western extremity	54 4 10	10 19 20	1	Rev.	A flash every half minute	22	Circular, dark stone colour	233	50



easily converted into it by a well-known process; that is, by placing them in kilns or furnaces constructed for the purpose, and keeping them for some time in a white heat—a process called the burning of lime. (Thomson's *Chemistry*; Watta's *Dictionary of Chemistry*.)

The use of lime as mortar in building has prevailed from the earliest antiquity, and is nearly universal. As a manure to fertilise land, it is very extensively used in this country, and in an inferior degree in some parts of the Continent and of North America. But it is a curious fact that the use of lime as a manure is entirely a European practice; and that its employment in that way has never been so much as dreamed of in any part of Asia or Africa, unless by Europeans. Lime is used as a medicine, and is of much importance in the arts, as a flux in the smelting of metals, in the shape of chlorate in bleaching, in tanning, and as a disinfectant, &c. (*British Pharmacopœia*, 1867.) Lime and limestones may be carried and landed coastwise without any customs document whatever.

**LIME** (Fr. citronier; Ger. citron; Hfn. neemdo). A species of lemon (*Citrus medica*, var.  $\delta$  C) which grows in abundance in most of the West India islands, and is also to be met with in some parts of France, in Spain, Portugal, and throughout India, &c. The lime is smaller than the lemon, its rind is usually thinner, and its colour, when the fruit arrives at a perfect state of maturity, is a fine bright yellow. It is uncommonly juicy, and its flavour is esteemed superior to that of the lemon; it is, besides, more acid than the latter, and to a certain degree acrid. [JUICE; LEMONS.]

**LINEN** (Ger. linnen, leinwand; Dutch, lyna-waet; Fr. toile; Ital. tela, panno, lino; Span. lienza, tela de lino; Russ. polotno). A species of cloth made of thread of flax or hemp. The linen manufacture has been prosecuted in England for a very long period; but though its progress has been considerable, particularly of late years, it has not been so great as might have been anticipated. This is partly, perhaps, to be ascribed to the efforts that have been made to bolster up and encourage the manufacture in Ireland and Scotland, and partly to the rapid growth of the cotton manufacture—fabrics of cotton having to a considerable extent supplanted those of linen.

In 1691, both Houses of Parliament addressed his Majesty (William III.), representing that the progress of the woollen manufacture of Ireland was such as to prejudice that of this country; and that it would be for the public advantage were the former discouraged, and the linen manufacture established in its stead. His Majesty replied, 'I shall do all that in me lies to discourage the woollen manufacture in Ireland, and encourage the linen manufacture, and to promote the trade of England!' We may remark, by the way, that nothing can be more strikingly characteristic of the illiberal and erroneous notions that were then entertained with respect to the plainest principles of public economy, than this address and the answer to it. But whatever the people of Ireland might think of their sovereign deliberately avowing his determination to exert himself to crush a manufacture in which they had begun to make some progress, Government had no difficulty in prevailing upon the Legislature of that country to second their views, by prohibiting the exportation of all woollen goods from Ireland, except to England, where prohibitory duties were already laid on their importation! It is but justice, however, to the Parliament and Government of England, to state that they have never discovered any

backwardness to promote the linen trade of Ireland which, from the reign of William III. downwards has been the object of regulation and encouragement. It may indeed, be doubted whether the regulations have been always the most judicious that might have been devised, and whether Ireland has really gained anything by the forced extension of the manufacture. Mr. Young and Wakefield, two of the highest authorities as to matters connected with Ireland, contend that the spread of the linen manufacture has not been so advantageous. And it seems to be sufficiently established, that though the manufacture might not have been so widely diffused, it would have been in a sounder and healthier state, had it been less interfered with.

This great increase in the production of linen is easily explained. The stimulus given to the supply of all materials for textile fabrics consequent on the deficiency of cotton, will account for the development of the cultivation of flax in Ireland. The average produce of flax per acre in 1864 and 1866, in stone of 14 lbs., was:—

Leinster	1861	1866
Munster	317	316
Ulster	206	284
Connaught	34.3	219
	31.0	27.4
General average	312	305

#### [FLAX; HEMP.]

**Bounties.**—Besides premiums and encouragements of various kinds, bounties were granted on the exportation of linen for a very long period, previously to 1830. In 1829, for example, notwithstanding it had then been very much reduced, the bounty amounted to about 300,000*l.*, or nearly one seventh part of the entire real or declared value of the linen exported that year! It is easy to imagine a greater abuse. A bounty of this sort, instead of promoting the manufacture, rendered those engaged in it comparatively indifferent to improvements; and though it had been otherwise, what is to be thought of the policy of persisting for more than a century in supporting the foreigner with linens for less than they cost? We have not the least doubt that were the vast sums expended in well-meant but useless attempts to force this manufacture, added together with their accumulations at simple interest, they would be found sufficient to yield an annual revenue of little, if at all, inferior to the entire value of the linens we now send abroad. And after the business never began to do any real good, it would take firm root, till the manufacture ceased to be a domestic one, and was carried on principally in mills, and by the aid of machinery, a system which the old forcing system tended to countenance. The only real and effectual legislative encouragement the manufacture has ever met with, was the reduction and repeal of the duties on flax and hemp, and the relinquishing of the absurd attempt to force their growth at home.

**Irish Linen Manufacture.**—Spinning in the hand is now almost unknown in Ireland, the manufacture has disappeared from several parts of the country, where it had been largely introduced. On the whole, however, there can be no doubt of the introduction of the factory system in Ireland, and will continue to be, most advantageously. Belfast has long been the great seat of the linen manufacture in Ireland, and there it is carried on in large factories furnished with the best machinery, and conducted on the most approved principles. In 1841, there were in the town and its vicinity, 25 steam mills for spinning linen, one of which employed 800 hands; and in 1866, the number of mills had increased to 39, and the

the linen trade of Ireland. William III. downward calculation and encouragement doubted whether it was the most judicious, and whether Ireland was being by the force of the. Mr. Young and the most authorities as to Ireland, contend that the manufacture has not yet attained to be sufficient to the manufacture might be diffused, it would be in a better state, had it been the production of the. The stimulus given by the materials for textile fabrics of cotton, will secure the cultivation of flax to produce of flax per acre 14 lbs., was:—

1861	1905
377	318
504	274
343	314
310	278
312	3

The culture of flax in Ireland, which increased very rapidly down to 1853, declined to 91,500 acres in 1858, and gradually rose again to 263,507 acres in 1866, and 253,105 acres 1867, of which 24,491 were in Ulster. (For further details, see *Smith's Irish Almanac for 1868*, pp. 779-784.)

**Scotch Linen Manufacture.**—In 1827, a Board of Trustees was established in Scotland for the maintenance and improvement of the linen manufacture. It is not easy to suppose that the abolition of this Board could of itself have been of any material service; but considerable bounties and premiums being at the same time given on the production and exportation of linen, the manufacture went on increasing. Still, however, it did not increase so fast as cotton and some others, and machinery began to be extensively employed in the manufacture; so that it is very doubtful whether the influence of the bounty has been so great as it would at first sight appear to have been. The regulations as to the manufacture, after having long objected to by those concerned, were abolished in 1822, and the bounties ceased in 1830.

Dundee is the grand seat of the Scotch linen manufacture; and its progress there during the last few years has been so extraordinary, that the following details in respect to it may not be unacceptable.

The manufacture appears to have been introduced into Dundee some time towards the beginning of the last century; but, for a lengthened period, its progress was comparatively slow. It was not until 174 tons of flax were imported, without which the shipments of linen cloth during some years being estimated at about 1,000,000 yards, no mention being made either of sail-cloth or bagging. In 1791, the imports of flax amounted to 2,444 tons, and those of hemp to 299 tons; the exports that year being 7,842,000 yards of 260,000 yards sail-cloth, and 65,000 do. of bagging. From this period the trade began to advance itself gradually, though not rapidly. Precisely to the peace of 1815, no great quantity of machinery was employed in spinning; but about that period, in consequence, partly and principally, of the improvement of machinery, and its extensive introduction into the manufacture, and partly of the great regularity with which supplies of the material were obtained from the Northern States, the trade began rapidly to increase. Its progress has, indeed, been quite astonishing; the value of flax and hemp having increased from £8,000 tons in 1814 to 15,000 tons in 1830, to £1,000 tons at an average of 1857 and 1858, and £1,655 tons in 1865, though they fell to 87,716 tons in 1866, and 33,491 tons in 1867.

We gave in a former edition an account of the number of pieces of the different descriptions of linen goods annually exported from Dundee. But as the carriage on them is charged by railway; and large quantities are now sent off by Dundee. And account is kept of the pieces so despatched; and consequently, no account can now be given of the total quantities exported. We have, however, been assured, by a high authority in the town, that the total value of the linens exported from Dundee in 1858 may be safely estimated at 3,100,000*l*.

It is not easy to give any satisfactory explanation of the wonderful progress of the linen manufacture at Dundee. Something must be ascribed to the convenient situation of the port for obtaining supplies of the raw material; and more, perhaps, to the manufacture having been long established in the towns and villages of Strathmore, Fife, of which Dundee is the emporium. But plain the superiority to which she has recently attained in this department; and, however unphilosophical it may seem, we do not really know what we can ascribe it to anything else than a concurrence of fortunate accidents. Nothing, in fact, is so difficult to explain as the superiority to which certain towns frequently attain in particular departments of industry, without apparently possessing any peculiar facilities for carrying them on. But from whatever causes their pre-eminence may arise in the first instance, it is very difficult, when once they have attained it, for others to come into competition with them. They have, on their side, established connections, workmen of superior skill and dexterity in manipulation, improved machinery &c. Recently, indeed, the advantages in favour of old establishments have been, to a considerable extent, neutralised by the prevalence of combinations amongst their workmen; but it is to be hoped that means may be devised for obviating this formidable evil.

Dunfermline, in Fife, with the contiguous district, is the principal seat of the manufacture of nappery. The table-cloths which it supplies are of the best quality, and their patterns have latterly been greatly improved. They are now fully equal furnished by Germany and the Low Countries. In fact, table-linen is now shipped from this country for Germany; and the duty of 10 per cent. on the importation of German damasks and such like fabrics has been repealed, without the measure having any injurious influence over the manufacturer in this country.

In England the linen manufacture is principally seated in Leeds and its immediate vicinity, where there are some very large mills, and in other parts of the W. Riding. It is also carried on in parts of Lancashire, Dorset, Durham, and Salop.

It is perhaps needless to add that, the state of the linen trade during the last five years has been quite exceptional. The complete prostration of the American civil war, was to some extent met by a vast increase in the production of other textile fabrics, and some years must elapse before the manufacture of cotton, flax, and wool, resume their natural proportions. Thus in 1865 the exports of linen were double in quantity those of 1861, and much more than double in value.

**Value of the Manufacture. Number of Persons employed.**—There are no means by which to form an accurate estimate of the entire value of the linen manufacture of Great Britain and Ireland. Dr. Colquhoun estimated it at 15,000,000*l*, but there cannot be a doubt that this estimate was, at

the time, much exaggerated. In the first edition of this work, we estimated the annual value of the manufacture at 7,500,000*l.* Sir F. M. Eden estimated the entire value of the linen manufacture of Great Britain in 1800 at 2,000,000*l.* (*Treatise on Insurance*, p. 76.)

In 1858, we reckoned it at 12,000,000*l.* But it has increased very rapidly since that time, especially since the commencement of the cotton famine, and its value for the United Kingdom is at present (1867) probably not under, if it do not exceed, 20,000,000*l.* But taking it at this amount, and setting aside a third part of this sum for the value of the raw material, and another third for profits, wages of superintendence, wear and tear of capital, coal &c., we have 6,666,000*l.* to be divided as wages amongst those employed in the manufacture. And supposing each individual to earn, at an average, 40*l.* a year, the total number employed would be nearly 170,000. We may add that according to the returns under the census of 1861, 96,689 persons were then employed in the linen manufacture in Great Britain, of whom 70,897 were employed in Scotland, and 19,792 in England, while in Ireland the linen and damask weavers alone numbered 60,626.

**Export of Linens to France.**—Previously to 1833 the export of linens and linen-yarn from this country to France was quite inconsiderable. It then, however, began to increase; and the oppressive duties that previously existed on the importation of these articles into France having been materially reduced in 1834–36, so powerful a stimulus was given to the trade, that the exports of yarn from the United Kingdom to France rose from 4,012,141 lbs. in 1836, to 22,202,292 lbs. in 1842. This influx of foreign yarn having, of course, subjected the French spinners to consider-

able temporary difficulties, they set up a cry of 'the reimposition of the duties; and the Government being weak enough, or ignorant enough, to listen to their interested representations, the duties were again largely augmented in 1842. In consequence the exports of yarn &c., from this country to France declined even more rapidly than they had increased. But we may shortly state, that the injury which the French Government did to this measure to our spinners is but trifling compared with that which they did to their own subjects; for, while they stopped all progress in the manufacture, and deprived the producers of the articles sent hither in exchange for yarns of the best market, they about doubled the price of linen to the consumers.

Since the negotiation however of the commercial treaty with France, a considerable increase in the exports of linen yarn has taken place, though the amount has only been increasing slowly. The linen trade with France is almost stationary.

**An Account of the Pounds Weight of Linen Yarn Exported from the United Kingdom to France during each of the undermentioned Years ending with 1867.**

Years	British Linen Yarn Exported from United Kingdom to France	Years	British Linen Yarn Exported from United Kingdom to France
1831	17,503	1850	69,029
1832	76,514	1851	29,530
1833	867,498	1852	429,000
1834	1,130,269	1853	1,111,000
1835	3,381,678	1854	886,100
1836	13,137,567	1855	1,540,000
1837	30,834,975	1856	1,841,000
1838	22,405,292	1857	1,734,000
1839	13,824,985	1858	1,734,000
1840	13,546,757	1859	1,734,000
1841	9,153,188	1860	1,734,000
1842	22,202,292	1861	1,734,000
1843	17,503	1862	1,734,000
1844	76,514	1863	1,734,000
1845	867,498	1864	1,734,000
1846	1,130,269	1865	1,734,000
1847	3,381,678	1866	1,734,000
1848	13,137,567	1867	1,734,000
1849	30,834,975		

**Account of the Quantities and Values of the Linen Manufactures and Linen Yarn of the Produce Exported from the United Kingdom in each of the 4 Years ending with 1867.**

Articles	Quantities				Value		
	1864	1865	1866	1867	1864	1865	1866
<b>Linen Manufactures:</b>							
White or plain, damask							
<i>See</i> .. yds.	190,633,754	222,790,744	234,589,974	200,836,615	6,707,619	7,537,571	8,164,173
Printed, checked and dyed ..	12,873,669	16,965,490	14,246,634	6,392,510	505,900	520,000	520,000
Batticloth ..	6,941,219	7,250,257	6,634,981	4,833,715	394,884	382,713	330,260
Thread ..	3,374,921	3,334,924	3,781,419	3,753,791	2,991,969	2,535,581	2,374,131
Linen yarn ..	40,177,150	36,746,673	33,608,171	31,103,859	3,653,311	630,656	983,800
Other sorts ..	..	..	..	..	..	..	..
<b>Total value</b> ..	..	..	..	..	11,164,782	11,692,511	11,890,377

The United States, Brazil, Cuba, and the Hanse Towns, but especially the first, are by far the largest importers of manufactured linens. The

great outlets for yarn are at present (Spain, inc. Gibraltar, the Hanse Towns, France, Italy, Belgium, and Prussia.

**The following are the Imports of Flax, Hemp, and Jute for the 7 Years ending 1867.**

Articles	1861	1862	1863	1864	1865	1866
<b>Flax, dressed or undressed</b> ..	1,533,679	1,798,351	1,439,962	1,849,517	1,915,138	1,841,598
<b>Hemp, dressed or undressed</b> ..	800,100	984,395	1,059,802	1,063,763	1,065,705	1,001,093
<b>Jute (es yarn)</b> ..	904,092	965,774	1,243,033	2,108,942	2,024,537	1,633,903
<b>Total</b> ..	3,037,871	3,746,450	3,741,857	4,821,242	5,007,779	4,474,594

\* Undressed hemp only for 1867.

**LIQUORICE** (Ger. *sussholz*; Fr. *réglisse*, *racine douce*; Ital. *regolizia*, *ligorizia*, *liquirizia*; Span. *regaliz*, *orozuz*). A perennial plant (*Glycyrrhiza glabra*), a native of the south of Europe, but cultivated to some extent in England, particularly at Mitcham in Surrey. Its root, which is its only valuable part, is long, slender, fibrous, of a greyish brown externally, and yellow internally, and when fresh very juicy, sweet, and without odour (*British Pharmacopœia*, 1867). The liquorice grown in England is fit for use at the end of 3 years; the roots, when taken up, are either immediately sold to the brewers' druggists or to common druggists, by whom they are applied

to different purposes, or they are packed like carrots or potatoes, till wanted. The root was charged till 1853 with a duty of 100 cwt., when it became duty free. 5,272 cwt. were imported in 1867, valued at 6,857*l.*

**LIQUORICE JUICE** (*Succus Liquiritice*). Popularly *black sugar*, the impasted juice of the roots just mentioned. Very little of this is prepared in Britain, by far the greater our supply being imported from Sicily. It is obtained by crushing the roots in a mill, and subjecting them to the press, is slowly becoming of a proper consistency, when it is rolled into rolls of a considerable thickness, the

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e is almost stationary.

Pounds Weight of Linen  
in the United Kingdom  
of the undermentioned Years

Year	British Linen Yarn Exported from the United Kingdom & France
1850	lb. 69,000
1855	295,500
1857	469,000
1861	1,214,500
1862	1,861,000
1863	1,349,000
1864	2,095,500
1865	3,941,500
1866	5,734,000
1867	5,634,000

and Linen Yarn of British  
years ending with 1867.

Year	Value	
	1865	1866
1865	£ 7,537,371	£ 8,105,175
1866	606,040	535,095
1867	384,713	336,796
1868	2,535,321	2,374,132
1869	630,666	584,294
1870	11,692,311	11,800,377

rn are at present  
the Hanse Towns, Hol-  
n, and Prussia.

Years ending 1867.

Year	1865	1866
1865	cwt. 913,132	cwt. 1,547,593
1866	85,705	1,001,098
1867	744,537	1,623,908
1868	387,779	4,174,599

or they are packed in  
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1853 with a duty of  
duty free. 5,272 cwt.  
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ICE (*Succus Ligni*)  
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erable thickness, wh



usually covered with bay leaves. This is the paste in which we import it. Most part of it is afterwards redissolved, purified, and cast into small cylindrical rolls of about the thickness of a goose quill, when it is called *refined liquorice*. It is then of a glossy black colour, brittle, having a sweet mucilaginous taste. It is used in the *materia medica*, particularly in coughs, colds &c. What is called *liquorice paste* is an inferior or coarser variety of the same article, mostly brought from Turkey. (Thomson's *Chemistry*; Thomson's *Dispensatory*.)

The oppressive duty of 3*l*. 15*s*. per cwt., with which it was loaded down to 1842, was reduced in that year to 2*7s*. 6*d*. and in 1853 to 20*s*. The duty was repealed altogether in 1860.

The imports of juice and paste amounted in 1867 to 4,573 and 23,811 cwt., respectively.

**LISBON.** The capital of Portugal, on the N. bank of the Tagus, the observatory of the fort being in lat. 38° 42' 24" N., long. 9° 5' 50" W. The city proper is surrounded by walls with gates or barriers, at which articles of food, drink, and firing for the use of the town pay octrois or duties. Total pop. in 1863, 224,063, whereof about 170,000 are within and the remainder without the walls.

Lisbon, within the walls, paid in 1854-55, from July 1, 1854, to June 30, 1855, 95,000*l*. public taxes, 20,000*l*. town dues, and 46,000*l*. municipal charges: it consumed, during the same period, 11,877 sheep, 13,133 pigs, 19,826 oxen, 3,656 calves, 141,000 gallons of wine, and 143,000 imperial quarters of wheat: the town dues are received by Government.

The total revenue of the kingdom was estimated from direct and indirect taxes for 1866-67, at for direct 4,904,393, and indirect 9,085,309 milreis.

*Port.*—The harbour, or rather road, of Lisbon is one of the finest in the world, and the quays are at once convenient and beautiful. Fort St. Julian marks the northern entrance of the Tagus. It is built on a steep projecting rock. There is a light-house in the centre, 120 feet above the level of the sea. At the mouth of the Tagus are two large bays, called the North and South *Cachops*. There are two channels for entering the river; the North or Little, and the South or Great Channel, exhibited in the annexed plan. On the middle of the South *Cachop*, about 1½ mile from Fort St. Julian, is the *Barral* fort and light-house, the latter being 66 feet in height. The least depth of water in the north channel on the bar is 4 fathoms, and in the south 8. The only danger in entering the port arises from the strength of the tide; the ebb running down at the rate of 7 miles an hour; and after heavy rains, when there is a great deal of fresh water in the river, the difficulty of entering is considerably augmented. When, at such periods, there is a strong wind from the sea, there is a complete break all over the bar; vessels moor up and down the river with open haws to the southward. In some parts they may come within 200 yards of the shore, being guided by the depth of water, which, from nearly 20 fathoms in mid-channel, shoals gradually to the edge.

*Trade &c.*—Mr. Secretary of Legation Lytton states in his *Report* of January 15, 1867, that since 1861 no annual returns relative to Portuguese commerce have been published. Though one of the best situated commercial cities of Europe, the commerce of Lisbon cannot be very extensive, as the country she supplies is but small, and in a very backward state of improvement, though the capital is now connected by rail with Spain and the rest of Europe. Contrary, however, to what might perhaps be expected, nowhere is political and religious tolerance carried to a greater extent:

there are several daily newspapers, both political and commercial, the latter ably conducted. The police is excellent, and one may walk through all parts of the town at all hours of the night in perfect security. Lisbon has a government commercial school, a commercial association, and a small though pretty exchange. It is lighted by gas.

The importation duties levied at the custom-house for the year ending July 30, 1862, were 551,397*l*. The principal imports were:—

Articles	Imports	
	Value	Duties
	milreis	milreis
Animals - - - -	45,522	392
Animal products - -	1,171,751	170,587
Fish - - - - -	305,416	113,265
Woolens and furs - -	705,399	265,895
Silks - - - - -	219,566	61,965
Cottons - - - - -	2,107,905	439,756
Linen - - - - -	202,721	45,574
Timber - - - - -	224,115	55,051
Ferrous substances -	238,105	35,019
Colonial goods - - -	1,965,787	965,043
Vegetable substances	286,719	27,360
Metals - - - - -	2,318,539	61,481
Minerals - - - - -	450,038	1,286
Liquids - - - - -	189,111	126,318
Glass, crystal, &c. -	84,189	24,403
Paper - - - - -	104,531	12,556
Chemicals - - - - -	114,566	12,902
Divers products - - -	95,516	3,853
Divers manufactures -	331,302	46,816
Untaxed articles - - -	2,902,492	—
Total - - - - -	14,287,290	2,450,654
	£	5,211,610

1 milreis = 51*d*.

The duties on exportation are 1 per cent., excepting wines, liquors, oak bark, vinegar, gold and silver, rags and argol. The export duty on port wine has been reduced from 18*s*. 9*d*. to 1*s*. 8*d*. per pipe. The Portuguese tariff is long and complex: a copy of it occupies 34 pages of Mr. Secretary Lytton's *Report* of June 22, 1866. See also his *Report* of January 15, 1867. Chief exports in 1854, wheat 39,100 qrs. (35,400 to England, 3,600 to France); wine 258,000 gallons; 1,170 tons of cork wood, 62,000 tons of salt, 2,350 tons of tartar, 62,000 half-chests oranges, 640 tons wool, and 2,700 tons onions.

The value of the chief exports from Lisbon was in 1861-2, 900,187*l*., of which liquids and vegetable substances represented one-half. The values of the imports into, and exports from the port in 1864, were respectively 3,085,190*l*. and 923,757*l*. The number and tonnage of vessels of each nation entered and cleared at Lisbon in 1864 were as follow:—

Countries	Entered		Cleared	
	Vessels	Tons	Vessels	Tons
British - - - - -	463	145,795	457	124,532
Russian - - - - -	40	—	40	—
Norwegian - - - -	44	—	40	—
Swedish - - - - -	49	—	46	—
Danish - - - - -	56	—	64	—
Dutch - - - - -	4	—	90	—
Belgian - - - - -	21	—	30	—
French - - - - -	136	—	148	—
Spanish - - - - -	30	—	36	—
Portuguese - - - -	351	—	516	—
Brazilian - - - - -	21	—	21	—
Other countries - -	27	—	27	—
Total - - - - -	1,322	—	1,555	—

Few vessels are built at Lisbon. In 1864 only 2 ships came from the stocks in the capital. Most of the Portuguese shipping is built at Vianna, Figueira, and Caminha.

There are no longer any regular mail packets between Southampton and Portugal, except the Brazil packet which touches at Lisbon about the 13th of each month: occasional merchant steamers carry letters between Lisbon and Liverpool, Glasgow, and London.

There are at Lisbon the following insurance companies and agencies:—

Estadade (Sea, Fire, and Life Insurance)	capital £500,000 by shares
União Commercial (Sea and Fire)	175,000 "
Restaurador (Sea and Fire)	44,500 "
Garantia (Ocean Company) Sea and Fire Insurance	225,000 "
Segurancas (do. do.)	225,000 "
Equidade (do. do.)	225,000 "

Agencies of the English companies Athenaeum, Albion, Sun, Liverpool and London and Norwich Union, and of the Madrid Life Insurance Companies; also the London and Lancashire, Fire and Life; Royal, do.; Imperial, do.; El Fenix Español, do.; La Union de Madrid, do.; La Anegaradora, do.; La Capicola, Maritimo.

**Port Regulations.**—All vessels coming over the bar are to heave-to at the Pago d'Arcos, that they may be registered and receive on board a customs officer. Masters of vessels must bring with them 2 manifests of the cargo, containing shippers' and receivers' names, marks, number and contents of packages, legalised by the Portuguese consul at the port of departure. They will otherwise be fined double the amount of duties. The bill of health must contain the number and names of passengers, and be also legalised by the Portuguese consul. Passengers must be provided with passports; masters of vessels are otherwise liable to pay a fine.

Vessels loading, unloading, or merely remaining in the port (in *franchisa*), which they are permitted to do for 6 days (or for 10 days if sufficient grounds be assigned for the indulgence), must anchor in and continue in the situation pointed out by the authorities; and as any infringement of the customs or port regulations is followed by heavy fines, and is often the cause of much delay, they should be carefully attended to.

All masters of vessels, seamen, and passengers are obliged to deliver up to the authorities who come on board all soap and tobacco they may possess, being only allowed to retain what may be deemed sufficient for their own use on board. Any tobacco or soap found in their possession while going on shore is seized, and the bearer subjected to imprisonment and to very heavy fines; the tobacco taken from the parties on arrival is restored to them on leaving.

**Port Charges** consist of pilotage and tonnage dues. Pilotages inwards for vessels of 3 masts, 35s. 6d.; of 2 masts and 1 ditto, 27s. 6d. Pilotages outwards for vessels of 3 masts, 32s.; of 2 masts and 1 ditto, 24s. Tonnage dues are rather complicated. Vessels coming in with a full cargo and leaving in ballast, coming in and leaving in ballast, coming in with cargo and leaving with foreign goods, pay 13½d. per ton; also vessels taking ¾ of the cargo salt and foreign goods pay said tonnage dues on the goods.

Vessels arriving loaded and leaving with cargo pay for Portuguese goods 8d.; the same vessels taking ¾ salt and the remainder goods pay on the Portuguese goods. Vessels coming in and going out with the same cargo pay 34d. per ton, also those which come in loaded and leave with a full cargo of salt, and those which take ¾ of the cargo salt pay this tonnage duty on the salt. Vessels arriving in ballast and leaving with a full cargo of salt pay no tonnage dues, and vessels putting in in distress. No tonnage dues are paid on grain, oil, or salt, if they form ¾ of the cargo, the vessel clearing for Lisbon.

**Money.**—Gold is the circulating medium, silver being only legal tender to the extent of 22s. 3d. in any payment. The gold in circulation is almost all British coin, sovereigns and half-sovereigns, the former having a legal value of 4,500 reis, the latter of 2,250 reis. There are also some Portuguese

coins, 8,000 reis pieces and 4,000 reis in circulation, and a few 5,000, 2,500, and 1,000 reis pieces. Silver, the old coins of 180, 240, 120, and 60 reis, are being withdrawn; the new coins consist of 600, 200, 100, and 50 reis pieces. Copper 40, 20, 10, and 5 reis pieces. The millo reis is thus about 4s. 5½d. Accounts are kept in reis; 1,000 are called millo reis, and 1,000,000 reis are called a conto. In the notation of accounts, the millo reis are separated from the reis by the following sign §; thus a sovereign 4,500 is 4 § 500.

The old cruzado is 400, the new cruzado 480 reis. 100 reis are called tostao (plural tostoes), 20 reis is called a vintem (plur. vintens). The 8,000 pieces are denominated 'peças.' The average rate of exchange on England is 50d. per millo reis. Bills drawn in foreign coin, without any declared exchange, are payable in Portugal at the *uso* exchange at maturity. The *uso* is 30 d. for England, 100d. for France, and 3 m. for Hamburg, Holland, and Genoa. There are no direct exchange operations on other places besides these, excepting Spain, the price of the dollar varying from 920 to 930 reis.

**Weights and Measures.**—The French system has been adopted by Government. Commercial Weights.—The *aravetel*, libra, or pound = 2 marcos = 4 quartels = 16 onças = 128 outavas = 7,040 Eng. grains. 32 aravetels, or lbs. = 1 arroba; 1 arroba = 1 quintal; and 13½ quintals, or 54 arrobas = 1 tonneleira or ton. 100 Portuguese lbs. = 101½ (101) nearly lbs. avoirdupois = 45.89 kilog.

The measure by which corn, salt, and vegetables are principally sold is the *moio* or *moio* = 15 fanegas = 60 alqueires = 240 quartes = 480 outavas = 270 (rather more than 24) imp. quarters. The weight of a moio of corn depends of course on the quality of the grain. A moio of salt may be taken at about 1,600 lbs.

The principal liquid measure, the *almude* = 36 imp. gallons, is divided into 2 poles or cantares 12 canudas, and 48 quartilhos. A pipe in the province = 26 almudes; in Lisbon for shipment is 30 almudes = 109.23 (109) nearly imp. gal.

Measures of length, 1 pe = 1½ palmo = 12 Eng. inch; 3 palmos = 1 covado; 5 palmos = 1 vara; 2 varas, or 10 palmos = 1 braça. A yard reckoned equal to 14 palmos; a metre, to 4½ palmos.

The weights are uniform throughout Portugal, the measures vary almost from one parish to another. (Dourther, *Dictionnaire Universel*, 'Arroba,' &c.; Kelly's *Cambist*, art. 'Lisbon;')

**Bank of Lisbon**, now called Bank of Portugal, was founded in Nov. 1816, being a re-formation of the old bank founded in 1822. Its capital 1,780,000l., in shares of about 22l. and 110l. rate of discount is invariably 5 per cent. per ann. for bills not having more than 3 months to run.

It has the privilege of issuing notes, and which is more valuable, of having its claims on estates paid in full, provided the estate amounts to much! This privilege, which is justly obtained, allows it to be more liberal or less cautious in counting than it would be otherwise. It is obliged to publish monthly statements of its situation, but, like the majority of such documents, they are drawn out so that it is impossible to make any satisfactory out of them. From those of 1855? it appears that the notes in circulation 206,600l.; deposits, 553,500l.; cash, 383,400l.; discounted, 325,200l.

**Commission.**—Portuguese houses generally charge 3 per cent.; foreign houses 2½ per cent. *del credere* ½ per cent. per month.

According to the Portuguese laws, agents are obliged to effect insurance on shipments, unless they have orders to the contrary.

Brokerage,  $\frac{1}{2}$  per cent. for bills,  $\frac{1}{4}$  per cent. for funds and goods, payable by buyer and seller; for grain 400 reis per moya (about 8d. per quarter) is paid; for butter, and sometimes for rice, 1 per cent. is charged.

**Customary Tares.**—Amatto, single baskets 1 lb. each, draft 2 lb. per 320 lb.; cotton, 2 lb. per bushel, draft 2 lb. per 5 bags; coffee, linen bags, 1 lb. per bushel, draft 1 lb. each, draft 2 lb. per 5 bags; cocoa, like coffee. Copava oil in tin canisters, 2 lb. each, draft 2 lb. per 320 lb.; in barrels it is measured; India-rubber (caoutchouc), 2 lb. per basket, draft 2 lb. per 320 lb.; gum, 1 lb. per basket, draft as above; tapioca, 20 lb. per barrel, draft as above; sugar, general tare, 7 to 8 arrobas per box, draft 24 lb. barrel 18 lb. to 20 lb., draft 2 lb. bags, invariable tare, 2 lb. per bag, draft 4 lb. per 5 bags.

Ta. per chest, 15 to 24 lb. according to size; cinnamon, 12 lb. per box; pepper, 2 lb. per bag; rice, 1 lb. draft as above. Oil is now sold by weight, 31 lb. per almude (66 almudes are reckoned in the tun), and rent tares of casks allowed. All

goods for exportation must be accompanied on board by a custom house permit.

**Warehousing.**—The custom house has spacious stores, where all goods, except inflammatory ones, such as pitch and tar, are allowed to remain, free of expense, for 12 months; raw cotton, sugar, coffee, cinnamon, tea, hides, pepper, sarsaparilla, saltpetre, and tobacco may remain for 24 months. After these periods the rent is 20 reis per 128 lb. for dry goods, and 16 reis per almude for liquids. All labour in the custom-house is done by its workmen, for which 85 reis per 128 lb. gross weight is charged. Lisbon possesses an Industrial Institute, where artisans are instructed in arts and trades. It has 47 manufactories moved by steam engines of 722 horse-power, and 68 by manual labour. The latter employ 4,769 workmen.

On sale of goods, credits varying from 9 to 6 months are allowed; export goods are usually paid by cash. (Compiled from private information, obtained from the best sources, direct from Lisbon.)

*Trade of the United Kingdom with Portugal.*—We subjoin

*A Account of the Quantities and Computed Values of the Principal Articles Imported into the United Kingdom from Portugal from 1865 to 1867.*

Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
Animals, skins and skulls	number	5,714	6,871	76,309	112,360	151,193
Antelope	cwt.	600	2,060	1,200	3,750	1,931
Beaver	do.	1,885	1,999	777	12,485	9,911
Carpet	do.	1,291	1,921	1,678	31,688	16,559
Cashmere	do.	6,015	5,807	5,512	195,438	186,738
Cashmere	do.	225,058	369,914	369,640	12,238	20,038
Cashmere	do.	—	11	116,352	—	3
Cashmere	do.	8,809	5,773	4,701	77,131	27,425
Cashmere	do.	494	285	161	2,361	1,709
Cashmere	do.	4,684	5,069	5,001	2,940	29,915
Cashmere	do.	90,18	24,580	27,604	11,510	17,061
Cashmere	do.	12,619	11,902	22,171	10,568	9,872
Cashmere	do.	181,572	106,514	193,225	6,891	99,010
Cashmere	do.	1,101	1,211	2,018	3,659	3,690
Cashmere	do.	4,662	111	6,979	15,332	1,722
Cashmere	do.	1,791	2,335	5,559	4,438	12,215
Cashmere	do.	1,093	1,358	3,106	27,185	76,533
Cashmere	do.	—	10,012	11,642	—	30,351
Cashmere	do.	406	939	1,035	32,940	40,630
Cashmere	do.	83,030	97,716	106,873	29,236	31,040
Cashmere	do.	6,257	5,310	5,540	10,719	4,961
Cashmere	do.	16,026	25,415	58,303	5,496	8,907
Cashmere	do.	137,787	165,093	105,556	307,907	491,416
Cashmere	do.	5,166	6,975	5,612	5,466	5,975
Cashmere	do.	9,135	2,611	11,896	11,017	3,695
Cashmere	do.	681	507	1,364	21,860	36,615
Cashmere	do.	907	1,613	1,564	2,912	14,769
Cashmere	do.	7,740,578	5,541,225	2,721,538	1,145,134	914,573
Cashmere	do.	2,535,455	5,175,690	1,896,482	137,611	165,345
Cashmere	do.	—	—	—	605,562	133,208
Total	—	—	—	2,171,801	2,517,828	2,321,541

*A Account of the Quantities and Values of the Principal Articles, the Produce and Manufacture of the United Kingdom, Exported to Portugal from 1865 to 1867.*

Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
Alum and laboratory	value	—	—	50,240	29,135	55,419
Alum	cwt.	94,530	29,201	29,211	15,748	38,098
Alum	do.	55,669	27,739	22,530	129,067	125,548
Alum	do.	141,059	157,131	141,980	66,145	79,680
Alum	do.	5,623	3,868	4,815	29,206	32,975
Alum	do.	121,801	176,973	167,505	15,577	20,345
Alum	do.	40,258,184	49,250,263	49,529,961	843,050	1,012,125
Alum	do.	—	—	—	17,084	27,555
Alum	do.	—	—	—	16,836	15,818
Alum	do.	—	—	—	9,087	6,180
Alum	do.	—	—	—	12,505	11,561
Alum	do.	6,012	4,466	4,619	56,215	28,080
Alum	do.	30,177	16,588	16,103	25,801	147,277
Alum	do.	211	179	179	5,537	3,812
Alum	do.	4,780	5,598	5,111	6,678	5,740
Alum	do.	1,598,223	1,751,071	1,702,085	40,803	52,192
Alum	do.	—	—	—	78,984	4,859
Alum	do.	—	—	—	20,743	11,937
Alum	do.	81,212	78,157	91,219	12,071	11,229
Alum	do.	—	—	—	5,458	6,215
Alum	do.	19,396	15,662	16,713	23,987	17,535
Alum	do.	—	—	—	14,273	8,646
Alum	do.	699,107	51,892	228,109	83,732	3,980
Alum	do.	1,439	1,299	991	6,067	2,098
Alum	do.	1,656,625	1,653,795	1,267,610	18,776	16,591
Alum	do.	—	—	—	140,827	155,841
Alum	do.	—	—	—	5,860	3,661
Alum	do.	—	—	—	187,670	187,899
Total	—	—	—	2,066,037	2,201,101	1,293,397

In 1865 there were 6,940 kilometres of Portuguese railroads in operation and 3,245 in course of construction, but the want of good ordinary roads is severely felt throughout the country. (Mr. Lytton's *Reports*, ending with that of 1867.)

A line of telegraphs now extends throughout the kingdom.

#### LITERARY PROPERTY. [Books.]

LITHARGE (Ger. glütte, glütte; Dutch, gclit; Fr. litharge; Ital. litargirio; Span. almartaga, litargirio; Russ. glet; Lat. litargyrium). An oxide of lead in an imperfect state of vitrification.

Most of the lead met with in commerce contains silver, from a few grains to 30 ounces or more in the fopper: when the quantity is sufficient to pay the expense of separation, it is refined; that is, the metal is exposed to a high heat, passing at the same time a current of air over the surface; the lead is thus oxidised and converted into litharge, while the silver, remaining unchanged, is collected at the end of the process.—(Thomson's *Chemistry*; &c.) Litharge is used for various purposes in the arts, by potters, glass-makers, painters &c.

#### LIVERPOOL DOCKS, SHIPPING &c. [DOCKS, LIVERPOOL.]

LOADSTONE (Ger. magnet; Dutch, magneet; Fr. aimant; Ital. calamita; Span. iman; Russ. magnit; Lat. magnes). M. Hally observes, that the ores in which the iron contains the least oxygen without being engaged in other combinations, form natural magnets; and he calls the loadstones of commerce, which are found in considerable masses in Germany, Sweden, Norway, Spain, Italy, China, Siam, the Philippine Isles, Corsica, and Ethiopia, *oxidulated iron*. The loadstone is characterised by the following properties:—A very strong action on the magnetic needle; specific gravity 4.2457; not ductile; of a dark grey colour, with a metallic lustre.—Primitive form the regular octahedron. Insoluble in nitric acid.

This singular substance was known to the ancients, and they had remarked its peculiar property of attracting iron; but it does not appear that they were acquainted with the wonderful property which it also has, of turning the pole when suspended, and left at liberty to move freely. Upon this remarkable circumstance the mariner's compass depends, an instrument which gives us such infinite advantages over the ancients. It is this which enables the mariner to conduct his vessel through vast oceans out of the sight of land, in any given direction; and this directive property also guides the miner in subterranean excavations, and the traveller through deserts otherwise impassable. The natural loadstone has also the quality of communicating its properties to iron and steel; and when pieces of steel properly prepared are touched, as it is called, by the loadstone, they are denominated artificial magnets. [COMPASS.]

#### LOAN. [FUNDS; INTEREST.]

LOBSTER (Fr. crevise; Lat. cancer) A fish of the crab species, of which vast quantities are consumed in London.

The minimum size of lobsters offered for sale is fixed by 10 & 11 Wm. III. c. 24 at eight inches from the tip of the nose to the end of the middle fin of the tail. No lobsters are to be taken on the coast of Scotland between June 1 and September 1, under a penalty of 5*l*. The Scilly Islands and the Land's End abound in lobsters, as well as several places on the Scottish shores, particularly about Montrose. But the principal lobster fishery is on the coast of Norway; whence it is believed about 1,000,000 lobsters are annually imported into London. Those of Heligoland are, however, esteemed

the best: they are of a deeper black colour, and their flesh is firmer than that of those brought from Norway. Turbots and lobsters may be imported either in British or foreign vessels free of duty.

LOCK, LOCKS (Ger. schlösser; Dutch, sloten; Fr. serrures; Ital. serrature; Span. cerraduras, cerrajos; Russ. Samki). A well-known instrument, of which there are infinite varieties, a great deal of art and delicacy is sometimes displayed in contriving and varying the wards, springs, bolts &c., and adjusting them to the places where they are to be used, and to the occasions of using them. From the various structure of locks, accommodated to their different locations, they acquire various names, as stock lock, spring lock, padlocks &c. The grand difficulty is so that it may not be opened by any key except its own, nor admit of being picked; it should also be possessed of sufficient strength and durability, and not be too complex. Many ingenious contrivances have been proposed for the attainment of the desired security, several of which are possessed of much merit. And though we believe that no lock has hitherto been constructed that may not (if proper facilities are given) be picked, yet it is true that some of the best locks, such as those made by Messrs. Bramah, Chubb, Moore, and other first-rate artists, are so very difficult to pick, that the security which they afford may be regarded as a practical point of view, be regarded as all perfect. Common door-locks are now almost inserted in the wood, instead of being, as formerly, screwed to it; and when so placed are called mortis locks. Carpenter's locks, in which the key is perpendicular, are well known and widely used. Willenhall, Wolverhampton, Walsall and Wednesfield are the chief seats of the lock trade. No less than 5,000 hands are reported to be engaged in the work in these localities. The principal foreign markets for locks are, Australia, New Zealand and India. English locks are, for finish and security, by far the best in the world. (*Birmingham and the Hand-loom District*, p. 77.)

LOG, SHIP'S (Fr. loe). A piece of timber, usually of a fish-like or quadrantal shape, so constructed and balanced, by being loaded at one end, as to swim perpendicularly on the surface of the water. It has a line attached to it, and is employed in ships to ascertain the rate of sailing. The log-line is divided into spaces, or knots, and if properly measured, bear the same proportion to a marine mile that  $\frac{1}{2}$  minute bears to an hour. On throwing the log into the sea it remains stationary, or nearly so; and the log-line is drawn out, or unwound from its reel, by the proceeding on her course, her speed is estimated by observing the number of knots, each of which represents a mile, run out in  $\frac{1}{2}$  minute as measured by a  $\frac{1}{2}$  minute sand-glass. Hence, if 3 knots are run out in  $\frac{1}{2}$  minute, the rate of sailing is 3, 4, or 5 miles an hour as the case may be; and hence, also, the custom of stating a ship's rate of sailing in knots instead of miles. N.B. A great variety of logs have been suggested; but the principle being the same in them all, it is unnecessary to enter into any particulars with respect to their construction.

From the log being affected by current and other disturbing causes, the results obtained by its means have usually to be subjected to corrections; and, except under favourable circumstances, are but little to be depended on. However, therefore, an opportunity offers, the rate of the ship should be determined by other means. But in hazy weather, or when observations

be taken, and in narrow seas, the log, when carefully used, may be of the greatest service; and it should never be wholly dispensed with.

**Log-Book** (Fr. *livro du log*). This, which is, in fact, the ship's journal, derives its name from the circumstance of the *dead reckoning*, or the results obtained by heaving the log compared with the ship's course, being usually given in it. In the present improved state, the log-book comprises an account of every event of any importance that takes place during a voyage, whether relating to the ship, the crew, the passengers (if any), or the cargo, which should be taken down as soon as possible after its occurrence. Inasmuch, too, as it is of the highest importance in all matters relating to the voyage, the log-book should be carefully and faithfully compiled, and made out in a clear and distinct manner. This, indeed, is one of the principal duties of a master.

**Log (OFFICIAL)**. In addition to, or in conjunction with, the ordinary ship's log, all masters of British ships, not wholly engaged in the coasting trade, are bound to keep an *official log*, in such form as may, from time to time, be prescribed by the Board of Trade. The entries to be made in this log are specified in the Mercantile Shipping Act of 1854, as follows, viz.:

**Official Logs to be kept in forms sanctioned by Board of Trade**.—The Board of Trade shall sanction forms of official log-books which may be different for different classes of ships, so that each such form contains blanks for the entries herein-after required; and an official log of every ship except ships employed exclusively in trading between ports on the coasts of the United Kingdom shall be kept in the appropriate sanctioned form; and such official log may, at the discretion of the master or owner, either be kept distinct from the ordinary ship's log or united therewith, so that in all cases all the blanks in the official log be duly filled up. (Sec. 280.)

**Entries to be made in due Time**.—Every entry in every official log shall be made as soon as possible after the occurrence to which it relates, and if not made on the same day as the occurrence to which it relates shall be made and dated so as to show the date of the occurrence and of the entry respectively; and in no case shall any entry be made in respect of any occurrence happening subsequent to the arrival of the ship at her final port of discharge be made more than 24 hours after such arrival. (Sec. 281.)

**Entries required in Official Log**.—Every master of a ship for which an official log-book is hereby required shall make or cause to be made therein entries of the following matters; (that is to say,)

- (1) Every legal conviction of any member of the crew, and the punishment inflicted;
- (2) Every offence committed by any member of the crew for which it is intended to prosecute, to enforce a forfeiture, or to exact a fine, together with such statement concerning the reading of such entry, and concerning the reply (if any) made to the charge, as hereinbefore required;
- (3) Every offence for which punishment is inflicted on board, and the punishment inflicted;
- (4) A statement of the conduct, character, and dispositions, of each of his crew, or a statement which he declines to give an opinion on such particulars;
- (5) Every case of illness or injury happening to any member of the crew, with the nature thereof, and the medical treatment adopted (if any);
- (6) Every case of death happening on board, and of the cause thereof;

(7) Every birth happening on board, with the sex of the infant and the names of the parents;

(8) Every marriage taking place on board, with the names and ages of the parties;

(9) The name of every seaman or apprentice who ceases to be a member of the crew, otherwise than by death, with the place, time, manner, and cause thereof;

(10) The amount of wages due to any seaman who enters her Majesty's service during the voyage;

(11) The wages due to any seaman or apprentice who dies during the voyage, and the gross amount of all deductions to be made therefrom;

(12) The sale of the effects of any seaman or apprentice who dies during the voyage, including a statement of each article sold, and of the sum received for it;

(13) Every collision with any other ship, and the circumstances under which the same occurred. (Sec. 282.)

**Entries how to be signed**.—The entries to be made in official log-books shall be signed as follows; viz.: Every such entry shall be signed by the master and by the mate or some other of the crew, and every entry of illness, injury, or death shall be also signed by the surgeon or medical practitioner on board (if any); and every entry of wages due to or of the sale of the effects of any seaman or apprentice who dies shall be signed by the master and by the mate and some other member of the crew; and every entry of wages due to any seaman who enters her Majesty's service shall be signed by the master and by the seaman or by the officer authorized to receive the seaman into such service. (Sec. 283.)

**Penalties in respect of official Logs**.—The following offences in respect of official log-books shall be punishable as hereinafter mentioned; viz.:

(1) If in any case an official log-book is not kept in the manner hereby required, or if any entry hereby directed to be made in any such log-book is not made at the time and in the manner hereby directed, the master shall for each such offence incur the specific penalty herein mentioned in respect thereof, or where there is no such specific penalty, a penalty not exceeding 5*l*.

(2) Every person who makes or procures to be made or assists in making any entry in any official log-book in respect of any occurrence happening previously to the arrival of the ship at her final port of discharge more than twenty-four hours after such arrival shall for each such offence incur a penalty not exceeding 30*l*.

(3) Every person who wilfully destroys or mutilates or renders illegible any entry in any official log-book, or who wilfully makes or procures to be made or assists in making any false or fraudulent entry or omission in any such log-book, shall for each such offence be deemed guilty of a misdemeanour. (Sec. 284.)

**Entries in official Logs to be received in Evidence**.—All entries made in any official log-book as hereinbefore directed shall be received in evidence in any proceeding in any court of justice, subject to all just exceptions. (Sec. 285.)

**Official Logs to be delivered to Shipping Master**.—In the case of foreign-going ships the master shall, within 48 hours after the ship's arrival at her final port of destination in the United Kingdom, or upon the discharge of the crew, whichever first happens, deliver to the shipping master before whom the crew is discharged the official log-book of the voyage; and the master or owner of every home trade ship, not exclusively employed in trading between ports on the coasts in the United Kingdom

shall within 21 days after the 30th of June and the 31st of December in every year transmit or deliver to some shipping master in the United Kingdom the official log-book for the preceding half year; and every master or owner who refuses or neglects to deliver his official log-book as hereby required shall be subject to the same consequences and liabilities to which he is hereby made subject for the non-delivery of the list of his crew. (Sec. 286.)

*Official Logs to be sent home in case of Transfer of Ship, and in case of Loss.*—If any ship ceases by reason of transfer of ownership or change of employment to fall within the definition of a foreign-going or of a home trade ship, the master or owner thereof shall, if such ship is then in the United Kingdom, within 1 month, and if she is elsewhere, within 6 months, deliver or transmit to the shipping master at the port to which the ship belonged the official log-book (if any) duly made out to the time at which she ceased to be a foreign-going or home trade ship, and in default shall for each offence incur a penalty not exceeding 10*l.*; and if any ship is lost or abandoned, the master or owner thereof shall, if practicable, and as soon as possible deliver or transmit to the shipping master at the port to which the ship belonged the official log-book (if any) duly made out to the time of such loss or abandonment, and in default shall for each offence incur a penalty not exceeding 10*l.* (Sec. 287.)

**LOGWOOD** (Fr. bois de Campêche; Ger. Kampeescholz; Dutch, Campecheont; Span. palo de Campeche). The wood of a tree (*Hæmatoxylon Campechianum*, Linn.), a native of America, and which attains the greatest perfection at Campechy, and in the West Indies. It thrives best in a wet soil, with a large proportion of clay. The logwood tree is like the white thorn, but a great deal larger. The wood is hard, compact, heavy, and of a deep red colour internally, which it gives out both to water and alcohol. It is an article of great commercial importance, being extensively used as a dye wood. It is imported in logs, that are afterwards chipped. (The logwood tree, and the adventures of those that were formerly engaged in cutting it, are described by Dampier; see his *Voyages*, vol. ii. part 2, p. 56, ed. 1729.)

The imports of logwood in 1867 amounted to 28,530 tons. Of these 22,382 tons came from Honduras and the British West Indies, 1,012 tons

from Mexico, and 944 tons from the United States. Its price in 1867 varied from 10*l.* 10*s.* 10*d.* to 3*l.* 15*s.* 9*d.* per ton. The best is that from Mexico. It was made duty free in 1815.

We borrow from the learned and able work of Dr. Bancroft, the following curious details with respect to the use of logwood in this country:—'Logwood seems to have been first brought to England soon after the accession of Queen Elizabeth; but the various and beautiful colours dyed from it proved so fugacious, that a general outcry against its use was soon raised; and an Act of Parliament was passed in the 23rd year of her reign, which prohibited its use as a dye under severe penalties, and not only authorised but directed the burning of it, in whatever hands it might be found within the realm; and though this wood was afterwards sometimes clandestinely used (under the feigned name of blackwood), it continued subject to this prohibition for nearly 100 years, or until the passing of the Acts 13 & 14 Ch. II.; the preamble of which declares, that the ingenious industry of modern times hath taught the dyers of England the art of fixing colours made of logwood, *alias* blackwood, so as that, by experience, they are found as lasting as the colours made with any other sort of dyeing wood whatever; and on this ground it repeals so much of the statute of Elizabeth as related to logwood, and gives permission to import and use it for dyeing. Probably the solicitude of the dyers to obtain this permission induced them to pretend that their industry had done much more than it really had, in fixing the colours of logwood; most of which, even at this time, are notoriously deficient in regard to their durability.' (On *Permanent Colours*, vol. ii. p. 340.)

**LOUIS D'OR.** A French gold coin, first struck in 1640. It was subsequently made by the French mint regulations equal to 24 livres, or 1*l.* sterling. This, however, was under-rating it in respect of silver; and hence, as every one preferred paying his debts in the over-valued coin, silver became the principal currency of France, the gold coin being either sent to the melting-pot or exported. In Britain, the process was reversed. Gold having been, for a lengthened period, over-valued by its mint in respect to silver, it became the principal currency of the country.

**LUBECK.** [HANSEATIC LEAGUE.]

**LUGGAGE.** [BAGGAGE.]

## M

**MACAO.** A sea-port and settlement belonging to the Portuguese, on the island of the same name, at the mouth of the Canton river in China, in lat. 22° 12' 45" N., long. 113° 35' E. The situation of Macao strikingly resembles that of Cadiz. It is built near the extremity of a peninsula projecting from the south-west corner of the island of Macao, to which it is joined by a long narrow neck. Across this isthmus, which is not more than 100 yards wide, a wall is erected, with a gate and guard-house in the middle for the Chinese soldiers. The greatest length of the peninsula belonging to the Portuguese, from N.E. to S.W., is under 3 miles, and its breadth under  $\frac{1}{2}$  mile. The broadest part, to the north of the town, is flat, and of a light sandy soil; but is well cultivated, principally by Chinese, and produces all sorts of Asiatic and European culinary vegetables. Pro-

visions are obtained from the Chinese part of island or from the main land.

The Portuguese obtained possession of Macao in 1586. It was for a considerable period the seat of a great trade, carried on not only with China but with Japan, Siam, Cochin-China, the Philippine Islands &c.; but for many years past it has been of comparatively little importance. Though it is probable, that if it belonged to a more enterprising and active people, it might still retain most part of its former prosperity. Formerly the public administration was vested in a senate composed of the bishop, the judge, and a few of the principal inhabitants; but all real authority was till 1849 in the hands of the Chinese minister resident in the town.

Advantage was taken, however, of the weakness to which the Chinese were reduced

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the war with Great Britain in 1839-42, to expel the Chinese civil functionaries and Customs' officials, and since 1849, the settlement has been looked upon as a colony of Portugal, an assumption which the Chinese Government have not, however, admitted, and which will probably be actively combated ere long.

The population of Macao is estimated at some 50,000 Chinese and 5,000 Europeans or Indo-Europeans.

The Government is conducted by a Governor, the Chief Justice, who, with the Secretary of Government, are as a rule the only officials coming from the mother country.

The following return shows the number of Chinese exported as bond-servants from Macao in 1866:—

To Havana	-	-	15,517
To Java	-	-	7,394
Total	-	-	22,911

The following is a summary of imports, with estimated value, for 1866:—

Articles	Quantities	Value
Tea - chests	4,537	dols. 31,696
Tea - piculs	214,515	499,299
Opium - chests	9,078	5,429,103
Merchandise - boxes	868	251,680
Wool - value	..	1,254,068
Wool - value	..	565,413
Total	..	8,012,809

These figures are, however, only approximate, as, in the absence of a custom-house, a simple memorandum of cargo is all that is required by the Government. The value of exports from Macao for 1865 amounted to 4,665,361 dollars, and in 1866 to 3,708,907 dollars.

The following is the return of shipping for the year 1866:—

British	Entered	Cleared
Foreign	40	36
	136	77

The Harbour is on the west side of the town, between it and Priest's Island, and is small and inconvenient of access save by vessels of comparatively light draught, of which, moreover, no great number can be accommodated at one time. The water not being sufficiently deep to admit large ships, they generally anchor in the roads on the other side of the peninsula, from 5 to 10 miles ENE. from the town, an open sea way protected by the south by the island called the Typa. A steamer runs daily from Hong Kong to Macao and back, accomplishing the journey in 4 hours. All vessels coming into the roads send their boats to the Portuguese Custom-house on the south side of the town.

When a ship arrives among the islands, she is generally boarded by a pilot, who carries her to the Macao roads. As soon as she is anchored, the pilot proceeds to Macao to inform the mandarin of her nationality. If there be any women on board, application must be made to the bishop and senate, for leave to send them on shore, as they will not be permitted to proceed to Whampoa if necessary enquiries, he orders off a river pilot, who brings with him a chop or license to pass the Macao Tigris, or mouth of the Canton river, and sends the ship to Whampoa. For pilot regulations and charges see WHAMPOA. No port dues are levied, but the following harbour regulations are enforced:—

**Macao Port Regulations.**—1. Any vessel nearing the wharves and waiting a pilot, must have its national flag at the foremast head.  
2. No notice will be taken at the office of the

captain of the port of any damage occurring to vessels coming in or going out when not piloted by the office pilot.

3. The captain of the port will not employ any pilot without having previously examined him; and as it is necessary to keep a pilot establishment, vessels coming in or going out without such office pilot will not be exempted from payment of pilotage dues.

4. Captain of a vessel or his agent shall report his vessel at the captain of the port's office within 24 hours after his arrival, and in default of doing so he shall pay a fine of 100 dollars.

5. The captain of a vessel on landing shall present his ship's papers at the office of the captain of the port; where they will remain until his departure.

6. Vessels cannot enter the inner harbour with gunpowder on board. Such gunpowder must be deposited at the Bar Fort, whence it can be received on going out.

7. It is forbidden to throw ballast or rubbish overboard in port, under a penalty of 100 dollars.

8. Vessels are not permitted to change their moorings in the river without the permission of the captain of the port.

9. Vessels must keep their sheet anchors ready for letting go.

10. If any man deserts his vessel, the same must be reported to the captain of the port, who will assist in his apprehension, and if the deserter cannot be found during the stay of the vessel in port, arrested (if so required) and delivered to the police authorities.

11. It is forbidden to land invalids without the consent of the captain of the port. For contravention of this a fine will be imposed of 100 dollars.

12. If the captain of a vessel wishes to send any sick man to the hospital, he must apply to the captain of the port; the vessel being answerable for the expenses.

13. The captain of a vessel may not discharge either part or the whole of his crew in Macao, without the permission of the captain of the port.

14. Vessels coming to in the roads, with intention of loading or unloading, must report at the office of the captain of the port, as ordained by the 5th art. Agents will be held answerable for the neglect.

Although the independence of Macao is officially ignored by the Chinese Government, its status as a Portuguese colony has been recognised in fact by the British and other Governments, who maintain Consular agents there but leave the control of their respective subjects in the hands of the Portuguese authorities. A treaty was signed on the 13th August 1862 between the Governor of Macao and two Chinese Commissioners, by the wording of which Portugal was left free to infer the undisputed possession of the peninsula; but on the exchange of ratifications being demanded in the following year the treaty was disavowed by the Chinese Government, on the ground that it had been extorted under irregular menaces. The currency of Macao, weights and measures &c. are the same as those of Canton.

**Trade of Macao.** The Chinese regulations do not permit any vessels, except such as belong to Portuguese or Spaniards, of which there are very few, to trade at Macao. But the Portuguese inhabitants lend their names, for a trifling consideration, to such foreigners as wish to be associated with them for the purpose of trading from the port. Independently, however, of this,





In France, madder is prepared nearly in the same manner as in Zealand. The following instructive details as to its cultivation, price &c. in Provence, were obligingly furnished to us by an English gentleman, intimately acquainted with such subjects, who visited Avignon in the autumn of 1829:—

'This town (Avignon) is the centre of the madder country, the cultivation of which was introduced here about the middle of the 18th century, and, with the exception of Alsace, is still confined (in France) to this department (Vaucluse). The soil appears to be better adapted for its cultivation here than anywhere else, and it has long been the source of great wealth to the cultivators. But the returns fluctuate very greatly.

The root is called *alizari*, and the powder (made from it) *garance* or *garancine*. The plant is raised from seed, and requires 3 years to come to maturity. It is, however, often pulled in 18 months without injury to the quality; the quantity only is smaller. A rich soil is necessary for its successful cultivation; and when the soil is impregnated with alkaline matter, the root acquires a red colour; in other cases it is yellow. The latter is preferred in England, from the long habit of using Dutch madder, which is of this colour; but in France the red sells at 2 fr. per quintal higher, being used for the Turkey red dye.

It is calculated that when wheat sells at 20 fr. per hectolitre, *alizari* should bring 85 fr. per quintal (poids de table), to give the same remuneration to the cultivator. That is, wheat 63s. per English quarter, and *alizari* 34s. per English cwt. The price has, however, been frequently as low as 22 fr. per quintal.

Prices undergo a revolution every 7 or 8 years, touching the minimum of 22, and rising as high as 100 fr. As in every similar case, the high price induces extensive cultivation, and this generally produces its full effect 4 or 5 years after. The

produce of Alsace, which is inferior both in quantity and quality to that of Vaucluse, is generally sold in Strasburg market.

'England employs both the root and the powder, according to the purpose for which they are intended. The Dutch madder is more employed by the woollen dyers, and the French by the cotton dyers and printers.

'In making purchases of *garance*, it is essential to employ a house of confidence, because the quality depends entirely upon the care and honesty of the agent. The *finest* is produced from the roots after being cleaned and stripped of their bark. The *second* by grinding the roots without cleaning. A *third* by mixing the bark of the *first* while grinding; and so on to any degree of adulteration.

The price of *alizari* in the country, which was only 25 fr. in July, is now (November 1829) at 86 fr., and is expected to be at 40 fr. very shortly. The crop being deficient both here and in Holland, and the certainty of its being also deficient next year, added to the small quantity existing in England, give reason to believe that the price will reach 60 fr. before many months, and will continue to advance for a year or two more.

'The *quintals* above mentioned are of 100 *poids de table*—the weight in general use over the south of France, and even in Marseilles. The weight is different in the different provinces, varying from 22 to 25 per cent. lighter than the *poëmetrique*. At Avignon, 124 *poids de tables* = kilogrammes, consequently 126 lb. are equal to cwt. English. At the exchange of 25 50 the costs (including 11s. for freight, duty, and charges till delivered in London or Liverpool 61s. or 60s.)

The duty on madder was repealed in 1845. Madder does not deteriorate by keeping, provided it be kept dry.

It is imported in casks weighing from 15 to cwt.

*Account of the Quantities and Values of the different varieties of Madder Imported in 1866, showing the Countries whence they came, and the Total Value of the Imports from each Country.*

Countries	Madder	Madder Root	Munjeet	Garancine	Value
Russia	6,088	..	..	..	13,998
Holland	10,212	1,958	..	12,296	107,171
France	98,731	5,333	..	36,337	481,611
Austrian Territories	..	3,011	..	4,525	26,480
Italy: Naples	2,318	63,105	..	437	2,318
Greece	..	1,378	..	..	3,330
Turkey	3,495	141,865	..	..	196,360
Egypt	..	1,454	..	..	3,111
British India, Bombay and Sinds	..	1,350	1,700	..	4,010
Bengal and Peru	..	..	151	..	300
Other parts	791	1,922	..	80	5,260
Total	191,563	221,668	1,851	49,150	1,071,520

In 1867 we imported 121,146 cwt. of madder and 138,355 cwt. of madder root, and exported 1,105 cwt. madder, and 3,581 cwt. madder root.

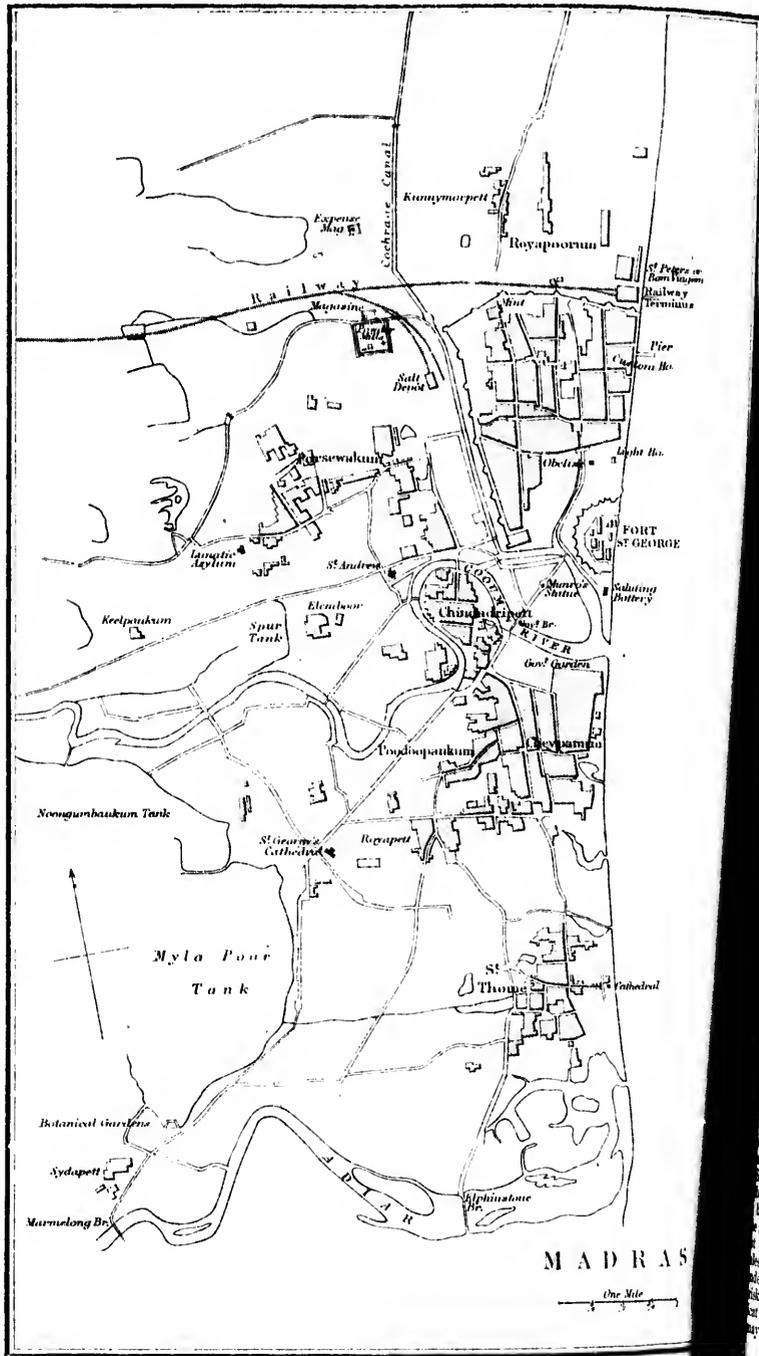
In 1867 the garancine imported was valued at 6l. 11s. per cwt., and the madder and madder roots at from 1l. 12s. to 2l. 7s. 6d. per cwt. (For an account of East Indian madder, see *MUNJEET*.)

**MADDEIRA.** [WINE.]

**MADRAS.** The principal emporium of the coast of Coromandel, or western shore of the Bay of Bengal, lat. of lighthouse, 18° 5' 10" N., long. 80° 16' 29" E. It is the seat of the Government of the second presidency of British India, having under it a territory, including the tributary states, of 257,042 square miles, with a population, according to the latest returns, of 36,060,561, paying, in 1865, a gross annual revenue of about 7,000,000l. sterling. The town had a population, in 1862, of 457,771, and is situated in the Carnatic province, a low, sandy, and rather sterile country.

It is without port or harbour, lying close upon the margin of an open roadstead, the shores of which are constantly beaten by a heavy surf. Beyond these disadvantages, a rapid current runs along the coast; and it is within the sphere of the hurricanes or typhoons, by which it is occasionally visited. In every respect, indeed, it is a very convenient place for trade, and its commerce consequently greatly inferior to that of Calcutta or Bombay. It has been in the possession of the English above two centuries, but been founded by them in 1639, and retained since. Fort St. George is a strong and happy fortification, lying close to the shore. The Town of Madras, as it is called, stands to the north and eastward of the fort, from which it is separated by a spacious esplanade. Here reside the native, Armenian, and Portuguese merchants, with many Europeans unconnected with the Government. Like most other Indian towns





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is irregular and confused, being a mixture of brick and bamboo houses. Madras, like Calcutta and Bombay, is subject to English law; having a Supreme Court of Judicature, the judges of which are named by the Crown, and are altogether independent of the local Government. The population is not exactly ascertained, but there are said to be about 400,000 persons within a radius of 2½ miles round Fort St. George.

In Madras roads, large ships moor in from 7 to 8 fathoms, with the flagstaff off the fort bearing S.W. by W., 2 miles from shore. From October to January is generally considered the most unsafe season of the year, in consequence of the prevalence of storms and typhoons. On October 15, the flagstaff is struck, and not erected again until December 15; during which period a ship coming into the roads, or, indeed, anywhere within soundings on the coast of Coromandel (reckoned from Palmyra to Ceylon), vitiates her insurance, according to the conditions of the policies of the insurance offices in India. The cargo boats used for crossing the surf, called *Massula* boats, are large and light; made of very thin planks sewed together, with straw in the seams instead of caulking.

The boats belonging to ships in the roads sometimes proceed to the back of the surf, and wait for the country boats from the beach to come to them, when it is dangerous to have communication with the shore, a flag is displayed at the beach house, which stands near the landing place, as a caution.

The fishermen use a species of floating machine of a very simple construction, named a catamaran. It is formed of 2 or 3 logs of light wood, 8 or 10 feet in length, lashed together, with a small piece of wood inserted between them to serve as a stem. They hold generally 2 men, who paddle and row through the surf, to carry letters, or small quantities, to ships, when they can venture out. They wear a pointed hat, made of matting, where they secure the letters, and take no damage. Medals are given to such men as distinguish themselves by saving persons in danger. They are all under the immediate control of the Government.

In the erection of a solid wrought iron screw pile, it is hoped, obviate the dangers of landing at Madras. It is 1,000 feet long, 40 feet in diameter, with 4 lines of railway, turntables, 6 fixed cranes, and 6 cranes. Its total cost was about £100,000, and will be levied on goods and passen-

gers. **Communication.**—The rivers of this country being little or not navigable, communication is held by means of roads, canals, and bridges. Of the last there were, in 1866, 650 bridges open for traffic. Madras communicates with Bombay, and Ceylon by telegraph.

**Lighthouse.**—A powerful 'flashing light' has been established on the new lighthouse immediately to the N. of the fort. This light is elevated 128 feet above the level of the sea, and may be seen in clear weather from the deck of a ship at a distance of 11 to 24 miles. The new lighthouse is situated 22° W., and is distant about 13 miles from the south-eastern extremity of the Pulicat lagoon, but no ship or vessel when standing in the northward for Madras roads should bring to bear to the S. of 28° W., or S.S.W. ½ S., unless her position be well ascertained. The light should be well in mind the moment they run by incautiously approaching the coast, and as heavy weather or other any obscure the light, it is imperatively

necessary to keep the lead going, and to keep a vigilant look-out. (*Statement issued by Marine Board.*)

**Commerce.**—Imports—cotton and hardware goods; manufactured metals; glass; books; wines; provisions; railway materials; spirits; apparel; timber; and horses. Exports—cotton; sugar; coffee; indigo; rice; hides; jaggery; coconut-oil; oil-seeds; cardamoms; semma and pepper. The greater part of the trade is with the United Kingdom; the rest is with the other Indian ports, Ceylon, the Straits, France, Mauritius, New South Wales, and America.

**Customs Tariff: Imports and Exports.**—By the Indian Customs Duties Act of March 1867 one uniform tariff was fixed for all the ports in British India. [CALCUTTA.]

**Moneys, Weights, and Measures.**—The Government rupee (for an account of which see CALCUTTA) No. XIII. of 1862, which provided for a new silver and copper coinage at all the mints in British India.

**Silver Coin.**

- A rupee to be called the Government rupee.
- A half rupee.
- A quarter rupee or four anna piece.
- An eighth of a rupee or two anna piece.

**Copper Coin.**

- A double pice or half anna.
- A pice or quarter anna.
- A half pice or one-eighth of an anna.
- A pie, being one-third of a pice, or one-twelfth of an anna.

**Revised Weights and Measures.**—The weights and measures recognised by Government are as follow:—

180 grains = 1 tolah	Avoirdupois.	lb.	oz.	drs.
3 tolas = 1 pollam		0	0	6.58
40 pollams = 1 vis		0	1	3.75
8 vis = 1 maund		3	1	5.94
20 maunds = 1 candy		21	10	15.31

Measures	Cylinder		Contents in Cubic Inches
	Diameter	Depth	
8 oblocks = 1 oblock	inches 2.6	inches 2.4	1½
4 " = 1 measure	5.0	3.1	100
2 " = 1 "	4.0	4.0	50
8 measures = 1 marcal	3.2	3.1	35
4 " = 1 "	10.3	9.6	800
	8.2	7.6	400

The 'garce' is 400 marcals or 185.2 cubic feet or 5,152 tons of water. According to the *old* measure of Madras, the puddee or 'measure' was 93½ cubic inches, and the marcal 750 cubic inches.

Car. paddy weighs about	83 tolas	the 100 cubic inches
Raw rice	114 "	" "
Horse gram	120 "	" "

The standard Madras puddee or 'measure' is generally a cylinder, 4 inches in diameter and 8 inches deep, containing 100 cubic inches, as in the above table. Now 100 cubic inches of water at 80° weigh 3.6 lbs. avoirdupois, or 140 tolas exactly.

1 measure	= 114 quarts
2.77 "	= 1 gallon
23.18 marcals or 177½ measures	= 1 bushel
1 garce	= 1 quart
	= 18 quinters

The seer is often spoken of as a measure, where as it is properly a weight of 80 rupees (though in some places it is 84 rupees).

Where the seer is spoken of as a measure, it is usual to calculate 2 Madras measures to 3 seers, and it so happens that two of the Madras regulation measures contain about 6.2 lbs. of paddy, a

weight equal to 3 seers of 80 rupees, 1 lb. avoirdupois = 38.889 tolas.

**Salt.**—Salt continues to be sold in the Madras Presidency by the garce and marcal. But the accounts are kept in Indian maunds:—

16 chittas or 80 tolas	= 1 seer
40 seers	= 1 Indian maund
120 maunds	= 1 garce
8 maunds	= 1 marcal
400 marcal	= 1 garce or 111 hushia
35 seers	= 72 lb. avoirdupois

At 120 rupees a garce, one measure of salt, costs  $7\frac{2}{3}$  pice, and a marcal as. 4, p. 9<sup>6</sup>.

**Account of the Principal Articles of Merchandise, and of Treasure, Exported from the Presidency of Madras, by Sea, in each of the Years, ended April 30, 1864-5.**

Articles	Exports	
	1864	1865
Coffee	523,400	669,636
Cotton, raw	4,331,481	3,962,706
Cotton goods, including twist and yarn	127,188	96,819
Drugs	9,518	11,156
Dyrs - (Indico)	403,376	332,857
- (Other kinds)	3,029	6,583
Grain - (Rice)	156,219	472,301
- (Wheat)	5,223	9,724
- (Other kinds)	88,222	110,278
Gums	62	168
Ginnyes and gunny bags	147,864	156,564
Hd-s and akies	2	2
Ivory and ivory ware	556	746
Jewellery and precious stones	5,930	5,071
Lac and lacquered ware	2	2
Oils	331,672	186,101
Saltpetre	6,520	5,215
Seeds	201,281	229,131
Shawls, Cashmere	81	582
Silk, raw	1,294	4,436
- goods	49,339	48,616
Spices	12	4,733
Sugar and sugar candy	216,031	225,976
Tea	97	53
Timber and woods	27,110	25,419
Tobacco	15,779	25,373
Wool, raw	..	..
Total of principal and other articles	7,273,105	6,815,912
Treasure	94,557	104,215
Total merchandise and treasure	7,367,662	6,920,127

**Account of the Value of the Principal Articles of Merchandise and Treasure Imported into the Presidency of Madras, by Sea, in each of the Years ended April 30, 1864-65.**

Articles	Total Imports	
	1864	1865
Apothecaries' and medical stores, medicines, &c.	5,517	5,591
Apparel	59,911	1,190,759
Arms and ammunition	3,231	3,000
Beads	96	1,000
Books and stationery	73,870	59,000
Carrriages	976	2,000
Coal and coke	2,000,000	2,000,000
Cotton twist and yarn	19,000	17,750
Drugs	472,508	59,413
Dyes of all kinds	15,506	11,000
Fruits and nuts	86,186	1,000
Glassware	1,207	1,000
Gums	7,275	1,000
Horses	19,911	1,000
Ice	..	..
Jewellery and precious stones	7,336	1,000
Machinery of all kinds	2,559	1,000
Malt liquors	91,284	1,000
Metal manufactures	32,003	1,000
- Copper	2,631	1,000
- Iron	91,160	1,000
- Lead	961	1,000
- Steel	4,111	1,000
- Tin	3,519	1,000
- Zinc	11,904	1,000
- Other sorts	6,615	1,000
Military stores	121,750	1,000
Naval	10,570	1,000
Paints and colours	4,737	1,000
Perfumery	7,212	1,000
Porcelain and earthenware	3,501	1,000
Provisions	12,273	1,000
Railway materials and stores	211,123	1,000
Salt	..	..
Salted	4,915	1,000
Silk, raw	7,533	1,000
Silk goods	9,888	1,000
Spices of all kinds	55,148	1,000
Sugar and sugar candy and loaf	10,822	1,000
Tea	15,066	1,000
Timber and woods	5,431	1,000
Tobacco	764	1,000
Umbrellas	61,936	1,000
Wines	35,603	1,000
Woolen goods	..	..
Total of principal and other articles of merchandise	2,133,181	2,072,000
Treasure	1,921,813	2,000,000
Total merchandise and treasure	4,055,024	4,072,000

\* Except railway materials (separately specified).

**Number and Tonnage of Vessels of each Nation (including Steamers) Entered at Ports in the Presidency of Madras, in each Year ended April 30, 1865 and 1866.**

Nationality of Vessels	Entered				Cleared			
	1865		1866		1865		1866	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
British	2,001	617,676	2,123	697,665	2,193	731,892	2,219	716,000
American	2	1,205	7	4,731	2	1,968	7	2,000
Arabian	10	4,588	..	3,113	12	5,887	9	..
Austrian	1	415	..	..	..	..	..	..
Belgian	..	..	1	391	1	330	..	..
Danish	..	..	..	280	..	..	..	..
Dutch	..	..	1	171	2	928	..	..
French	117	59,776	135	71,121	171	82,196	158	80,000
German	12	4,733	6	2,011	4	2,009	3	..
Norwegian	1	693	..	..	1	400	1	..
Portuguese	1	670	..	..	..	..	..	..
Prussian	..	..	..	..	..	..	..	..
Russian	..	..	..	..	..	..	..	..
Spanish	..	..	1	485	..	..	..	..
Swedish	1	327	..	..	2	651	..	..
Total	2,117	690,420	2,260	720,787	2,388	826,761	2,411	810,000
Native craft	6,460	988,837	5,982	468,087	6,794	1,033,497	6,098	710,000
Total	8,607	1,679,257	8,262	1,188,874	9,182	1,860,258	8,509	1,520,000

**Statement of the Total Value of Imports, including Treasure, at the several Ports of the Presidency of Madras, in each of the years ended April 30, 1863, 1864, 1865.**

	1863	1864	1865
Arcof, South	11,682	18,083	16,521
Canara, South	8,708	13,495	14,675
Fort St. George, or Madras	2,620,402	3,058,066	3,197,559
Ganjam	812	1,530	1,991
Godavery	1,709	2,977	4,600
Kistna	458	477	711
Madura	28,066	37,537	29,001
Malabar	61,392	93,253	65,650
Tanjore	230,952	301,280	334,195
Tinnevely	440,537	546,879	593,543
Vizagapatam	1,592	1,177	3,732
Total	3,408,610	4,055,024	4,226,289

**Summary of the external Commerce of Madras, by Sea, in 1864 and 1865.**

	For the Year 1864		For the Year 1865	
	Merchandise	Treasure	Merchandise	Treasure
Imports	2,133,181	1,921,813	2,388,000	2,000,000
Exports	1,921,813	2,000,000	2,072,000	1,921,813
Total	4,055,024	3,921,813	4,460,000	3,921,813

In 1866 the value of our imports from the several Ports of the Presidency of Madras was 5,653,854*l.*, and our exports therefrom 4,226,289*l.* and in 1867, 2,741,664*l.* and 1,843,132*l.* respectively. The rates of agency and commission, reduced

Account of the Trade of Madras with Foreign Countries in 1865, specifying the Values of the Imports and Exports.

Countries	Year ended April 30, 1865					
	Imports			Exports		
	Merchandise	Treasure	Total	Merchandise	Treasure	Total
	1865	1865	1865	1865	1865	1865
United Kingdom	1,681,426	589,999	2,271,425	5,165,985	7,500	5,173,485
Russia	..	..	..	1,275	..	1,275
France	..	..	..	..	..	..
Spain	..	..	..	..	..	..
Portugal	..	..	..	..	..	..
Prussia	..	..	..	..	..	..
Sweden	..	..	..	..	..	..
Denmark	..	..	..	..	..	..
Netherlands	..	..	..	..	..	..
Belgium	..	..	..	..	..	..
Germany	..	..	..	..	..	..
Austria	..	..	..	..	..	..
Italy	..	..	..	..	..	..
Spain and Portugal	..	..	..	..	..	..
France (New South Wales)	..	..	..	..	..	..
France (Other Parts)	..	..	..	..	..	..
East of Good Hope	..	..	..	..	..	..
China	..	..	..	..	..	..
Japan	..	..	..	..	..	..
India	..	..	..	..	..	..
Malacca	..	..	..	..	..	..
Siam	..	..	..	..	..	..
Burma	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java	..	..	..	..	..	..
Batavia	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..
Madagascar Ports	..	..	..	..	..	..
Persea	..	..	..	..	..	..
France, Singapore, and Malacca	..	..	..	..	..	..
India	..	..	..	..	..	..
Sumatra	..	..	..	..	..	..
Java						

by public auction, after due notice in the official *Gazette*. The proceeds will be applied to the payment of duty and other charges, and the surplus (if any) paid to the owner on application within one year from the date of sale.

It would appear from the *Madras Almanac* for 1868, that there are, besides the Government bank or Bank of Madras, the Government savings bank, and various private bankers, three joint stock banks with a paid-up capital of 2,650,000*l*.

**Insurance.**—The only local assurance society appears to be the Madras Equitable, established in 1842, but there were in 1868 42 agencies for English and other establishments.

Table of Port Charges at Madras.

Anchorage Dues.		S. Roads.	N. Roads.
		Rs. s. p.	Rs. s. p.
British ships, and ships under foreign.			
European, or American colours			
Country ships, from 200 to 500 tons	-	38 0 0	0 0 0
Do. 500 300 "	-	28 0 0	0 0 0
Do. 300 200 "	-	21 0 0	0 0 0
Do. 200 150 "	-	17 0 0	0 0 0
Do. 100 50 "	-	14 0 0	0 0 0
Do. 50 30 "	-	10 0 0	0 0 0
Nativecraft, from			
Do. 400 300 "	-	0 0 0	21 0 0
Do. 300 200 "	-	0 0 0	17 0 0
Do. 200 100 "	-	0 0 0	14 0 0
Do. 100 50 "	-	0 0 0	10 0 0
Do. 50 20 "	-	0 0 0	5 0 0
Do. 20 10 "	-	0 0 0	1 0 0
Light-House Dues.			
		Rs. s. p.	
All British and foreign ships, on anchoring	-	25 0 0	
Country ships	-	11 0 0	
Snow, brig, ketch, and schooner	-	7 0 0	
Sloop and cutter	-	5 0 0	
Large dhonies	-	5 0 0	
Small "	-	2 0 0	

The foregoing statements sufficiently exhibit the commercial importance of Madras. The limited extent of its trade, as compared with that of Calcutta and Bombay, is partly ascribable to the badness of its port or roadstead, the want of any navigable river or other easy means of communication with the interior, and the backward state of the provinces of which it is the capital, in consequence of the heavy and fluctuating land tax to which they are subject. In 1866, 59,931,904 letters and newspapers (ex books and parcels) passed the post-office of British India. (Hamilton's *East Indian Gazetteer*; *Geographical Dictionary*, art. 'Madras'; *Madras Almanac*; *Official Returns of the Trade of Madras*; &c.)

**MAGNESIA** (Fr. magnésic; Ger. gebrannte magnesia; Ital. magnesina). One of the primitive earths, having a metallic basis. It is not found native in a state of purity, but is easily prepared. It is inodorous and insipid, in the form of a very light, white, soft powder, having a specific gravity of 2.3. It turns to green the more delicate vegetable blues, is infusible, and requires for its solution 2,000 parts of water at 60°.

**MAHOGANY.** The wood of a tree (*Swietenia Mahogani*) growing in the West Indies and Central America. There are two other species of *Swietenia* found in the East Indies, but they are not much known in this country.

Mahogany is one of the most majestic and beautiful of trees: its trunk is often 40 feet in length, and 6 feet in diameter; and it divides into so many massy arms, and throws the shade of its shining green leaves over so vast an extent of surface, that few more magnificent objects are to be met with in the vegetable world. It is abundant in Cuba and Hayti, and it used to be plentiful in Jamaica; but in the latter island most of the larger trees, at least in accessible situations, have been cut down. The principal importations into Great Britain are made from Honduras and Campeachy. That which is imported from the islands

is called Spanish mahogany; it is not so large as that from Honduras, being generally in logs from 20 to 26 inches square and 10 feet long, while the latter is usually from 2 to 4 feet square, and 12 to 14 feet long; but some logs are much larger. Mahogany is a very beautiful and valuable species of wood: its colour is a red brown, of different shades, and various degrees of brightness; sometimes yellowish brown; often very much mottled, with darker shades of the same colour. The texture is uniform, and the annular rings not very distinct. It has no larger septa, but the smaller septa are often very visible. The pores between them, which in the Honduras wood are generally empty, but in the Spanish wood mostly filled with a whitish substance. It neither taste nor smell, shrinks very little, warps or twists less than any other species of timber. It is very durable when kept dry, does not last long when exposed to the weather. It is not attacked by worms. Like the pine the timber is best on dry rocky soils, or in exposed situations. That which is most accessible in Honduras grows upon moist low land, and generally speaking, decidedly inferior to that brought from Cuba and Hayti; being soft, and spongy; while the other is close grained, hard, of a darker colour, and sometimes star-shaped. Honduras mahogany has, however, the advantage of holding glue admirably and is, for this reason, frequently used for ground on which to lay veneers of the finer woods. The best qualities of mahogany bring a high price.

The cuttings in Honduras are established most of the large streams flowing through the departments of Santa Barbara and Yoro. At the mouth of these streams the logs are then shipped to England in vessels of from 400 to 500 tons. The trees are generally the property of the state, and the cutters stipulate to pay from 10 dollars for every tree they fell. The season for cutting is from August till winter sets in.

Not long since, Messrs. Broadwood, distinguished pianoforte manufacturers, gave an immense sum of 3,000*l*. for three logs of mahogany! These logs, the produce of a tree which were each about 15 feet long, and 30 inches square; they were cut into veneers of 1/4 inch. The wood was particularly beautiful, and reflecting the light in the most varied manner, like the surface of a crystal; and from the form of the pores, offering a different appearance in whatever direction it was viewed. The mahogany generally introduced into England, when buying a log; but, notwithstanding, it is seldom able to decide with much precision on the quality of the wood, so that there is a great deal of lottery in the trade. The logs of Messrs. Broadwood gave so high a price, that they brought to this country with a full knowledge of their superior worth. Mahogany was first introduced into England by Sir Walter Raleigh's expedition to Trinidad, in 1597; but it was not introduced into England till 1724.

The duty on foreign mahogany used to be 1*l*. a ton, on Honduras 1*l*. 10*s*., and on Campeachy, 4*s*.; its effect being to force the attention of the inferior in preference to the superior. Luckily, however, the duty on colonial mahogany, after being reduced to 20*s*. and 5*s*. per ton, was wholly repealed in 1860 a duty of 1*s*. per load was imposed on mahogany and other furniture woods, which again was abolished, and the importation of mahogany free, in 1866. There has been, in consequence



but the merchants of Malaga have not ventured to enter the wine for export. One reason of the very low price of the wines of Malaga is to be found in the cheapness of labour; field labour is only 2½ reals a day (1½d.). In the fruit and vintage time it is about double.

**Fruit.**—Next to its wines, the principal export of Malaga is fruit, viz. raisins (the chief), almonds, grapes, figs, and lemons.

The raisins exported from Malaga are of three kinds, *muscatel*, *bloom* or *sun raisin*, and *lexia*. The muscatel is the finest raisin in the world. In its preparation no art is used; the grape is merely placed in the sun, and frequently turned. The bloom or sun raisin is a different grape from the muscatel; but its preparation is the same. The lexia acquire this name from the liquor or ley in which they are dipped, and which is composed of water, ashes, and oil; these, after being dipped, are also dried in the sun. All muscatel raisins are exported in boxes, and also a part of the bloom raisin.

**Oil.**—There is also a large export of oil from Malaga. (Vol. ii. pp. 190–196.)

See also Mr. Consul Marks' Report of August 10, 1865, on Esparto or Spanish grass, and the sudden and extensive demand for it. [ESPAÑO.]

The trade of Malaga, like that of most other Spanish ports, has been materially increased of late years. Lines of steamers have been established that ply along the southern and eastern coasts of the peninsula, and a powerful stimulus has been given to all sorts of industrial pursuits. The influence of the latter is, no doubt, most powerfully felt at Alicante, Valencia, and those towns that have improved communications with the interior, but it is, also, sufficiently obvious here and in others of the less favourably situated seaports.

**Money.**—Accounts are kept in reals of 34 maravedis vellon. (For the coins, and their value, used at Malaga, see CADIZ.)

**Weights and Measures.**—The weights are the same as those of Cadiz. The arroba or cantara = 4·19 English wine gallons; the regular pipe of Malaga wine contains 35 arrobas, but is reckoned only at 34; a bota of Pedro Ximenes wine = 53½ arrobas; a bota of oil is 43, and a pipe 35 arrobas; the latter weighs about 860 lbs. avoirdupois; a carga of raisins in 2 baskets or 7 arrobas; a cask contains as much, though only called 4 arrobas; as a last for freight are reckoned—4 botas or 5 pipes of wine or oil; 4 bales of orange peel; 5 pipes of Pedro Ximenes wine or oil; 10 casks of almonds (each about 380 lbs. English); 20 chests of lemons and oranges; 22 casks of almonds (of 8 arrobas each); 44 casks of raisins (of 4 arrobas each); 88 half casks of raisins; 50 baskets or 160 jars of raisins.

**Port Charges.**—The port and harbour dues amount, on an English vessel of 300 tons, to about 21l.; on a Spanish vessel, of the same burden, they would be about 11l. 10s.

**Warehousing.**—Goods may be warehoused for 12 months, paying 2 per cent. ad valorem in lieu of all charges; but, at the end of the year, they must be either entered for consumption or re-shipped. The 2 per cent. is charged, whether they lie a day or the whole year.

There is an excellent account of Malaga in Townsend's *Travels in Spain*, vol. iii. pp. 10–42.

MALMSEY. [WINE.]

MALT (Ger. maly; Dutch, mout; Fr. mal, blégermé; Ital. malto; Span. cebada retonada ó entalleida; Russ. sold; Lat. maltum). The term malt is applied to designate grain which, being steeped in water, is made to germinate to a

certain extent, after which the process is checked by the application of heat. This evolves the saccharine principle of the grain, which is the essence of malt. The process followed in the manufacture is very simple. Few changes have been made in it; and it is carried on at the present moment very much in the same manner that was carried on by our ancestors centuries ago. Rice, and almost every species of grain, has been used in malting; but in Europe, and especially in England, malt is prepared almost wholly from barley. It is the principal ingredient in the manufacture of beer, and is little used except in brewing and the distillation of spirits.

**Duties on, and Consumption of, Malt.** *Importation of the Duty and the Opening of the Trade.*—Owing to malt liquor having become the favourite beverage of the people of England, the manufacture of malt has been carried on amongst us, for a lengthened period, on a large scale. Instead, however, of increasing with the increasing wealth and population of the country, it was nearly stationary for the hundred years ending with 1816. In proof of this we may mention that the quantity of malt that was duty in England and Wales, at an average of the 12 years ending with 1720, was 24,120 bushels a-year; whereas the annual average quantity that paid duty during the 12 years ending with 1816, was only 23,197,754 bushels! This apparently anomalous result is probably in measure to be accounted for by the increasing consumption of tea and coffee, which are now almost universal use; but there cannot be a doubt that it is mainly owing to the exorbitant duties with which malt, and the ale or beer manufactured from it, have been loaded, and to the oppressive regulations imposed on the manufacture of malt and the sale of beer. The effect of these duties and regulations was to impose a tax of 7s. on the malt and beer made from a bushel of barley; which, taking the average price of malt at from 4s. to 5s. a bushel, was equivalent ad valorem duty of from 140 to 175 per cent. The exorbitance of the duty was not, however, its most objectionable feature. It was equally divided—one half being assessed on malt, and the other on beer; but the beer affected only beer brewed by public breweries for sale, and did not affect that which was brewed for private use; and as rich families brewed the beer they made use of, the consequence of this distinction was, that the beer duty fell on the lower and middle classes, who were compelled to brew any beer; or, in other words, the poor were compelled to pay twice the duty on the malt he made use of that was paid by the rich. That such a distinction should ever have been made, or submitted to for any considerable period, is certainly not a little astonishing. On the other hand, however, the distinction was not so general as afterwards became; and being increased in degrees, the force of habit reconciled the people and the country to the gross inequality and oppressiveness of the tax. But the population being at length forcibly attracted to the subject, and the effect of the exorbitant duties on malt and beer in increasing the consumption of ardent spirits having been clearly pointed out in the *Edinburgh Review*, No. 98, art. 4, the duty was repealed in 1830. This measure of substantial justice and sound policy redounded to the credit of the administration of the Duke of Wellington; which was also entitled to the gratitude for having placed the liquor trade on a fair footing, and established, for the first time, a free trade in beer.







don, or anywhere else. Malta is also admirably well suited for becoming a centre of the corn trade of Egypt, Barbary, Italy &c.

During the war ended in 1815, particularly during the period when Napoleon's anti-commercial system was in operation, Malta became a great entrepôt for colonial and other goods, which were thence conveyed, as opportunities offered, to the adjacent ports. This commerce ceased with the circumstances that gave it birth; and for some years after the return of peace, the trade of the island was depressed below its natural level by the imposition of various oppressive discriminating duties. In 1819, this vexatious system was partially obviated; but it continued to exert a pernicious influence till 1837, when, pursuant to the recommendation of Messrs. Austin and G. C. Lewis, commissioners of enquiry, the then existing tariffs of customs duties and port charges were wholly abolished; and a new tariff (which is sub-joined) was issued in their stead. It imposed moderate duties, for the sake of revenue only, on a few articles in general demand, without regard to the country whence they came, at the same time that it equalised the tonnage duties, and reduced the warehouse rent on articles in bond to the lowest level.

There are some good springs of fresh water. Valetta is partly supplied by water brought by an aqueduct a distance of about 6 miles, and partly by the rain collected in cisterns.

**Harbour.**—The harbour of Valetta is double,

and is one of the finest in the world. The city is built on a narrow tongue of land, having the castle and light of St. Elmo at its extremity, and an admirable port on each side. That on the south-eastern side, denominated the grand port, is the most frequented. The entrance to it, about 250 fathoms wide, has the formidable batteries of St. Elmo on the one hand, and those of Fort Ricasoli on the other. In entering, it is necessary not to come within 50 or 60 fathoms of the former, on account of a spit which projects from it; but in the rest of the channel there is from 10 to 12 fathoms water. The port, which runs about 1½ mile inwards, has deep water and excellent anchorage throughout: the largest men-of-war coming close to the quays. Port Marsamuscetta on the north-western side of the city, is also a noble harbour. The entrance to it, which is about the same breadth as that of the grand port, is between St. Elmo and Fort Tigné. In the centre of the basin is an island, on which are built a castle and a lazaretto, for the convenience of ships performing quarantine, by which the port is principally used. Owing to the narrowness of the entrance, and the usual variability of the wind, it is customary for most vessels bound for Valetta to take a pilot on board before entering the harbour.

**TARIFF (A).**—Duties on imports 1835 and 1836 and also dues for store rent, which the collector of customs is required to levy on the account of the Government of Malta.

Articles	Import Duties 1835	Store Rents on Articles lodged in Bond	Imp. & Duties 1836
	£ s. d.	s. d.	
Beer, per Maltese barrel*	0 2 0	0 2	free in bottle
Cattle: bullocks and other animals of the same kind, per head	0 10 0	-	-
Horses and mules, per head	1 0 0	-	-
Charcoal, per salm	0 0 6	0 1	-
Grain:			
Wheat, per salm	0 10 0	0 2	1s. 5½d. per bushel
Indian corn, per salm	0 6 0	0 2	9d.
Barley, per salm	0 4 0	0 2	-
Sorgho, per salm	0 3 0	0 2	-
Other inferior grains	0 5 0	0 2	-
Manufacture of grain, per cantar	0 6 0	0 2	-
Wheat, Indian corn, barley, or other inferior grains, if damaged so as to be unfit for the food of man (commonly called <i>frumentazzo</i> ), per salm	0 2 0	0 2	-
Rice	-	-	-
Manufactured grain, if damaged so as to be unfit for the food of man, per cantar	0 2 0	0 2	5s. 10d. per cant.
Oil, olive, per canno	0 0 6	0 2	1½d. per gallon
Potatoes, per cantar	0 0 10	0 2	-
Pulse and seeds:			
Beans, carraways, chick-peas, kidney beans, lentils, lupins, peas and vetches, per salm	0 2 0	0 2	-
Carob beans and cotton seeds, per cantar	0 0 6	0 2	-
Spirits: viz. for every Maltese barrel of such spirits of any strength not exceeding the strength of proof by Sykes's hydrometer, namely, London proof, and so in proportion for any greater strength than the strength of proof*	1 2 0	0 2	2s. 1½d. per bushel
Vinegar, per Maltese barrel†	0 2 0	0 2	-
Wines, the value of which shall exceed 15 <i>l.</i> per pipe or 11 Maltese barrels, per Maltese barrel*	0 11 0	0 2	-
All other wines, per Maltese barrel†	0 2 0	0 2	2½d. to 1 <i>l.</i> 2 <i>d.</i> per bushel

\* 2*d.* for each 6 months.

† 2*d.* for the first 6 months, 3*d.* for each 6 months subsequently.

The store rents on grain lodged in bond to be payable from the day on which the grain was lodged. The store rents on every other article mentioned in the tariff to be payable from the 10th day after the day on which such article was lodged.

**TARIFF (B).**—Tonnage dues which the collector of customs is required to levy on the account of the Government of Malta.

Vessels discharging merchandise in the island shall, on clearing outwards, pay for every ton or any part thereof, 6*d.*

**TARIFF (C).**—Fees which the collector of customs is required to levy on the account of the Government of Malta.

For each certificate under the office seal - - - - - 2 6  
For each sheet of printed official forms - - - - - 0 2

Tariff of dues authorised to be levied for account

of Government, by the superintendent of the port, Malta.

**Shipping in Quarantine.**—1. Vessels entering upon a quarantine to pay for each day of continuance in port, as follows:—

Vessels not exceeding 25 tons	From 25 tons to 50 "	From 50 " to 100 "	From 100 " to 150 "	From 150 " to 200 "	From 200 " and up
10 <i>s.</i>	15 <i>s.</i>	20 <i>s.</i>	25 <i>s.</i>	30 <i>s.</i>	35 <i>s.</i>

2. Vessels of whatever size, sailing in quarantine, having entered upon the performance to pay at the above rates, but in no case than 2*s.* a day for the remainder of the quarantine.

3. Vessels liable to quarantine, and hav-

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The *salm* of corn, stricken measure '985 of an imperial quarter heaped measure, is reckoned 16 per cent. more. The *caffiso*, or measure for oil, contains  $4\frac{1}{2}$  English gallons = 20.4545 litres. The barrel is double the *caffiso*. The Maltese foot =  $11\frac{1}{4}$  English inches = 2836 metres. The *canua* = 8 palmi = 81.9 English inches = 2.079 metres. Merchants usually convert Malta measure into English in the proportion of  $3\frac{1}{2}$  palmi to a yard, or  $2\frac{1}{2}$  yards to 1 *canua*.

Bills on London are usually drawn at 30 and 60 days' sight. The deputy commissary general is obliged to grant, at all times, bills on the treasury here for British silver tendered to him, at the rate of 100*l.* bill for every 101*l.* 10*s.* silver, receiving, at the same time, other silver, at a fluctuating rate of exchange.

MAN (ISLE OF). Is situated in the Irish Sea, at about an equal distance from England, Scotland, and Ireland. It is about 30 miles long, and 10 or 12 broad. The interior is mountainous, and the soil nowhere very productive. Population, in 1861, 52,469. This island used to be one of the principal stations of the herring fishery; but for a considerable period it has been comparatively deserted by the herring shoals, a circumstance which is not to be regretted; for the fishery, by withdrawing the attention of the inhabitants from agriculture and manufactures, and leading them to engage in what has usually been a gambling and unproductive business, has been, on the whole, injurious to the island. The steam packets from Liverpool and Dublin touch at the Isle of Man; which is, in consequence, largely frequented by visitors from all parts of the empire, whose influx has materially contributed to the improvement of Douglas, the principal port in the island, and other towns.

The feudal sovereignty of Man was formerly vested in the Earls of Derby, and more recently in the Dukes of Athol, a circumstance which accounts for the fact of the duties on most commodities consumed in the island having been, for a lengthened period, much lower than those on the same commodities when consumed in Great Britain. This distinction, which still subsists, though to a smaller extent, has produced a great deal of smuggling, and been in no ordinary degree injurious to the revenue and trade of the empire. During the present century, indeed, the clandestine trade of Man has been confined within comparatively narrow limits; but to accomplish this, a considerable extra force of custom-house officers and revenue cruisers has been required; and the intercourse with the island has to be subjected to various restraints. Nothing, as it appears to us, can be more impolitic than the continuance of such a system. The public has, at a very heavy expense, purchased all the feudal rights of the Athol family; and having done so, it is certainly high time that an end were put to the anomalous absurdity of having a considerable island, lying, as it were, in the very centre of the empire, and in the direct line between some of the principal trading towns, with different duties on many important articles! It might be necessary, perhaps, to make some compensation to the inhabitants for such a change; and this might be done, with advantage to them and without expense to the public, by modifying and improving the internal regulations and policy of the island, which are very much in need of amendment. We do not, indeed, imagine that the island would lose anything by the proposed alteration; for the temptation which the present system holds out to engage in smuggling enterprises diverts the population from the regular pursuits of industry, and, along with the herring lottery, is the principal

cause of that illiness for which the Manx are so notorious. The customs revenue collected in the Isle of Man in 1852 amounted to 28,077*l.*; but from this sum 14,873*l.* was deducted on account of expenses of collection, public works, internal government &c. We subjoin an abstract of the Acts which now (1868) regulate the trade with the Isle of Man: the conditions under which it is carried on have been a good deal simplified.

The regulations under which the trade of the Isle of Man is now conducted are embodied in the Acts 16 & 17 Viet. c. 106, the 16 & 17 Viet. c. 107, the 29 & 30 Viet. c. 23, and 30 & 31 Viet. c. 85, and are as follows, viz.:-

*Duties in Table, to be levied on Goods imported into the Isle of Man.*—In lieu of all duties of customs now payable by law upon the importation of goods into the Isle of Man, there shall be raised, levied, collected, and paid unto Her Majesty, her heirs and successors, the several duties of customs as the same are respectively set forth in figures in following table, viz.:-

*Duties applicable to the Isle of Man.*

Goods	Rate
Coffee, the import duties in Great Britain or Ireland not having been paid thereon	the gal. 0 0 1
Corn: viz. wheat, barley, bear or bigg, oats, rye, peas, beans, buckwheat, maize or Indian corn	the quarter 0 1 0
Wheat meal and flour, barley meal, oatmeal, rye meal, and flour pea meal, bean meal, buckwheat meal, and maize or Indian corn meal	the cwt. 0 0 0
Spirits: viz. brandy, Geneva, and all foreign spirits, not being liqueurs, cordials, or perfumed spirits	the gallon 0 6 0
Rum and rum shrobs of the British possessions	the gallon 0 5 0
British or Irish spirits exported from a duty-free warehouse under bond in the United Kingdom	the gallon 0 6 0
Such spirits not exceeding the strength of proof, and Syke's hydrometer, and so in proportion for any greater or less strength than the strength of proof, and for any greater or less quantity than a gallon	the gal. 0 2 0
Eau de Cologne, per flask (30 not containing more than 1 gallon)	the gal. 0 0 0
Liqueurs, cordials, and perfumed spirits	the gallon 0 5 0
Sugar, viz. Muscovado	the cwt. 0 3 0
Sugar candy, white or brown, refined sugar, or sugar rendered by any process equal to refined, foreign or British	the cwt. 0 6 0
Tea	the lb. 0 0 0
Tobacco, viz. unmanufactured	the lb. 0 2 0
Manufactured, of all sorts, and cigars	the lb. 0 3 0
Wine containing less than 20 degrees of proof spirit, and Rum and rum shrobs of the British territories having been ascertained by test at Liverpool or some other station or port in Great Britain or Ireland	the gallon 0 0 0
Other wines	the gal. 0 1 0
Goods, wares, and merchandise imported or brought from any place from whence such goods may be lawfully imported into the Isle of Man, and not herebefore charged with duty, or declared to be free of duty, or every 100 <i>l.</i> of the value thereof	15 0

*Power to the Treasury to remit and suspend Duties on unenumerated Articles.*—The commissioners of the Treasury may from time to time, any order or orders under their hands, declare in all or any articles legally importable into the Isle of Man, and not enumerated in the said table, upon which the said duty of 15 per cent. is lawfully imposed, shall and may, from and after any day or days named in such order or orders, be imported from the places and in the manner therein mentioned into the Isle of Man duty free, during such time or times as shall be therein named, or any such order or orders respectively, or any of the said shall be rescinded, and such articles shall be imported duty free accordingly so long as any such order or orders, or any of them, shall continue in force; and the said commissioners may at any time, by any order under their hands, revoke whole or any part of any previous order or orders, or any of them, for such time and in such manner as they may see fit; and all orders of the commissioners of the Treasury made in pursuance of this enactment shall be duly published in the *Lancet* and *Dublin Gazette* twice at least within 14 days from the date of such orders respectively, and a copy of every such order shall be laid before the Houses of Parliament within 6 weeks after the date of each order, and the same shall be then sitting

not, then within 6 weeks after the commencement of the then next session of Parliament. (16 & 17 Vict. c. 106 s. 5.)

The following Treasury order has since appeared:—

By virtue of the powers vested in us under the 5th section of the Customs Tariff Act, 16 & 17 Vict. c. 106, to remit and re-impose the duties levied on unenumerated articles legally imported into the Isle of Man, these are to authorise you under the said section of the Customs Tariff Act, to allow all articles enumerated in the tariff of the United Kingdom, and not enumerated in the tariff of the Isle of Man, and which, under the tariff of the island, would be subject to an ad valorem duty of 15 per cent., to be admitted free of duty so long as the order permitting such free importation shall remain unrescinded. For which this shall be your warrant.

'AHERDEEN, JOHN SADLER.

Whitehall, Treasury Chambers, August 27, 1853.

*Isle of Man to be deemed Part of the United Kingdom for the Purposes of this Act.*—The Isle of Man shall be deemed and taken to be part of the United Kingdom for all the purposes of this Act, but nothing herein contained shall prejudice or affect, or be construed in any way directly or indirectly to prejudice or affect, any of the rights or privileges legally exercised or enjoyed by the said Isle at the time of the passing of this Act. (16 & 17 Vict. c. 107 s. 316.)

*Goods delivered out of Charge of Customs in Isle of Man not to be brought into Britain or Ireland.*—

No British goods upon which a higher duty is payable on their importation into Great Britain or Ireland, than on their importation into the Isle of Man, shall, after the same have been cleared and delivered out of charge of the proper officer of customs for consumption or otherwise in the said Isle, be carried or shipped, or be waterborne or brought to any quay, wharf, or other place to be wharfed or waterborne to be carried from the said Isle into Great Britain or Ireland; nor shall any such goods which may be brought to the said Isle, though not cleared and delivered as aforesaid, be removed or carried thence into Great Britain or Ireland until the same have been duly cleared for that purpose by the proper officer of customs, or unless reported for removal in the same ship and in continuation of the voyage to some port in Great Britain or Ireland) until sufficient security for their removal or otherwise shall have been given, in such manner, and on such terms and conditions, as the Commissioners of Customs may direct, for the due delivery thereof at some port or place in Great Britain or Ireland; and all goods carried, though shipped, removed, or waterborne to be wharfed, shipped, removed, or carried contrary hereto shall be forfeited, and every person who shall carry, remove, or waterborne, or be shipped, removed, or carried, any goods contrary hereto, or who shall aid or be concerned therein, shall forfeit the value of such goods, or the sum of 100*l.*, at the election of the Commissioners of Customs. (Sec. 347.)

*Goods the Growth or Manufacture of the Isle of Man, may be imported into Great Britain or Ireland on Certificate &c.*—Any goods, the growth of the Isle of Man, or there manufactured from materials the growth of the said Isle, or from materials subject to duties in Great Britain or Ireland, from materials upon which the duty has been levied in Great Britain or Ireland, and upon which no drawback has been subsequently granted, may be brought from the said Isle into Great Britain or Ireland without payment of any duty: provided

always, that such goods may nevertheless be charged with such proportion of such duties as shall fairly countervail any duties of excise payable on the like sort of goods the produce of that part of the United Kingdom into which they shall be brought; and any articles, either wholly or in part manufactured in the said Isle from any materials upon which a higher duty is payable upon their importation into the United Kingdom than on their importation into the Isle of Man, may be brought from the said Isle into Great Britain or Ireland on payment of the duty payable on such goods in that part of the United Kingdom into which they shall be so brought. (Sec. 348.)

*Declaration and Certificate of Growth or Manufacture of Goods from Isle of Man.*—Before any goods shall be shipped in the Isle of Man to be carried to Great Britain or Ireland as the growth or produce of that Isle, or as manufactures of that Isle from materials the growth and produce thereof, or from materials not subject to duty in Great Britain or Ireland, or from materials upon which the duties shall have been paid and not drawn back in Great Britain or Ireland, proof shall be made by the written declaration of some competent person, to the satisfaction of the collector or comptroller of customs at the port of shipment, that such goods (describing and identifying them) are of such growth, produce, or manufacture, as the case may be; and in such declaration shall be stated the name of the person by whom such goods are intended to be shipped, and such person, at the time of shipping (not being more than 1 month after the date of such declaration), shall make and subscribe a declaration before such collector or comptroller, that the goods to be shipped are the same as are mentioned in such declaration, and thereupon the collector or comptroller shall, on demand, give to the master of the ship in which the goods are to be exported a certificate of such proof of produce or of manufacture, describing the same, and setting forth the name of the party and of the ship and of the master thereof, and the destination of the goods. (Sec. 349.)

*Act not to affect Excise Drawbacks.*—Nothing herein contained shall be deemed or construed to affect the laws and regulations now in force respecting duties and drawbacks of excise on goods removed to the Isle of Man. (Sec. 350.)

*Stores of Manx Ships.*—If any ship or boat bound from the Isle of Man to Great Britain or Ireland shall have on board any stores of spirits, tobacco, or tea for the use of the crew, exceeding the quantities specified in the following table, such stores, together with the casks or packages containing the same, and also the ship or boat, shall be forfeited:—

	In Ships or decked Vessels	In open Boats
Spirits for each seaman	Half a gallon	One quart
Tobacco for each seaman	One pound	Half a pound
Tea for the whole crew	Two pounds	One pound

*Treasury may restrict Imports.*—The Commissioners of the Treasury shall and may at any time, if they see fit, by order under their hands, restrict or limit the importation into the Isle of Man of any foreign goods to such quantities per annum and in such manner as they may deem necessary, and also determine into what ports in the Isle of Man and from what places such goods may be imported. (Sec. 352.)

*Management of Duties.*—The duties of customs payable on the importation of goods into the Isle of Man shall be collected, paid, recovered, and accounted for under the management and control of the Commissioners of Customs; and, except the

Manx are so collected in the 28,977*l.*; but on account of es, internal g abstract of the the trade with under which it is simplified, the trade of the embodied in the & 17 Vict. c. 107, & 31 Vict. c. 85, Goods imported all duties of cu- the importation of re shall be raised, her Majesty, her duties of customs forth in figures in

Isle of Man, or Ireland not the lb. 0 0 1 coats, res. pers. the quartr 0 1 0 meal, rye meal, wheat meal, and the cwt. 0 0 4 foreign spirits, not in the gallon 0 6 0 duty-free water- in the gallon 0 6 0 igh of proof, and in a gallon 0 6 0 ning more than 1 or the gallon 0 10 a - the gallon 0 10 the cwt. 0 3 d sugar, or sugar retained, foreign or the cwt. 0 6 the lb. 0 2 the lb. 0 2 if proof spirits, rem- igh thereof having some other stan- - the gallon 0 1 ed or brought from ay be fully im- not herein be re- free of duty. 15 0

remitted and reimport articles.—The contr from time to time, their hands, declare the importable into the in the said table, 15 per cent. is here on and after any or orders, be import manner therein m duty free, during herein named, or vely, or any of the articles shall be so long as any em, shall continue mmissioners may at their hands, revoke previous order or and in such man orders of the com in pursuance of blished in the at least within 14 ers respectively, all be laid before 6 weeks after the be then sitting,

necessary charges of collecting, recovering, and accounting for the same, the said duties shall from time to time (subject to the deductions hereinafter mentioned) be brought and paid into the receipt of her Majesty's Exchequer, distinctly and apart from all other branches of the public revenue, and shall go to and make part of the Consolidated Fund of the United Kingdom: Provided always, that any of the collectors of customs of the said isle shall retain, and he and they is and are hereby authorised and required, agreeably to such directions as shall from time to time be given for that purpose by the Commissioners of Customs, to retain, such sum or sums of money in his or their hands as may be sufficient to defray the necessary expenses attending the government of the said Isle of Man and the administration of justice there, and other charges incurred in the said isle, which have heretofore been or may hereafter be deemed fit and proper charges to be deducted from and paid out of the duties of customs collected in the said Isle of Man; and upon the amount of the said expenses and charges being ascertained, the said commissioners are hereby authorised to direct the same to be paid out of the said moneys so retained to such person or persons as may be entitled to receive the same. (Sec. 353.)

*Expenses of the Government, and 2,300*l.* per annum to Harbour Commissioners of Isle of Man, to be paid by Customs.*—The necessary expenses attending the government of the Isle of Man and the administration of justice there, and other charges incurred in the said isle, which have heretofore been deemed fit and proper charges to be deducted from and paid out of the duties of customs collected in the said isle, or which may hereafter be deemed proper charges, and also the annual sum of 2,300*l.* made payable by Act 8 & 9 Viet. c. 94, s. 25 to her Majesty's Receiver-General in the said Isle of Man, and to be applied for the lawful purposes of the harbour commissioners therein mentioned, shall and may be retained and paid by the collector of customs of the said isle, out of the duties of customs collected in the said isle, as hereinbefore provided. (Sec. 354.)

*Additional Allowance for Public Works in the Isle of Man.*—In addition to the deductions from the customs duties hereinbefore provided for, there shall be set aside annually a sum equal to  $\frac{1}{2}$  of the amount derived from such duties, to be applied by the Commissioners of the Treasury in effecting improvements in the harbours and other public works in the Isle of Man, the necessary repairs and improvements in the harbours taking priority of other public works; and it shall be lawful for the Court of Tynwald from time to time to determine what improvements and public works shall be so undertaken, the lieutenant-governor having a veto upon such decision. (Sec. 355.)

Under 23 & 24 Viet. c. 56, the harbour commissioners are entitled, acting with the Receiver-General of the Isle of Man, to borrow such an amount as can be covered by an annual interest of 2,300*l.* for the purpose of improving harbours in the island. The application of the fund so subscribed shall be decided on by the Court of Tynwald, the lieutenant-governor of the island being empowered to exercise a veto.

By 26 & 27 Viet. c. 86, dues may be collected at the harbour of Port Erin, improvements in the harbour at this port having been effected in aid of the herring fishery.

The harbour dues levied are as follows:—As soon as the pier is carried out at a distance of 300 feet from low water mark, the dues levied in the first column are payable; as soon as 150 feet further, those in the second column,

	1st col.	2nd col.
Every vessel of 5 tons burden and upwards, per ton	3	1
After 10 days, from October 1 and June 1, for each 10 days, per ton additional	1	1
Between June 1 and October 1, for each 10 days, per ton additional	1	2

The above dues are to be paid every time a vessel enters the harbour. Composition on vessels under 30 tons for herring fishery season, 21; October 1 to June 1, 1*l.*; whole year, 3*l.* 30 tons and upwards, and under 50 tons, 4*l.* for herring season, 6*l.* whole year. Wind-burned vessels half dues. Steam vessels to pay the same as sailing. Vessels for which dues have been paid returning within 24 hours with same cargo, not to be liable to dues again. Yachts belonging to royal yacht club in the United Kingdom exempt among others.

**MANGANESE** (Ger. *Manganeis*, *glasseis*; Dutch, *bruinsteen*; Fr. *manganèse*, *manganais*; *von du verre*; Ital. *manganese*; Span. *manganese*, *Lat. magnesia nigra, manganesium*). A metal which, when pure, is of a greyish white color like cast-iron, and has a good deal of brilliancy. Its texture is granular; it has neither taste nor smell; it is softer than cast-iron, and may be filed; its specific gravity is 8. It is very brittle, and can neither be hammered nor drawn out into wire. Its tenacity is unknown. When exposed to the air it attracts oxygen with considerable rapidity. It soon loses its lustre, and becomes gray, violet brown, and at last black. These changes take place still more rapidly if the metal be heated in an open vessel. Ores of manganese are common in Devonshire, Somersetshire &c. The *black wood*, is remarkable for its spontaneous inflammation with oil. Oxide of manganese is of considerable use; it is employed in making permanganic acid, for forming bleaching liquor. It is also used in glazing black earthenware, for painting colours to enamels, and in the manufacture of porcelain. It is the substance generally used by chemists for obtaining oxygen gas. In 1848, 48,700 tons of manganese ore were imported into the United Kingdom, chiefly from Holland and Spain, and were valued at 216,723*l.* A compound of manganese and potash is one of the most powerful and valuable disinfectants known. (*Thomson's Chemistry*; &c.)

**MANGEL WURZEL** or **FIELD BEET** (*beta vulgaris*; Ger. *mangold-wurzel*; Ital. *beta*). A mongrel between the red and white beets. It has been a good deal cultivated in France, Germany, and Switzerland, partly as food for cattle, and partly to be used in distillation, and in the extraction of sugar. Its culture in Great Britain is comparatively recent; and Mr. Loudon questions whether it has any advantages over the turnip for general agricultural purposes. The preparation of the soil is exactly the same as for turnips; immense crops are raised on strong clays, and produce per acre is about the same as that of Swedish turnip; it is applied almost entirely to fattening of stock, and the feeding of milk cows. (*Loudon's Encyclopaedia of Agriculture*.)

**MANIFEST**. In Commercial Navigation, a document signed by the master, containing the name or names of the places where the cargo board have been laden, and the place or places to which they are respectively destined; the number and tonnage of the vessel, the name of the captain, and the name of the place to which the cargo belongs; a particular account and description of all the packages on board, with the number and numbers thereon, the goods contained in the packages, the names of the respective shippers and consignees, as far as such particulars

known to the master &c. A separate manifest is required for tobacco. The manifest must be made out, dated, and signed by the captain, at the place or places where the goods, or any part of the goods, are taken on board. [IMPORTATION AND EXPORTATION.]

By the Customs Tariff Amendment Act, 23<sup>rd</sup> Feb. c. 22, the master and owner must, within 6 days of the final clearance outwards of any ship in which goods are shipped for exportation, deliver to the proper officer of customs a manifest, containing an account of all the goods duly shipped for exportation, and submit a declaration that this account is true, under a penalty. If, however, the whole of the bills of lading relating to the goods exported in the ship, and duly signed by the master or his agent, are delivered to the proper officer of customs either at the time, or within 21 days after the final clearance outwards of the ship, with a declaration that they represent, to the best of his knowledge and belief, the whole of the cargo exported, the manifest may be dispensed with. (Maule and Pollock, *Law of Merchant Shipping*, p. 96.)

MANILLA. The capital of Luzon or Luzon, the largest of the Philippine Islands, and the principal settlement of the Spaniards in the East, is in lat. 14° 30' N., long. 120° 53' E. Population of the capital and its environs, according to the somewhat doubtful statistics of 1865, was 230,143, of which 4,681 were stated to be of European origin, 13,151 Chinese, and 210,811 native Indians. Manila is built on the shore of a spacious bay of the same name, at the mouth of a river navigable for small craft for about ½ mile, but for the larger brigs at a distance of about 150 yards from its mouth. The bar, on which there is generally a depth of from 11 to 12 feet of water, is the only anchorage to vessels of 2,000 tons and upwards lying close up to the first bridge. The principal anchorage for exports are situated in the space between this bridge and the entrance to the river. Merchant vessels anchor in Manila Bay, but the Spanish war vessels and those carrying coals to the arsenal anchor at Cavita, about 7 miles to the westward, where there is a good harbor, well sheltered from the W. and S. W. winds, to which the bay is exposed. The arsenal at Cavita is defended by Fort St. Philip, the strongest fortress on the islands. The city is surrounded by a wall and towers, and some of the bastions are well furnished with artillery.

The lights in Manila Bay are 5 on Burias Island, 2 of which are blue; 1 on the highest point of Corregidor Island, which revolves every minute; 1 on the islet of Caball; another on the north shore of the canal; and 1 on Sungly Point. The lights on Burias Island is visible for 20 miles. The light on Corregidor Island is 639 feet above high water mark.

Vessels on entering Manila Bay between sunrise and sunset must hoist their national flag under a penalty of 5 dols. to 10 dols. Masters of vessels coming to this port from one where there is a Spanish consul or agent must bring their certificates of cargo or ballast, under a penalty of 300 dols. Through situated within the tropics, the climate of the Philippines is sufficiently temperate; the considerable disadvantage under which they labor in this respect being that the principal part of the group comes within the range of the monsoons. The soil is of very different qualities, but for the most part singularly fertile. They are rich in mineral, vegetable, and animal products. It is stated in a statistical account of the Philippines, published at Manila in 1818 and 1819, that the entire population of the islands

amounted to 2,249,852, of which 1,376,222 belonged to Luzon. But this return is believed to have been underrated; and the population having increased very considerably in the interval, it is now estimated at upwards of 4,000,000. There are some, but not many, Chinese settlers, and most active, bold, and energetic of any belonging to the Eastern Archipelago. 'These people,' says a most intelligent navigator, 'appear in no respect inferior to those of Europe. They cultivate the earth like men of understanding; are carpenters, joiners, smiths, goldsmiths, weavers, masons &c. They walk through their villages, and treat them with kindness, hospitable, and communicative; and though the Spaniards speak of and treat them with contempt, I perceived that the vices they attributed to the Indians ought rather to be imputed to the Government they have themselves established.' (*Voyage de M. de la Perouse*, c. 15.)

The trade between this country and Manila fluctuates considerably. The exports to the Philippines were as low as 458,000, in 1862, and reached 955,300, in 1865, 917,847, in 1866, and 1,012,468, in 1867. They are chiefly cotton cloth (the trade in which seems to be steadily increasing, and formed in 1867  $\frac{2}{3}$  of the whole), linens, woollens, and iron. On the other hand, our imports thence, consisting chiefly of sugar, hemp, tobacco and cigars, coffee, and grains copul and mastic, were valued in 1866 at 1,196,557, and in 1867 at 762,244. Cowries figure in the exports to Manila. The average exportation of the United Kingdom is about 500,000 cwts.

The general exports from Manila in 1861 were valued at 2,296,174, the imports at 2,679,052. The former represented the following articles:—

Articles	Manilla	Iloilo	Cebu
Sugar - - piculs	805,411	151,067	18,564
Coffee - - "	37,845	..	..
Heroup - - "	107,295	..	..
Coriopsis - - "	22,515	6,660	20,277
Sappan wood - - "	29,852	..	150
Indigo - - "	7,141	500	..
Mother-of-pearl shells - - "	2,090	..	32
Gum mastic - - "	3,375	..	..
Indigo - - quintals	5,948	..	..
Bananas, leaf - - "	70,548	..	..
Coconuts - millions	72,380	..	..
Coconuts-shell - cattles	200	..	..
Coconuts - piculs	1,604	..	..
Hemp - - "	49	..	..
Rice - - "	1,552	..	..
Tobacco - cavnans	170,934	..	..
Coconut oil - bars	79,556	5,810	..
.. - "	6,901	..	..

**Port Charges.**—On foreign vessels, 2 rs. per ton, and one-half on such as neither load nor unload cargo, beside fees amounting from 5 dols. to 15 dols., according to the size of vessels.

**Import Duties.**—Spanish commodities, by Spanish vessels, pay 3 per cent. ad valorem, and 8 by foreign. Foreign commodities, by foreign vessels 11 per cent., and 7 by Spanish; in general being 8 per cent. under national flag from Singapore, and 9 from China. Spirits and strong liquors, produce of Spain, by Spanish vessels 10 per cent., and 25 by foreign; if they be foreign produce, by Spanish vessels 30 per cent., and 60 by foreign produce, by Spanish vessels 3 per cent., and 10 by foreign; if they be foreign. All Spanish wines, by national vessels 3 per cent., and 8 by foreign. Foreign wines, by Spanish vessels 40 per cent., and 50 by foreign, except champagne, which pays, by Spanish vessels 7 per cent., and 14 by foreign. Cotton twist, grey, black, blue, and purple, knives or holms (such as the natives use) ready-made clothes, boots, shoes, preserved fruits, confectionary and vinegar, by Spanish vessels 20 per cent., and 80

by foreign. British and other foreign cotton and silk manufactures, made in imitation of native cloths, chiefly stripes or checks of black, blue, and purple colours, Madras and Bengal, grey, white, and printed cottons, towels, table napkins, and table cloths, 15 per cent. by Spanish vessels, and 25 by foreign. Beche de mer, rattans, diamonds, tortoiseshell, mother-o'-pearl shell, and birds' nests, 1 per cent. by Spanish vessels, and 2 by foreign. Machinery of all sorts for the promotion of the industry of the country, cotton twist of red, rose, yellow and green colours, gold and silver, coined or uncoined, plants and seeds, free. Tropical productions similar to those of the Philippines, also arrack and gunpowder, are prohibited. Opium is only admitted to be deposited for re-exportation. Swords, fowling-pieces, muskets, pistols, and warlike stores may be deposited for re-export, and cannot be introduced without the special license of Government; but cannon and dress swords are admitted. It is probable that Spanish tariffs, both homo and colonial, will undergo a complete revision under the auspices of the new Government of 1868.

**Export Duties.**—Commodities and produce of every description to Spain, by national vessels pay 1 per cent., and 2 by foreign. Elsewhere, 1½ by Spanish vessels, and 3 by foreign. Hemp, by national vessels to whatever destination, 1 per cent., and 2 by foreign. Rice, by Spanish vessels free, and 4½ per cent. by foreign. Manufactured tobacco, and cordage of Manilla hemp, free by all flags. Gold dust, gold in bars, and silver in bars, free.

**Entrepôt Duties.**—One per cent. ad valorem, and 1 per cent. at the exportation, with 1 per cent. more if the commodities should be kept there more than twelve months, two years being the longest time allowed for it.

**Port and Custom-house Regulations.**—Vessels newly arrived are not to communicate with the shore until having been visited by the port captain's boat; and within 30 hours after this visit, a manifest must be presented, stating packages, marks, and numbers; but the vessel may retain her cargo 10 days in transit without stating whether for consumption or deposit, and without being obliged to land or incurring any charge on the same, except gunpowder, pocket pistols, and forbidden arms.

**Terms for Sales and Purchases.**—Sales and purchases made, duty paid, at 3 to 5 months' credit, occasionally at 2½ per cent. discount for prompt payment, and exports are bought for cash.

The principal currency of Manilla consists of Spanish dollars, of 8 reals and 96 legu, but South American dollars are also current. The weights in use are the Spanish lb., which is nearly 2 per cent. heavier than the English; the arroba = 25½ Eng. lbs. nearly; the quintal = 102 lbs.; and the pekul of 5 arrobas or 1¼ ewt. English. The cavan is a measure for rice &c., varying from 96 to 135 lbs. The Spanish merchants have a chamber of commerce, and a joint-stock insurance society. The United States, France, and Belgium have consuls, and each of the Canton marine insurance companies has an agent here. There are, however, neither fire nor life offices nor agencies; nor is any newspaper, price-current, or other periodical publication issued in Manilla.

Considering the great fertility and varied productions of the Philippines, and their peculiarly favourable situation for carrying on commerce, the limited extent of their trade may excite surprise. This is naturally and entirely a consequence of the wretched policy of the Spanish Government, which persevered until recently in

excluding all foreign ships from the ports of the Philippines, confining the trade between them and Mexico and South America to a single ship! Even ships and settlers from China were excluded. 'Provisions,' says La Perouse, 'of all kinds are in the greatest abundance here, and extremely cheap, but clothing, European hardware, and furniture bear an excessively high price.' The want of competition, together with prohibitions and restrictions of every kind laid on commerce, render the productions and merchandise of India and China at least as dear as in Europe! Happily, this miserable policy, the effects of which have been admirably depicted by M. de la Perouse, has been materially modified, and, it may be hoped, will, under the régime of 1868, be entirely changed. Even the events of the revolutionary war destroyed for ever the old colonial system of Spain, and the ships of all nations are now freely admitted into Manilla and the other ports in the Philippines. An unprecedented stimulus has, in consequence, been given to all sorts of industry; and its progress will doubt become more rapid, according as a wider experience and acquaintance with foreign manufactures makes the natives better aware of the advantages of commerce and industry, and disabuses them of the prejudices of which they have been so long the slaves. It appears from the Report of the Vice-Consul De Boshch on the Commerce of Sinal for 1866, that intercourse between Manilla and Sinal by means of steamers had been commenced.

**MANNA** (Fr. manne; Ger. mannaesche; Ital. manna). The concrete juice of several species of ash growing in the south of Europe. The juice exudes spontaneously in warm, dry weather, concretes into whitish tears; but the greater part of the manna of commerce is obtained by making incisions in the tree, and gathering the juice in baskets, where it forms irregular masses of a dish or brownish colour, often full of impurities. Manna is imported in chests, principally from Sicily and Calabria. The best is in oblong pieces from 1 to 6 inches long, moderately dry, porous, of a yellowish white colour, and in a degree transparent; the inferior kinds are more unctuous, and brown. It has a slight peach odour, and a sweet taste, with some degree of bitterness not very pleasant, and leaving a mucous impression on the tongue. In 1867, 200 lbs. were imported, valued at 4,775l.; and 200 lbs. were exported. (Thomson's Dispensary, *British Pharmacopœia*, 1867.)

**MARBLE** (Ger., Russ. and Lat. marmor; Dan. marmor; Fr. marbre; Ital. marmo; Span. mol). A genus of fossils, composed chiefly of being a bright and beautiful stone, moderately hard, not giving fire with steel, fermenting, and soluble in acid menstrua, and catching a slight fire.

The colours by which marbles are distinguished are almost innumerable. Some are quite white, others, again, are of a snowy white; some are greenish; others greyish, reddish, bluish, yellow, &c.; while some are variegated and spotted with many different colours and shades of colour. The finest solid modern marbles are those of Blankenburg, France, and Flanders. Great quantities of very beautiful marble have been covered at Portsoy in Banffshire, and at other places in the Western Isles. Killybegs in Ireland, has abundance of beautiful marble intermixed with white spots, called *Irish marble*. Derbyshire abounds in this marble. Near Kemlyn-bay, in Anglessea, there is a quantity of beautiful marble called *verde di Cornouailles*; its also being found in Corsica. Its colours are green, black, white, and dull purple.



ported, and unwillingly adheres to Capmany's opinion. 'Quoique Français,' says he, 'quoique porté par des sentimens de reconnaissance, qu'un événement ne sauroit affaiblir, à faire valoir tout ce qui est en faveur de Marseille, je dois reconnoître franchement que les probabilités l'emportent en faveur de Barcelone.' (Tome ii. p. 24.)

But to whichever city the honour of compiling the *Consolato* may be due, there can be no doubt that its antiquity has been greatly exaggerated. It is affirmed, in a preface to the different editions, that it was solemnly accepted, subscribed, and promulgated, as a body of maritime law, by the Holy See in 1075, and by the kings of France and other potentates at different periods between 1075 and 1270. But Capmany, Azuni, and Pardessus have shown in the clearest and most satisfactory manner that the circumstances alluded to in this preface could not possibly have taken place, and that it is wholly unworthy of attention. The most probable opinion seems to be, that it was compiled, and began to be introduced, about the end of the 13th or the beginning of the 14th century. And notwithstanding its prolixity, and the want of precision and clearness, the correspondence of the greater number of its rules with the ascertained principles of justice and public utility gradually led, without the intervention of any agreement, to its adoption as a system of maritime jurisprudence by all the nations contiguous to the Mediterranean. It is still of high authority. Casaregis says of it, though, perhaps, too strongly, 'Consulatus maris, in materiis maritimis, tanquam universalis consuetudo habens vim legis, inviolabiliter attendenda est apud omnes provincias et nationes.' (Disc. 213, n. 12.)

The collection of sea laws next in celebrity, but anterior, perhaps, in point of time, is that denominated the *Roole des Jugemens d'Oleron*. There is as much diversity of opinion as to the origin of these laws as there is with respect to the origin of the *Consolato*. The prevailing opinion in Great Britain has been, that they were compiled by direction of Queen Eleonor, wife of Henry II., in her quality of Duchess of Guienne, and that they were afterwards enlarged and improved by her son Richard I., on his return from the Holy Land; but this statement is now admitted to rest on no good foundation. The most probable theory seems to be, that they are a collection of the rules or practices followed at the principal French ports on the Atlantic, as Bordeaux, Rochelle, St. Malo &c. They contain, indeed, rules that are essential to all maritime transactions, wherever they may be carried on; but the references in the code sufficiently prove that it is of French origin. The circumstance of our monarch's having large possessions in France at the period when the rules of Oleron were collected, naturally facilitated their introduction into England, and they have long enjoyed a very high degree of authority in this country. 'I call them the laws of Oleron,' said a great civilian (Sir Leoline Jenkins, *Charge to the Cinque Ports*), 'not but that they are peculiarly enough English, being long since incorporated into the customs and statutes of our admiralties, but the equity of them is so great, and the use and reason of them so general, that they are known and received all the world over by that rather than by any other name.' Molloy, however, has more correctly, perhaps, said of the laws of Oleron, that 'they never obtained any other or greater force than those of Rhodes formerly did: that is, they were esteemed for the reason and equity found in them, and applied to the case emergent.' (*De Jure Maritimo et Navali*, Introd.)

A code of maritime law issued at Wisby, in the

island of Gothland, in the Baltic, has long enjoyed a high reputation in the North. The date of its compilation is uncertain, but it is comparatively modern. It is true that some of the Northern jurists contend that the laws of Wisby are older than the rules of Oleron, and that the latter are chiefly copied from the former! But it has been repeatedly shown that there is not so much as the shadow of a foundation for this statement. (Pardessus, *Collection* &c. tome i. pp. 425-467. *Foreign Quarterly Review*, No. 13, art. 'Hanseatic League.') The Laws of Wisby are not certainly older than the latter part of the 14th or beginning of the 15th century, and have obviously been compiled from the *Consolato del Mare*, the rules of Oleron, and other codes that were then in use. Grotius has spoken of these laws in the most laudatory manner: 'Quæ de maritimis negotiis, in insula Gothlandiæ habitatoribus præcipiunt, tantum in se habent, tum æquitas, tum gravitas, ut omnes œceni accole eo, non tam proprio, sed velut gentium jure, utantur.' (*Promemur ad Precepium*, p. 61.)

Besides the codes now mentioned, the ordinances of the Hanse Towns, issued in 1357, 1614, contain a system of laws relating to navigation that is of great authority. The judgments of Damme, the customs of Amsterdam &c. also often quoted.

A translation of the Law of Oleron, by the Hanse Towns is given in the 3rd ed. of Malynes' *Lex Mercatoria*; but the title of them in the work of M. Pardessus is inferior to every other.

But by far the most complete and well-ordered system of maritime jurisprudence that has appeared, is that comprised in the famous *Ordonnance de la Marine* issued by Louis XIV. in 1681. This excellent code was compiled under the direction of M. Colbert, by individuals of talent and learning, after a careful revision of the ancient sea laws of France and other countries, and upon consultation with the different ports, the courts of admiralty, and the chambers of commerce, of the different towns. It contains whatever experience and the wisdom of ages have shown to be best in the Roman laws, and the institutions of the modern maritime states of Europe. In the preface to his treatise on the *Law of Shipping*, Lord Tenterden says, 'The reader should be offended at the frequent references to this ordinance, I must request to recollect that those references are made to a maritime code of a great commercial empire, which has attributed much of its national prosperity to that code—a code composed in the reign of a politic prince; under the auspices of an enlightened minister; by laborious and judicious persons, who selected the most valuable parts of all the maritime laws then existing; and in matter, method, and style, is one of the finished acts of legislation that ever was produced.'

The Ordinance of 1681 was published in French with a detailed and most elaborate commentary by M. Valin, in 2 volumes, &c. It is impossible to admire most in this commentary, the learning or the sound good sense of the Lord Mansfield was indebted for a considerable portion of his superior knowledge of the principles of maritime jurisprudence to a careful study of M. Valin's work.

That part of the *Code de Commerce* which treats of maritime affairs, insurance &c. is derived with very little alteration, from the Ordinance of 1681. The few changes that have been made are not always improvements.

No system or code of maritime law has ever been issued by authority in Great Britain. The laws and practices that now obtain amongst us in reference to maritime affairs have been founded principally on the practices of merchants, the principles laid down in the civil law, the laws of Oleron and Wisby, the works of distinguished jurists, the judicial decisions of our own and foreign countries &c. A law so constructed has necessarily been in a progressive state of improvement; and, though still susceptible of amendment, it corresponds at this moment more nearly, perhaps, than any other system of maritime law, with those universally recognised principles of justice and general convenience by which the transactions of merchants and navigators ought to be regulated.

The decisions of Lord Mansfield did much to fix the principles, and to improve and perfect the maritime law of England. It is also under great obligations to Lord Stowell. The decisions of the latter chiefly, indeed, respect questions of neutrality, growing out of the conflicting pretensions of belligerents and neutrals during the war ended in 1815; but the principles and doctrines which he enunciated in treating those questions throw a strong and steady light on those branches of maritime law. It has occasionally, indeed, been alleged—and the allegation is probably in some degree well founded—that his lordship has conceded too much to the claims of belligerents. Still, however, his judgments must be regarded, altogether, as in this excusable bias, as among the noblest monuments of judicial wisdom of which any country can boast. 'They will be contemplated,' says Mr. Sergeant Marshall, 'with applause and veneration, as long as depth of learning, soundness of argument, enlightened wisdom, and the classic beauties of eloquence hold any place in the estimation of mankind.' (*On Insurance*, *Prima Dica*.)

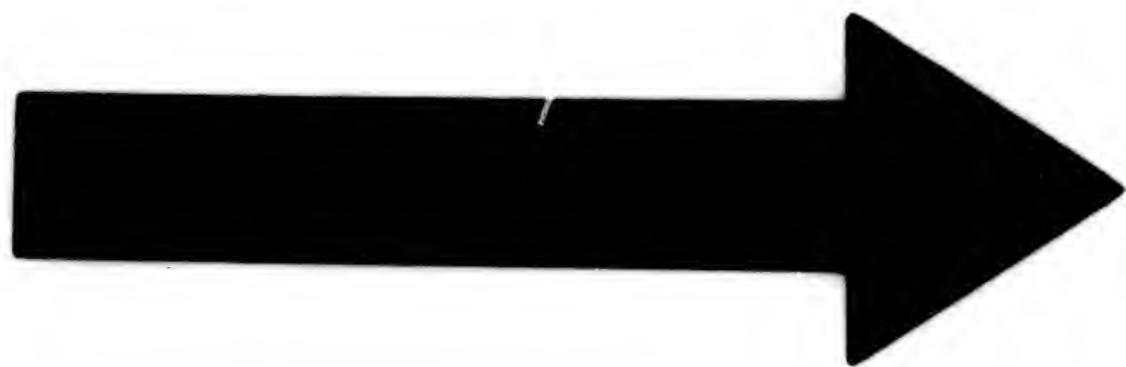
The 'Treatise of the Law relative to Merchant Ships and Seamen,' by the late Lord Tenterden, does credit to the talents, erudition, and liberality of its noble and learned author. It gives within a brief compass a clear and admirable exposition of the most important branches of our maritime law, and may be consulted with equal facility and advantage by the merchant, the general scholar, and the lawyer. Mr. Sergeant Marshall has entered very fully into some and has touched upon most others of maritime law in his work on *Insurance*, and has discussed them with great learning and accuracy. The works of Mr. Justice Park, Mr. Justice Garrow, and a few others, are also valuable. Of late treatises, the *Lex Mercatoria* of Malynes is by far the best; and, considering the period of its publication (1622), is a very extraordinary performance.

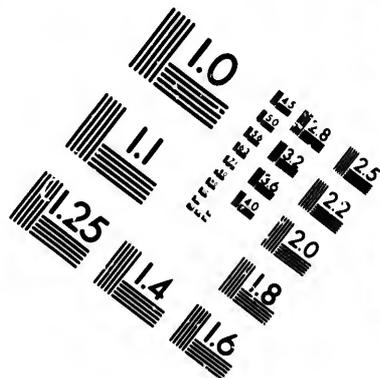
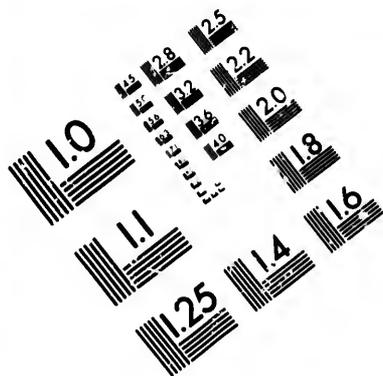
*Statutes with Respect to Importation and Exportation, Navigation &c.*—The preceding remarks are merely to the principles, or leading doctrines, of our maritime law. These, however, have often been very much modified by statutory enactments, and the excessive multiplication of Acts of Parliament suspending, repealing, or altering parts of our maritime law in almost inextricable confusion, and been most injurious to the public interest. So true, indeed, is this not pretty evident, that an extent this abuse has sometimes been reached. From the Revolution down to 1786 several hundreds of Acts were passed, each enacting some addition, diminution, or change in the duties, drawbacks, bounties, and regulations presently existing in the customs. In consequence,

the customs laws became so intricate and unintelligible, that hardly one merchant in fifty could tell the exact amount of duty affecting any article, or the course to be followed either in entering or clearing out vessels; being obliged to leave it entirely to the clerks of the Custom-house to calculate the amount of duties, and to direct him and the ship! and yet, so powerful is the influence of habit in procuring toleration for the most pernicious absurdities, that this monstrous abuse was allowed to go on increasing for 50 years after it had been denounced as intolerable. Mr. Pitt has order into this chaos. Under his auspices, all the separate customs duties existing in 1787 were repealed, and new ones substituted; consisting, in most instances, of the equivalents, so far at least as they could be ascertained, of the old duties. In carrying this measure into effect, the House of Commons passed no fewer than 3,000 resolutions. The regulations as to entries and clearances were also simplified.

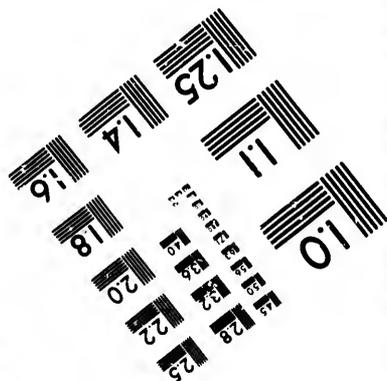
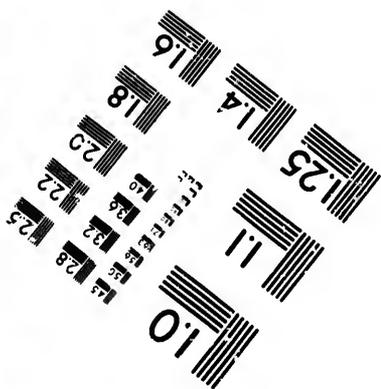
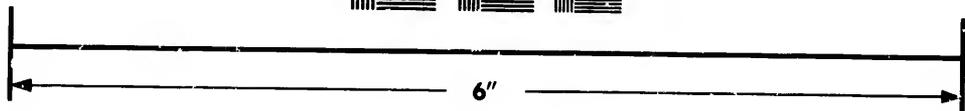
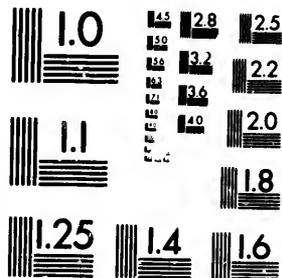
The advantages resulting from this measure were very great; but during the war ended 1815 so many new duties and regulations were passed, that the necessity for a fresh consolidation became again very urgent, and was effected in 1819. It was not, however, in the customs department only, or in the mere article of duties, that the multiplicity of statutory regulations, that the merchants and shipowners were bewildered by the not a single branch of the law regulating their transactions that escaped the rage for legislation. Previously to 1822, no fewer than 113 statutes had been passed relating to the fisheries; and the makers and buyers of sails and cordage were supposed to be familiar with the various obscure and contradictory regulations embodied in the *twenty-three Acts of Parliament* relating to these articles! But the enormity of the abuse will be rendered more apparent by laying before the reader the following extract from the *Report of the Lords' Committee on Foreign Trade in 1826*.

'Before your committee proceed to advert to the points which have been the principal objects of their enquiry, they are anxious to call the attention of the House to the excessive accumulation and complexity of the laws under which the commerce of the country is regulated, with which they were forcibly impressed in the very earliest stage of their proceedings. These laws, passed at different periods, and many of them arising out of temporary circumstances, amount, as stated in a recent computation of them, to upwards of 2,000, of which no less than 1,100 were in force in 1815; and many additions have been since made. After such a statement, it will not appear extraordinary that it should be matter of complaint by the British merchant, that, so far from the course in which he is to guide his transactable to undertake his operations, and to avail himself of favourable openings, as they arise, with promptitude and confidence—he is frequently reduced to the necessity of resorting to the services of professional advisers, to ascertain what he is able to do, and what he must avoid, before he ventures to embark in his commercial adventures with the assurance of being secure from the consequences of an infringement of the law. If this be the case (as is stated to your committee) with the most experienced among the merchants, even in England, in how much greater a degree must operate in foreign countries and on foreign merchants, whose acquaintance with our statute book





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must be supposed to be comparatively limited, and who are destitute of the professional authority which the merchant at home may at all times consult for his direction! When it is recollected, besides, that a trivial, unintentional deviation from the strict letter of the Acts of Parliament may expose a ship and cargo to the inconvenience of seizure, which (whether sustained or abandoned) is attended always with delay and expense, and frequently followed by litigation, it cannot be doubted that such a state of the law must have the most prejudicial influence both upon commercial enterprise in the country, and upon our mercantile relations and intercourse with foreign nations; and perhaps no service more valuable could be rendered to the trade of the empire, nor any measure more effectually contribute to promote the objects contemplated by the House in the appointment of this committee, than an accurate revision of this vast and confused mass of legislation, and the establishment of some certain, simple, and consistent principles, to which all the regulations of commerce might be referred, and under which the transactions of merchants engaged in the trade of the United Kingdom might be conducted with facility, safety, and confidence.' (p. 4.)

Since this report was printed, a very considerable progress has been made in simplifying and clearing up the statute law, on the principles laid down in it. The law as to shipping and navigation has been particularly improved. The principles laid down in the famous Navigation Acts of 1650 and 1660 were, indeed, sufficiently distinct and obvious; but when these Acts were passed, there were above 200 statutes in existence, many of them antiquated and contradictory, which they did not repeal, except in so far as the regulations in them might be inconsistent with those in the new Acts. But besides these, a number of statutes were passed almost in every session since 1660, explaining, limiting, extending, or modifying, in one way or other, some of the provisions of the Navigation Acts; so that ultimately there were questions perpetually arising, as to which it was very difficult to discover the precise law. On such occasions recourse was often had to the courts; and the good sense and equity which generally characterised their decisions mitigated the mischievous consequences resulting from the uncertainty of the statute law, and even gave it the appearance of consistency. This uncertainty, however, has been well nigh removed. A bill introduced and carried through Parliament in 1824 repealed above 200 antiquated and contradictory statutes; and the new Customs and Navigation Acts passed in the following year were drawn up with a brevity and precision which do honour to the memory of their compiler, the late Mr. Hume, of the Board of Trade. But various alterations having been subsequently made in the customs laws, new statutes embodying these alterations were passed in 1833, and again in 1845. And a still more perfect and complete consolidation has been effected by the Customs Consolidation Act of 1853, the 16 & 17 Vict. c. 107. It has the two great recommendations of being at once brief and perspicuous. It embraces the whole statute law with respect to the importation and exportation of commodities, the coasting and colonial trades, smuggling &c. The law relating to ships and seamen, which, down to 1854, was in a very confused and contradictory state, has also been digested under its different heads, and embodied in two statutes, the Mercantile Shipping Act of 17 & 18 Vict. c. 104, and Merchant Shipping Acts Amendment Act

of 25 & 26 Vict. c. 63. These statutes, which contain no fewer than 626 clauses, might, we think, be advantageously compressed; but they are a vast improvement on the previous state of the statute law on the subject.

The most important modern works on Maritime Law are Maude and Pollock's *Law of Merchant Shipping*, and Pritchard's *Admiralty Digest*.

It may be worth while observing, that hardly a session passes without giving birth to more or fewer Acts, making certain changes or modifications in the customs laws. Where these changes apply only to some particular emergency, without affecting the general principles or rules laid down in the statutes, there can be no doubt that they should be embodied in separate Acts; but where any modification or alteration is to be made in the principles of the law, the better way, as it appears to us, would be to introduce it directly into the leading Act on the subject—re-enacting it in an amended or altered form. In no other way is it possible to preserve that unity and clearness which are so very desirable. The multiplication of statutes is a very great evil, not only from the difficulty of ascertaining the exact degree in which one modifies another, but from its invariably leading to the enactment of contradictory clauses. The property and transactions of merchants ought not to depend upon the subtleties and niceties of forced constructions, but upon plain and obvious rules, about which there can be no mistake. It would, however, be idle to expect that such rules can ever be deduced from the conflicting provisions of a number of statutes those in the same statute are not always in harmony with each other.

**MARK or MARC.** A weight used in several parts of Europe, for various commodities, especially gold and silver.

In France, the mark was divided into 8 oz. 64 drachms = 192 deniers or pennyweights = 480 grains. In Holland, the mark weight was called Troy weight, and was equal to that of France. When gold and silver are sold by mark, it is divided into 24 carats.

The pound, or *livre, poids de marc*, the weight most commonly used in retail dealings through France previous to the Revolution, was equal to 2 mares, and consequently contained 16 oz. = 384 drs. = 384 den. = 9,216 gr. One kilogramme is nearly equal to 2 livres. Subjoined is a table of *livres, poids de marc*, from 1 to 10, converted into kilogrammes. Any greater number may be learned by a simple multiplication and addition.

Livres	Kilg.	Livres	Kilg.
1	= 0.4895	6	= 2.9370
2	= 0.9790	7	= 3.4265
3	= 1.4685	8	= 3.9160
4	= 1.9580	9	= 4.4055
5	= 2.4475	10	= 4.8950

**MARK.** A term sometimes used among us for a money account, and in some other countries for a coin. The English mark is  $\frac{3}{4}$  of a pound sterling, or 13s. 4d.; and the Scotch mark is  $\frac{2}{3}$  of a pound Scotch. The mark Lubs, or Lbs. mark, used at Hamburg, is a money of account equal to 14 $\frac{1}{2}$ d. sterling.

**MARK, TRADE.** [TRADE MARK.]

**MARKET.** A public place in a city or town where provisions are sold. No market is kept within 7 miles of the city of London; all butchers, victuallers &c. may hire stalls or standings in the flesh-markets there, and sell meat and other provisions. Every person who has a market is entitled to receive toll for things sold in it; and, by ancient custom, things standing in the market, though not sold, but those who keep a market in any other way

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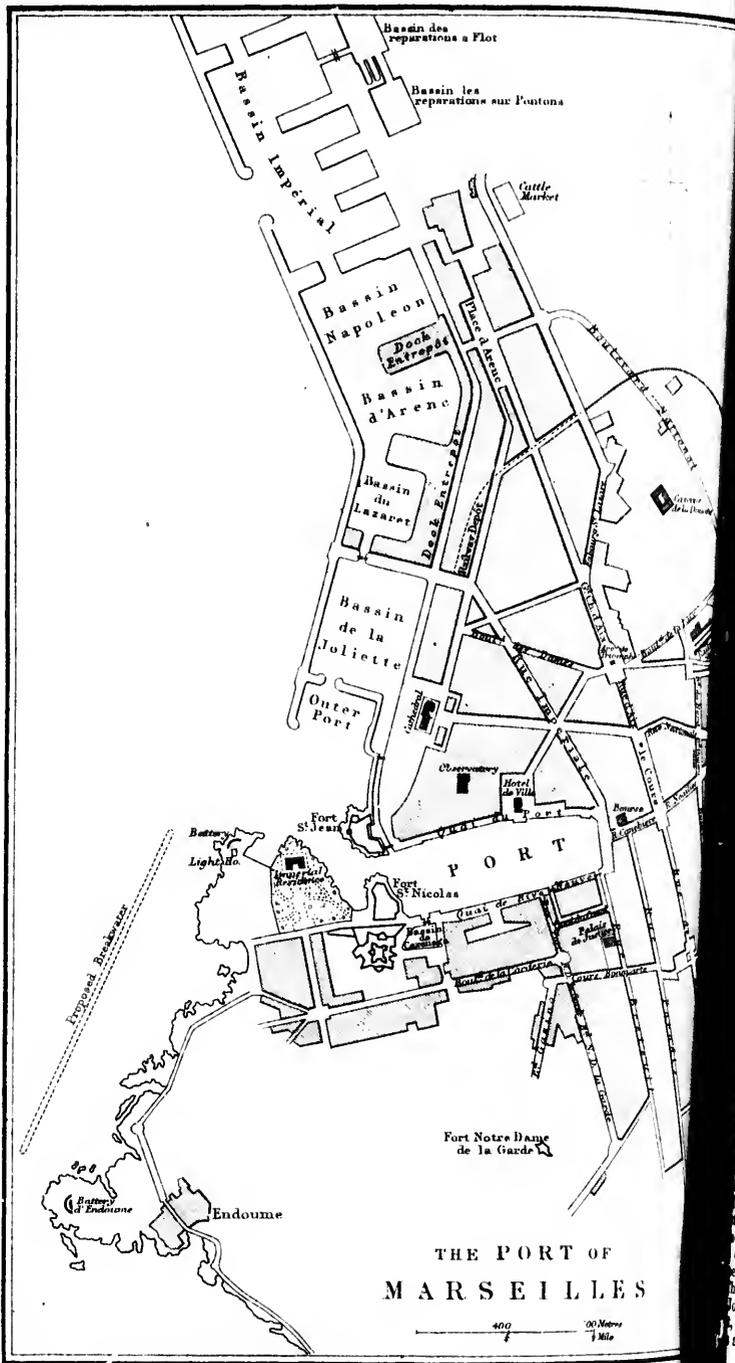
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9	= 3555
10	= 3750

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MARSEILLES. A large commercial city and seaport of France, on the Mediterranean, lat. 43° 17' 49" N., long. 5° 22' 1" E. Population in 1866, including suburbs, 300,131.

The port now consists of the natural harbour, called 'Vieux Port,' and the two basins formed within the new Breakwater, called respectively 'Port de la Joliette' and 'Port Napoléon.' The Vieux Port, about 1,000 yards long and 300 wide, has a very narrow entrance between two old forts, but is one of the safest ports in the world.

Drilling machines are constantly at work to maintain a uniform depth of about 18 feet throughout the Old Port, which is exclusively reserved for sailing ships, which usually lie in lines on the north and south sides, and mostly discharge their cargoes over their bows on to the quays. These have been considerably widened of late years. There are numerous tug-boats always at command for vessels entering or leaving.

A breakwater, 2,400 metres long, has now been completed. It lies off the land on the north side of the Old Port, and has a lighthouse on each end. A vessel on rounding the south entrance of this breakwater enters the port of La Joliette, to the west, a basin about 600 yards long by about 460 wide. It is surrounded on all sides by spacious quays, and furnished with iron tramways for the conveyance of merchandise in railway trucks to the dock buildings and railway station. La Joliette is used for steam as well as for sailing vessels of considerable draught of water; the whole northern and about half of the western sides being reserved for the fleet of steamships belonging to the Messageries Impériales.

An opening with a turning-bridge leads from La Joliette to the Port Napoléon, which is considerably more spacious than the former. On its western side there are two basins, 'du Lazaret' and 'd'Arène,' with spacious quays for the wharves, and in this harbour the ships lie broadside on to the wharves, and discharge their cargoes. The great dock warehouses form a range of buildings of stone and iron, six storeys high, and capable of containing 40,000 tons of general merchandise.

The depth of these artificial ports there is ample depth of water for the largest ships, but unfortunately neither of them is very safe when the wind blows violently from the north-west or north-east. The whole, including the old harbour, could contain at one time as many as 2,000 vessels.

The isles of Ratonneau and Pomègues, and that named after the celebrated Château d'If, all situated, lie in a cluster off the port, the latter distant about 1½ mile in a west-south-westerly direction. Ratonneau and Pomègues are connected by a breakwater, and thus form a very convenient port, almost exclusively used for the maritime service.

Outside of these islands lies a reef with a lighthouse called 'Le Planier,' in lat. 43° 11' 54" long. 5° 13' 59" E. It is distant about 4½ miles from the island Le Maire, lying to the east of it, both of them being about 7 miles from the Château d'If.

To the north of the Port Napoléon another port, to be called the Port Impérial, is being formed, and another breakwater, in a line with the existing one, is to enclose the bay formed by the Finède.

The merchandise discharged from the vessels in La Joliette and Port Napoléon, and even in the Old Port, can at once be passed through these buildings and forwarded to the interior of the country;

and any part of the Continent, without going through the town.

There are as yet very insufficient means for docking vessels at Marseilles, but the Port Impérial will have a large stone dry-dock, and one of Clarke's patent hydraulic lifts for repairing vessels.

The custom-house is on the quay of the Old Port, and there is a branch at Port de la Joliette, principally for the examination of passengers' luggage.

The Tribunal of Commerce sits in the Exchange, and the judges are periodically elected from amongst the leading merchants.

All the principal mercantile offices are near the head of the Old Port.

Vessels approaching the harbour of Marseilles generally heave-to for a pilot on approaching the islands, and they are charged pilotage whether they take one or not.

French ships and foreign vessels having reciprocity treaties, upwards of 80 tons burden, pay for pilotage 22 centimes per ton inwards, and 15 outwards. If the pilot is taken on board 6 or 7 miles off the port, the full charge is paid: it is reduced ¼ if he comes on board 2 or 3 miles off, and ⅓ if he comes on board at the entrance of the port.

Immediately on receiving pratique the ship is taken to the old or new harbour, according to the nature of the cargo she has on board, or the goods she may have to take in.

The only charge leviable on ships visiting Marseilles consists of a small payment at the Health Office for the bill of health. It amounts to from 5 to 15 centimes per ton. There are no tonnage, anchorage, or light dues of any sort. Ballast is of course paid for.

Vessels can be well repaired at Marseilles, but the charges are high. The charges for docking are as follow:—

*Sailing Ships.*

Entering into and leaving the dry dock on the same day, per ton	frances centimes
For every day beyond the first day and per ton	0 80

*Steam Ships.*

Entering into and leaving the dry dock on the same day, per horse power	frances centimes
For every day beyond the first day and per horse power	4 0
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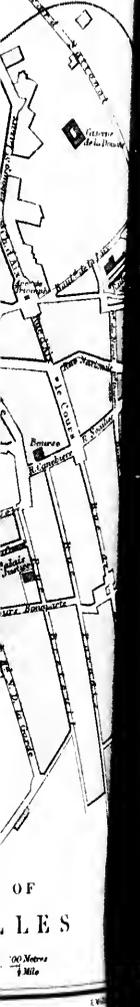
No payment will be received on any sailing vessel for less than 250 tons.

No payment will be received on any steam-vessel for less than 60 horses' power. Upon steam-vessels whose horse power exceeds that of 250 horses, the prices above mentioned will be reduced ½ for every horse power above the first and up to 400, and ⅓ for all beyond the first 400. For sailing ships upwards of 1,000 tons, the foregoing prices will be reduced ¼ for every ton above the first 1,000 and up to 1,500, and ⅓ for every ton above 1,500.

The approaches to the port are admirably lighted, and the service is kept up without any charge to the shipping. The different lights in the bay or at the entrance of the port are described at the end of this article.

The mistral, or north-west wind, is the prevailing one: it blows in very heavy gusts, which render the approach to the port of Marseilles exceedingly difficult at times, and vessels rarely leave the port until it subsides.

*Trade &c.*—Marseilles is a city of great antiquity, and has long enjoyed a very extensive commerce. Havre—partly, no doubt, from its being, as it were, the port of Paris—used to enjoy a greater share of the trade of France; but, not-



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withstanding the increased importance of the former, it has recently been equalled, and sometimes surpassed, by that of Marseilles.

Great prosperity has manifested itself here of late years, particularly since the annexation of Algeria, and the growth of the railway system.

Marseilles carries on trade with every part of the world. Its principal importations consist of oilseeds from India, the coast of Africa, Egypt, and the Levant ports; raw sugars from the West Indies, Brazil, Réunion, Mauritius, and Manilla; cotton from Egypt and the Levant; and much varied merchandise from all parts. At all times much wheat and grain is brought here from the Black Sea and Danube; but when the crops are short in France, England, Spain, or Italy, the quantity imported is very large, and the port and town then assume an extraordinary state of animation.

Marseilles soap, which has long been famous, continues to be largely made in spite of the exorbitant octroi duties and other difficulties the manufacturers have to contend with.

The exports from Marseilles consist chiefly of silk fabrics, wines, brandies, and liquors; woollen and other stuffs, madder, oil, and colonial products, soap, and refined sugar. Of the last-named article as much as 50,000 tons have been exported from Marseilles to the different parts of the Mediterranean in the course of a year.

A very active trade is carried on between Marseilles and Algeria, as well as with Corsica.

The large steam ships of the Messageries Impériales now connect this port by a monthly service with India, China, Japan, Mauritius, and Réunion, in competition with the Peninsular and Oriental Steam Company.

Two well-equipped life boats lie constantly at the entrance to the port ready for any emergency. The expenses are met by voluntary contributions.

According to Mr. Consul Mark's Report, the customs receipts, which in 1865 amounted to 21,311,216 francs, yielded 20,264,587 francs only in 1866; but business was, in consequence of the commercial crisis and a visit of the cholera, very dull throughout the latter year.

A joint-stock bank established here in 1835 has latterly been converted into a branch of the Bank of France; 4,000 shares and 4,000,000 francs of the stock of the latter having been assigned to its proprietors.

These statements show that the trade of Marseilles is of much importance; she is, in fact, the principal emporium in South Europe; and it is not easy to say in how great a degree her trade would be increased, were the French tariff again revised and placed on a still more liberal footing.

Account of the Number and Tonnage of the French and Foreign Ships which entered and cleared from Marseilles in 1866.

	Entered		Cleared	
	Vessels	Tonnage	Vessels	Tonnage
French steamers	2,914	736,156	2,610	711,079
Foreign "	1,332	194,347	1,539	188,573
French sailing vessels	3,773	364,722	3,674	370,079
Foreign "	2,319	411,415	2,530	466,648
Total	8,358	1,729,703	8,353	1,736,379

There was a large falling off in the foreign shipping which entered and cleared from Marseilles during 1866, as compared with the preceding year, amounting to about one-sixth—

Nations	Arrivals			Departures		
	Ships	Tonnage	Crews	Ships	Tonnage	Crews
United Kingdom	191	111,703	7,560	186	111,601	7,512
Austria	234	77,963	2,553	211	77,138	2,577
Denmark	3	401	23	3	401	23
Spain	504	72,012	7,885	477	70,789	7,504
United States	43	20,578	476	41	19,245	759
Greece	406	104,021	5,955	399	101,953	5,520
Hanover	4	709	91	3	553	17
Italy	1,218	176,833	13,921	1,205	174,372	12,850
Necklenberg	10	3,030	105	10	3,030	109
Holland	23	9,216	406	23	9,273	466
Portugal	4	574	36	4	574	36
Prussia	22	6,250	203	18	5,968	897
Rome	8	1,334	66	8	1,334	65
Argentine Republic	1	290	15	1	290	13
Russia	79	33,909	1,310	75	35,544	1,194
Sweden and Norway	32	9,491	378	26	7,214	311
Turkey	12	5,977	314	14	4,359	339
Uruguay	7	1,312	50	6	1,490	65
Hano 1 owns	10	6,016	167	9	5,406	131
Total	2,807	341,313	38,314	2,749	635,160	35,176

The British shipping shows a remarkable falling off in 1866. In 1865, 241 vessels, collectively of 137,454 tons, entered the port; whereas 191 ships came here in 1866, and the total tonnage reached 111,703 tons only. (Mr. Consul

Mark's Report for 1866, printed 1868.) Subjoined is a list of the lights provided the port of Marseilles and its approaches, describing the nature and position of each.

- 1st. A fixed light, of the 4th class, at the foot of the round tower of the Fort St. Jean, on the left hand of the entrance to the old port, on a small round turret. Elevation 9 mètres. Visible at 9 miles. Lat. 43° 17' 45". Long. 5° 1' 26" E. N.H. Meridian of Paris. } A white light
- 2nd. A variable light, of the 1th class, on the point called "Tête du Nore, between the bay called "Anse de la Réserve" and the Pharo, in the right of the entrance to the port. On a small turret with a habitation attached. Elevation 19 mètres. Visible at 10 miles. Lat. 43° 17' } A white light varied every three minutes by flashes, followed by short obscuration
- 3rd. A fixed light, of the 4th class, upon the southern point of the breakwater, on a round tower. Elevation 25 mètres. Lat. 43° 17' 56". Long. 5° 1' 17" E. Visible at 8 miles. } A red light
- 4th. Light on the Châtea d'If. A fixed light, of the 1th class, upon the eastern point of the island, on a round tower. Elevation 9 mètres. Lat. 43° 16' 45". Long. 5° 27' 59" E. Visible at 9 miles. } A white light
- 5th. Flanier light. A revolving light of the 4th class. The flashes succeed each other every half minute. It is situated on a rocky reef, on a round tower. Elevation 40 mètres. Lat. 43° 11' 57". Long. 5° 35' 53" E. Visible at 20 miles. } At 5 miles to the S.W. of the port of Marseilles, in ordinary weather the light is visible at a distance of 12 miles. The light is white
- 6th. A temporary light has been erected at the north end of the great breakwater, at the entrance to the Port Napoleon. Elevation 123 mètres } A white light with red flashes every three minutes

**MASTER.** In Commercial Navigation, the person intrusted with the care and navigation of the ship.

Formerly none were qualified to be masters of British ships unless natural-born British subjects or those naturalised by Act of Parliament, or denizens by letters of denization &c. But these restrictions no longer exist; and all parties, whether natives or foreigners, provided they have the necessary certificates (see *post*), may be selected to serve as masters.

The master is the confidential servant or agent of the owners; and in conformity to the rules and maxims of the law of England, *the owners are bound to the performance of every lawful contract made by him relative to the usual employment of the ship.* (Abbott, *Lord Tenterden, on the Law of Shipping*, part ii. c. 2.)

From this rule of law it follows that the owners are bound to answer for a breach of contract, though committed by the master or mariners against their will, and without their fault. (Id.) Nor can the expediency of this rule be doubted. The owners, by selecting a person as master, hold him forth to the public as worthy of trust and confidence; and in order that this selection may be made with due care, and that all opportunities of fraud and collusion may be obviated, it is indispensable that they should be made responsible for his acts.

The master has power to hypothecate, or pledge, both ship and cargo for necessary repairs executed in foreign parts during the course of the voyage; but neither the ship nor cargo can be hypothecated for repairs executed at home.

The master has no lien upon the ship for his wages, nor for money advanced by him for stores or repairs. In delivering judgment upon a case of this sort, Lord Mansfield said—'As to wages, there is no particular contract that the ship should be a pledge; there is no usage in trade to that purpose; nor any implication from the nature of the dealing. On the contrary, the law has always considered the captain as contracting personally with the owner; and the case of the captain has, in that respect, been distinguished from that of all other persons belonging to the ship. This rule of law may have its foundation in policy, for the benefit of navigation; for, as ships may be making profit and earning every day, it might be attended with great inconvenience if, on the change of a captain for misbehaviour or any other reason, he should be entitled to keep the ship till he is paid. Work done for a ship in England is supposed to be done on the personal credit of the employer; in foreign parts the captain may hypothecate the ship. The defendant might have told the tradesman that he only acted as an agent, and that they must look to the owner for payment.'

The master is bound to employ his whole time and attention in the service of his employers, and is not at liberty to enter into any engagement for his own benefit that may occupy any portion of his time in other concerns; and therefore, if he do so, and the price of such engagement happen to be paid into the hands of his owners, they may retain the money, and he cannot recover from them. (Abbott, part ii. c. 4.)

Willfully destroying or casting away the ship, or procuring the same to be done by the master or mariners, to the prejudice of the owners, freighters, or insurers; running away with the cargo; and running pirates, are offences punishable by transportation beyond seas for not less than 15 years, or by imprisonment for not less than 3 years. (SEAMEN.)

After the voyage has been commenced, the master must proceed direct to the place of his

destination, without unnecessarily stepping at any intermediate port, or deviating from the shortest course. No such deviation will be sanctioned unless it has been occasioned by stress of weather, the want of necessary repair, avoiding enemies or pirates, succouring of ships in distress, sickness of the master or mariners, or the mutiny of the crew. (Marshall *On Insurance*, book i. c. 6, s. 3.) To justify a deviation, the necessity must be real, inevitable, and imperious; and it must not be prolonged one moment after the necessity has ceased. A deviation without such necessity vitiates all insurances upon the ship and cargo, and exposes the owners to an action on the part of the freighters. If a ship be captured in consequence of deviation, the merchant is entitled to recover from the owners the prime cost of the goods, with shipping charges; but he is not entitled; more, unless he can show that the goods were enhanced in value beyond the sum above mentioned.

If a merchant ship has the misfortune to be attacked by pirates or enemies, the master is bound to do his duty as a man of courage and capacity, and to make the best resistance that the comparative strength of his ship and crew will allow.

By the common law, the master has authority over all the mariners on board the ship—it being their duty to obey his commands in all lawful matters relating to the navigation of the ship, and the preservation of good order. But the master should in all cases use his authority with moderation, so as to be the father, not the tyrant of his crew. On his return home he may be called upon by action at law to answer to a mariner he has either beaten or imprisoned during the course of the voyage; and unless he show sufficient cause for chastising the mariner, and also that the chastisement was reasonable and moderate, he will be found liable in damages. Should the master strike a mariner without cause, or use a deadly weapon as an instrument of correction, and death ensue, he will be found guilty, according to the circumstances of the case, either of manslaughter or murder. (Abbott, part ii. c. 4.)

The master may by force restrain the commission of great crimes; but he has no jurisdiction over the criminal. His business is to secure his person, and to deliver him over to the proper tribunals. (SEAMEN.)

Much abuse having arisen from masters improperly leaving seamen in foreign parts, various penalties have been imposed on those guilty of such offences. These are specified in detail in the article SEAMEN; and it also contains a full statement of the conduct which masters are bound to follow in the hiring of seamen; in the payment of their wages; in the bringing home deserted seamen from abroad; in the registration of returns respecting seamen; and a variety of other particulars.

The law makes no distinction between carriers by land and carriers by water. The master of a merchant ship is, in the eye of the law, a carrier; and is, as such, bound to take reasonable and proper care of the goods committed to his charge, and to convey them to the place of their destination, *harring only the acts of God and the Queen's enemies.*

Every act which may be provided against by ordinary care renders the master responsible. He would not, for example, be liable for damage done to goods on board in consequence of a leak in the ship occasioned by the violence of a tempest, or other accident; but if the leak were occasioned by rats, he would be liable, for these might have been exterminated by ordinary care, as by putting cats

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Tonnage	Cleared	
	Vessels	Tonnage
1,156	2,010	714,079
2,247	3,339	1,183,353
1,732	3,651	1,243,073
1,418	2,200	162,669
9,703	8,533	1,674,983

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Departures	Crew	
	Tonnage	Crew
111,601	7,612	2,371
77,138	4,311	1,311
401	25	35
70,789	2,104	614
19,743	59	109
101,257	3,562	1,077
555	17	46
1,8,374	14,849	199
2,859	146	36
9,673	199	106
574	63	26
5,868	967	115
1,354	63	15
390	15	15
85,514	1,498	311
7,511	311	339
4,339	63	155
1,490	155	155
5,406	155	155
635,160	38,316	11,716

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on board &c. On the same principle, if the master run the ship in fair weather against a rock or shallow known to expert mariners, he is responsible; he is also liable for any injury done to the cargo by improper or careless stowage.

The master must not take on board any contraband goods, by which the ship and other parts of the cargo may be rendered liable to forfeiture or seizure. Neither must he take on board any false or colourable papers, as this might subject the ship to the risk of capture or detention. But it is his duty to procure and keep on board all the papers and documents required for the manifestation of the ship and cargo, by the law of the countries from and to which the ship is bound, as well by the law of nations in general, as by treaties between particular states. These papers and documents cannot be dispensed with at any time, and are quite essential to the safe navigation of neutral ships during war. [LOO (OFFICIAL); SHIP'S PAPERS.]

It is customary in bills of lading to insert a clause limiting the responsibility of the master and owners, as follows: 'The act of God, the Queen's enemies, fire, and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, save risk of boats, as far as ships are liable thereto, excepted.' When no bill of lading is signed, the master and owners are bound according to the common law. [BILLS OF LADING.]

The most difficult part of the master's duty is when, through the perils of the sea, the attacks of enemies or pirates, or other unforeseen accidents, he is prevented from completing his voyage. If his ship have suffered from storms, and cannot be repaired within a reasonable time, and if the cargo be of a *perishable nature*, he is at *liberty* to employ another ship to convey it to the place of destination. He may do the same if the ship have been wrecked and the cargo saved, or if his own ship be in danger of sinking, and he can get the cargo transferred to another; and in *extreme cases* he is at liberty to dispose of the cargo for the benefit of its owners. But, to use the words of Lord Chief Justice Tenterden, 'the disposal of the cargo by the master is a matter that requires the utmost caution on his part. He should always bear in mind that it is his duty to convey it to the place of destination. This is the purpose for which he has been intrusted with it, and this purpose he is bound to accomplish by every reasonable and practical method. What, then, is the master to do, if, by any disaster happening in the course of his voyage, he is unable to carry the goods to the place of destination, or to deliver them there? To this, as a general question, I apprehend no answer can be given. Every case must depend upon its own peculiar circumstances. The conduct proper to be adopted with respect to perishable goods will be improper with respect to a cargo not perishable: one thing may be fit to be done with fish or fruit, and another with timber or iron: one method may be proper in distant regions, another in the vicinity of the merchant; one in a frequented navigation, another on unfrequented shores. The wreck of the ship is not necessarily followed by an impossibility of sending forward the goods, and does not of itself make their sale a measure of necessity or expedience: much less can the loss of the season, or of the proper course of the voyage, have this effect. An unexpected interdiction of commerce, or a sudden war, may defeat the adventure, and oblige the ship to stop in her course; but neither of these events doth of itself alone make it necessary to sell the cargo at the place to which it may be proper for the ship to resort. In these and many other cases the master may be discharged of his obliga-

tion to deliver the cargo at the place of destination; but it does not therefore follow that he is authorised to sell it, or ought to do so. What, then, is he to do? In general, it may be said, he is to do that which a wise and prudent man will think most conducive to the benefit of all concerned. In so doing, he may expect to be safe, because the merchant will not have reason to be dissatisfied; but what this thing will be, no general rules can teach. Some regard may be allowed to the interest of the ship, and of its owners; but the interest of the cargo must not be sacrificed to it. Transshipment for the place of destination, if it be practicable, is the first object, because that is the furtherance of the original purpose: if that be impracticable, return, or a safe deposit, may be expedient. A disadvantageous sale (and almost every sale by the master will be disadvantageous) is the last thing he should think of, because it can only be justified by that necessity which supersedes all human laws.' (Law of Shipping, part iii. c. 3.)

The most celebrated maritime codes, and the opinions of the ablest writers, have differed considerably as to these points. According to the Rhodian law (Pand. l. 10, s. 1) the captain is released from all his engagements, if the ship be the perils of the sea, and without any fault on his part, become incapable of proceeding on his voyage. The laws of Oleron (art. 4), and those of Wisby (arts. 16, 37, 55), say that the captain may hire another ship; harmonising in this respect with the present law of England. The famous French Ordinance of 1681 (tit. 'Du Frêt,' art. 11), and the Code de Commerce (art. 236), order the captain to hire another ship; and if he cannot procure one, freight is to be due only for that part of the voyage which has been performed (*pro rata itineris peracti*). Valin has objected to this article, as states that practically it meant only that the captain must hire another ship if he would not bear the whole freight. Emerigon (tom. i. p. 42) holds that the captain, being the agent not only of the owners of the ship, but also of the shippers, the goods on board, is bound, in the absence of both, to use his best endeavours to preserve the goods, and to do whatever, in the circumstances, he thinks will most conduce to the interest of all concerned; or what it may be presumed the shippers would do, were they present. This, which seems to be the best and wisest rule, has been laid down by Lords Mansfield and Tenterden, as stated above, and may be regarded as the law of England on this point.

The master of a ship is liable for goods of which she is robbed in part; and the reason, as Lord Mansfield stated, is, lest room should be given to collusion, and the master should get him robbed on purpose, in order that he might share in the spoil. The master is, however, entitled to indemnify himself out of the seamen's wages for losses occasioned by their neglect.

The conditions under which seamen and apprentices are to be taken on board ship, and obligations of the master with respect to them, are fully set forth in the art. SEAMEN; and it contains, as already stated, full details as to the conduct which masters are bound to pursue with regard to a variety of other particulars.

For the duty of the master, as respects CARRIAGE AND EXPORTATION, QUARANTINE, SURETY, &c.; and for a further discussion of this important subject, see the excellent work of Lord Tenterden, *On the Law of Shipping*, part iii. c. 3 &c.; *On Commercial Law*, vol. iii. c. 8 &c.; and articles CHARTERPARTY, FREIGHT &c.

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*Qualification of Masters. Means by which they should be ascertained.*—Considering the important nature of the duties which the master of a ship has to perform, it has been customary in some countries to require that all persons, previously to their being nominated to act in that capacity, should undergo an examination by some public board respecting their knowledge of seamanship, and their possession of the various qualifications necessary to act as masters, and that none should be appointed without their being licensed by such board or other competent authorities. We are inclined to think that this practice is consistent with sound policy, and we are glad it has been adopted in this country. In former editions we observed on this subject as follows, viz. :—

"There can, unhappily, be no doubt that the ignorance and incapacity of the masters and inferior officers of ships has been a copious source of disaster. Officers of the navy have to go through a course of discipline, and are obliged to submit to certain examinations as to their proficiency in seamanship. This, also, was the case with the officers of the East India Company's ships, which were exceedingly well navigated. Indeed, the Company trusted entirely for protection to their officers and men; it not being their practice ever to insure. But the masters and officers of ordinary merchant ships, even of those engaged in the conveyance of passengers, are not subjected to any specific training, or regular examination. Everything is left to mere individual investigation and selection; and this, as everyone knows, depends almost wholly on accident; or, which is nearly equivalent to it, on the skill, industry, &c. of the ship-owner. It is sufficiently clear that masters so chosen cannot fail of being, in many instances, very ill qualified for their business. Few, however, have any notion of the extent of the mischief hence arising; but we have been assured by gentlemen of undoubted information, and extensively connected with the business of insurance, that nearly half the losses sustained may be ascribed to the incapacity and carelessness of the masters and crews. Perhaps there may be some exaggeration in this; but supposing that only a third part, or that 212 out of the 636 vessels wrecked in 1841, were lost through the circumstances referred to, is not that enough, not merely to justify Government interposing to avert so great an evil, but to make such interposition an imperative duty?"

"The interposition of Government in a case of this sort is not only absolutely just and necessary, but it is conformable to the highest authority. The famous French Ordinance of 1681 has the following article: "Aucun ne pourra ci-après être reçu capitaine, maître ou patron de navire, s'il n'a été navigué pendant cinq ans, et n'ait été examiné publiquement sur le fait de la navigation, par deux anciens maîtres, en présence des officiers de l'Amirauté et du Professeur d'Hydrographie, s'il y en a dans le lieu." (Liv. 1. s. 1.) A like article has been inserted in the Code de Commerce; and in 1825 the French Government issued an ordinance specifying, in full, the qualifications that are necessary before any one can obtain a certificate of his fitness to command a ship, either on a foreign or a coasting voyage; the persons who are to examine candidates; and the rules to be observed in the examination. A similar system has been adopted in other countries, and we cannot entertain a doubt that it will be of the greatest service were it introduced in this country. The authority of the master is very great, and the trust reposed in him, in-

cluding not merely the ship and goods of his employers, but the lives of the crew and passengers, so very extensive, that it is the bounden duty of the public to provide, in as far as practicable, that it be not committed to ignorant or incapable hands.

"At present the care of the lives of hundreds of passengers may be committed, without check or control of any sort, and without their knowing anything of the matter, to any incapable blockhead who may be able to prevail on an owner to appoint him to a ship. No doubt it is for the interest of the owner to appoint the best captain he can find; but he may be unable to form a correct estimate of the qualifications necessary for such a situation; and though this were not the case, hundreds of circumstances may conspire to blind his judgment, and to make him select a master who is really unworthy. Hence the advantage of the preliminary examination by competent parties, which, if made efficient, would certainly afford a powerful guarantee against the chance of an unfit person being appointed.

"We rather incline to think, should we have occasion to notice this important subject on any future occasion, that it will be to announce this to recommend has been adopted. It has, we are appointed by the House of Commons in the Committee enquire into the causes and prevention of shipwrecks. "Your committee, after carefully weighing the evidence adduced, consider that, under all the circumstances, it would materially promote science, and prevent the loss of life and property, if a legislative enactment were introduced by Government, establishing local boards for the purpose of examining into the abilities, conduct, and character of all who wish to qualify as masters and mates in the merchant service. And your committee further recommend the establishment of schools for the purpose of teaching navigation in the different seaports, to be supported by a small tonnage duty to be levied on the vessels belonging to such ports." (Report, p. 4.)

"This proposal, for subjecting the masters or commanders of merchant ships to an examination by competent parties, with the view of ascertaining their fitness for undertaking their peculiar duties, was adopted and carried into effect under the Mercantile Marine Act, the 13 & 14 Vict. c. 93. This statute authorised the Board of Trade to establish Local Marine Boards in ports having 30,000 tons or upwards of ships trading to foreign parts. These boards were empowered to examine all candidates for the situation of masters and mates who came before them, in such subjects connected with seamanship, navigation &c., and in such manner as the Board of Trade may prescribe. In the event of the examiners being satisfied with their proficiency, they are to grant them 'certificates of competency.' These, however, may be cancelled either from evidence being subsequently had of the incompetency of the parties or of their drunkenness, tyranny &c. The Act took effect on January 1, 1851, since which date no foreign-going ship has been cleared out without the master and mate or mates being qualified according to the statute. And there can be no doubt that if the plan be properly carried out, and the examinations be made sufficiently strict and searching, it will be productive of a great deal of good; but if otherwise—that is, if certificates be given to incompetent parties—it will be decidedly injurious, and will serve as a cloak under which ignorance and presumption may be advanced to situations where skill and caution are indispensable. This

would be a deplorable result; and we are sorry to have to say that some of the very worst shipwrecks that have recently occurred have been occasioned by what would appear to be the gross incapacity of masters holding first-class certificates. This is a matter that requires to be carefully enquired into. Sham examinations are not a security against imposture, but a device to make confidence be given to those who are unworthy of any. The existing statutory regulations in regard to this important subject are embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104, and are as follows, viz.:

**Examinations to be instituted for Masters and Mates.**—Examinations shall be instituted for persons who intend to become masters or mates of foreign-going ships, or of home trade passenger ships, or who wish to procure certificates of competency herein after mentioned; and, subject as herein mentioned, the Local Marine Boards shall provide for the examinations at their respective ports, and may appoint and remove and re-appoint examiners to conduct the same, and may regulate the same; and any members of the Local Marine Board of the place, where the examination is held may be present and assist at any such examination. (Sec. 131.)

**Powers of Board of Trade over Examinations.**—The Board of Trade may from time to time lay down rules as to the conduct of such examinations and as to the qualifications of the applicants, and such rules shall be strictly adhered to by all examiners; and no examiner shall be appointed unless he possesses a certificate of qualification, to be from time to time granted or renewed by the Board of Trade; and the sanction of the Board of Trade shall be necessary, so far as regards the number of examiners to be appointed, and the amount of their remuneration; and the Board of Trade may at any time depute any of its officers to be present and assist at any examination; and if it appear to the Board of Trade that the examinations for any two or more ports can be conducted without inconvenience by the same examiners, it may require and authorise the Local Marine Boards of such ports to act together as one board in providing for and regulating examinations and appointing and removing examiners for such ports. (Sec. 132.)

**Fees to be paid by Applicants for Examination.**—All applicants for examination shall pay such fees, not exceeding the sums herein specified, as the Board of Trade directs; and such fees shall be paid to such persons as the said board appoints for that purpose. (Sec. 133.)

For a certificate as Master 2*l*.—For a certificate as Mate 1*l*.

**Certificates of Competency to be granted to those who pass.**—Subject to the proviso after contained, the Board of Trade shall deliver to every applicant who is duly reported by the local examiners to have passed the examination satisfactorily, and to have given satisfactory evidence of his sobriety, experience, ability, and general good conduct on board ship, a 'certificate of competency' to the effect that he is competent to act as master, or as first, second, or only mate of a foreign-going ship, or as master or mate of a home trade passenger ship, as the case may be; provided that in every case in which the Board of Trade has reason to believe such report to have been unduly made, such board may remit the case either to the same or to any other examiners, and may require a re-examination of the applicant, or a further enquiry into his testimonials and character, before granting him a certificate. (Sec. 134.)

**Certificates of Service to be delivered to Persons**

*who served as Masters or Mates before 1851 &c.*—Certificates of service, differing in form from certificates of competency, shall be granted as follows (that is to say):—

1. Every person who before the 1st day of January, 1851, served as master in the British merchant service, or who has attained or attains the rank of lieutenant, master, passed mate, or second master, or any higher rank in the service of Her Majesty or of the East India Company, shall be entitled to a certificate of service as master for foreign-going ships:

2. Every person who before the 1st day of January, 1851, served as mate in the British merchant service shall be entitled to a certificate of service as mate for foreign-going ships:

3. Every person who before the 1st day of January, 1854, has served as master of a home trade passenger ship, shall be entitled to a certificate of service as master for home trade passenger ships:

4. Every person who before the 1st day of January, 1854, has served as mate of a home trade passenger ship shall be entitled to a certificate of service as mate for home trade passenger ships:

And each of such certificates of service shall contain particulars of the name, place, and time of birth, and of the length and nature of the previous service of the person to whom the same is delivered; and the Board of Trade shall deliver such certificates of service to the various persons respectively entitled thereto, upon their proving themselves to have attained such rank or to have served as aforesaid, and upon their giving a true and satisfactory account of the particulars aforesaid. (Sec. 135.)

**No Foreign-going Ship or Home Trade Passenger Ship to proceed to Sea without Certificate of Master and Mates.**—No foreign-going ship or home trade passenger ship shall go to sea from any port in the United Kingdom unless the master thereof, and in the case of a foreign-going ship the first and second mates or only mate (the case may be), and in the case of a home trade passenger ship the first or only mate (the case may be), have obtained and possessed certificates either of competency or service appropriate to their several stations in such ship, of a higher grade; and no such ship, if of 100 tons burthen or upwards, shall go to sea as aforesaid unless at least one officer besides the master obtained and possesses a valid certificate appropriate to the grade of only mate therein of a higher grade; and every person who, having been engaged to serve as master or as first or second mate of any foreign-going ship, or as first or only mate of a home trade passenger ship, goes to sea as aforesaid as such master or mate without being at the time entitled to possess of such a certificate as herein required, or who employs any person as master, or second, or only mate of any foreign-going ship as master or first or only mate of a home trade passenger ship, without ascertaining that he is at the time entitled to and possessed of such a certificate, shall for each such offence incur a penalty not exceeding 50*l*. (Sec. 136.)

**Certificates for Foreign-going Ships and Home Trade Passenger Ships.**—Every certificate of competency for a foreign-going ship or for a home trade passenger ship shall be deemed to be of a higher grade than the corresponding certificate for a home trade passenger ship, and shall entitle the lawful holder thereof to sea in the corresponding grade in such last-mentioned ship; but no certificate for a home trade passenger ship shall entitle the holder to go to sea as master or mate of a foreign-going ship. (Sec. 137.)

**The Registrar to record Grants, Cancellations &c. of Certificates.**—All certificates, whether of competency or service, shall be made in duplicate, and one part shall be delivered to the person entitled to the certificate, and the other shall be retained and recorded by the Registrar-General of Seamen; and by such other person as the Board of Trade shall give to such registrar or such other person immediate notice of all orders made by it for cancelling, suspending, altering, or otherwise affecting any certificate in pursuance of the powers herein contained; and the registrar or such other person as aforesaid shall thereupon make a corresponding entry in the record of certificates; and a copy purporting to be certified by such registrar or his assistant or by such person as aforesaid of any certificate shall be *prima facie* evidence of such certificate, and a copy purporting to be so certified as aforesaid of any entry made as aforesaid in respect of any certificate shall be *prima facie* evidence of the truth of the matters stated in such entry. (Sec. 133.)

**In case of Loss, a Copy to be granted.**—Whenever any master or mate proves to the satisfaction of the Board of Trade that he has, without fault on his part, lost or been deprived of any certificate already granted to him, the Board of Trade shall, upon payment of such fee (if any) as it directs, cause a copy of the certificate to which by the record so kept as aforesaid he appears to be entitled, to be made out and certified as aforesaid, and to be delivered to him; and any copy which purports to be so made and certified as aforesaid shall have all the effect of the original. (Sec. 133.)

**Penalties for False Representations.**—Every person who makes, or procures to be made, or assists in making, any false representation for the purpose of obtaining for himself or for any other person a certificate either of competency or service, or who forges, assists in forging, or procures to be forged, or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any such certificate or any official copy of any such certificate, or who fraudulently makes any such certificate or any copy of any such certificate which is forged, altered, cancelled, suspended, or to which he is not justly entitled, or fraudulently lends his certificate to or allows the same to be used by any other person, shall for such offence be deemed guilty of a misdemeanor. (Sec. 134.)

By the provisions of the Act 25 and 26 Vic. c. 63, the regulations demanding proficiency from the masters and mates in merchant ships are extended to engineers in steam vessels, the fees being payable on an examination as are in the case of masters and mates.

The following clauses are from a subsequent Act of the same statute:—

**Conduct endangering Ship or Life or Limb a Misdemeanor.**—Any master or of any seaman or other person belonging to any British ship who by wilful breach of duty, or by neglect of duty, or by drunkenness, does any act tending to the injury, loss, destruction, or serious damage of any ship, or tending immediately to endanger the life or limb of any person belonging to or on board of such ship, or who by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, refuses or omits to do any lawful act which is requisite to be done by him for preservation of such ship from immediate loss, destruction, or serious damage, or for preserving any person belonging to or on board of such ship from immediate danger to life or limb, shall for every such

offence be deemed guilty of a misdemeanor. (Sec. 239.)

**Power of Admiralty Courts to remove Master.**—Any court having Admiralty jurisdiction in any of Her Majesty's dominions may, upon application by the owner of any ship being within the jurisdiction of such court, or by the part owner or certificated mate, or by one-third or more of the crew of such ship, and upon proof or more of the satisfaction of such court that the removal of the master of such ship is necessary, remove him accordingly; and may also, with the consent of the owner or his agent, or the consignee of the ship, or if there is no owner or agent of the owner or consignee of the ship within the jurisdiction of the court, then without such consent, appoint a new master in his stead; and may also make such order, and may require such security in respect of costs in the matter, as it thinks fit. (Sec. 240.)

**Power to investigate Cases of alleged Incompetency and Misconduct.**—If the Board of Trade or any Local Marine Board has reason to believe that any master or mate is from incompetency or misconduct unfit to discharge his duties, the Board of Trade may either institute an investigation or may direct the Local Marine Board at or nearest to the place at which it may be convenient for the parties and witnesses to attend to institute the same, and thereupon such persons as the Board of Trade may appoint for the purpose, or with the assistance of a local stipendiary magistrate (if any), and if there is no such magistrate, of a competent legal assistant to be appointed by the Board of Trade, conduct the investigation, and shall give him full opportunity of making a defence either in person or otherwise, and shall for the purpose of such investigation have all the powers given by the first part of this Act to the inspectors appointed by the Board of Trade, and shall make such order with respect to the costs of such investigation as they may deem just; and a report upon the case to the Board of Trade; and in cases where there is no Local Marine Board, before which the parties and witnesses can conveniently attend, or where such Local Marine Board is unwilling to institute the investigation, the Board of Trade may direct the investigation, and thereupon such investigation shall be conducted, and the results thereof reported in the same manner and with the same powers in and with which formal investigations into wrecks and casualties are directed to be conducted, and the results thereof reported, under the provisions contained in the eighth part of this Act, save only bringing the charge of incompetency or misconduct to the notice of the Board of Trade shall be deemed to be the party having the conduct of the case. (Sec. 241.)

**Board of Trade may cancel or suspend Certificates in certain Cases.**—The Board of Trade may suspend or cancel the certificate (whether of competency or service) of any master or mate in the following cases; (that is to say.)

1. If, upon any investigation made in pursuance of the last preceding section, he is reported to be incompetent, or to have been guilty of any gross act of misconduct, drunkenness, or tyranny.
2. If, upon any investigation conducted under the provisions contained in the eighth part of this Act, or upon any investigation made by a naval court constituted as hereinafter mentioned, it is



master's list on the day of examination are examined.

The qualifications required for the several ranks unmentioned, are as follows:—

**QUALIFICATIONS FOR CERTIFICATES OF COMPETENCY FOR 'FOREIGN-GOING SHIP.'**

(a) A SECOND MATE must be sixty-one years of age, and must have been four years at sea.

*In Navigation.*—He must write a legible hand, and understand the four first rules of arithmetic, and the use of logarithms. He must be able to construct the courses steered for variation and leeway, and find the difference of latitude and longitude therefrom; be able to correct the sun's declination for longitude, and find his latitude by every method of a like nature as may be put to use; he must understand the use of the sextant, and be able to observe with it, and read off the arc.

*In Seamanship.*—He must give satisfactory answers as to the rigging and unrigging of ships, stowage of holds, &c.; must understand the management of the log-line, glass, and lead-line; be conversant with the rule of the road, as regards both steamers and sailing-vessels, and the lights prescribed by them.

(b) A FIRST MATE must be eighteen years of age, and have been four years at sea.

*In Navigation.*—In addition to the qualification required for a second mate, an only mate must be able to work a day's work complete, including the bearings and distance of the port he is bound to by Mercator's method. He must be able to observe and calculate the amplitude of the sun, and deduce the variation of the compass therefrom. He must know how to lay off the place of the ship on the chart, both by bearings of known objects, and by latitude and longitude. He must be able to use a sextant and determine its error, and adjust it, and find the time of high water from the lunar time at full and change.

*In Seamanship.*—In addition to what is required for a second mate, he must know how to moor and anchor, and to keep a clear anchor; to carry out anchor; to stow a hold; and to make the requisite entries in the ship's log.

(c) A THIRD MATE must be nineteen years of age, and have served five years at sea, of which at least two years must have been as either second or only mate, or as both. Service in a superior capacity is in all cases to be equivalent to service in an inferior capacity.

*In Navigation.*—In addition to the qualification required for an only mate, he must be able to observe azimuths and compute the variation; to regulate chronometers and keep their rates, and to find the longitude by them from an observation of the sun; to work the latitude by single altitude of the sun off the meridian; and be able to use and adjust the sextant by the sun.

*In Seamanship.*—In addition to the qualification required for an only mate, a more extensive knowledge of seamanship will be required, as to shifting spars and sails, managing a ship in stormy weather, taking in and making sail, shifting yards and masts &c., and getting cargo in and out; to rig heavy spars and weights, anchors &c., in case of casting a ship on a lee-shore; and to assist the master in the event of accident to the vessel.

A MASTER must be twenty-one years of age, and have been six years at sea, of which one year must have been as first or only mate, and one year as second mate; or two years as first and only mate, or one year in a superior capacity is in all cases to be equivalent to service in an inferior capacity.

In addition to the qualification for a first mate, he must be able to find the latitude by a star &c. He will be asked questions as to the nature of the attraction of the ship's iron upon the compass, and as to the method of determining it. He must possess a sufficient knowledge of what he is required to do by law, as to entry and discharge, and the management of his crew; as to penalties which will be made in the official log. He will be questioned as to his knowledge of invoices, of charter-party, Lloyd's agent, and as to the nature of bottomry, and he must be acquainted with the leading lights of the channel he has been accustomed to navigate, or which he is going to use.

In cases where an applicant for a certificate as master ordinary has only served in a fore and aft of a square rigged vessel, and is ignorant of the management of a vessel on which the words 'fore and aft rigged vessel' will be written. This is not, however, to apply to mates, who, being younger men, are expected for the future to learn their business completely.

(c) An EXTRA MASTER'S EXAMINATION is intended for such persons as wish to prove their superior qualifications. Before being examined for an extra master's certificate, an applicant must have served one year either as a master with an ordinary certificate of competency, or as a master of the first class certificate granted by one of the former Boards of Examiners.

*In Navigation.*—As the vessels which such masters will command frequently make long voyages, to the East Indies, the Pacific &c., the candidate will be required to work a lunar observation by both sun and star, to determine the latitude by the moon and star, by Polar star off the meridian, and also by double altitude of the sun, and to verify the result by Sumner's method. He must be able to calculate the altitudes of the sun or star when they cannot be observed, for the purposes of equal altitudes, and to correct the altitudes observed with an artificial horizon.

He must understand how to observe and apply the deviation of the compass; and to deduce the set and rate of the current from the D. R. and observation. He will be required to explain the nature of great circle sailing, and know how to apply practically that knowledge; but he will not be required to go into the calculations. He must be acquainted with the law of storms, so far as to know how he may probably escape those tempests common to the East and West Indies, and known as hurricanes.

*In Seamanship.*—The extra examination will consist of an enquiry into the competency of the party to heave a ship down, in case of accident befalling her abroad; to get lower masts and other heavy weights in and out; how to construct taffs, and as to his resources for the preservation of the ship's crew in the event of wreck, and in such operations of a like nature as the examiner may consider necessary.

**QUALIFICATIONS FOR CERTIFICATES OF COMPETENCY FOR 'HOME TRADE PASSENGER SHIPS.'**

(a) A MATE must write a legible hand, and understand the first four rules of arithmetic. He must describe and understand the rule of the road, and miralry regulations as to lights. He must be able to take a bearing by compass, and prick off the ship's course on a chart. He must know the marks in the lead line, and be able to work and heave the log.

(b) A MASTER must have served one year as a

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mate in the foreign or home trade. In addition to the qualifications required for a mate, he must show that he is capable of navigating a ship along any coast, for which purpose he will be required to draw upon a chart produced by the examiner the courses and distances he would run along shore from headland to headland, and to give in writing the courses and distances corrected for variation, and the bearings of the headlands and lights, and when the courses should be altered either to clear any dangers or to adapt it to the coast. He must understand how to make his soundings according to the state of the tide.

#### GENERAL RULES AS TO EXAMINATIONS AND FEES.

9. The candidates will be allowed to work out the various problems according to the method and the tables they have been accustomed to use; and will be allowed five hours to perform the work; at the expiration of which, if they have not finished, they will be declared to have failed, unless the Local Marine Board see fit to extend the time.

#### FEES TO BE PAID BY APPLICANTS FOR EXAMINATION.

10. The fee for examination must be paid to the shipping master. If a candidate fail in his examination, half the fee he has paid will be returned to him by the shipping master on his producing a document which will be given him by the examiner. The fees are as follow:—

##### For 'Foreign-going Ships.'

	£	s.	d.
Second mate	-	-	1 0 0
First and only mate, if previously possessing an inferior certificate	-	-	0 10 0
If not	-	-	1 0 0
Master, whether extra or ordinary	-	-	2 0 0

##### For 'Home trade Passenger Ships.'

Mate	-	-	0 10 0
Master	-	-	1 0 0

11. Any one who has been one year in possession of a master's first-class certificate granted by one of the former boards of examiners, or of an ordinary master's certificate of competency granted under the present examiners, may pass an extra examination, and receive an extra certificate in exchange for his former one, without payment of any fee; but if he fails in his first examination he must pay half a master's fee on his coming a second time; and the same sum for every subsequent attempt.

12. If the applicant passes, he will receive a document from the examiner, which will entitle him to receive his certificate of competency from the shipping master at the port to which he has directed it to be forwarded. If his testimonials have been sent to the registrar to be verified, they will be returned with his certificate.

13. If an applicant is examined for a higher rank and fails, but passes an examination of a lower grade, he may receive a certificate accordingly, but no part of the fee will be returned.

14. In all cases of complete failure the candidate must be re-examined *de novo*, and in case of failure in seamanship a candidate will not be re-examined until after a lapse of six months, to give him time to gain experience.

15. As the examinations of masters and mates are made compulsorily, the qualifications have been kept as low as possible; but it must be distinctly understood that it is the intention of the Board of Trade to raise the standard from time to time, whenever, as will no doubt be the case, the general attainments of officers in the merchant service shall render it possible to do so without inconvenience; and officers are strongly urged to employ

their leisure hours, when in port, in the acquirement of the knowledge necessary to enable them to pass their examinations; and masters will do well to permit apprentices and junior officers to attend schools of instruction, and to afford them as much time for this purpose as possible.

#### EXAMINATIONS IN STEAM.

16. Arrangements have been made for giving to those masters or first or only mates who receive certificates of competency, or who may apply for such certificates, and who desire it, an opportunity of undergoing an examination as to their practical knowledge of the use and working of the steam engine. These examinations will be conducted under the superintendence of the Local Marine Boards, at such times as they may appoint for that purpose; and the examiners will be selected by the Board of Trade, from the engineer surveyors appointed under the Act. The examination will not comprise intricate theoretical questions, but will be such as to satisfy the examiner that the applicant is competent to control the working of the engine, and has such a knowledge of the various parts of the machinery as will enable him to judge of the nature of an accident, and, in absence of the engineer, to give the necessary directions in the engine room. The practice to be as follows: The applicant must deliver to the shipping master a statement in writing to the effect that he wishes to be examined in steam. If he is about to pass an examination in navigation, the statement must be on or annexed to the form prepared for that purpose; if the applicant has a certificate of competency the statement to be delivered to the shipping master with his certificate, so that due notice may be given to the examiner, and so that the Board of Trade, receiving it may have the means of indorsing his certificate and recording the fact that he is 'Passed in Steam.' He must also, at the same time, pay a fee of one penny (1*l.*), which will be applied in remunerating the examiners. He will be given of the time at which the applicant is to attend to be examined, and if he passes the result of the examination will be reported to the Board of Trade, and his certificate of competency will be issued or returned to him, as the case may be, with an indorsement as above mentioned, stating that he has 'Passed in Steam.' If he fails, notice of the failure will be recorded on the certificate, but no part of the fee will be returned.

17. Full directions as to the course of examination in steam and the qualifications required of candidates, are contained in the instructions to engineer surveyors appointed as examiners at the larger ports.

**MASTICH** or **MASTIC** (Ger. mastix; Fr. mastik; Er. mastie; Ital. mastice; Span. mastica, almceiga; Arab. arāh). This resinous substance is the produce of the *Pistacia Lentiscus*, a native of the Levant and particularly abundant on the island of Chios. It is obtained by numerous transverse incisions in the trunks and branches of the trees, whence the mastic slowly exudes. About 1,500 cwt. are annually exported from Chios, part of which is brought to this country packed in chests. The best is in the form of brittle, yellowish transparent tears; it is odorless, except when heated, and then it has a disagreeable odour; chewed, it is almost insupportable at first gritty, and ultimately softening into a mass of virtues are trilling. (Ainslie's *Materia Medica*, 1867.) The finest mastic yields a green fixed oil, much used by the Arabs of North Africa for food and lighting. The total imports of mastic in 1865 were 1,800

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IONS IN STEAM.

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ASTIC (Ger. mastix; Ital. mastic; Span. mas-  
y, arah). This resinous  
of the Pistacia Lentiscus  
and particularly abundant  
It is obtained by tapping  
in the trunks and branches  
the mastic slowly  
re annually exported  
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ne best is in the form  
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n heated, and then  
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y, and ultimately solid-  
(Ainslie's *Medical Botany*,  
a, 1867.) The fruit  
fixed oil, much used  
a for food and light  
ic in 1865 were 1,868

MATE

raised at 71,059/., and in 1867 only 152 cwt.s, of  
which last one-third came from the Philippine  
Islands, and one-third from Australia.

MATE. In a merchant ship, the deputy of  
the master, taking, in his absence, the command.  
There are sometimes only 1, and sometimes 2, 3,  
or 4 mates in a merchantman, according to her  
size; denominated 1st, 2nd, 3rd &c. mates. The  
persons in a merchantman—the master and  
mates—the captain being included in the latter,  
and the captain being responsible for their pro-  
ceedings. For qualifications necessary under Mer-  
chantile Marine Act to obtain certificate of compe-  
tence to act as mate, see MASTER.

In men-of-war, the officers immediately sub-  
ordinate to the captain are called lieutenants.  
But the master, or officer whose peculiar duty it  
is to take charge of the navigation of the ship,  
has certain mates under him selected from the  
midshipmen. The boatswain, gunner, carpenter  
&c. have each their mates or deputies, taken from  
the crew.

The officers subordinate to the commander in the  
ships belonging to the East India Company were  
called 1st, 2nd, 3rd &c. of s. East Indian men  
had no sailing masters, the commanders performing  
that duty. (Falconer's *Marine Dictionary*, &c.)

MATS (Dutch, matten; Fr. nattes; Ger. matten;  
Ital. stajo, stajo; Port. esteiras; Russ. progoshki;  
Spañ. esteras). Textures composed, for the most  
part, of flax, reeds, the bark of trees, rushes, grass,  
&c. used for a great variety of purposes. The coarser  
sort are very largely employed in the packing of  
furniture and goods; in the stowage of corn and  
various other articles on board ship; in horticul-  
tural operations; in covering the floors of churches  
and other public buildings &c.; the finer sorts are  
principally employed in covering the floors of  
private houses.

In Europe, mats are principally manufactured  
for sale in Russia, where their production is a  
flourishing branch of national industry. They  
consist of the bark of the lime or linden tree, and  
are known in this country by the name of *bast*  
mats. The Russian peasants manufacture this  
sort of material into shoes, cordage, sacks for corn  
&c., and employ it in an endless variety of ways.  
In consequence of the vast quantities of matting  
required for its use at home and sent abroad,  
the demand for it is immense. It is principally  
produced in the government of *Viatka*, *Kostroma*,  
&c. and these immediately contiguous; and in the  
months of May and June, the period when the  
work is most easily detached from the stem, the  
peasants in the governments in question are almost  
entirely employed in stripping the trees. The  
German physician Köppen, who has carefully investi-  
gated this curious subject, estimates the average  
annual production of mats in European Russia, as  
follows:—

Government of	pieces
Viatka	6,000,000
Kostroma	4,000,000
Ryan	1,000,000
Nijni Novgorod	1,000,000
Volgots, Tamboff, Simbirsk, and Penza	2,000,000
Total	14,000,000

When further estimates that about 1/4 of this vast  
quantity, or 3 1/2 millions, are exported, the rest  
is consumed at home.

It is obvious from these statements, that the  
total destruction of linden trees must be quite  
enormous; and it may well excite astonishment  
that they are not already all but exhausted. But  
after it be from the rapid growth of the tree,

MATS

or the vast extent of the forests in which it is  
found, the gloomy forebodings of Mr. Tooke as to  
its destruction have not hitherto been realised  
(*View of Russia*, iii, 262), and mats have not  
become either scarcer or dearer. It is, however,  
hardly possible to suppose that such should con-  
tinue to be the case, seeing the rapid increase of  
population and of the consumption of matting in  
most parts of the empire. But in the event of its  
becoming scarcer, the inhabitants will have no  
difficulty in finding substitutes; so that we agree  
in opinion with those who think it would be bad  
policy to impose any restrictions on this branch of  
industry, in the view of averting an evil which  
may never occur; and which, if it do occur, may  
be easily obviated. (See a very interesting article  
in the *Supplément au Journal de l'Intérieur de St.-  
Petersbourg*, for 1841, p. 113.)

Archangel is the principal port for the ship-  
ment of mats; and it appears that at an average  
of the years 1851 and 1852, that at an average  
from that port amounted to 615,360 pieces a  
year. During the five years 1861-5 the average  
value of the mats exported from the northern  
Russian ports was about 14,500L. [ARCHI-  
ANGEL.] Large quantities are also shipped from  
Petersburg, Riga, and other ports; and most de-  
scriptions of Russian produce sent abroad are  
packed in mats. The duty of 5 per cent. ad  
valorem formerly charged on mats has been re-  
pealed. Russian mats fetch, in the London  
market, about 3L per 100. In 1867 mats and  
matting of the value of 38,048L. were imported  
into the United Kingdom.

Various descriptions of reed mats are extensively  
manufactured in Spain and Portugal; some of them  
being very beautifully varied. In Spain large  
quantities of matting are made of the Esparto  
rush. [ESPARTO.]

Rush floor mats, and rattan table mats of a  
very superior description are brought from China.  
They should be chosen clean, of a bright clear  
colour, and should, when packed, be thoroughly  
dry.

The mats of the Japanese are soft and elastic,  
serving them both for carpets and beds; they are  
made of a peculiar species of rush cultivated for  
the purpose.

The bags in which sugar is imported from the  
Mauritius consist of matting formed of the  
leaves of a tree growing in the island, interwoven in  
broad strips. They are very strong and durable,  
and may be washed and cleaned without sustain-  
ing any injury. Being imported in large quantities  
they are sold very cheap. Besides the works  
already referred to, see Milburn's *Oriental Com-  
merce*, and the valuable little work entitled  
*Vegetable Substances, Materials of Manufactures*,  
published by the Society for the Diffusion of  
Useful Knowledge, pp. 116-123.

It is probable that mats formed the first sort of  
wove fabrics produced by man; and it is worthy  
of remark, that but few savage tribes have been  
discovered which have not attained to considerable  
eminence in their manufacture. On the coast of  
Guinea and other places in the west of Africa, pieces  
of fine mat, about a yard long, and of a pretty  
uniform texture, were denominated *makkites*, and  
being rated and estimated in them, (Morellet,  
*Prospectus d'un Dictionnaire de Commerce*, p. 122.)  
They enjoyed this distinction, no doubt, from their  
utility, and the great care and labour bestowed on  
their preparation. There is hardly an island in  
the South Seas in which the natives have not  
acquired great skill and dexterity in the making  
of mats. The finer sorts consist, generally, of

dyed reeds or grass; and have a very brilliant appearance.

For some remarks on the mats of Greece, Algeria, Portugal, and India, see Mr. Digby Wyatt's *Report on the carpets &c. in the Paris Exhibition of 1867*.

**MAULMAIN** or **MOULMEIN**. A sea-port town of India, on the eastern side of the Bay of Bengal in the district of Amherst, one of the divisions of the province of British Burmah. The town is situated on a small peninsula formed by the Salween, the Gyne, and the Attaran rivers. Lat.  $16^{\circ} 30'$ , long.  $97^{\circ} 42'$ . There is a fine port formed by a natural breakwater in the island of Balu, which protects it from westerly gales. Customs duties and port dues are levied. The tariff of import and export duties is that promulgated in 1867 as applicable to all the Ports of India. [CALCUTTA.] The population of the town is given at 17,042. Its principal export consists of rice, and paddy, and timber. In consequence of the great forests of teak, Maulmain is famous for its ship-building. (Thornton's *Gazetteer*.)

In 1864, the shipping at this port consisted of 172 vessels of British origin, 19 of American, 3 French, with 143 native craft, forming together a tonnage of 93,778 entered, and 202 British, 14 foreign, and 156 native craft cleared, the tonnage of the latter being 86,169. The total imports, including treasures, at this port during the three years 1862-4 were valued at 54,626*l.*, 57,092*l.*, and 60,541*l.*, respectively, and the exports for the same period at 437,908*l.*, 274,121*l.*, 206,430*l.* The value of the wood exported from British Burmah in the year 1863 was 238,121*l.*, that of the year 1864 was 176,133*l.*, and the value of the total exports from the province by sea in 1866 was 2,825,522*l.*

In 1864 the teak exported from the various provinces and settlements of British India and the Indian Archipelago amounted to more than 50,000 loads, and was worth, at an average, about 11*l.* 19s. the load. In 1867 there were imported into the United Kingdom 12,644 loads, valued at 123,582*l.*, the price for the larger portion per load being 9*l.* 16s., from the Straits settlement, Bengal and Pegu.

For further particulars as to the trade of British Burmah &c. see **EAST INDIES**; **RANGOON**.

**MAURITIUS**. [PORT LOUIS.]

**MEAD** or **METHEGLIN** (Ger. meht, meth; Dutch, meede, meedrank; Fr. hydromel; Ital. idromele; Russ. liper). The ancient, and, for a long time, the favourite drink of the northern nations. It is a preparation of honey and water.

**MEAL** (Ger. mehl; Dutch, meel; Fr. and Ital. farino; Span. farina; Russ. muka; Lat. farina). The edible part of wheat, oats, rye, barley, and pulse of different kinds, ground into a species of coarse flour. [CORN LAWS &c.]

**MEDALS**. Pieces of metal, generally in the form of a coin, and impressed with some peculiar stamp, intended to commemorate some individual or action. Medals are of very different prices—varying according to their rarity and preservation, the fineness of the metal, the beauty of the workmanship &c. The value of medals of all kinds imported, with the knowledge of the Government, in 1867, was only 82*l.*

**MEDITERRANEAN PASS**. The nature of this sort of instrument has been described by Mr. Reeves, in his *Treatise on the Law of Shipping*, as follows:—

'In the treaties that have been made with the Barbary States, it has been agreed, that the subjects of the King of Great Britain should pass the seas unmolested by the cruisers of those states;

and for better ascertaining what ships and vessels belong to British subjects, it is provided that they shall produce a *pass* under the hand and seal of the Lord High Admiral, or the Lords Commissioners of the Admiralty. In pursuance of these treaties, passes are made out at the Admiralty, containing a very few words, written on parchment, with ornaments at the top, through which a scolloped indenture is made; the *scolloped tops* are sent to Barbary; and being put in possession of their cruisers, the commanders are instructed to suffer all persons to pass who have passes that will fit these scolloped tops. The protection afforded by these passes is such, that no ships, which traverse the seas frequented by these rovers, ever fail to furnish themselves with them, whether in the trade to the East Indies, the Levant, Spain, Italy, or any part of the Mediterranean; and from the more particular need of them in the latter, they, no doubt, obtained the name of *Mediterranean passes*. For the accommodation of merchants in distant parts, blank passes, signed by the Lords of the Admiralty, are lodged with the governors abroad, and with the British consuls, to be granted to those who comply with the requisites necessary for obtaining them. As this piece of security is derived wholly from the stipulations made by the Crown with a foreign power, the entire regulation and management of it has been under the direction of his Majesty's ministers, with the advice of the privy council, has prescribed the terms and conditions on which the passes shall be granted. Among others are the following:—They are to be granted for none but British-built ships, or ships made free, navigated with a master and three-fourths of the mariners British subjects, or foreign Protestants made denizens. Bond is to be given in the sum of 300*l.* the vessel is under 100 tons, and in 500*l.* if it is of that or more, for delivering up the pass within 12 months, unless in the case of ships traded from one foreign port to another; and such passes need not be returned in less than 3 years.

'It has been found expedient, at the conclusion of a war, and sometimes during a peace, to revoke and cancel all passes that have been issued, and to issue others in a new form. This has been done for two reasons. 1st. That these useful instruments, by various means, either accidentally or fraudulent, came into the hands of foreigners, and under cover of them, carried on in security a trade which otherwise would belong to British subjects, and which had been purchased by the crown at the expense of keeping up this sort of alliance. 2dly. That the Barbary states complained, not adhering to the rule of fitting the other part of the indenture to the passes, they were obliged to issue ships to pass that did not belong to British subjects.'

We have thought it right to give this explanation, though, since the occupation of Algiers by the French, and the disappearance of the power of the other Barbary powers, Mediterranean passes have fallen into disuse.

**MELBOURNE**. The capital of the colony of Victoria, formerly Port Phillip, Australia, occupying the S.E. portion of the continent, stretching through  $39^{\circ}$  of longitude from Cape Howe on the E. to the Glenelg river on the W. The town is situated on the north bank of the Yarra-Yarra river, about 9 miles from its windings from its mouth in the bay of Phillip, lat.  $37^{\circ} 49' 5''$  S, long.  $144^{\circ} 50'$  E. It was founded in 1837, and extends to the banks of the river. In 1851, it had a population of 23,000; and such has been the increase consequent on the discovery of the gold

what ships and vessels it is provided that they be in the hand and seal of the Lords Commissioners for the Admiralty. In pursuance of these orders, written on parchment, through which the Admiralty, the *scollapud* being put in possession, and the Admiralty are instructed to who have passes that tops. The protection is such, that no ships, quented by these rovers, ves with them, whether dies, the Levant, Spain, Mediterranean; and need of them in the obtained the name of the accommodation of ts, blank passes, signed Admiralty, are lodged with the British cons who comply with the obtaining them. As the wholly from the stipa n with a foreign power management of it he n of his Majesty who privy council, has the conditions on which the Among others are to be granted for none of us made free, naviga fourths of the marine Protestants made de n in the sum of 3000 ns, and in 5000, if it ering up the pass with e case of ships trad another; and such pass edient, at the conclus during a peace, to con t have been issued, in form. This has b st. That these useful eans, either accidenta hands of foreigners, ed on in security to elong to British sub- chached by the crow up this sort of all states complained, the other part of they were obliged to ot belong to British

that including suburbs, it had, in 1867, 126,536 inhabitants. A considerable portion, however, of this immense population is to be regarded as migratory only, and as residing in town merely upon their ultimate destination has been decided upon. The sudden increase of population raised these rents to an unparalleled height; and for some considerable time a large proportion of the population was not housed, but encamped under tents! But partly through the extraordinary animals which was thus given to building, and partly through the mercantile failures consequent upon the overtrading of 1853 and 1854, there has been a very heavy fall of rents, which do not now (1868) exceed half their amount in 1852. The site of the town is unfortunate, for the river being obstructed by a bar and shallows, it is not generally navigable for vessels of more than 60 tons burden; and it has the further disadvantage of being low, and liable to be flooded by the overflowing of the river during the wet season. Melbourne was, also, till lately, very ill supplied with fresh water. But this defect has been remedied by the construction of works that were intended for the colony. The reservoirs are of great magnitude, so as to afford an adequate supply in periods of drought. It has been proposed to facilitate the trade of the town by removing the bar at the mouth of the river, and deepening its channel; but this would be a very expensive undertaking, and one of which the success would not be a little doubtful. The excavation of a ship canal from the deep water in the bay to Melbourne has also been proposed; and it probably would be a preferable plan; but in the meantime a railway has been completed, which has obviated many of the inconveniences which were experienced. It seems, however, not unlikely that the trade of the town, and the greater part of the population, will ultimately centre at Geelong, a village a few miles distant, on a peninsula extending into the bay, opposite to which all large vessels coming to Melbourne are obliged to anchor. The principal objection to Geelong is the scarcity and bad quality of

MELBOURNE

the fresh water; but this objection might, perhaps, be obviated by sinking wells, or conveying lither streams, as has been done at Melbourne. In consequence of the discovery in 1851 of the extraordinarily rich gold-fields situated in this colony, its progress has been since quite unprecedented. The population of Victoria, for example, which amounted to about 90,000 in 1851, had increased to above 232,000 in 1854, and to 653,744 on September 30, 1867, of whom 369,103 were males, and 284,641 females. The trade, navigation &c. of the colony have increased in something like the same proportion. But it is a curious fact that the production of gold appears to have attained since its maximum in 1852, and has not been so great

Value of Principal Articles Imported (including Bullion and Specie), in each of the Years 1863, 1865, and 1866.

Principal Articles	1863	1865	1866
Apparel and cloths	186,800	435,756	517,157
Beer and cider	335,019	340,731	300,878
Butter and cheese	115,742	632,418	338,083
Candles	183,760	111,211	166,338
Coals	171,579	101,733	190,225
Cottons	27,752	145,881	146,751
Flour	373,531	283,281	350,567
Furniture	73,701	429,254	259,031
Grain of all kinds (including rice)	934,991	37,989	66,390
Drapery	2,300,417	1,028,648	1,186,277
Hardware & Ironmongery	366,135	979,450	174,524
Machinery	58,147	358,762	259,661
Oilmen's stores	180,346	129,970	153,851
Opium	121,591	65,912	129,675
Potatoes	20,748	14,246	77,880
Provisions	154,391	44,276	20,177
Railway materials	9,446	63,548	121,375
Silks	68,055	9,629	49,608
Specie	890,303	126,305	1,131,148
Stationery	24,916	736,010	130,053
Sugar of all kinds	638,286	205,500	187,228
Spirits of all kinds	484,792	657,916	380,644
Tea	319,987	351,365	810,098
Timber	318,122	421,418	276,262
Tobacco	728,477	871,848	311,203
Wine of all kinds	261,612	297,854	317,663
Woolens	191,551	171,560	241,152
Total value	14,973,815	13,257,557	14,771,711

\* The value imported and warehoused is given for the articles.

Quantities and Value of Principal Articles Exported (including Bullion and Specie), in each of the Years 1863, 1865, and 1866.

Principal Articles	Quantities			Value		
	1863	1865	1866	1863	1865	1866
	no.	no.	no.	£	£	£
Wool	1,545,419	1,543,802	1,479,195	6,206,237	6,190,317	5,993,987
Wool (specie)	8,813	108,319	68,538	1,029,872	802,269	961,493
Wool (no.)	114,577	1,677	1,811	3,804	5,000	6,800
Wool (no.)	8,813	108,319	68,538	91,531	72,187	5,000
Wool (no.)	1,810	1,677	1,811	6,189	15,840	42,715
Wool (no.)	146,369	1,715	2,000	42,198	34,909	5,070
Wool (no.)	73,360	24,005	10,461	108,720	19,797	36,791
Wool (no.)	9,628	102,104	37,460	8,173	11,172	25,337
Wool (no.)	4,701	7,767	8,891	491,906	401,279	11,036
Wool (no.)	39,871,824	2,169	4,491	116,172	75,026	437,912
Wool (no.)	41,270,666	43,390,978	43,390,978	3,230,128	8,315,109	78,356
Total value	13,89,384	13,150,718	12,889,516			

Tonnage and Tonnage of Vessels Entered and Cleared at each Port, in each of the Years 1863, 1864, and 1865.

Port	Entered						Cleared					
	1863		1864		1865		1863		1864		1865	
	Vessel.	Tons										
Adelaide	1,572	566,316	1,557	557,164	1,699	610,438	1,583	569,789	1,610	551,978	1,690	604,400
Brisbane	117	37,789	113	15,916	79	11,439	116	33,227	104	26,491	81	22,374
Geelong	17	5,681	7	973	5	837	20	5,865	20	1,669	4	619
Melbourne	9	833	20	1,200	25	1,912	20	2,510	19	20,913	36	10,065
Perth	90	20,437	31	4,563	16	1,417	58	7,480	47	5,151	5	875
Port Phillip	11	1,135	15	1,057	16	384	13	15,389	11	11,189	63	12,259
Tasmania	—	—	—	—	171	384	—	—	—	—	5	475
Western Port	—	—	—	—	13	15,389	—	—	—	—	—	166
Yarloop	—	—	—	—	38	3,852	—	—	—	—	40	3,713
Total	1,816	620,200	1,743	580,973	2,078	649,379	1,896	641,614	1,863	599,351	2,203	675,741

Number and Tonnage of Vessels that Entered and Cleared from the Port of Victoria, with Cargo and in Ballast, in the Year 1866.

Nationality of Vessels	Entered						Cleared					
	With Cargoes		In Ballast		Total		With Cargoes		In Ballast		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
British: United Kingdom (Colonial)	298	219,037	1	135	299	219,172	183	140,067	103	70,475	286	210,542
American (U.S.)	27	21,142	116	10,274	1,847	339,681	1,189	157,155	605	135,881	1,794	293,036
Norwegian	18	10,807	—	—	18	10,807	4	5,975	29	23,931	33	29,906
Danish	1	629	—	—	1	629	—	—	1	6,178	1	6,178
Dutch	6	1,918	—	—	6	1,918	7	4,235	15	9,225	22	11,160
Prussian	20	11,797	—	—	20	11,797	1	355	5	1,580	6	1,935
Hanseatic	1	145	—	—	1	145	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—
French	21	8,589	—	—	21	8,589	2	738	1	351	3	1,127
Italian	29	13,314	—	—	29	13,314	14	5,673	11	4,556	25	10,229
Chilian	3	888	—	—	3	888	—	—	—	—	—	—
Hawaiian	4	1,091	—	—	4	1,091	—	—	—	—	—	—
Total	1,961	659,570	117	10,109	2,078	649,979	1,304	415,913	799	261,798	2,003	677,711

Account of the Quantities and Values of the Principal Articles, ex. Gold, Imported into the United Kingdom from Victoria in each of the 3 Years ending with 1867.

Principal Articles	Quantities			Computed Real Value	
	1865	1866	1867	1865	1866
				£	£
Antimony, ore and regulus of	tons	414	530	518	518
Bark for tanners' or dyers' use	cwts.	27,608	68,127	66,418	13,504
Copper ore	tons	2,262	4,530	2,477	39,556
regulus	"	600	1,077	760	56,234
part wrought	"	59	129	66	6,014
Corn: wheat	cwts.	30	66	150,177	10,531
wheat flour	"	135	70	28,021	15
Hide not tanned	"	55,227	35,214	15,280	94,810
tanned, tawed, curried, or dressed	"	1,472,580	1,691,301	1,659,929	54,968
Oil, sperm orcet or head matter	tons	45	151	67	4,813
Rags and other materials for making paper	tons	550	256	265	963
Skins, sheep, undressed	no.	180,084	86,066	130,394	7,222
Sugar: molasses	cwts.	129,17	6,216	5,120	26,375
Tallow	"	18,007	62	9,910	927
Tin ore	tons	222	123	130	37,788
Wool, sheep and lambs'	lbs.	45,605,592	46,627,993	51,177,812	3,984,726
All other articles	value	—	—	—	49,500
Total		—	—	—	4,399,090

Account of the Foreign and Colonial Produce and Manufactures Exported from the United Kingdom to Victoria in each of the 3 Years ending with 1867.

Principal Articles	Quantities			Declared Real Value	
	1865	1866	1867	1865	1866
				£	£
Apparel and haberdashery	value	—	—	1,014,202	1,170,466
Arms and ammunition:					
Fire arms (small)	no.	1,675	2,456	5,242	6,538
Gunpowder	lbs.	1,698,247	1,856,105	931,529	45,531
Bacon and hams	cwts.	7,645	17,896	16,532	32,119
Bags, empty	dozens	102,591	108,854	84,418	92,521
Beer and ale	barrels	54,470	50,034	37,284	218,908
Books, printed	"	6,262	6,064	5,761	71,068
Butter	"	281	3,150	119	5,710
Candies	lbs.	899,643	1,534,274	1,507,193	30,243
Cheese	cwts.	6,754	12,655	9,014	27,416
Confectionery	value	—	—	—	14,995
Corn: malt	qu.	35,897	39,874	28,651	104,058
Cottons entered by the yard	yards	11,074,109	14,583,163	13,388,071	358,222
Drugs and chemical products	value	—	—	—	74,239
Earthenware and porcelain	"	—	—	—	28,838
Furniture: cabinet and up-holstery wares	"	—	—	—	60,503
Glass manufactures	"	—	—	—	29,416
Hops	cwts.	6,010	6,324	5,901	68,591
Hardware and cutlery, un-enumerated	"	—	—	—	40,164
Hats of all sorts	dozens	—	43,284	39,416	127,318
Iron, wrought and unwrought	tons	51,232	36,460	41,463	105,635
Lead and shot	"	944	1,078	1,280	48,425
Leather, wrought and unwrought	value	—	—	—	20,599
Saddlery and harness	"	—	—	—	559,223
Linen, entered by the yard	yards	4,406,868	4,484,505	3,708,598	51,871
Machinery: steam engines	value	—	—	—	153,102
all other sorts	"	—	—	—	48,425
Musical instruments	"	—	—	—	51,694
Paper of all sorts (including paper hangings)	cwts.	41,852	50,123	56,073	86,608
Pickles and sauces	value	—	—	—	124,200
Silk manufactures	"	—	—	—	55,081
Soap	cwts.	919	1,139	745	68,385
Spirits	gallons	76,618	158,556	95,906	1,733
Stationery, other than paper	value	—	—	—	9,754
Woolens, entered by the yard	yards	9,992,709	11,124,754	8,417,462	48,425
All other articles	value	—	—	—	767,379
Total		—	—	—	68,122



	Rate of Duty £ s. d.
Dried and preserved fruits and vegetables, nuts of all kinds (not including coconuts), butter, cheese, candles, bacon, lard, hams, starch, soap, confectionary, biscuits, sardines, sweetmeats, syrups, jams, macaroni, vermicelli, macaroni, preserved meats and fish	0 0 2 per lb.
Hops	0 0 6 per bush.
Malt	0 0 0 per ton
Salt	0 0 6 per gallon
Vinegar	0 2 0 "
Yarnish	0 2 0 "
Salted provisions, including fish not otherwise enumerated and not brought from vessels owned in the colony	0 5 0 per cwt.
Doors	0 1 0 each
Window sashes	0 1 0 per pair
Plate of gold	0 8 0 ,, oz. Troy
Plate of silver	0 1 0 "
Hatley	0 0 3 per bush.
Oats	0 0 3 "
Military and all articles made up from fabrics of silk, or of silk mixed with other materials	0 5 0 per cubic foot, measuring outside the packages, or for any package less than one cubic foot
Apparel and shawls and all articles made up wholly or in part from fabrics of wool, cotton, linen, or mixed materials (except corn or wool hags) boots or shoes, hosiery and gloves, hats, caps, and bonnets (untrimmed), saddles, harness, and leatherware	4s. per ditto
Watches, jewels and jewellery of all kinds, manufactures of silk or of mixed materials of which the greater part is silk, musical instruments, carriages, glass and glassware, china-ware and porcelain, furniture, toys, and tawdry, wood-ware, brass-ware and wicker-ware, earthenware, oilmen's stores not otherwise enumerated (except oils in bulk, tallow, sugar, arrow-root, spices, pepper, and ginger), woolen blankets and rugs	10 per cent. ad valorem

**Exemptions from Import Duties.**—All goods, wares, and merchandise not included in the above table of imported articles, gold and silver coin, passengers' baggage, cabin and other furniture or personal effects, which have been in use and not imported for sale, carriages used in the conveyance of goods or passengers across the frontier, all packages in which goods are ordinarily imported, and all minor articles used in the making up of apparel of mixed or undescribed materials shall be exempt from duty.

Articles Exported by Land or Sea	Rate and Duration of Duty
Gold, including gold in its natural state, whether mixed with any other substance or not, gold dust and all other gold, except gold coin, watches, and articles of jewellery and plate	1s. per oz. Troy until December 31, 1866, 6d. per oz. Troy from and after that date to December 31, 1867, and from and after December 31, 1867, the said duty shall cease and determine

Like many other British colonies, Victoria has adopted a protective tariff, not so much perhaps with a view to fostering home manufactures as with that of providing a revenue for its very considerable expenditure. Still, protective purposes are avowed, and manufactures are fostered by this system.

**The basin of Port Phillip**, which receives the Yarra-Yarra and other rivers, is a large circular bay, or inlet of the sea, whence the colony derived its former name. It has a narrow entrance, not more than 1½ mile in width, partly occupied with rocks and shoals. A lighthouse has been erected near the extremity of Point Lonsdale, towards the west side of the entrance, lat. 38° 16' S., long. 140° 40' E., and another on Point Gellibrand, near the head of the bay, between Williamstown and the mouth of the Yarra-Yarra river, lat. 37° 52' S., long. 144° 55' E. The bay is about 40 miles broad from S. to N., and at its greatest extent is about 40 miles long from E. to W. It is said to cover an area of above 800 sq. miles, and might accommodate all the navies of all the countries in the world.

The whole trade of the colony, which is already very extensive, and is continuing to increase, is at present carried on from this basin. And from its

advantageous situation, and its stretching so far inland, it is probable it will always continue to engross the largest share of the trade, though, no doubt, it will be partly, also, carried on from other ports. Geelong, at the head of a deep bay on the W. side of the basin, had in 1861 a population of 22,986, and a very considerable trade. For further details see the *Victoria Commercial and Nautical Almanac* annual, a very meritorious publication.

**Prospects of the Colony.**—Of these it would be hazardous to speak with much confidence. The produce of gold, which amounted to above £1,247,000 oz. in 1852, amounted to only £518,000 oz. in 1862, and but £1,479,194 oz. were exported in 1867. But it is impossible to say whether the decline will be permanent, or whether the produce will not again rise to or above its former level. The excitement caused by the discovery of the gold fields was not confined to the colony or the diggers, but netted with such force on the commercial world that the value of the imports into Victoria, which amounted to £1,056,437, 1851, rose to £1,182,530, in 1856-7. As excessive importation occurred simultaneously with a diminished supply of gold, a ruinous revulsion necessarily followed, accompanied by an all but universal bankruptcy, and a sacrifice of property.

These, however, are but evanescent difficulties. Other industries of a more important and permanent character are occupying the attention of the colonists. Wool, of which 16,315,468 lbs. were exported in 1851, rose to the amount of 42,500 lbs. in 1866. Hides are also an important article of export from the colony. Still, on the whole, it must be admitted that its trade is nearly stationary, the imports during the last ten years have varied only by about a million; and the export being even more nearly uniform. It is of course possible to infer from these facts, that the trade is steady and satisfactory. The system adopted in regard to the disposal of the land, and the results to which it has led, are the grand difficulties with which the colony has to contend. It is impossible, indeed, to condemn too severely our policy in this respect, both in this and other colonies. It is fitted only to injure and to turn the tide of emigration from their shores to the United States. To set a minimum price of 20s. an acre upon the unoccupied pasture lands of Australia, several acres of which are required to feed a single sheep, may be regarded as the triumph of political quackery. While, however, it prevented the sale of land, it necessarily its being let in vast tracts at low rates, certain rights of pre-emption, and to its exclusively occupied by squatters; and that the discovery of the gold fields and the increase of population, these parties have become a distinct class. There can, it is affirmed, be no doubt that their interests are opposed to those of the colonists; and it is believed that the constitution lately given to the colony will command a majority in the legislature.

In consequence of this preposterous system, which, in a colony where large fortunes have been made, has restricted the purchase of land to a very small part of their extent, the colony can, in no proper sense of the word, be said to be occupied. The population has no power of refusing itself over the surface, but is crowded into the large towns of Melbourne, Geelong, and the camps at the diggings. There are no villages, farms, nor farm steadings. A moderate means may as soon think of a land in Middlesex as in Victoria. And

MELBOURNE  
Wharfage Rates.

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Authority under which levied or by which regulated	Specification of Taxes	Authority under which originally established	At what period
27 Vict. No. 209	27. Ton butt, each	£ s. d.	May 11, 1864
	Pipe or pouchoon, each	0 3 0	
	Hophead, each	0 2 0	
	Barrel or quarter cask, each	0 1 0	
	Chest, keg, drum, tin, jar, or other small single package, each	0 0 6	
	Case, crate, cask, bale, box, bundle, trunk, bag, keg, firkin, or pack.	0 0 3	
	30 cubic feet and upwards	0 4 0	
	10 " " " " " " " " " " " "	0 2 0	
	6 " " " " " " " " " " " "	0 1 0	
	3 " " " " " " " " " " " "	0 0 6	
	1 " " " " " " " " " " " "	0 0 3	
	Less than 1 foot	0 0 2	
	Steam boilers, millstones, chains, machinery, railway materials, pig iron, castings, oakum, flax or other fibrous articles, carriages, furniture, and goods not otherwise enumerated, per ton	0 3 0	
	Lead, lead piping, iron, iron wire, steel or other loose metal, shot, sugar, salt, colts, rice, flour, meal, potatoes, or other vegetables, grain, seeds, malt, hops, or pulses, per cwt.	0 0 3	
	Woads, shovels, brooms, forks, troying-pans, and small pieces of shaped wood, per dozen	0 0 3	
	Timber, per load of 40 cubic or 480 superficial feet	0 0 3	
	Pods and rails, per 100	0 3 0	
	Pickets or palings, per 100	0 3 0	
	Rings of laths, per 1,000	0 1 0	
	Bars, tubes, or buhrts, per dozen	0 1 0	
Coals, coke, or firewood, per ton	0 0 6		
Slates and bricks, per 1,000	0 1 0		
Empty casks or stooks, per bundle	0 0 3		
Goods to be rated according to weight or measurement, at the option of the collector of customs at the port of discharge	0 0 6		
25. Spirits distilled in Victoria, from malt, grain, roots, grapes, or wine per gallon	0 8 0	25 Vict. No. 147	June 18, 1862
26. Spirits distilled from sugar, treacle, molasses, wort, wash, or wine wash with which sugar, treacle, or molasses has been made or mixed, or from beer or ale, per gallon	0 8 0		

Rates of Pilotage.

Port Phillip	Specification of Taxes, Duties, Fees &c.						Authority under which originally established	At what period
	Sailing Vessels and Steamers under sail only			Steamers and Vessels towed by Steam				
	Per Ton	Maximum	Minimum	Per Ton	Maximum	Minimum		
1. From without the heads to Melbourne and Geelong, and vice versa	6s	50	6	4s	34	10	April 12, 1854	
2. From within the heads to Melbourne and Geelong, and vice versa	4	31	3	10	5	23		
3. From without the heads to outer anchorage Hobson's Bay, or anchorage at Point Henry, and vice versa	5s	42	4	15	3s	27		
4. From within the heads to outer anchorage Hobson's Bay, or anchorage at Point Henry, and vice versa	3	23	2	10	2s	19		
5. From without the heads to any anchorage within the heads and below the channels, and vice versa	2s	19	2	5	1s	11		
6. From Melbourne to Point Henry, and vice versa	2s	19	2	5	1s	11		
7. From Melbourne to Geelong, and vice versa	3s	27	3	0	2s	19		
8. For each remove from one place of anchorage to another in Hobson's Bay or Corio Bay	1	8	1	0	1	6		
9. From Hobson's Bay to Melbourne, and vice versa	2s	5	2	0	1s	3		
10. From Point Henry to Inner harbour, Geelong, and vice versa	2s	7	1	10	1s	5		
Outports.								
Into or out of Port Phillip	3	24	3	0	2s	16		
Corvo Inlet	3	24	3	0	2s	16		
Portland Bay	3	24	3	0	2s	16		
Helford	3	24	3	0	2s	16		
Warrnambool	3	24	3	0	2s	16		

27. A line bearing N. 56° E. (magnetic) from the lighthouse on Gellibrand's Point, and running through the St. Kilda white buoy to the outer anchorage of Hobson's Bay.

and its stretching so far it will always continue to be of the trade, though, also, carried on from the head of a deep bay on the had in 1861 a population considerable trade. For Victoria Commercial and a very meritorious pub  
ny.—Of these it would be th much confidence. The ich amounted to above mounted to only 1,213,80 479,194 oz. were exported impossible to say whether ermanent, or whether t rise to or above its t caused by the discover ed confined to the colon ed with such force on t the value of the import mounted to 1,056,437, 30L in 1856-7. As o occurred simultaneous pply of gold, a ruin followed, accompanied bankruptcy, and a w  
but evanescent difficult more important and per nying the attention of hich 16,315,468 lbs. o the amount of 42,390 re also an important ny. Still, on the wha its trade is nearly sta the last ten years ha million; and the exte ny uniform. It is of these facts, that the ory. The system ad osal of the land, and is led, are the grand colony has to con d, to condemn too ser ced, both in this an fited only to injure migation from their To set a minimum p occupied pasture la s of which are requ may be regarded a ackery. While he land, it necessarily tracts at low resu mption, and to its ny squatters; and t old fields and the a have become a affirmed, be no dou sed to those of is believed that un en to the colony the legislature. this preposterous where large fortun ted the purchase of their extent, the of the word, be sta tion has no power surface, but is o Melbourne, Geed gings. There are run standings. A as soon think of in Victoria. And

of the vast majority of those who make in the colony hasten to leave it; some going to England, and many to the United States, where they may invest the whole or a part of their earnings in superior lands sold for the price of 1½ dollar an acre. We do not wish to cast the horscope of a policy which has produced such results; but we hardly suppose that any system of anomalies, a suicidal system of anomalies, can be immortal. In 1860, 271 miles of railway had been completed and opened in the colony, at a cost for construction of 9,876,611L. MEMEL. A commercial town of East Prussia, Population, December 8, 1867, 19,031. Memel is situated on the north-east side of the great bay, denominated the *Currische Haf*, near its junction with the Baltic. It is, consequently, the principal entrepôt of the country traversed by the Niemen, and as such enjoys a pretty extensive commerce.



MESSINA

than almost any other remedy in the whole range of the materia medica. (*British Pharmacopœia* 1867.)

Besides its uses in medicine, mercury is extensively employed in the amalgamation of the noble metals, in water-gilding, the making of vermilion, the silvering of looking-glasses, the making of barometers and thermometers &c.

MESSINA. One of the principal ports of Sicily, and second only to Palermo in the number of its inhabitants, of which it contained (1862) 22,024. It stands on ground which rises from the sea on all sides of the port. Its port is one of the largest and safest in the Mediterranean; but the entrance is narrow and difficult. It is protected by a natural breakwater nearly 600 yards long and 65 broad.

The trade of Messina is considerable, and rapidly increasing. The following, as given in Mr. Vice-consul Rickard's Report for 1866, are the values of its exports and imports, for the five years ending with 1866.

Year	Exports	Imports
1861	£289,055	£681,390
1862	87,111	732,512
1863	966,738	891,298
1864	1,091,168	918,777
1865	1,227,966	805,163

The number of ships which entered the port of Messina in 1866 was 5,047, the total burden being 238,471 tons; of these 3,420 were Italian, the remaining being 278,960.

Particulars on British vessels, as given in Mr. Rickard's Report: anchorage dues 5*d.* per ton. Sailing vessels discharging or taking in cargo may proceed to one or more ports to complete their cargo, without paying a second anchorage fee. Steam vessels pay 50 centimes (5*d.*) a ton per month, less a discount of 40 per cent. for auxiliary dues.—Sailing vessels and steamers arriving from, or having touched at any place in Italy, Egypt, Syria, America, and the western coast of Africa, landing or taking in cargo or passengers, are charged 40 centimes per ton. All other countries sailing vessels pay 23 centimes and steamers 5 centimes per ton.

Quarantine dues.—These pay 20 centimes yearly. All health when required. Vessels wind-bound, or unable to sail for orders, may take pratique without paying any of the above dues. The quarantine regulations of Messina are restrictive and vexatious.

Good table wine at Messina is worth now (1867) about 1*s.* per gallon. There is a great trade in oranges and lemons. In 1866, 700,000 boxes of

METALS

oranges, 2,000 pipes of picked lemons, 2,000 pipes of lemon juice, and 350,000 lbs. avoirdupois of essence, extracted from the peel, were exported. 1,000 lemons yield 1 lb. avoirdupois of essence, and 9 imperial gallons of lemon juice. Sixty gallons of raw, yield 10 gallons of concentrated juice.

The cultivation of silk is largely prosecuted in the neighbourhood of Messina.

A railroad was opened in 1866 between Messina and Catania. The distance is 58 miles. (See Mr. Vice-consul Rickard's Report, from which most of the above particulars are derived. (For Trade of Sicily, see art. PALERMO.)

METALS (*Lat. metalla; Fr. métaux*). Solid (with the single exception of quicksilver, which is fluid), and used, on that account, to be called semi-liquids, opaque, heavy bodies, which melt at previous degrees of temperature, and recover their fractured they exhibit a brilliant or lustrous appearance, and possess more or less malleability, tenacity, and so forth. The really valuable metals, comprising gold, silver, quicksilver, copper, lead, iron, and tin, were all known to the ancients, and were as much esteemed by them as by the moderns. They are sometimes found native, but far more generally in the shape of ores intermixed with other bodies. And their separation from the latter, and manufacture into useful and ornamental articles, is one of the greatest achievements of human industry, and has contributed more, perhaps, than anything else to accelerate the progress of civilisation. At this moment forms one of the most important, if it be not the most important, industrial pursuits carried on in this country. The reader will find notices of the names. And we only notice them here that we may insert the following statements, viz., an estimate of the quantity and value of the metals produced in the United Kingdom in 1866 as they came from the furnace, and an account of the quantities and values of the metals exported in each of the three years ending with 1867. The estimate of statement of the quantities and value of the metals produced in a crude state in 1867 is:—

Metals	Quantities	Value
Iron	4,761,023 tons	£11,992,557
Tin	8,709 "	799,203
Copper	10,233 "	331,761
Lead	68,140 "	1,337,599
Zinc	3,750 "	79,693
Silver	805,394 oz.	215,400
Gold	1,520 "	5,390
Other metals	—	15,000
Total	—	15,187,015

Statement of the Quantities of Foreign and Colonial Metals Imported into the United Kingdom during each of the 5 Years ending with 1867.

Metals	1863	1864	1865	1866	1867
Metals	109,099	95,301	122,218	129,517	102,782
Mercury	12,778	25,357	22,858	21,000	29,663
Lead	46,635	33,018	51,164	64,178	71,703
Copper	4,016	7,619	6,777	4,451	—
Zinc	28,609	30,816	34,905	36,946	45,158
Silver	31,572	31,281	30,683	29,239	—
Gold	9,728	4,905	5,698	5,551	54,297
Other metals	1,702,338	4,765,499	1,731,825	3,515,410	—

Statement of the Quantities of the Foreign and Colonial Metals Exported from the United Kingdom in each of the 5 Years ending with 1867.

Metals	1863	1864	1865	1866	1867
Metals	6,227	9,022	9,514	14,092	14,160
Mercury	12,460	12,681	9,636	14,843	23,079
Lead	4,265	3,425	3,771	1,083	6,827
Copper	1,135	1,595	2,005	3,419	1,329
Zinc	1,851,658	2,962,453	1,155,287	1,904,085	2,422,110



neighbourhood of Meaux (Seine and Marne) in calcareous rocks. The substance which is cemented into masses of sufficient dimensions is nearly pure silica, with a slight admixture of alumina and oxide of manganese.

The island of Milo in the Archipelago furnishes mill stones of a very excellent quality. They are exported to Greece, Italy, and other countries on the Mediterranean, where they are employed in grinding the hard wheat, or grano duro, used in the manufacture of macaroni, vermicelli &c. The quarries are wrought on account of Government, and the stones sold at moderate prices, fixed by a tariff, which, however, bore a handsome profit to the state. (Tournefort, Voyage au Levant, letter iv.; Stroug's Greece, p. 222.)

Whether it was owing, as was generally supposed, to the inferiority of the stones, or to some other cause, there can be no doubt of the fact that, down to a late period, our flour mills were less efficient than those of France and some other countries; and hence, in part at least, the late very large importations of French flour. But this inferiority is now all but wholly obviated. The English mills produce flour of a superior quality; and hard, as well as soft wheat is readily bought by our millers. The duties on mill and other stones have been repealed.

**MIXING COMPANIES.** By this designation was formerly meant the associations formed in London, in 1825, for working mines in Mexico and South America; but at present it comprises all mining projects carried on by joint-stock associations.

The mania for mining concerns, which raged in London and the empire generally in 1824 and 1825, after the opening of Mexico and other parts of Spanish America to our intercourse, forms a remarkable and disgraceful era in our commercial history. Now that the delusion is long past, we were difficult in conceiving how mercantile men could be led to entertain such visionary speculations, and to pay immense premiums for shares in distant and hazardous undertakings of which they knew little or nothing. We may, therefore, be excused for appropriating a page or two to the notice of an infatuation hardly second only to that which led to the South Sea and Mississippi schemes.

The American mining companies formed at the outset had some sort of basis for favourable expectations, their directors having made contracts for a number of mines in Mexico, described by Humboldt as having enriched many families. This particularly applies to the Real del Monte Company, whose mines are situated in the mountainous district of that name; to the Anglo-American Company, whose mines are at Guanajuato, the principal mining quarter in Mexico; and to the United Mexican Company, whose prospects, though too widely spread, comprise several valuable mines at Zacatecas, Sombrecete, Matasrato, and other parts.

These associations were formed in London early in 1824, and during the spring and summer of that year their stock or shares bore only a small premium; but towards the winter it began prodigiously to rise; not because of any favourable intelligence from the mines (for the accounts from Mexico merely reported the arrival of the English agents), but from a blind ardour and spirit of speculation in the public, which really took *omnia pro magnifico*, every rumour of a mine was certain and inexhaustible source of profit and wealth! It was supposed that our countrymen were about to reap an immediate harvest; to lay

their hands on a treasure hid for ages. This was said to be the true discovery of America, the effectual access to her resources. Every new contract for a Mexican mine produced a rise in the shares of the other companies, as if the fresh undertaking must necessarily be a source of profit to the whole! And the result was, that in January, 1825, the premium on the shares of most of the companies exceeded cent. per cent.! It must not, however, be imagined that this rise of price was occasioned solely by the competition of individuals who intended to continue to hold stock and to trust to the dividends made by the companies for a return. That this was the case in the first instance, is speaking generally, true. But a host of others, actuated by very different views, speedily entered the field. A peculiar combination of circumstances, at the head of which must be placed an almost incredible degree of ignorance and folly on the part of a considerable portion of the public, spread a spirit of gambling among all classes. Many who were most eager in the pursuit of shares, intended only to hold them for a few hours, days, or weeks, to profit by the rise which they anticipated would take place, by selling them to others more credulous or bold than themselves. The confidence of one set of speculators confirmed that of others. Meanwhile the public gullibility, or rather its indiscriminating rapacity, was liberally administered to. Company after company was formed without any previous contract; in other words, without any foundation whatever! The plan was, to fix on a district in America, understood to contain mines; to form a company bearing the name of such district; to obtain a first payment from the shareholders, and to send or pretend to send out agents, to survey the district and engage mines. Such was the case of most of those companies having the names of districts in South America; and such, also, was the case of the Hispaniola or St. Domingo Company, formed on the basis of accounts given by Robertson of mines wrought in that island some three centuries ago! And yet lawyers, clergymen, and even the nobles of the land, were candidates for shares in these miserable bubbles, in the hope of finding (in which, luckily, most of them were disappointed) some dupe to buy their shares at a premium. Those who may be desirous of seeing the extent which the public credulity was practised upon in 1824 and 1825, may consult a pamphlet published by H. English, broker, in 1827, which contains an account of all the joint-stock companies formed and projected in these memorable years. It presents a most extraordinary picture. There were in all 74 mining companies formed and projected! The number and quality of the other schemes were similar. It is due to Mr. Baring (the late Lord Ashburton) to say that he denounced the evil when in progress, and warned the unthinking multitude of the ruin they were bringing upon themselves; but to no purpose.

As the year 1825 proceeded, the mining mania gradually declined, not from any falling off in the prospects of the companies, for in truth they never had any, but in the supply of money in London. That redundancy of the currency in which the mining mania had partly originated, having brought about an adverse exchange, and a heavy drain for bullion on the Bank of England, the latter was obliged to pull up, and in a moment the bubble burst, and unreasonable suspicion took the place of blind unthinking confidence. Mining projects, from being in the highest favour, fell to the lowest point in the public estimation. The shares of the three principal companies, some

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of which had been at a premium of 500 per cent., fell to par: that is, 100*l.* in money, and no more, could be got for 100*l.* of the company's stock! They maintained this price for a considerable time, because most of the parties interested continued to have a favourable impression of the undertakings. Demands, however, continued to be made for additional sums to meet the expenditure abroad; and in 1826 and 1827 mining shares progressively declined, so that 100*l.* fetched only 20*l.* or 25*l.* in money. The bubble companies were entirely destroyed, and the few only remained that were founded by capitalists and had some foundation to stand upon.

Even these would have been relinquished, or have shrunk into very small dimensions, had not the directors been able to enforce further payments, by forfeiting, in default of such, whatever had been previously paid by the subscribers. The usage was, that on becoming a shareholder each person subscribed the deed of the company, engaging to pay, when called on, such instalments or sums to account (generally 10*l.* on each share) as should be required by the directors, until he had completed payment of the 100*l.* And many shareholders who had advanced 50*l.* or 60*l.* unwisely preferred paying 10*l.* from time to time, rather than incur the immediate forfeiture of all they had paid. Those who held only a few shares felt this in a less degree; but to the holders of a number of shares, the grievance was most serious. Numbers of them raised the money with great diligence; often selling, at a heavy loss, their family property, or prevailing on relations to make them advances, to their great inconvenience, and, as far as can be seen, with almost no prospect of a return. Resentment would be excited against the directors, had they not been, in general, the heaviest sufferers; their regulations required them to hold a certain number of shares (perhaps 20 or 30); but in their blind confidence they frequently held 200 or 300, and drew on themselves a proportional sacrifice—in several cases, the loss of their whole property.

The managers of the companies formed in the outset were principally chargeable with ignorance, rashness, and overweening confidence. They had, in fact, but little information to go upon. The monopoly enforced by Old Spain had prevented any considerable communication between this country and her colonies. And of the Spaniards settled in Mexico, and driven from it by the civil wars and consequent emancipation of the country, few or none found their way hither, the great majority having repaired to Cuba, the south of France, and Spain. Nor were the published accounts of the country entitled to much confidence: Humboldt's *Travels* formed the chief authority, but their illustrious author, though generally cautious, seems, in this instance, to have placed too much confidence in vague, exaggerated statements. Our merchants knew, generally, that silver mines formed a main branch of the productive industry of Mexico, and had enriched very many families originally in humble circumstances; but they had no idea of the injury sustained by the mines during the civil war, nor of the amount of expenditure required to bring them into a working state; nor were they aware how little useful information could be expected from the natives; the working of the mines, like every operation requiring skill and intelligence, having been superintended by natives of Old Spain, who had either fallen in the civil war, or been expelled after the Mexicans succeeded in the contest. Hence, the agents of our companies found on the spot only native Mexicans, without education or experience

in business, and, speaking generally, without candour or probity. They urged our countrymen to drain the mines, not by machinery, of which they had no idea, but by animal power, the use of which was of advantage to them, by employing their horses and mules, and creating a great consumption of maize, the principal grain of the country. Then, as to the last and most important stage in the business of mining—the mode of extracting the silver from the ore—the Mexicans, wholly unacquainted with the improvements made in Germany during the last half-century, recommended an amalgamation, a process conducted by them in a very rude manner, and which in most qualities of silver ore, fails to extract the whole, or anything like the whole, of the metal. The object of the Mexicans, in short, was merely to make English capital be circulated among them, thus giving employment to their people for time, and bringing the mines into an improved state; when they (the Mexicans) might hope to resume them after our countrymen had exhausted their resources, or had become weary of the contracts.

The expense of conveying the requisite machinery from the coast of Mexico to the mining districts, generally at a great distance in the interior, absorbed much capital. The country has no practicable roads, and these have latterly been allowed to fall into disrepair; draught carriages are almost unknown, and burdens are carried on the backs of mules and horses; add to this, Mexico being under-peopled, labour is nearly as high in value as in the United States of North America; and the mechanical arts being in a manner unknown, all skilled workmen, such as carpenters, blacksmiths, and working engineers, had to be sent from England at a heavy expense. (For an account of the low state of the arts in Mexico, see the extracts from *Chevalier's Letters* in the *Geog. Dict.* art. 'Mexico.')

Such were the chief causes of the failure of Mexican mining companies; and several of them may be referred to one radical disadvantage—the non-existence of silver mines in England, or in Cornwall, considerable mines of this metal, while in the northern countries we have mines of lead; but of silver we have none. How much better had it been, if our countrymen set out with a conviction that Germany is the only country in which the treatment of silver ore is conducted on sound principles! The Saxons extract a profit of one-fourth or fifth part of the ore raised by the means on account of our companies, but the process being wrought by their crude, inefficient, and expensive process, fails to afford anything like a satisfactory return. There seems no reason to doubt that the German process may be applied to silver ore in Mexico as in Europe; the difficulties arise, not from difference in the quality of the ore, but from the want of experienced smelters, and the general backwardness of the Mexican mechanics.

An English company, formed in 1855, for the length applied modern science to the reduction of the ores of the Guanajuato district into water-power.

But though the companies had been, in other respects successful, they had a serious objection to contend with in the unsettled state of the country. No Government has as yet been established in Mexico, nor in any other of the constituted American states, with powers sufficient, in inclination, sufficient to put down anarchy, or to enforce the observance of

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So long as the companies were struggling to put their mines into order, they sustained little inconvenience from the circumstances now mentioned; but the moment they had succeeded in bringing them once more into a productive state, and were beginning to have a reasonable prospect of obtaining some return for their enormous outlays, they were annoyed by questions as to title, and by the setting up of claims on the mines, of which they had never heard before. In some instances the claimants had recourse to violence, and the companies' servants were forcibly ejected from their works! Chevallier says that it required an armed force to transport any quantity of ore from the mine to the place of its destination; and he gives an account of a murderous attack made in 1853 on some miners belonging to the Real del Monte Company. (*Geog. Dict. art. 'Mexico.'*)

**MINERAL METALS; VERA CRUZ.]**  
Without, however, pretending to anticipate the result of these remote speculations, we shall conclude with a brief notice of the considerations on both sides of the question. The circumstances adverse to the success of mining companies in America, conducted on account of parties in England or in any part of Europe, are—

1. The various disadvantages of distant management. These are so many and so serious, as to admit of only one corrective—selling the ore as soon as it is raised, and transferring to individuals, for their own account, the extraction of the metal, as they were in Cornwall, and, in a somewhat different manner, in Saxony. The ores also ought to be raised by paying the workmen, not fixed wages, but a share or portion of the proceeds.

2. The half-civilised state of the inhabitants, their unsettled political condition, and the want of power or disposition on the part of those in power to make contracts be observed; and to enforce the former proprietors of the mines, or those connected with them, from setting up vexatious claims, and enforcing them by violence.

3. The high price of labour; the ignorance of the natives as to mechanics, and still more as to mining; Hence the necessity of having artificers and confidential superintendents from Europe at a heavy expense.

On the other hand, the circumstances in favour of such undertakings are—

1. The abundance of silver ore, which is far more than in any part of Europe.

2. The former success of mining in Mexico, and the system extremely rude and expensive, compared to that which is now followed in Germany.

3. The probability of peace in Europe, and of the abundance of moneyed capital; so that the failure of the present companies may not involve the ruin of their enterprises, any more than the failure of the first New River Company, two centuries ago, implied an abandonment of their project. There is surely, also, some probability that anarchy and disorder will ultimately prevail; and that the security of property will, in the end, be established. We confess, however, that these are but problematical and contingent considerations; and that it may reasonably be doubted whether any considerable future success can be expected.

It seems, however, as if there were something in mining speculations that renders them exceedingly unsuitable for joint-stock associations. At present, hardly one of the joint-stock associations formed in this country for the working of mines has been successful. The company for working the copper mines near Santiago in Cuba seems to be the only one that has in any degree

realised the magnificent prospects that were held out in 1824 and 1825. (See Mr. Secretary Middleton's Reports of July 10, 1866, and November 29, 1867, *On the Silver-mines of Guanajuato.*)

**MINIUM or RED OXIDE OF LEAD.** A tasteless powder of an intense red colour, often inclining to orange, and very heavy; its specific gravity being 8.91. It is extensively used in the arts.

**MOBILE.** [*NEW ORLEANS ad finem.*]  
**MOCHA or MOKHA.** The principal port in the Red Sea frequented by Europeans, in that part of Arabia called Yemen, about 40 miles to the north of the Strait of Hab-el-mandeb, lat. 13° 19' 30" N., long. 43° 20' E. Population variously estimated up to 7,000, but may, perhaps, amount to from 4,000 to 5,000. It is encircled with walls, and indifferently fortified. Its appearance from the sea is imposing. Mocha has greatly declined since the occupation of Aden.

Mocha is situated on the margin of a dry sandy plain. It is built close to the shore, between 2 points of land which project and form a bay. Vessels drawing from 10 to 12 feet water may anchor within this bay at about a mile from the town; but large ships anchor without the bay in the roads, in 5 or 7 fathoms water—the grand mosque bearing E.S.E., and the fort to the south of the town S. by E, distant about two miles from the shore. The great article of export from Mocha is coffee, which is universally admitted to be of the finest quality. It is not possible to form any very accurate estimate of the quantity exported; but we believe it may be taken at 10,000 tons, or perhaps more. The greater portion is sent to Djidda and Suez; but there is a pretty large export to Bombay and other parts of India, whence some is sent to Europe; occasionally, however, the exports from Mocha and Hodeida, direct to Europe, are very considerable. Besides coffee, the principal articles of export are dates, adjuce, or paste made of dates, myrrh, gum arabic, oilbanum, senna (*cassia senna*), sharks' fins, tragacanth, horns, and hides of the rhinoceros, balm of Gilead, ivory, gold-dust, civet, aloes, saganpenum &c. The principal articles of import are rice, piece goods, iron, hardware &c. The ivory, gold-dust, and civet, met with at Mocha, are brought from the opposite coast of Abyssinia, whence are also brought slaves, ghee &c.

The greater part of the foreign trade of Mocha is transacted by the Banims; and it is much safer to deal with them than with either Turks or Arabs. Europeans pay a duty of 3 per cent. ad valorem on all goods imported by them from Europe, India, or China; the duty being levied on the amount of the sales. The buyer pays brokerage, coolery, and boat hire. All kinds of foreign goods are sold on credit, and the payment is made in 3 instalments, or at a certain day, according as may have been agreed on. Coffee is always paid for in ready money. On the sale of other goods, the produce of the country, a credit is given; or if ready money be paid, a discount is allowed at the rate of 9 per cent. When goods are discharging, the master must furnish the Custom-house officer with a manifest, or account of the marks, numbers, and contents of each package. He then opens two or three bales taken at random; and if they correspond with the account delivered, no further examination is made; but if they do not correspond, the whole bales are opened, and double duty is charged upon the excess. The quantities being thus ascertained, their value is learned from the account of sales rendered by the seller, and the duty charged accordingly. In this respect there is nothing to object to at

Mocha; but a good deal of extortion is practised in the exaction of port charges, presents &c., which may, however, be defeated by proper firmness. The port charges on ships, or *three-mast* vessels, may amount to about 400 Mocha dollars, and those on brigs to about half as much. Provisions are plentiful and cheap; but water is dear: that in the vicinity being brackish and unwholesome, whatever is used for drinking, by all but the poorest persons, is brought from Mosa, about 20 miles off. Fish are abundant and cheap, but not very good.

**Money.**—The current coins of the country are carats and commasces; 7 carats=1 commasce; 10 commasces=1 Spanish dollar; 100 Spanish dollars=12½ Mocha dollars.

**Weights and Measures.**—The commercial weights are—

- 15 Vakias = 1 Hottob = 1 lb. 2 oz. avoird.
- 40 Vakias = 1 Maund = 7 lbs. avoird.
- 10 Maunds = 1 Frazel = 30 lbs. avoird.
- 15 Frazels = 1 Bahar = 450 lbs. avoird.

There is also a small maund of only 30 vakias: 1 Mocha bahar=16½ Bombay maunds; 1 Mocha bahar=13 Surat maunds=15123 seers. Grain is measured by the kallah, 40 of which = 1 tomand, about 170 lbs. avoirdupois. The liquid measures are 16 vakias=1 mussenah; 8 mussenahs = 1 cuda, about 2 English wine gallons. The long measures are the guz=25 English inches; the hand covid=18 inches, and the song iron covid = 27 inches.

In compiling this article, we made use of Milburn's *Oriental Commerce*, and Elmore's *Directory*. Niebuhr has given a plan of the port of Mocha in his *Voyage en Arabie*, tom. i. p. 348, ed. Amst. 1776. He has also given some details as to its trade in his *Description de l'Arabie*, p. 191. But the best account we have seen of Mocha is in Hamilton's *Account of the East Indies* (vol. i. pp. 40-52), an accurate and valuable work. Burchhardt did not visit Mocha; which is to be regretted.

**MOGADORE or SUIRA.** A sea-port town

on the west coast of Morocco, lat. 31° 50' N., long. 9° 20' W. Population estimated at 20,000, including about 4,000 Jews. It is indifferently fortified; the country in the immediate vicinity is low, flat, sandy, and unproductive. Water is scarce and rather dear; being either rain water collected and preserved in cisterns, or brought from a river about 1½ mile distant. The port is formed by a small islet lying to the southward of the town; but as there is not more than 10 or 12 feet water in it at ebb tide, large ships anchor without, the long battery bearing E. distant 1½ mile. The principal imports are, English woollens and cotton stuffs and hardware, German linens, tin, copper, earthenware, mirrors, glass, sugar, pepper, and paper. The exports principally consist of sweet and bitter almonds, gum arabic and other gums, beeswax, cow and calf skin, ivory, ostrich feathers, gold-dust, olive oil, dates &c.

The city of Morocco, distant from Mogadore about 4 days' journey (caravan travelling), derives its principal supplies of European produce from the latter; but for a long period, the fiscal regulations and caprice of the Sultan put serious hindrances in the way of trade. Thus, for instance it was part of the Government policy to absolutely prohibit the exportation of grain, even at a time when it was exceedingly plentiful in Morocco and very scarce in the nearest parts of Europe. The export duties were, even when trade was permitted, commonly 30 per cent. on the value of the article, and the import duties were paid in kind one-fifth of the article imported. Under such a system trade languished, and, as was stated in a former edition, the exports to those regions averaged during the 10 years ending with 1865 only 61,712l. a-year.

Under these circumstances, the British Government entered into negotiations with the Sultan and the result was a treaty of commerce signed December 9, 1856, for the provisions of which see TREATIES, COMMERCIAL.

Tonnage of Mogadore in the Years 1862-4.

	1862			1863			1864		
	Vessels	Tons	Value of Cargoes	Vessels	Tons	Value of Cargoes	Vessels	Tons	Value of Cargoes
Entered	76	21,760	228,737	100	23,576	309,321	75	19,615	430,311
Cleared	71	20,472	215,231	91	20,641	353,088	72	18,964	375,911

More than half of these vessels were British. In ordinary years the most important export is olive oil, of which 94,851 cwts. were exported in 1866 and but 12,689 in 1867. Wool ranks next, then almonds, goat skins, slippers, wax, hides, and ostrich feathers. The principal imports are Manchester goods, specie, and sugar. Mr. Consul White, of Tangier, in his *Reports* of April 9, 1867 and May 23, 1868, on the Trade and Commerce of Morocco, gives the following particulars, which speak for themselves.

**Shipping.**—The following return of vessels which entered Moorish ports during the 4 years ending with 1867, shows that, although the number of vessels in 1867 was smaller than in the previous year and in 1864, the tonnage was greater:—

	Vessels	Tons
1864	1,108	122,950
1865	915	115,276
1866	1,038	120,876
1867	991	125,226

The value of the cargoes in 1866 being 1,037,986l. and in 1867, 936,780l.

**British Shipping.**—The number of British vessels entering ports of Morocco was greater, al-

though the tonnage was less, in 1866 than in 1865, being in 1865, 447 vessels of 77,008 tons, and in 1866, 487 vessels of 69,752 tons, while the entered, in 1867, 517 British vessels of 73,280 tons.

**Foreign Shipping.**—A very considerable increase is observable in the number of French vessels trading with Morocco. In 1865 only 39,946 tons, entered. This increase was caused by the establishment of a line of steamers belonging to the Messageries Impériales, which monthly, during 1866, and subsequently twice a month, between Tangier and Orléans, in correspondence with Algiers and Marseilles.

**Exports.**—The export trade of Morocco, during the three years ending with 1866 was steadily increasing, the exports to France, during that year, being greatly in excess of former years; but general exports, and especially those to Great Britain and Gibraltar, during the year 1867, were far short of those of the previous year, thus

	£	to Great Britain
1864	867,880	575,473
1865	1,014,031	707,891
1866	1,039,013	657,497
1867	516,998	347,809

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Year	No. of Ships	Tons
1861	41	5,615
1862	38	4,215
1863	29	3,415
1864	40	5,615

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This falling off, says Mr. Consul White, may be accounted for in a great measure by the shortness of the crops.

Compared with 1865 and 1866, the year 1867 shows a slight decrease, thus:

Year	Value	Value of which was from Great Britain
1865	21,463,177	2,966,119
1866	20,828,228	7,501,680
1867	19,992,961	714,560

The following table represents the value of goods taken by different countries from Morocco during the year 1866—

Country	Value
Great Britain and Gibraltar	637,407
France	307,210
Spain	35,532
Portugal	34,186
Germany	4,193
Belgium	3,558
Italy	2,223

In the year 1866, according to M. St. Chaffray, Vice-Consul at Rabat, there was a great decline at that port. The causes are the loss of crops, and the general circulation of base money—a wrong for which it appears the Government is responsible. *Consular Reports 1866, No. 6.*

Trade of Rabat.

Year	No. of Ships	Tonnage	British Ships	Tonnage	Value of Imports	Value of Exports
1865	11	3,662	12	880	115,806	71,838
1866	38	27,011	12	972	72,372	72,611
1867	39	24,476	8	499	66,683	46,293
1868	40	25,600	8	560	47,683	52,708

Money—Accounts are kept in nutkeels of 10 ounces; the ounce being divided into 4 blankeels, and the blankeel into 24 luccs. From their proportion to the Spanish dollar, the blankeel may be valued at 1*d.*, the ounce at 4*d.*, and the nutkeel at 3*s.* 4*d.*

Weights and Measures.—The commercial pound is generally regulated by the weight of 20 Spanish dollars; and therefore 100 lbs. Mogadore weight, or the quintal, = 119 lbs. avoirdupois. The market pound for provisions is 50 per cent. heavier, or 1*l.* 12 oz. avoirdupois.

The corn measures are for the most part similar to those of Spain, but there are considerable discrepancies.

The cubic, or canna, = 21 English inches, is the principal long measure.

The most ample details with respect to the commerce of Mogadore, and the trade and productions of Morocco in general, may be found in Jackson's *Annals of Morocco*, c. 6, 7, and 13; see also Kelly's *Manual for treaty with Morocco*.

MOHAIR (Ger. mohr; Fr. moiré; Ital. moerrio; Span. moer, muer). The hair of a variety of the mountain goat, famous for being soft and fine as silk, and of a silvery whiteness. It is not produced anywhere but in the vicinity of Angora, in Asia Minor. The exportation of this valuable and beautiful article, unless in the shape of yarn, is formerly prohibited; but it may now be exported unspun. The production, preparation, and use of Mohair have long engrossed the principal attention of the inhabitants of Angora; and it is held to form an important article of Venetian commerce. It is manufactured into camlets and other expensive stuffs. In 1867, 2,648,360 lbs. of Mohair, valued at 842,106*l.*, were imported into the United Kingdom, nearly the whole of which came from Turkey. It was reported worth 1*l.* 4*d.* per lb. The average annual produce of the hair from Asia Minor is about 15,000 bags; the average weight per fleece 5 lbs.; and the ordinary weight of wool from 6 to 8 inches; average weight per bale 180 lbs.

The British mohair fabrics are principally pre-

pared in Bradford and its immediate neighbourhood. (See for further particulars, *Tournefort, Voyage du Levant*, ii. 463, where there is a figure of the goat; and Urquhart *On Turkey and its Resources*, p. 181.)

MOLASSE or MELASSES (Fr. sirop de sucre, melasses; Ger. syrup; Ital. mielazzo di zucchero; Span. miel de azucar, chancana; Port. melasso, assucar liquido; Russ. patoka sacharnaja). The uncrystallisable part of the juice of the sugar cane, separated from the sugar during its manufacture. It is of a brown or black colour, thick and viscid; has a peculiar odour, and a sweet empyreumatic taste. Molasses is now charged with a duty of 3*s.* 6*d.* per cwt. in place of the old duties of 9*s.* for colonial, and 23*s.* 9*d.* for foreign. It is not, however, used in its original state, but is purchased by the sugar-bankers, who, when it is of an ordinary degree of strength, extract from it a coarse, soft species of sugar, called bastards, and treacle. But it is obvious, inasmuch as the duty on molasses is fixed, that the duty on the sugar extracted from it will vary indirectly according to the quantity of saccharine matter which it contains; and we understand that, in consequence, molasses is frequently imported so rich as to yield good crystallised sugar. We do not know whether the practice has been carried to such an extent as materially to injure the revenue; but it seems pretty clear that the duty should depend, in part at least, on the quality of the molasses, or on the quantity of saccharine matter which it contains, as well as on the weight. It is difficult—unless advantage has been taken of the way in which the duty is assessed, to elude the sugar duties—to account for the fact of the imports of molasses from the West India Islands not having diminished in anything like the same proportion as the imports of sugar. [SUGAR.]

About 8 gallons of proof spirit may, it is said, be obtained from a cwt. of molasses, such as has recently been imported; but this depends, of course, wholly on the richness of the molasses.

Part of the refuse that remains after refining muscovado sugar, is a sweet syrup, which, as well as the syrup that remains after boiling molasses to obtain bastards, is called treacle. But the treacle obtained from the former is always preferred to that obtained from the latter, and fetches 2*s.* per cwt. more.

Molasses is sometimes used in preparing the coarser sort of preserves; and on the Continent it is extensively used in the manufacture of tobacco.

In 1867, 358,316 cwt. of molasses were imported; and 403,709 cwt. entered for consumption, of which 214,969 cwt. were brought from Cuba. The duty during the same year amounted to 56,119*l.*

MONEY. When the division of labour was first introduced, commodities were directly bartered for each other. Those, for example, who had a surplus of corn, and were in want of wine, endeavoured to find out those who were in the opposite circumstances, or who had a surplus of wine and wanted corn, and then exchanged the one for the other. It is obvious, however, that the power of changing, and, consequently, of dividing employments, must have been subjected to perpetual interruptions, so long as it was restricted to mere barter. A carries produce to market, and B is desirous to purchase; but the produce belonging to B is not suitable for A. C, again, would like to buy B's produce, but B is already fully supplied with the equivalent C has to offer. In such cases—and they must be of constant occurrence wherever money is not introduced—no direct exchange could take place between the parties; and

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it might be very difficult to bring it about indirectly. The difficulties that would arise on such occasions, and the devices that would be adopted to overcome them, have been very well illustrated by Colonel Torrens, in his work on the *Production of Wealth*, p. 291.

The extreme inconveniences attending such situations must early have forced themselves on the attention of everyone. Efforts would, in consequence, be made to avoid them; and it would speedily appear that the best or rather the only way in which this could be effected, was to exchange either the whole or a part of one's surplus produce for some commodity of known value, and in general demand; and which, consequently, few persons would be inclined to refuse to accept as an equivalent for whatever they had to dispose of. After this commodity had begun to be employed as a means of exchanging other commodities, individuals would become willing to purchase a greater quantity of it than might be required to pay for the products they were desirous of immediately obtaining; knowing that should they, at any future period, want a further supply either of these or other articles, they would be able readily to procure them in exchange for this universally desired commodity. Though at first circulating slowly and with difficulty, it would as the advantages arising from its use were better appreciated, begin to pass freely from hand to hand. Its value, as compared with other things, would thus come to be universally known; and it would at last be used, not only as the common medium of exchange, but as a standard by which to measure the value of other things.

Now this commodity, whatever it may be, is *money*.

An infinite variety of commodities have been used as money in different countries and periods. But none can be advantageously used as such, unless it possess several very peculiar qualities. The slightest reflection on the purposes to which it is applied, must, indeed, be sufficient to convince everyone that it is indispensable, or, at least, exceedingly desirable, that the commodity selected to serve as money should (1) be divisible into the smallest portions; (2) that it should admit of being kept for an indefinite period without deteriorating; (3) that it should, by possessing great value in small bulk, be capable of being easily transported from place to place; (4) that one piece of money, of a certain denomination, should always be equal, in magnitude and quality, to every other piece of money, of the same denomination; and (5) that its value should be comparatively steady, or as little subject to variation as possible. Without the *first* of these qualities, or the capacity of being divided into portions of every different magnitude and value, money, it is evident, would be almost useless, and could only be exchanged for the few commodities that might happen to be of the same value as its indivisible portions, or as whole multiples of them; without the *second*, or the capacity of being kept or hoarded without deteriorating, no one would choose to exchange commodities for money, except only when he expected to be able speedily to re-exchange that money for something else; without the *third*, or facility of transportation, money could not be conveniently used in transactions between places at any considerable distance; without the *fourth*, or perfect sameness, it would be extremely difficult to appreciate the value of different pieces of money; and without the *fifth* quality, or comparative steadiness of value, money could not serve as a standard by which to measure the value of other commodities; and no one would be disposed to

exchange the produce of his industry for an article that might shortly decline considerably in its power of purchasing.

The union of the different qualities of comparative steadiness of value, divisibility, durability, facility of transportation, and perfect sameness in the precious metals, doubtless, formed the insistent reason that has induced every civilized community to employ them as money. The value of gold and silver is certainly not invariable, but generally speaking, it changes only by small degrees; they are divisible into any number of parts, and have the singular property of being easily reunited, by means of fusion, without loss; they do not deteriorate by being kept; and, from their firm and compact texture, they are very difficult to wear. Their cost of production, especially that of gold, is so considerable, that to possess great value in small bulk, and can, of course, be transported with comparative facility, and an ounce of pure gold or silver, taken from the mines in any quarter of the world, is precisely equal, in point of quality, to an ounce of gold or silver dug from the mines in any other quarter. No wonder, therefore, when all qualities necessary to constitute money are possessed in so eminent a degree by the precious metals, that they have been used as such, in civilised societies, from a very remote era. 'It became universal money,' as Turgot has observed, 'not in consequence of any arbitrary agreement among men, or of the intervention of any law, but by the nature and force of things.'

When first used as money, the precious metals were in an unfashioned state, in bars or ingots. The parties having agreed about the quantity of metal to be given for a commodity, that quantity was then weighed off. But this, it is plain, has been a tedious and troublesome process. Doubtless, however, the greatest obstacle would be experienced, in early ages, to the use of gold and silver as money, would be found to consist in the difficulty of determining the degree of their purity with sufficient precision; and the discovery of some means by which their weight and fineness might be readily and correctly ascertained, would be felt to be indispensable to extensive use as money. Fortunately, however, means were not long in being discovered for the fabrication of coins, or the practice of impressing pieces of the precious metals with a stamp indicating their weight and purity, belongs to the remotest antiquity. (Gogue, *De l'Origine des Monnoies* &c. tome 1. p. 263.) And it may safely be affirmed, that there have been very few instances of greater utility, or that have done more to accelerate the progress of improvement.

It is material, however, to observe, that the introduction and use of coined money may change whatever in the principle on which the changes were previously conducted. The coinage saves the trouble of weighing and assaying gold and silver, but it does nothing more. If a piece of metal and purity of the metal in a coin is of the value of that metal or coin is in itself determined by precisely the same principles that determine the value of other commodities, it would be as little affected by being recoinage into a new denomination, as the burden of a debt is changed by her name.

Inaccurate notions with respect to the origin of coinage seem to have given rise to the so long entertained, that coins were made of signs of values! But it is clear they were more claim to this designation than bars of gold or copper, sacks of wheat, or any other commodity. They exchange for other things, because

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desirable articles, and are possessed of real intrinsic value. A draft, check, or bill may not improperly, perhaps, be regarded as the sign of the money to be given for it. But that money is nothing but a commodity; it is not a sign—it is the thing signified.

Money, however, is not merely the universal equivalent, or *merchandise vendite*, used by society: it is also the *standard* used to compare the values of all sorts of products; and the stipulations in the great bulk of contracts and deeds, as to the delivery and disposal of property, have all reference to, and are commonly expressed in, quantities of money. It is plainly, therefore, of the utmost importance that its value should be preserved as invariable as possible. Owing, however, to improvements in the arts, the exhaustion of old mines, and the discovery of new ones, the value of the precious metals is necessarily inconstant: though, if we except the effects produced in the 16th century by the discovery of the American mines, it does not appear to have varied so much at other times as might have been anticipated. Great mischief has, however, been repeatedly occasioned by the changes that have been made in most countries in the weight, and sometimes also in the purity, of coins; and since the impolicy of these changes has been recognised, similar, and perhaps still more extensive, disorders have sprung from the improper use of substitutes for coins. It is, indeed, quite obvious, that no change can take place in the value of money, without proportionally affecting the pecuniary conditions in all contracts and agreements. Much, however, of the influence of a change depends on its direction. An increase in the value of money is uniformly more prejudicial in a public point of view than its diminution: the latter, though injurious to individuals, may sometimes be productive of national advantage; but such can never be the case with the former. (See *Principles of Political Economy*, by the author of this work, 3rd ed. pp. 510—515.)

No certain estimate can ever be formed of the quantity of money required to conduct the business of any country; this quantity being, in all cases, determined by the value of money itself, the services it has to perform, and the devices used for economising its employment. Generally, however, it is very considerable; and when it consists wholly of gold and silver, it occasions a very heavy expense. There can, indeed, be no doubt that the wish to lessen this expense has been one of the chief causes that have led all civilised and commercial nations to fabricate a portion of their money of some less valuable material. Of the various substitutes resorted to for this purpose, paper is, in all respects, the most eligible. Its employment seems to have grown naturally out of the circumstances incident to an advancing society. When Government becomes sufficiently powerful and intelligent to enforce the observance of contracts, individuals possessed of written promises from others, that they will pay certain sums at certain specified periods, begin to assign them to those to whom they are indebted; and when the subscribers are persons of fortune, and of whose solvency no doubt can be entertained, their obligations are readily accepted in payment of debts. But when the circulation of promises, or bills in this way, has continued for a while, individuals begin to perceive that they may derive profit by issuing them in such a form as to fit them for being readily used as a substitute for money in the ordinary transactions of life. Hence the origin of bank notes. An individual in whose wealth and discretion the public have confidence, being applied to for a loan, say of 5,000*l.*, grants

the applicant his bill or note, payable on demand, for that sum. Now, as this note passes, in consequence of the confidence placed in the issuer, currently from hand to hand as cash, it is quite as useful to the borrower as if it had been gold; and supposing that the rate of interest is 5 per cent., it will yield, so long as it continues to circulate, a revenue of 250*l.* a-year to the issuer. A banker who issues notes, coins, as it were, his credit. He derives the same revenue from the loan of his written promise to pay a certain sum, that he could derive from the loan of the sum itself, or of an equivalent amount of produce! And while he thus increases his own income, he, at the same time, contributes to increase the wealth of the public. The cheapest species of currency being substituted in the place of that which is most expensive, the superfluous coins are either used in the arts, or are exported in exchange for raw materials or manufactured goods, by the use of which both wealth and enjoyments are increased. Ever since the introduction of bills, almost all general commercial transactions have been carried on by means of paper only. Notes are also used to a very great extent in the ordinary business of society; and while they are readily exchangeable at the pleasure of the holder for coins, or for the precise quantities of gold or silver they profess to represent, their value is maintained on a par with the value of these metals; and all injurious fluctuations in the value of money are as effectually avoided as if it consisted wholly of the precious metals.

In common mercantile language, the party who exchanges money for a commodity is said to buy; the party who exchanges a commodity for money being said to sell. Price, unless where the contrary is distinctly mentioned, always means the value of a commodity estimated or rated in money. (For a further account of metallic money, see the article COIN; and for an account of paper money, see the article BANKS.)

MONOPOLY. By this term is usually meant a grant from the Crown, or other competent authority, conveying to some one individual, or number of individuals, the sole right of buying, selling, making, importing, exporting &c., some one commodity, or set of commodities. Such grants were very common previously to the accession of the House of Stuart, and were carried to a very oppressive and injurious extent during the reign of Queen Elizabeth. The grievance became at length so insupportable, that notwithstanding the opposition of Government, which looked upon the power of granting monopolies as a very valuable part of the prerogative, they were abolished by the famous Act of 1624, the 21 Jas. I. c. 3. This Act declares that all monopolies, grants, letters patent for the sole buying, selling, and making of goods and manufactures, shall be null and void. It excepts patents for *fourteen* years for the sole working or making of any new manufactures within the realm, to the true and first inventors of such manufactures, provided they be not contrary to law, nor mischievous to the State. It also excepts grants by Act of Parliament to any corporation, company, or society, for the enlargement of trade, and letters patent concerning the making of gunpowder &c. This Act effectually secured the freedom of industry in Great Britain; and has done more, perhaps, to excite the spirit of invention and industry, and to accelerate the progress of wealth, than any other in the statute book.

MONTEVIDEO. A seaport, and the capital of the republic of Uruguay, on the north bank of the Rio de la Plata, lat. of the lighthouse 34° 53' 15" S.,

long. 56° 14' 15" W. Population 37,787 in 1862, and with Cordon and Aquada 45,765 in 1862 (Johnston's Gazetteer). The town is built in the form of an amphitheatre, on a regular plan, and is well fortified. It has suffered much from the various revolutions to which it has been subject during the last 30 years.

Montevideo is situated 29° 3' 33" W. of Cape St. Mary, the northern limit of the embouchure of the La Plata. Vessels from the north bound to Montevideo generally make this cape, entering the river between it and the small island of Lobos, in from 14 to 17 fathoms. The course is thence nearly W. to the Isle of Flores, on which is a lighthouse 112 feet above the level of the sea, with a revolving light. From Flores to Montevideo is 16 miles in a direct line, and the course W. by S. by compass. A lighthouse, 486 feet above the level of the sea, has been erected on the summit of the Montevideo, whence the town has its name. The light is visible for 25 miles in clear weather, and gives a flash every three minutes. Since 1862 the dial plate in the south tower of the Cathedral has been lighted with gas. The latter is built on a projecting tongue of land, the port being on its S. side. This, which is the best on the La Plata, is a large circular basin open to the S.W.; generally the water is shallow, not exceeding from 14 to 19 feet, but the bottom being soft mud, vessels are seldom damaged by grounding. It should, however, be observed that the depth of water in the harbour, as well as throughout the whole of the Rio de la Plata, depends very much on the direction and strength of the

winds. The S.W. wind, called *pampero*, blows right into the bay of Montevideo with much force, not unfrequently causing a rise of a fathom or more in depth of water! But it rarely occasions much damage to vessels properly moored with anchors to the S.W., S.E., and one to the N. (Blunt's *American Pilot*, pp. 542-555; Coulier *Sur les Phares &c.*)

Montevideo has a considerable commerce. The great articles of export consist of animal products, or of hides, beef, tallow, hair, bones, grease, wool &c. The imports principally consist of British cottons, woollens, and hardware, iron, wine and spirits, linens, sugar, tobacco, boots and shoes, salt &c. In 1867 the value of our total exports of British produce to Uruguay was 1,472,064, and of our imports therefrom 1,222,228.

NOTES ON IMPORTS.

In National or Foreign Vessels, at Montevideo.

1. Machinery, agricultural implements, instruments used in the arts and sciences, books, prints, and maps
2. Silk, raw and wrought, laces, blondes, gold and silver embroidery, watches, jewellery, saltpetre, plaster of Paris, coal, timber, cotton fringes, and wooden hoops
3. Powder, pitch, tar, rosin, and naval stores - 6 per cent
4. All raw materials and manufactured articles, not included in the preceding enumeration - 12 per cent
5. Sugar, Paraguay and China teas, cocoa, cassia lignea and cinnamon, spices, drugs, and provisions in general - 20 per cent
6. Furniture, pictures, looking-glasses, musical instruments, all sorts of carriages, carts &c., and harness, saddles, horses' furniture (except horse-cloths of the manufacture of the adjacent provinces, which pay 15 per cent), ready-made clothes, boots and shoes, liquors, brandy, wine, vinegar, ale and porter, cider, tobacco, and soap - 25 per cent
7. Hides of all classes, hair, horns, tallow, silver and gold, in bullion or coin

Account of the Quantities and Values of the Principal Articles Imported into the United Kingdom from Montevideo in each of the 3 Years ending with 1867.

Principal Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
Beef, salt	14,718	11,850	4,810	25,536	21,805	8,118
fresh	4,380			5,175		
Bones of animals and fish (except whalefins)	15,568	16,297	19,414	79,909	85,398	97,016
Cotton, raw		19	1,560		6	4,608
Grease	285	6,077	395	499	11,731	1,171
Guano	197	124	317	1,576	872	2,276
Hair, horse	5,269	5,247	9,208	29,919	30,014	11,426
Hides, not tanned	111,232	240,045	187,753	275,427	587,416	473,000
Horns, horns, and pieces of horns	400	422	466	2,813	14,123	14,123
Skins, seal	15,729	2,743	2,894	12,976	2,613	4,000
sheep	90,759	300,009	455,215	7,110	20,552	30,700
Tallow	264,292	216,303	141,034	589,582	501,375	325,110
Tobacco, unmanufactured	365,731	9,418		3,850	304	
Tongues	115	481	21	473	1,945	43
Wool, sheep and lambs'	4,913,053	6,942,375	7,452,627	1,143,437	2,469,272	2,217,600
All other articles				15,539	17,712	11,520
Total				1,249,211	1,510,450	1,222,228

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture Exported from the United Kingdom to Montevideo in each of the 3 Years ending with 1867.

Principal Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
Apparel and haberdashery				47,631	66,895	81,700
Beer and ale	3,418	7,658	11,919	30,191	31,618	38,000
Coals, cinders, and culm	64,786	118,612	128,524	37,822	70,412	75,500
Cottons, entered by the yard	21,067,067		20,103,797	284,595	531,202	410,000
at value				25,815	62,253	74,000
Earthenware and porcelain				13,142	11,581	11,000
Hardware and cutlery	12,550	16,146	21,508	51,588	55,818	71,000
Iron, wrought and unwrought	3,630	7,152	11,403	37,737	90,199	180,000
Leather, wrought and unwrought				1,752	11,535	15,000
Linens, entered by the yard	1,669,508	2,299,508	3,234,663	49,042	73,997	110,000
Painters' colours, not otherwise described				5,248	4,911	15,000
Silk manufactures				15,406	16,653	15,000
Tin plates				4,101	16,705	15,000
Woolens, entered by the yard	1,178,631	1,656,912	1,930,221	117,593	176,557	170,000
at value				10,196	26,653	25,000
All other articles				47,689	144,014	170,000
Total				612,861	1,392,903	1,420,000

A small charge is made for warehousing and portorage on passing through the custom-house. Goods may be bonded for an indefinite period, during which time they are subject to a moderate warehouse rent.

Foreign flour pays as follows:—  
 3 dollars per barrel, when wheat is worth 2 dollars per fanega, about 224 lbs.  
 6 dollars per barrel, when wheat is worth 5 dollars per fanega.

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 61 75  
 76 90  
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Hospital dues.—  
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4 dollars, when wheat is worth 5 to 7 dollars.  
 2 dollars, when wheat is worth 5 to 7 dollars.  
 1 dollar, when wheat is worth 7 to 9 dollars.  
 4 dollars, when wheat exceeds 9 dollars.

Wheat:—  
 3 dollars per fanega, when wheat is worth 2 to 3 dollars per fanega.  
 2 dollars, when wheat is worth 3 to 6 dollars.  
 1 dollar, when wheat is worth 6 to 10 dollars.  
 Nothing, when wheat is worth above 10 dollars per fanega.

Goods transhipped, or shipped out of bond, pay 2 per cent.  
 Foreign goods, shipped in vessels of less than 150 tons burden, for ports of the Uruguay and Paraguay, pay only 1 per cent.

All goods imported, paying duties, are subject to pay an additional 1 per cent. to the consulado; 1 per cent. to the hospital; and, for the extinction of copper money (this has, much to the honour of the authorities and people, been already accomplished); but the duty is maintained for general purposes, 1 per cent. additional on all goods that pay 3 per cent.

On all goods that pay 15, 15, and 20 per cent. - 3 per cent.  
 On all goods that pay 25 per cent. - 5 per cent.  
 On bullion - 10 per cent.  
 On wool - 3 per cent.

Duties on Exports in National or Foreign Vessels.  
 On and cow hides, 2 reals, 25 centesimos, for reconcondor valuations of 1 dollar, and 1 per cent. consulado.  
 Horses, 1 real for reconcondor, on valuations of 5 reals for reconcondor each, and 2 per cent. consulado.  
 All other produce of the country pays 4 per cent. on the market value, and 1 per cent. consulado.  
 Jerked and salt beef, pork &c.; also all foreign goods that have paid the import duty, free.  
 Gold and silver, coined or in bullion, 1 per cent.

Foreign Vessels  
 Foreign Tonnage from beyond sea  
 Duties on loading and unloading both classes pay (value per ton):  
 With pilot - 4 dollars 4 dollars  
 Without pilot - 4 " 2 "

National and foreign vessels, that neither discharge nor load cargo, and that do not remain in the harbour more than 6 days pay nothing; those that remain in the harbour more than 6 days pay one-third of the above tonnage dues.

National vessels, and vessels belonging to the provinces of Buenos Ayres, employed within the Plate, called coasting, pay for a license for their voyage as follows:—

From 2 to 7 tons 4 reals  
 8 " 10 " or 1 dollar 2 cents  
 15 " 20 " " 2 " " 2 "  
 31 " 45 " " 3 " " 2 "  
 45 " 60 " " 4 " " 6 "  
 61 " 80 " " 5 " " 6 "  
 81 " 100 " " 6 " " 6 "  
 101 and above 51 " 5 " 6 "

Foreign dues.—National and foreign vessels, when for a foreign port beyond sea or in the Plate, pay 2 dollars for the vessel, 4 reals for each man, 2 reals for each seaman, 1 dollar for the passenger.

Passage from Montevideo to Buenos Ayres to sail in Montevideo.  
 The draft of water do not exceed

9 fms. Bignon measure 50 dollars  
 8 to 10 feet 60 "  
 10 " 70 "  
 11 " 80 "  
 12 " 100 "  
 13 " 120 "  
 14 " 140 "  
 15 " 160 "  
 16 " 180 "  
 17 " 200 "

Declared Real Value  
 1866 1867  
 66,895 31,200  
 34,618 31,200  
 73,118 112,700  
 551,494 112,700  
 67,263 112,700  
 12,623 112,700  
 55,818 112,700  
 90,199 112,700  
 114,535 112,700  
 23,997 112,700  
 4,911 112,700  
 16,655 112,700  
 10,005 112,700  
 175,537 112,700  
 28,653 112,700  
 144,014 112,700  
 1,392,302 112,700

Produce and Manufactures of the 3 Years ending 1867

Declared Real Value  
 1866 1867  
 66,895 31,200  
 34,618 31,200  
 73,118 112,700  
 551,494 112,700  
 67,263 112,700  
 12,623 112,700  
 55,818 112,700  
 90,199 112,700  
 114,535 112,700  
 23,997 112,700  
 4,911 112,700  
 16,655 112,700  
 10,005 112,700  
 175,537 112,700  
 28,653 112,700  
 144,014 112,700  
 1,392,302 112,700

Wheat:—  
 24 lbs. when wheat is worth 2 dollars.  
 24 lbs. when wheat is worth 3 dollars.

Moneys, Weights, and Measures.—Paper money there is none.

Current money, the Brazilian patacon and Spanish dollar; they pass for 960 centesimos.

100 cents make a real.  
 800 cents, or 8 reals, make a dollar.  
 960 cents, or 9 reals 60 cents, make 1½ current dollar, or 1 hard dollar or patacon.

Weights and measures same as those of Spain. [CADIZ.]

MOROCCO. [MAGADORE; TREATIES, COMMERCIAL.]

MOROCCO or MAROQUIN (Ger. saffiam; Fr. maroquin; Ital. marocchino; Span. marroqui; Russ. saftian). A fine kind of leather, prepared of the skins of goats, imported from the Levant, Barbary, Spain, France &c. It is of various colours, as red, green, black, yellow &c. When of the best quality, it is superior to every other material for the binding of books. And a volume that is bound in morocco by a first-rate artist, provided it be well preserved, and of an age to be properly toned down and mellowed, is justly deemed a prize, and always fetches a very high price. Morocco is, however, very extensively counterfeited, and books said to be in morocco are often done up in the vilest sheep-skin, dyed and prepared in imitation of the genuine article. The fraud is easily discovered by connoisseurs, but it is perpetrated to a great extent on the ignorant and unwary.  
 In 1867 we imported 762,442 undressed, and 2,106,208 tanned, tawed, or dressed goat skins of the total value of 317,364l.

MUNJEET. A species of madder (*Rubia munjesta*) produced in Nepal and in other wild districts of India.

That which is brought to England is imported chiefly from Bombay and Sindh. The roots are long and slender, and when broken appear of a red colour. It is used in dyeing; the red which it produces being, though somewhat peculiar, nearly the same as that produced by European madder. Dr. Bancroft says that the colour which it imparts to cotton and linen is not so durable as that of madder, but that upon wool or woollen cloth its colour is brighter and livelier; and, when proper mordants are used, nearly, perhaps quite, as permanent. (*Permanent Colours*, vol. ii. p. 279.) The best munjeet is in pieces about the bigness of a small quill, clean and firm, breakin; short, and not pipy or chaffy. Its smell somewhat resembles liquorice root.

Being a very bulky article, as compared with its value, the freight adds greatly to its cost. This seems to be the principal reason of its being so very little used in Great Britain, that the entire imports, during the 3 years ending with 1840, amounted to only 3,539 cwt., and in 1867 to only 360 cwt., valued at 504l. The brokers estimate that 4l. per ton of freight is equal to 11s. 1d. per cwt. on the value of the article; 7l. per ton being equal to 13s. 10d.; 6l. to 16s. 7d.; and 7l. to 19s. 4d.; and as the price of munjeet in bond varies from 12s. to 15s. per cwt. it is plain it cannot be imported in any considerable quantity, except when freights are very much depressed. It is mostly imported in small packets or bundles of 600 or 800 to the ton; but sometimes it is packed in bales like cotton. (*Stevens On Stowage*.)

[MADDER.]

MUSCAT. A city and seaport situated on the east coast of Arabia, about 96 miles N.W. of Cape Rasselgate (Ras-el-mad), in lat. 23° 38' N., long. 58° 37' E. It is the chief port of the kingdom of Oman, a slip of land running half-way down the Persian Gulf on its western side and the sea





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**NAGASAKI.** A sea-port town on the south-west coast of the Island of Ximo, one of the Japanese islands, being, according to Krusenstern, in lat. 32° 43' 40" N., long. 103° 11' 47" E. The harbour is one of the finest in the world. It is about a mile in width, and three or four in length. When one is inside, it appears to be completely landlocked, and to be an inland lake. The hills around it are about 1,500 feet high. The town is supposed to contain about 70,000 inhabitants. (*Fortune's Japan.*) Ships lie in 5 or 6 fathoms water, within gunshot of the town, near the middle of the bay, where they are protected from all winds. A lighthouse is being built in the harbour.

The Japanese islands are situated within the temperate zone. They are believed to contain from 25,000,000 to 50,000,000 of people, superior in industry and civilisation to every other Eastern nation. They show more capacity in using European machinery than any other people in that part of the world (*Fortune*). Japan has some thousand miles of sea-coast, and at one time the inhabitants were much addicted to emigration, and carried on an extensive intercourse with the adjacent nations. But in consequence of the alarm occasioned by the attempts of the Jesuit missionaries to make converts to Christianity, the Government, in 1637, expelled the missionaries, put to death their converts, and to obviate the possibility of such attempts being made in future, they prohibited, under the severest penalties, their own people from resorting to foreign parts, and foreigners from entering into or trading with Japan. And singular as it may seem, these exclusive and anti-social regulations have been carried out almost to the letter down to our own times. So far, indeed, as respects the emigration of Japanese, they have not been in any degree modified; but the prohibition against foreigners trading with the empire was so far relaxed, that 1 or 2 ships from Java, and 10 or 12 junks from China, were allowed to enter certain Japanese harbours. But, besides being confined within the narrowest limits, those engaged in this intercourse were subjected to a vexatious surveillance, and had to suffer many indignities. 'The cargoes of the ships,' says Mr. Crawford, 'are landed by, and placed in charge of, the officers of the Japanese Government, and the Dutch have neither control over, nor access to them, except through *solicitation*. The island of Desima, to which they are confined, communicates with the town of Nagasaki by a bridge and a gate, and is palisaded all round, as well as surrounded by a guard. From this imprisonment they are allowed to peep twice or thrice a year, rather to be exhibi-

ted to the great as a curiosity, than out of indulgence. A corps of constables and interpreters are appointed to watch over their minutest actions; and the most degrading servilities are exacted from the highest among them, by the meanest officers of the Japanese Government.

'The Chinese trade with Japan is principally conducted from the port of Ningpo, in the province of Chekiang, which is so conveniently situated that two voyages may be performed in the year, even by the clumsy junks of China. The commodities with which the Chinese furnish the Japanese consist of raw sugar, cow and buffalo hides, wrought silks, consisting chiefly of satin and damasks, eagle and sandal wood, ginseng, tutenague or zinc, tin, lead, fine teas, and, more than 100 years back, some European broad cloths and camlets. The exports consist of copper, limited to 15,000 piculs, or about 900 tons of camphor, sabre blades, pearls, some descriptions of paper and porcelain, and some Japan ware, which is either curious or handsome, but not so substantial as that of China.' (*Indian Archipelago*, p. 297.)

The following are the qualities and value goods exported and imported by the Dutch their trade with Japan in 1825; the ships employed being 1 of 600 and 1 of 700 tons burden.

*Exports to Nagasaki.*

	florins
Sandal wood, 100 piculs	...
Sapan wood, 1,167 "	...
Buffalo hides, 500 in number	...
Elephants' teeth, 1,658 lb.	5,347
Stray camphor, 61 lb.	5,518
Java mats, 225 in number	...
Coccon-nut oil, 24 piculs	...
Cloves, 115 piculs	1,079
Nuger, 6,991 "	1,000
Tin, 338 piculs	1,000
Bengal piece goods	8,844
Hardware and porcelain	1,200
Jewellery	1,200
Glass ware	5,040
Netherlands broad cloths	7,700
Lead, 147 piculs	2,700
Netherlands cotton goods	67,500
Medicine and sundries	...
Total value of export cargoes	273,350
Or at 12 florins per £	23,112 1/2

*Imports from Nagasaki.*

	florins
Camphor, 720 piculs	2,000
Copper, * 10,745 "	61,200
Grape, 426 pieces	127
Cotton cloth	1,350
Medicine	1,350
Provisions	1,350
Sekkie and soy	1,350
Wheat, 207 bags	1,350
Silks	3,000
Sundries	500
Total value of import cargoes	70,000
Or, at 12 florins per £	5,833 1/3

\* The imports of copper, in 1828, amounted to 1,421 piculs, 988,635 florins.

Products	1850		1851		1852		1853		1854	
	florins	£								
Camphor	115,100	9,591	125,100	10,425	11,750	979	12,380	158	13,100	1,091
Copper wares	223,972	18,664	203,512	16,959	221,979	18,498	187,703	15,641	200,000	16,666
Basket work	19,557	1,629	27,959	2,329	26,169	2,180	4,791	399	11,000	916
Other articles	15,069	1,255	19,074	1,589	19,135	1,594	40,092	3,341	19,000	1,583
Total	470,498	39,035	465,645	39,015	361,111	29,751	249,971	20,479	306,000	25,500
	flor.	£								
	35,875	2,988	38,915	3,242	31,759	2,646	20,831	1,735	24,000	1,999

*Opening of the Trade.*—But after the trade to China had been thrown open, and the late events in that empire had brought English, French, and American squadrons to the gates, as it were, of Japan, it was not to be expected that its rulers

would be able much longer to maintain the jealous, anti-social policy. The occurrences made them aware of the power, and to some degree, also, of the policy of those with which they had now to deal. In 1853, when the



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can squadron under Commodore Perry appeared in their waters, they were fain to allow them to take water and other stores; and in the following year, when they revisited their shores, they concluded a treaty with them (called, from the place where it was signed, the treaty of Kanagawa), in the 11th Art. of which it is stipulated that citizens of the United States resorting to the ports of Japan opened to them by the treaty, and bringing with them gold and silver coins and goods, were to be permitted to exchange them for other goods under such regulations as the Japanese Government might think fit to establish. Soon after this treaty had been negotiated, Sir James Stirling, who then commanded the English naval forces in these parts, entered into a similar, though less liberal, arrangement with the Government of Japan. The concessions that had thus been made, coupled with the circumstances connected with the late proceedings of the English, French, and other foreigners in China, paved the way for others of a still more extensive character. And, at length, in 1858, the system of exclusion was wholly abandoned, and a free commercial policy established in its stead. This great change was effected by the British plenipotentiary, the Earl of Elgin. Having negotiated a new and comparatively liberal commercial treaty with China, this sagacious diplomatist proceeded to Japan, and there completed his mission, by inducing the Japanese Government to enter into the well-considered treaty, an abstract of which is subjoined. Similar treaties have since been concluded with the Americans and the Dutch. It is to be hoped that these remarkable events may be as advantageous to those whose markets are now open to the products of this and other countries as they can hardly fail to be to ourselves. But much circumspection will be necessary. And we would fain hope that the pioneers at least of British enterprise in this new and peculiar region may be distinguished by their good faith, and by their respect for the prejudices of the very singular and suspicious people with whom they will have to transact business.

We regret to observe that the importation of opium is prohibited by the new treaty. The taste for it is understood to have made considerable progress in Japan, and, if so, the prohibition will serve no good purpose, and will merely give a stimulus to smuggling.

The annexed tables exhibit the nature and extent of the trade carried on with the Japanese lands. Considerable quantities of silk and tea were exported from Japan, but our share in this part of the trade, which had fallen off between 1853 and 1867, is again increasing. The islanders export various textile fabrics. As is constantly the case when a new trade is opened with any country, particularly with a country where previous isolation was so singular, the probable extent of the trade have been exaggerated.

Some of the difficulties of Japanese trade are, derived from the testimonies of Mr. Fortune and Mr. R. Alcock, caused by the political system which prevails in the island. The empire of Japan has two sovereigns; one is the Mikado, who is supposed to be descended from the gods, who, in early times, the emperor, has, for some centuries, been deprived of all real authority. The other is the Tycoon, who occupies much the same place as the mayors of the palace did to the ancient emperors of France. Even he, however, is usually restrained in the exercise of his political powers, and the council, selected from the chief nobles or insular princes, is practically the government of the country. These daimios, however,

are, besides being a House of Peers or privy councillors, resident compulsorily for a certain portion of the year in Yedo, a body of chieftains, who exercise an influence very like that of the feudal princes of mediæval France and Germany, and are haughty, contemptuous to foreigners, and suspicious of change. These daimios support great crowds of retainers, who are ready for every deed of violence. Below them are the merchants (held by the daimios and their dependants in great contempt), and the artisans and craftsmen. Partly from habit, and partly from a fear that the intercourse with foreigners would lead to serious political and social innovations, the daimios have been hitherto, as a rule, unfriendly to foreign trade. It appears, however, that latterly wiser counsels have prevailed, and some of the chief princes have been sending Japanese youths to Europe for the benefit of a foreign education and foreign experience.

Again, it does not appear that there is any great variety of products which the Japanese could offer for trade with the Old World. Silk and tea wax are exported. Though our trade with Japan as a whole does not seem to increase very rapidly, the value of our exports to Japan very soon rose from 108,897*l.* in 1863 to 1,576,794*l.* in 1865, and that of our total exports exceeded a million and a half in each of the years 1866 and 1867.

According to Sir R. Alcock, the commercial character of the Japanese merchants is very low. They are, says this authority, the most dishonest and tricky of Easterns, and are continually attempting frauds. Thus they will sell bales of silk, the inner worthless or very inferior; or, the inner seem to be full of good quality, the outer turns apparently full of camphor, but are half full of rice, with a thin layer of the drug on the surface; water, and similarly fraudulent actions. They have, in short, hardly learnt the first principles of honesty in trade.

*Summary of the Treaty between her Britannic Majesty and the Emperor of Japan. Signed at Yedo, August 26, 1858.*

Art. I. Stipulates for peace and friendship.

Art. II. Stipulates for the reciprocal right to appoint a diplomatic agent at Yedo and London, and consular agents at Yedo and London, British diplomatic agent at the open ports. The British diplomatic agent and consul-general may travel to any part of Japan, and the Japanese diplomatic agent and consul-general to any part of Great Britain.

Art. III. The ports and towns of Hakodadi, Kanagawa, and Nagasaki to be open to British subjects on July 1, 1859. Nec-e-gata, or, if that is unsuitable as a harbour, some other port on the west coast of Nipon, on January 1, 1860. Hiogo on January 1, 1863. In all these places British subjects may permanently reside, and may lease ground and purchase and erect buildings, but confined by any wall or gate, and their free ingress and egress not to be impeded. The limits within which British subjects may travel are defined. The general limit is ten *ri* (each *ri* being 4,275 yards) in any direction. After January 1, 1862, British subjects may reside at Yedo, and from January 1, 1863, in Osaka, for purposes of trade only. In each of these cities a suitable district for their residence, and the distance to which they may go, shall be arranged by the British diplomatic agent for the Japanese Government.

Art. IV. All questions arising between British

subjects in the Japanese dominions shall be under the jurisdiction of the British authorities.

Art. V. Japanese guilty of any criminal act towards British subjects shall be punished by the Japanese authorities. British subjects who may commit any crime against Japanese, or other foreigners, shall be punished by the British authorities, according to British law.

Art. VI. Mode of settling complaints of British against Japanese, or of Japanese against British.

Art. VII. The authorities on either side are to do their best to enforce recovery of debts due by their own people to those of the other nation, without, however, being responsible for payment.

Art. VIII. The Japanese Government will place no restriction upon the lawful employment of Japanese by British subjects.

Art. IX. British subjects to have free exercise of their religion in Japan, and may erect places of worship.

Art. X. Foreign coin to be current in Japan; the value to be determined by weight. Coin (except Japanese copper coin), and foreign gold and silver, may be exported.

Art. XI. Supplies for the British navy may be landed and stored at Kanagawa, Hakodadi, and Nagasaki, free from duty; but, if any are sold, the purchaser must pay the proper duty.

Art. XII. If any British vessel be wrecked on the coast of Japan, the Japanese authorities shall render assistance to vessel and crew, and send the latter, if necessary, to the nearest consular station.

Art. XIII. British merchant-vessels may employ a pilot to take them in or out of port.

Art. XIV. At each of the open ports, British subjects may import and export, directly or indirectly, any lawful merchandise, paying the duties prescribed by the treaty. With the exception of munitions of war, which shall be sold to the Japanese Government alone, they may freely buy from, and sell to, Japanese any articles they may have for sale; and Japanese may buy and use the same.

Art. XV. Mode of determining the value of goods imported.

Art. XVI. All goods imported into Japan by British subjects, which have paid the import duty, may be transported by the Japanese to any part of the empire without any further duty.

Art. XVII. British merchants who have imported merchandise, and paid the duty, shall be entitled to a certificate of the payment, and may then re-export it, and land it in any other port without any additional duty.

Art. XVIII. The Japanese authorities at each port shall adopt proper means to prevent smuggling.

Art. XIX. All penalties and confiscations made under the treaty shall belong to the Tycoon of Japan.

Art. XX. The articles for regulation of trade appended to the treaty are to be considered as part of it, and equally binding. The British diplomatic agent, in conjunction with the Japanese Government, may make such rules as may be necessary for carrying out both treaty and articles.

Art. XXI. The treaty being signed in English, Japanese, and Dutch, the Dutch text shall be considered the original. All official communications from British diplomatic and consular agents to be written in English, but, for a period of five years, to be accompanied by a Dutch or Japanese translation.

Art. XXII. Either party may demand a revision of the treaty on or after July 1, 1872.

Art. XXIII. The British Government and British subjects shall be entitled to equal participation in all advantages granted, or hereafter granted, in Japan to the Government and subjects of any other nation.

Art. XXIV. Ratifications to be exchanged within a year.

#### Regulations for British Trade.

Regulation I. The captain of a vessel is to exhibit to the Japanese authorities, within 48 hours of his arrival (Sunday excepted), proof that he has deposited his ship's papers at the British consulate, and shall then make entry of his ship's writing, and deposit a written manifest of his cargo, stating who are the consignees, and adding a list of his stores. Any error may be corrected within 24 hours without fee; afterwards 15 dollars must be paid. Any goods not entered in a manifest will pay double duty. Any captain neglecting to enter his ship within the time prescribed shall pay a penalty of 60 dollars a day.

Reg. II. Japanese custom-house officers may be placed on board any ship in port, except ships of war. No goods to be unladen between sunset and sunrise. Hatches may be secured by the Japanese officers, and any person breaking the fastenings shall pay a fine of 60 dollars for each offence. Any goods discharged from a ship without having been duly entered, shall be liable to confiscation. Packages with goods of value fraudulently concealed, and not mentioned in the invoice, shall be forfeited. If any British ship is engaged in smuggling, she shall pay a fine of 1,000 dollars and the goods shall be forfeited. Vessels needing repairs may land their cargo without payment of duty, under supervision of the Japanese authorities. If any part be sold, duty to be paid thereon. Cargo may be transhipped from one vessel to another, under supervision, and on proof of the true nature of the transaction, importation of opium being prohibited, if any British vessel more than 3 cattles weight on board, the same quantity may be seized and destroyed, and any person smuggling opium shall be liable to a fine of 15 dollars a catty.

Reg. III. Mode of entering goods by the importer or consignee. The entry is to state the name of the enterer, and of the ship, the marks, contents, and value of each package. The original invoice to be presented to the Japanese custom-house. The Japanese officers may examine the packages, but without expense or unreasonable delay. The importer or owner should find that his packages have been damaged on the voyage, he may apply to the custom-house, and have the damage appraised, so as to make a deduction from the value of the goods. All goods intended for export must be entered at the Japanese custom-house before being shipped. Any goods shipped without having been so entered, and all packages containing prohibited articles, shall be forfeited. No cargo shall be required for supplies for ships, their passengers and crews, nor for passengers, clothing &c.

Reg. IV. Ships wishing to clear must give 24 hours' notice at the custom-house. If cleared, they may be refused, the captain or consignee, or the British consul, must be informed of the refusal. British ships of war shall not be required to clear, nor shall they be visited by customs or police. Mail steamers may be cleared on the same day, and shall not be required to deliver a manifest, except on passage to

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goods to be landed in Japan. Where ships touching for supplies, and ships in distress, shall not be required to deliver a manifest, unless they wish to trade.

Reg. V. Any person signing a false declaration or certificate, with intent to defraud the revenue of Japan, shall pay a fine of 125 dollars for each offence.

Reg. VI. No tonnage duties shall be levied on British ships in the ports of Japan, but the following fees shall be paid to the Japanese custom-house authorities: For the entry of a ship, 15 dollars; for the clearance of a ship, 7 dollars; for each permit, 1½ dollar; for each bill of health, 1½ dollar; for any other document, 1½ dollar.

Reg. VII. Duties shall be paid to the Japanese Government, on all goods landed in the country, according to the following tariff:—

Class 1. All articles in this class shall be free of duty: gold and silver, coined or uncoined; wearing apparel, in actual use; household furniture and printed books, not intended for sale, but the property of persons who come to reside in Japan.

Class 2. A duty of 5 per cent. shall be paid on the following articles: all articles used for the purpose of building, rigging, repairing, or fitting out of ships; whaling gear of all kinds; salted provisions of all kinds; bread and bread stuffs; living animals of all kinds; coals; timber for building houses; rice; paddy; steam machinery; fine, lead, tin, raw silk, cotton and woollen manufactures; and liquors.

Class 3. A duty of 35 per cent. shall be paid on all intoxicating liquors.

Class 4. All goods not included in any of the preceding classes, shall pay a duty of 20 per cent. All articles of Japanese production, which are exported as cargo, shall pay a duty of 5 per cent., with the exception of gold and silver coin, and copper in bars. Rice and wheat, the produce of Japan, shall not be exported from Japan as cargo; but all British subjects resident in Japan, and British ships for their crews and passengers, shall be furnished with sufficient supplies of the same.

Foreign grain brought into any open port of Japan in a British ship, if no part thereof has been landed, may be re-exported without hindrance to time, at public auction, any surplus quantity of copper that may be produced. Five years after the opening of Kanagawa, the import and export duties shall be subject to revision, if either the British or Japanese Government desire it.

The currency of Japan (*Parliamentary Report*, August 10, 1866) is in a very singular position. It consisted, before the admission of foreigners, of gold, silver, and copper. When the treaty was signed, the gold was a coin called kobang; this, from an assay made at our Mint, contained 505.1 parts of gold, 420.8 parts of silver, and 1.1 of copper in the 1,000. Its intrinsic worth was about 18s. The silver coin was called itzeboe or ichibu, and contained 1.5 gold, 87.40 silver, 125.5 copper in the 1,000 parts. The copper coin contained 81 parts of this metal, 9 of tin, and 10 of lead. It was called tempo, and its intrinsic worth was about  $\frac{1}{10}$  of a halfpenny.

The itzeboe was reckoned as worth one-fourth only 1s. 4d. worth of silver, but it contained more than three times its true value, and the proportion of gold to silver, instead of being, as it is with the rest of the world, about 17 parts to 1, was less than 5 to 1. It is plain that these coins were merely tokens. The all coin, except copper cash, might be exported, and that, pending the reorganisation of the currency, the Japanese Government would give equal weights of their coins for all foreign coin imported.

For a full account of the negotiations on the subject, and an exact description of the coins in circulation, we would refer to the very clear and elaborate *Report* of Mr. Sidney Locoock of January 10, 1867, *On the Weights, Measures, and Currency of Japan*. (*Reports of Secretaries of Legation*, No. 5, of 1867.)

After several changes, productive of considerable inconvenience and derangement of money prices, the Japanese currency stood thus, previous to January 1, 1868:—

The reduced gold kobang = 5 d.  
The ichibu, or fourth of the above = 1 d.  
Iron cash = 1,500 to the itzeboe

In consequence of further negotiations, it was arranged that a new Japanese coinage should be issued on January 1, 1868, and French machinery has been provided, that the minting may be carried out after the European fashion. It is understood that a new circular silver coin will be issued equal to 4 ichibus, and it will replace the disappeared. (*Reports of Secretaries of Legation*, No. 5, of 1867.)

The following shipping entered the port of Nagasaki, in the years 1863, 1865, 1866, and 1867:—

Year	Entered				Cleared			
	1863	1865	1866	1867	1863	1865	1866	1867
Tonnage	261	302	216	291	233	187	190	265
Value	80,412	69,059	67,267	105,213	74,617	65,975	59,153	95,531

Of these by far the largest portion was of British origin.

Value of Exports and Imports in 1865, 1866, and 1867.

	1865	1866	1867
Exports	£123,811	£148,018	£339,779
Imports	233,466	499,250	1,181,022

Tables I.—IV. give an account of the general trade of Nagasaki in the year 1867, and of the trade between Japan and the United Kingdom in the 4 years ending with 1867. Nos. I. and II. are extracted from more detailed statements in Mr. Consul Flower's *Report* of April 15, 1868. The value of our total exports to Japan in

1867 was 1,661,347l., and of our imports from it 317,853l.

Mr. Consul Myburgh, in his *Report* of April 3, 1867, states his inability to give accounts of the trade of the ports of Kanagawa and Yokohama, as the Records were destroyed in the great fire of Nov. 26, 1844. However Mr. Consul Fletcher entered Kanagawa, of which 174,030 tons were tributed 137 of 7,039 tons.

We borrow from Mr. Locoock's *Report* the following statement as to Japanese weights and measures.

There is but one table of weights in Japan. It is a compound of the Chinese monetary and com-



Vessels Imported  
Japanese,

Total	Articles	Value
35,751	Iron and hardware	206,210
8,657	Iron and ammunition	21,813
2,110	Iron and steel	25,000
2,865	Iron and steel	30,000
18,711	Iron and steel	200,000
8,751	Iron and steel	100,000
6,281	Iron and steel	100,000
13,400	Iron and steel	100,000
2,911,115	Iron and steel	100,000
7,000	Iron and steel	100,000
15,516	Iron and steel	100,000
19,000	Iron and steel	100,000
2,569	Iron and steel	100,000
3,765	Iron and steel	100,000
682	Iron and steel	100,000
7,271	Iron and steel	100,000
16,947	Iron and steel	100,000
355,174	Iron and steel	100,000
469	Iron and steel	100,000
12,409	Iron and steel	100,000
31,928	Iron and steel	100,000
57,585	Iron and steel	100,000
18,516	Iron and steel	100,000
5,612	Iron and steel	100,000
18,901	Iron and steel	100,000
..	Iron and steel	100,000

Vessels Exported

Total	Articles	Value
653	Iron and hardware	206,210
170	Iron and hardware	21,813
522	Iron and hardware	25,000
359	Iron and hardware	30,000
105	Iron and hardware	100,000
130,180	Iron and hardware	100,000
40,610	Iron and hardware	100,000
853	Iron and hardware	100,000
562	Iron and hardware	100,000
561	Iron and hardware	100,000
404	Iron and hardware	100,000
386	Iron and hardware	100,000
21	Iron and hardware	100,000
725	Iron and hardware	100,000
900	Iron and hardware	100,000
..	Iron and hardware	100,000

Imported into the United Kingdom

Total	Articles	Value
65	Iron and hardware	206,210
403	Iron and hardware	21,813
333	Iron and hardware	25,000
139	Iron and hardware	30,000
663	Iron and hardware	100,000
497	Iron and hardware	100,000
317	Iron and hardware	100,000
203	Iron and hardware	100,000
590	Iron and hardware	100,000
491	Iron and hardware	100,000
470	Iron and hardware	100,000
356	Iron and hardware	100,000
399	Iron and hardware	100,000
449	Iron and hardware	100,000
745	Iron and hardware	100,000

NAGASAKI

IV.—Account of the Quantities and Declared Values of the Articles of British Produce and Manufacture Exported from the United Kingdom to Japan in each of the 4 Years ending with 1867. 905

Articles	Quantities				Declared Real Value			
	1861	1865	1866	1867	1864	1865	1866	1867
Japan and haberdashery	..	..	..	..	£	£	£	£
Iron and ammunition	..	..	..	..	3,150	3,263	6,126	7,454
Iron and steel	..	1,153	..	..	18,585	65,431	46,773	74,915
Iron and steel	1,463	5,791	1,458	1,992	5,876	4,556	5,337	8,473
Iron and steel	45,910	10,985	10,985	10,985	4,176,510	1,299	3,825	5,408
Iron and steel	6,232,518	915,232	1,195,860	4,176,510	1,299	1,299	1,299	1,299
Iron and steel	26,500,018	86,500,018	96,500,407	30,976,868	5,955	619,187	109,015	291,325
Iron and steel	2,006	4,811	4,811	4,811	187,252	45,323	660,965	619,750
Iron and steel	381	441	441	441	3,927	17,617	19,194	22,187
Iron and steel	75,723	87,250	78,407	92,614	18,338	11,632	19,194	22,187
Iron and steel	..	..	..	..	1,319	5,616	12,756	7,079
Iron and steel	1,026	2,045	501	..	5,622	15,176	3,621	5,218
Iron and steel	4,007,919	9,825,329	8,806,676	7,711,623	1,281	4,797	5,040	2,189
Iron and steel	..	..	..	..	33,065	58,193	539,892	448,902
Iron and steel	..	..	..	..	697,583	1,376,791	1,434,539	1,545,366

V.—Japanese Weights, with English Equivalents.

Chinese Name	Avoirdupois	Troy
1 liang or tael	..	..
1 tael or cash	..	..
1 fan or candarin	..	..
1 shen or mace	..	..
1 mace	..	..
1 liang or tael	..	..
1 kin or catty	..	..
1 tan or picul	..	..

The two lines in parentheses express the equivalent in Japanese weights of certain well-known Chinese weights and measures which are much in use among foreigners in Japan. They have no existence as pure Japanese weights, any more than hiakme, quamme, and two or three others which appear in most foreign works containing Japanese tables of weights and measures. The only ones by which the Japanese know the Chinese liang or tael is Jumme, literally 10 me or mome, in the same way as hiakme signifies 100 me, and quamme 1,000 me. To use them as individual weights sounds as absurd to a Japanese as it would appear to an Englishman if he used the quantity 7,451 tons 3 cwt. 3 qr. expressed as 7 thousand-tons 4 hundred-tons 5 ten-10n 3 cwt. 3 qr.

The following is a table of the Japanese long measure, or carpenter's measure, as it is often called, with the English values of each division:—

Japanese Measure	Inches	Feet
1 ring = 1 bu	= 0.11954	= 0.00996
10 ring = 1 sung	= 1.1954	= 0.0996
10 sung = 1 shaku	= 11.954	= 0.9962
6 shaku = 1 ken	= 71.724	= 5.9772
60 ken = 1 choo	= 4303.44	= 358.108
36 choo = 1 ri	= 159,019 feet	= 24,452.168 miles

Below are the Japanese equivalents of the principal English measures.

English Measure	Japanese Equivalent
1 inch	= shaku 0.08378
1 foot	= 1.1954
1 yard	= 3.5862
1 pole	= 16.7473
1 furlong	= 683.339
1 mile	= 33,083.312
1 geographical mile	= 6119.304
1 degree	= 3671.58 or 28.330111 ri.

If we enquire into the value of the Chinese liang (equal to 10 Japanese mome), we find it reckoned as equal to 2,400 shu, or grains (shu); it is thus to the millet seed that may be traced back the original unit of the Japanese system in the same manner as the barley-corn is the starting-point of the English long measure.

The Japanese long measure is not arranged with any reference to the earth's axis or circumference, any precise knowledge on the subject having been arrived at. It was from the Dutch that the Japanese later acquired the idea of the division of the earth's circumference into degrees.

The following table shows the approximate values in Japanese weights of the various denominations of the English avoirdupois and troy

**Cloth Measure.**—Though this measure somewhat resembles at first sight the ordinary long measure, the two are not identical in any respect, inasmuch as the kudjiradjaku, or whalebone shaku, which is the unit of the former, is equal to 1 1/2 shaku of the latter.

English Measure	Japanese Equivalent
1 lb	= 4695 mome
1 oz	= 293.44
1 pennyweight	= 183.187
1 grain	= 13.161
1 ounce	= 269220
1 lb	= 35,712
1 oz	= 2,207
1 pennyweight	= 1,471
1 grain	= 98.1

The following are the divisions of this measure, with their English equivalents:—

**Measures.**—From the nomenclature, as well as some of the proportions of the Japanese measures of length, it is evident that they are originally derived from the Chinese. But as, according to Dr. Roudot, the Chinese unit of length, the chi, varies to such an extent in different parts of the empire that there are no less than forty-four different values of it, varying from 15.769 inches, it is not to be wondered at that no one of them which exactly corresponds to the integer kaneshaku or metal foot of Japan.

**Superficial Measure.**—The integer of this measure is the kanedjaku, or metal shaku, with which we have already had to deal. Its multiples, and the value of each, are as follow:—

Japanese Measure	English Equivalent
1 square shaku	= square feet 0.9924
36 shaku = 1 teubo	= 35.72784
50 teubo = 1 se	= 1,017.184
10 se = 1 tang	= 10,171.84
10 tang = 1 choo	= 101,718.4 or nearly 1 acre

Below are given the values in Japanese measurement of the principal English measures.

English Measure	Japanese Equivalent
1 square foot	= 1.010718 or teubo 0.9924
1 square yard	= 9.09675
1 square pole	= 295.6445
1 rood	= 2,956.445
1 acre	= 29,564.45
1 square mile	= 2,956,445

The Japanese occasionally make use of the mats as a mode of measurement; the mats are invariably of the same size, viz. six shaku (feet) long by three shaku wide. A Japanese house is generally so constructed that the floor of each room can be exactly covered by a larger or smaller number of these mats which serve as a carpet.

*Solid or Liquid Measure.*—The names and proportions of the various divisions of this measure

10 sai	= 1 shiyaku (choh)	= 1.075 cubic inches
10 shiyaku	= 1 ngooi (koh)	= 11.075 " "
10 ngooi	= 1 shoo (shing)	= 110.75 " "
10 shoo	= 1 to (tan)	= 1,107.5 " "
10 to	= 1 koku	= 6.409 cubic feet
		or .5195 pints
		" " 2.195 "
		" " 29.918 gallons
		" " 49,928 bushels

The Japanese standard measures, as well as those in common use, are rectangular, the bases being square. The exact size of the shoo which is the unit of the scale is sung 4.9 x 4.9 x 2.7. Reckoning the sung at 1.1954 inch, the shoo contains 1.1075 cubic inch, as above.

**NAILS** (Ger. *nigel*, spiker; Dutch, *spykens*; Fr. *clous*; Ital. *chiodi*, *chiovì*, *aguti*; Span. *clavos*; Russ. *gwosdi*). Small spikes of iron, brass &c., which, being driven into wood, serve to bind several pieces together, or to fasten something upon them. Nails are made in many towns and villages throughout Great Britain; but the principal seats of this useful branch of the iron manufacture are at Birmingham, Bilston, Wolverhampton, Dudley, and a small district in Derbyshire. The consumption of nails is immense; and the aggregate value of those annually produced is very large. In 1867, of iron nails, screws, and rivets, we exported 15,111 tons of the value of 329,711.

**NANKEEN** or **NANKIN** (Ger. *nanking*; Dutch, *nankings* linnen; Fr. *toile de nankin*; Ital. *nanchino*; Span. *nanquin*). A species of cotton cloth in extensive use in this country. It takes its name from Nanking, in China, a European corruption of Kyang-ning, the capital of the extensive province of Kyang-nan, where it is principally produced, and which also furnishes the greater part of the green teas. In the East, the manufacture is wholly confined to China. It was stated in the first edition of this work, on authority which should not have been trusted to, that the manufacture of nankeen was carried to great perfection in the East Indies; but, in point of fact, the manufacture is wholly unknown everywhere in the East except China. The cloth is usually of a yellowish, though occasionally it is of a blue colour, and of different degrees of fineness; the broad pieces called 'the Company's nankeens,' are generally of a better quality than the narrow ones, and are most esteemed. We produce imitation nankeens at Manchester and other places, but it must be admitted that they are inferior to the Chinese; neither lasting so long, nor holding their colour so well. The colour, whether yellow or blue, is given to the cloth by dyeing; for though yellow cotton wool be raised in the East, the cloth made from it is too glaring. The nankeens brought to England come under the general denomination of pieces goods. They are mostly made into trousers and waistcoats for gentlemen's wear during summer, ladies' pelisses &c. In some of the more southern parts of Europe, the warmer parts of Asia and America, and the British settlements in Africa, nankeen is worn by both sexes all the year round, and constitutes the principal article of attire. Latterly, however, it has become unfashionable in this country, and its importation has, in consequence, all but ceased.

**NANTES.** A large commercial city and seaport of France, on the Loire, about 84 miles from its mouth, lat. 47° 13' 6" N., long. 1° 32' 44" W. Po-

are almost entirely derived from the Chinese. Their values, however, vary, nearly in the proportion of 10:6; while the smallest Japanese measure contains 1,000 grains of millet, the corresponding Chinese measure contains but 600 grains.

The following table gives all the Japanese measures of capacity with their corresponding Chinese names and their respective values in English cubic and imperial liquid measurement:—

ulation, in 1862, 113,625. Vessels drawing 18 to 19 feet water come up to Paimbœuf, about 24 miles lower down the river; but no vessel, drawing more than 11 or 12 feet, can come up to the city, unless at high water a day or two before full and change.

*Entrance to the Loire.*—There are three entrances to the Loire. The first and most generally frequented is between the bank called *Le Four* and *Point Croisic*; there is a second between *Le Four* and the bank called *La Banché*; and a third, which in southerly winds is generally resorted to, between the latter and the bank called *La Couronne*. The navigation, which is naturally rather difficult, has been much facilitated by the erection of lighthouses and buoys. The depth of water on the bar at the month of the river varies from 2 to 2½ fathoms. At spring tides it rises 14, and at neaps 7 or 8 feet. High water at full and change 3½ hours.

The following is the system of lighthouses in the Loire. One erected on the *Tasé* at lat. 47° 10' 38" N., long. 2° 27' 15" W., and is visible for ten miles. A second on the summit of *Point l'Arc*, lat. 47° 14' 30" N., long. 2° 16' 10" W., also red. One on *Aiguillon tower*, lat. 47° 14' 31" N., long. 2° 15' 52" W., called *d'aval*. A fourth, called *Feu d'amont*, on the *Commerce tower*, lat. 47° 15' 27" N., long. 2° 13' 50" W. This gives a flash every 2 minutes. A fifth on *Ville-es-Martin*, lat. 47° 15' 22", long. 2° 13' 50" W., revolving every half minute, and red. A sixth on *St. Nazaire* near north head, lat. 47° 16' 17" N., long. 2° 11' 54" W. (The last four are on the side of the river.) A seventh on *Paimbœuf*, at the extremity of the mole, lat. 47° 17' 20" N., long. 2° 2' 2" W. Besides these, three new ones are proposed; one on the *Pierre à l'œil*, and one (red) on *St. Nicolas Ile*; a third on *Mindin* point.

*Trade &c.*—Her situation renders Nantes an emporium of all the rich and extensive countries traversed by the Loire, so that she has a considerable import and export trade, especially with the West Indies. The exports consist of various sorts of French produce, but principally of wine and vinegar, silk, woollen and linen, refined sugar, wheat, rye, and other kinds of biscuits &c. The principal imports are coffee, and other colonial products, cotton, timber, hemp &c. Nantes is a considerable port for the commerce of salt, large quantities of which are made in the department, principally at *Noir* and *Croisic*. It is the chief grain port of France, for in 1865-6 an average of 145,000 kiloes were exported. During the time the slave trade was carried on, Nantes was more extensively engaged in it than any other French port.

The customs duties of Nantes exceed those on salt, produced in 1851 10,817,000 francs, and in 1857, 29,676,000 francs, showing an increase of trade than any other port in France. There belonged to the port, ex river craft, 100 and steamers, on December 31, 1865, 745, the aggregate burden of 134,962 tons. Nantes is the second port in France for commercial

The following table gives the number of custom-houses at St. Nazaire and Nantes.

St. Nazaire

Nantes

Mr. Consul Chipper

Imports.

Articles	1865	1866
Raw sugar - kiloes	58,159,481	55,969,988
Beetroot - "	-	170,199
Coffee - "	2,420,057	3,041,895
Cacao - "	1,729,877	3,507,857
Pepper - "	333,731	478,056
Rice - "	772,095	3,716,380
Vanille - "	6,806	13,396
Tea - "	645	147
Cloves - "	21,741	9,708
Clove stalks - "	-	1,019
Dried fruits - "	10,691	306,115
Oranges and lemons - "	128,710	219,316
Dutch cheese - "	239,591	69,474
Codfish (French fishery) - "	518,925	510,705
Salt fish from Norway - "	-	71,815
Rum and tafia - litres	80,424	136,661
Wine and spirits - "	58,314	107,598
Grasses and lemons - "	1,353,515	1,111,248
Palm and cocoa oil - "	557,237	402,757
Arachides - "	2,881,764	3,633,890
Neesam seeds - "	175,964	729,780
Linseed - "	34	6,500
Tallow and lard - "	465,790	761,048
Cotton - "	197,310	744,006
Russian hemp - "	495,955	117,600
Jute - "	675,300	190,000
Reeds - "	87,191	75,027
Building wood - "	32,222,590	25,261,194
Structure - "	1,353,515	75,927
Dyeing - "	210,795	358,746
Slides, dried and salt - "	168,017	193,500
Iron - "	840,310,893	269,351,933
Cast iron - "	3,829,404	4,054,998
Iron ore - "	10,216,126	7,965,711
Lead and lead ore - "	2,859,820	881,500
Copper - "	17,59,527	3,984,529
Tin - "	295,482	168,839
Zinc - "	395,307	86,981
Guano - "	8,115,322	130,332
Refuse from refineries and manure - "	5,118,002	7,692,405
Bones and hoofs of cattle - "	442,681	383,819
Tar and pitch - "	4,113,342	8,431,949
Sulphate of soda - "	434,110	149,717

The following were the imports of British iron into Nantes :-

Year	Wrought	Cast
1865	5,616,000	9,571,000
1861	4,381,563	8,638,016
1865	5,829,101	10,316,126
1866	4,051,938	7,665,711

His chief vessel of wrought iron is Sweden. **Pilotage.**—Vessels under 80 tons (if French or assimilated by treaty) are not obliged to take a pilot at sea, but must have one for the river. The rates, which are fixed by law, are paid by the *foot* from the sea to Paimboeuf, and *thence* to Nantes for all vessels under 80 tons. Above 80 tons, they are per ton. The master of a vessel bound to Paimboeuf or Nantes has merely to give a note to the pilot, stating where the pilot boarded him, where he left him, the name and draught of water of his vessel in *English* feet. The note will be deposited at the pilot's office, and the pilotage be received from the ship's broker. No foreign vessel (however small) can be removed from one anchorage to another, or to or from a quay, but by a pilot.

**Quarantine.**—Every vessel is boarded at St. Nazaire, and if she has a foul bill of health, or disease on board, is instructed where to go.

**River Dues** on vessels ascending from Paimboeuf to Nantes are about 1½d. per ton. At Paimboeuf, and below it, none are levied.

**Averages in the River.**—If a vessel under sail causes damage to another that is properly moored, she must pay all the expenses of repairs; if to a vessel at single anchor (unless intentionally done) or under sail, the expense of the repairs of both are added together, and each pays a moiety. The same rule is enforced if damage be caused by one vessel properly moored driving on board another in the same situation; but if either were riding at single anchor, the one properly moored is indemnified; if both were at single anchor, both bear the loss alike.

The salt trade of Nantes consists chiefly in exports to Norway, 1,426,228 kilos having been sent thither in 1866 at 15 francs the 1,000 kilos free on board. In favourable seasons, the production of salt in the department of the river Loire amounts to more than 80,000,000 kilos. Another important industry of Nantes is that of sugar-refining, nearly all the sugar produced in the island of Réunion being sent to Nantes. In 1866, 38,169,243 kilos of sugar were shipped to Nantes from the French colonies of Réunion, Guadeloupe, Martinique and Mayotte, besides 22,291,745 kilos from Spanish and British colonies. But the refinement of beetroot sugar is also on the increase, 11,688,823 kilos having been imported, carried by land to this city, making a total of 67,649,311 kilos of unrefined sugar. The largest consumers of Nantes refined sugar are the English and Italians.

The following are the importations of coffee:—

Year	kilos	Year	kilos
1863	3,719,231	1865	3,221,897
1864	2,000,767	1866	3,911,985

The chief sources of this product are the Indian possessions of England and of Spain.

The following are the importations of British lead into Nantes:—

Year	kilos	Year	kilos
1863	346,019,409	1865	249,210,409
1864	19,516,468	1866	269,751,093

**Exports.**—The following table will show the principal exportations from Nantes, St. Nazaire, and Paimboeuf, during the year 1866, with the comparative figures of the preceding year:—

Exports.

Articles	1865	1866
Wool and beer - kiloes	151,125,760	140,859,335
Woolen yarn - "	30,813	69,313
Wine - "	526,761	497,348
Whisky - "	815,759	1,455,417
Brandy - "	61,907	65,235
Wine and preserved vegetables - "	675,165	841,756
Raw sugar - "	42,789	45,913
Refined sugar - "	11,369,095	5,970,367
Coffee - "	1,924,058	1,570,629
Cacao - "	1,723,039	1,590,335
Pepper - "	65,251	146,398
Rice - "	105,722	200,834
Vanilla - "	7,011	30,872
Tea and lard - "	192,639	382,011
Iron, wrought in oil - "	17,645	417,322
Iron, cast - "	42,523	361,673
Cast iron - "	-	8,415
Iron ore - "	16,420	22,231
Lead and lead ore - "	-	20,905
Copper - "	29,681	50,563
Tin - "	64,397	74,437
Zinc - "	-	34,928
Guano - "	15,121	13,910
Refuse from refineries and manure - "	45,519	27,845
Bones and hoofs of cattle - "	125,154	168,321
Tar and pitch - "	32,920	91,677
Sulphate of soda - "	31,883	85,145
Wool - "	2,007,885	2,818,090
Woolen yarn - "	152,700	251,713
Wine - "	29,988,409	41,663,300
Whisky - "	697,809	1,290,200
Brandy - "	1,719,245	445,360
Wine and preserved vegetables - "	610,288	1,029,711
Raw sugar - "	597	551
Refined sugar - "	768,265	980,672
Coffee - "	1,939,612	2,162,390
Cacao - "	1,547,5	2,765
Pepper - "	32,000	3,000
Rice - "	537,333	777,039
Vanilla - "	1,430,000	2,530,114
Tea - "	329,100	314,333
Lard - "	9,784	73,371
Iron ore - "	2,752,174	710,710
Lead and lead ore - "	329,100	1,347,142
Copper - "	59,966	74,903
Tin - "	555,777	381,684
Zinc - "	117,856	117,856
Guano - "	319,843	653,392
Refuse from refineries and manure - "	216,053	698,332
Bones and hoofs of cattle - "	46,010	73,535
Tar and pitch - "	37,585	65,273
Sulphate of soda - "	40,132	36,089
Wool - "	195,130	226,459
Woolen yarn - "	125,623	106,017
Wine - "	-	69,038

The following table of the impts. entered at the custom-houses of Nantes itself, and of those at St. Nazaire and Paimboeuf is extracted from Mr. Consul Clipperton's Report of April 1867.

*Money, Weights, and Measures* same as the rest of France. [BORDEAUX.]

*Tariff.* [TREATIES, COMMERCIAL (FRANCE).] *Taxes.*—2½ per cent. on coffee in bags; real on ditto in hhds., casks &c.; 6 per cent. on cottons; real on indigo; 17 per cent. on Brazil muscovado sugar, 12 per cent. on Martinique and Guadaloupe ditto, 13 per cent. on ditto clayel.

**NAPLES.** A large city and seaport in the south of the kingdom of Italy, and formerly the capital of the kingdom of the same name. Population in 1862, 418,968. Naples is well situated for commerce.

*Harbour.*—The bay of Naples is spacious, and is celebrated for its picturesque views. The harbour is formed by a mole, built nearly in the form of the letter L. Within the mole there are from 3 to 4 fathoms water, the ground being soft. The water in the bay is deep, and there is no bar; it is, however, a good deal exposed to the south-westerly winds; and to guard against their effects, vessels lying in the bay moor with open haws in that direction. The new breakwater now (1868) being built to the west of the harbour, will add to its security. There is no obligation to take a pilot on board, but it is usual to take one the first time that a ship anchors within the mole. There are three lights and a light vessel in the bay; one at the extremity of the mole, lat. 40° 50' 19" N., long. 14° 15' 36" E.; another on the elbow of the mole, which is revolving every two minutes, and visible for 20 miles; a third on Porto Militaire east, at the extremity of the new mole, lat. 40° 50' 2" N., long. 14° 15' 36" E. The light vessel carries green lights. The light system of the gulf of Naples is very complete.

The decimal system of coins, weights, and measures has been introduced into Naples as in the rest of the kingdom of Italy.

*Exports and Imports.*—The exports principally consist of the products of the adjacent countries. Of these, silk is the most important. Olive oil also a most important article; but it is principally supplied by Gallipoli, a town in the Terra d'Otranto, whence it is commonly called Gallipoli oil. The entire exports of oil from the kingdom of Naples have been estimated at about 200,000 salme, or 36,333 tuns a-year, which, taking the mean value when exported at 21l. per tun, equivalent to the annual sum of 762,933l. [OIL OIL.] The other articles of export are wine, brandy, dried fruits, red and white argillaceous, liquorice, gloves, madder, hemp, linseed, cream of tartar, bones, lamb and kid skins, and chestnut staves, rags, saffron &c. There is great variety in the Neapolitan wines. The most esteemed is the *lacryma Christi*, a red lucid wine, better known in England by name than reality, the first growths being confined to a small quantity only, which is chiefly reserved for royal cellars. There are, however, large quantities of second-rate wines produced in the vicinity of Naples, such as those of Pozzuoli, Ischia, &c., which are sold under the name of *lacryma Christi*, and are largely exported. Several provinces of Calabria produce sweet wines of superior quality. (Henderson's *Ancient and Modern Wines*, p. 239.) The price of wine at Naples depends entirely on the abundance of the vintage; only a small quantity comes to England. Imports consist principally of English cotton and cotton twist, hardware, iron and tin, wool,

*Account of the Principal Articles of Domestic Produce and Manufacture Exported from the Kingdom to the Two Sicilies, during each of the 3 Years ending with 1867.*

Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
Apparel and haberdashery - value	..	..	..	24,910	14,316	23,416
Coals, cinders, and culm - tons	164,768	225,868	173,597	79,148	114,722	86,000
Copper, wrought and unwrought - cwt.	6,133	19,415	4,359	39,962	109,002	14,000
Cotton yarn - lb.	7,210,109	7,620,354	7,243,855	562,510	648,822	560,000
Cottons, entered by the yard - value	25,111,594	21,954,695	27,627,548	653,219	539,844	590,000
Drugs and chemical products - ..	..	..	..	19,075	5,944	14,000
Earthenware and porcelain - ..	..	..	..	8,869	10,711	14,000
Flax, herring-pilchards - barrels	1,680	6,746	4,684	6,820	6,820	14,000
Hardware and cutlery, unenumerated - cwt.	2,273	2,606	3,693	7,227	7,963	11,000
Iron, wrought and unwrought - tons	3,856	3,121	3,413	30,426	14,677	16,000
Linen yarn - lb.	38,220	29,141	19,253	305,720	175,138	169,000
Linen yarn - yards	1,415,877	769,250	865,919	105,559	45,678	59,000
Linen, entered by the yard - value	2,069,385	1,175,455	1,911,351	95,872	51,928	57,000
Machinery: steam engines - value	..	..	..	31,509	6,166	6,000
all other sorts - ..	..	..	..	34,288	25,631	27,000
Saltpetre - cwt.	5,309	1,439	3,860	7,899	5,881	4,000
Silk manufactures - value	..	..	..	5,714	1,783	1,000
Sugar, refined - cwt.	2,327	2,009	2,894	3,233	2,588	3,000
Tin, unwrought - ..	1,074	1,762	863	5,331	7,611	3,000
Tin plates - ..	..	..	..	11,151	9,790	10,000
Woolens, entered by the yard - value	3,580,980	2,369,694	2,397,453	255,718	179,222	160,000
at value - ..	..	..	..	5,283	14,666	3,000
All other articles - ..	..	..	..	90,588	67,458	59,000
Total	..	..	..	2,545,268	2,109,911	1,870,000

sugar, coffee, indigo, spices &c. Naples is a good market for pilchards, and it requires a large supply of dried and barreled cod.

We also exported to the Two Sicilies in the same period foreign and colonial produce of an average amount of 270,190l.

The value of our total exports to the Two Sicilies in 1867 was 2,039,427l., and of our imports, 1,607,295l. In 1866 the value of the imports into Naples was 4,807,806l., and of her exports 1,401,759l.

*Number and Tonnage of Vessels Entered and Cleared from the Port of Naples in 1867.*

Foreign	Entered						Cleared					
	1865		1866		1867		1865		1866		1867	
	no.	tons	no.	tons	no.	tons	no.	tons	no.	tons	no.	tons
Coasting -	1,596	487,748	1,664	415,547	1,381	373,672	1,136	702,358	1,532	400,116	1,175	175,000
Foreign -	3,996	525,202	5,421	357,971	3,475	366,654	4,766	496,258	5,073	340,511	5,338	538,000

809 foreign vessels of 286,517 tons, and 3,105 Italian vessels of 421,555 tons, entered the port in 1866.

of the world. the silk trade exclusive of ... 29,512 ... registers ... 1866. Shipping, For ... public nature on ... as under:— On entering: For ... in clearing out: (Equal to ... (On entering: Via ... Steam (Equal to ... On clearing out: P ... K ... B ... P ... T ... (Equal to abo ... Custom-house R ... duties are bound ... to furnish ... general manifest of ... and the man ... on board, ... in detail, of ... omi ... within 48 hour ... per cent. upon ... This declaration or ... after 48 hours are ... liable to ... erage erroneously ... remitted, un ... upon applicati ... The ... use, and salt, the ... is, strictly ... are on board, ... shall must be spec ... vessel receiving ... house, and ... are restored to be ... the rules with res ... them, and some ... and the m ... *Regulat* ... reception, ... arriving at the ... or unwholes ... which she come ... 2. Suspicious ... In the first c ... in the 2nd, ... in the 3rd, ... in the 4 ... If the vesse ... is performed ... days of her pass ... if a merc ... at Nistis, an ... It commence ... if in ballast, or ... if otherw ... of her cargo ... or the N. of ... of 8 days; b

of the world. In Mr. Consul Colnaghi's Report on the silk trade of Italy for 1867 it is stated that, exclusive of private sales, the quantities of raw silks registered as sold in the Naples market were 26,512 myriagrammes. See also Mr. Secretary Herries's Report on the industrial condition of Italy, No. 3 of 1868, and Mr. Consul-General Becham's Report on the Trade of Naples, for 1866.

**Shipping, Port Charges &c.**—The charges of a public nature on a national ship of 300 tons burden entering and clearing out from the port of Naples, are as under:—

On entering: For expediting - - - - -	D. gr.
(Equal to 2s. 6d. sterling)	1 60
On clearing out: Expediting - - - - -	1 60
Bill of health - - - - -	1 20
Tonnage duty at 4 gr. per ton	12 0
(Equal to about 2l. 5s. 4d. sterling)	14 80
On entering: Visa - - - - -	0 55
Expediting - - - - -	6 60
Stamp - - - - -	0 14
(Equal to about 1l. 4s. 4d. sterling)	7 21
On clearing out: Passport - - - - -	1 0
Expediting - - - - -	6 60
Stamp - - - - -	0 14
Bill of health - - - - -	2 40
Police - - - - -	0 20
Port officers - - - - -	0 60
Registering papers - - - - -	0 20
Tonnage duty at 40 gr. per ton 1800 0	1800 0
(Equal to about 21l. 17s. 4d. sterling)	151 14

**Custom-house Regulations.**—Masters of merchant-ships are bound, within 24 hours of their arrival, to furnish the custom-house with a general manifest of their cargoes, provisions, and passengers; and the master, when consignee, or the consignee, are bound, within 48 hours after the arrival of the ship, to send in a declaration or manifest in detail, of all goods on board. Should the consignees omit to render the manifest in detail within 48 hours, they are subjected to a fine of 50 per cent. upon the non-specified articles. This declaration or manifest cannot be corrected after the 48 hours are elapsed; and the master or consignee is liable to a fine of 30 ducats for every article erroneously declared. This, however, is only remitted, unless there be suspicion of fraud, upon application to the director-general of the customs. The importation of gunpowder, saltpetre, and salt, though they may be for the private use, is strictly prohibited. When such articles are on board, the exact quantity of each kind must be specified in the manifest; and on arrival, the vessel receiving *pratique* they are taken to the custom-house, and kept till her departure, when they are restored to her. The slightest deviation from the rules with respect to these articles subjects them, and sometimes the vessel also, to detention, and the master to a heavy fine.

**Quarantine Regulations.**—The free admission, reception, or absolute refusal of a vessel arriving at the port is determined by the nature or unwholesome character of the place from which she comes. The place may be, 1. Safe. 2. Suspicious. 3. Endangered. Or, 4. Infected. In the first case, the vessel is refused admission; in the 2nd, she is admitted on a long quarantine; in the 3rd, she is received on a short quarantine; in the 4th, she is allowed free admission. If the vessel be a ship of war, her quarantine is performed in the Bay of Naples; if a merchantman, being allowed in the Bay, she is to be quarantined at Nisita, an island about 6 miles from the city. It commences from the day of her arrival, if in ballast, or loaded with unsusceptible cargo; if otherwise, from the day of the discharge of her cargo. Vessels from Great Britain or the N. of Europe are subject to a quarantine of 8 days; but if they touch by the

way at any port in Spain or Barbary, the quarantine is lengthened to 14 days; provided, however, they have clean bills of health, they may wholly avoid the quarantine by touching at some Italian port, or at Malta, the latter being in free *pratique* with Naples. Vessels from the Ionian Islands are subject to a quarantine of 20 days. No foul lazaretto exists at Naples; but at Nisita there is a lazaretto of expurgation for vessels from suspicious or endangered districts or territories. Vessels from infected places usually go to Leghorn or Genoa, where they may unload in a lazaretto *porco*. The fees charged on ships performing quarantine are heavy. No distinction is made between national and foreign bottoms.

**Brokers, Commission &c.**—No person can legally act as a broker unless authorised by Government. All patented brokers are obliged, by way of security, to hold funded property producing 500 ducats of 'rente,' or a dividend of 83l. 6s. 8d. sterling. Many persons, however, act as brokers without being patented, but no contract made by them is admitted in a court of law. Any person may set up as a merchant, by giving due notice to the *Camera di Commercio*.

**Rates of Commission and Charges established by the Merchants at Naples.**

Commission on sales of fish - - - - -	per cent.
manufactures of all kinds - - - - -	3
all other goods - - - - -	2
goods purchased - - - - -	2
receiving and forwarding - - - - -	1
attempting sales - - - - -	1
re-sale of goods for the same account on which a purchasing commission has been charged - - - - -	1 1/2
chartering vessels or procuring charters - - - - -	3
collecting freights on chartered ships - - - - -	4
ships both inwards and outwards - - - - -	4
advances on letters of credit - - - - -	1
afflicting insurances - - - - -	1
negotiating bills - - - - -	1
receiving and paying or remitting - - - - -	2
Did credere on sales - - - - -	1
purchase of oil, not exceeding 3 months - - - - -	1
per underwriters - - - - -	5
	2
	1

**Tare usually allowed by the Custom-house at Naples on the leading Articles of Importation.**

Sugar, in hogsheads - - - - -	12 per cent.
boxes or barrels - - - - -	14
Brasil chests - - - - -	18 to 20 per cent.
bags - - - - -	6 rotoll
Leaves, in casks - - - - -	real tare
extra for paper and strings - - - - -	5 per cent.
Indigo - - - - -	real tare
Tin, in barrels, each - - - - -	12 rotoll
Alum, in casks - - - - -	10 per cent.
Wax, real tare and extra - - - - -	2 to 3 per cent.
Cod and stock-fish - - - - -	1 per cent.
Coffee, in casks - - - - -	real tare
bags, each - - - - -	3 rotoll
Pepper, " - - - - -	"
Plumetto, " - - - - -	"
Cocoa, " - - - - -	3 do. 2 ad. 5 per cent.
in casks - - - - -	for dust, real tare
Cassia lignea, cochineal, and bark - - - - -	real tare

**Insurance.**—There are 4 or 5 companies for the insurance of ships, and 1 for lives. Their terms are generally higher than those of similar establishments in London. Houses are never insured at Naples, their construction rendering fires very rare. The companies are established by royal authority, the shareholders being only liable for the amount of their shares.

**Banking.**—The principal merchants of Naples are all, more or less, bankers, inasmuch as they advance money on letters of credit, and deal in foreign exchanges, and other financial operations. But the only banking establishment at present in existence is the Bank of the Two Sicilies, founded by Government, and guaranteed by the possession of landed property. It is not a bank for the issue of notes on credit, like the Bank of England, but for their issue on deposits, somewhat on the principle of the Bank of Hamburg. Government makes all its payments by means of notes or orders on the bank; and they are issued to individuals

Declared Real Value

1866	1867
1,336	1,336
114,312	114,312
108,052	108,052
642,202	642,202
659,848	659,848
13,869	13,869
5,844	5,844
10,871	10,871
6,821	6,821
12,287	12,287
175,158	175,158
35,678	35,678
9,592	9,592
6,146	6,146
35,631	35,631
3,091	3,091
1,783	1,783
2,388	2,388
7,811	7,811
9,290	9,290
174,992	174,992
14,766	14,766
87,458	87,458
2,109,911	2,109,911

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apprentice who is discharged from his ship by such court.

(3.) If summoned in order to enquire into a case of wreck or abandonment, a statement of the opinion of the court as to the cause of such wreck or abandonment, with such remarks on the conduct of the master and crew as the circumstances require.

And every such report shall be signed by the president of the court; and every document purporting to be such a report and to be so signed as aforesaid shall, if produced out of the custody of some officer of the Board of Trade, be deemed to be such report, unless the contrary is proved, and shall be received in evidence, subject to all just exceptions. (Sec. 265.)

**Penalty for preventing Complaint &c.**—Any person who willfully and without due cause prevents or obstructs the making of any such complaint as last aforesaid, or the conduct of any enquiry or investigation by any naval court, shall for each such offence incur a penalty not exceeding 50*l.*, or be liable to imprisonment with or without hard labour for any period not exceeding 12 weeks. (Sec. 266.) [ADMIRALTY COURT.]

The Admiralty Court Act of 1861 (24 Vict. c. 10) gives the High Court of Admiralty jurisdiction over claims as to building, equipping &c. of ships, claims for necessities, for damage to cargo or ship, wages, disbursements by master, and for salvage of ship &c.

The Vice-Admiralty Courts Acts of 1863 and 1867 (26 Vict. c. 24 and 30 & 31 Vict. c. 45) were passed to facilitate the appointment of Vice-Admiralty Courts abroad, and to extend their jurisdiction over claims to wages, pilotage, salvage, tonnage, necessaries, damage done by ships, and to bottomry and respondentia bonds. And the 31 & 32 Vict. c. 77 extends Admiralty jurisdiction on the country events in England over claims of certain amounts for salvage, tonnage, necessaries, wages, damage to cargo or by collision &c.

**NAVIGATION LAWS.** These laws form an important branch of Maritime Law. In this country they are understood to comprise the various Acts that have been passed, defining British ships, the way in which such ships are to be registered, the peculiar privileges enjoyed by them, and the conditions under which foreign ships shall be allowed to engage in the trade of the country, either as importers or exporters of commodities, or as carriers of commodities from one part of the country to another.

**Sketch of the History and Principles of the Navigation Laws.**—The origin of the Navigation Laws of England may be traced to the reign of Richard II., or perhaps to a still more remote period. But, as no intelligible account of the existing and contradictory enactments framed at a distant epoch could be compressed within any reasonable space, it is sufficient to observe, that in the reign of Henry VII., two of the leading principles of the navigation law were distinctly recognised, in the prohibition of the importation of certain commodities, unless imported in ships belonging to English owners, and manned by English seamen. In the early part of the reign of Elizabeth (5 Eliz. c. 5), foreign ships were excluded from our fisheries and coasting trade. The republican Parliament gave a great extension to the navigation laws, by the Act of 1650, which prohibited all ships, of all foreign nations whatsoever, from trading with the plantations in America, without having previously obtained a license. These Acts were, however, rather intended to regulate the trade between the different ports and dependencies of the empire, than to regulate our

intercourse with foreigners. But in the following year (9th of October, 1651) the republican Parliament passed the famous *Act of Navigation*. This Act had a double object. It was intended not only to promote our own navigation, but also to strike a decisive blow at the naval power of the Dutch, who then engrossed almost the whole carrying trade of the world, and against whom various circumstances had conspired to incense the English. The Act in question decreed, that no goods or commodities whatever, of the growth, production, or manufacture of Asia, Africa, or America, should be imported either into England or Ireland, or any of the plantations, except in ships belonging to English subjects, and of which the master and the greater number of the crew were also English. Having thus secured the import trade of Asia, Africa, and America, to the English ship-owners, the Act went on to secure to them, as far as that was possible, the import trade of Europe. For this purpose, it further enacted that no goods of the growth, production, or manufacture of any country in Europe, should be imported into Great Britain, except in British ships, or in such ships as were the real property of the people of the country or place in which the goods were produced, or from which they could only be, or most usually were, exported. The latter part of the clause was entirely levelled against the Dutch, who had but little native produce to export, and whose ships were principally employed in carrying the produce of other countries to foreign markets. Such were the leading provisions of this famous Act. They were adopted by the regal Government which succeeded Cromwell, and form the basis of the Act 12 Ch. II. c. 18, which continued, to a very recent period, to be the rule by which our naval intercourse with other countries was mainly regulated, and which has been pompously designated the *Charta Maritima* of England!

In the statute 12 Ch. II. c. 18 the clause against importing foreign commodities, except in British ships, or in ships belonging to the country or place where the goods were produced, or from which they were exported, was so far modified, that the prohibition was made to apply only to the goods of Russia and Turkey, and to certain articles since well known in commerce by the name of enumerated articles, leave being at the same time given to import all other articles in ships of any description. But this modification was of very little importance; inasmuch as the enumerated articles comprised all those that were of most importance in commerce, as timber, grain, tar, hemp and flax, potash, wines, spirits, sugar &c. Parliament seems, however, to have very speedily come round to the opinion that too much had been done in the way of relaxation; and in the 14th of Charles II. a supplemental statute was passed, avowedly with the intention of obviating some evasions of the statute of the preceding year, which it was affirmed had been practised by the Hollanders and Germans. This, however, seems to have been a mere pretence, to excuse the desire to follow up the blow aimed, by the former statute, at the carrying trade of Holland. And such was our jealousy of the naval and commercial greatness of the Dutch, that, in order to cripple it we did not hesitate totally to proscribe all trade with them; and to prevent the possibility of fraud or of clandestine or indirect intercourse with Holland, we went so far as to include the commerce with the Netherlands and Germany in the same proscription. The statute of the 14th Ch. II. prohibited all importation from these countries of a long list of enumerated commodities under any

circumstances, or in any vessels, whether British or foreign, under the penalty of seizure and confiscation of the ships and goods. So far as it depended on us, Holland, the Netherlands, and Germany were virtually placed without the pale of the commercial world! And though the extreme rigour of this statute was subsequently modified, its principal provisions remained in full force until the late alterations.

The policy, if not the motives, which dictated these statutes has met with very general eulogy. It has been said, and by no less an authority than Adam Smith, 'When the Act of Navigation was made, though England and Holland were not actually at war, the most violent animosity subsisted between the two nations. It had begun during the government of the Long Parliament, which first framed this Act, and it broke out soon after in the Dutch wars during that of the Protector and of Charles II. It is not impossible, therefore, that some of the regulations of this famous Act may have proceeded from national animosity. They are as wise, however, as if they had all been dictated by the most deliberate wisdom. National animosity at that particular time aimed at the very same object which the most deliberate wisdom would have recommended—the diminution of the naval power of Holland, the only naval power which could endanger the security of England. The Act of Navigation is not favourable to foreign commerce, or to the growth of that opulence which can arise from it. The interest of a nation in its commercial relations to foreign nations is, like that of a merchant with regard to the different people with whom he deals, to buy as cheap and to sell as dear as possible. But the Act of Navigation, by diminishing the number of sellers, must necessarily diminish that of buyers; and we are thus likely not only to buy foreign goods dearer, but to sell our own cheaper, than if there was a more perfect freedom of trade. As defence, however, is of much more importance than opulence, the Act of Navigation is, perhaps, the wisest of all the commercial regulations of England.' (Smith's *Wealth of Nations*, p. 204.)

It may, however, be very fairly doubted, whether, in point of fact, the navigation law had the effects here ascribed to it, of weakening the naval power of the Dutch, and of increasing that of this kingdom. The Dutch were very powerful at sea for a long period after the passing of this Act; and it seems natural to conclude, that the decline of their maritime preponderance was owing rather to the gradual increase of commerce and navigation in other countries, and to the disasters and burdens occasional by the ruinous contests the Republic had to sustain with Cromwell, Charles II., and Louis XIV., than to the mere exclusion of their merchant vessels from the ports of England. It is not meant to say that this exclusion was altogether without effect. The efforts of the Dutch to procure a repeal of the English navigation law show that, in their apprehension, it operated injuriously on their commerce. In the treaty of Breda, agreed upon in 1667, between the States-General and Charles II., the latter undertook to procure the repeal of the navigation law. But the subject was never agitated in either House of Parliament. It is certain, however, that its influence in this respect has been greatly overrated in this country. *Excessive taxation*, and not our navigation law, was the principal cause of the fall of profits, and of the decline of manufactures, commerce, and navigation in Holland. 'Les guerres,' says the well-informed author of the *Commerce de la Hollande*, 'terminées par les

traités de Nimègue, de Ryswick, d'Utrecht, enfin la dernière par le traité d'Aix-la-Chapelle ont successivement obligé la république de faire usage d'un grand crédit, et de faire des emprunts énormes pour en soutenir les frais. Les dettes ont surchargé l'État d'une somme immense d'intérêts, qui ne pouvoient être payés que par une augmentation excessive d'impôts, dont il a fallu faire porter la plus forte partie par les consommations dans un pays qui n'a qu'un territoire extrêmement borné, et par conséquent par l'industrie. Il a donc fallu faire encliner la main-d'œuvre. Cette cherté de la main-d'œuvre a ne seulement restreint presque toute sorte de fabrique et d'industrie à la consommation intérieure, mais elle a encore porté un coup bien sensible au commerce de frêt, partie accessoire et la plus précieuse du commerce d'économie: car cette cherté a rendu la construction plus chère, et augmenté le prix de tous les ouvrages qui tiennent à la navigation, même de tous les ouvrages des ports et des magasins. Il n'étoit pas possible que l'augmentation du prix de la main-d'œuvre ne donnât, malgré tous les efforts de l'économie hollandaise, un avantage sensible aux autres nations qui voudroient se livrer au commerce d'économie et celui de frêt.' (Tome ii. p. 211.)

This extract, which might, were it necessary, be corroborated by others to the same effect, is all the best Dutch writers, shows that it is not our navigation laws, nor to the restrictive regulations of other foreign Powers, but to the abuse of the funding system, and the excess of taxes, that the decline of the commercial greatness maritime power of Holland was really owing. Neither does it appear that the opinion maintained by Dr. Smith and others, that the navigation law had a powerful influence in augmenting the power of this country, rests on any better foundation. The taste of the nation for naval enterprises been awakened, the navy had become exceedingly formidable, and Blake had achieved his victory before the enactment of this famous law. So indeed, is it from being certain that the Navigation Act had, in this respect, the effect commonly ascribed to it, that there are good grounds for thinking it had a precisely opposite effect, that it operated rather to diminish than to increase our mercantile navy. It is stated in Roger O'Connell's *Treatise on Trade*, published in 1671 (p. 36), that this Act, by lessening the resort of strangers to our ports, had a most injurious effect on our commerce; and he further states, that we had within two years of the passing of the Act of the greater part of the Baltic and Greenland trades (p. 48). Sir Josiah Child, whose *Discourse* was published in 1691, corroborates Coke's sentiment; for while he decided, approves of the navigation law, he admits that the English shipping employed in the Eastland and Baltic had decreased at least *two-thirds* since its enactment, and that the foreign shipping employed in these trades had proportionally increased. (*Treatise on Trade*, p. 89, Glasgow edit.) Excluded of these contemporary authorities, it is worth while to mention that Mr. Richard Dimsdale, an extensive and extremely well-informed merchant, condemns the whole principle of the Navigation Act; and contends, that instead of increasing shipping and seamen, it had diminished both; and that, by rendering the freight higher than it would otherwise have been, it entailed a heavy burden on the public, and was one of the main causes that had prevented carrying on the fishery so successfully in the Dutch. (*Essay on the Causes of the Decline of the Foreign Trade*, p. 60, ed. 1756.)

There do not seem to be any very good grounds on which to question these statements; and they are all events sufficient to show, that the assertions of those who contend that the navigation laws had a prodigious effect in increasing the number of our ships and sailors, must be received with very great modification. But suppose that all that has been said by the apologists of these laws were true to the letter; suppose it were conceded, that, when first framed, the Act of Navigation was extremely politic and proper; that it would afford but a very slender presumption in favour of the policy of supporting it in the present day. Human institutions are not made for immortality; they must be accommodated to the varying circumstances and exigencies of every age. But the situation of Great Britain and the other countries of Europe has totally changed since 1650. The envied wealth and commercial progress of Holland have passed away: we have no longer anything to fear from her hostility: we must be, indeed, strangely influenced by ungenerous prejudices and bygone apprehensions, who can entertain any of that jealousy from which the severity of this law principally originated. London has become, what Amsterdam formerly was, the grand emporium of the commercial world—*universa orbis terrarum emporium*: and the small question which now presents itself for our consideration is, not what are the best means by which we may rise to naval greatness? but—what are the best means of preserving that unobscured pre-eminence in maritime affairs to which we are attained?

Now, it does not really seem that there can be any great difficulty in deciding this question. Navigation and naval power are the children, not the parents—the effect, not the cause—of commerce. If the latter be increased, the increase of the former will follow as a matter of course. More ships and more sailors become necessary according to the commerce between different and distant countries is extended. A country in the condition of Great Britain in the reign of Charles II., when shipping was comparatively limited, might justly be warranted in endeavouring to increase its numbers, by excluding foreign ships from her ports. But it is almost superfluous to add, that it is not by any such regulations, but solely by the aid of a flourishing and widely extended commerce, that the immense mercantile navy we now accumulated can be supported.

It may be easily shown, that to have continued, in the present state of the world, to enforce the provisions of the old navigation law, would have been amongst the most efficient means that could have been devised for the destruction of our commerce. The wealth and power to which Britain has attained, have inspired other nations with the feelings of envy and jealousy that the success of Holland formerly generated in our minds. Instead of ascribing our commercial and manufacturing superiority to its true causes, and to the comparative freedom of our constitution, we have been allured by the oppressive feudal privileges, the monopoly of property, and the fairness of our laws of taxation, our foreign rivals contend that it had been entirely owing to our exclusive trade and appealed to our example to stimulate the respective Governments to adopt retaliatory measures, and to protect them against British competition. These representations had the most successful operation. In 1817, the American Legislature passed an Act, copied to the very letter into our statute book, with the avowed intention of operating as a retaliatory measure against Great-Britain. The Northern Powers threatened

to act on the same principle; and would have carried their threats into effect but for timely concessions on our part. The same engines which we laboured to destroy the trade of Holland, were thus about to be brought, by what we could not regard as an unjust retribution, to operate against ourselves. Nor can there be a doubt that, had we continued to maintain our exclusive system, and refused to set a better example to others, and to teach them the advantage of recurring to more liberal principles, we should have run a very great risk of falling a victim to the vindictive spirit which such short-sighted and selfish policy would have generated.

These statements are sufficient to show that a considerable relaxation of our navigation laws had become indispensable; and this was partly effected in 1821 and 1825, but principally in the latter, by the measures introduced with that view into Parliament by Mr. Wallace (afterwards Lord Wallace) and Mr. Huskisson. The effect of these tries at amity with the United Kingdom on the same footing. The memorials of our former uncertainty and of our jealousy of the prosperity of the same law has since continued to regulate our commerce with the Continent. This uniformity, besides giving greater scope to mercantile operations, and facilitating our traffic with some of our most opulent neighbours, removed a prolific source of embarrasment and litigation, at the same time that it detracted considerably from that selfish character which had been believed on the Continent, and not without considerable reason, to be the animating principle of our commercial policy.

The changes that were also made in 1821 and 1825, in regard to the importation of enumerated goods (these changes are specified in the former editions of this work), and of articles, the produce of Asia, Africa, and America, though of considerable importance, were very far from obviating the hardships arising out of the previous rules. The importation of European goods continued to be practicable only in British ships, or in ships of the country of which the goods were the produce, or of the country from which they were shipped. This regulation was kept up to hinder the Dutch, the Danes, or any other people, from becoming the carriers of the produce of other nations to our ports. But while this result was not very likely to occur, the rule imposed a serious hardship on foreigners, and also on ourselves. Suppose that a Dutch ship took in part of a cargo of Dutch produce, such as cheese, butter, and Geneva at Rotterdam for England: what could be more vexatious in the event of her not being able to complete her cargo with Dutch goods suitable for our markets, than to hinder her from making it up with the foreign goods suitable for them warehoused at Rotterdam, such as the wines and brandies of France, the corn of Poland, the hemp and tallow of Russia &c. ? But its vexatious character was not the only thing to be objected to in a regulation of this sort. It really increased the cost of the butter, cheese &c. sent to us; for as these had to bear the whole charge on account of freight which, but for the regulation, would have been proportionally enhanced, at the same time that the Dutch were tempted to resort to retaliatory measures. And how injurious soever in other respects, it is sufficiently plain that this regulation could never, as has been alleged, occasion an increased demand for British shipping. It no doubt compelled the foreigners to sort their cargoes less advantageously than they might otherwise have

done. But the burden of this fell upon the employers of the carriers and not on the carriers themselves; that is, it fell upon us and not on the foreigners; while in the event of their retaliating, our trade was subjected to the same difficulties. It is visionary to pretend that a system so prejudicial to commerce could be advantageous to shipping and navigation.

The measures introduced in 1825 left also untouched the regulation by which goods, the produce of Asia, Africa, and America, were prohibited from being imported from any European port (the only exception to this rule were articles from Asiatic and African Turkey imported from the Levant, and bullion), and could not be imported on foreign bottoms, except when they were imported direct in ships of the country of which the goods were the produce. It was proposed in 1821 to authorise British ships to import all non-prohibited articles from wherever they might find them; and though nothing apparently could be more reasonable than such a regulation, it was objected to, on the pretence that foreign ships being more cheaply navigated than ours, would take advantage of this circumstance to import Asiatic, African, and American products into the contiguous continental ports, and would thus confine the employment of our ships to their carriage thence! And upon this futile pretence, for which there was not so much as the shadow of a foundation in fact, the old rule was maintained; and in consequence, though the ports along the English Channel might have been glutted with the corn and cotton of America, the sugar of Brazil and Cuba, the coffee of Java, and the tea of China, and though all or some of these articles might at the time have been deficient here, not one of them could be imported in a foreign ship, unless, as was sometimes the case, it were carried back to the country whence it had been originally shipped, nor even in a British ship, unless it were first carried from Europe to some other continent! It is hardly possible to imagine any rule or regulation more extravagantly oppressive and absurd, and it is really astonishing that it should have been able to keep its place on the statute book for about two centuries. Luckily, however, this preposterous system, as well as the regulations affecting importation from Europe, ceased on January 1, 1850. The Act for their repeal, the 12 & 13 Vict. c. 29, went far to complete the free-trade measures adopted in 1812 and 1846, and had the most favourable influence over the commerce and navigation of the empire.

It did not, however, interfere with the monopoly of the coasting trade, which continued to be secured to British ships. But this last shred of the protective system has, also, been swept away by the Act of 1854, the 17 Vict. c. 5. [COASTING TRADE.] Probably, however, few foreign ships will engage in this department; but their being at liberty to do so will insure freights being kept at their fair level.

The relaxations made in 1825 and 1826 in the regulations embodied in our old navigation laws in regard to the colonial trade, were perhaps the most valuable portion of the changes introduced by Mr. Huskisson. But though they did much to obviate the hardships growing out of the previous rules, and to give freedom to the colonial trade, they did not entirely effect that object; and some regulations were subsequently continued in force which, though irritating and mischievous in their bearing on the colonies, were of no real advantage to ourselves. These, however, wholly ceased on January 1, 1850. All varieties of goods may now be imported into the colonies

from all countries at peace with Great Britain and exported from the colonies to them, whether in British, colonial, or foreign shipping. The complaints of the colonists, in regard to the injuries they have sustained from the rules enforced by our navigation laws, are thus completely obviated, and on that ground, at all events, they have no further claim to prohibitory duties.

Besides the restrictive regulations already alluded to, it was a part of our former policy to encourage the employment of British shipping by imposing higher duties on commodities imported in foreign vessels than were imposed on those when imported in British vessels; and it was also customary to charge foreign vessels with higher port and lighthouse duties &c. The practice was always loudly complained of by foreigners; but we had little difficulty in maintaining it, so long as we could afford to disregard the retaliatory measures of other Powers. But the extraordinary increase that took place, since the commencement of the war terminated in 1815, in our manufactures for foreign consumption, and the necessity under which we were, in consequence, placed, of conciliating our customers abroad, led to the adoption of the reciprocity system. This latter was first introduced into the trade with the United States. After the North American colonies had succeeded in establishing their independence they set about framing rules for their navigation on the model of those of this country. Among other regulations of a restrictive character, it enacted that all foreign vessels trading to the United States should pay 44 cents, which afterwards raised to 94 cents (nearly a dollar), ton duty, beyond what was paid by American ships; and further, that goods imported in foreign vessels should pay a duty of 10 per cent, over and above the duty payable on them when imported in American vessels.

This law was avowedly directed against the shipping of this country, though, as it was framed on the same principles as our navigation laws, we could not openly complain of its operation. Under these circumstances, it would have been sound policy to have at once proposed accommodation; and, instead of attempting to meet retaliation by retaliation, to have offered to modify our navigation law, in so far as American shipping was concerned, on the Americans making reciprocal modifications in their favour. A different course was, however, followed. Various devices were fallen upon to counteract the operation of the system of the Americans, without in any degree relaxing our own; but they all failed of the object; and at length it became obvious to one that we had engaged in an unequal struggle and that the real effect of our policy was, to place a bounty on the importation of the manufactures and goods of other countries into the United States, and thus gradually to exclude both our manufactures and ships from the ports of the republic. In consequence, a conviction of the necessity of making concessions gained ground progressively, and it was ultimately fixed, by the commercial treaty agreed upon between Great Britain and the United States, in 1815, that in future no charges should be imposed on the ships of one country in the ports of the other, and that the duties should be laid upon all articles, the produce of the one country imported into the ports of the other, whether such importation were effected in the ships of the one or the other.

Brazil and the other States of South America were naturally anxious to establish a commercial marine; and, to forward their views in this respect, they contemplated enacting navigation

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But this intention was frustrated by the interference of the British Government, who, without consulting for any particular advantage, wisely refused to admit their ships into our ports on a principle of reciprocity, or on their paying the same charges as our own ships, on condition of their admitting British ships into their ports on a similar footing. Commercial treaties, framed on the sound principle, were afterwards entered into with most of these States.

The reciprocity system having been thus established as the basis of the intercourse with the United States, whose commercial marine was second only to that of Great Britain, it was not possible to refuse adopting it in the case of such European countries as might choose to admit our ships into their ports on a footing of equality. The Act of the 6 Geo. IV. c. 1 it was enacted, by His Majesty's order, by an order in council, that the ships of foreign states into our ports, on the same of the like duties that are charged on British vessels provided that British ships are admitted into the ports of such foreign states on the same of the like duties that are charged on British vessels. The first demand of this sort was made on the part of the Prussian Government, which on June 20, 1822, issued an order in council imposing large additions to the port dues previously exacted on all ships belonging to those nations which did not admit Prussian ships on a principle of reciprocity. The real object of this order was to impede the navigation of this country; and it was speedily found that it had the desired effect, that its operation on British shipping was ruinous.

Under these circumstances, the British merchant and shipowners applied to our Government for relief.

We were assailed, said Mr. Huskisson, 'with representations from all quarters connected with the shipping and trade of the country, against the charges imposed upon British ships in the ports of Prussia. In such circumstances, what was to be our duty, in the first instance, to communicate with the Prussian minister in this country, and our minister at Berlin was, I believe, requested to confer with the Prussian Government on the subject. I myself had a conference with the Prussian minister at this court, and I recollect the substance of his reply to me. He said, "set us the example, by your port and light charges, and your discriminating duties on Prussian ships; and we have not gone beyond the limits of that example. Hitherto, we have not increased our port and tonnage duties on British ships only; but it is the intention of our Government next year" (and of this he showed me a written proof) "to imitate you still more by imposing discriminating duties on the ships of other nations. Our object is, a just protection to our own navigation; and so long as the same of our protection does not exceed that afforded in your ports to British ships, we are ready with what reason you can complain." I asked such a reply what remonstrance could be made to the Prussian Government? I thought we might have addressed ourselves, it may be thought, to the friendly feelings of that Government—we might have pleaded long usage and the wrong of our discriminating duties;—we might have urged the advantages which Prussia derives from her trade with England. Appeals of this kind were not forgotten in the discussion, but they were of little avail against the fact stated in a memorial at Dantzic—that "the Prussian ports were all going to ruin."

By others it may be said, "your duty was to retaliate by increasing your own port charges and discriminating duties, on Prussian shipping." I have already stated generally my reasons against the policy of this latter course. We were not prepared to begin a system of commercial hostility, which, if followed up on both sides to its legitimate consequences, could only tend to reciprocal prohibition. In this state of things, more prudently, as I contend, we entered upon an amicable negotiation with the Prussian Government, upon the principle of our treaty with the United States,—that of abolishing, on both sides, all discriminating duties on the ships and goods of the respective countries in the ports of the other.

Having concluded an arrangement with Prussia upon this basis, we soon found it necessary to do the same with some other of the northern states. Similar conventions were accordingly entered into with Denmark and Sweden. Reciprocity is the foundation of all those conventions; but it is only fair to add, that they contain other stipulations for giving facility to trade, and from which the commerce of this country, I am confident, will, in the result, derive considerable advantage.' (*Huskisson's Speech*, May 12, 1826, on the *State of the Shipping Interest*.)

This statement shows that the establishment of the reciprocity system, with respect to which so violent a clamour was afterwards raised, was not a measure of choice but of necessity. We could not afford to hazard the exclusion of our manufactures from countries into which they were annually imported to a large amount. So long as the Prussians, Swedes, Danes, and other nations chose to submit, without attempting to retaliate, to our system of discriminating duties on foreign ships, and on the goods imported in them, it was no business of ours to tell them that that system was illiberal and unjust. But when they discovered that such was really the case, and declared that unless we modified our restrictions, they would retaliate on our commerce, and either entirely exclude our commodities from their markets, or load those that were imported in British ships with prohibitory duties, should we have been justified in refusing to come to an accommodation? Were we to sacrifice the substance to the shadow? To turn away some of our best customers because they chose to stipulate that the intercourse between them and us should be conducted either in their ships or in ours, as the merchants might think best? Government had only a choice of difficulties; and they wisely preferred adopting a system which has preserved the access to foreign markets for English goods, and has further secured an equal chance to English ships, with those of foreigners, of being employed in the trade with other countries. More could not have been obtained; nor would it have been really desirable. Had we endeavoured to enforce in the nineteenth century the rules and regulations that had been justly objected to and regarded as oppressive in the sixteenth and seventeenth centuries, we should have provoked a spirit of hostility and retaliation that must eventually, and at no distant period, have crippled alike the manufactures, the trade, and the navigation of the empire.

The reciprocity system is still wisely maintained, and is, indeed, embodied in the Act 12 & 13 Vict. c. 29. But we do not make its previously agreeing to this system a condition of a foreign country being entitled to participate in the advantages conferred by this Act. Such preliminary arrangements would have occasioned much embarrassment and difficulty, and we, therefore,

have contented ourselves with reserving power to her Majesty in council, in the event of her thinking it expedient to interfere, to impose such prohibitions, restrictions, and discriminating duties on the ships of any foreign power frequenting our ports, as may be required to countervail any peculiar prohibitions, restrictions, or duties laid upon British ships in the ports of such foreign power.

Much difference of opinion has existed as to the practical effect on our shipping and navigation of the changes in the navigation law introduced by Mr. Huskisson. But there is really no ground for any such difference. This will be apparent from the following comparison between the shipping belonging to the empire in 1825, when Mr. Huskisson's reforms began, and in 1849 and 1867:

Account of the Ships, their Tonnage, and their Crews, belonging to the British Empire in 1825, 1848, and 1867.

Year	United Kingdom and Possessions in Europe		Colonies		Total		Crews
	Ships	Tons	Ships	Tons	Ships	Tons	
1825	30,701	8,708,807	3,579	8,034	911,275	651,351	166,185
1848	39,658	5,400,809	8,034	8,034	35,672	2,553,689	376,909
Excess in 1848	4,957	1,979,002	4,455	456,176	9,592	1,498,478	67,960
1867	38,773	5,735,973	12,132	1,478,698	40,905	7,259,671	341,751
Excess in 1867	8,072	3,185,166	8,553	1,365,823	16,245	4,679,999	174,944

It is plain from this statement, that the number of our ships, the amount of their tonnage, and the number of our sailors, have all been vastly increased since 1825. And if this be not, we should like to know what can be, a conclusive proof of the wisdom of the changes effected in 1825. They have, in fact, been successful to a degree which the most sanguine could not previously have supposed possible.

Although, however, the fact of a vast increase of our mercantile navy having taken place since 1825, be too well established to admit of any doubt, it is contended by the apologists of the old restrictive system, that the share which foreigners have in the trade of the United Kingdom is notwithstanding greater now than in 1825. But this greater preponderance of foreign vessels in our trade, if such really be the case (which is doubtful), is admitted to be but inconsiderable; though, were it incomparably greater than it is alleged to be, it would afford no room or ground for objecting to the measures of 1825 and 1849. The shipping and foreign trade of most continental states were all but wholly destroyed during the war terminated in 1815, while our shipping and trade were then proportionally increased; and the influence of this depression on the one side, and of the unnatural stimulus on the other, was far from being exhausted in 1825. But in the lengthened interval that has since elapsed, the mercantile navies of the continental states have attained to their ordinary state. And while we have no longer had any peculiar advantages on our side, we have had to contend with them, and with the rapidly increasing marine of the United States. As respects the latter, we may observe, that while in 1825 our imports of cotton, principally from America, amounted to about 222,500,000 lbs.; at the same time that the imports of corn and flour from the United States, in the latter year, bore a still greater proportion to their amount in the former. Our imports of cotton in 1867 reached 1,262,536,912 lbs. Again, our intercourse with Holland, France, the Elbe &c., which was all but wholly suppressed during the war (ended 1815), is now become very extensive; and are we, under such circumstances, to be surprised that the proportion of foreign shipping frequenting our ports has increased? Had such increase been ten times greater, it could not have surprised any reasonable person; and the fair presumption is, that but for the reforms effected in 1825, such would have been the case. And experience has shown that the further reforms effected in 1849, which, like those of 1825, were imperatively required by

the exigencies of the case, have been equally beneficial.

It may be said, perhaps, that the rapid extension of our mercantile navy during the last 12 years, and the extraordinary rise of freights, of the profits of the ship-owners, were mainly a sequence of the gold discoveries in California, Australia, and of the prodigious impulse given to emigration and to the trade of the world. But, though the circumstances alluded to undoubtedly had a very powerful influence, there is no room or ground for thinking that, under circumstances, our ship-owners would not be able to maintain a successful competition with the America, or any other country. The wages of seamen in the United States are usually higher than here, which is a principal cause why our sailors engage so extensively as they are known to do in the American service. In most respects, the ship-owners of the two countries are nearly on a level. The rapid increase of population in the United States, the vast extent of their sea-coast, and the gigantic magnitude of the rivers and lakes by which the Union is intersected or bounded, by affording proper means for the employment of shipping, will, it is little doubt, speedily render her commerce greater than that of this or any other nation. But there are no good grounds for supposing that in those departments which are equally open to the enterprise and ships of other nations, the British have anything to fear from the competition of the Americans. And that the only people to whom, in a matter of this kind, it is necessary to allude.

Till very recently our shipping interests were subjected to sundry burdens and restrictions, which their energies were weighed down and retarded. These, however, are now either abolished, or greatly modified. Formerly our ships could not enjoy the peculiar privileges of a free ship, unless she were of the build of the United Kingdom or of the colonies, and unless she had three-fourths of the crew were British subjects. But these restrictions have been removed by the former by the 12 & 13 Vict. c. 29, and the latter by the 16 & 17 Vict. c. 131. In consequence of these judicious alterations, all the ports and harbours and all the seamen of the world are now made subservient to the wants and the interests of our merchants and ship-owners. It is no longer, from our superior facilities for the building of ships, especially those of iron, which are now being largely introduced, and from the comparative density of our population, that our foreign ships nor foreign seamen will be

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ively introduced into our service. The prohibition  
against the registration of foreign-built ships was  
repealed in 1849; and in 1850, 1851, and 1852,  
acts 57, 26, and 28 such ships were registered.  
But in consequence of the greatly increased demand  
for shipping, the number of foreign registrations  
for a time increased considerably. In 1854, they  
amounted to 267 ships of 97,641 tons burden, but  
in 1867 the number had fallen to 73 of 22,913 tons.  
But the fact that foreign seamen and foreign-built  
ships may be, and no doubt will always be to some  
extent introduced, is of immense importance; and  
will do more than anything else to give new energy  
to our ship-builders, and to improve the conduct  
and discipline of our seamen. The insubordination  
and desertion of the latter, especially in foreign  
ports, have often been attended with ruinous re-  
sults. Now, however, that their place may be sup-  
plied by any description of foreign sailors, it may  
be fairly presumed that there will be a material  
improvement in this respect. The sailors will find  
that they will consult their own no less than their  
employer's interest, by paying more attention than  
hitherto to their engagements, and by their good  
conduct, and ready obedience to the reasonable  
commands of their superiors.  
In addition to these important reforms, others  
of a subordinate but still very valuable description  
have been effected. The incompetence and igno-  
rance of the masters, which was a most serious evil,  
has already partly been, and eventually will be all  
but wholly obviated by the examination to which  
they are now obliged to submit, and by the better  
education which it renders necessary. [MARTEN.]  
The oppressive charges and proceedings which  
were sometimes made and carried on by the officers  
of ships of war on account of salvage have also been  
in a good deal modified, though, perhaps, they ought  
to be wholly abolished. The same may be said of  
the privilege, which has recently been regulated,  
granted by ships of war of taking men from on  
board merchant ships on distant voyages. The  
charges for lights and pilotage have also been en-  
tered into, and will, most likely, be speedily re-  
pealed and placed on a less objectionable footing  
than at present. It is obvious, therefore, that a  
great improvement has already been made, and  
that other changes for the better are in progress,  
in the situation of our mercantile marine. And  
bringing their influence into account, and the many  
advantages we enjoy in our situation, the extent  
of our manufactures, and the character of our  
commerce, we run little risk in predicting a lengthened  
period of increase and prosperity to our mercantile  
marine.  
The peculiar burdens, disadvantages, and draw-  
backs which recently affected our shipping, were  
set forth in a clear light in the treatise on 'Our Navi-  
gation Laws and Mercantile Marine,' by W. S.  
Widdowson, Esq., late M.P. for Sunderland. His  
personal acquaintance with the subject made his  
observations of more than ordinary value, and  
deserved for them an extra degree of attention.  
The existing law with regard to British ship-  
ping has been consolidated and embodied in the  
Mercantile Shipping Act of 1854, the 17 & 18  
Vic. c. 104. It is divided into parts, which will  
be shortly distributed under their proper titles in  
this work. The distinguishing characteristics of  
British shipping, as described in this Act, may be  
briefly stated as follows:—  
1. No ship can be a British ship unless she be  
owned as such.  
2. All ships of whatever build, and however  
employed, may be registered as British ships, pro-  
vided they be really and bonâ fide the property  
of British subjects.

The clauses in the Act having reference to this  
matter are as follows, viz. :—  
*Description and Ownership of British Ships.*—  
No ship shall be deemed to be a British ship un-  
less she belongs wholly to owners of the following  
description; viz. :—  
1. Natural-born British subjects.  
Provided that no natural-born subject who has  
taken the oath of allegiance to any foreign sove-  
reign or state shall be entitled to be such owner  
as aforesaid, unless he has, subsequently to taking  
such last-mentioned oath, taken the oath of allegi-  
ance to her Majesty, and is and continues to be  
during the whole period of his so being an owner  
resident in some place within her Majesty's do-  
minions, or if not so resident, member of a British  
factory, or partner in a house actually carrying on  
business in the United Kingdom or in some other  
place within her Majesty's dominions :  
2. Persons made denizens by letter of deniza-  
tion, or naturalised by or pursuant to any Act of  
the Imperial Legislature, or by or pursuant to any  
Act or ordinance of the proper legislative authority  
in any British possession.  
Provided that such persons are and continue to  
be during the whole period of their so being owners  
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minions, or if not so resident, members of a British  
factory, or partners in a house actually carrying  
on business in the United Kingdom or in some  
other place within her Majesty's dominions, and  
have taken the oath of allegiance to her Majesty  
subsequently to the period of their being so made  
denizens or naturalised.  
3. Bodies corporate established under, subject  
to the laws of, and having their principal place  
of business in the United Kingdom or some  
British possession. (Sec. 18.)  
*British Ships, with certain Exceptions, must be  
registered.*—Every British ship must be registered  
in manner hereinafter mentioned, except—  
1. Ships duly registered before this Act comes  
into operation :  
2. Ships not exceeding 15 tons burden employed  
solely in navigation on the rivers or coasts of the  
United Kingdom, or on the rivers or coasts of some  
British possession within which the managing  
owners of such ships are resident :  
3. Ships not exceeding 30 tons burden, and not  
having a whole or fixed deck, and employed solely  
in fishing or trading coastwise on the shores of  
Newfoundland or parts adjacent thereto, or in the  
Gulf of St. Lawrence, or on such portions of the  
coast of Canada, Nova Scotia, or New Brunswick  
as lie bordering on such Gulf :  
And no ship hereby required to be registered  
shall, unless registered, be recognised as a British  
ship; and no officer of customs shall grant a  
clearance or transire to any ship hereby required  
to be registered for the purpose of enabling her to  
proceed to sea as a British ship, unless the master  
of such ship, upon being required so to do, pro-  
duces to him such certificate of registry, as is  
after mentioned [REGISTRY]; and if such ship  
attempts to proceed to sea as a British ship with-  
out a clearance or transire, such officer may de-  
tain such ship until such certificate is produced  
to him. (Sec. 19.)  
In another part the Act imposes the following  
penalties on the masters and owners of ships un-  
duly assuming a British character, viz. :—  
1. If any person uses the British flag and as-  
sumes the British national character on board  
any ship owned in whole or in part by any person  
not entitled by law to own British ships, for the  
purpose of making such ship appear to be a  
British ship, such ship shall be forfeited to her

Majesty, unless such assumption has been made for the purpose of escaping capture by an enemy or by a foreign ship of war in exercise of some belligerent right; and in any proceeding for enforcing any such forfeiture the burden of proving a title to use the British flag, and assume the British national character shall lie upon the person using and assuming the same.

2. If the master or owner of any British ship does or permits to be done any matter or thing, or carries or permits to be carried any papers or documents, with intent to conceal the British character of such ship from any person entitled by British law to enquire into the same, or to assume foreign character, or with intent to deceive any such person as lastly hereinbefore mentioned, such ship shall be forfeited to her Majesty; and the master, if he commits or is privy to the commission of the offence, shall be guilty of a misdemeanor.

3. If any unqualified person, except in the case of such transmitted interests as are hereinbefore mentioned, acquires as owner any interest, either legal or beneficial, in a ship using a British flag, and assuming the British character, such interest shall be forfeited to her Majesty.

4. If any person, on behalf of himself or any other person or body of persons, wilfully makes a false declaration touching the qualification of himself or such other person or body of persons to own British ships or any shares therein, the declarant shall be guilty of a misdemeanor; and the ship or share in respect of which such declaration is made, if the same has not been forfeited under the foregoing provision, shall, to the extent of the interest therein of the person making the declaration, and, unless it is shown that he had no authority to make the same, of the parties on behalf of whom such declaration is made, be forfeited to her Majesty.

And in order that the above provisions as to forfeitures may be carried into effect, it shall be lawful for any commissioned officer on full pay in the military or naval service of her Majesty, or any British officer of customs, or any British consular officer, to seize and detain any ship which has, either wholly or as to any share therein, become subject to forfeiture as aforesaid, and to bring her for adjudication before the High Court of Admiralty in England or Ireland, or any court having Admiralty jurisdiction in her Majesty's dominions; and such court may thereupon make such order in the case as it may think fit, and may award to the officer bringing in the same for adjudication such portion of the proceeds of the sale of any forfeited ship or share as it may think right. (Sec. 103.)

*Penalty for carrying improper Colours.*—If any colours usually worn by her Majesty's ships, or any colours resembling those of her Majesty, or any distinctive national colours, except the red ensign usually worn by merchant ships, or except the union jack with a white border, or if the pendant usually carried by her Majesty's ships or any pendant in anywise resembling such pendant, are or is hoisted on board any ship or boat belonging to any subject of her Majesty, without warrant for so doing from her Majesty, or from the Admiralty, the master of such ship or boat, or the owner thereof, if on board the same, and every other person hoisting, or joining or assisting in hoisting the same, shall for every such offence incur a penalty not exceeding 500*l.*; and it shall be lawful for any officer on full pay in the military or naval service of her Majesty, or any British officer of the customs, or any British consular officer, to board any such ship or boat, and

to take away any such jack, colours, or pendant and such jack, colours, or pendant shall be forfeited to her Majesty. (Sec. 105.)

The monopoly of our coasting trade has been abolished by the 17 Vict. c. 5, the last amendment of the navigation laws was extinguished the following notice in pursuance of 30 Vict. (1867) cap. 15:—

On and after August 1, 1867, all exemptions from harbour rates and dues, which have hitherto been allowed in the United Kingdom on account of any one or more of the reasons specified below, will, in pursuance of 'The Shipping Dues Exemption Act, 1867,' 30 Vict. c. 15, cease, and such exemptions will on and after that date be allowed:—

1. On account of any ship being registered or belonging to any particular country, port, or place, or trading between particular parts or places;
2. On account of any ship or goods being the property of, or being consigned by, any particular person or body corporate;
3. On account of any goods being destined for any particular town, place, or market;
4. On account of any ship or goods being to or from, or anchoring or mooring at, or being laden or unladen at any particular place in any port, or in the neighbourhood of any port, except where a ship is going to or from, or anchoring or mooring at, or being laden or unladen at a place, derives from the expenditure of a class of dues in question no benefit greater than ships going to or from, or anchoring or mooring at, or being laden or unladen at, another place in the port;
5. On account of any goods being the property or being destined for use at any particular manufactory, place, or district, or any particular class of manufactories; provided nothing in this Act contained shall exempt from dues which have been granted by an Act of Parliament the owner or occupier of some particular manufactory, or place, as compensation for obstruction to his water frontage or to his premises, or other injury caused him by the works authorised by such Act.

Any person desirous of claiming compensation in respect of the abolition of any such exemption may make application in the manner directed by the above-named Act; particulars of which may be obtained of the receiver of dues, or of the labour or other local authority of the port or place.

**NEUTRALITY** (Fr. *neutralité*). In this term is employed to indicate the status of nations who, when a war is being carried on, take no part in the contest, and evince no partiality for, or enmity to, any of the belligerent powers.

**NEUTRAL SHIPS.** In Commerce, the term is applied to neutral states, which are engaged in the trade with the ports of belligerents.

Inasmuch as the rights and duties of neutrals vary to a certain extent with the circumstances peculiar to each contest, they do not admit of being exactly defined. But they are generally considered as being especially favourable to either of the parties engaged in hostilities.

The questions that occur with regard to the proceedings of neutrals on land, seldom present much difficulty; but it is otherwise with those that sometimes grow out of their proceedings

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84, and to these we mean to confine the following remarks.

**I. Articles contraband of war.** When two nations are engaged in war, if there be any foreign articles or articles necessary for the defence or subsistence of either of them, and without which it would be difficult for it to carry on the contest, the other may legitimately exert every means in its power to prevent its opponent being supplied with such article or articles. All writers of authority on international law admit this principle; and lay it down, that a nation which should furnish a belligerent with articles *contraband of war*—that is, with supplies of warlike stores or of any article required for the prosecution of the war—would forfeit her neutral character, and that the other belligerent would be warranted in preventing such succours from being sent, and confiscating them as lawful prize. And besides being consistent with the most obvious principles, approved by jurists, and enforced in every contest, this doctrine has been sanctioned by repeated treaties. The only difficulty, indeed, that has ever arisen in regard to it, has been in respect to the articles which should be reckoned contraband of war; and in the view of obviating such difficulty, these articles have sometimes been specified in treaties and conventions. (See the references in Lampré, *Del Commercio de' Popoli Neutrali*, sec. 9.) But this classification has not always been repeated during hostilities. And it is sufficiently evident that an article which may not be contraband at one time, or under certain circumstances, may become contraband at another time, or under different circumstances. It is admitted on all hands, even by Hubner, the great advocate for the freedom of neutral commerce (*De la Saisie des Bâtimens neutres*, tom. i. p. 193), that everything that may be made directly available for hostile purposes is contraband, as arms, ammunition, horses, timber for ship-building, and all sorts of naval stores. The greatest difficulty has occurred in deciding as to provisions (*munitions de bouche*), which have sometimes been held to be contraband, and sometimes not. Lord Stowell has shown that the character of the port for which the provisions are destined, is a principal circumstance to be attended to in deciding whether they are to be looked upon as contraband. A cargo of provisions intended for an enemy's port, in which it was known that a warlike armament was in preparation, would be liable to arrest and confiscation; while, if the same cargo were intended for a port where none but merchantmen were fitted out, the most that could be done, according to his lordship, would be to detain it, paying the neutral the same price for it he would have got from the enemy.

A good deal has lately been said as to whether such should or should not be reckoned contraband. But it is evident, inasmuch as steam is now largely employed in the propulsion of ships of war, that the coal by which it is generated must be reckoned among the articles described as *munitions de guerre*. This does not seem to be a conclusion about which there is any real room for doubt or hesitation; and it shows very clearly how an article that has not been contraband, may, by a change of circumstances, become entitled to that character.

By the ancient law of Europe, a ship conveying any contraband article was liable to confiscation as well as the article. But in modern practice a similar rule has been adopted, and the carriage of contraband articles is attended only with loss of freight and expenses unless when the ship belongs to the owner of the contraband cargo, or when the simple misconduct of conveying such cargo has

been connected with other malignant and aggravating circumstances. Of these, a false destination and false papers are justly held to be the worst.

It appears pretty evident that the principle on which the doctrine of goods contraband of war has been established may justify, or rather require, its extension to various important articles not hitherto or usually reckoned as contraband. The right of belligerents to hinder neutrals from supplying their enemies with articles necessary to enable them to carry on the contest is alike clear and undoubted. But a foreign article which is indispensable or highly useful to a nation engaged in war, may not be of the class called *munitions de guerre*, and may not be directly available in the prosecution of hostilities. That, however, is really immaterial. It is enough to warrant the prevention of its importation, that without it the importers would be unable to continue the contest, or that the inconveniences resulting from the want of it would be so very considerable as to dispose them to sue for peace, or to accept reasonable terms if offered. The distinctive peculiarity of articles contraband of war is not that they belong to one class of products or another, but that *the want of them would inflict serious injury on the party by whom they are imported*.

Considered in this, its true light, the term 'contraband of war' becomes of the highest importance; and there are but few products which may not be fairly brought, at one period or another, within the list of contraband articles. Thus, supposing that we had the misfortune to be engaged in a contest either with a single power or a combination of powers, which had means to intercept, cut off, or materially obstruct our supplies of corn, cotton, and tea: can anyone doubt that our enemies would be justified, or that they would hesitate, in availing themselves of so powerful a means of annoyance? Neutrals might protest against such a proceeding, on the ground that the articles referred to had not hitherto been reckoned contraband of war, and they might also allege that their trade would be seriously prejudiced by so unusual and so illegal a proceeding. But these representations, supposing them to be made, would not go for much. Our enemies would say, that in defining contraband of war, everything depended on circumstances; and that as the want of the articles referred to would lay us under very considerable difficulties, they were, from that very circumstance, properly included in the prohibited list. They would no doubt express at the same time their regret that this conduct of theirs should be productive of injury or inconvenience to neutrals. That was not its purpose. They had resorted to it in the exercise of their undoubted rights as belligerents; and it was only indirectly and by accident that it affected neutrals. Une puissance belligérante ne peut voir avec indifférence que son ennemi se renforce par des marchandises qui servent directement et indubitablement à faire la guerre; et elle ne blesse pas le droit des gens si elle empêche que ses marchandises ne parviennent à l'ennemi en les détenant, soit pour en payer la valeur au propriétaire, soit pour les restituer quand le danger sera passé. On peut même imaginer des cas, où les circonstances extraordinaires justifieraient une telle détention à l'égard des marchandises qui ne servent pas exclusivement à l'usage de la guerre, et sur lesquelles elle ne peut, dans la règle, s'arrogir aucune disposition. (Martens, *Précis du Droit public*, lib. viii. cap. 7, sec. 315.) Heineccius says, 'Dans une guerre il ne s'agit pas même de demander s'il peut être permis à quelqu'un de porter à notre ennemi ce qui peut lui être nécessaire, puisque

nous avons le droit de prendre les armes contre quiconque s'opposerait à notre défense ou la rendrait difficile ou incertaine.' (Quoted by Lamprédi, p. 47, Paris 1802; see also Vattel, book iii. cap. 7, sec. 113, and a host of other authorities.) When great nations are at war, such contingencies can seldom be avoided; and when they occur, they should be ascribed to the necessity of the case, and afford no reasonable ground of complaint.

A wish to obviate the disputes that have so frequently arisen in regard to contraband articles and other matters having reference to the proceedings of neutrals, gave birth to the following very important document.

*Declaration respecting Maritime Law, signed by the Plenipotentiaries of Great Britain, Austria, France, Prussia, Russia, Sardinia, and Turkey, assembled in Congress at Paris, April 16, 1856.*

'The Plenipotentiaries who signed the Treaty of Paris of March 30, 1856, assembled in conference—

'Considering:

'That Maritime law, in time of war, has long been the subject of deplorable disputes;

'That the uncertainty of the law, and of the duties in such a matter, gives rise to differences of opinion between neutrals and belligerents which may occasion serious difficulties, and even conflicts;

'That it is consequently advantageous to establish a uniform doctrine on so important a point;

'That the Plenipotentiaries assembled in congress at Paris cannot better respond to the intentions by which their Governments are animated, than by seeking to introduce into international relations fixed principles in this respect;

'The above-mentioned Plenipotentiaries, being duly authorised, resolved to concert among themselves as to the means of attaining this object; and, having come to an agreement, have adopted the following solemn Declaration:—

'1. Privateering is, and remains, abolished;

'2. The neutral flag covers enemy's goods, with the exception of contraband of war.

'3. Neutral goods, with the exception of contraband of war, are not liable to capture under enemy's flag.

'4. Blockades, in order to be binding, must be effective; that is to say, maintained by a force sufficient really to prevent access to the coast of the enemy.

'The Governments of the undersigned Plenipotentiaries engage to bring the present Declaration to the knowledge of the States which have not taken part in the Congress of Paris, and to invite them to accede to it.

'Convinced that the maxims which they now proclaim cannot but be received with gratitude by the whole world, the undersigned Plenipotentiaries doubt not that the efforts of their Governments to obtain the general adoption thereof will be crowned with full success.

'The present Declaration is not and shall not be binding, except between those Powers who have acceded, or shall accede, to it.

'Done at Paris, April 16, 1856.'

But the 'uncertainty' complained of in the above Declaration is not of a kind that can be got rid of. It is inherent in the subject. Maritime laws of the class now under consideration do not rest on any fixed or immutable principles. They necessarily vary with the varying condition and exigencies of society. And those rules and regulations that may in the estimation of one country appear to be alike just and expedient, may in that

of another be held, on quite as good grounds, to have exactly the opposite qualities. The above Declaration expressly excepts articles contraband of war from the privileges conceded to goods of bonni neutral ships; but it does not specify the articles which are to be considered contraband. And it was quite as well that this vexed, rather insoluble question was left open; for it is most probable that the plenipotentiaries who subscribed the Declaration would not have agreed on any definition. And supposing they had submitted a list of contraband articles to the Declaration, it would very speedily have ceased to be of any weight. Whether an article should or should not be deemed contraband depends on circumstances which it is impossible to foresee or appreciate beforehand. And such being the case, it is futile to attempt to prevent further disputes by making out lists of contraband articles. We have seen that this has been frequently attempted, and it has frequently failed. Such lists may be respected for a while; but as soon as any contracting party or great Power conceives that it would for her interest or advantage to exclude some articles from, and to include others in, the list there is an end of its influence and authority.

The principle that free ships make free goods, or that the flag covers the cargo (*que le pavil couvre la marchandise*), and that consequently enemies' goods, not contraband of war, may safely conveyed in neutral bottoms, after being long resisted by this and most maritime states, has been assented to in the above Declaration.

The wisdom of this concession, even though it depends on the interpretation of the phrase 'contraband of war.' If it were restricted, as usually been the case, to warlike stores (*munitions de guerre*), or articles directly available for warlike purposes, it would be in many respects justifiable. For it is plain, that under the limitation now supposed, the trade of a belligerent Power, with its colonies or other countries beyond sea, might be prosecuted in neutral ships nearly to the same extent, and with as much security, during war as during peace. But it is not easy to imagine that a principle having such consequences should be acted upon by any Power having a preponderating naval force, in the event of her engaging in hostilities. Such Power must then do one of two things; she must either consent to relinquish some of the most important advantages to be derived from her naval ascendancy, or she must reject the principle in question. And there is little doubt that she would adopt the latter alternative; and she might do this directly by resorting to her natural and indefeasible right to seize enemies' goods wherever they are to be met with; or indirectly, by extending the list of contraband articles, so as to make it include those of any importance carried by sea into the enemy's ports. Either way we may answer the purpose; and we may be pretty well assured, that, under the supposed circumstances, one or other of them would be followed.

11. *Blockade, Influence of.*—But it may perhaps be said, that though the right to carry enemy's goods not contraband of war, be conceded to neutrals by the Declaration of Paris, that right is restricted and confined within proper limits by the maintenance of the system of blockade. But it is difficult to doubt whether this restriction is good for much. It is distinctly laid down in the Declaration, that to be binding or effective, a blockade must be effective; that is, it must be maintained by a force sufficient really to prevent access to the coast of the enemy.' But the blockade of one or of a few ports may per-

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be made effective, it is abundantly certain that no such blockade can ever be made to apply to an extensive coast. Though our navy were doubled or trebled, it would not suffice to make an effective blockade of the coasts of France, of Spain, or of the United States. And why should a country with a powerful naval force bind herself to employ it only in one way? Why should she employ it in any way, whatever it may be, which happens to be at the time most conducive to her ends she has in view?

But supposing that an impossibility may be supposed, or that an extensive coast may be effectually blockaded, the circumstance would be of such less consequence now than formerly, or than is generally imagined. Suppose, for example, that we are at war with France, and that we effectually blockade every portion of her coast, whether on the ocean or the Mediterranean; the result would be, that the oversea produce suitable for her wants would be imported into the contiguous ports of Belgium, Spain, and Piedmont, and that it would be carried from them by rivers and otherwise to every part of France; and that the produce she has to export would be disposed of in the same way.

It is plain, therefore, that these are not matters which much dependence can be placed on the success of blockades. These may be advantageously resorted to when the object is to reduce a port, to obstruct the trade of a port or a river, to prevent the sailing of a squadron, and so forth; but such measures directed against the trade of any great country, they must be nearly, if not wholly, ineffectual. In the case of France, it is quite clear that the strictest possible blockade would not prevent half the injury on her that its maintenance would entail upon ourselves. If the trade of a country in war is to be influenced by nothing but the blockade, it may be held to be practically free from all obstruction. But it cannot be supposed that when the evil day comes it will be without war. When the existence of nations is at stake, they will not be withheld by declarations of neutrality from availing themselves of every resource by which they may hope either to promote their own security or to injure their enemies.

*III. Influence of the new System over the Trade of the Continent.*—It is further obvious, were the blockade laid down in the Declaration of 1856 to be carried into effect without large additions being made to the list of contraband articles, that it would engross almost the entire oversea trade of countries engaged in war. Comparison of the articles which we export come under the description of warlike stores; and when we were engaged in hostilities, our ships which did not take on board contraband articles would navigate with perfect safety, while our ships would be exposed to the risk of capture. The magnitude of this risk would depend on various contingencies, and might be measured by the higher premium of insurance that would have to be paid on them for the articles embarked in them. But considering the close competition to which our ship-owners are already exposed, the additional premium they would have to pay, even though it were not very considerable, would most probably turn the scale against the neutrals; and if they were once exposed and employed for any considerable period, it might not be an easy matter for our ship-owners to regain the ground they had lost, or to recover their former position, on hostilities being terminated. But in whatever way it may be defeated or eluded, it is not to be supposed that we should abide, in periods of war and

difficulty, by a rule that would tie up our hands and consign the entire oversea trade of the empire to foreigners. This would be a degree of liberality to which we can hardly be expected ever to arrive, and which, were it realised, would be more injurious to our best interests than the most intense selfishness.

*IV. Project for exempting Private Property at sea from Attack during War.*—Some of the more recent opponents of the old system of maritime law do not deny these statements. But they allege that they are founded on false principles. Private property, say they, is now respected in all contests carried on by land; and it would be for the advantage of all nations, whether belligerent or neutral, were the same humane and generous policy extended to private property at sea. But this sort of reasoning is more specious than solid. On a little examination it will be found that the cases have no real analogy. Private property on land, and the treasures of art and learning, are respected so far, that they are sometimes unconditionally, but frequently also on the payment of a contribution or ransom, exempted from injury. This is done because experience has shown that, while the destruction of the articles referred to may be productive of much misery and loss, it has little or no influence over the decision of the contest. But we are not hence to infer that the destruction of private property at sea will be equally ineffectual. In our unfortunate contest with the United States in 1814, the destruction of the Capitol at Washington was an act disgraceful to our arms, and which had no effect except to inflame the hostile feelings of the Americans. But the severe check which the contest gave to the trade of the Union made the citizens generally averse to the war; and was, indeed, the main cause of its being so speedily terminated. No such result could, however, have happened had American merchant ships been exempted from capture or molestation.

Suppose we are at war, and that our enemy, having succeeded in landing a force in some part of the kingdom, such as Kent or Connaught, inflicts on the peasantry outrages similar to those which the troops of Louis XIV. inflicted on the defenceless inhabitants of the Palatinate; such proceedings, by not sensibly affecting either our wealth, or the sources of our power, would in no wise accelerate the termination of hostilities. On the contrary, they would tend to their prolongation, by inspiring us with a strong desire to avenge such wanton and unnecessary cruelty. But it would be quite another matter were our enemy able seriously to obstruct our trade, to prevent our exports, or to sink, burn, and destroy the ships that were conveying to us supplies of necessary articles. Such proceedings might lay us under the greatest difficulties, and would be the most likely means to make us listen to proposals for an accommodation.

Everybody knows that the unpopularity of the French rule in Germany and other parts of the Continent, in the latter part of the war against Napoleon, was in great measure occasioned by the destruction of their trade, which, on the one hand rendered their corn and other disposable produce a mere drug, while, on the other, it added enormously to the prices of cotton, sugar, coffee, and most foreign articles. But had the rules and regulations embodied in the Declaration of 1856 been then in force, no such result would have happened. We should have had the singular combination of maritime peace with territorial war. And the trade of Prussia, Holland, and the other countries subject to France, and

indeed, of France herself, would have been as securely and cheaply carried on in neutral bottoms as it would have been in a period of universal tranquillity. Nothing, therefore, can be more contradictory and illogical than to contend that we are bound to extend the same immunity during war to private property at sea that is extended to private property on land. The cases are in no degree parallel. In the one, private property is respected because its destruction is seldom injurious except to the individuals immediately interested, and has little or no general influence; in the other case, private property is seized or destroyed because those from whom it is taken, being the carriers or purveyors of necessary articles for the community, their loss must seriously affect the latter, and may reduce them to the greatest straits.

V. *Abolition of Privateering.*—The abolition of privateering by the Declaration of Paris is of the highest importance, and should give general satisfaction. This practice appears to be a remnant of that system of private war which is universally waged by individuals in early or barbarous ages, but which gradually disappears as society advances. Privateers rarely attack ships of war. They do not act in concert, or with any object in view other than their own private gains. They are, in truth, a sort of legalised robbers, and while they occasion much individual suffering, they have little or no influence over the result of the war. (*L'armateur, indifférent au sort de la guerre et souvent de sa patrie, n'a d'autre amour que l'avidité du gain, d'autre récompense que ses prises et les prix attachés par l'État à ses pirateries privilégiées.* (Martens, *Essai sur les Armateurs*, c. i. s. 8.) This essay, which was translated into English, and published in 1801, contains the fullest details in regard to privateering. Valin, who defends and even eulogises privateering, admits that it is very apt *dégénérer en abus et en brigandage.* (*Traité des Prises*, i. c. 1, s. 7.) But their employment is principally objectionable from its having been found that, despite every precaution, it is not possible to hinder them from committing the greatest excesses. The desire to amass plunder is the ruling passion by which they are actuated; and being so, it would be childish to suppose that they should be scrupulous in their proceedings, or that they should endeavour to keep within the pale of the law when they think that their objects will be likely to be promoted by overstepping its limits. And hence their injurious treatment of the ships of neutral and friendly Powers. A system of this sort may perhaps be useful to a nation which has little trade, and may hope to acquire riches by fitting out privateers, without being exposed to the risk of retaliation. But except under very peculiar circumstances, it is difficult to suppose that it should be advantageous to a nation with an extensive overseas trade. A notion has, indeed, been long entertained, that while the interests of humanity would be promoted, the rights of belligerents would not be injuriously affected by the abolition of privateering. It was stipulated, for instance, in the treaty between Sweden and the United Provinces in 1675, that neither party should in any future war grant letters of marque against the other; and stipulations to the like effect have since been embodied in various treaties. These, however, being only isolated efforts, were insufficient materially to abate the nuisance, which could not be put down without an agreement to that effect by the great Powers, such as has been announced in the Declaration of 1856.

The United States, however, though possessed of a most extensive mercantile marine, has refused to consent to the abolition of privateering. But they have not done this capriciously; nor is it to be denied that there is a great deal of weight in the reasons given by the American Government for their refusal. (Letters of Marcy to the Count de Sarriges, July 28, 1856.) They grow out of circumstances peculiar to the United States—that is, of their warlike bearing but a very small proportion to the mercantile navy, which was at that time the largest in the world. And they contend, were they to abolish privateering, their merchant ships would be captured in vast numbers by numerous cruisers of their enemies; while merchant ships of the latter, owing to the fewness of their own ships of war, would be comparatively little affected; and that to restore the balance and place themselves on a level with their opponents, they have no resource but to appeal to patriotism (selfishness) of their citizens by fitting privateers.

The Americans have, however, intimated a willingness to assent to the abolition of privateering, provided the other Powers agree to attack or molest private ships at sea during such an agreement would, no doubt, be much for their advantage; but we have seen that it is not one to which we can assent without at the same time, and by the same consenting to forego the use of some of the powerful of our means of defence and attack. This, however, is about the very last thing we either should or will do. No British man will ever agree to an arrangement which would diminish our powers and paralyse our energies at the very moment when, perhaps, independence and security may depend on being exerted to the utmost.

VI. *Right of Search.*—Nothing is said in the Declaration of 1856 in regard to the right of visitation and search, probably because it is obviously inherent in belligerents; for it would be contradictory to allow that they had no right to prevent the conveyance of contraband to an enemy, and to deny them the use of the means by which such right can be made effectual. The object of the search is twofold—to ascertain whether the ship is neutral, or an enemy, for everybody knows that the stance of its hoisting a neutral flag affords no security that it is really such; and, secondly, to ascertain whether it has contraband on board, or an enemy's property on board. All neutral ships that would navigate securely during war, consequently heave-to when summoned by the cruisers of either belligerent, and be searched with passports from their Government. It is only in the case of neutral ships that all the papers or documents necessary to the property of the ship and cargo; and the neutral states in question must carefully avoid taking any contraband on board, and perhaps also belligerent property. And hence it has been generally admitted that a merchant ship which seeks to avoid a search by crowding sail or by open force, may be lawfully captured and confiscated.

One of the most difficult questions in international law is the right of search has reference to neutral ships sailing under convoy. Is the allegation of an officer commanding the vessel of war against the merchantmen, that the latter have contraband articles or belligerent property on board, to be held to be sufficient to nullify the right of search? or may the exercise of the right of search be insisted upon notwithstanding the allegation?

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1798, when a fleet of merchantmen belonging to Sweden, a neutral Power, and sailing under convoy of a frigate, were detained by a British squadron. The Swedish captain, on the question being put to him, answered that the ships were destined for different ports of the Mediterranean, and that they were laden with hemp, iron, pitch, and tar. These articles were the produce of Sweden. Articles which form a considerable part of the produce of a country, though contraband of war, have sometimes been allowed to be conveyed in neutral ships. But even in that case belligerents have been accustomed to detain them, not for confiscation, but for pre-emption. (Robinson's *Admiralty Reports*, i. 244.) But as they have most commonly been reckoned contraband of war, and as France and her allies had many ports on the Mediterranean, there can be little or no doubt that we were warranted, despite the threatened but unattempted opposition of the Swedish captain, in detaining the ships. But besides being detained, they were condemned with their cargo as a lawful prize; a proceeding which gave rise to a great deal of discussion at the time, and which it is not easy to justify. For an account of this famous case, see Robinson's *Admiralty Reports*, i. 340-373. In an elaborate argument Sir William Scott (afterwards Lord Stowell) states, with his usual ability, but with too sensible a bias, the reasons for his judgment. Its legality was questioned in a tract by Mr. J. F. W. Schlegel, professor at Copenhagen, translated into English, and published in London in 1801. Schlegel was answered by Dr. Croke in a tract entitled *Remarks on Mr. Schlegel's Work on the Visitation of Neutral Vessels under Convoy*, published in the course of the same year.

In the event of the captain of a ship of war conveying neutral merchantmen distinctly declaring that they have no contraband articles or enemies' property on board, their detention or search would be a very strong measure. It would, in truth, be an insult to the flag and honour of the neutral Power. And unless the presumptions that the captain had emitted a false declaration were exceedingly strong, to question the rectitude would be an act contrary to the humanity of nations, and one that a high-spirited people would be sure to resent. But except in the case of a limited number of vessels sailing to specified ports under convoy, and when there is clear and explicit declaration by the officer in command that they have neither contraband articles nor belligerent property on board, the right of search, supposing it to be exercised without any unnecessary violence, is one that is essential to belligerents, and cannot be justly objected to.

*Foreign Enlistment Act.*—It will be observed that in treating of this subject we have referred only to those general principles that prevail in international law. The laws of individual states in regard to neutrality harmonise in the most part with the public law respecting it. The only British statute to which it is necessary to refer is the Foreign Enlistment Act, 34 Geo. III. c. 69. It prohibits the employment of British ships, without license, in the service of any foreign prince or state, and their employment as transports or store-ships by states with which we are not at war. But it is believed that, in all, or nearly all, that this Act prohibits, some direct, may be done indirectly with some difficulty. Inasmuch, however, as it can hardly fail, if maintained, to give rise to troublesome questions with foreign Governments, it were better were it repealed, and our merchants and owners left to deal, as they think fit, with

the ordinary risks that attach to those that carry contraband articles. The circumstances in which the Act originated have long since passed away (the struggle between Spain and her revolted colonies in South America); and as it can no longer be of any use, and may, or rather must, occasion difficulties, its abolition would be a judicious measure.

Unfortunately much correspondence and discussion arose during and after the close of the American Civil War between this country and the United States, as to our conduct as neutrals and the efficiency of our neutrality laws. One of the results was the issue, in July 1867, of a Royal Commission of Enquiry, and in May 1868 the Commissioners presented a Report, containing the following recommendations, viz. :—

I. That it is expedient to amend the Foreign Enlistment Act, by adding to its provisions a prohibition against the preparing or fitting out in any part of her Majesty's dominions of any naval or military expedition, to proceed thence against the territory or dominions of any foreign state with whom her Majesty shall not then be at war.

II. That the first paragraph of sec. 7 of the Foreign Enlistment Act should be amended, to the following effect :—

If any person shall within the limits of her Majesty's dominions—

- a. Fit out, arm, despatch, or cause to be despatched, any ship with intent or knowledge that the same shall or will be employed in the military or naval service of any foreign Power in any war then being waged by such Power against the subjects or property of any foreign belligerent Power with whom her Majesty shall not then be at war :
- b. Or shall within her Majesty's dominions build or equip any ship with the intent that the same shall, after being fitted out and armed either within or beyond her Majesty's dominions, be employed as aforesaid :
- c. Or shall commence or attempt to do, or shall aid in doing, any of the acts aforesaid,—every person so offending shall be deemed guilty of a misdemeanor.

III. That in order to enable the executive Government more effectually to restrain and prevent attempted offences against sec. 7 of the Foreign Enlistment Act, additional provisions to the following effect should be inserted in the statute.

- a. That if a Secretary of State shall be satisfied that there is a reasonable and probable cause for believing that a ship which is within the limits of her Majesty's dominions has been or is being built, equipped, fitted out, or armed contrary to the enactment, and is about to be taken beyond the limits, or that the ship is about to be despatched contrary to the enactment, such Secretary of State shall have power to issue a warrant, stating that there is such a reasonable and probable cause for believing as above aforesaid, and upon such warrant the Commissioners of Customs, or any other person or persons named in the warrant, shall have power to arrest and search such ship, and to detain the same, until it shall be either condemned or released by process of law, or in manner hereinafter mentioned.

- b. That the power hereinbefore given to a Secretary of State may, in parts of her Majesty's dominions beyond the seas, be exercised by the governor or other person having chief authority.
- c. That power be given to the owner of the ship or his agent to apply to the Court of Admiralty of the place where the ship is detained, or, if there be no such Court there, to the nearest Court of Admiralty, for its release.
- d. That the Court shall put the matter of such detention in course of trial between the applicant and the Crown, with usual Admiralty appeal to the Privy Council.
- e. That if the owner shall establish to the satisfaction of the Court that the ship was not and is not being built, equipped, fitted out, or armed, or intended to be despatched, contrary to the enactment, the ship shall be released and restored.
- f. That if the owner shall fail to establish to the satisfaction of the Court that the ship was not and is not being built, equipped, fitted out, or armed, or intended to be despatched, contrary to the enactment, then the ship shall be detained till released by order of the Secretary of State; nevertheless the Court may, if it shall think fit, order its release, provided the owner shall give security to the satisfaction of the Court that the ship shall not be employed contrary to the enactment, and providing that no proceedings are pending for its condemnation.
- g. That if the Court shall be of opinion that there was not reasonable and probable cause for the detention, and if no such cause shall appear in the course of the proceedings, the Court shall have power to declare that the owner ought to be indemnified by the payment of costs and damages, which in that case shall be payable out of any moneys legally applicable by the Commissioners of the Treasury for that purpose.
- h. That any warrant of the Secretary of State shall be laid before Parliament.
- i. That the proceedings herein provided shall not affect the power of the Crown to proceed, if it thinks fit, to condemnation of the ship.
- k. That the following exceptions be made from this Resolution:
1. Any foreign commissioned ship;
  2. Any foreign non-commissioned ship despatched from this country after having come within it under stress of weather or in the course of a peaceful voyage, and upon which ship no fitting out or equipping of a warlike character shall have taken place in this country.
- IV. That it is expedient to make the act of hiring, engaging, or procuring any person within her Majesty's dominions to go on board any ship, or to embark from any part of her Majesty's dominions by means of false representations as to the service in which such persons are intended to be employed, with intent on the part of the person so hiring, engaging, or procuring as aforesaid, that the persons so hired, engaged, or procured as aforesaid shall be employed in any land

or sea service prohibited by sec. 2 of the Foreign Enlistment Act, a misdemeanor, punishable like other misdemeanors under the same section.

V. That the forms of pleading in information and indictments under the Foreign Enlistment Act should be simplified.

VI. That if, during the continuance of a war in which her Majesty shall be neutral, any prize not being entitled to recognition as a commissioned ship of war, shall be brought within the jurisdiction of the Crown by any person acting on behalf of or under the authority of any belligerent Government, which prize shall have been captured by any vessel fitted out during the war for the service of such Government, whether as a public or a private vessel of war, in violation of the laws for the protection of the neutrality of this realm, or if any such prize shall be brought within the jurisdiction as aforesaid by any subject of the Crown, or of such belligerent Government, having come into possession of such prize with notice of the unlawful fitting out of such capturing vessel, such prize should upon proof in the Admiralty Courts, at the suit of the original owner of such prize or his agent, or any person authorised in that behalf by the Government of the state to which such prize belongs, be restored.

VII. That in time of war no vessel employed in the military or naval service of any belligerent Government, which shall have been built, equipped, fitted out, or despatched contrary to the enactment, should be admitted into any port of her Majesty's dominions.

NEUTRALITY, WARRANT OF. [See ENACTMENT.]

NEWCHWANG or YINGTZE. This is the most northerly of the Chinese treaty ports, on the river Lias, and from November 15 to the 1st of March the river is closed by ice.

The exports of the town consist chiefly of opium, tea, silk, and cotton. The imports, of sugar, and cotton cards. In 1864 and 1865 the imports were worth 709,738 and 1,086,178 taels respectively, and the exports 1,710,398 and 2,167,314 taels.

In the analysis of Chinese commerce for the year 1867, appended to the Foreign Commerce Report published in 1868, the value of the total trade of this treaty port is set down for 1866 at 4,457,764 taels. 327 vessels of 110,418 tons entered the port in 1867, of which 112, of 43,267 tons were British.

NEW ORLEANS. The capital of Louisiana, one of the United States, on the eastern bank of the Mississippi, about 105 miles from its mouth. lat. 29° 57' 45" N., long. 90° 9' W. Population, 1860, 168,675. The new-built streets are mostly of brick. It is the emporium of all the vast tracts traversed by the Mississippi, the Missouri, and their tributaries, enjoying a greater command of the navigation than any other city either of the old or New World. Civilisation has hither to its roots, and begun to flourish only in comparatively small portions of the territories of which New Orleans is the centre, and yet its progress has been rapid beyond precedent. It appears, from the accounts published by order of Congress, that during the year ending June 30, 1858, the value of the native produce exported from this city amounted to 88,270,224 dollars, while the value of that imported from New York was 89,039,741. With respect to imports, the case is materially different

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value of those of New Orleans, in the year just  
mentioned, being only 19,586,033 dols., whereas  
those of New York amounted to 178,475,736. It  
is believed by many, seeing how rapidly settle-  
ments are forming in the 'West,' that New  
Orleans must, at no very distant period, exceed  
every other city of America, as well in the  
magnitude of its imports as of its exports; and,  
considering the boundless extent and extraordi-  
nary fertility of the uncultivated and unoccupied  
lands of the Mississippi and Missouri, the  
Orleans is destined to become the greatest em-  
porium, not of America only, but of the world,  
and will not appear very unreasonable. Steam  
navigation has been of incalculable service to  
this port, and, indeed, to the whole of central  
America. The voyage up the Mississippi, formerly  
so difficult and tedious, is now performed in  
expeditious steam packets with ease, celerity,  
and comfort. 'There have been counted,' says  
the Pilot, 'in the harbour, 1,500 flat boats at a  
time. Steam boats are arriving and departing  
every hour; and it is not uncommon to see 50  
lying together in the harbour. A forest of masts  
is constantly seen along the levee, except in the  
winter months. There are often 5,000 or 6,000  
barges from the upper country here at a time;  
and we have known thirty vessels advertised  
for Liverpool and Havre. The inter-  
course with the Havannah and Vera Cruz is  
great and constantly increasing.' (Geography  
and History of the Western States, vol. i. p. 557.)

Being a large port, New Orleans was third in the  
Union, being in this respect inferior only  
to New York and Boston. Vessels of the largest  
tonnage may navigate the river several hundred  
miles above the city. The aggregate burden of  
the shipping belonging to the port on June 30,  
1862, amounted to 210,411 tons: of which 70,072  
were employed in steam navigation. But the  
immense importance of the city was completely  
obscured by the civil war, and cannot recover  
for a considerable time. In 1861, the year  
of the outbreak of war, only 130 vessels of 76,935  
tonnage, chiefly American, cleared from the port.

The depth of water in the river opposite to New  
Orleans is, at a medium, about 70 feet; and it  
contains soundings of 30 feet till within a mile  
of its confluence with the sea. Besides 3 or 4  
navigable passes or outlets, the Mississippi has 4  
secondary passes or outlets. In the south-east,  
the river passes at Balize, the water on the bar  
at ordinary tides does not exceed 12 feet; and  
at spring tides in the Gulf of Mexico is not  
more than 2 or 2½ feet, vessels drawing much  
more cannot make their way from the ocean  
to New Orleans. (Darby's View of the United

States, p. 467.)  
The unhealthiness of the climate is the great  
obstacle to New Orleans. This probably arises  
from the low and marshy situation of the city  
in a surrounding country, which is under the  
influence of the Mississippi, being protected from  
inundation by an artificial levee or mound, vary-  
ing from 5 to 30 feet in height, and extending  
along the bank of the river a distance of 100  
miles. The unhealthy season includes July,  
August, and September; during which period the  
fever often makes dreadful havoc, particu-  
larly among the poorer classes of emigrants from  
Europe and from Europe. Great efforts have  
been made to improve the health of the city,  
by supplying it abundantly with water, paving  
the streets, removing wooden sewers, and re-  
placing them with others of stone &c. Many  
places where water used to stagnate, have been

filled up; and large tracts of swampy ground  
contiguous to the town have been drained. And  
as such works will no doubt be prosecuted on a  
still larger scale, according to the increase of  
commerce and population, it is to be hoped that  
the ravages of fever may be materially abated,  
though the situation of the city excludes any  
very strong expectation of its ever being rendered  
quite free from this dreadful scourge. During the  
sanitary precautions adopted in the first instance  
on behalf of the soldiers, had a marked beneficial  
effect on the general health of the town.

It has been proposed to bring earth from the  
upper parts of the Mississippi, and to employ it  
in forming a site for a new city raised some feet  
above the level of the river. It is believed that  
this would be the most likely means to guard  
against fever; and the object in view is of such  
paramount importance that the expense of the  
scheme should be reckoned a very inferior matter.

Account of the Quantities of the Principal Arti-  
cles Imported from the Interior to New Orleans  
during the 3 Years ending August 31, 1866.

Articles	1863-64	1864-65	1865-66
Alcohol -	1,780	956	854
Apples -	30,453	35,992	69,532
Bacon -	4,432	15,982	16,213
hams -	14,029	4,912	14,289
in bulk -	10,515		14,307
Bagging -	2,405	6,371	17,740
Blue rope -	14,195	17,876	3,812
Beans -	11,563	14,381	45,940
Butter -	30,083	21,880	6,512
Butter -	62	179	16,909
Coff -	44,093	115,314	610
deed -	53,082	26,511	191,474
Beet -	3,500	6,500	3,288
Cotton -			4,300
Lake and Mississippi -	121,182	211,085	650,377
North Alabama and Tennessee -	1,001	4,333	284
Arkansas -			49,031
Montgomery -		229	11,067
Mobile -		358	4,378
Florida -	647	16,776	26,483
Texas -		630	12,785
Corn, in ears -	5,214	7,991	32,111
shelled -	40,666	4,170	27,299
Cotton seed -	410,138	553,273	2,003,176
Candles -	8,729	18,199	94,174
Coal, western -	35,741	31,717	65,273
Dried apples &c. -	265,238	391,770	61,210
Flaxseed -	2,025	1,214	1,295,915
Flour -	55	425	148
Feathers -	399,527	790,324	993,351
Glassware -			141
Hemp -	612	2,851	5,210
Hides -	303	8,171	856
Hay -	22,203	9,951	76,490
Iron, pig -	170,936	226,761	129,131
Leather -	69	90	1,963
Lard -	3,358	5,373	7,329
Lard -	19,027	11,215	21,378
Lime, western -	9,855	7,303	27,092
Lead -	14,841	14,029	65,248
bar -	30	5	370
Molasses -	143,460	18,725	186
Oats -	735,562	278,038	27,403
Oil, linseed -	15,322	17,552	621,432
castor -	80	135	38,513
lard -	86	95	5
Pickles -	1,162	2,507	1,283
Potatoes -	2,174	3,468	819
Pork -	150,615	144,225	255,713
Pork -	67,022	41,795	75,843
boxes -	580		716
in bulk -			271,140
Porter and ale -	8,405	11,604	19,881
Packing yarn -	83	789	665
Rice -	25,816	15,443	29,278
Sacks -	69	1,648	18,741
Skins, deer -	295	117	38
Shot -	19	147	2,360
Spirits, turpentine -	75,153	9,378	15,090
Sugar -	8,238	2,645	17,895
Soup -	18,846	36,287	919
Staves -	38	1,807	5,121
Soap -	316	1,064	1,568
Shingles -	57	332	2,510
Staves -	1,368	2,410	412
Tallow -	14,484	13,379	15,412
Tobacco -	96	79	38,411
chew -	1,809	79	90
Tobacco -	220	2,151	1,541
Twine -	2,123	3,083	3,083
Wool -	16,615	21,213	26,016
Whisky -		2,021	636
Wheat -			

Imports of Specie for 12 Years, from September 1 to August 31.

Year	dols.	Year	dols.
1846-47	6,660,050	1852-53	7,857,276
1847-48	1,845,908	1853-54	6,967,036
1848-49	2,501,250	1854-55	8,746,037
1849-50	3,792,668	1855-56	4,571,540
1850-51	7,537,119	1856-57	6,500,015
1851-52	8,278,223	1857-58	13,268,913

The two following statements contrast the value of the imports and exports of New Orleans, for the fiscal years ending June 30 each year, 1856-57-58, and 1867:-

	1856		1857		1858	
	dols.	cts.	dols.	cts.	dols.	cts.
Dutiable	6,000,583		16,417,034		10,248,002	
Free	6,417,598		5,637,076		4,819,015	
Specie and bullion	1,775,149		1,927,250		4,621,216	
Total imports	14,193,330		34,981,360		19,688,233	
Exports	80,547,968		91,514,286		88,382,138	

Value of the Imports and Exports at the Port of New Orleans during the Year 1867.

Year	Imports		Exports	
	In American Vessels	In Foreign Vessels	In American Vessels	In Foreign Vessels
1867	dols. 2,929,794	dols. 7,725,784	dols. 38,782,822	dols. 40,764,323

Comparative Statement of the British Shipping at the Port of New Orleans during the 5 Years ending with 1867.

Year	Entered			Cleared		
	Number of Vessels	Tonnage	Crews	Number of Vessels	Tonnage	Crews
1863	50	6,894	393	86	10,614	676
1864	112	14,892	934	139	19,435	1,245
1865	265	32,219	2,552	270	43,831	2,332
1866	225	36,713	2,860	291	39,078	2,517
1867	234	39,338	3,102	245	32,064	3,155

Total Amount of Shipping at New Orleans during the Year 1867.

	Number of Vessels	Tonnage	Crews
American vessels entered from foreign ports	241	128,922	3,825
Foreign vessels entered from foreign ports	416	164,460	6,516
American vessels cleared to foreign ports	326	215,919	6,035
Foreign vessels cleared to foreign ports	421	166,729	6,484
Vessels in coasting trade, entered	1,189	71,413	25,131
Vessels in coasting trade, cleared	1,263	790,431	31,063

Rates for Bay Pilotage, fixed by Legislature of the State of Louisiana.

Vessels drawing 10 feet of water, or less, at per foot	dols. cts.
3 feet, at 3 50 per foot	11 00
4 feet, at 3 50 per foot	15 75
5 feet, at 3 50 per foot	17 50
6 feet, at 3 50 per foot	19 25
7 feet, at 3 50 per foot	21 00
8 feet, at 3 50 per foot	22 75
9 feet, at 3 50 per foot	24 50
10 feet, at 3 50 per foot	26 25
11 feet, at 3 50 per foot	28 00
12 feet, at 3 50 per foot	29 75
13 feet, at 3 50 per foot	31 50
14 feet, at 3 50 per foot	33 25
15 feet, at 3 50 per foot	35 00
16 feet, at 3 50 per foot	36 75
17 feet, at 3 50 per foot	38 50
18 feet, at 3 50 per foot	40 25
19 feet, at 3 50 per foot	42 00
20 feet, at 3 50 per foot	43 75
21 feet, at 3 50 per foot	45 50
22 feet, at 3 50 per foot	47 25
23 feet, at 3 50 per foot	49 00
24 feet, at 3 50 per foot	50 75
25 feet, at 3 50 per foot	52 50
26 feet, at 3 50 per foot	54 25
27 feet, at 3 50 per foot	56 00
28 feet, at 3 50 per foot	57 75
29 feet, at 3 50 per foot	59 50
30 feet, at 3 50 per foot	61 25
31 feet, at 3 50 per foot	63 00
32 feet, at 3 50 per foot	64 75
33 feet, at 3 50 per foot	66 50
34 feet, at 3 50 per foot	68 25
35 feet, at 3 50 per foot	70 00
36 feet, at 3 50 per foot	71 75
37 feet, at 3 50 per foot	73 50
38 feet, at 3 50 per foot	75 25
39 feet, at 3 50 per foot	77 00
40 feet, at 3 50 per foot	78 75
41 feet, at 3 50 per foot	80 50
42 feet, at 3 50 per foot	82 25
43 feet, at 3 50 per foot	84 00
44 feet, at 3 50 per foot	85 75
45 feet, at 3 50 per foot	87 50
46 feet, at 3 50 per foot	89 25
47 feet, at 3 50 per foot	91 00
48 feet, at 3 50 per foot	92 75
49 feet, at 3 50 per foot	94 50
50 feet, at 3 50 per foot	96 25
51 feet, at 3 50 per foot	98 00
52 feet, at 3 50 per foot	99 75
53 feet, at 3 50 per foot	101 50
54 feet, at 3 50 per foot	103 25
55 feet, at 3 50 per foot	105 00
56 feet, at 3 50 per foot	106 75
57 feet, at 3 50 per foot	108 50
58 feet, at 3 50 per foot	110 25
59 feet, at 3 50 per foot	112 00
60 feet, at 3 50 per foot	113 75

Quarantine.—A fee of 7½ dols. to 20 dols. according to tonnage is charged on all vessels entering the port of New Orleans, and a ten-day quarantine on vessels from Gulf and West India ports from May 1 to November 1.

Pilotage.—Sailing vessels do not pay river pilotage, steamers pay 60 dols.

Levee Dues.—Twenty cents per ton on all vessels. Harbour master's fee 5 dols. entrance, and 3 cents per ton.

Rates of Towsages from Levee to Bar.

Vessels of 30 and under	tons	cents
40	50	40
50	60	45
60	70	50
70	80	55
80	90	60
90	100	65
100	110	70
110	120	75
120	130	80
130	140	85
140	150	90
150	160	95
160	170	100
170	180	105
180	190	110
190	200	115
200 and upwards,	50 cents per ton.	

Rates of Towsages from Bar to City.

Vessels under 30 tons per contract.	tons	cents
Vessels of 31 and under	40	50
40	50	55
50	60	60
60	70	65
70	80	70
80	90	75
90	100	80
100	110	85
110	120	90
120	130	95
130	140	100
140	150	105
150 tons and upwards,	1 dollar 25 cents per ton.	

All vessels from bar to quarantine, and from quarantine to city, half of the above rates.

All vessels below Fort Jackson to be charged the same as from bar.

All vessels of 100 tons and upwards from Fort Jackson to city, 1 dol. per ton.

Vessels of 75 and under	tons	cents
50	75	90
40	50	70

All vessels under 40 tons as per contract.

All vessels between quarantine and English Turn to city will be charged the same as from quarantine.

All vessels from English Turn to city, over 100 tons, 50 cents per ton.

All vessels from English Turn to city, under 100 tons, as per contracts.

All vessels requiring two boats on the bar 500 tons and upwards, will be charged 100 dols. for first trial and 75 dols. for each trial after. Under 500 tons, 100 dols. for first trial, and 50 dols. for each trial after.

Dock accommodations.—There are two now in use, and another under construction. One is a take a vessel of 1,500 tons drawing 15 feet. The other under construction is equally large, smaller dock for vessels drawing 7 or 8 feet. The expenses of repairs are enormous, in consequence of combinations amongst the labourers.

State of bar at mouth of river.—The Mississippi has two principal passes; viz:—

The south-west pass, which has usually a depth of from 15 to 16 feet.

Pass à l'ouest, which has a depth of from 14 to 15 feet.

Both these passes have a greater depth in particular winds. The other two passes, the north-east and the south pass, have a depth from 5 to 6 feet of water on them, and are filling up.

Steps are being taken, an appropriation has been made by Congress for the purpose, to cut out the south-west pass and pass à l'ouest to give a greater depth of water.





the above be really advantageous engines for advertising. It has sometimes been tried, with a view to lessen the expense of advertisements, to combine certain descriptions of them, such, for example, as notices of books, to some one journal or class of journals. But the experiment has had no great degree of success.

The London newspapers have become remarkable for the great mass and variety of matter which they contain, the ability of their leading articles, the rapidity with which they are printed and circulated, and the accuracy and copiousness of their reports of debates. These results are obtained by a large expenditure and considerable division of labour. The reports of parliamentary proceedings are obtained by a succession of able and intelligent reporters, who relieve each other at intervals of  $\frac{1}{3}$  of an hour, or occasionally less. A newspaper cannot aim at copious and correct reports with less than 10 reporters for the House of Commons; and the expense of that particular part of a morning newspaper establishment exceeds  $\$8,000$  per annum.

**Regulations as to Newspapers.**—The Act 6 & 7 Wm. IV. c. 76 introduced several new regulations with regard to newspapers. Among other things, it imposed a duty of 1d. on every sheet of paper printed as a newspaper, provided its superficies did not exceed 1,530 square inches; of 1 $\frac{1}{2}$ d. if it exceeded 1,530 square inches, and did not exceed 2,295 square inches; and of 2d. if it exceeded 2,295 square inches. When supplements were published with newspapers, they were each charged with a duty of  $\frac{1}{4}$ d., provided their superficies did not exceed 785 square inches.

This was neither more nor less than a device to limit the size of newspapers by imposing a peculiar tax on those publishers who might be disposed, by increasing the size of their journals, to lay the most tempting supply of information or amusement before their readers. But this ingenious scheme for taxing a small be substituted for a large measure of intelligence has since been, if not abolished, at least materially modified. The Stamp Act of 1836, 5 & 6 Vict. c. 63, has the following provisions, viz:—

**As to Duties on Newspapers and Supplements.**—A higher stamp duty than 1d. shall be chargeable on any newspaper printed on one sheet of paper containing superficies not exceeding 2,295 square inches.

A supplement published with any newspaper stamped with the duty of 1d., such supplement being printed on one sheet of paper only, together with such newspaper containing in aggregate a superficies not exceeding 2,295 square inches, shall be free from stamp duty.

Any other supplement to any such duly stamped newspaper shall not be chargeable with any stamp duty than  $\frac{1}{4}$ d., provided it does not exceed a superficies exceeding 1,148 inches.

Any two supplements to any such duly stamped newspaper shall not be chargeable with a higher stamp duty than  $\frac{1}{4}$ d. on each, provided each of such supplements be printed and published on one sheet of paper only, and that they contain together a superficies not exceeding in the aggregate 1,148 inches.

The superficies in all the cases aforesaid to be one only of the sheet of paper, and exclusive of the margin of the letter-press.

The Act 6 & 7 Wm. IV. c. 76 exempts from duties on newspapers 'any paper called *Police Gazette* or *Hue and Cry*,' published in Great Britain by authority of the Secretary of State, or in Ireland by the authority of the Lord Lieutenant and three Government *Gazettes* published in

London, Edinburgh, and Dublin, ceased in 1868 to bear stamps; daily accounts or bills of goods imported and exported, or warrants or certificates for the delivery of goods, and the weekly bills of mortality; and also papers containing any list of price current, or of the state of the markets, or any account of the arrival, sailing, or other circumstances relating to merchant ships or vessels, or any other matter wholly of a commercial nature: provided such bills, lists, or accounts do not contain any other matter than what hath been usually comprised therein.

And the same Act lays down the following rules; viz. a discount of 25 per cent. is to be allowed on the above duties on newspapers printed in Ireland. (Sec. 2.)

In order to prevent fraud in the returns as to newspapers, it is enacted that from December 31, 1836, a separate or distinctive stamp or die shall be used for each newspaper. (Sec. 3.)

No person is to print or publish a newspaper until after a declaration has been made and lodged at the Stamp Office, containing certain particulars (specified in the Act), as to the names and addresses of the printer, and certain of the proprietors of such paper &c., under a penalty of 50*l.* Persons wilfully making a false or defective declaration are, upon conviction, to be deemed guilty of a misdemeanor. (Secs. 6, 7.)

There are a number of regulations intended to provide for the discovery and liability of the printer and proprietors, the security of the duties, and the prevention of the sale of unstamped papers. A penalty of 20*l.* is imposed on any person printing, publishing, selling &c. newspapers not duly stamped; and it is declared to be lawful for any officer of stamps, or any person authorised by the commissioners in that behalf, to seize any such offender, and take him before any justice having jurisdiction where the offence is committed, who shall summarily determine the matter, and upon conviction and default of payment, shall commit such offender to prison for some term not exceeding 3 calendar months, nor less than 1 calendar month. (Sec. 17.)

Penalty for sending abroad newspapers not duly stamped, 50*l.* (Sec. 18.)

Justices may grant warrants to search for unstamped newspapers, and to seize presses &c. used in printing the same; and on refusal of admittance, officers may break open doors &c. Persons resisting officers, liable to a penalty of 20*l.* (Secs. 22, 23.)

**Influence of the Reduction of the Duty in 1836.**—The reduction of the price of newspapers from 7d. to 5d. occasioned a great increase in the demand for the old or established papers; and a considerable number of new weekly papers also started into existence after the reduction of the duty in the metropolis and throughout the country. Down to 1855, however, with one exception, no new daily paper was established in the metropolis.

**Newspaper Act of 1855.**—But a still further and most important change in the regulations as to newspapers was effected by the Act of 1855, 18 Vict. c. 27. It exempts newspapers or periodical publications, not transmitted by post, from all charge for duty; but the existing duty, and the other arrangements referred to above, are still kept up in the case of newspapers sent by post. Inasmuch, however, as newspapers may be readily transmitted between the principal places in the United Kingdom through private channels, it is probable that the post will be but little resorted to in time to come, except in the case of newspapers sent to the country, or to places out of the way of

the great lines of communication. And hence, no doubt, the abolition of the duty on the great majority of newspapers will be the principal immediate effect of the new system. We beg to annex the following abstract of the Act referred to.

**Not compulsory to print Newspapers on Stamps.**—From and after 14 days from the passing of this Act, it shall not be compulsory (except for the purpose of free transmission by the post) to print any newspaper on paper stamped for denoting the duties imposed by law on newspapers, and no person shall be subject or liable to any penalty or forfeiture for printing, publishing, selling, or having in his possession any unstamped newspaper. (Sec. 1.)

**Periodical Publications printed on Stamps to be transmitted by Post free of Postage.**—Every periodical publication hereinafter mentioned which shall be printed within the United Kingdom on paper stamped for denoting the rate of duty now imposed by law on newspapers, shall be entitled to the like privileges of transmission and re-transmission by the post between places in the United Kingdom, either postage-free or otherwise, on the same terms and conditions and under and subject to the like rules and regulations, as newspapers duly stamped are now entitled and subject to under any Act or Acts in force, but under and subject nevertheless to the terms and conditions contained in this Act. (Sec. 2.)

**Periodical Publications entitled to free Transmission by Post to be printed under specified Limitations and Conditions.**—Every periodical publication, to be entitled to any such privilege as aforesaid, shall be printed and published at intervals not exceeding 31 days between any two consecutive parts or numbers of such publication, and shall be subject to the same limitations and restrictions with respect to the number of sheets or pieces of paper whereon the same shall be printed, and with respect to the superficies or dimensions of the letter-press thereof, as by any Act or Acts now in force are enacted or imposed with respect to newspapers and supplements thereto; and every such periodical publication shall be entitled to such privilege only on the terms and conditions following; viz. one of the sheets or pieces of paper on which the same shall be printed, shall be stamped with an appropriate die, denoting the stamp duty imposed by law on a newspaper printed on the like number of sheets or pieces of paper and of the like dimensions with respect to the superficies of the letter-press thereof; and on the top of every page of such publication shall be printed the title thereof, and the date of publishing the same, and such periodical publication, at the time when the same shall be posted, shall be folded in such manner that the whole of the stamp denoting the said duty shall be exposed to view, and be distinctly visible on the outside thereof; also such periodical publication shall not be printed on pasteboard or cardboard, or on two or more pieces or thicknesses of paper pasted together, nor shall any pasteboard, cardboard, or such pasted paper be transmitted by post with any such periodical publication either as a back cover thereto, or otherwise. (Sec. 3.)

**Paper to be stamped for such Periodical Publications &c.**—It shall be lawful for the proprietor or printer of any such periodical publication to send to the Commissioners of Inland Revenue, or to such officer as they shall appoint or direct in that behalf, any quantity of paper to be stamped with an appropriate die, to be provided in the manner directed by the Act 6 & 7 Wm. IV. c. 76 s. 3, for denoting the rate of stamp duty chargeable

on newspapers; and upon payment to the proper officer of the full amount of the stamps required to be impressed on such paper, the said Commissioners shall cause the same to be stamped accordingly; provided always, that there shall be allowed in Ireland, in respect of such appropriated stamps as aforesaid for any periodical publications which shall be printed and published only in Ireland, the same rate of discount as by the said Act is directed to be allowed on the purchase of stamps for the printing of newspapers in Ireland. (Sec. 4.)

**Periodical Publications to be posted within 15 Days after Publication.**—Every periodical publication posted in the United Kingdom, to be entitled to the privilege of transmission by the post between places in the United Kingdom, under the provisions of this Act, shall be put into a post office within 15 days next after the day on which the same shall be published; the day of publication to be determined by the date of such publication. (Sec. 5.)

**Questions as to Periodical Publications, how to be determined.**—In all cases in which a question shall arise whether a printed paper is entitled to the privilege of a periodical publication, so far as respects the transmission thereof by the post, under the provisions of this Act, the question shall be referred to the determination of the Postmaster-General, whose decision, with the consent of the Commissioners of the Treasury, shall be final. (Sec. 6.)

**Newspapers may be registered at the General Post Office.**—Upon the Postmaster-General being satisfied that any printed publication is a newspaper, or entitled to the privileges of a newspaper within the meaning of the treaties and arrangements with foreign powers and colonial governments, it shall be lawful for the proprietor or printer of such newspaper or publication, if he think fit, to register the same at the General Post Office in London, in such form and with such particulars relating to the same, and subject to the payment of such fees, not exceeding five shillings respectively, as well on registration as afterwards periodically for being continued on the register, as the Postmaster-General, with consent of the Treasury, shall from time to time direct or determine in that behalf; and thereupon such newspaper or publication, being printed on paper duly stamped with an appropriate die under the provisions of this Act, shall be entitled to all the privileges and advantages secured to newspapers by such treaties and arrangements. (Sec. 7.)

**Transmission by Post of printed Papers to Foreign Countries.**—It shall be lawful for the Treasury, by warrant under their hands, to cause any printed newspaper (British, colonial, or foreign) to be transmitted by the post to any place in the United Kingdom and colonial or foreign countries, or between any ports or places beyond the sea (whether through the United Kingdom or not), either free of postage or at such rates of postage not exceeding 2d. for every newspaper, irrespective of any foreign or colonial postage, as the Treasury, or Postmaster-General, with their consent, shall from time to time direct or determine; and as a condition to any British newspaper being transmitted by the post to any place in the United Kingdom, the same shall be printed on paper duly stamped with an appropriate die, under the provisions of this Act, and the Treasury or Postmaster-General may require such newspaper to be registered at the General Post Office in London, in the form and with the particulars and subject to the payment of the fees mentioned in last section. (Sec. 8.)

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**Power to the Postmaster-General and Treasury to make Regulations for carrying the Act into effect.**

It shall be lawful for the Postmaster-General, with the consent of the Treasury, at any time or times hereafter to make and issue such orders, regulations, conditions, and restrictions as he shall deem to be necessary or expedient for the purpose of regulating the receipt, transmission, and delivery by post of periodical publications under the provisions of this Act, or for preventing or detecting frauds or abuses in relation thereto, and for giving effect to the purposes of this Act; and it shall also be lawful for the said Postmaster-General, with the like consent, from time to time to rescind or revoke all or any such orders, regulations, conditions, and restrictions, and to make and issue any new ones in lieu thereof. (Sec. 9.)

**Periodical Publications sent by Post not in conformity with this Act to be charged Letter Rates of Postage.**—Periodical publications sent by post otherwise than in conformity with the terms, conditions, and regulations established under the authority of this Act, may be detained by the Postmaster-General, and any officer of the Post Office; and after being opened, the same shall be either returned to the senders thereof, or forwarded to the place of their destination, charged with the like rates of postage as if the same were letters transmitted by the post: provided always, that it shall be lawful for the Treasury, by warrant under their hands, to authorise the Postmaster-General to charge, in any such case, any such less rate of postage as to him shall seem fit.

**(Sec. 10.)**

**London Gazette to be Evidence of the issuing of Warrants or Orders.**—Any printed copy of the London Gazette in which any warrant or order issued or made under or by virtue of this Act, or purporting so to be, shall be published, shall be admitted as evidence by all courts, judges, justices, and others, of such warrant or order, and of the date making and issuing thereof, and of the contents thereof, without any further or other proof of such warrant or order, or of the matters therein contained. (Sec. 11.)

**Interpretation of Terms.**—The term "periodical publication" used in this Act, shall be construed to mean and include a newspaper as defined by the Acts in force relating to the stamp duties on newspapers, and every printed literary work or tract, printed and published periodically, or in parts or numbers, at intervals not exceeding 31 days between any two consecutive papers, parts, or numbers of such literary work or paper; and all the purposes of this Act the islands of Guernsey, Jersey, Alderney, Sark, and the Isle of Man shall respectively be deemed to be parts of the United Kingdom. (Sec. 12.)

It would be premature to speculate with much confidence in regard to the results of this important measure. But we doubt whether it will have the beneficial influence which many have anticipated. It was contended in 1836, when the duty on newspapers was reduced from 3d. to 1d., that the advantages would result from this reduction; that the clandestine circulation of cheap newspapers advocating dangerous doctrines would be checked; and that the stigma attached to low-priced journals in the public estimation being removed, men of ability and attainments would be induced to write in them as much for their advantage to write in them as in the higher-priced journals. These expectations have not been realised; and we much doubt whether the circulation of low-priced political journals can ever be of advantage. Such is the case, speaking generally, addressed to the

lower and poorer classes of the community; and their writers usually find it more for their advantage to flatter the prejudices entertained by their readers, and to espouse their peculiar views, how inconsistent soever these may be with the interests of society in general, than to inculcate sounder though less popular principles. Hence the questionable character of the greater number of the low-priced papers, or, at least, of such of them as are read by the lower orders. This, perhaps, may be a necessary evil in a highly advanced country like this; but whether it be so or not, there can be no doubt of its existence, and of its magnitude.

It has sometimes been thought singular that that division of subjects which has been introduced into most other things has not been introduced amongst newspapers. Instead of having all sorts of matter crammed into the same journal, it might be presumed that the better plan would be to have all topics of considerable interest separately treated in papers appropriated to them only, and conducted by persons fully conversant with their principles and details. Under the present omnivorous system, individuals who care nothing for the theatre, are, notwithstanding, unable to procure a paper in which it does not occupy a prominent place; and those who cannot distinguish one tune from another have daily served up to them long dissertations on concerts, operas, oratorios, and so forth. But, how desirable soever, in some respects, the plan of appropriating particular papers to particular subjects does not appear to be at all suited to the public taste. In a well-conducted daily paper, like the *Times*, ably written articles on all subjects of interest are brought together under the reader's notice, who may read them all, or such only as he pleases. This is incomparably more convenient than to have to hunt for different articles among a variety of journals; and is, in fact, the only plan calculated to meet the wants and exigencies of the public.

**Impolicy of imposing a Postage on Newspapers.**

The duties now substantially repealed, produced, in 1853, 412,220*l.* nett, no inconsiderable sum in a period of war. In point of fact, however, they could hardly be called duties, and ought rather to have been regarded as a payment for the trouble and expense attending the conveyance and distribution of newspapers by post. But supposing such to be the case, it was argued that the duty should be so limited, that is, that it should only be imposed on papers carried by the post. Matters of this sort are not, however, to be decided by mere logical considerations. The effect of the new plan is to confine, in a greater or less degree, according to circumstances, the circulation of newspapers to the districts within which they are published; and this certainly is not a desirable object. Hitherto the *Times* and other London journals displaying the greatest talent, and embracing the most varied information, had been distributed all over the country at about the same price as the local and inferior journals. But under the new plan the charge for conveyance, or it may be postage, being added to the price, of the metropolitan journals, they become dearer than the local papers, and people in many, or rather perhaps in the majority of instances, will be disposed to prefer the low-priced though inferior journal published at their door, to the superior but higher priced journal of the capital. If this should turn out to be the case, it will be a serious disadvantage; and by depreciating the quality of the journals circulating over the country, and fostering local prejudices, will far more than neutralise the advantages which it is presumed will result, under



An Account of the Aggregate Number of Stamps Issued for Newspapers in each of the Under-mentioned Years, Distinguishing the Numbers in England, Scotland, and Ireland.

Year	England	Scotland	Great Britain	Year	England	Scotland	Great Britain	Ireland*
1817	15,000,505	991,280	16,085,085	1820	25,177,127	1,236,560	26,413,687	2,971,156
1818	17,610,069	1,174,200	18,784,269	1825	24,085,503	1,467,191	25,552,694	3,300,092
1819	22,392,366	1,439,775	23,979,561	1830	27,370,092	1,533,988	28,904,080	4,055,311
1822	25,075,985	1,369,523	27,585,508	1835	28,508,560	3,021,151	31,529,711	4,790,856
				1841	38,806,570	5,665,945	44,472,515	6,037,795

\* At 1817 no distinct account was kept of the Stamps issued for Newspapers in Ireland.

Account of the Aggregate Number of Stamps of One Penny and One Halfpenny Issued for Newspapers in each of the Undermentioned Years, Distinguishing the Numbers in England, Scotland, and Ireland.

Year	England		Scotland		Ireland	
	at 1d.	at 1/2d.	at 1d.	at 1/2d.	at 1d.	at 1/2d.
1811	50,088,175	1,381,521	5,510,424	440,400	6,065,906	35,750
1812	51,612,195	1,956,832	5,851,671	257,150	6,432,072	146,580
1813	54,084,761	3,741,378	6,490,165	705,520	6,749,667	243,550
1814	58,651,191	10,332,491	6,180,249	509,750	6,921,888	253,178
1815	61,158,279	9,110,130	6,885,906	510,671	6,909,110	131,925
1816	61,158,660	8,187,167	7,121,238	258,175	6,741,607	35,510
1817	67,476,108	8,201,236	7,477,061	176,851	6,068,266	41,772
1818	66,159,502	10,309,253	6,288,505	905,000	6,515,227	78,843
1819	65,741,271	11,681,125	7,615,015	211,261	6,302,728	45,538

A Return of the Number of Stamps Issued to the under-mentioned Newspapers in England, Ireland, Scotland, and Wales, during each of the 6 Years ending with 1850, and in the Year ending Jan'y 31, 1867.

LONDON PAPERS	ENGLAND					
	Newspaper Stamps					
	1816	1817	1818	1819	1850	1867
Admiral	72,000	83,250	85,500	90,668	98,000	4,250
Advertiser	117,000	117,000	117,500	127,500	141,158	72,000
Amberley Reporter	12,150	18,000	12,150	12,000	12,000	..
Amberley Mail	28,750	26,750	21,000	28,725	25,000	39,262
Amberley Reporter	..	..	..	..	..	..
Amberley Building Gazette	10,330	11,500	11,000	17,700	16,200	..
Amberley Building Gazette	12,250	15,000	15,000	19,250	11,850	..
Amberley Building Gazette	54,000	44,450	51,500	57,500	20,450	..
Amberley Building Gazette	1,230,000	1,211,000	1,236,500	1,176,500	1,285,500	178,575
Amberley Building Gazette	750,000	743,000	743,000	709,000	705,000	307,946
Amberley Building Gazette	735,000	735,000	735,000	735,000	735,000	..
Amberley Building Gazette	295,251	216,000	203,300	183,550	165,725	..
Amberley Building Gazette	..	..	..	..	..	..
Amberley Building Gazette	15,500	26,000	26,000	26,000	26,000	9,600
Amberley Building Gazette	37,000	36,000	37,000	36,000	36,000	..
Amberley Building Gazette	68,910	79,000	74,500	77,000	72,000	65,000
Amberley Building Gazette	41,500	37,000	26,000	18,550	15,313	75,500
Amberley Building Gazette	25,500	27,000	26,000	25,000	25,118	..
Amberley Building Gazette	56,700	29,000	22,000	25,200	27,000	26,000
Amberley Building Gazette	55,225	32,000	16,000	13,000	20,500	..
Amberley Building Gazette	25,250	48,000	43,000	44,000	41,000	..
Amberley Building Gazette	31,000	21,000	20,000	25,000	25,000	..
Amberley Building Gazette	1,700	1,055	2,000	2,000	2,000	..
Amberley Building Gazette	..	..	25,500	13,121	91,000	..
Amberley Building Gazette	..	..	9,000	27,000	21,000	..
Amberley Building Gazette	..	..	..	20,850	80,000	..
Amberley Building Gazette	3,510,500	3,477,000	3,550,838	3,575,000	1,152,000	69,886
Amberley Building Gazette	530,000	550,000	600,000	675,000	650,000	235,000
Amberley Building Gazette	290,500	222,000	276,000	318,225	228,228	53,245
Amberley Building Gazette	134,200	139,000	137,500	144,000	143,500	151,500
Amberley Building Gazette	175,175	233,100	223,000	500,500	199,000	26,950
Amberley Building Gazette	160,000	778,711	888,000	964,000	766,250	158,170
Amberley Building Gazette	169,551	228,000	230,500	191,500	221,600	27,000
Amberley Building Gazette	..	..	..	..	..	..
Amberley Building Gazette	..	69,770	118,250	91,500	69,500	1,000
Amberley Building Gazette	75,600	81,500	111,000	121,250	121,600	..
Amberley Building Gazette	410,000	406,000	382,800	385,000	338,000	718,166
Amberley Building Gazette	60,000	82,350	116,250	131,000	187,225	259,593
Amberley Building Gazette	761,000	690,000	720,000	630,000	585,000	100,000
Amberley Building Gazette	..	..	..	..	..	..
Amberley Building Gazette	..	..	..	..	..	..
Amberley Building Gazette	2,367,067	2,267,601	2,061,658	3,690,169	5,167,007	761,316
Amberley Building Gazette	36,295	31,650	29,750	21,000	36,400	..
Amberley Building Gazette	119,000	118,000	118,000	123,000	110,000	38,000
Amberley Building Gazette	83,100	83,300	84,887	81,800	83,325	..
Amberley Building Gazette	99,600	95,050	99,775	89,010	85,075	71,210
Amberley Building Gazette	29,500	25,258	26,500	26,500	26,500	..
Amberley Building Gazette	87,000	49,000	77,100	70,500	67,000	..
Amberley Building Gazette	410,000	170,000	215,000	210,000	180,000	650,000
Amberley Building Gazette	3,000	3,700	3,700	3,700	3,700	..
Amberley Building Gazette	2,665,500	1,691,500	1,776,577	2,431,150	2,569,000	62,500
Amberley Building Gazette	..	..	..	..	..	..
Amberley Building Gazette	..	..	..	..	..	..
Amberley Building Gazette	215,000	317,000	280,750	237,250	218,000	222,000
Amberley Building Gazette	91,500	100,500	96,500	106,500	107,000	..
Amberley Building Gazette	1,480,000	1,500,000	1,538,000	1,528,220	1,519,815	30,000
Amberley Building Gazette	1,560,000	1,500,000	1,575,000	1,575,000	1,512,500	..
Amberley Building Gazette	1,728,500	1,510,000	1,535,000	1,147,000	1,139,000	73,788
Amberley Building Gazette	1,491,500	990,100	964,500	905,000	828,000	220,000
Amberley Building Gazette	215,175	210,200	205,000	257,000	210,000	190,000
Amberley Building Gazette	82,150	76,520	81,615	82,150	79,853	..
Amberley Building Gazette	14,680	16,146	16,652	15,332	14,712	..
Amberley Building Gazette	..	..	..	..	..	..
Amberley Building Gazette	78,500	55,000	52,518	35,225	40,000	..
Amberley Building Gazette	10,000	7,000	9,925	10,000	7,850	..
Amberley Building Gazette	115,500	118,550	145,550	145,550	144,175	66,000
Amberley Building Gazette	95,000	85,000	80,724	73,800	60,780	5,250
Amberley Building Gazette	392,000	425,000	626,500	361,300	216,000	..
Amberley Building Gazette	1,878,500	1,981,853	2,478,553	2,806,767	2,926,269	181,300
Amberley Building Gazette	..	..	..	..	..	..
Amberley Building Gazette	177,500	212,000	251,000	360,500	324,000	..

LONDON PAPERS	Newspaper Stamps				
	1846	1847	1848	1849	1850
Ferry's Bankrupt Gazette	29,630	28,971	48,873	65,413	88,266
Patriot	225,000	210,000	171,076	155,000	139,000
Public Ledger	140,000	131,000	140,000	130,000	150,000
Publishers' Circular	65,550	54,500	61,552	59,000	50,000
Townbrokers' Gazette	40,950	41,300	40,000	39,050	39,900
Punch	509,492	409,110	390,783	343,864	345,000
Record	338,500	361,500	361,500	306,500	300,500
Railway Times	212,500	195,500	137,250	113,200	85,700
Reynolds's Weekly	..	..	185,000	284,500	275,250
Standard of Freedom	..	..	..	161,500	2,000
Sunday Times	932,500	785,000	757,000	735,000	675,000
Shipping Gazette	407,112	429,500	444,000	475,000	459,500
Standard	704,000	629,500	761,500	639,000	623,000
St. James's Chronicle	593,500	550,000	496,000	467,000	451,000
Sun	1,104,000	909,000	893,312	873,000	831,500
Spectator	194,000	174,100	174,000	161,000	152,500
Times	8,950,000	9,205,230	11,095,500	11,300,000	11,900,000
Tablet	190,000	199,716	212,530	190,600	..
The Lady's	20,000	300,166	581,263	537,025	259,000
The Country Gentleman	..	..	..	..	2,000
United Service Gazette	74,000	68,000	65,072	66,550	72,000
Weekly News	..	..	..	..	74,000
Weekly Dispatch	2,421,500	2,203,501	2,112,790	2,220,000	1,950,000
Weekly Chronicle	300,000	171,000	152,000	116,800	85,000
Watchman	17,000	175,000	128,000	129,000	129,000
Weekly Tribune	..	..	..	20,050	29,100
Wesleyan Notices	21,000	..	14,075	8,500	11,000
Weekly Times	..	805,580	1,077,353	1,257,500	2,073,500
Wesleyan Times	..	..	..	508,000	466,500
PROVINCIAL PAPERS					
Albion, Liverpool	159,500	141,000	153,000	160,250	176,000
Bath Herald	42,000	44,000	36,000	31,000	37,000
Bath Chronicle	75,500	71,500	74,000	74,500	81,000
Bath Journal	51,000	56,500	62,015	56,000	55,000
Bath and Cheltenham Gazette	49,000	40,500	40,000	45,000	41,000
Berwick Advertiser	40,000	44,000	43,500	45,000	42,000
Berwick Warrier	27,000	25,000	25,000	25,000	25,000
Bradshaw's Railway Guide	7,586	6,950	27,000	34,750	37,100
Brighton Gazette	65,000	55,000	63,500	55,000	62,000
Brighton Guardian	27,000	20,000	20,000	20,000	20,000
Brighton Herald	44,000	42,000	65,000	53,001	65,000
Harbour's Circular	35,137	3,740	31,300	3,560	3,100
Budford Times	22,000	25,000	26,501	26,000	26,000
Budford Mercury	16,100	14,000	12,000	12,037	16,000
Bristol Journal	69,000	56,000	69,500	77,000	59,500
Bristol Temperance Herald	29,000	15,000	15,000	15,000	10,000
Berkshire Chronicle	39,500	33,000	37,350	37,000	40,500
Birmingham Gazette (Aris's)	120,000	114,000	132,000	106,000	120,000
Bucks Advertiser and Aylesbury News	..	37,000	36,000	48,000	36,000
Birmingham Journal	260,000	338,500	421,000	499,250	390,000
Bristol Mercury	272,000	235,000	275,000	499,250	277,500
Bristol Mirror	127,000	136,000	113,000	145,000	137,000
Bucks Herald	29,000	37,000	30,000	31,000	35,500
Bury and Norwich Post	91,000	82,000	82,000	82,000	80,500
Bristol Gazette	30,000	32,000	40,000	30,000	40,000
Boston Herald	25,000	27,000	25,000	25,000	31,200
Bradford Observer	54,000	54,000	55,598	39,435	55,000
Bristol Examiner	..	..	..	..	51,750
Bucks Chronicle	..	..	..	37,500	30,000
Buxton Herald	7,000	6,000	6,000	8,000	8,000
Hackburn Standard	55,500	44,500	29,330	31,000	29,000
Bolton Chronicle	67,709	60,000	66,000	71,250	72,000
Banbury Guardian	32,000	36,000	31,000	40,000	36,000
Bridgewater Times	26,133	32,000	20,000	18,000	16,500
Birmingham Mercury	..	25,500	25,500	193,000	150,000
Cambridge Chronicle	82,250	87,000	80,700	96,550	105,100
Canterbury Weekly Journal	9,000	13,000	13,000	13,000	13,000
Carlisle Journal	156,000	117,000	166,000	168,000	168,000
Carlisle Patriot	45,000	38,682	60,900	58,000	61,000
Cheltenham Chronicle	38,682	60,500	58,000	61,000	56,000
Cheltenham Journal	25,000	30,000	23,300	55,000	30,000
Cheltenham Free Press	36,000	36,000	43,000	29,000	31,400
Cheltenham Looker On	25,000	20,238	22,000	31,000	27,000
Chester Chronicle	80,000	72,000	66,000	65,500	66,000
Chester Courant	58,000	60,000	54,000	55,500	58,000
Chelmsford Chronicle	107,750	117,000	137,750	114,000	110,500
Cornwall Royal Gazette	55,500	54,000	50,000	54,500	65,000
Coventry Herald	42,000	42,000	42,500	46,000	42,000
Coventry Standard	45,000	45,000	45,000	42,500	42,000
Cumberland Packet	41,500	40,000	40,000	40,000	40,000
Cambridge Advertiser	36,500	36,750	35,000	25,000	84,750
Cambridge Independent Press	121,600	121,600	121,600	121,600	121,600
Dorset County Chronicle	75,000	75,900	69,000	65,500	62,500
Durham Chronicle	50,000	59,500	66,000	59,000	56,500
Durham Advertiser	47,000	50,000	50,000	40,000	35,000
Devonport Telegraph	31,500	31,900	26,400	36,125	36,500
Devonport Independent	40,600	41,090	34,700	37,000	30,750
Derbyshire Advertiser	35,000	35,430	35,000	35,000	29,000
Derbyshire Chronicle	16,400	20,000	20,000	18,000	12,000
Derby Mercury	79,000	75,000	75,000	85,750	70,000
Derby Reporter	110,000	115,000	105,000	105,500	110,000
Derbyshire Courier	25,000	25,000	25,000	25,000	25,000
Dover Telegraph	20,250	27,225	26,155	26,175	21,100
Dover Chronicle	20,000	21,000	22,400	17,000	21,500
Doncaster Gazette	111,000	109,000	109,000	109,000	109,000
Doncaster Chronicle	64,000	55,000	55,000	60,000	55,000
Devizes and Wiltshire Gazette	52,500	55,000	53,250	57,000	51,000
Dorington and Stockton Times	16,500	16,500	16,500	16,000	16,000
Exeter Flying Post	80,000	88,600	81,000	100,000	99,500
Exeter and Plymouth Gazette	98,000	99,150	108,500	117,000	120,000
Essex Standard	74,000	74,000	74,000	74,000	74,000
Eastern Counties Herald	98,000	87,000	87,000	77,000	56,700
Essex Herald	74,000	79,000	85,000	80,500	85,000
Eddowes' Journal	88,500	86,000	86,000	100,000	100,000
Fleetwood Chronicle	19,560	15,501	8,440	10,500	..

NEWSPAPERS

Number of Stamps issued to Newspapers—continued.

ENGLAND—continued.

PROVINCIAL PAPERS	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Amesbury Herald	9,500	9,960	9,988	8,275	10,000	40,000
Amesbury Journal	117,000	115,000	120,000	123,932	108,000	45,000
Amesbury Chronicle	65,000	65,000	65,000	65,000	65,000	65,000
Amesbury Observer	70,600	69,800	65,000	65,000	60,000	36,000
Amesbury Journal	148,000	174,000	174,000	190,550	205,500	102,000 at 1d.
Amesbury Times	15,000	15,000	15,000	15,000	15,000	15,000
Amesbury Guardian	65,000	70,000	74,000	40,711	56,750	31,000
Amesbury Advertiser	135,000	136,500	135,500	138,500	140,500	55,000
Amesbury Advertiser	70,850	74,000	78,000	78,000	60,000	21,500
Amesbury Independent	32,500	39,000	38,000	39,000	36,000	10,000
Amesbury Press	82,000	117,450	109,000	102,000	124,000	10,000
Amesbury Guardian	31,000	31,000	32,000	35,732	35,500	35,500
Amesbury Advertiser	106,000	108,000	104,000	130,000	99,625	2,000
Amesbury Advertiser	85,500	96,000	123,000	89,425	99,500	15,000
Amesbury Advertiser	166,800	163,500	161,500	175,500	135,200	42,000
Amesbury Telegraph	14,250	16,250	18,500	18,500	18,500	7,000
Amesbury Advertiser	112,000	101,000	14,400	29,000	29,250	10,250
Amesbury Advertiser	39,100	48,000	52,000	111,000	109,350	69,500
Amesbury Advertiser	11,500	1,400	17,500	49,800	14,000	27,000
Amesbury Advertiser	55,000	55,000	55,000	50,000	50,000	15,000
Amesbury Advertiser	21,000	21,500	22,500	23,500	22,000	16,000
Amesbury Advertiser	66,400	66,500	61,000	61,000	61,000	16,000
Amesbury Advertiser	54,000	49,500	51,500	52,850	50,000	35,750
Amesbury Advertiser	21,000	24,000	15,000	20,000	21,000	21,000
Amesbury Advertiser	26,000	22,000	22,000	22,000	22,000	17,000
Amesbury Advertiser	31,000	35,000	47,500	41,000	29,500	26,000
Amesbury Advertiser	51,500	52,000	51,500	54,000	50,000	30,000
Amesbury Advertiser	200,850	200,850	200,850	200,850	200,850	200,850
Amesbury Advertiser	500,000	500,000	521,000	459,000	459,000	114,000 at 1d.
Amesbury Advertiser	231,650	254,000	281,500	250,000	251,000	23,500 at 1d.
Amesbury Advertiser	41,000	37,000	33,150	33,000	35,000	30,500
Amesbury Advertiser	63,500	60,500	59,000	63,000	61,500	40,000
Amesbury Advertiser	23,450	41,875	41,875	49,175	69,175	69,175
Amesbury Advertiser	70,000	86,000	70,000	56,000	77,875	26,000
Amesbury Advertiser	20,500	20,500	20,500	20,500	39,500	39,500
Amesbury Advertiser	10,000	10,000	114,650	114,650	203,500	3,000
Amesbury Advertiser	190,000	153,000	163,000	151,000	145,000	36,000
Amesbury Advertiser	140,600	140,600	140,600	140,600	140,600	8,500
Amesbury Advertiser	165,400	189,000	171,000	168,000	155,000	15,000
Amesbury Advertiser	457,000	461,500	728,000	643,648	511,750	127,000
Amesbury Advertiser	113,000	113,000	121,000	121,000	60,000	60,000
Amesbury Advertiser	3,810	6,200	8,300	8,000	6,000	6,000
Amesbury Advertiser	53,000	151,000	90,000	68,460	78,600	78,600
Amesbury Advertiser	48,000	47,000	46,000	46,000	44,000	11,000
Amesbury Advertiser	70,000	66,000	41,000	60,500	25,000	18,000
Amesbury Advertiser	35,000	30,000	30,000	39,000	32,750	25,900
Amesbury Advertiser	60,000	60,000	65,000	72,500	65,000	29,000
Amesbury Advertiser	102,000	111,000	109,000	113,500	106,950	106,950
Amesbury Advertiser	57,000	62,500	55,000	54,750	53,000	48,250
Amesbury Advertiser	279,000	279,000	279,000	279,000	279,000	279,000
Amesbury Advertiser	1,002,000	1,009,000	968,000	940,000	940,000	71,000
Amesbury Advertiser	130,450	130,450	130,450	130,450	108,560	108,560
Amesbury Advertiser	288,970	355,000	487,700	609,850	534,810	63,000
Amesbury Advertiser	296,000	305,143	306,000	312,000	312,000	260,000
Amesbury Advertiser	14,000	1,500	1,500	1,500	8,430	8,430
Amesbury Advertiser	107,000	100,000	93,000	90,000	90,000	62,000
Amesbury Advertiser	85,500	85,000	80,000	80,000	89,000	55,000
Amesbury Advertiser	37,750	37,750	41,750	41,750	46,000	17,000
Amesbury Advertiser	118,000	70,800	72,400	95,000	71,000	28,000
Amesbury Advertiser	66,000	54,000	45,000	49,000	32,500	32,500
Amesbury Advertiser	101,000	100,000	90,000	81,000	86,000	86,000
Amesbury Advertiser	130,000	112,000	92,000	167,762	105,600	82,000
Amesbury Advertiser	151,000	146,000	148,500	138,000	141,000	60,000
Amesbury Advertiser	36,200	42,500	38,200	32,650	51,200	51,200
Amesbury Advertiser	59,000	67,800	106,444	136,500	135,500	135,500
Amesbury Advertiser	158,500	152,500	117,500	110,500	119,815	119,815
Amesbury Advertiser	151,000	203,000	272,500	260,000	260,000	45,000
Amesbury Advertiser	145,500	149,000	164,000	151,000	148,000	148,000
Amesbury Advertiser	100,000	161,000	171,750	222,000	50,000	105,000
Amesbury Advertiser	110,000	105,000	105,000	102,500	111,000	111,000
Amesbury Advertiser	69,000	65,000	60,000	60,000	64,000	28,500
Amesbury Advertiser	40,000	30,000	38,000	38,000	31,000	6,500
Amesbury Advertiser	26,000	27,000	30,000	30,000	20,000	15,000
Amesbury Advertiser	68,000	68,000	68,000	68,000	31,000	31,000
Amesbury Advertiser	65,000	65,000	65,000	65,000	35,000	7,500
Amesbury Advertiser	95,000	101,000	96,000	88,000	71,975	11,000
Amesbury Advertiser	63,500	63,500	63,500	63,500	65,000	65,000
Amesbury Advertiser	36,300	47,000	49,750	45,000	47,375	47,375
Amesbury Advertiser	169,380	199,750	194,500	211,000	261,000	6,000 at 1d.
Amesbury Advertiser	60,000	1,000	56,000	61,050	61,000	12,000 at 1d.
Amesbury Advertiser	40,000	35,000	46,200	61,801	68,705	68,705
Amesbury Advertiser	29,000	29,000	27,000	14,000	19,000	19,000
Amesbury Advertiser	29,000	29,000	16,375	10,000	8,191	9,267
Amesbury Advertiser	15,500	20,775	20,775	21,175	14,375	14,375
Amesbury Advertiser	30,000	30,000	30,000	30,000	30,000	30,000
Amesbury Advertiser	75,000	48,100	54,300	41,500	49,500	41,500
Amesbury Advertiser	181,750	187,500	190,710	188,000	206,710	50,000
Amesbury Advertiser	6,000	5,000	5,000	5,000	5,000	2,000
Amesbury Advertiser	81,000	79,500	78,500	76,500	81,000	20,000
Amesbury Advertiser	588,000	571,000	572,700	598,000	581,500	26,500 at 1d.
Amesbury Advertiser	31,000	45,000	33,000	53,000	38,500	1,000 at 1d.
Amesbury Advertiser	174,000	168,500	170,000	190,000	207,000	35,000
Amesbury Advertiser	271,750	293,000	325,000	327,500	333,500	114,500 at 1d.
Amesbury Advertiser	135,000	132,000	125,000	124,125	107,000	82,500
Amesbury Advertiser	120,000	110,000	110,000	111,000	110,000	32,000
Amesbury Advertiser	214,000	214,000	214,000	214,000	214,000	214,000
Amesbury Advertiser	27,000	27,000	25,500	18,500	20,000	20,000
Amesbury Advertiser	82,000	77,000	100,500	100,500	104,000	16,000
Amesbury Advertiser	28,100	27,500	29,000	27,500	28,500	2,000



NEWSPAPERS

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Number of Stamps issued to Newspapers—continued.

SCOTLAND—continued.

	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Edinburgh Christian Treasury	2,418	1,650	3,300	7,450	11,000	..
Edinburgh Scottish Express	..	..	132,000	111,145	110,000	..
Edinburgh United Presbyterian	..	600	2,100	2,150	2,785	..
Edinburgh United Presbyterian	..	10,000	23,500	21,760	19,300	..
Edinburgh Weekly Magazine	15,000	12,000	9,600	4,000	9,000	..
Edinburgh Chambers Journal	..	..	..	..	140,000	..
Edinburgh North British Agricultural	..	..	..	..	70,300	151,419
Edinburgh North British Agricultural	28,000	25,000	30,000	26,000	30,000	25,500
Edinburgh North British Agricultural	17,000	23,000	16,500	18,500	15,500	10,463
Edinburgh North British Agricultural	48,000	38,500	54,000	56,500	57,500	15,000
Edinburgh North British Agricultural	21,500	38,000	30,000	27,000	28,500	20,000
Edinburgh North British Agricultural	2,000	4,800	13,700	9,765	11,000	10,000
Edinburgh North British Agricultural	5,000	3,800	5,000	4,998	5,750	4,500
Edinburgh North British Agricultural	6,000	7,700	8,000	6,700	15,600	0,000
Edinburgh North British Agricultural	140,000	435,000	550,000	100,000	100,000	22,000
Edinburgh North British Agricultural	79,350	76,300	68,000	78,000	78,000	..
Edinburgh North British Agricultural	397,350	390,000	390,000	390,000	390,000	..
Edinburgh North British Agricultural	248,000	271,000	271,000	409,000	429,000	9,000
Edinburgh North British Agricultural	110,000	115,000	107,000	110,000	110,000	..
Edinburgh North British Agricultural	80,000	90,000	79,850	62,500	75,000	..
Edinburgh North British Agricultural	131,000	160,000	129,000	121,000	122,000	..
Edinburgh North British Agricultural	22,410	79,449	75,600	79,024	81,000	21,000
Edinburgh North British Agricultural	29,000	29,000	29,000	19,000	19,000	15,000
Edinburgh North British Agricultural	129,500	112,600	130,000	132,000	150,000	..
Edinburgh North British Agricultural	39,000	56,000	26,000	19,500	17,500	..
Edinburgh North British Agricultural	..	..	2,950	7,460	17,700	..
Edinburgh North British Agricultural	116,000	126,000	121,000	115,000	78,000	..
Edinburgh North British Agricultural	28,000	68,000	60,000	62,500	65,400	17,000
Edinburgh North British Agricultural	80,000	24,000	23,175	18,170	22,000	12,150
Edinburgh North British Agricultural	88,000	92,525	94,000	96,000	90,000	122,500
Edinburgh North British Agricultural	18,500	17,000	11,000	48,000	60,000	30,000
Edinburgh North British Agricultural	45,000	45,000	45,000	41,000	21,000	21,000
Edinburgh North British Agricultural	27,250	22,000	26,000	27,900	28,000	25,900
Edinburgh North British Agricultural	80,700	11,000	17,500	1,460	3,650	7,500
Edinburgh North British Agricultural	67,400	78,000	67,000	71,000	65,500	10,000
Edinburgh North British Agricultural	16,000	19,000	36,000	44,500	59,000	39,000
Edinburgh North British Agricultural	8,000	8,000	8,000	8,000	8,000	..
Edinburgh North British Agricultural	4,900	3,622	3,908	2,138	4,472	9,000
Edinburgh North British Agricultural	21,000	15,000	18,775	15,000	65,000	11,795
Edinburgh North British Agricultural	52,000	65,000	65,000	65,000	65,000	50,000
Edinburgh North British Agricultural	24,000	25,000	17,000	17,000	16,000	..
Edinburgh North British Agricultural	49,000	28,500	36,500	..	7,000	..
Edinburgh North British Agricultural	36,800	37,000	30,000	31,050	28,000	15,000
Edinburgh North British Agricultural	30,000	30,000	30,000	32,500	32,500	8,500
Edinburgh North British Agricultural	10,000	11,500	8,450	8,500	7,750	3,000
Edinburgh North British Agricultural	28,000	35,000	35,000	35,000	35,000	..
Edinburgh North British Agricultural	37,000	41,800	45,500	41,000	36,150	22,500

IRELAND

	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Dublin News Letter	790,000	768,000	796,000	705,000	756,000	144,000
Dublin News Letter	416,500	426,000	421,000	475,000	418,000	814,000
Dublin News Letter	395,000	406,000	414,000	346,000	315,000	368,000
Dublin News Letter	260,000	234,500	210,000	184,500	162,000	122,500
Dublin News Letter	81,000	66,000	71,000	72,000	54,000	90,000
Dublin News Letter	6,000	16,500	14,000	16,000	30,000	24,000
Dublin News Letter	210,000	237,000	235,500	168,000	180,000	265,000
Dublin News Letter	116,500	104,000	109,500	118,000	118,000	35,000
Dublin News Letter	481,750	495,500	474,500	380,500	530,000	661,500
Dublin News Letter	26,500	22,000	26,792	24,750	24,562	57,500
Dublin News Letter	20,000	10,000	15,000	12,500	12,500	5,000
Dublin News Letter	15,000	11,000	13,500	12,000	12,000	..
Dublin News Letter	30,913	39,893	60,700	37,550	31,400	..
Dublin News Letter	299,500	267,000	153,000	135,500	104,000	34,950
Dublin News Letter	..	..	..	..	61,000	..
Dublin News Letter	..	..	..	..	61,000	..
Dublin News Letter	..	..	..	..	162,500	..
Dublin News Letter	..	..	..	16,950	60,400	841
Dublin News Letter	..	..	..	..	7,600	..
Dublin News Letter	..	..	..	..	6,000	..
Dublin News Letter	..	..	..	..	6,000	..
Dublin News Letter	127,500	125,000	91,775	60,425	96,625	..
Dublin News Letter	70,000	66,000	70,000	75,500	72,500	102,500
Dublin News Letter	231,000	242,000	272,500	282,500	285,000	37,500
Dublin News Letter	46,000	51,000	40,000	18,000	21,500	..
Dublin News Letter	100,000	86,500	92,000	90,000	123,000	16,000
Dublin News Letter	5,500	5,000	5,000	5,000	8,500	..
Dublin News Letter	22,000	17,500	17,500	20,000	19,000	10,000
Dublin News Letter	25,227	29,500	32,500	32,500	34,750	10,500
Dublin News Letter	31,500	22,500	47,300	36,500	34,000	14,000
Dublin News Letter	..	..	..	..	29,500	..
Dublin News Letter	7,500	7,750	6,700	5,500	9,800	..
Dublin News Letter	204,000	228,000	217,225	201,000	10,000	52,500
Dublin News Letter	172,000	145,000	167,000	141,500	164,000	39,000
Dublin News Letter	167,000	199,500	210,025	103,000	161,500	102,500
Dublin News Letter	39,000	33,000	32,500	30,000	42,000	12,500
Dublin News Letter	17,000	17,500	15,000	17,500	15,000	12,500
Dublin News Letter	15,500	16,500	17,500	18,000	19,000	8,000
Dublin News Letter	34,500	25,000	30,000	30,000	20,000	10,000
Dublin News Letter	12,500	17,500	12,500	5,000	7,500	3,000
Dublin News Letter	41,500	31,500	30,000	29,000	25,000	22,500

Number of Stamps issued to Newspapers—continued.

Irish Newspapers	Newspaper Stamps				
	1816	1847	1818	1850	1867
Dundalk Democrat	..	..	..	5,500	..
Ferriemagh Impartial Reporter	32,500	39,500	27,500	25,000	15,000
Galway Vindicator	35,000	32,500	27,000	32,500	31,000
Galway Mercury	15,000	15,725	13,725	11,725	12,500
Kesh's Evening Post	22,000	19,500	17,500	17,500	17,500
King's County Chronicle	20,000	15,375	20,000	17,500	22,500
Kilkenny Journal	25,500	24,500	25,500	17,500	19,000
Kilkenny Standard	27,500	23,500	27,500	25,000	17,500
Lurgan Chronicle	..	..	..	..	20,000
Limerick Express	30,000	33,000	31,725	27,500	..
Limerick Chronicle	190,000	305,000	250,000	105,500	50,000
Limerick Reporter	50,000	40,000	39,500	29,000	107,500
Limerick Examiner	115,000	55,500	65,000	60,500	39,500
Londonderry Journal	28,000	26,500	28,500	30,000	60,000
Londonderry Sentinel	65,000	66,000	49,125	59,675	60,000
Londonderry Standard	51,250	90,000	105,500	109,000	49,000
Longford Journal	9,000	9,000	12,000	9,000	22,500
Meath Herald	12,500	5,800	2,750	5,400	6,500
Mayo Constitution	15,000	11,500	11,000	10,500	9,000
Mayo Telegraph	28,500	15,000	15,000	15,000	22,500
Monagh Guardian	24,750	22,500	20,000	20,000	9,000
Monagh Chronicle	..	..	..	..	22,500
Newry Telegraph	150,500	107,500	129,000	107,500	18,000
Newry Examiner	30,000	31,500	32,000	30,250	110,000
Northern Standard	17,500	17,500	17,500	17,500	7,500
Roscommon Gazette	16,500	16,525	9,250	6,000	5,000
Roscommon Messenger	..	..	..	10,000	5,250
Rollins of Ulster	..	..	..	..	7,500
Sligo Chronicle	..	..	..	..	16,000
Sligo Champion	10,000	12,500	7,500	7,500	17,500
Tipperary Free Press	22,000	25,000	24,000	24,000	9,000
Tipperary Vindicator	66,000	63,000	63,000	60,000	2,000
Tulla Herald	12,750	12,000	15,000	15,500	3,000
Tyrone Herald	11,250	10,750	12,750	10,000	10,000
Tyrone Constitutional	32,000	8,000	10,000	20,000	30,000
Trillick Chronicle	12,250	12,500	12,000	12,000	4,750
Ulster Gazette	31,500	22,500	18,000	15,000	20,000
Westmeath Guardian	14,500	15,525	15,000	12,000	10,000
Western Star	15,000	15,000	15,000	10,500	19,000
Waterford Chronicle and Weekly Star	18,750	30,250	27,000	5,000	10,000
Waterford Mail	25,000	25,000	25,000	20,000	..
Waterford News	9,100	9,000	14,572	3,400	17,000
Wexford Independent	46,000	57,500	69,000	47,000	46,500
Wexford Guardian	..	5,000	12,500	17,500	22,000

American Newspapers.—The increase of newspapers in the United States has been a good deal more rapid than in England; a consequence, partly, no doubt, of the greater increase of population in the Union, but more, probably, of their freedom from taxation, and of the violence of party contests.

The whole number of newspapers and periodical publications in the United States on June 1, 1850, amounted, according to the official returns, to about 2,800. Of these 2,494 were fully reported upon, while the particulars with respect to the others were in part estimated.

From these returns &c. it appears that the aggregate circulation of papers and other publications was about 5,000,000; and that the entire number of copies printed annually in the United States, amounted to about 422,600,000. The following table shows the number of daily, weekly, monthly, and other issues, with the aggregate circulation of each class:—

	No.	Circulation	No. of Copies printed annually
Daily Journals	350	750,000	235,000,000
Tri-weekly	159	75,000	11,700,000
Semi-weekly	125	30,000	8,320,000
Weekly	2,000	2,575,000	149,500,000
Semi-monthly	50	300,000	7,300,000
Monthly	100	900,000	10,800,000
Quarterly	25	20,000	80,000
Total	2,800	5,000,000	422,600,000

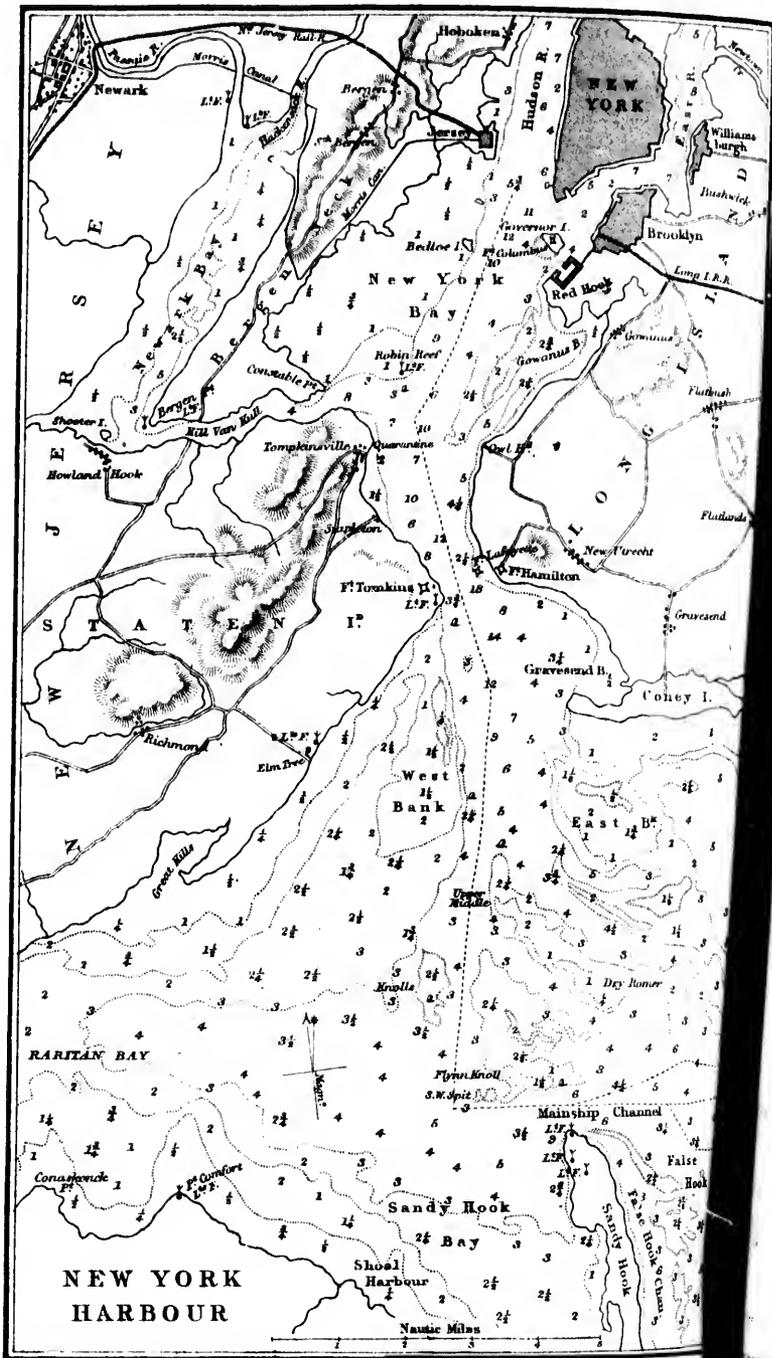
No official statement of the number of journals in 1860 has yet been published, but there is reason to believe that the total did not much exceed that of 1850. Had the circulation increased *pari passu* with the population, we should, taking the rate of 21·81 copies to each person (the average of 1850), and taking the population of 1868 at 37,000,000, have an aggregate number of copies annually printed in the United States of nearly 807,000,000.

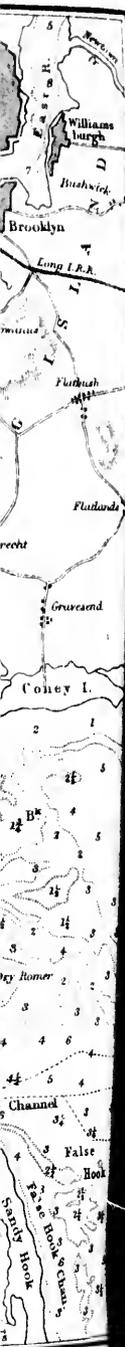
We are not, however, to estimate the influence of newspaper literature by its quantity only, but must have regard also to its quality. The latter is, indeed, the principal thing to be attended to, and in whatever degree the Americans exceed us in the number, they certainly are below us in the quality, of their newspapers. Speaking generally, we do not hesitate to say that the newspaper press is discreditable to the Union. The journals indulge, with comparatively few exceptions, in offensive personalities, and, in examining the principles of the news brought forward, they assail the character and misrepresent the motives of those by whom they are introduced. It is impossible, we believe, to name an individual who has attained to any office in the United States, or to considered Congress, who has not been libelled, traduced, and calumniated by a large portion of the press. In a degree that can hardly be imagined, the magnitude of the evil will, probably, lead to its correction. No people, with any pretensions to instruction and morality, can patronise a press whose principal features are misrepresentation, exaggeration, and abuse.

NEW YORK. The capital of the State that name, the commercial metropolis of the United States, and one of the greatest of modern times, on the southern extremity of Manhattan Island, at the point of confluence of the Hudson River, which separates New Jersey from New Jersey, with East River, which separates it from Long Island, lat. 40° 42' N., long. 74° 00' W. New York bay, or inner harbour, is one of the finest and most capacious in the world, and is completely land-locked, and affords the most secure anchorage. The entrance to the bay is the Narrows, is extremely beautiful. On the eastern shore, though wooded down to the water's edge, is thickly studded with farms, vineyards, and orchards.

1850	1867
22,500	..
22,500	15,000
31,000	37,500
12,500	..
17,500	..
17,500	24,500
20,000	10,000
25,000	12,500
11,875	20,000
..	..
31,000	30,000
165,000	107,200
27,000	29,500
60,000	..
25,000	17,500
63,000	40,000
97,000	37,500
9,000	6,000
15,000	300
10,500	23,500
15,000	9,000
20,000	22,500
18,000	..
110,000	30,000
27,000	7,300
15,000	5,000
5,525	5,000
9,525	7,500
45,000	..
16,000	17,500
7,500	5,000
24,000	2,000
17,000	2,100
12,500	11,000
10,000	10,000
18,000	4,700
16,250	30,000
11,500	10,000
18,000	10,000
12,500	7,500
10,000	..
30,250	..
10,000	17,500
46,500	22,000
18,975	..

to estimate the influence of its quantity only, by its quantity only, to its quality. The thing to be attended to is the Americans, for, they certainly are not the quality, of their newspapers do not hesitate to publish what is discreditable to the press, with comparative impunity. In the principles of the press, the assault on the character of those by whom it is published, is impossible, we believe, to have attained to any extent, or to consider it as having been libelled, traduced, or a portion of the press to be imagined. The newspapers probably, lead to the pretensions to instruct a press whose representation, exaggeration, the capita of the commercial metropolis, one of the greatest of the southern extreme, at the point of contact which separates the East River, which is situated at 40° 42' N., long 74° 10' W., a fine inner harbour, is one of the most beautiful in the world, and affords a fine view of the bay, the water is very beautiful. On the banks, wooded down to the water, and dotted with farms, etc.







At the upper end are seen the bold banks of the Hudson. From New York the bar between Sandy Hook Point and the Island (the division between the outer harbour and the Atlantic) is about 17 miles. Fortifications have been erected at the Governor's Island, and other places, for the defence of the city and shipping. The following plan represents the city and bay of New York, and the surrounding country.

The Hudson river was first explored by the famous English navigator whose name it bears, in the service of the West India Company of Holland. In 1612, New Amsterdam, now New York, was founded by the Dutch, as a station for the fur trade. In 1664, it was taken by the English. The Dutch again possessed it in 1673; but it was restored to the English in the following year, and remained in their occupation till the termination of the Revolutionary war.

New York has increased faster than any other city in the United States. In 1699 it contained 1,000 inhabitants. In 1774, previously to the commencement of the War of Independence, the population amounted to 22,750. During the war it continued stationary; but since the peace there has been quite extraordinary increase. The population amounted to 33,131 in 1789; in 1820, to 123,706; in 1830, to 200,000; in 1840, to 312,710; and in 1850, to 463,193.

This, however, was exclusive of the population of Brooklyn, which, in 1850, amounted to 248,000, and is as much a part of New York as the city proper was in 1860. The population of the city proper was 805,551, and of Brooklyn 266,667. At present (1869) the population of New York and its suburbs is said to be little less than 1,300,000. Originally the houses were of wood, and the streets narrow and crooked. In these particulars, however, great improvement has taken place during the last century, most of the old houses having been pulled down and rebuilt with brick. The principal street, which are broad, and intersect each other at right angles, are well paved and lighted. The principal street, is one of the finest in the world. Many of the buildings are commodious and elegant. The houses that were formerly abundant in the vicinity, have been completely filled up, and the city has done much to improve the health of the population. In respect of water, however, New York, though much improved, is still rather deficient. Formerly the water was so scarce in the whole city; the night-soil was collected in pits, of which there was a great number, and being conveyed to the water, were thrown into the water; and the streets were paved with timber, with many projections, and the filth was retained about them, so that in hot weather, an abominable stench, and a great amendment has been effected by the deficiency of water, under which the city has long suffered. The construction of the Croton aqueduct, 25 miles in length, a work worthy of the name, is carried over the Haarlem and the Manhattan Island from the city to the aqueduct, a bridge of stone of 14 arches, and 1,000 feet in length. The yellow fever, by which the city has sometimes been visited, uniformly attacks the lower and dirtiest part of the

city; and seldom, indeed, extends to the new town; and seldom, indeed, extends to the new and more elevated streets. It is now much less prevalent than formerly; and the general opinion seems to be, that were stone substituted for timber in the quays, sewers generally constructed, and proper regulations enforced as to cleanliness, the scourge would entirely disappear.

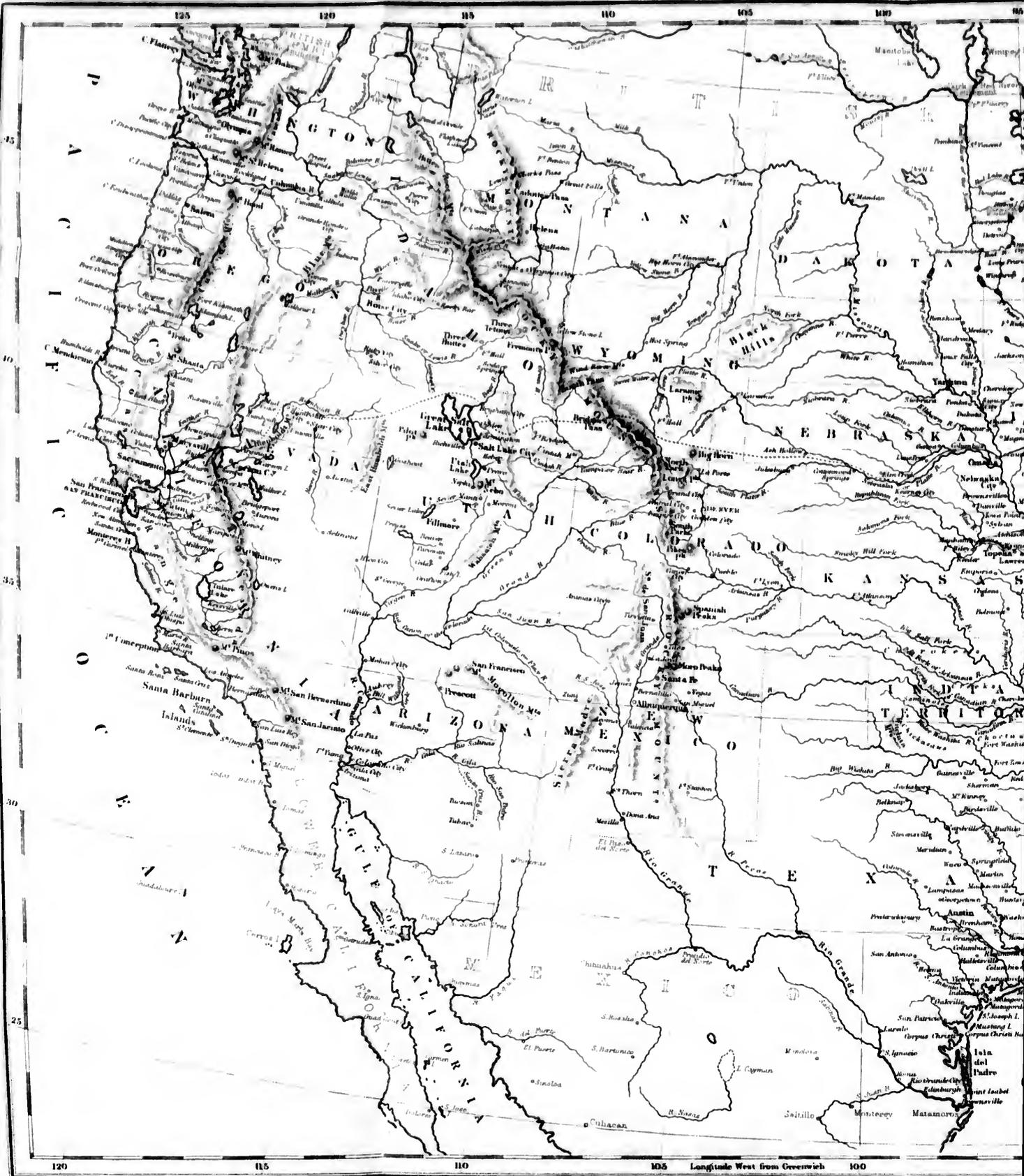
New York is indebted, for her wonderful increase, to her admirable situation, which has rendered her the greatest emporium of the New World. The rise of the tide is about 6 feet; and even at ebb, there is 21 feet water on the bar; and the water in the outer and inner bays, and in the river, is so deep, that ships of the largest burden lie close to the quays, and may proceed to a great distance up the river. The navigation of the bay is rarely impeded by ice. The great strength of the tide, and the vicinity of the ocean, and the Delaware bays are frozen over. The influence of the tides is felt in the Hudson as far as Troy, 160 miles above New York, affording peculiar facilities for its navigation. These natural advantages have been vastly extended by a system of canals, which has connected the Hudson not merely with Lake Ontario and Lake Erie, but with the Ohio river, and consequently with the Mississippi and the Gulf of Mexico. So prodigious a command of internal navigation is not enjoyed by any other city, with the exception of New Orleans; but the readier access to the port and her situation in the most industrious part of the Union, where slavery is abolished, give her most probable, will secure her continued preponderance.

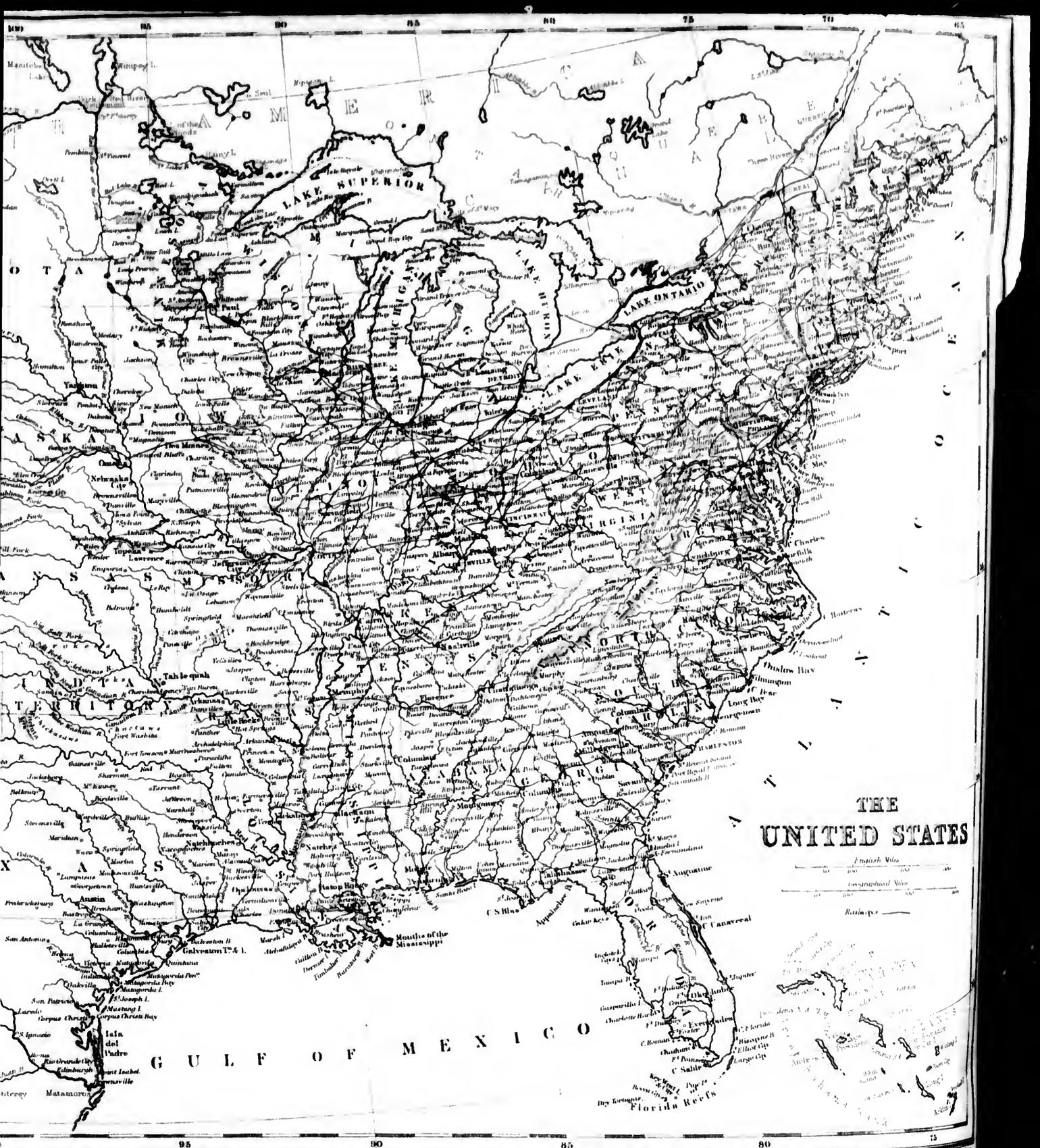
**Entrance to Harbour, Lighthouses &c.**—The course in entering the harbour of New York is nearly due west from the outermost white buoy on the bar, till the buoy on the south-west point of the east bank be passed, and then nearly due north. The navigation is extremely easy. Pilots generally board vessels without the bar; for, otherwise, they are only entitled to half fees. Were it not for fear of vitiating insurances, their services would seldom be required. (*States of Pilotage, post.*)

The lights and lighthouses in New York Bay are as follow: first, the Sandy Hook light vessel, 6 miles from Sandy Hook, having a fog bell and horn, lat.  $40^{\circ} 27' 39''$  N., long.  $73^{\circ} 52'$  W. Then south of Sandy Hook are the 2 Navesink lighthouses, standing 76 yards apart, each 258 feet above high water, and visible, in clear weather, for 25 miles. Next, on Sandy Hook, at the south point of the entrance to New York Bay, lat.  $40^{\circ} 27' 39''$  N., long.  $73^{\circ} 59' 49''$  W., is a white tower, exhibiting, at 90 feet above the sea, a fixed white light, visible 15 miles. Here is also a fog bell, which strikes seven times a minute. On Sandy Hook, northward of the lighthouse, are 2 white beacons, exhibiting fixed white lights, each 35 feet above the sea, and visible for 10 miles. There are 2 more beacon lights; one near the beach, and one on Chapel Hill, in the main channel; another,  $\frac{3}{4}$  mile south-eastward of Point Comfort; near Elm Tree Station on Staten Island, and another at New Dorp,  $\frac{1}{2}$  mile N.W. of it; another on Staten Island; another, which flashes every two minutes, near the south-east end of Staten Island; another on Staten Island, west side of the Narrows; and lastly, one on Robbin's reef. Here is also a fog bell.

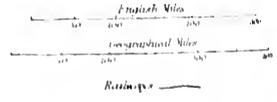
**Trade &c.**—The commerce of New York is of vast extent. The value of the merchandise







# THE UNITED STATES



GULF OF MEXICO

annually loaded and unloaded in the port is estimated at from 450 to 500 millions of dollars; and in the busy season the number of vessels in it varies from 1,000 to 1,500, exclusive of about 250 steamers. The number of arrivals from foreign ports amounted, in 1858, to 8,957, and the coasting arrivals exceed 8,000. The total value of the imports into the United States in the year ending June 30, 1858, amounted to 282,613,150 dols. of which no less than 178,476,736 dols. were imported into New York. The total imports for 1866 amounted to the large sum of 306,000,000 dols., at the gold value. If the freight and duty be added to this, and the whole be then converted into United States paper currency, the total will fall very little short of 600,000,000 dols. This amount of imports is without precedent in the history of any port. The imports comprise an infinite variety of articles. The principal are cottons, woolens, linens, iron, hardware and cutlery, earthenware, brass, and copper manufactures, salt &c. from Great Britain;

silk, wine, brandy &c. from France and Spain; sugar and coffee from the Havannah and Brazil; tea from China; with spices, indigo, cochineal, dye woods &c. The value of the exports from the State of New York, and mostly from this city, in the year ending June 30, 1858, amounted to 108,310,924 dols., being one-third of the total exports from New York was 192,329,554 dols. The exports principally consist of wheat and wheat flour, corn, rice and cotton; bullion; beef, pork, butter, dried fish, and all sorts of provisions; furs, tobacco, lard, petroleum, coarse cottons, and other manufactured goods, lumber &c. The great excess of imports into New York over the exports is accounted for by the fact, that while by far the larger portion of the articles of export from the Western states are sent down the Mississippi, to be shipped at New Orleans, the greater part of the more valuable articles brought from abroad, and destined for the consumption of the same states, is imported into New York.

Statement Classifying the Imports at New York from 1863 to 1867.

	1863		1864		1865		1866		1867	
	dollars									
Dry goods	67,221,547	71,589,752	91,665,158	126,726,855	126,726,855	126,726,855	126,726,855	126,726,855	126,726,855	126,726,855
General merchandise	118,811,219	114,270,386	130,561,680	130,561,680	130,561,680	130,561,680	130,561,680	130,561,680	130,561,680	130,561,680
Specie	1,265,811	2,265,811	2,265,811	2,265,811	2,265,811	2,265,811	2,265,811	2,265,811	2,265,811	2,265,811
<b>Total</b>	<b>187,348,577</b>	<b>188,125,949</b>	<b>224,487,649</b>	<b>260,554,346</b>						

The total value of the exports from New York to foreign ports (ex specie) in 1867 was 186,790,025 dollars.

The shipping of New York is far greater than that of any other port, London not excepted. The total tonnage belonging to the port on September 30, 1838, amounted to 400,971 tons; and on June 30, 1844, it had increased to 2,328,884 tons, being about 1/4 of the entire tonnage of the United States, and incomparably the greatest amount of shipping that has ever belonged to any single port. Subjoined are some statements respecting the navigation &c. of New York, in some recent years:—

Return showing the Value in Dollars of Imports and Exports from New York in American and Foreign Vessels respectively for 5 Years, to 1866 inclusive.

Year	Imports		Exports	
	American Vessels	Foreign Vessels	American Vessels	Foreign Vessels
1862	69,199,101	115,615,659	79,130,179	120,235,873
1863	38,115,376	115,902,981	43,387,878	171,869,325
1864	51,777,569	177,591,822	42,239,046	227,099,561
1865	55,850,088	215,690,884	53,398,524	159,895,470
1866	55,985,903	247,469,613	58,965,253	190,089,001

N.B.—The Customs returns do not show the value of imports and exports in the vessels of the respective foreign nations.

The imports are valued in gold dollars, the exports in currency dollars, from which should be deducted the average premium of the year on gold, in order to reduce them to their equivalent in gold dollars.

Table exhibiting the Values of Exports from New York to Foreign Ports, exclusive of Specie, from 1864 to 1867.

Quarter	1864	1865	1866	1867
First	41,429,756	46,710,118	60,972,531	49,376,379
Second	48,436,686	24,216,567	46,766,386	46,270,261
Third	79,519,131	40,221,493	38,381,202	38,928,665
Fourth	23,146,966	67,178,721	46,309,153	52,211,922
<b>Total</b>	<b>192,532,539</b>	<b>178,326,899</b>	<b>192,329,272</b>	<b>186,790,025</b>

In 1868 the total exports of specie from New

York to foreign ports was 70,793,594 dollars worth. These exports are mostly at their counted or true value, but shipments of merchandise are reckoned their market price in depreciated paper currency.

Comparative Statement of the Increase of British Trade and Shipping at the Port of New York for 5 Years, from 1862 to 1866 inclusive.

Year	Entered			Cleared	
	Number of Vessels	Tonnage	Crews	Number of Vessels	Tonnage
1862	1,962	636,712	27,572	1,018	647,013
1863	1,560	851,806	34,761	2,554	1,914,049
1864	2,111	950,151	38,410	3,291	1,938,998
1865	2,713	1,012,998	42,514	2,690	1,941,666
1866	2,426	1,205,511	43,751	2,461	1,205,605

In 1867, 4,676 foreign vessels, 2,653 British, including 350 steamers, entered the port of New York; and in 1868, 4,861 arrived, of which 2,032 were British.

The Receipts for Cash Duties at the port of New York for 1857, were 10,000,000 dollars less than for the previous year, owing to the change in tariff, and the great falling off in the quantity of goods thrown upon the market—for, while the total value of foreign goods imported in (exclusive of specie) was about 218,000,000, value of those that were sold was only a 185,000,000 dollars. In 1858, the sales exceed the imports; but as these were comparatively small, the duties were about 9,000,000 dollars less than in 1857. In 1863 the Customs receipts were 58,886,054, and in 1867 about 114,000,000 dollars. In 1866 and 1867 the customs receipts not increase in the same proportion as the imports, for the duties collected applied only to the goods thrown on the market, and not those which remained in the Government warehouse: were transferred to the interior in house.

Coastwise Arrivals and Clearances.—Inasmuch as vessels engaged in this trade are not obliged to record their entry or clearance, except they carry foreign goods or spirits on board, the entries and clearances afford no test, and are not from indicating the actual amount of the trade. But as the coasting vessels which leave

Yield have board than official clear the entries amounted to ing trade of in their v inc. Keith from the C Commissione gregeate busin ing June 30, clusive of apothecaries, cines and tow

Dem. Philadelphia New Orleans Chicago New York Cincinnati St. Louis San Francisco Los Angeles Baltimore

The sales by clerks, plumbers, garmaned, wen

The aggregate exclusive of sale amounted to the

Immigrants—O that arrive in the New York; and th by far of all the in The following st immigrants who ar

Regulations as to Ink.—On the arri made made at the duties, implements which are exempt from respecting them; any, may be had passengers make this cents each for a p the officer on board their baggage after it entry and permit is 20 cents demand number of the family. sea, sugar, foreign pay duties; but of quantity, the fee.

In entry is usually of steerage pass 27 pay each 20 cents made by any pers made for payment of t are entry is made at taken, any article i liable to pay dut

York have much more frequently foreign goods on board than those by which it is entered, the official clearances are much more numerous than the entries. Altogether the arrivals coastwise amounted to upwards of 8,900 in 1867. The coasting trade of New York is, in fact, immense.

In their very useful publication, Messrs. Belding, Keith and Co., of 80 Lombard Street, give, from the Congressional Report of the Special Commissioner of Revenue, the value of the aggregate business of New York, in the year ending June 30, 1867, as 3,313,618,000 dollars, exclusive of sales by cattle-brokers, butchers, apothecaries, plumbers &c.; and of other large cities and towns of the Union, as follows:—

dollars	Providence	-	91,376,000		
Philadelphia	-	81,350,000	Buffalo	-	80,939,000
New Haven	-	77,583,000	Pittsburg	-	69,478,000
Chicago	-	67,727,000	Mobile	-	55,302,000
Baltimore	-	46,769,000	Brockton	-	36,125,000
Camden	-	33,000,000	Detroit	-	33,000,000
St. Louis	-	33,000,000	Cleveland	-	33,000,000
San Francisco	-	33,000,000	Charleston	-	33,000,000
San Pedro	-	33,000,000	Newark	-	33,000,000
San Diego	-	33,000,000			
Albany	-	33,000,000			
Albany	-	33,000,000			

The sales by cattle-brokers, apothecaries, butchers, plumbers &c., in the whole country, in the year named, were as follow:—

dollars	
By Cattle-brokers	- - - 336,894,150
Butchers	- - - 196,341,750
Apothecaries	- - - 69,309,275
Confessioners	- - - 11,334,537
Plumbers, Gas-fitters &c.	- - - 16,273,618
	630,755,160

The aggregate business in the United States, exclusive of sales of gold, stock, securities &c., amounted to the large sum of 12,486,546,975 doits.

Immigrants.—Of the vast number of immigrants that arrive in the United States, fully  $\frac{3}{4}$  land at New York; and they constitute the most valuable by far of all the imports into that city.

The following statement shows the number of immigrants who arrived in different years:—

Year	Immigrants	Year	Immigrants
1810	55,503	1848	191,909
1811	60,511	1849	220,603
1812	57,215	1850	212,796
1813	35,981	1851	229,041
1814	48,152	1852	229,504
1815	62,727	1853	224,915
1816	37,237	1854	119,225
1817	74,919	1855	156,235
1818	46,302	1856	141,672
1819	61,022	1857	185,126
1820	82,969	1858	200,031
1821	115,250	1859	236,611
1822	166,110	1860	212,089

**Regulations as to Passengers arriving at New York.**

On the arrival of passengers, an entry must be made at the Custom-house, of their names, ages, professions, trades, implements of trade or profession (all of which are exempt from duty), and an oath taken respecting them; the form of which, and the entry, may be had at the office gratis. Cabin passengers make this entry themselves, and pay 20 cents each for a permit; on exhibiting which to the officer on board, they are allowed to remove their baggage after it has been inspected. Only one entry and permit is necessary for a family, and 20 cents demanded, whatever may be the number of the family. Remains of sea stores, such as sugar, foreign spirits and wines, are liable to duty; but unless these are of great quantity, they are generally allowed to pass free.

An entry is usually made by the master of the vessel of steerage passengers and their baggage; he pays each 20 cents for a permit. When entry is made by any person not the owner, he gives a receipt for payment of the duties, if any; and if an entry is made at the Custom-house, and the baggage taken, any article is found belonging to a passenger, liable to pay duty, not specified in the entry,

it is forfeited, and the person in whose baggage the article is found subjected in treble the value.

Besides making entry at the Custom-house, it is provided by a law of the State, that every master of a vessel arriving from a foreign country, or from any other port of the United States, 'shall within 24 hours after entering his vessel at the Custom-house, make a report in writing, on oath to the mayor, and in case of his sickness or absence, to the recorder of the said city, of the name, age, and occupation of every person who shall have been brought as passenger in such ship or vessel on her last voyage, upon pain of forfeiting, for every neglect or omission to make such report, the sum of 75 dollars for every alien, and the sum of 50 dollars for every other person neglected to be so reported as aforesaid.'

The stamp duty or tax on passage tickets is, not exceeding 35 dollars, 50 cents, exceeding 35 and under 50 dollars, 1 dollar, and for every additional dollar or fraction of a dollar, 1 cent.

Masters of ships bringing passengers to New York must also pay a dollar on account of each passenger to the corporation, as commutation money, or give bond that none of them shall become chargeable on the city poor rates for the space of two years. They almost uniformly prefer paying the commutation.

**Lines of Packets.**—The establishment of regular lines of packets from New York to the principal foreign and domestic ports produced a new era in the commerce of the city, and has redounded equally to the benefit of the enterprising individuals by whom they were projected, and the public. They consist chiefly of steam ships, and belong sometimes to the merchants of New York and sometimes to those of the ports with which she is connected. Her principal intercourse is carried on with Liverpool; but, as the reader will find ample information with respect to it in the article on Liverpool in this work (ante, DOCKS, LIVERPOOL), its repetition here would be worse than useless. New York is also connected by lines of packet ships with London, Southampton, Havre, Hamburg, Bremen, Marseilles, and other European ports; with Rio de Janeiro and Bahia in South America; and with Boston, Philadelphia, New Orleans, and all the principal ports of the United States. And in addition to the regular traders, the ships of New York, which are mostly admirably built and fitted out, are to be found in every port and on every sea—wherever, in fact, it is possible for skill and enterprise to obtain a footing. In this respect, at all events, the Americans have not degenerated. They continue to manifest, in a great degree, all the perseverance, sagacity, and hardihood, in mercantile and naval matters, which have so long and so honourably distinguished their ancestors.

**The Banks of New York** (300 in 1863) were almost all organised on the security system; that is, they were obliged to deposit security in the hands of a Government officer, proportioned to the amount of the notes they were empowered to issue. At first sight this plan appears to be well-fitted to prevent over-issue and abuse: but such is not really the case, and nowhere in the Union has the abuse of banking been carried to a greater extent or been more injurious than in this city. Some salutary regulations as to the inspection and audit of the books of these banks have lately been introduced under a new system. This, however, is a subject that has been fully discussed in its proper place in this work. (See Banks in the United States, art. BANKING.)

**SALES BY AUCTION.**—The practice of selling goods, particularly those imported from abroad,

1867
dollars
85,265,415
10,348,845
5,206,559
20,015,471

94 dollars' worth counted or re-acknowledged paper currency.

increase of Bit part of New York 1866 inclusive.

Cleared	
Number	Tonnage
1018	647,015 57.7
554	1,014,019 37.6
594	1,028,906 43.2
600	1,211,006 41.1
1,161	1,223,603 40.6

ssels, 2,053 he entered the 61 arrived, of wh

s at the port of 0 dollars less t the change in in the quantity ket—for, while imported in 218,000,000, id was only a, the sales exce were comparat t 2,000,000 do he Customs rec about 114,000 customs receipt portion as the ted applied on market, and a Government the interior in surances.—Ins are not oblig ce, except the board, the o to test of, and amount of the which leave







NEW YORK

2 dollars. Endorsement of registry or... 1 dollar. Every bond required by this... 25 cents; every bond for a Mediterranean... 40 cents; every seaman's protection, 25...

Payable at the several Custom-houses.

Table listing various duties and charges payable at custom houses, including items like 'Amounting any vessel in order to the registering, enrolment, or recording the same, of 5 tons and up...', 'Duty on rice, including the bond, not exceeding 20 tons...', 'Duty on sugar, per hundred...', etc.

Table titled 'Expense of loading a vessel of 300 tons, with the usual cargo exported from thence'. It lists items like 'Duty of discharging', 'For discharging', 'Coal, per chaldron', 'Tobacco, per hind', 'Cotton, per bale', 'Flax-seed, do.', with corresponding values in dollars and cents.

Rates of Cartage, issued 1864.

Table listing cartage rates for various goods, including 'All gaugeable goods in packages of 25 gallons, or less, per load of 50 packages', 'All gaugeable goods in packages of over 25 gallons, not more than 50 gallons, per load of 3 packages', etc.

The foregoing rates are to be paid for all distances not exceeding one half of a mile, and one third of these rates shall be added.

Rates of Commission, revised in 1857, and recommended by the Chamber of Commerce, to be charged where no express agreement to the contrary exists.

Table listing various commissions and banking charges, including 'On purchase of stocks, bonds, and all kinds of securities, including the drawing of bills for payment of same', 'On sale of stocks, bonds, and all kinds of securities, including returns on sale of specie and bullion', etc.

On sales of sugar, coffee, tea, and general merchandise, usually in large quantities and on credit under 6 months on long credits, for 6 months and guaranty...

Table listing various business and shipping charges, including 'On purchase of stocks, bonds, and all kinds of securities, including the drawing of bills for payment of same', 'On sale of stocks, bonds, and all kinds of securities, including returns on sale of specie and bullion', etc.

On purchase or sale of vessel... Disbursements and outfit of vessels... Procuring freight and passengers for Europe, East Indies, and domestic ports...

On giving bonds, for vessels under attachment in litigated cases, on amount of liability... The foregoing commissions to be exclusive of brokerage, and every charge actually incurred.

Table with columns 'Value' and 'Dollars, Cents, Mils'. It lists various values and their corresponding monetary amounts.

in their account from... American vessels, or the... ty treaties:—

Table with columns 'Dollars, Cents, Mils'. It lists various monetary values.

y between the United... expired on March... ary 1869) been re... azes payable on ent...

ons on shipping... Internal Revenue... duty, since April... to 80 cents per ton... e on ships of all nat... itish Colonial ports

Table with columns 'Dollars, Cents, Mils'. It lists various monetary values.

money 20 cents... vessels generally... are liable for the

York, Baltimore, of...

ion or head mo... being an al... urveyor.—Adme... every ship or ve... on, 1 cent; adme... el above 100 to... 1 dollar and 50... for all other ser... f 100 tons and o... wares, or merc... ; for like ser... of less than 10... all vessels not... r merchandise... r certificate of reg...

The wharfs are all the property of the... and, and are all wooden.

of Wharfage, 1865.—Vessels up to 200... cent per ton per day; and 4 cent per ton... cesses over 200 tons whilst lying along... half these rates whilst lying outside any...





and the first day of November, exclusive of the time in said subdivision mentioned; all vessels from a foreign port, on board of which during the voyage, or while at the port of departure, any person shall have been sick, or from any place in the ordinary passage from which they pass south of Cape Hatteras, arriving between the thirty-first day of May and the sixteenth day of October; and all vessels from any place (including islands) in Asia, Africa, or the Mediterranean, or from any of the West India, Bahama, Bermuda, or Western Islands, or from any place in America, in the ordinary passage from which they pass south of Georgia, arriving between the first day of April and the first day of November, shall be subject to such quarantine and other regulations as the health officer shall prescribe.

Sec. 3. It shall be the duty of the health officer to board every vessel subject to quarantine or visitation by him immediately on her arrival; to enquire as to the health of all persons on board, and the condition of the vessel and cargo, by inspection of the bill of health, manifest, log book, or otherwise; to examine on oath as many and such persons on board of vessels suspected of coming from a sickly port, or having had sickness on board during the voyage, as he may judge expedient, and to report the facts and his conclusions to the mayor and commissioners of health in writing.

Sec. 4. The health officer shall have power—  
1. To remove from the quarantine anchorage ground any vessel he may think unsafe, to any place south of the quarantine buoys, and inside of Sandy Hook.

2. To cause any vessel under quarantine, when he shall judge it necessary for the purification of the vessel or her cargo, to discharge her cargo at the quarantine grounds, or some other suitable place out of the city.

3. To cause any such vessel, her cargo, bedding, and the clothing of persons on board, to be ventilated, cleansed, and purified in such manner and during such time as he shall direct; and if he shall judge it necessary to prevent infection or contagion, to destroy any portion of such cargo, bedding, or clothing which he may deem incapable of purification.

4. To prohibit and prevent all persons arriving in vessels subject to quarantine, from leaving quarantine until 15 days after the sailing of their vessel from the port of her departure, and 15 days after the last case of pestilential or infectious fever that shall have occurred on board, and 10 days after her arrival at quarantine, unless sooner discharged by him.

5. To permit the cargo of any vessel under quarantine, or any portion thereof, whenever he shall judge the same free from infection and contagion, to be conveyed to the city of New York, or such place as may be designated by the mayor and commissioners of health, after having reported in writing to the mayor and commissioners of health of said city the condition of said cargo, and his intention to grant such permission; such permission, however, to be inoperative without the written approval of the mayor and commissioners of health.

Sec. 5. The health officer, the board of health, or the mayor and commissioners of health may, if in their opinion it will not be dangerous to the public health, permit the cargo of any vessel under quarantine, or any part thereof, to be shipped for exportation by sea, or transportation up the North or East rivers; but if the vessel receiving the same shall approach nearer than three hundred yards to the wharfs of this city, such cargo may

be seized and sold by the commissioners of health for the use of the Marine Hospital.

Sec. 6. Every vessel during her quarantine shall be designated by colours, to be fixed in a conspicuous part of her main shrouds.

Sec. 7. No vessel or boat shall pass through the range of vessels lying at quarantine, or land at the quarantine ground after sunset, without the permission of the health officer.

Sec. 8. No lighters shall be employed to load or unload vessels at quarantine without permission of the health officer, and subject to such restrictions as he shall impose.

Sec. 9. All passengers under quarantine who shall be unable to maintain themselves, shall be provided for by the master of the vessel in which they shall have arrived; and if the master shall omit to provide for them, they shall be maintained on shore at the expense of such vessel, and such vessel shall not be permitted to leave the quarantine until such expense shall have been repaid.

Sec. 10. The health officer, upon the application of the master of any vessel under quarantine, may confine in any suitable place on shore, any person on board of such vessel charged with having committed an offence punishable by the laws of this State, or the United States, and who cannot be secured on board such vessel, and such confinement may continue during the quarantine of such person, or until he shall be proceeded against in due course of law, and the expense thereof shall be charged and collected, as in the last preceding section.

Sec. 11. All vessels and persons remaining under quarantine on the first day of October, shall hereafter be subject to such quarantine and restrictions as vessels and persons arriving on and after that day.

Sec. 12. The board of health, or the board of commissioners of health, whenever in their judgment the public health shall require it, may order any vessel at the wharfs of the city, or in the vicinity, to the quarantine ground, or other place of safety, and may require all persons, articles, or things introduced into the city from such vessel to be seized, returned on board, or removed to the quarantine ground. In case the master, owner, or consignee of the vessel cannot be found, shall refuse or neglect to obey the order removal, the board of health, or the mayor and commissioners of health, shall have power to cause such removal at the expense of such master, owner, or consignee; and such vessel or person shall not return to the city without the written permission of the board of health, or the mayor and commissioners of health.

Sec. 13. If any vessel arriving at the quarantine ground, subject to quarantine, shall be brought to some port east of the city of New York, the health officer, after having duly visited and examined her, may permit her to pass on her voyage through the Sound; but no such vessel shall be brought to anchor off the city, or shall any of the crew or passengers land, or hold any communication with, the city, or any person therefrom.

Sec. 14. No vessel, found on examination by the health officer to be infected with the yellow fever, or to have been so infected after sailing from her port of departure, shall be permitted to approach within 300 yards of the city of New York, between the first day of May and the first day of October in the same year. But the health officer, with the permission of the board of health of the cities of New York and Brooklyn, may permit any vessel arriving at the wharfs of New York to proceed to some wharf east

Year	A
1850	
1851	
1852	
1853	
1854	
1855	
1856	
1857	
1858	
1859	
1860	
1861	
1862	
1863	
1864	
1865	
1866	

by the board of health of either of the cities of New York or Brooklyn, and discharge his cargo; provided satisfactory proof be given to the health officer that the port or ports from which said vessel sailed was free from contagious or infectious disease at the time of her sailing therefrom, and that no sickness of a contagious or infectious type had existed on board the vessel during her entire voyage.

Sec. 15. The master of every vessel released from quarantine, and arriving at the city of New York, shall, within 24 hours after such arrival, deliver the permit of the health officer at the office of the mayor and commissioners of health, or to such person as they shall direct, but such vessel shall not approach within 300 yards of the city of New York, without the written permission of the mayor and commissioners of health.

Sec. 16. Every vessel having had during the voyage a case of small-pox, or infectious or contagious disease, and every vessel from a foreign port having passengers, and not heretofore declared subject to quarantine, shall, on her arrival at the quarantine ground, be subject to visitation by the health officer, but shall not be detained beyond the time requisite for due examination, unless she shall have had on board during the voyage some case of small-pox, or infectious or contagious disease, in which case she shall be subject to such quarantine as the health officer shall prescribe; and it shall be the duty of the health officer, whenever he thinks it is necessary for the preservation of the public health, to cause the persons on board of any vessel to be vaccinated.

Sec. 17. Nothing in this Act contained shall prevent any vessel arriving at the quarantine ground again going to sea before breaking bulk.

Sec. 18. The commissioners of health shall admit into the Marine Hospital any passenger who shall have paid hospital moneys, during any temporary sickness, within one year after such payment. The mayor of the city of New York, the resident physician, and the commissioners of

health of said city, shall constitute a board of appeal from any direction or regulation of the health officer, with power to grant such and so much relief as may appear to the board thus constituted, or a majority of them, expedient and proper; the decision of the board of health, however, to be paramount.

Sec. 19. Every appeal from a decision of the health officer shall be made by serving upon him a written notice of such appeal, within 12 hours after such decision (Sundays excepted), and the health officer shall make a return in writing, including the facts on which the decision is founded, within 12 hours after the receipt of such notice (Sundays excepted), to the mayor, who shall immediately call a meeting of the board of appeal, and shall be president of said board, and said appeal shall be heard and decided within 24 hours thereafter (Sundays excepted), and the execution of the decision appealed from shall be suspended until the determination of the appeal.

Sec. 20. Every master of a vessel subject to quarantine or visitation, arriving in the port of New York, who shall refuse or neglect either—

1. To proceed with and anchor his vessel at the place assigned for quarantine, at the time of his arrival;

2. To submit his vessel, cargo, and passengers to the examination of the health officer, and to furnish all necessary information to enable that officer to determine to what length of quarantine and other regulations they ought respectively to be subject; or,

3. To remain with his vessel at quarantine during the period assigned for her quarantine; and while at quarantine, to comply with the directions and regulations prescribed by law, and with such as any of the officers of health, by virtue of the authority given to them by law, shall prescribe in relation to his vessel, his cargo, himself, or his crew;

Shall be guilty of a misdemeanor, and be punished by a fine not exceeding 2,000 dollars, or by imprisonment not exceeding 12 months, or by both such fine and imprisonment.

Amount of the Value of the Exports and Imports of the United States for the following Years, ending on the 31st of October, and since then on June 30, with a Column showing the Population as ascertained at the different Periods when a Census was taken.

Year	Articles, the Growth, Produce, or Manufactures of the United States	Articles, the Growth, Produce, or Manufactures of Foreign Countries re-exported	Total Value of Exports from the United States	Total Value of Imports into the United States from Foreign Countries	Population of the United States according to the Official Census
1850	dols. 59,462,029	dols. 14,337,179	dols. 73,809,208	dols. 70,876,920	12,758,712
1851	61,272,017	30,035,225	91,307,242	105,191,124	
1852	68,172,470	24,059,473	92,231,943	101,029,606	
1853	70,317,698	19,829,755	90,147,453	103,191,121	
1854	81,094,162	25,712,411	106,806,573	126,327,732	
1855	101,182,082	26,901,195	128,083,277	140,895,712	
1856	106,916,600	21,716,349	128,632,949	189,980,035	
1857	95,561,411	21,854,969	117,416,380	140,989,917	
1858	20,053,821	12,142,795	32,196,616	115,717,404	
1859	103,533,901	17,091,525	120,625,426	169,092,132	
1860	115,893,621	18,190,512	134,084,133	197,111,349	17,062,566
1861	165,872,222	15,669,081	181,541,303	172,098,177	
1862	54,962,996	11,721,553	66,684,549	100,162,087	
1863			Nine months only		
1864	97,715,178	11,481,867	109,197,045	108,153,055	
1865	99,299,776	15,516,830	114,816,606	117,291,561	
1866	102,111,895	15,316,723	117,428,618	121,691,797	
1867	150,631,061	16,728,155	167,359,216	146,345,622	
1868	132,994,121	21,132,215	154,126,336	151,997,928	
1869	135,666,953	13,088,865	148,755,818	147,857,439	
1870	138,946,212	14,611,808	153,558,020	178,138,118	23,265,700
1871	195,689,114	21,698,293	217,387,407	216,221,932	
1872	192,368,981	17,789,584	210,158,565	212,343,812	
1873	413,417,607	17,508,469	430,926,076	407,818,617	
1874	253,590,870	24,830,194	278,421,064	301,562,581	
1875	246,785,355	28,148,293	274,933,648	261,168,520	
1876	310,867,330	16,809,510	327,676,840	314,639,842	
1877	338,985,065	25,975,617	364,960,682	360,890,111	
1878	293,738,279	30,886,142	324,624,421	328,615,130	
1879	333,801,581	29,079,077	362,880,658	378,765,137	
1880	313,189,214	26,953,922	340,143,136	362,163,911	
1881	389,711,591	21,145,427	410,857,018	350,775,835	
1882	418,916,639	16,669,611	435,586,250	399,819,823	
1883	303,830,211	25,959,218	329,789,429	295,187,587	
1884	590,451,199	30,256,940	620,708,139	522,592,995	
1885	506,266,156	26,390,375	532,656,531	431,359,101	
1886	530,681,377	14,742,117	545,423,494	437,640,351	

Sec. 21. Every master of a vessel hailed by a pilot, who shall either—

1. Give false information to such pilot relative to the condition of his vessel, crew, passengers, or cargo, or the health of the place or places whence he came, or refuse to give such information as shall be lawfully required;

2. Or land any person from his vessel, or permit any person except a pilot to come on board his vessel, or unlade or tranship any portion of his cargo, before his vessel shall have been visited and examined by the health officer;

3. Or shall approach with his vessel nearer the city of New York than the place of quarantine to which he shall be directed;

Shall be guilty of the like offence, and be subject to the like punishment. And every person who shall land from any such vessel, or unlade or tranship any portion of her cargo, under like circumstances, shall be guilty of the like offence, and be subject to the like punishment.

Sec. 22. Every person who shall violate any provision of this Act, or neglect or refuse to comply with the directions and regulations which any of the officers of health may prescribe, shall be guilty of the like offence, and be subject, for each offence, to the like punishment.

Sec. 23. Every person who shall oppose or obstruct the health officer in performing the duties required of him, shall be guilty of the like offence, and be punished by fine not exceeding 500 dollars, or by imprisonment not exceeding 3 months, or by both such fine and imprisonment.

Sec. 24. Every person who, without authority of the health officer, commissioners of health, or board of health, shall go within the enclosure of the quarantine ground, shall be guilty of the like offence, and be punished by fine not exceeding 100 dollars, or by imprisonment not exceeding 30 days, or by both such fine and imprisonment.

Sec. 25. Every person who shall go on board of, or have any communication, intercourse, or dealing with any vessel at quarantine, without the permission of the health officer, shall be guilty of the like offence, and be subject to the like punishment. And such offender shall be detained at quarantine so long as the health officer shall direct, not exceeding 20 days, unless he shall be taken sick of some pestilential or infectious disease.

Sec. 26. Every person who shall violate the provisions of the 5th article of title 2nd of chapter 14th of part 1st of the Revised Statutes, by refusing or neglecting to obey or comply with any order, prohibition, or regulation made by the board of health, in the exercise of the powers therein conferred, shall be guilty of a misdemeanor, punishable by fine and imprisonment, at the discretion of the court by which the offender shall be tried.

Sec. 27. Articles 1st, 3rd, 4th, and 6th, of title 2nd of chapter 14th of part 1st of the Revised Statutes; an Act entitled, 'An Act to amend title 2nd, chapter 14th, part 1st, of the Revised Statutes, relating to the Quarantine Regulations of the Port of New York,' passed May 2, 1836; an Act entitled, 'An Act relative to the Quarantine Laws, passed May 7, 1839; an Act entitled, 'An Act to amend the Revised Statutes relating to the Public Health,' passed April 12, 1842, and all other laws inconsistent with this Act, are hereby repealed.

We have derived these statements from the *New York Annual Register*; *The Picture of New York*; *Hunt's Commercial Magazine*; the latest *Consular Reports* and *official accounts*; and valuable *private communications*.

The following is an account of the registered, enrolled and licensed tonnage of the United States from 1818:—

Year	Registered Tonnage	Enrolled and Licensed Tonnage	Total Tonnage
1818	606,098	606,098	1,212,196
1819	619,017	619,017	1,238,034
1820	701,737	701,737	1,403,474
1821	876,373	876,373	1,752,746
1822	885,824	885,824	1,771,648
1823	899,764	899,764	1,799,528
1824	1,005,172	1,005,172	2,010,344
1825	1,283,731	1,283,731	2,567,472
1826	1,739,207	1,739,207	3,478,684
1827	1,899,418	1,899,418	3,798,836
1828	2,105,671	2,105,671	4,214,504
1829	2,333,812	2,333,812	4,668,324
1830	2,535,176	2,535,176	5,103,500
1831	2,777,459	2,777,459	5,580,959
1832	2,977,459	2,977,459	5,954,918
1833	3,207,402	3,207,402	6,462,320
1834	3,466,257	3,466,257	6,928,577
1835	3,649,628	3,649,628	7,378,205
1836	3,911,251	3,911,251	7,889,456
1837	4,206,114	4,206,114	8,415,570
1838	4,581,925	4,581,925	9,167,495
1839	4,984,583	4,984,583	9,972,078
1840	5,422,926	5,422,926	10,845,004

Account showing the Value of the Exports of Home Products from the United States to, and of the Imports into the same, from the various Countries undermentioned, in the Year ending June 30, 1866.

	Exports of Home Products	Imports	Total
	dollars	dollars	dollars
Russia - - - - -	2,517,135	83,475	3,370,610
Russia in Asia - - -	5,300	200,552	205,852
Prussia - - - - -	81,669	29,541	111,210
Sweden and Norway -	67,240	189,279	256,519
Denmark - - - - -	128,052	101,140	229,192
Hamburg - - - - -	158,797	162,316	321,113
Bremen - - - - -	154,007	101,140	255,147
Lolland - - - - -	129,917	107,127	237,044
Dutch West Indies -	2,407,149	467,814	2,874,963
Dutch Guiana - - - -	611,105	409,238	1,020,343
Dutch East Indies -	6,431,823	29,944,801	36,376,624
Belgium - - - - -	161,053	776,235	937,288
England - - - - -	327,268,765	196,207,208	523,475,973
Scotland - - - - -	4,411,928	5,945,328	10,357,256
Ireland - - - - -	6,975,000	7,426,600	14,401,600
Gibraltar - - - - -	1,155,558	4,904	1,160,462
Malta - - - - -	283,714	99	283,813
Canada - - - - -	15,376,552	46,199,170	61,575,722
Other British possessions in America &c. - - - - -	11,511,256	8,563,460	20,074,716
French West Indies -	2,295,912	2,619,675	4,915,587
Madagascar - - - -	409,708	204,148	613,856
British Guiana - - -	1,814,622	994,750	2,809,372
Falkland Islands - -	4,392	—	4,392
British colonies in Africa -	1,012,743	1,800,102	2,812,845
East Indies - - - - -	581,005	6,144,660	6,725,665
Australia - - - - -	6,649,529	13,119	6,662,648
France - - - - -	61,185,205	22,939,299	84,124,504
French possessions in America - - - - -	251,250	58,447	309,697
French West Indies -	619,911	301,379	921,290
French Guiana - - - -	78,531	14,841	93,372
French possessions in Africa - - - - -	272,469	99,088	371,557
Spain - - - - -	5,748,746	2,672,000	8,420,746
Canton - - - - -	185,866	2,607	188,473
Philippines - - - - -	215,049	3,667,991	3,883,040
Cuba - - - - -	14,901,516	77,293,812	92,195,328
Porto Rico - - - - -	2,408,255	6,617,049	9,025,304
St. Domingo - - - -	98,924	77,481	176,405
Portugal - - - - -	4,987,28	317,010	5,304,298
Madeira - - - - -	14,714	29,295	44,009
Azores - - - - -	66,708	144,551	211,259
Cape Verde Islands -	49,172	31,135	80,307
Italy - - - - -	4,799,071	23,256	4,822,327
Sicily - - - - -	131,351	1,698,412	1,829,763
Austria - - - - -	522,436	436,135	958,571
Austrian Italy - - - -	187,897	—	187,897
Turkey in Europe - - -	201,202	16,470	217,672
Turkey in Asia - - - -	264,316	313,750	578,066
Siberia - - - - -	8,549	—	8,549
Other African ports -	736,820	57,606	794,426
Haiti - - - - -	5,907,711	1,912,700	7,820,411
Mexico - - - - -	3,716,599	4,133,601	7,850,200
Central America - - -	57,514	719,888	777,402
New Granada - - - -	3,729,017	1,939,067	5,668,084
Venezuela - - - - -	1,307,851	4,193,534	5,501,385
Brazil - - - - -	5,679,513	16,311,251	21,990,764
Uruguay - - - - -	265,896	1,635,531	1,901,427
Buenos Ayres - - - -	1,757,874	6,526,600	8,284,474
Chili - - - - -	1,151,655	4,040,160	5,191,815
Peru - - - - -	1,141,255	807,229	1,948,484
Bolivia - - - - -	45,817	1,883,119	1,928,936
Sandwich Idalgos - - -	1,051,639	1,883,119	2,934,758
Other Islands of the Pacific -	121,762	68,771	190,533
China - - - - -	8,639,298	10,429,828	19,069,126
Japan - - - - -	472,531	1,515,880	1,988,411
Whale Fisheries - - -	1,387	1,666,000	1,667,387
Greenland - - - - -	—	75,536	75,536
Greece - - - - -	—	7,500	7,500
Ionian Islands - - - -	—	1,227	1,227
Egypt - - - - -	—	—	—
Equatorial - - - - -	—	—	—
Total - - - - -	550,684,971	437,640,580	988,325,551

TARIFF OF THE UNITED STATES.—Notwith-

standing the unprecedented progress of the United States in wealth and population, their foreign trade was nearly stationary for the 10 years ending with 1830. And yet, considering the spirit of commercial enterprise by which the people, particularly in the New England States and New York, are animated, and their skill in navigation, it might have been fairly presumed that the growth of their foreign trade would, at least, have kept pace with the development of the internal resources of the country. That it did not do so, is wholly owing to the policy of Government. Not satisfied with the extraordinary advances which their citizens had made in numbers and wealth, Congress seems to have believed that their career might be accelerated by means of custom-house regulations—by giving an artificial direction to a portion of the public capital and industry, and to force it into channels into which it would not naturally flow.

No one who has the slightest acquaintance with the condition of America—who knows that she is possessed of boundless tracts of fertile and unappropriated land—that her population is comparatively thin, and wages high—can doubt for a moment that agriculture *must*, for a long series of years, be the most profitable species of employment in which her citizens can engage. There can be no question, indeed, that such branches of manufacture as are naturally adapted to her peculiar situation will gradually grow up and flourish in America, without any artificial encouragement, according as her population becomes denser, and as the advantage which now exists on the side of agriculture becomes less decided. And the imposition of moderate duties on foreign articles for the sake of revenue would certainly give these branches all the protection which they are justly entitled to, or more. But to force a portion of the industry and capital of the country into businesses in which it will be least productive.

Such, however, was for a lengthened period the policy of the American Legislature. The exclusive monopolies of the mercantile system, though denounced by every statesman in Europe, acquired such influence in Congress, and were put forth with as much confidence as if their soundness had been no more a question, that from 1816 down to 1816, the object of the American Legislature was, for the most part, to foster up a manufacturing interest, by imposing oppressive duties on most manufactured articles imported from abroad. Now, it is obvious, even if the articles produced in America through the agency of this plan had been nearly as cheap as those imported by it; for, to whatever extent the importation of foreign articles might be diminished, there must have been a corresponding diminution of the exportation of native American products; and that the only result would have been the raising of one species of industry at the expense of another species entitled to an equality of protection. Instead of the goods manufactured in the States being as cheap as similar ones manufactured in Europe, they were admitted at an average, from 30 to 50 or 60 per cent. more. The extent of the pecuniary sacrifice thus exacted on the Union by the tariff modified in 1832 has been variously estimated by American writers; and we have been assured by those

who have the best means of knowing, that it may be taken as amounting to from 50,000,000 to 60,000,000 dollars, or from about 11,000,000, to 13,000,000, a-year. And this immense burden—a burden more than twice as great as the whole public expenditure of the United States at that period—was incurred for no purpose but mischief. The whole effect of the scheme was to divert a certain amount of the national capital from the production of cotton, wheat, rice, tobacco &c., the equivalents sent to foreigners in payment of manufactured goods, to the direct production of those goods themselves. And as the latter species of industry is less suitable for America, a tax of 13,000,000, a-year was imposed on the Union, that the manufacturers might be enabled to continue a losing business. We leave it to others to determine whether the absurdity of the system, or its costliness, was its more prominent feature. That its influence was gluing more injurious is solely owing to the smuggling it occasioned. With a frontier like that of America, it would be worse than absurd to suppose that an oppressive tariff could be carried into full effect. But it had enough of influence to render it highly prejudicial—to occasion a great rise in the price of many important articles—to cripple the trade and navigation of the country—and to throw a considerable part of it into the hands of smugglers, who carried it on in defiance of the law.

It is difficult, however, to say how long the system of imposing high duties on most foreign products might have been maintained without so much as a check, but for its political effects. It was principally patronised by the Northern States; and though it would be difficult to show that they derived any benefit from it, it is, at all to the Southern States. Their staple products are cotton, tobacco, and rice, of which by far the largest portion is exported to foreign countries; and the planters speedily found that every restriction on importation from abroad occasioned a corresponding difficulty of exportation. This led to a disunion of interests and to strong remonstrances against the tariff by the Southern States. These, however, were disregarded. Provoked at step of refusing to enforce the customs acts; and threatened, if coercion were attempted, to repel force by force, and to recede from the Union. This was a death-blow to the high duties of the old tariff. Congress then saw, what all sensible men had seen long before, that it was necessary to recede; that, in fact, either the tariff must be modified, or the integrity of the Union be brought into jeopardy. A law, commonly called the 'Compromise Act,' was in consequence passed on July 14, 1832, which provided that certain then existing duties on most descriptions of foreign goods, at certain specified periods between 1833 and 1812, when they were, in most instances, to be reduced to 20 per cent. ad valorem.

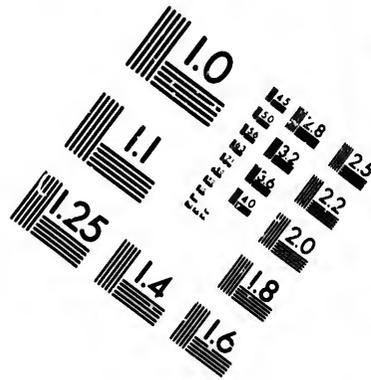
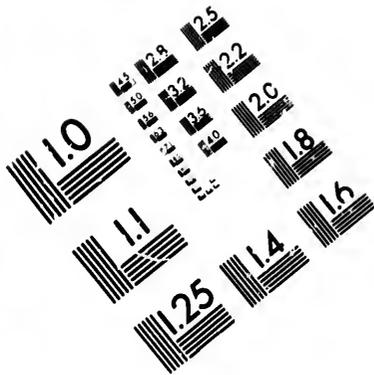
This Act was allowed to take effect for a few years; but as the reduction specified in it began to come into practical operation, the manufacturers, also, began to set up fresh claims for additional protection. Probably, however, the latter might not have been able to carry their point had not the Southern States been apprehensive that if they made any resolute stand against the proposal to increase the duties, and still more if they threatened to secede from the Union in the event of its being carried, they might be brought into serious difficulties by the

Total Tonnage	Tons
1,212,434	1,212,434
1,278,556	1,278,556
1,432,011	1,432,011
1,517,275	1,517,275
1,674,930	1,674,930
2,382,574	2,382,574
2,722,082	2,722,082
3,573,434	3,573,434
4,272,179	4,272,179
4,513,130	4,513,130
4,662,019	4,662,019
4,809,529	4,809,529
4,971,661	4,971,661
5,120,504	5,120,504
5,270,700	5,270,700
5,419,557	5,419,557
5,573,808	5,573,808
5,723,941	5,723,941
5,874,103	5,874,103
5,974,281	5,974,281
6,074,466	6,074,466
6,174,651	6,174,651
6,274,836	6,274,836
6,375,021	6,375,021

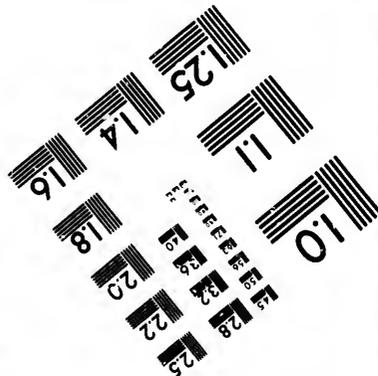
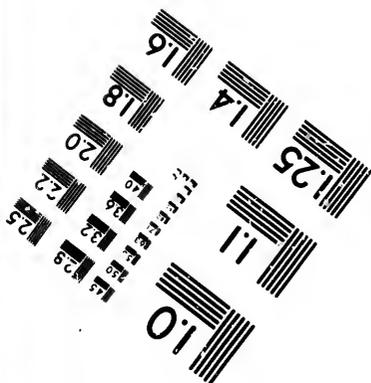
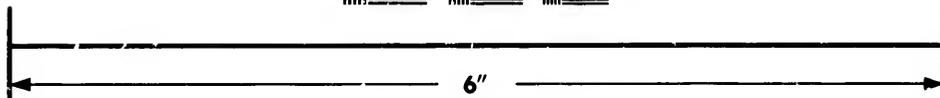
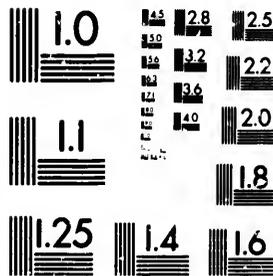
Value of the Exports of the United States, and same from the various ports, in the Year ending

Imports	Total
1,212,434	1,212,434
1,278,556	1,278,556
1,432,011	1,432,011
1,517,275	1,517,275
1,674,930	1,674,930
2,382,574	2,382,574
2,722,082	2,722,082
3,573,434	3,573,434
4,272,179	4,272,179
4,513,130	4,513,130
4,662,019	4,662,019
4,809,529	4,809,529
4,971,661	4,971,661
5,120,504	5,120,504
5,270,700	5,270,700
5,419,557	5,419,557
5,573,808	5,573,808
5,723,941	5,723,941
5,874,103	5,874,103
5,974,281	5,974,281
6,074,466	6,074,466
6,174,651	6,174,651
6,274,836	6,274,836
6,375,021	6,375,021
6,475,206	6,475,206
6,575,391	6,575,391
6,675,576	6,675,576
6,775,761	6,775,761
6,875,946	6,875,946
6,976,131	6,976,131
7,076,316	7,076,316
7,176,501	7,176,501
7,276,686	7,276,686
7,376,871	7,376,871
7,477,056	7,477,056
7,577,241	7,577,241
7,677,426	7,677,426
7,777,611	7,777,611
7,877,796	7,877,796
7,977,981	7,977,981
8,078,166	8,078,166
8,178,351	8,178,351
8,278,536	8,278,536
8,378,721	8,378,721
8,478,906	8,478,906
8,579,091	8,579,091
8,679,276	8,679,276
8,779,461	8,779,461
8,879,646	8,879,646
8,979,831	8,979,831
9,079,016	9,079,016
9,179,201	9,179,201
9,279,386	9,279,386
9,379,571	9,379,571
9,479,756	9,479,756
9,579,941	9,579,941
9,680,126	9,680,126
9,780,311	9,780,311
9,880,496	9,880,496
9,980,681	9,980,681
10,080,866	10,080,866
10,181,051	10,181,051
10,281,236	10,281,236
10,381,421	10,381,421
10,481,606	10,481,606
10,581,791	10,581,791
10,681,976	10,681,976
10,782,161	10,782,161
10,882,346	10,882,346
10,982,531	10,982,531
11,082,716	11,082,716
11,182,901	11,182,901
11,283,086	11,283,086
11,383,271	11,383,271
11,483,456	11,483,456
11,583,641	11,583,641
11,683,826	11,683,826
11,784,011	11,784,011
11,884,196	11,884,196
11,984,381	11,984,381
12,084,566	12,084,566
12,184,751	12,184,751
12,284,936	12,284,936
12,385,121	12,385,121
12,485,306	12,485,306
12,585,491	12,585,491
12,685,676	12,685,676
12,785,861	12,785,861
12,886,046	12,886,046
12,986,231	12,986,231
13,086,416	13,086,416
13,186,601	13,186,601
13,286,786	13,286,786
13,386,971	13,386,971
13,487,156	13,487,156
13,587,341	13,587,341
13,687,526	13,687,526
13,787,711	13,787,711
13,887,896	13,887,896
13,988,081	13,988,081
14,088,266	14,088,266
14,188,451	14,188,451
14,288,636	14,288,636
14,388,821	14,388,821
14,489,006	14,489,006
14,589,191	14,589,191
14,689,376	14,689,376
14,789,561	14,789,561
14,889,746	14,889,746
14,989,931	14,989,931
15,090,116	15,090,116
15,190,301	15,190,301
15,290,486	15,290,486
15,390,671	15,390,671
15,490,856	15,490,856
15,591,041	15,591,041
15,691,226	15,691,226
15,791,411	15,791,411
15,891,596	15,891,596
15,991,781	15,991,781
16,091,966	16,091,966
16,192,151	16,192,151
16,292,336	16,292,336
16,392,521	16,392,521
16,492,706	16,492,706
16,592,891	16,592,891
16,693,076	16,693,076
16,793,261	16,793,261
16,893,446	16,893,446
16,993,631	16,993,631
17,093,816	17,093,816
17,194,001	17,194,001
17,294,186	17,294,186
17,394,371	17,394,371
17,494,556	17,494,556
17,594,741	17,594,741
17,694,926	17,694,926
17,795,111	17,795,111
17,895,296	17,895,296
17,995,481	17,995,481
18,095,666	18,095,666
18,195,851	18,195,851
18,296,036	18,296,036
18,396,221	18,396,221
18,496,406	18,496,406
18,596,591	18,596,591
18,696,776	18,696,776
18,796,961	18,796,961
18,897,146	18,897,146
18,997,331	18,997,331
19,097,516	19,097,516
19,197,701	19,197,701
19,297,886	19,297,886
19,398,071	19,398,071
19,498,256	19,498,256
19,598,441	19,598,441
19,698,626	19,698,626
19,798,811	19,798,811
19,898,996	19,898,996
19,999,181	19,999,181
20,099,366	20,099,366
20,199,551	20,199,551
20,299,736	20,299,736
20,399,921	20,399,921
20,499,106	20,499,106
20,599,291	20,599,291
20,699,476	20,699,476
20,799,661	20,799,661
20,899,846	20,899,846
20,999,031	20,999,031
21,099,216	21,099,216
21,199,401	21,199,401
21,299,586	21,299,586
21,399,771	21,399,771
21,499,956	21,499,956
21,599,141	21,599,141
21,699,326	21,699,326
21,799,511	21,799,511
21,899,696	21,899,696
21,999,881	21,999,881
22,099,066	22,099,066
22,199,251	22,199,251
22,299,436	22,299,436
22,399,621	22,399,621
22,499,806	22,499,806
22,599,991	22,599,991
22,699,176	22,699,176
22,799,361	22,799,361
22,899,546	22,899,546
22,999,731	22,999,731
23,099,916	23,099,916
23,199,101	23,199,101
23,299,286	23,299,286
23,399,471	23,399,471
23,499,656	23,499,656
23,599,841	23,599,841
23,699,026	23,699,026
23,799,211	23,799,211
23,899,396	23,899,396
23,999,581	23,999,581
24,099,766	24,099,766
24,199,951	24,199,951
24,299,136	24,299,136
24,399,321	24,399,321
24,499,506	24,499,506
24,599,691	24,599,691
24,699,876	24,699,876
24,799,061	24,799,061
24,899,246	24,899,246
24,999,431	24,999,431
25,099,616	25,099,616
25,199,801	25,199,801
25,299,986	25,299,986
25,399,171	25,399,171
25,499,356	25,499,356
25,599,541	25,599,541
25,699,726	25,699,726
25,799,911	25,799,911
25,899,096	25,899,096
25,999,281	25,999,281
26,099,466	26,099,466
26,199,651	26,199,651
26,299,836	26,299,836
26,399,021	26,399,021
26,499,206	26,499,206
26,599,391	26,599,391
26,699,576	26,699,576
26,799,761	26,799,761
26,899,946	26,899,946
26,999,131	26,999,131
27,099,316	27,099,316
27,199,501	27,199,501
27,299,686	27,299,686
27,399,871	27,399,871
27,499,056	27,499,056
27,599,241	27,599,241
27,699,426	27,699,426
27,799,611	27,799,611
27,899,796	27,899,796
27,999,981	27,999,981
28,099,166	28,099,166
28,199,351	28,199,351
28,299,536	28,299,536
28,399,721	28,399,721
28,499,906	28,499,906
28,599,091	28,599,091
28,699,276	28,699,276
28,799,461	28,799,461
28,899,646	28,899,646
28,999,831	28,999,831
29,099,016	29,099,016
29,199,201	29,199,201
29,299,386	29,299,386
29,399,571	29,399,571
29,499,756	29,499,756
29,599,941	29,599,941
29,699,126	29,699,126
29,799,311	29,799,311
29,899,496	29,899,496
29,999,681	29,999,681
30,099,866	30,099,866
30,199,051	30,199,051
30,299,236	30,299,236
30,399,421	30,399,421
30,499,606	30,499,606
30,599,791	30,599,791
30,699,976	30,699,976
30,799,161	30,799,161
30,899,346	30,899,346
30,999,531	30,999,531
31,099,716	31,099,716
31,199,901	31,199,901
31,299,086	31,299,086
31,399,271	31,399,271
31,499,456	31,499,456
31,599,641	31,599,641
31,699,826	31,699,826
31,799,011	31,799,011
31,899,196	31,89





**IMAGE EVALUATION  
TEST TARGET (MT-3)**



**Photographic  
Sciences  
Corporation**

23 WEST MAIN STREET  
WEBSTER, N.Y. 14580  
(716) 872-4503

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18  
20  
22  
25

10







Cotton, as above, valued over 10c. per sq. yd., 4c. per sq. yd.  
 Cotton caps, gloves, leggins, mitts, socks, stockings, made on frames, bleached or colored, 35 per cent.  
 Cotton hose, unbleached, 35 per cent.  
 Cotton insertions, lace known as trimming or bobbinet, on cards and stockings, 35 per cent.  
 Court-plaster, 35 per cent.  
 Cowage or cowhite, 20 per cent.  
 Creams, 30 per cent.  
 Cream of tartar, 14c. per lb.  
 Crocus (alcochole (polish powder), 25 p.c.  
 powder (polish), 25 per cent.  
 Crucibles, black lead, 20 per cent.  
 sand, 25 per cent.  
 Cutlery, 10c. per lb.  
 Cutlery, 10 per cent.  
 Curranite, 5c. per lb.  
 Cattle fish bone (sapiu), 5c. per lb.  
 Cutnasses, 35 per cent.  
 Cutlery, of all kinds, except pocket, pen and jack-knives, 25 per cent.  
 Daguerreotype plates, 55 per cent.  
 Dates, green, ripe, or dried, 3c. per lb.  
 Dentifrice, 50 per cent.  
 Diamonds, 10 per cent.  
 glaziers', 10 per cent.  
 Dolls of every description, 35 per cent.  
 Dismenue, 35 per cent.  
 if toys, 40 per cent.  
 Down, all kinds, 30 per cent.  
 Dragons' blood, 10 per lb.  
 Drawing pencils, 50c. per gross, and 30 p.c.  
 Drawings, 20 per cent.  
 Drawing knives, 10 per cent.  
 Dress goods, for women and children, composed wholly or in part of wool, worsted, hair of the Alpaca goat, or other like animals, value not over 24c. per sq. yd., 6c. per sq. yd. and 55 per cent.  
 value over 20c. per sq. yd., 8c. per sq. yd. and 40 per cent.  
 Provided, that all goods weighing 4 oz. over per sq. yd. shall pay 50c. per lb. and 55 per cent.  
 Dried pulp, 20 per cent.  
 Druggists, all, 25c. per sq. yd. and 35 p.c.  
 Drugs, medicinal or dyest, not otherwise enumerated, nor crude, 20 per cent.  
 Duck sail, of cotton, 30 per cent.  
 Ravens, of hemp, 20 per cent.  
 of flax, 30 per cent.  
 Dulce (sawed), 5 dol. per ton and 10 p.c.  
 Dye metal, in leaf, 10 per cent.  
 Dutch pink, 25 per cent.  
 Earth, in oil, 1d. 50c. per 100 lb., brown, red, blue, yellow, tye, as ochre 50c. per 100 lb.  
 Earthenware (brown or common), 25 p.c.  
 all other, stone or crockery ware, 30 p.c.  
 Ebony, manufactures of, 35 per cent.  
 Eggs, 10 per cent.  
 Emalgams, all in gold or silver, fine or half fine, or other metal, and others, except wool, 35 per cent.  
 Emeralds, 10 per cent.  
 Emery, ore or rock, 6 dol. per ton mixed, ground or pulverized, 1c. per lb. cloth, cotton, 35 per cent.  
 Enamelled white, 3c. per lb.  
 Encaustic tiles, 35 per cent.  
 Engravers' copper, prepared or polished, 35 per cent.  
 Engravers' scrapers and burnishers, 45 p.c.  
 Engravings, books of, bound or not, 25 p.c.  
 Epauletes, plated, gilt, m. fin., cotton, of gold and silver, 35 per cent.  
 Erast, 20c. per lb.  
 E-scutcheons, silver, 40 per cent.  
 brass, iron, gilt, or plated, 35 per cent.  
 Essence of almonds, 1d. 50c. per lb.  
 soap, of d'olive, 20 per cent.  
 bergamot, 1 dol. per lb.  
 Juniper, 25c. per lb.  
 cat-japat, 25c. per lb.  
 cloves, 2 dol. per lb.  
 caraway, 10c. per lb.  
 cassia, 1 dol. per lb.  
 cinnamon, 2 dol. per lb.  
 citrionella, 50c. per lb.  
 cuscute, 1 dol. per oz.  
 cubells, 1 dol. per lb.  
 Fennel, 50c. per lb.  
 valerian, 1d. 50c. per lb.  
 fruit, 2d. 50c. per lb.  
 lavender, 30 per cent.  
 lemon, 50c. per lb.  
 muscade, or nutmegs, 50 per cent.  
 mustard seed, 1 dol. per gal.  
 oranges, 50c. per lb.  
 origanum, or thyme, red, 25c. per lb.  
 rosemary, 30 per cent.  
 rose, 50c. per oz.  
 Sassafras, or thyme, red, 25c. per lb.  
 thyme, white, 30c. per lb.  
 Essences, extracts, toilet waters, cosmetics, hair oils, pomades, hair restoratives, hair dressing, hair dyes, tooth washes, dentifrices, tooth pastes, aromatic cushions, or other perfumes, cosmetics, by whatever name or names known, used, or applied as perfumes or applications to the hair, mouth, or skin, 50 per cent.  
 Ethers, preparations or extract, fluid, all not provided for, 1 dol. per lb.

Extract of belladonna, clemis, colorymb, elaterium, rhubarb, sturubar, stramonium, gentian, nux vomica, and hyoscyamus, 40 per cent.  
 of campeachy wood, indigo, logwood, and madder, 10 per cent.  
 of opium, 100 per cent.  
 of campeachy wood, indigo, logwood, not otherwise provided for, 10 per cent.  
 Extract, all other medicinal, 40 per cent.  
 False collars, 35 per cent.  
 Fans, palm leaf, 1c. each.  
 35 per cent.  
 Feathers, ostrich, cock, or other, ornamental, manufactured, 50 per cent.  
 ornamented, 35 per cent.  
 Felt, roofing, 20 per cent.  
 Fiddles, 50 per cent.  
 Fibers, 30 per cent.  
 Fiches, bone, ivory, or wood, 50 per cent.  
 Pipes, green, ripe, or dried, 3c. per lb.  
 preserved in sugar or molasses, 35 p.c.  
 Pig blue, 25 per cent.  
 Filberts, 3c. per lb.  
 Files and file blanks, all not over 10 in. long, 10c. per sq. and per cent.  
 File and tile blanks, over 10 in. long, 6c. per lb. and 30 per cent.  
 Filtering stones, 20 per cent.  
 unmanufactured, 10 per cent.  
 Finishing powders (polishing), 25 per cent.  
 Firearms, other than muskets and rifles, 35 per cent.  
 Fire crackers, per box of 40 packs, 80 to each pack (not in same proportion for greater numbers), 1 dol. per box.  
 Fish, mackerel, 2 dol. per brl.  
 per cons, pickled or salted, 1 dol. per brl.  
 salmon, 3 dol. per brl.  
 all other, pickled, 1d. 50c. per brl.  
 all not in barrels, and not otherwise provided for, 1c. per lb.  
 Fish, oil, in oil, not otherwise provided for, 35 per cent.  
 Flannels, composed wholly or in part of worsted, the hair of the Alpaca goat, or other like animals, value not over 10c. per lb., 40c. per lb. and 35 per cent.  
 value over 10c. and not over 60c. per lb., 50c. per lb. and 55 per cent.  
 value over 60c. and not over 80c. per lb., 40c. per lb. and 35 per cent.  
 value over 80c. per lb., 50c. per lb. and 55 per cent.  
 composed wholly or in part of wool, 50c. per lb. and 55 per cent.  
 Flasks, entirely of horn, 35 per cent.  
 Flat irons, 15c. per lb.  
 Flax, manufactures of, or of which flax is a component part of chief value; value not over 30c. per sq. yd., 35 per cent.  
 Flax, manufactures of, or of which flax is a component part of chief value; value over 30c. per sq. yd., not otherwise provided for, 40 per cent.  
 Flax, thread, packed thread, twine, 40 p.c.  
 Flax, manufactures of, 15 dol. per ton.  
 tow of, 5 dol. per ton.  
 Flashed (57 lb. per bbl.), 16c. per bbl.  
 Flowers, artificial, 50 per cent.  
 all medicinal, 20 per cent.  
 all not otherwise provided for, 10 per cent.  
 Fossils, 10 per cent.  
 Frames, or sticks for umbrellas or parasols, finished or not, 35 per cent.  
 Frankfort black, 45 per cent.  
 French green, 30 per cent.  
 Fruits (d'ass), 20 per cent.  
 Fruits others, 2d. 50c. per lb.  
 Juices, 25 per cent.  
 Fruits, preserved in brandy or sugar, or pickled, 35 per cent.  
 Fruits, preserved in their own juice, 25 p.c.  
 Fruits, green, ripe, or dried, not otherwise provided for, 10 per cent.  
 Fuller's heards, 35 per cent.  
 earth, 5 dol. per ton.  
 Fulminants, or fulminating powders, 50 p.c.  
 Furniture, household, 35 per cent.  
 Furs, undressed, all kinds of, on the skin, 10 per cent.  
 Fur, dressed, all on the skin, 20 per cent.  
 Fur muffs or tippets, or other manufactures, not specified, 35 per cent.  
 Furry hats, not on the skin, 30 per cent.  
 Fush oil, or amylic alcohol, 2 dol. per gal.  
 Gallanog, or galling root, 20 per cent.  
 Gamboge, medicinal gum, refined, 10 p.c.  
 Garamene (extract of madder), 10 per cent.  
 G emets, a precious stone, 10 per cent.  
 imitation of, a composition, 40 per cent.  
 Garters, elastic, made of wire, covered with leather, with or without metal clasps, or with leather, with clasps, 35 per cent.  
 (Gelatine, 55 per cent.  
 Gems, 10 per cent.  
 Indian rubber, with or without metal clasps, or very thin paper, and gold paint in strips, or other forms 40 per cent.  
 Gilt (in boxes), 35 per cent.  
 shell, for painting, 35 per cent.  
 or gilt bracelets and studs, 35 per cent.  
 Gilt shoes or clasp, wood, 35 per cent.

Gilt ear-rings, 25 per cent.  
 Gilt pen cases, 25 per cent.  
 ware, silver or gold, 10 per cent.  
 ware, of other metals, 35 per cent.  
 watch chains or watchbands, 25 per cent.  
 watch keys and wads, 35 per cent.  
 Glass, 50 p.c.  
 70p. 50c. per gal.  
 under 50p. 10 strength and costing over all limitations of 50 per cent.  
 Gin cases, with bottles in them, the case 50c. and the bottles, 35 per cent.  
 Ginger, ground, 10c. per lb.  
 preserved and pickled, 30 per cent.  
 roasts, 5c. per lb.  
 essence of, 40 per cent.  
 Glistening, 20 per cent.  
 Girandoles, 40 per cent.  
 Glass, of antimony, 20 per cent.  
 Glass wares, of cut glass, 40 per cent.  
 all others, not specially mentioned, not over 25 per cent.  
 Glass, apothecaries' vials and bottles, not exceeding the capacity of 16 oz. each, 35 p.c.  
 40 p.c. bottles, black, not filled, 35 per cent.  
 filled with preserves, 10 p.c.  
 Glass, bottles, cut, entirely of, 30 per cent.  
 Glass, filled with preserves, 10 per cent.  
 plain, not filled, 35 per cent.  
 Glass, all Hated, rolled, or rough plate glass, not exceeding 15 in. in length, 35 per cent.  
 common window glass, not over 10 by 21 in. per sq. ft.  
 over 10 by 21 in. and not over 16 by 21 in. per sq. ft.  
 over 16 by 21 in. and not over 24 by 30 in. per sq. ft.  
 over 24 by 30 in. 2c. per sq. ft.  
 all as above, weighing over 1 lb. per sq. ft., pay an additional duty on the value at the same rates, herein imposed.  
 all cast polished plate glass, unbleached, over 10 by 15 in., 3c. per sq. ft.  
 over 10 by 15 in., but not over 16 by 21 in. 5c. per sq. ft.  
 over 16 by 21, but not over 24 by 30 in. 7c. per sq. ft.  
 over 24 by 30, but not over 24 by 60 in. 9c. per sq. ft.  
 over 24 by 60 in., 50c. per sq. ft.  
 all cast polished plate glass, unbleached, looking glass plates, not over 10 (15) by 12 (18) in., but not over 16 by 21 in. 6c. per sq. ft.  
 over 16 by 21, but not over 24 by 30 in. 10c. per sq. ft.  
 over 24 by 30, but not over 24 by 60 in. 12c. per sq. ft.  
 over 24 by 60 in., 60c. per sq. ft.  
 Provided, that no looking glass plates, plate glass silvered when framed, or any glass of less size of more than 10 in. on similar glass of less description, shall be framed, but shall pay in addition thereto 20 per cent. for the frame.  
 Glasses, lens, 35 per cent.  
 Glass, paintings, not otherwise specified, all articles not specified, covered by this article, 35 per cent.  
 plates, or disks, unroughed, for optical instruments, 10 per cent.  
 spectacles, for time-pieces or mounted instruments, 35 per cent.  
 cent. all wares of, 40 per cent.  
 all articles of, not specified, plain moulded, 35 per cent.  
 plain or moulded, weighing under 8 except tumblers, 35 per cent.  
 cut ornaments for chandeliers, or tumblers, articles, plain and moulded, per cent.  
 watch, or watch crystal, 40 per cent.  
 pressed, 35 per cent.  
 coloured, engraved, painted, printed, stained, silvered, Bohemian, or spectacles, pebbles for spectacles, and all manufactures of, or of which glass is the chief material, not otherwise specified, 40 per cent.  
 bottles and jars, filled with preserves, the articles not specified, covered by other materials so as to prevent breakage, 10 per cent.  
 Glass, 20 per cent.  
 Gloves, angors, were an frames of linen, 35 per cent.  
 unmanufactured, 35 per cent.  
 women's leather habit, or children's d'entil length, 30 per cent.  
 Gilt, 20 per cent.  
 Goat's skins, raw, 10 per cent.  
 angors, raw, 10 per cent.  
 tanned, 10 per cent.  
 Gold, all articles composed wholly or in part of otherwise specified, 10 per cent.  
 Gold, leathers, 35 per cent.  
 Gold embrodderies, 35 per cent.  
 or silver lace, even of m. fin., 35 per cent.  
 head, 1d. 50c. per yard of 30 lines.  
 or of marble of (other than 20 per cent.  
 ornaments made by spreading gold in very thin paper, and gold paint in strips, or other forms 40 per cent.  
 size, 20 per cent.  
 shell, for painting, 35 per cent.  
 or gilt bracelets and studs, 35 per cent.  
 Gilt shoes or clasp, wood, 35 per cent.















United States in the said district, the verification hereby required shall be made by the consul or commercial agent of the United States at the nearest point, or at the port from which the goods are shipped, in which case the oath shall be administered by some public officer, duly authorized to administer oaths, and transmitted, with a copy of the invoice, to the consul or commercial agent for his authentication; and this Act shall be construed only to modify, and not repeal, the Act of March 1, 1823, entitled "An Act supplementary to, and to amend an Act entitled "An Act to regulate the Collection of Duties on Imports and Tonnage," passed March 2, 1799, and for other Purposes; and the forms of the oaths therein set forth shall be modified accordingly. And there shall be paid to the said consul, vice-consul, or commercial agent, by the person or persons by or in behalf of whom the said invoices are presented and deposited, one dollar for each and every invoice verified, which shall be accounted for by the officers receiving the same, in such manner as is now required by the laws regulating the fees and salaries of consuls and commercial agents. And provided, further, That the provisions of this section shall not apply to invoices of goods, wares, and merchandise, imported into the United States from beyond Cape

Horn and the Cape of Good Hope, until April 1, 1863. And provided further, That the provisions of this section shall not apply to countries where there is no consul, vice-consul, or commercial agent of the United States.

TRADE OF THE UNITED KINGDOM WITH THE UNITED STATES.

Account of the Declared Value of the Total Exports of British Produce and Manufactures to the United States of America, during each of the 35 Years ending with 1867.

Years	Declared Value	Years	Declared Value
1833	7,579,699	1851	14,362,925
1834	6,844,989	1852	16,362,717
1835	10,408,455	1853	25,658,447
1836	14,425,605	1854	21,110,560
1837	4,695,245	1855	17,518,006
1838	7,583,750	1856	21,918,105
1839	8,839,204	1857	19,487,929
1840	5,283,020	1858	14,191,448
1841	7,098,637	1859	24,588,405
1842	5,528,807	1860	20,667,065
1843	5,013,504	1861	20,848,504
1844	7,938,079	1862	11,447,820
1845	7,447,663	1863	15,511,291
1846	6,830,160	1864	16,670,565
1847	10,974,161	1865	21,237,936
1848	10,101,000	1866	28,293,514
1849	11,971,924	1867	21,201,286
1850	14,891,961		

Quantities and Values of the Principal Articles of Foreign and Colonial Produce and Manufacture Exported from the United Kingdom to the United States during each of the 4 Years ending with 1867.

Articles	Quantities				Computed Net Value			
	1861	1865	1866	1867	1861	1865	1866	1867
Bacon	cwt.	7,251	550	58,080	15,469	£ 1,668	170,608	£ 1,668
Bark, Peruvian	..	9,277	4,971	2,480	25,212	35,511	19,199	48,200
Beads and buttons of glass	..	224,167	591,479	136,483	337,779	11,675	17,104	19,199
Birds	..	30,210	93,101	148,810	75,917	3,092	17,001	19,253
Cacouath	..	4,805	6,119	4,301	541	1,537	45,833	24,480
Cochineal	..	1,729	2,656	4,079	4,377	30,459	55,734	71,967
Coffee	.. lb.	1,853,877	1,779,851	296,774	490,677	56,331	54,151	9,152
Copper unwrought and part wrought	cwt.	8,560	9,510	9,510	60	1,171,016	103,455	56,860
Cotton, raw	..	105,246	15,455	7,466	9,913	61,461	51,429	11,100
Cream of tartar	..	1,537	4,108	4,669	2,481	7,576	19,222	30,279
Curran	..	6,641	8,270	5,994	3,464	6,254	7,081	5,271
Cutch	..	766	1,630	85	2	18,115	39,081	1,274
Drugs, unenumerated	cwt.	1,197	2,229	8,006	3,458	5,412	8,614	22,833
Fish, dressed and undressed	..	1,357	2,989	1,236	715	4,074	6,822	5,192
Fambler	..	125	1,808	1,510	1,289	668	8,421	4,704
Gum: Animi and copal	cwt.	4,674	15,676	12,847	15,693	11,994	47,626	62,410
Arabic	..	23,434	35,901	25,084	27,409	61,412	68,431	67,141
Other kinds	..	355	4,110	701	241	1,880	20,841	7,397
Hair, horse	..	430	5,340	809	169	1,055	12,680	1,464
Hemp, dressed	..	15,382	56,758	87,808	6,926	22,823	39,728	145,388
undressed	..	2,266	15,633	26,927	24,095	8,031	58,567	71,256
Hides, not tanned	..	1,472	903	8,838	8,208	5,021	58,511	25,100
Hops	..	6,860	9,339	4,010	3,990	202,312	299,243	119,211
Indigo	..	5,096	2,987	5,644	3,567	59,093	35,903	58,880
Iron in bars	.. tons	..	52	8,426	..	..	178	24,712
Lard	..	..	..	..	..	8,257	24,605	11,028
Linens manufactures, unenumerated	..	14,415	11,354	10,778	10,781	30,377	22,527	21,871
Liquorice juice and paste	cwt.	35,166	24,576	29,870	9,260	25,260	15,975	15,175
Nitre, culic	..	364,163	349,937	157,839	55,779	21,440	18,255	8,910
Nutmegs	..	35,186	79,235	104,916	45,616	20,781	46,839	50,884
Oils (chemical, essential, and perfumed)	..	25	473	296	7	3,155	24,995	16,914
Olive	..	8,522	117	75	20,023	75	294	294
Tarperntine	cwt.	49,064	82,817	70,665	67,498	40,478	58,923	58,388
Opium	..	2,866,031	1,116,880	77,311	247,943	41,797	16,282	1,104
Pepper	..	1,779	1,833	433	1,458	18,126	15,314	5,033
Plumbago	..	187,696	44,355	209,581	31,821	20,131	4,574	18,911
Quackilver	..	30,020	79,960	33,800	5,640	2,923	19,720	5,639
Quinine, sulphate of	oz.	225	1,137	3,240	3,281	4,638	35,096	7,699
Rags for making paper	cwt.	1,017	12,529	5,002	5,670	1,487	19,419	4,297
Rhubarb	..	965	44,145	40,084	35,879	211	18,591	19,104
Rice, not in the husk	cwt.	133,515	149,361	131,119	99,059	76,259	101,059	68,511
Seeds: Linseed	..	14,187	15,322	2,550	100	38,778	42,582	7,538
Shumach	.. tons	11	2,099	1,443	387	151	20,646	29,299
Silk manufactures of Europe, unenumerated	.. value	151,345	337,171	237,911	192,341	5,210	16,217	152,385
Manufactures: Broad stuffs and Ribbons	..	..	..	..	..	443,949	316,215	..
Skins, goats	..	4,602	1,454	10,393	..	11,539	3,837	87,540
Other	..	181,145	277,004	274,657	29,521	16,366	39,923	35,710
Spliter	..	1,528	6,249	4,514	1,030	..	7,529	7,065
Sugar, unrefined	cwt.	29	30,125	347	48	53,933	18,229	36,951
Tar	..	12,828	30	87	155	15,913	..	..
Tea	..	5,216,125	3,891,110	5,328,858	5,552,720	39,716	607,496	239,901
Teeth, elephants'	cwt.	463	1,611	1,106	612	14,724	51,114	41,253
Tin, unwrought	..	782	29,177	4,990	5,035	3,966	35,843	35,710
Tobacco, unmanufactured	..	4,098	5,618	1,026,519	14,609	152	18,019	..
Wine	.. gals.	39,880	76,540	75,223	37,381	9,131	21,385	28,529
Wool, sheep and lambs'	..	4,210,956	7,344,265	4,919,704	3,941,353	385,390	439,224	385,390
All other articles	.. value	..	..	..	..	335,311	203,661	518,140
Total	..	..	..	..	..	3,463,515	5,942,831	5,240,120
Total of British and foreign produce	..	..	..	..	..	20,171,820	35,170,747	31,843,810



Height of the various lakes to be passed, and the elevation of land:—

	Above Atlantic ft. in.	Above Pacific ft. in.
Height of Lake Nicaragua	117 9	123 3
Managua	176 5	156 11
Highest point of land to be passed	251 11	212 5

But great doubts are entertained whether this or any other route by the Lake of Nicaragua can be made practicable for moderate-sized vessels, that is, for vessels of from 400 to 500 tons and upwards. The river San Juan runs from end to end through a dense and unhealthy jungle. No labourers are to be had in the country, and it affords nothing for the subsistence of those who may be imported from a distance. And though, one should think, it would be no very difficult matter to clear it of the obstructions made to oppose the buccaneers, it is plain from the difference of level between the Lake of Nicaragua and the Atlantic, that others of a much more formidable character must be in the way, and that a great deal of lockage would be required to enable vessels of any considerable burden to reach the lake; and after it has been reached, many difficulties have to be surmounted. That they may be surmounted, and a navigable channel formed between the two oceans, is not, certainly, impracticable; but we are persuaded that it is visionary to imagine that ships of 1,000 or 1,200 tons should ever, as has been stated, get across the Continent by its means; and on whatever scale it may be made, the anticipations of advantage to result from it will, we apprehend, be found to be greatly exaggerated.

The communication hitherto effected is as follows.

The Central American Transit Company commencing at San Juan del Norte, conveying by river and lake navigation, and by steam to Virgin Bay; thence by land carriage for about 14 miles to San Juan del Sur. Here Californian steamers convey to San Francisco; while, on the other side, New York steamers convey from San Juan del Norte.

On April 19, 1850, the British and American Governments entered into a treaty, binding themselves to promote the construction of a ship canal between the Caribbean Sea and the Pacific Ocean, by way of the Lake of Nicaragua; and renouncing at the same time any exclusive right to or control over such canal.

The port of REALEJO, on the Pacific, lat. 12° 34' N., long. 87° 4' W., to which it is proposed to bring the canal from Lake Leon, is said to be one of the best that is anywhere to be met with. It is protected by a long narrow island, which forms a natural breakwater. We borrow from the *Times* the following notice of this harbour, derived from a former resident there:—

‘I may confidently say that the port of Realejo is, at least, as good a port as any in the known world. I have seen Portsmouth, Rio de Janeiro, Port Jackson, Talcahuana, Callao, and Guayaquil, and to all these I consider it decidedly superior. It is a salt-water creek, into which several small streams of water empty themselves. The entrance is protected by an island about two miles long, which leaves at each end a channel where ships can enter the harbour, but extending opposite the mainland, forming the port in such a manner as to protect it entirely from any wind that could possibly blow, and also entirely breaking the swell which enters the outer bay of Couchagua from the ocean. The north entrance is about a quarter of a mile wide, and that at the south of the island rather narrower, both being entirely

free from rocks or hidden dangers, and having in no part less than five fathoms depth of water. At one of these openings vessels can at all times enter with a landing wind, from whatever quarter it may blow. The inside consists of a noble basin of water, nowhere less than four fathoms deep, with a bottom of mud, where two hundred ships of the line might lie at all times in the most perfect security. One of the branches of the creek extends inland to within three leagues of the Lake of Leon or Managua. The intermediate country is a gentle slope, where undoubtedly should enter one of the ends of the canal to connect the Pacific and Atlantic Oceans. The difficulties to be encountered in crossing the chain of hills between the Lake of Nicaragua and San Juan del Sur would be entirely avoided by bringing the canal through the Lake of Leon (connected as it is with that of Nicaragua by a river that might be rendered navigable at a moderate cost) to the above-named branch of the Realejo harbour, thus securing the great advantage of an excellent harbour at each end of the canal, besides many others which are certainly not to be met with either at Panama, Tehuantepec, or any other place.

The town of Realejo is about two leagues distant from the part of the creek where vessels lie, but there is sufficient depth for small vessels to come within a mile of the town, and a very little labour would make it accessible to large ships, but an enlightened Government would probably prefer moving the town to the opposite side of the reach, where vessels lie, where there is a site extremely suitable for the purpose, and where a quay might easily be erected capable of accommodating any number of ships. In the time of the Spanish Government several vessels, some of 300 to 400 tons, were built at Realejo, where the wood is very superior and durable.

The port of San Juan del Sur, to which place was proposed to bring the canal, seems inferior to Realejo in most respects. The Gulf of Papagayo where the port is situated, is very difficult to enter for a sailing vessel for five months in the year.

Port charges, 10 cents per ton; lighterage, 50 cents dollar per ton; pilotage, 1½ dollar per foot.

Pilotage is charged both in and out.

NICARAGUA or PEACH WOOD (Ger. Nicaraguaholz, blutholz; Dutch, bloedhout; Span. palo de sangre; Port. sanguinho). A tree of the same genus (*Cesalpinia*) as the Brazil and sapan wood; but the species has not been exactly ascertained. It grows principally in the vicinity of the Lake of Nicaragua, whence its name.

It is said by Dr. Bancroft to be almost as hard and heavy as the true Brazil wood, but it does not commonly afford more than a third part, quantity, of the colour of the latter; and even this is rather less durable and less beautiful though dyed with the same mordants. Nicaragua or peach woods differ greatly in their quality as well as price; one sort being so deficient in colouring matter, that 6 pounds of it will only dye as much wool or cloth as 1 pound of Brazil wood; whilst another variety of it will produce nearly half the effect of an equal quantity of Brazil wood, and will sell proportionally dearer. (Bancroft *On Colours*, vol. ii. p. 382.)

The London dealers distinguish Nicaragua wood into three sorts, viz. *large, middling, small*; the price of the 1st sort being from 13l. per ton; of the 2nd, from 7l. to 10l. do.; and of the 3rd, from 6l. to 7l. per do. duty, after being reduced in 1831 from 15s. to 10s. per ton, and in 1842 to 2s. per do., was which

gers, and having in depth of water. At can at all times enter any quarter it may of a noble basin of fathoms deep, with hundred ships of the in the most perfect of the creek or leagues of the Lake intermediate country is edly should enter on nect the Pacific and enties to be secur- of hills between the Juan del Sur would the canal through ad as it is with that might be rendered cost) into the above lejo harbour, thus ce of an excellent har al, besides many others be met with either any other place.

about two leagues dis creek where vessels lie th for small vessels to town, and a very little accessible to large ships ment would probably the opposite side of the here there is a site ex purpose, and is cap- able of accommodating the time of the Spani sels, some of 300 to 40 del Sur, to which place e canal, seems inferior The Gulf of Papagay d, is very difficult to ent month. In the year, s per ton; lighterages, 14 dollar per foot. th in and out.

EACH WOOD (Ger. N Dutch, blackhout; P Nicaragua; Ital. leg de sangre; Port. is the same genus (*Cesalpinia* a wood; but the spec ascertained. It grows of the Lake of Nicaragua; Ital. leg de sangre; Port. is the same genus (*Cesalpinia* a wood; but the spec ascertained. It grows of the Lake of Nicaragua;

profit to be almost as Brazil wood, but it dore than a third part of the latter; and ex- able and less beautif same mordants. Nicag greatly in their qual- rt being so deficient pounds of it will coth as 1 pound of Bra- rity of it will prod of an equal quantity sell proportionally de l. ii. p. 332.) distinguish Niang iz. large, middling 1st sort being from 2nd, from 7L to 10L. to Gl. to 7L per do. in 1831 from 15L to 2s. per do., was who

lished in 1844. The imports of Nicaragua wood amounted in 1865 to 342 tons, and in 1867 to 411 tons, valued at 6,769L.

**NICKEL.** A scarce metal, which occurs always in combination with other metals, from which it is exceedingly difficult to separate it. When pure, it is of a fine white color, resembling silver. It is rather softer than iron; its specific gravity, when cast, is 8.279; when hammered, 8.02. It is malleable, and may without difficulty be hammered into plates not exceeding  $\frac{1}{16}$  inch in thickness. It is attracted by the magnet; and is not altered by exposure to the air, nor by being kept under water. It is employed in potteries, and in the manufacture of porcelain. (Thomson's *Chemistry*; Watt's *Dictionary of Chemistry*.)

This metal is the foundation of 'German silver,' and is also employed, either pure or in combination with copper, as a form of currency. Coins containing 20 parts of nickel, and 80 of copper, are circulated in Belgium. The weight of a nickel Belgian penny is little more than a dram. In 1867 nickel in the metallic form, or in that of refined oxide, was imported into the United Kingdom to the value of 1,970L.

**NINGPO**, one of the five ports thrown open to commerce by the treaty of Nankin, is situated in the province of Che-Kiang, on the river Yung, lat. 29° 55' 12" N., long. 121° 22' E. The port of Ningpo commences at the river's mouth; three islands, called the Triangles or Yew Islands, forming three passages to the river. The port is 11 miles up the stream, which is about 600 yards wide at this point, with depths varying from 5 to 2 fathoms. Vessels of 17 feet draught can proceed to the city at half tide or springs. European ships procured at Chin Hai. The rates of pilotage are 3 dol. from and to Square Island, and 10 dol. from and to Chusan Island.

**Lighthouses.**—The access to the river Yung was facilitated by the construction of two lighthouses on the islands off its mouth. The first is built on Square Island, and is 186 feet above the sea level. Lat. 29° 59' 22" N., long. 121° 45' 6" E. The second lighthouse, 154 feet above the sea level, is on Tiger's Island, about half a mile from the entrance of the river, lat. 29° 57' 43" N., long. 121° 47' 51" E.

The chief exports of Ningpo are tea, silk, and cotton; the imports, textile fabrics, opium, and rice. The export of tea from Ningpo has increased from 4846,254 lb. in 1863, to 15,444,816 lb., valued at 1,312,110L, in 1867; and Mr. Consul Fildes states that Ningpo is now asserting her natural right to be the tea depot of the province of Che-Kiang.

In 1867, vessels of in all 185,082 tons entered the port; while, in 1866, 654 vessels of 191,083 tons; and in 1865, 910 vessels of 258,247 tons, entered.

	1861	1865	1866	1867
Imports - tons	10,364,616	6,481,599	5,408,091	6,965,359
Exports "	6,550,306	5,085,255	6,155,818	7,280,103

Ningpo was seriously injured by the Taeping rebellion, and its commercial importance has declined since Shanghai has risen to the eminence of a great commercial city. (Consular Reports; &c.)

**SITRE.** [SALTPETRE.]  
**NOTE, PROMISSORY.** [BANK-BANKING.]  
**NUT or HAZEL NUT** (Ger. haselnüsse; Fr. noisettes; avellanes; Ital. nocciuole, avellane; Span. avellanas; Port. avellãs; Lat. avellane). The kernels have a mild, farinaceous, oily taste, agreeable to most palates. A kind of chocolate

has been prepared from them; and they have sometimes been made into bread. The expressed oil of hazel nuts is little inferior to that of almonds. Besides those raised at home, we import nuts from different parts of France, Portugal, and Spain, but principally from the latter. The Spanish nuts in the highest estimation, though sold under the name of Barcelona nuts, are not really shipped at that city, but at Tarragona, a little more to the south. The annual average export of nuts from Tarragona is from 25,000 to 30,000 bags; of 4 to the ton. The average price here in 1867 was 15s. per bushel. In 1867, 279,991 bushels of hazel nuts, valued at 196,998L, were imported. The duty, which was reduced in 1853 to 1s. per bushel, was abolished in 1862.

**NUTS (GROUND)** (*Arachis hypogaea*), known in French commerce as *arachides*, in America as *pea-nuts*, and in Africa as *mandabin*, the fruit of a papilionaceous plant, rising to the height of about 15 inches, being very like the field pea, with yellow flowers. The branches after flowering bend down till they touch the ground, into which they work themselves, and upon them grow the pods that contain the nuts. When the nuts are ripe, the plant dies. It is then pulled up, and the nuts which adhere to the twigs are collected. The pods, which are of an elongated figure, about  $\frac{3}{4}$  inch in length, and  $\frac{1}{2}$  inch in circumference, and brittle, usually contain 2 nuts, but sometimes only 1, and very rarely 3. They are elliptical at one end and flattened at the other.

Ground nuts are grown in light sandy soils in most tropical countries. They have been used as food from time immemorial in Africa, India, Brazil, and other parts both of South and North America. The best are raised on the banks of the river Gambia, where they are extensively grown in large fields, the ground being prepared for their reception by the natives after the usual fashion of the country. The plant is very prolific; it is also said to be highly exhaustive of the soil, though this is, perhaps, questionable.

Ground nuts yield large quantities of oil; and since 1840 they have been grown in Africa as an article of commerce, and are now largely exported for crushing. A mill for expressing oil from them was constructed in London in 1835. But the French Government having a few years after imposed high duties on most descriptions of oil seeds, the oil crushers of Marseilles and other towns endeavoured to find out seeds not included in the tariff, or less heavily taxed than the others. They were thus led to import *arachides* or ground nuts, which they found to answer extremely well. France has, in consequence, become the great market for this peculiar product. The exports from the Gambia, which in 1835 did not exceed 47 tons, had increased in 1851 to not less than about 12,000 tons. Of this quantity about 800 tons went to the United States (where they are eaten at dessert, roasted, as are chestnuts elsewhere), 700 to England, and the rest to France, principally to Marseilles. In the year 1866, 1,309,097 bushels of ground nuts, valued at 130,910L, were exported from the Gambia; of these by far the largest portion (1,067,716 bushels) was shipped to France, 143,227 to the United Kingdom, and 77,839 to the United States. The ground nuts of the Gambia are now (1868) subject to an export duty of  $\frac{3}{4}$ d. per bushel. The total imports of *arachides* into France in 1863 amounted, according to the official returns, to 41,713,486 kilogrammes or 44,668 tons, while our imports of ground nuts in 1867 were 1,620 tons, valued at 26,446L, and we also received other nuts and

kernels, commonly used for expressing oil, to the extent of 9,570 tons, valued at 121,019*l*.

Nuts are also exported from the Rio Grande, Madras, the Rio Nanez, and from Sierra Leone, and the adjoining rivers. And though there are no accounts of the exact quantities sent from each, it is believed that their aggregate amount is fully equal to the exports from the Gambia. Within the last 3 or 4 years considerable quantities have been shipped from the Senegal river.

The oil expressed from the nuts differs in quality and price according to the care with which it is refined. That made in London is equal to fine olive oil. In France the oil is principally used in the manufacture of soap; and being inferior to that made here, is worth from 45*l*. to 48*l*. per tun.

Besides being used for the like purposes as other oil in food, in the woollen manufacture, and in lumps, the oil of ground nuts is said to be especially well fitted for lubricating heavy machinery, including the locomotive engines on railways. The Belgians use it for this latter purpose in preference to all other oils.

Ground nuts were worth upwards of 16*l*. per tun in London in 1867. (*Parliamentary Papers, and private information.*) [COCOA NUTS.]

NUTMEG (Ger. muskatennüsse; Dutch, muskaat; Fr. muscades; noix muscades; Ital. noce moscada; Span. moscada; Arab. jowzkalteib; Sansc. jūtiphala; Malay, buah-pala). The fruit of the genuine nutmeg tree (*Myristica moschata*), a native of the Moluccas, but which has been transplanted to Sumatra, Penang &c. An inferior and long-shaped nutmeg is common in Borneo; but the fruit nowhere attains to the same perfection as in the Moluccas.

Of the several varieties of the tree, that denominated the queen nutmeg, which bears a small round fruit, is the best. The kernel, or proper nutmeg, is of a roundish oval form, marked on the outside with reticulated furrows, internally greyish red, with dark brownish veins, and of a fleshy farinaceous substance. Nutmegs are frequently punctured and boiled, in order to obtain the essential oil; the orifice being afterwards closed; but the fraud is easily detected by the lightness of the nutmeg. (*British Pharmacopœia; Thomson's Dispensatory; Ainslie's Materia Indica.*)

In 1867, 370,193 lb. of nutmegs, valued at 23,417*l*., were imported into the United Kingdom. Of these the largest quantity was derived from the Straits Settlements, the quality of the Singapore nuts being superior to that of the Java and Madras produce. Nutmegs exported from Java are liable to duties. 9½ gulden (15*s*. 10*d*.) are levied on the picul when the export is in Dutch vessels and to Holland; 19 gulden (31*s*. 8*d*.) on the same quantity, exported direct to foreign countries or to Holland in foreign vessels. For the 3 years 1861-3, the average amount received by the Dutch Custom-houses in the above-named colonies was 73,797 gulden, i.e. 6,149*l*. 13*s*. The full export duty amounts to 25 per cent. of the gross value; and it seems unlikely that the Dutch colonies will long preserve their ascendancy in the nutmeg trade in the face of so exorbitant a tax.

Nutmegs should be chosen large, round, heavy, and firm, of a lightish grey colour on the outside, and the inside beautifully marbled, of a strong fragrant smell, warm aromatic taste, and a flat oily body. They are very subject to be worm-eaten. The best preservative is said to be, leaving them in their natural shells. The Dutch lime them, but the practice is said to injure their flavour. The oblong kind, and the smaller ones, should be rejected. 15 cwt. are allowed to a ton. (*Milburn's Orient. Com.*)

The dried produce of a nutmeg tree consists of NUTMEG, MACE, and shell. Supposing the whole produce to be divided into 100 parts, there are 13½ of mace, 33½ of shell, and 53½ of nutmeg. In the ancient commerce, and down to the establishment of the Dutch monopoly, nutmegs were always sold and exported in the shell. The natives, whenever the commerce is left to their management, continue the practice, which is strongly recommended by Mr. Crawford. (*Eastern Archipelago, vol. iii. p. 396.*)

The jealous policy of the Dutch has reduced the trade in nutmegs to a mere trifle, compared to what it would otherwise have been. They have in so far at least as it was possible, exerted themselves to exterminate the nutmeg plants everywhere except in Banda. The aboriginal inhabitants of this island have been expatriated, and the land parcelled among settlers from Holland, under the name *park keepers*. These persons have about 2,000 slaves, who cultivate and prepare the nutmeg. The prices paid by the cultivator are all fixed by Government: and it deserves to be mentioned, as affording one of the most striking illustrations of the ruinous effects of monopoly, that the price which the Government is now obliged to pay for nutmegs is FIVE TIMES greater than the price at which they bought them when the trade was free. We cannot conceive how so enlightened and liberal a Government as that of Holland should continue to tolerate such scandalous abuses, more especially since it has established a free system at Amboyna, Java, and its other possessions.

M. Temminck estimates the produce of the Banda Islands at about 600,000 lb. of nutmegs and 100,000 lb. of mace. (*Possessions néerlandaises dans l'Inde archipelagique, iii. 283.*)

During the period that the English had possession of the Spice Islands, nutmeg plants were carried to Penang, Bencoolen, and some of the West India islands. In the latter they have altogether failed at least as far as respects any useful purpose: very good nutmegs, and in considerable quantities, are now raised at Penang and Bencoolen. Mr. Crawford, however, alleges that the cost of bringing them to market is there so high, that the restoration of a free culture in the native country the nutmeg would instantly destroy this unstable and factitious branch of industry. (*Eastern Archipelago, vol. iii. p. 409.*)

The duty on nutmegs was reduced, in 1810, from 5*s*. 5*d*. to 2*s*. 6*d*. per lb.; and the quantity entered for home consumption has since rapidly increased. In 1837, 181,061 lb. nutmegs were entered for consumption. In 1853 the duty was reduced to 1*s*. per lb., and to 3*d*. and 5*d*. per lb. respectively on wild nutmegs in the shell and in the shell. It was repealed in 1862.

NUTRIA or NEUTRIA. The common names for the skins of *Myopotamus Bonarum* (Commerçon), the *Coppou* of Molina, and *Quoiya* of D'Azara. In France, the skins are called *coocuda*; but in England they are imported under the name of nutria skins—deriving their appellation, most probably, from some supposed similarity of the animal which produces them, in appearance and habits, to the otter, the Spanish name for which is *nutria*. Indeed, Molina speaks of the *coppou* as a species of water rat, of the size and colour of the otter.

Nutria fur is largely used in the hat manufacture; and has become, within the last 20 years, an article of very considerable commercial importance. The imports fluctuate considerably. In 1841 they amounted to 1,125,212 skins; in some years they are much less; in 1844,

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amounted to 242,733. In 1867 they were only 6110 from Italy and the Argentine Confederation. Those entered for home consumption formerly paid a duty of 1s. per 100 skins. This has been repealed since 1862. [FUR TRADE.]

The *coypou* or *quoyia* is a native of South America, very common in the provinces of Chili, Buenos Ayres, and Tucuman, but more rare in Paraguay. In size it is less than the beaver, which it resembles in many points. The head is large and depressed, the ears small and rounded, the neck stout and short, the muzzle sharper than that of the beaver, and the whiskers very long and stiff. There are, as in the beaver, 2 incisor teeth, and 18 molar, above and below—20 teeth in all. The limbs are short. The fore feet have each 5 fingers not webbed, the thumb being very small: the hind feet have the same number of toes: the great toe and 3 next toes being joined by a web which extends to their ends, and the little toe being free, but edged with a membrane on its inner side. The nails are compressed, long, hooked, and sharp. The tail, unlike that of the beaver, is long, round, and hairy; but the hairs are not numerous, and permit the scaly texture of the skin in this part to be seen. The back is of a brownish red, which becomes redder on the flanks: the belly is of a dirty red. The edges of the lips and extremity of the muzzle are white.

Like the beaver, the coypou is furnished with two kinds of fur; viz. the long ruddy hair which gives the tone of colour, and the brownish ash-coloured fur at its base, which, like the down of the beaver,

is of much importance in hat-making, and the cause of the animal's commercial value.

The habits of the coypou are much like those of most of the other aquatic rodent animals. Its principal food, in a state of nature, is vegetable. It affects the neighbourhood of water, swims perfectly well, and burrows in the ground. The female brings forth from 5 to 7 at a time; and the young always accompany her.

The coypou is easily domesticated, and its manners in captivity are very mild.

We are indebted for this account of nutria—the first, we believe, that appeared in any English work—to the late W. J. Broderip, Esq., F.R.S. &c.

**NUX VOMICA** (Fr. noix vomique; Ger. kühnenaugen, brechnüsse; Hin. kaehla). The fruit of a species of *Strychnos*, growing in various places in the East Indies.

The fruit is about the size of an orange, covered with a smooth crustaceous yellow bark, and filled with a fleshy pulp, in which are imbedded several orbicular flattened seeds, about  $\frac{3}{4}$  inch in diameter. Nux vomica is inodorous, and its taste, intensely bitter, remains long on the palate. It is known as a very virulent poison, its properties depending on a peculiar alkaloid, called strychnia. A suspicion has, however, been entertained, that it has been used in porter breweries; but its introduction into them is prohibited under heavy penalties. In 1865, 9,033 cwt. were imported, and 1,147 cwt. in 1867. (*British Pharmacopœia*, 1867; &c.)

## O

**OAK** (Ger. eiche; Dutch, eik; Dan. eg; Swed. ek; Fr. chêne; Ital. quercia; Span. roble, castaño; Port. roble, carvalho; Russ. dub; Pol. dąb; Lat. quercus; Arab. baalut). There are several varieties of this valuable tree; but the common English oak (*Quercus robur*) claims pre-eminence of every other. The oak timber imported from America is very inferior to that of this country: the oak from the central parts of Europe is also inferior, especially in compactness and resistance of cleavage. The knotty oak of England, the 'unwedgeable and gaurled oak,' as Shakspeare called it, when cut down at a proper age, is the best timber known. Some timber is harder, some more difficult to rend, and some less capable of being broken across, but none contains all the three qualities in so great and equal proportions; and thus, for at once supporting a weight, resisting a strain, and not splintering by a cannon shot, the timber of the oak is superior to every other.

A fine oak is one of the most picturesque of trees; it conveys to the mind associations of great strength, and of all but endless duration. It stands up against the blast, and does not take, like other trees, a twisted form from the action of the winds. Except the cedar of Lebanon, no tree is so remarkable for the storkness of its limbs: they do not exactly spring from the trunk, but divide from it; and thus it is sometimes difficult to know which is stem and which is branch. The twisted branches of the oak, too, add greatly to its beauty; and the horizontal direction of its boughs, spreading over a large surface, completes the idea of its sovereignty over all the trees of the forest. Even a decayed oak, such as that described by

—dry and dead,  
Still clad with collages of its trophies old,  
Lifting to heaven its aged, hoary head,  
Whose foot on earth has got but feeble hold,

is strikingly beautiful.

The oak is raised from acorns, sown either where the oak is to stand, or in a nurery, whence the young trees are transplanted.

The colour of oak wood is a fine brown, and is familiar to everyone; it is of different shades; that inclined to red is the most inferior. The larger transverse septa are in general very distinct, producing beautiful flowers when cut obliquely. Where the septa are small, and not very distinct, the wood is much the strongest. The texture is alternately compact and porous; the compact part of the annual ring being of the darkest colour, and in irregular dots surrounded by open pores, producing beautiful dark veins in some kinds, particularly pollard oaks. Oak timber has a particular smell, and the taste is slightly astringent. It contains gallic acid, and is blackened by contact with iron when it is damp. The young wood of English oak is very tough, often cross-grained, and difficult to work. Foreign wood and that of old trees are more brittle and workable. Oak warps and twists much in drying; and, in seasoning, shrinks about  $\frac{1}{3}$  of its width.

Oak of a good quality is more durable than any other wood that attains a like size. Vitruvius says it is of eternal duration when driven into the earth: it is extremely durable in water; and in a dry state it has been known to last nearly 1,000 years. The more compact it is, and the smaller the pores are, the longer it will last; but the open, porous, and foxy coloured oak, which grows in Lincolnshire and some other places, is not near so durable.

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Besides the common British oak (*Quercus robur*), the sessile-fruited bay oak (*Quercus sessiliflora*) is pretty abundant in several parts of England, particularly in the north. The wood of this species is said by Tredgold to be darker, heavier, harder, and more elastic than the common oak; tough and difficult to work; and very subject to warp and split in seasoning. Mr. Tredgold seems disposed to regard this species as superior to the common oak for ship-building. But other, and also very high authorities, are opposed to him on this point; and, on the whole, we should think that it is sufficiently well established, that for all the great practical purposes to which oak timber is applied, and especially for ship-building, the wood of the common oak deserves to be preferred to every other species. A well-informed writer in the *Quarterly Review* has the following remarks on the point in question:—

‘We may here notice a fact long known to botanists, but of which our planters and purveyors of timber appear to have had no suspicion—that there are two distinct species of oak in England—the *Quercus robur*, and the *Quercus sessiliflora*; the former of which affords a close-grained, firm, solid timber, rarely subject to rot; the other more loose and sappy, very liable to rot, and not half so durable. This difference was noted so early as the time of Ray; and Martyn in his *Flora Rustica*, and Sir James Smith in his *Flora Britannica*, have added their testimonies to the fact. The second species is supposed to have been introduced some two or three ages ago, from the Continent, where the oaks are chiefly of this latter species, especially in the German forests, the timber of which is known to be very worthless. But what is of more importance to us is, that de facto the imposture abounds, and is propagated vigorously in the New Forest and other parts of Hampshire; in Norfolk and the northern counties, and about London; and there is but too much reason to believe that the numerous complaints that were heard about our ships being infected with what was called, improperly enough, *dry rot*, were owing to the introduction of this species of oak into the naval dock-yards, where, we understand, the distinction was not even suspected. It may thus be discriminated from the true old English oak: The acorn stalks of the *robur* are long, and its leaves short; whereas the *sessiliflora* has the acorn stalks short, and the leaves long: the acorns of the former grow singly, or seldom 2 on the same footstalk; those of the latter, in clusters of 2 or 3 close to the stem of the branch. We believe the Russian ships of the Baltic, that are not of larch or fir, are built of this species of oak; but if this were not the case, their exposure on the stocks, without cover, to the heat of summer, which, though short, is excessive, and the rifts and chinks which fill up with ice and snow in the long winter, are enough to destroy the stoutest oak, and quite sufficient to account for their short-lived duration.’

A great deal of enquiry and discussion has taken place at different periods as to the supply and consumption of oak timber; but the results have not been very satisfactory. In a *Report of the Commissioners of Land Revenue*, printed in 1812, it is stated that, taking the tonnage of the navy in 1806 at 776,087 tons, it would require, at  $1\frac{1}{2}$  load to a ton, 1,164,085 loads to build such a navy, and supposing the average duration of a ship to be 14 years, the annual quantity of timber required would be 83,149 loads, exclusive of repairs, which they calculate would be about 27,000 loads; making the whole about 110,000 loads; of which, however, the commissioners reckon may be fur-

nished 21,341 loads as the annual average of the prizes; and of the remaining 88,659 loads, they think it not unreasonable to calculate on 28,659 from other sources than British oak. ‘This,’ they observe, ‘leaves 60,000 loads of such oak as the quantity which would be sufficient annually to support, at its present unexampled magnitude, the whole British navy, including ships of war of all sorts; but which may be taken as equivalent together to 20 14-gun ships, each of which, one with another, contains about 2,000 tons, or would require, at the rate of  $7\frac{1}{2}$  loads to the ton, 3,000 loads; making just 60,000 loads for 20 such ships.’

Now, it has been supposed that not more than 40 oak trees can stand on an acre of ground, so as to grow to a full size fit for ships of the line, or to contain each  $1\frac{1}{2}$  load of timber; 50 acres, therefore, would be required to produce a sufficient quantity of timber to build a 74-gun ship, and 1,000 acres for 20 such ships; and as the oak requires at least 100 years to arrive at maturity, 100,000 acres would be required to keep up a successive supply, for maintaining a navy of 200,000 or 800,000 tons. The commissioners further observe, that as there are 20,000,000 acres of waste lands in the kingdom, a 200th part set aside for planting would at once furnish the whole quantity wanted for the use of the navy.

According to Mr. Barrow, this calculation over-rated by about a half. ‘In the first place,’ says he, ‘it supposed a state of perpetual war during which the tonnage of the whole navy considered as more than double of what it actually is: and, in the second place, it reckoned the average duration of the navy at 14 years only, which, from the improvements that have taken place in the construction and preservation of ships of war, with the resources of oak ships built in India, we should not hesitate in assuming at average of twice that number of years; and if the quantity of oak required for the navy were nothing like that which the commissioners have stated.’

‘The fact, however, is certain, that long before the conclusion of the late war, a scarcity began to be felt, especially of the larger kind of timber for ships of the line; and so great was this scarcity that if Sir Robert Seppings had not contrived a means of substituting straight timber for that of different forms and dimensions, before considered to be indispensable, the building of new ships must entirely have ceased.’

‘If, however, the growth of oak for ship timber was greatly diminished during the war, so as to threaten an alarming scarcity, there is little doubt that, from the increased attention paid by individuals to their young plantations, and their extension, as well as from the measure of allowing portions of the royal forests to those who claim on them, and enclosing the remainder to the use of the public, this country will, in future times, be fully adequate to the production of timber equal to the demand for the naval mercantile marine.’ (*Ency. Brit.* art. ‘Navy’)

The bark of the oak tree is very valuable. It is preferred to all other substances for the purpose of tanning, and brings a high price for [BARK.]

Formerly, Prussian oak was much more valued than Canadian, in the proportion of 9 to 6; and of late years the value of Prussian oak has fallen, and Canadian timber is worth much more than Prussian. In 1865, the last year through which the timber duties prevailed, the following imports of oak were fixed at the annexed:—

OATS

Country	Loads	Prices
Russia	4,115	2 s. d.
France	21,062	10 11 9
Prussia	19,811	4 9 10
Denmark	1,466	7 4 15 10
Sweden	8,591	7 9 0
Canada	51,021	4 16 10
Other ports	1,991	5 4 7
Total	109,505	5 8 6

The imports of oak timber have greatly increased of late years. During the 6 years 1836-1841, the imports were only, on an average, 3,583 loads. In 1842 our imports of oak were 67,885 loads, of which Prussia contributed 25,421, and Canada 32,109. For further details with respect to the importation of oak, its price &c., see TIMBER. See, also, Wedgwood's *Principles of Carpentry*; art. 'Navy,' in the *Encyc. Brit.*; the very interesting work *On Timber Trees and Fruits*, in the Library of Experimental Knowledge; Rees's *Cyclopaedia*; &c. OATS (Ger. *hafer*; Dutch, *haver*; Dan. *havre*; Swed. *hafre*; Fr. *avoine*; Ital. *venna*, *avena*; Span. *avena*; Port. *avena*; Russ. *oves*; Pol. *owies*). A species of grain, the *Avena sativa* of botanists, some of which are said to be indigenous to Britain. It is the hardiest of all the cereal grasses, growing luxuriantly in cold northern climates, and in those mountainous districts, where neither wheat nor barley can be advantageously cultivated. It thrives best, and is, indeed, chiefly raised, in latitudes north of Paris; being but little known in the south of France, Spain, or Portugal. It is, however, cultivated in Bengal, so low as the 25th degree of latitude, and, it is said, with considerable success. In Scotland, where it has long formed a principal part of the food of the people, it is far more generally cultivated than any other species of grain. It is also very extensively cultivated in Ireland. In England it is grown principally in the northern counties, and in the fens of Lincoln, Huntingdon, Cambridge, and Norfolk; but the north of Northumberland and Scotland are reckoned to those raised further south. There are 4 leading varieties of this grain cultivated in England, viz. white, black, grey, and mixed or red oats. The sub-varieties of the white are numerous. That denominated the potato oat is present almost the only one raised on land in a high state of cultivation in the north of England and the south of Scotland, and usually brings a higher price in the London market than any other variety. It was accidentally discovered growing in a field of potatoes in Cumberland in 1788; and has since the stock now in general cultivation. Black and grey oats are little cultivated, except in some places in the north of Scotland. The red is chiefly confined to Cheshire, Derbyshire, and Staffordshire. A species of naked oats produced in Cornwall is called *pillur* is raised in Cornwall. See *Encyc. of Agriculture*; Brown's *Rural Economy*, vol. ii. pp. 47-52. In 1765, Mr. Charles Smith estimated the number of consumers of oats in England and Wales at 1,000,000. (*Tracts on the Corn Trade*, 2nd edit. 1810.) But at present we believe they are very considerably fewer. The feeding of horses has at various times occasioned the greatest consumption of oats in this part of the kingdom; and as the number of horses kept for business and pleasure has been vastly increased within the last 30 or 40 years, the culture of oats has been considerably extended, notwithstanding the increasing imports from Ireland. Perhaps the produce of no species of grain varies more than that of oats. Where the soil is foul and exhausted, not more than 20

ODESSA

bushels an acre are obtained; but on rich soils, well managed, 64, 72, and sometimes 80 bushels, and upwards have been reaped. Oats weigh from 35 to 45 lb. per bushel, yielding at an average, 8 lb. of meal for 14 lb. corn; but the proportion of meal increases as the oats become heavier. In 1867 we imported 9,407,136 cwt. of oats, chiefly from Sweden and Russia, 9,373,625 cwt. were entered for home consumption, valued at 4,319,908*l.*, and paying duty to the extent of 117,493*l.*

For information as to the laws regulating the importation and exportation of oats, their prices, the quantities imported and exported &c., for a series of years, see CORN LAWS AND CORN TRADE.

ODESSA. A seaport of Southern Russia, on the north-west coast of the Black Sea, between the rivers Dniester and Bug, in lat. 46° 28' 54" N., long. 30° 43' 22" E. Population, in 1865, about 120,000. The foundations of Odessa were laid so lately as 1792, by order of the Empress Catharine, after the peace of Jassy. It was intended to serve as an entrepôt for the commerce of the Russian dominions on the Black Sea and the Sea of Azoff. But being on the verge of an arid plain to a very considerable distance from the entrance to the Sea of Azoff, and even from the mouths of the great rivers between which it is situated, we doubt whether much judgment was displayed in its selection. It has, indeed, the important advantage of having an extensive bay or roadstead with deep water and good anchorage. The bay is, however, exposed to the south-easterly wind, which renders it less safe in winter. The port, which is artificial, being formed by two moles, one of which projects to a considerable distance into the sea, is fitted to contain about 300 ships. It has the advantage of deep water, but is said to be gradually filling up. There is a convenient lazaretto, on the model of that of Marseilles. The want of fresh water is a great disadvantage. There are no trees in the vicinity, which has, in consequence, a bleak and arid appearance. Mr. Matthew, formerly consul for the Russian ports on the Black Sea, made the following statement with respect to Odessa:—

'The neglected condition of the city, and of its harbour, and the bad state of the roads leading to the interior, must ultimately affect (unless timely remedies are applied) the commerce it now enjoys, as the natural outlet of the great grain-growing provinces of Russia. The town is unpaved, undrained, and inefficiently lighted by a few oil lamps; the mud in the winter, and the clouds of dust created by it in the summer, render the streets almost impassable. The supply of water, which each must buy, is wholly inadequate and bad, although an aqueduct the waters of the Dniester in level plain would bring pay for itself in three years by the carriage of Bessarabian produce. The harbour is gradually filling up, without any efforts to prevent it, and it is impossible to avoid the conviction that the Government must desire, by the neglect of Odessa, to promote the prosperity of Theodosia, which, for reasons of military policy, has been preferred to Odessa for the terminus of the great Moscow Railway. But though this state of things be sufficiently discreditable to the Government and the municipality, there is not, we believe, any ground for the surmise that Odessa is being intentionally neglected. Its position is not, in truth, very favourable; either in a military or commercial point of view; and an emporium at or near the Straits of

Yenikale would be at once more secure from hostile attack, and better situated for the trade of the southern provinces of the empire. Odessa has, since December 1865, been connected by a railway of 200 verstes with Balta in Podolia; there is another between Odessa and Tiraspol; and it is probable that her connection by rail with St. Petersburg may be completed in 1870.

There is a lighthouse on Cape Fontana, about 2 leagues south of the town, lat. 46° 22' 29" N., long. 30° 45' 28" E. It was newly built in 1861. And a second on the end of the Quarantine mole, lat. 46° 29' 23" N., long. 30° 44' 56" E. The latter gives a red flash every minute, and during the day a yellow flag is hoisted.

Not being at the mouth of any great river, nor having any considerable manufactures, Odessa is not a port for the exportation of what may be called articles of native growth; but in consequence of her situation, excellent port, and the privileges she enjoyed down to a late period, she has become the emporium where a large part of the produce of Southern Russia destined for foreign countries is collected for exportation, and where most part of the foreign articles required for home consumption are primarily imported. The shallowness of the water at Taganrog, and the short period during which the Sea of Azoff is navigable, tend to hinder foreign vessels of considerable burden from entering the Strait of Yenikale, and occasion the shipment of a considerable portion of the produce brought down the Don in lighters to Calla and Odessa, especially the latter. All the products brought down the Dniester, the Bug, and the Dnieper, are exported from Odessa; but owing to the difficult navigation of the first and last mentioned rivers, by far the greater part of the corn brought to Odessa from Podolia, Ukraine &c., was, prior to the formation of the railway to Balta, conveyed to the town in carts drawn by oxen. The post roads are very bad; and nothing would contribute so much to increase the commerce of the port, and the prosperity of South Russia, as the opening of improved communications with the interior; whether by removing obstructions in the channels of the rivers, constructing canals, or railways, or good common roads.

*Moneys, Weights, and Measures, and Tariff,* same as at PETERSBURG.

The privilege of a free port conferred upon Odessa in 1817, was permitted to expire in 1856. But the change in the tariff in 1857, and the abolition which has taken place of the quarantine system, might, had they been accompanied by other necessary changes, have compensated or more for the abolition of the peculiar privileges enjoyed by the city. Mr. Consul-General Grenville Murray, in his Report of April 2, 1866, says that 'the administration of the law excites constant, serious, and well-founded complaints.' But he adds that 'it is impossible to avoid remarking the constantly increasing civilisation and general prosperity of this country.' The paving of Odessa with granite progresses, though slowly, the city has been lighted with gas; and a canal is projected between Odessa and the Dnieper. The new tariff, which came into operation in January 1869, though still illiberal, is a decided improvement on its predecessor, and will no doubt give an impetus to the trade of Russia.

*The great Articles of Export from Odessa* consist, as everyone knows, of the raw products of the soil, especially of wheat, and other varieties of corn. But cattle, wool, tallow, hides, and linens are also important articles; and to these have to be added potash, copper, caviare, cordage, wax, sail-cloth, tar, butter furs, isinglass &c.

We subjoin an account of the quantity of the principal articles exported from Odessa in 1864.

Articles	Quantity	Value
Wheat - - - qr.	1,595,331	2,167,620
Rye - - - "	102,841	8,410
Indian corn - - "	5,938,84	27,020
Barley - - - "	161,876	186,613
Oats - - - "	62,861	22,018
Peas - - - "	241,700	65,110
Linsced - - - "	278,760	50,023
Rape seed - - - "	56,729	25,445
Flour - - - "	75,100	123,150
Wool - - - cwt.	15,562	66,879
Tallow - - - "	61,526	148,111
Hides and skins - - "	1,223	17,500
Total - - - "	-	4,165,380

Value of imports at the port of Odessa in 1864, 1,827,866*l*. These consisted principally of coffee, oil, wines, fruit, tobacco, iron and iron plate, cotton, silk, and woollen goods. The exports 1865 were valued at 5,075,498*l*, and in that year 1,362 vessels, of 583,210 tons, entered the port.

The value of the imports and exports from Great Britain in 1864 was 1,196,465*l*, or upwards of one-fifth of the whole.

Regular lines of steamers ply between Odessa and Galacz and Constantinople, the latter being of course, connected with all the leading ports of Europe.

The exports of wheat from Odessa in 1864 amounted to 2,016,692 quarters. This immense exportation, the greatest ever previously made any one year from any one port, was a consequence partly of the abundant harvest of the present year, and partly, and perhaps principally, of scarcity and high prices which then prevailed in this country and other parts of West Europe which made every bushel be shipped that possibly be spared. But in 1855, the year before the late war, the exports were still greater, having amounted to 2,160,000 quarters. There here, in truth, the greatest possible variation in the harvests. Everything depends on the season. In proof of this allegation we may refer to a statement by Tegoborski, who says, that in estates of the Duke of Anhalt Koethen, Taurida, in the 10 years from 1832 to 1841, 4 harvests returned 15 times the seed, others but the seed, and that one entirely failed. (*Productions de la Russie*, i. 380.) Nature, all, man little or nothing. Agriculture is in the most backward state imaginable. No effort made to obviate the effect of droughts and rains. And owing to the badness of the roads or ports and the difficulty of river carriage, a considerable portion of the produce of a luxuriant crop is brought to market or warehoused, but is allowed to go to waste. Some improvements have doubt, been effected, and others are in progress; but they are inconceivable compared with what they should have been, and with what they would have been were the policy pursued by Great Britain calculated to develop the resources of the rich and fruitful countries of which Odessa is an emporium.

*Observations on the Trade of Odessa in 1864.* 'The exportation of rye from this port has at no time been otherwise than very limited, and is raised for local consumption, being the chief article of food of the people, and not like wheat, which is grown with the sole view of exportation. The quantity of rye shipped last year was 700,000 quarters, the whole of which went to the north and west ports of continental Europe. The price was from 10*s*. 6*d*. to 17*s*. 6*d*. per imperial quarter. It was the highest quotation that prevailed at the end of the year. Indian corn is become an article of exportation from Odessa only within a few years. It is the produce of Bessarabia, where its cul-

of the quantity of the from Odessa in 1865.

Quantity	Value
1,595,532	2,167,863
30,784	4,400
3,98,334	74,000
161,856	16,433
62,209	6,310
24,109	30,915
278,709	50,023
70,729	24,000
75,100	12,150
159,562	18,821
61,280	18,111
1,527	1,195
	511,315

the port of Odessa in 1865 consisted principally of coffee, iron and iron plate, and goods. The exports in 1875, 1898, and in that year 10 tons, entered the port. Imports and exports for 1865 was 1,196,465, or upward of 100,000 tons.

Carriers ply between Odessa and Constantinople, the latter being with all the leading ports of the Black Sea.

Wheat from Odessa in 1865 22 quarters. This immense harvest over previously made by one port, was a consequence of the harvest of the previous year perhaps principally of the wheat which then prevailed in the parts of West Europe. But in 1855, the year of the exports were still great, 2,160,000 quarters. The greatest possible variation of the thing depends on the season. Allegation we may refer to Borski, who says, that in the case of Anhalt Koethen, years from 1832 to 1841, 5 times the seed, other years one entirely failed. (P. *Russie*, i. 380.) Nature nothing. Agriculture is in the effect of droughts and the badness of the roads or the river carriage, a considerable of a luxuriant crop in the warehouse, but is also some improvements have been, and with what they policy pursued by Government on the resources of the countries of which Odessa is

the Trade of Odessa in 1865 from this port has been very limited. The importation, being the chief, and not like wheat, which is the view of exportation.

shipped last year was of which went to the north of Europe. The prices were 5d. per imperial quarter. The importation that prevailed in Indian corn is becoming an article of Odessa only within a few years, and where its

has of late been much extended in consequence of the demand for Ireland. The quantity shipped in the year was 98,252 quarters, all directed to Cork or Falmouth for orders. The prices varied from 13s. 7d. to 17s. 4d. per imperial quarter; and 16s. 2d. was the last quotation. The quantity remaining in granary was, after revision, found to be 32,000 quarters, all in the hands of exporters. The supplies of barley and oats have as usual been limited to local consumption.

The exportation of linseed is stated in the Custom-house report to be 47,875 quarters; whereas I find that 51,369 quarters were shipped for England, and 17,001 for continental ports. The crops having been good, and grown on the best steppe lands, a large supply of the new seed has been already brought to market, and the quantity on the spot is estimated to be about 300,000 quarters, all in the hands of shippers. The prices ranged from 28s. 1d. to 35s. 11d. per imperial quarter. Large purchases were made last autumn by the crushers of Hull, for delivery next summer from the Sea of Azoff and this port; and under present circumstances both buyers and sellers are menaced by loss, for in England prices are declining, whilst on this side anticipations of extraordinary abundance have been disappointed.

The tallow trade of these ports has not recovered, nor is it likely to do so for some time, or till the country recovers from the immense loss of cattle carried away of late years by the distemper.

The exportation of wool suffered a considerable decrease, having amounted only to 50,748 cwt. of all kinds, instead of 75,581 cwt. in the preceding year. To England were shipped 14,378 cwt.; to the northern continental ports 18,492 cwt.; and the remainder to the Mediterranean. The sheep stocks have been thinned by consecutive seasons of drought and deficient pasturage; and the trade has of late been more influenced by the demand for the manufactures of Moscow. The prices are kept up at their highest quotations, and they are further affected by the anticipated disturbance of labor in Australia.

The amount of shipping did not much differ from that of 1850; 696 vessels arrived, measuring 126,318 tons, of which 126 were British, burden 103,331 tons; and 729 vessels measuring 203,842 tons departed, of which 130 were British, burden 60,800 tons. Of the 242 vessels bound to England with cargoes 110 were British. The preference is still given to our flag, particularly in the boisterous seasons. The Austrian ships of the Adriatic are, however, in great favour, especially for grain cargoes. The rates of freights to England varied from 12. 15s. to 3l. 5s. per ton, or from 5s. 5d. to 10s. per imperial quarter; and the highest rates prevailed during the last three months, offering a fair remuneration to shipowners. The average exchange on London was 6/30rs. for the pound sterling. The money market was generally easy, with limited operations; and credit is at present liberal, though restricted in consequence of the great losses incurred in the grain trade by the Greek houses. It is worthy of remark, that not one of these houses has failed, notwithstanding their severe trials.

A tribunal of commerce was established at Odessa in 1824, whose jurisdiction extends over all disputes connected with trade. There is no appeal from its decisions except to the Senate. There are 12 sworn brokers, approved and licensed by the Tribunal of Commerce, who have deputies appointed by themselves. They register all transactions, and receive 1/2 per cent. from each party

as commission. There is a discount or loan bank, established in 1828, and marine and fire insurance societies. Most articles of provision are cheap; and fish, which costs next to nothing, is excellent. Fuel, however, is scarce and dear.

Within the last 40 years the Merino breed of sheep has been extensively introduced into the governments of Taurida, Cherson, and Ekaterinoslav; so that there has been not only a great increase in the quantity, but also a very decided improvement in the quality, of the wool exported.

**Corn Trade.**—The principal trade of Odessa is with Constantinople, Smyrna, and other towns in the Levant, Naples, Leghorn, Genoa, Marseilles &c. 'It is generally stated,' says Mr. Jacob (*Memoir on the Trade of the Black Sea*, in the Appendix to the 8vo. edition of *Tracts on the Corn Trade*), 'that the supply of Constantinople requires annually 100,000 quarters of Black Sea wheat. The Greek islands scarcely, on the average of years, produce sufficient wheat for their own consumption, and, in some years, require a large supply, which is furnished partly from the neighbouring continent, and partly from the Black Sea.'

The Asiatic coasts of the Turkish Empire, especially in Anatolia, are nearly in the same predicament. At times, the market of Smyrna is very favourable for the sale of the corn of Southern Russia. The islands of Malta and Gozo produce only about half as much corn as the 120,000 inhabitants require.

Sicily, though it has greatly declined from its ancient productiveness, has still a quantity of grain to spare for the less fruitful parts of Italy, in most years; and its wheat enters into competition with that of the Black Sea, in the ports of Naples, Genoa, and Leghorn.'

The warehouse rent of corn at Odessa is from 8 to 10 copecks per chetwert per month. M. de Hagemester supposes that Turkey and the different ports of the Mediterranean require, at an average, an annual supply of 1,400,000 chetwerts, or about 1,050,000 quarters, of which 1,000,000 chetwerts, or 750,000 quarters, are furnished by Southern Russia, and principally shipped from Odessa. Wallachia and Moldavia are both very fertile in corn; and were tranquillity and good order introduced into them, and the free navigation of the Danube secured, Galatz and Brailoff would be two of the principal European grain shipping ports. (See the excellent Report of Hagemester on the Trade of the Black Sea, pp. 96—114, Eng. trans.)

Exclusive of corn, the other articles mentioned as being exported from Odessa find their way to the different markets in the Mediterranean. Those shipped for Turkey are iron, tallow, sail-cloth, cordage, anchors for ships of war, butter &c. The exports to Italy and other European countries are similar.

The importation of foreign articles into the Russian dominions on the Black Sea and the Sea of Azoff is almost confined to Odessa, Theodosia or Kaffa, and Taganrog. The value of the import trade of Russia by these two seas in 1865 was 2,402,053l. It is, however, of inferior importance when compared with the export trade, valued in 1865 at 10,287,651l. The principal articles of import are sugar and coffee, dye woods, wine and brandy, cotton stuffs and yarn, woollen and silk manufactures, spices, cutlery; oranges, lemons, figs, and other fruit; lemon-juice, oil, tin and tin plates, dried fruits, paper, silk, specie &c.

Odessa, in addition to its great and rapidly increasing trade with Constantinople and the

countries on the Mediterranean, has a considerable trade with Redout-kalé at the mouth of the Phasis, and with Trebisond and several ports on the south coast of the Black Sea. Georgian and Armenian merchants are considerable purchasers at the Leipsic and other German fairs; and civilisation is beginning to strike its roots throughout all the extensive countries between the Black Sea and the Caspian. It is probable that, at no very remote period, the Phasis will be frequented by British ships; and that our merchants, without any enchantrées to aid them, and depending only on the superior cheapness and excellence of their goods, will be hospitably received in the ancient Colchis, and bear away a richer prize than fell to the lot of Jason and his compeers.

*Epochs in the Trade of the Black Sea.—Depth of Water.—Difficulty of Navigation &c.*—The trade of the Black or Euxine Sea was of great importance in antiquity. The shores of the Crimea, or Taurica Chersonesus, were settled by Milesian adventurers, who founded Pantiequum and Theodosia. The exports thence to Athens were nearly the same as those which are now sent from Odessa and Taganrog to Constantinople, Leghorn &c.; viz. corn, timber, and naval stores; leather, wax, honey, salt fish, caviare &c., with great numbers of slaves, the best and most serviceable that were anywhere to be met with. The Athenians set a very high value upon this trade, which supplied them annually with about 400,000 medimni of corn; and to preserve it they carefully cultivated the alliance of the Thracian princes, and kept a garrison at Sestus, on the Hellespont. (See the authorities in Anacharsis's *Travels*, c. 55; and in Clarke's *Connection of the Saxon and English Coins*, pp. 54—61.) During the Middle Ages the Genoese acquired an ascendancy on this sea, and laboured with pretty considerable success to monopolise its trade. Their principal establishment was at Caffa, which was the centre of an extensive commerce. But the conquest of Constantinople by the Turks, in 1453, was soon after followed by the conquest of Caffa, and the total exclusion of European vessels from the Black Sea, which became in a great measure unknown. This exclusion was maintained for about 300 years, or till it was opened to the ships of Russia by the treaty of Kainardgi in 1774. The Austrians obtained a similar equality of privileges in 1784; and British, French &c., ships were admitted by the treaty of Amiens. There were, however, some restraints still kept up; but these were abolished by the treaty between the Turks and Russians in 1829; and for commercial purposes, at least, the Black Sea is now as free as the Mediterranean.

Notwithstanding the number of English and other European ships that have visited this sea since the beginning of this century, its geography is still very imperfectly known. A notion seems to have been long prevalent, that it was not only stormy, but also infested with numerous shoals. Polybius, indeed, contends that, owing to the vast quantities of alluvial deposit brought down by the Danube and other large rivers that fall into the Black Sea, it was gradually filling up, and would become, at no very remote period, an immense morass. Dr. Clarke seems to have espoused the same theory. But, how probable soever it may appear, extremely little progress has hitherto been made towards the consummation described by Polybius. Instead of being shallow, the water is for the most part remarkably deep; with a bottom, where soundings have been obtained, of gravel, sand, and shells. A strong

current sets from the Black Sea, through the Bosphorus, or Canal of Constantinople, into the Sea of Marmora, and from the latter, through the Dardanelles, which it requires a fresh breeze stem. This current is said to be sensibly felt the Black Sea, 10 or 12 miles from the Bosphorus; and it may probably carry off some of the mud brought down by the rivers. (Tournefort's *Voyage du Levant*, lett. 15, 16; art. 9 in No. 1 of *Journal of the Geographical Society*; *Macedonian Travels in Turkey*, vol. i. p. 215; *Parliamentary Papers*, &c.)

The navigation of the Black Sea has been represented by most modern and all ancient writers as exceedingly dangerous. We believe, however, that there is very little foundation for the greater number of the statements on this subject. It is said to be particularly subject to dense fogs, and to currents; but the former are prevalent only in particular seasons, and the influence of the latter is not greater than in many other seas which are not reputed dangerous. Tournefort, one of the best and most accurate of travellers, considers navigation of the Black Sea as safe as that of the Mediterranean: 'Il n'y rien de noir, pour ainsi dire, que le nom; les vents n'y soufflent pas avec beaucoup de furie, et les orages ne sont guères plus fréquents que sur les autres mers.' (Tome ii. p. 164, ed.) Dr. Clarke (*Travels*, vol. ii. p. 367, 370, &c.) affects to doubt this: but he assigns no ground for his opinion; and who would think of putting his authority in competition with that of Tournefort? Indeed the accuracy of the statements of the latter has been fully established by the reports of Captain Middleton and the other officers who have navigated this sea. But, though without 'a hidden danger,' any sea would be deemed dangerous to the Greek and Turkish pilots, by whom the Black Sea has been principally navigated, if the progress of navigation were to be estimated by its state amongst them, we should have concluded that it had been stationary from the era of the Argonauts. They seldom venture into sight of the coasts; they have neither chronometers nor quadrants; and hardly even know that the points of the needle turn towards the North (Tournefort in loc. cit.) There is, not certainly much room for wonder at shipwrecks being frequent among vessels so navigated. On leaving the Black Sea, the greatest difficulty is in making the Bosphorus. 'The mountains,' says Mr. Gill, 'are all so much alike, that it is difficult to determine which of them is at the entrance until you are within a very few miles of the coast, then, with a fair wind, you are on a lee shore, and a lee current; and if you make a mistake, destruction is almost inevitable. The Turkish two light-houses at the entrance; but unless you see them before sunset, they are of little use in the forests on its borders, great quantities of charcoal are made, and the lights from it bewilder and often mislead the unhappy mariner.' (i. 23.) From the vast quantity of fresh water poured into the Black Sea, the saline particles are much diluted, that, with a slight frost, the surface becomes covered with ice; hence, during the great part of the year, hardly any navigation is attempted. The vessels that resort to Odessa seldom arrive at that port before the latter end of May; and those whose cargoes are not completed before the end of October, are obliged to wait the return of spring, than adventuring to encounter the dangers of an autumnal or winter voyage.

At Taganrog the frost commences earlier, and continues longer, than at Odessa; so that they are scarcely more than 4 or 5 months in the year

which the Sea of Azoff can be safely navigated.

**OIL** (Fr. huile; Ger. öl; Ital. olio; Lat. oleum; Arab. maslo; Span. aceite). The term *oil* is applied to designate a number of unctuous liquors, which, when dropped upon paper, sink into it and make it semi-transparent, or give it what is called greasy stain. These bodies are very numerous, and have been in common use from time immemorial. Chemists have divided them into two classes: namely, *volatile* and *fixed* oils. We borrow from Dr. Thomas Thomson the following statement with respect to these bodies:—

1. **VOLATILE OILS**, called also *essential oils*, are distinguished by the following properties:—1. Liquid, often almost as liquid as water, sometimes solid; 2. Very combustible; 3. An acrid taste and a strong fragrant odour; 4. Volatilised at a temperature not higher than 212°; 5. Soluble in alcohol, and imperfectly in water; 6. Evaporate without leaving any stain on paper.

By this last test it is easy to discover whether they have been adulterated with any of the fixed oils. Let a drop of the volatile oil fall upon a sheet of writing paper, and then apply a gentle heat to it: if it evaporates without leaving any stain upon the paper, the oil is pure; but if it leaves a stain upon the paper, it has been contaminated with some fixed oil or other.

Volatile oils are almost all obtained from vegetables, and they exist in every part of plants—the root, the bark, the wood, the leaves, the flower, and even the fruit; though they are never found in the substance of the cotyledons; whereas the fixed oils, on the contrary, are almost always contained in these bodies.

When the volatile oils are contained in great abundance in plants, they are sometimes obtained by simple expression. This is the case with oil of oranges, of lemons, and bergamotte; but in these they can only be obtained by distillation. The part of the plant containing the oil is put in a still with a quantity of water which is distilled off by the application of a moderate heat. The oil comes over along with the water, and swims upon its surface in the receiver. By this process are obtained the oils of peppermint, thyme, lavender, and a great many others, which are prepared and employed by the perfumer: others are secured by the distillation of resinous bodies. This is the case in particular with oil of turpentine, which is obtained by distilling a kind of resinous body, called turpentine, that exudes from the pine-tree.

Volatile oils are exceedingly numerous. They have been long known; but as their use in chemistry is but limited, they have not, hitherto, been subjected to an accurate chemical investigation. They differ greatly in their properties from each other; but it is impossible at present to give a detailed account of each.

The greater number of volatile oils are *liquid*; many, indeed, are as limpid as water, and have none of that appearance which we usually consider as oil. This is the case with the following: namely, of turpentine, oranges, lemons, bergamotte, &c. Others have the oily viscosity. It varies in them in all degrees. This is the case with the oil of mace, cardamom, sassafras, cloves, cinnamon. Others have the property of becoming solid. This is the case with the oils of parsley, fennel, seed, balm. Others crystallise by slow evaporation. This is the case with oil of thyme, pepper, and marjoram. The oil of nutmegs has usually the consistence of butter. This is the case also with the oils of hops and of pepper.

The colour of the volatile oils is as various

as their other properties. A great number are limpid and colourless; as oil of turpentine, lavender, rosemary, savine, aniseed: some are yellow; as spike, bergamotte: some are brown; as thyme, savory, wormwood: others blue; as camomille, motherwort: others green; as milkfoil, pepper, hops, parsley, wormwood, cajuput, juniper, sage, valerian; others, though at first colourless, become yellow or brown by age: as cloves, cinnamon, sassafras.

3. The odours are so various as to defy all description. It is sufficient to say that all the fragrance of the vegetable kingdom resides in volatile oils. Their taste is acrid, hot, and exceedingly unpleasant.

4. Their specific gravity varies very considerably, not only in different oils, but even in the same oil in different circumstances.

When the volatile oils are heated in the open air, they evaporate readily and without alteration diffuse their peculiar odour all around; but there is a considerable difference between the different oils in this respect. When distilled in close vessels, they do not so readily assume the form of vapour. Hence, they lose their odour, become darker in colour, and are partly decomposed. Oils do not seem very susceptible of assuming the gaseous form, unless some other substance, as water, be present.

II. **FIXED OILS** are distinguished by the following characters: 1. Liquid, or easily become so when exposed to a gentle heat; 2. Unctuous to the touch; 3. Very combustible; 4. A mild taste; 5. Boiling point not under 600°; 6. Insoluble in water, and nearly so in alcohol; 7. Leave a greasy stain upon paper.

These oils, which are called fat or expressed oils, are numerous, and are obtained partly from animals, and partly from vegetables, by simple expression. As instances may be mentioned whale oil or train oil obtained from the blubber of the whale and from cod; olive oil, obtained from the fruit of the olive; linseed oil and almond oil, obtained from linseed and almond kernels. Fixed oils may also be extracted from poppy seeds, hemp seeds, beech mast, and many other vegetable substances.

All these oils differ from each other in several particulars, but have also many particulars in common.

1. Fixed oil is usually a liquid with a certain degree of viscosity, adhering to the sides of the glass vessels in which it is contained, and forming streaks. It is never perfectly transparent; has always a certain degree of colour, most usually yellowish or greenish; its taste is sweet, or nearly insipid. When fresh it has little or no smell.

There exist also in the vegetable kingdom a considerable number of bodies which, at the ordinary temperature of the atmosphere, are solid, and have hitherto been considered as fixed oils. Palm oil may be mentioned as an example. The various substances used in India and Africa as substitutes for butter, and as unguents, may likewise be mentioned.

2. All the fixed oils hitherto examined are lighter than water; but they differ greatly from one another in specific gravity. The same difference is observable in different samples of the same oil.

Fixed oil, when in the state of vapour, takes fire on the approach of an ignited body, and burns with a yellowish white flame. It is upon this principle that candles and lamps burn. The tallow or oil is first converted into a state of vapour in the wick; it then takes fire, and supplies a sufficient quantity of heat to convert more oil into

Black Sea, through Constantinople, into the latter, though it acquires a fresh breeze and is sensibly felt miles from the Bosphorus; art. 9 in No. 1 of *Philosophical Society*; *Magazine*, i. p. 245; *Parliamentary*

Black Sea has been mentioned in all ancient writers. We believe, however, the foundation for the grounds on this subject. It is subject to dense fogs, warmer are prevalent only the influence of the land many other seas which is. Tournefort, one of the travellers, considers the Black Sea as safe as that of the *rien de noir, pour ainsi dire, n'y soufflent pas avec une sont guères plus fréquents.* (Tome ii. p. 164, *Travels*, vol. ii. p. 387, &c.) but he assigns no ground who would think of putting competition with that of Tournefort; the statement is fully established by the report of Middleton and other navigators of this sea. But the danger, any sea would be to the and Turkish pilots, by which men principally navigated. Navigation were to be estimated them, we should have it been stationary from the north. They seldom venture there; they have neither doubtably even know that the tide turns towards the North. There is not, certainly, at shipwrecks being so navigated. On leaving the greatest difficulty is in making the mountains," says Mr. M. which like, that it is difficult of them is at the entrance a very few miles of the coast, you are on a lee shore, if you make a mistake, inevitable. The Turks, the entrance; but unless the entrance, they are of little use. borders, great quantities of lights from it would be an unhappy marine." (6. 3.) quantity of fresh water poured the saline particles are with a slight frost, the sea with ice; hence, during the year, hardly any navigable vessels that resort to Odessa that port before the late those whose cargoes are at the end of October, more of spring, than adventures of an autumn or winter most commences earlier, in at Odessa; so that the in 4 or 5 months in the year.

vapour: and this process goes on while any oil remains. The wick is necessary to present a sufficiently small quantity of oil at once for the heat to act upon. If the heat were great enough to keep the whole oil at a temperature of 600°, no wick would be necessary, as is obvious from oil catching fire spontaneously when it has been raised to that temperature. When oil is used in this manner, either in the open air or in contact with oxygen gas, the only new products obtained are water and carbonic acid.

The drying oils are used as the vehicle of paints and varnishes. Linseed, nut, poppy, and hempseed oils belong to this class. These oils in their natural state possess the property of drying oils, but imperfectly. To prepare them for the use of the painter and varnish-maker, they are boiled for some time in an iron pot, and sometimes burnt till they become viscid. When they burn for some time, their unctuous quality is much more completely destroyed than by any method that has been practised. Hence it is followed frequently in preparing the drying oils for varnishes, and always for printer's ink, which requires to be as free as possible from all unctuousity.

Nut oil has been found preferable to all other oils for printer's ink; though the dark colour which it acquires during boiling renders it not so proper for red ink as for black. Linseed oil is considered as next after nut oil in this respect. Other oils cannot be employed, because they cannot be sufficiently freed from their unctuousity. Ink made with them would be apt to come off and smear the paper while in the hands of the book-binder, or even to spread beyond the mark of the types and stain the paper yellow.

The principal oils, in a commercial point of view, with the exception of ground-nut oil [NUTS, GROUND], are enumerated in the following statements. [OLIVE OIL, PETROLEUM.]

Account of the Quantities and Value of the different Varieties of Oil Imported into the United Kingdom in 1867.

Articles	Quantities	Price						
		£	s.	d.	£	s.	d.	
Castor - cwt.	21,073	5	2	0	to	3	12	8
Cod liver - tuns	818	61	10	0	69	7	0	
Train - "	11,901	38	14	3	45	0	0	
Spermaceti - "	5,226	113	16	0	118	0	0	
Coconut - cwt.	124,314	9	4	6	2	16	7	
Olive - tuns	19,913	56	12	0	70	7	6	
Palm - "	819,080	1	18	4	1	18	9	
Seed - "	16,872	38	12	10	60	4	10	
Rock, or Petro- leum, unreined - "	1,166	10	10	0	19	1	11	
reined gallons	5,374,532	0	1	24	0	1	34	
Turpentine - cwt.	134,461	1	18	9	4	18	11	

OLIBANUM (Fr. encens; Ger. weihrauch; Ital. olibano; Arab. looban). A gum-resin, the produce of a large tree (*Boswellia thurifera*, or *serrata*), growing in Arabia and India. It is imported in chests containing each about 4 cwt., from the Levant and India; the best comes from the former, and is the produce of Arabia. Good olibanum is in semi-transparent tears, of a pink colour, brittle, and adhesive when warm; when burnt, the odour is very agreeable; its taste is bitterish, and somewhat pungent and aromatic; it flames for a long time with a steady, clear light, which is not easily extinguished, leaving behind a black (not, as has been said, a whitish) ash. Olibanum is the frankincense (*thus*) of the ancients; and was extensively used by them in sacrifices. (Plin. *Hist. Nat.* lib. xii. c. 14.) It has also been used in the ceremonies of the Greek and Roman churches. (Pereira's *Mat. Indica*; Thomson's *Chemistry*; Kippingii *Antiq. Rom.* lib. i. c. 11.)

In 1867, 8,537 cwt. of olibanum were imported into England, valued at 25,915*l.*, or 3*l.* 6*s.* 8*d.* per cwt., and chiefly from British India. In the same year 13,103 cwt. were exported, chiefly to Russia and Turkey.

OLIVE, OLIVES (Ger. oliven; Fr. olive; Ital. ulive; Span. aceitunas; Port. azeitonas; Lat. *oliva*). A fruit yielding a large quantity of oil, the produce of the *Olea*, or olive tree. The wild olive is indigenous to Syria, Greece, and Africa, on the lower slopes of Mount Atlas. The species cultivated in Europe grows spontaneously in Syria, and is easily raised in Spain, Italy, and the South of France. It has even been raised in the open air in England, but its fruit is said not to have ripened. The fruit is a smooth oval plum, about  $\frac{3}{4}$  inch in length and  $\frac{1}{2}$  inch in diameter; of a deep violet colour when ripe, whitish and fleshy within, bitter and nauseous, but repete with a bland oil; covering an oblong, pointed, rough nut. Olives intended for preservation are gathered before they are ripe. In pickling, the object is to remove their bitterness, and to preserve them green, by impregnating them with a brine of aromatised sea salt; for this purpose various methods are employed. The wood of the olive tree is beautifully veined, and has an agreeable smell. It is in great esteem with cabinet-makers, on account of the fine pile of which it is susceptible. 17,538 gallons of olive were imported in 1867, valued at 3,368*l.*

OLIVE OIL (Ger. barmöl; Fr. huile d'olive; Ital. olio d'uliva; Span. aceite de aceitunas; Lat. *oleum olivarum*). The olive tree is principally cultivated for the sake of its oil. This is inodorous, pale greenish-yellow coloured, viscid fluid, with a bland oleaginous taste, unctuous to the touch, inflammable, incapable of combining with water, and nearly insoluble in alcohol. It is the lightest of all the fixed oils; and is largely used, particularly in Greece, Italy, Spain, and France, as an article of food, and in medicine and the arts. It is also very extensively used in this country, particularly in the woolen manufacture.

The ripe fruit is gathered in November, and immediately bruised in a mill, the stones of which are set so wide as not to crush the kernel. The pulp is then subjected to the press in bags made of rushes: and by means of a gentle pressure, the best, or virgin oil, flows first; a second, and afterwards a third, quality of oil is obtained moistening the residuum, breaking the kernels, and increasing the pressure. When the fruit is not sufficiently ripe, the recent oil has a bitter taste; and when too ripe, it is fatty. After oil has been drawn, it deposits a white, fibrous and albuminous matter; but when this deposition has taken place, if it be put into clean glass flasks, it undergoes no further alteration; common oil cannot, however, be preserved in casks above 1½ or 2 years. (*British Pharmacopoeia* 1867.)

The finest oils are said to be produced in Tuscany, but occasionally that of Bari is equal to the Tuscan oil. The finest kind of the latter is called 'white sublime oil.' It chiefly comes to France. Tuscany oil is shipped from Leghorn in various measures, from pipes of about 20 gallons to the flask of oil with its straw covering weighing about 14 oz. It is said to be the whole poppy seed oil, and probably with other vegetable oils. A plan for detecting these adulterations has been suggested by Mr. Tomlinson. (*Journal of the Society of Arts*, March 4, 1864.) Olive oil is the principal article of export from the Neapolitan portion of the Italian Kingdom.

libanum were imported, 5,916, or 31.04, &c., from India. In the same year, chiefly to Russia. Fr. olives; Fr. olives; Port. azetomas; a large quantity of the *Olea*, or olive tree, is sent to Syria, Greece, Portugal, the Ionian Islands &c. send us large quantities.

The duty on olive oil was for a lengthened period most exorbitant. In 1834 it was fixed at 10s. 6d. per tun if imported in a Neapolitan, and 14s. 6d. if imported in a British or other vessel. Olive oil is of essential importance in the arts, being extensively used in the manufacture of soaps and other departments of industry, this duty was much and justly objected to. In consequence it was reduced, in 1841, to 4s. 4d. per tun if imported directly and not in a Neapolitan ship, and in 1842 the duty was further reduced to 2s. 6d. per tun according to the vessels in which it was imported. 'At present,' therefore, we observed in 1843, 'the amount of the duty cannot be justly objected to, but the differential principle on which it has been and is imposed is most objectionable. It imitates, and (in so far as any country can do) justifies the worst part of the commercial policy of the Neapolitan Government, and prompts them to keep up high discriminating duties on articles imported into Naples and Sicily in British ships. So wretched an attempt at retaliation is quite unworthy of an enlightened nation, and deserves to be universally scouted. It is, in fact, injurious only to ourselves.'

The justice of this reasoning has been admitted; and the duty on olive oil has been repealed, and its importation freely permitted.

An Account of the Quantities and Value of the Olive Oil Imported into the United Kingdom in 1867, specifying the Countries from which it was imported.

Countries	Imports tuns	Value of Imports £	Price per Tun £ s. d.
France	386	55,449	59 10 0
Portugal	3,496	403,750	53 5 0
Spain	5,223	329,737	63 2 6
Sardinian States	537	30,208	56 12 0
Tuscany	1,708	120,004	70 7 0
Naples and Sicily	5,857	335,285	63 15 6
Other parts	587	55,202	59 19 6
Total	23,892	1,225,976	59 7 6
	110	6,525	57 10 0
	401	25,463	58 0 0
	81	5,067	68 11 0
Total	19,993	1,244,296	

The olive is extensively cultivated in Anstria. The value of the oil exported from Ragusa in 1865 was 44,055l., but in consequence of the bad harvest of 1866, the value of the exports fell to 15,440l. (Mr. Consul Paton's Report of May 1, 1867.)

*Oil Trade of Naples.*—The oils of the kingdom of Naples are produced in Apulia, from Bari to its southern extremity, the Capo di Leuca; a district comprising the territories which export from Gallipoli and Taranto; and in Calabria from Rossano, on the Gulf of Taranto, across to Gioja. The whole coast from Gioja as far as Gaeta is covered with olive trees. They are also abundant in the Abruzzi and the Terra di Lavoro; but Apulia and Calabria furnish by far the greatest quantity of oil. The principal magazines, or carriers, for oil, are at Gallipoli and Gioja. Gallipoli supplies England, Holland, the north

of Europe, and, in short, all those countries that require the most perfectly purified oil. It is clarified to the highest degree by merely keeping it in cisterns hollowed out of the rock on which the town is built. The voyages it has to perform being long, it is put into casks so well constructed, that it frequently arrives at Petersburg in the heat of summer without the least waste or leakage—an advantage attributed to the seasoning of the staves, which, before they are put together, are well soaked in sea-water.

We borrow the following details with respect to the preparation of oil at Gallipoli from a very interesting paper, by an English gentleman who had resided in the town.

'The rock on which the town is built is easily excavated; and in caverns thus constructed oil clarifies sooner, and keeps without rancidity much longer, than in any other place. Hence numerous oil-houses are established at Gallipoli, and a very considerable portion of the rock is cut into cisterns. A Gallipolitan oil warehouse generally occupies the ground floor of a dwelling-house, and has a low arched roof. Some are more extensive, but on an average they are about 30 feet square. In the stone floor you see 4, 6, or more holes, which are circular, about 2 feet in diameter, and like the mouths of wells. Each of these holes gives access to a separate cistern beneath your feet; and when the oil is poured into them care is taken not to mix different qualities, or oils at different stages, in the same reservoir. One cistern is set apart for *oglia mosto*, or oil that is not clarified, another for pure oil of the season, another for old oil, &c. I have seen oil that had thus been preserved for 7 years in a perfect state, or, as the Gallipoli merchants have it, *chiaro, giallo e lampante*—words which, during some months, I have heard at least 100 times a day. I also many times verified the fact: the *mosto*, or oil in its turbid state, which arrived almost as black and thick as pitch, soon became bright and yellow in these excellent reservoirs, without any help from man.

'All the oil, whatever may be its quality, is brought to the magazine in sheep or goat skins, which are generally carried on mules—there being but few *strade rotabili*, or roads fit for wheeled carriages, in these parts. In a good year, and at the proper season, I have counted, in the course of an afternoon's ride, as many as 100 mules returning from Gallipoli, where they had been to deposit their unctuous burdens, to different towns and villages in the Terra d'Otranto, or the more distant province of Bari. The quantity of oil required may be conceived, when I state that at one time (in the year 1816) I saw 9 English, 3 American, 2 French, and 6 Genoese vessels (not to mention some small craft from the Adriatic), all waiting in the port of Gallipoli for entire or partial cargoes of it. When the oil is to be shipped, it is drawn off the cistern into *uteri*, or skins, and so carried on men's shoulders down to a small house on the seashore. In that house there is a large open basin, capable of containing a given quantity, and of measuring the oil; and into that the porters empty their skins as they arrive. A tube communicates from the basin to a large cock at the outside of the house. When the basin is full, well-made casks, of various sizes for the convenience of stowage, are placed under the cock, which is then turned, and the casks are filled. As the casks are closed up by the cooper, the porters roll them down to the brink of the sea, where the sailors secure several of them together with a rope, and taking the end of the cord into the boat, they row off to the vessel,

towing the oil casks through the water after them.

I first became acquainted with the Gallipolitan shortly after the fall of Napoleon, whose system, whatever good parts of it may have done in the rest of Italy, was certainly most ruinous to the provinces of Lecce and Ituri. Unable to export, or find any market for their produce, the proprietors in many parts of those provinces let the olives lie and rot upon the ground. For some years, indeed, the price of oil scarcely paid the cost of its preparation, to say nothing of transport and other necessary expenses. During the Continental system, the best *chiaro giallo e lampante* oil was sold at Gallipoli for 8 Neapolitan ducats the salma; in 1816 and 1817 it found a ready market at from 60 to 70 ducats per salma.

Those who, during the evil time, had penetration enough to foresee better days, and that a system opposed to the general commercial prosperity of Europe could not last; and who had, at the same time, money enough for such objects; by annually making their oil as usual, and buying up the oil of others at the low current prices of the day, realised enormous profits when peace threw open the port of Gallipoli, and ships of all nations flocked thither as before.

The olives of which the Gallipoli oil is made are never gathered, but allowed to drop in their maturity from the tree on the ground, where they are picked up chiefly by women and children, and carried to the mill.

The machinery employed in expressing the oil is of the rudest kind, and, no doubt, numerous improvements might be introduced, not only into this branch, but into that of cultivating the olive tree. The peasantry, however, and, in the kingdom of Naples, those who stand higher in the scale of fortune and rank, are too often but bores in intellect, are obstinate in their attachment to old practices, and are apt, when any of these are reprehended, to stop discussion by saying—"Pacciu come faceva la buon' anima di mio padre, e ciò basta" ("I do as my father of blessed memory before me, and that's enough").

The poor people of the country make culinary uses of the same oil that is exported, and which in England is only used in manufactures, or burnt in lamps; but in the houses of the gentry I have often tasted oil prepared with more care, which was truly delicious, being equal to that of Sorrento, Vico, and Massa, or even to the best oils of Tuscany or Provence.

The oil received into the cisterns in Gallipoli either belongs to the proprietor who buys it of the planter, or is received in deposit on account of some other party who gets a receipt (*biglietto di magazzino*) specifying the quantity of the oil received on his account, its quality &c. Depositors pay at the rate of 20 grani a-year for every salma of oil to the party holding it in deposit, and who is bound to account for it.

The *caricatori* of Bari and Monopoli furnish oils for the consumption of Upper Italy and Germany, through the medium of Venice and Trieste. They also draw supplies from Brindisi and Otranto.

The *caricatori* of Taranto, of Eastern Calabria or Retromarina, and of Western Calabria, the principal of which is Gioja, furnish supplies for Marseilles &c. But the *caricatori* now mentioned, having no conveniences for clarification, produce only the thick oils used for soap-making.

The oils of Sicily, like those of Tunis, are too thin to be used singly in the making of soap; and being used only for mixing, are less valuable than most others.

In 1858 a full crop of oil in the province of Terra d'Otranto was supposed to yield about 300,000 salme, or 41,000 tons. To facilitate transactions, orders or *cedule* are circulated, representing quantities of oil deposited in the provincial *caricatori*. These orders are negotiable, like bills of exchange, and are endorsed by the intermediate holder, who receives their value in cash, without, however, becoming liable for their due satisfaction. The only responsible parties are the drawer and drawee. The latter is obliged to deliver the oil at sight of the order, or to hold it, at the bearer's disposal, till November 10 for those of Calabria, and till December 31 for those of Apulia. If the contract be for time, that is, from one year to another, the oil is usually placed at the purchaser's command on March 1. Purchases for time are effected by means of a contract, wherein the vendor undertakes to deliver the oil by the end of January, on receiving payment of the money; but the oil, as observed above, is not really at the purchaser's disposal before the beginning of March. Hence, in time bargains, the payment of the money precedes the delivery of the oil more than a month: scarce an instance is on record of an engagement of this sort having been broken, and the order is as readily negotiable as any other security.

In purchases of oil at command, payment likewise precedes the delivery of the article; but in this case the advance is confined to the 5 days necessary to transmit the order to the *caricatori*, where the oil is kept for delivery.

The oil remains in the *caricatori* under the care and responsibility of the vendor, to be delivered on demand to the bearer of the order free of all costs and charges whatever for the first year; but for every successive year from 25 to 30 grains per salma are charged for keeping, and for renewal of warranty.

The annexed table will show the quantities and values of the exports of olive oil in two unfavourable years, 1865 and 1866, from 5 of the shipping ports of Naples.

	1865		1866	
	Tons	Value	Tons	Value
Bari	9,419	406,385	7,926	423,390
Castellamare	61	2,631	35	1,400
Gallipoli	4,603	318,733	6,969	372,780
Gioja	7,142	305,379	6,218	283,637
Taranto	2,973	117,000	2,227	109,800
Total	24,208	1,138,239	23,399	1,180,807

The olive harvest of 1867 proved more of failure than either of its two immediate predecessors, and the export of oil from the 5 shipping ports fell from 23,000 tons in 1866 to 13,000 tons in 1867.

We are indebted for these details to very valuable Reports by Mr. Steel, vice-consul at Gallipoli for 1866, and by Consul-General Bonham for 1866 and 1867, and to a brochure of M. Millevoy entitled *Coup d'œil sur le Royaume de Naples*, Naples, 1832.

OMNIUM. A term used at the Stock Exchange to express the aggregate value of the different stocks in which a loan is now usually funded.

Thus, in the loan of 36,000,000l. contracted in June 1815, the omnium consisted of 130l. 3 per cent. reduced annuities, 4l. 3 per cent. consols, and 10l. 4 per cent. annuities, for each 100l. subscribed.

The loan was contracted for on June 14, when the prices of the above stocks were—3 per cent. reduced, 54; 3 per cent. consols, 55; 4 per cent. annuities, 70: hence the parcels of stock given for 100 advanced were worth—

ONION

1867 valued at 54	£	s.	d.
140 consols, at 55	20	4	0
140 per cents., at 70	21	4	0
	7	0	0
<b>Together</b>	<b>104</b>	<b>8</b>	<b>0</b>

which would be the value of the omnium, or 17. 8s. per cent. premium, independently of any discount for prompt payment.

ONION (Ger. zwiebel; Fr. oignon; Ital. cipolla; Span. cebolla; Russ. luk). A well-known bulbous plant (*Allium cepa*, Linn.), cultivated all over Europe for culinary purposes. The Strasburg, Spanish, and Portuguese varieties are the most esteemed.

The imports of onions are now very considerable. They amounted in 1867 to 845,214 bushels, of which more than four-fifths were from Northern Europe, at 4s. 6d. the bushel; the rest from Southampton, at 2s. 5d.

ONYX (Ger. onyx; Fr. onyx; Ital. onice; Span. onix; Lat. onyx). 'Any stone exhibiting layers of 2 or more colours strongly contrasted is called an onyx; as banded jasper, chalcedony &c., but more particularly the latter, when it is marked with white, and stratified with opaque and translucent lines. But the Oriental onyx is considered a substance consisting of 2 or more layers of bands of distinct and different colours. A sard, or carnelian, having a layer of white upon it, would be called an onyx; and according to the number of layers it would be distinguished as an onyx with 3 or more bands. Some of the antique engravings are upon onyxes of 4 bands.' (Mawe's *Treatise on Diamonds* &c.) The German onyxes are very cheap, but the finest onyxes are brought from India; and the more concentric rings or layers these possess, the more valuable it becomes. (Enamel On Precious Stones). Some Oriental onyxes have sold for as much as 200l.

OPAL (Ger. opal; Fr. opale; Ital. opale; Span. ópalo; Portug. opala; Lat. opalus). A stone, of which there are several varieties, found in different parts of Europe, particularly in Hungary, and in the East Indies, Mexico, Honduras, the Faroe Islands &c. When first dug out of the earth it is soft, but it hardens and crystallizes in bulk by exposure to the air. The opal is always amorphous; fracture conchoidal; somewhat transparent. Hardness varies considerably, but less than quartz. Specific gravity from 1.938 to 2.54. The lowness of its specific gravity in some cases is to be ascribed to accidental cavities which the stone contains. These are sometimes filled with drops of water. Some specimens of opal have the property of emitting various coloured rays, with a particular effulgency when placed between the eye and the light. The opal which possesses this property are distinguished by lapidaries by the epithet *Oriental*; and often, by mineralogists, by the epithet *nobilis*. This property rendered the stone much esteemed by the ancients. (Thomson's *Chemistry*; see also *Phil. Hist. Nat. lib. xxxvii. c. 6*, where there are some very curious details as to this stone.)

Mr. Emanuel (*Diamonds and Precious Stones*) says of the opal, 'that it is one of the most beautiful gems in existence: when held between the eye and the light, it appears of a pale milky, bluish hue; but when seen by reflected light it displays all the colours of the rainbow, in flakes, lines, and sparks; in fact, all the colours of the most beautiful gems are here united in one. When the colours are in small flakes, distributed over the surface, it is termed by jewellers 'harlequin.' This marvellous play of colours is supposed to be occasioned by nearly invisible fissures, which are always cut en cabochon, on both sides. They are very brittle, and are always much more

OPIUM

brilliant on a warm day. A dealer in precious stones, aware of this peculiarity, invariably holds an opal in his hand before showing it, in order to impart warmth to the gem. Fine stones of large size are seldom found; they rarely exceed an inch in diameter.'

The opal is the only precious stone which defies imitation. It has always been highly prized in the East.

For large fine gems as much as 1,000l. has been paid. Fine ring or brooch stones bring from 40l. to 100l. Smaller stones are worth from 5s. to 20l. They are rarely sold by the carat.

There is a story in Pliny, that Annus, a Roman senator, preferred exile to the loss of an opal, which he valued at 20,000 aesterces. There are two fine opals among the French Crown jewels; but the finest, which is in the Museum of Vienna, was found at Czernowitz, where a mine has been worked nearly 500 years. It is said that 50,000l. has been refused for this specimen.

OPIUM (Ger. molnsaft; Fr. opium; Ital. oppio; Span. and Port. opio; Lat. opium; Arab. ufyon; Hin. ufeen; Turk. madjoon). The concrete juice of the white poppy (*Papaver somniferum*), which is most probably a native of Asia, though now found growing wild in the southern parts of Europe, and even in England. Opium is chiefly prepared in India, Turkey, and Persia; but the white poppy is extensively cultivated in France, and other parts of Europe, on account of its capsules, and of the useful bland oil obtained from its seeds. It has also been cultivated, and opium made, in England; but there is very little probability of its ever being raised here to any considerable extent.

The poppy is an annual plant, with a stalk rising to the height of 3 or 4 feet; its leaves resemble those of the lettuce, and its flower has the appearance of a tulip. When at its full growth, an incision is made in the top of the plant, from which there issues a white milky juice, which soon hardens, and is scraped off the plants, and wrought into cakes. In India, these are covered with the petals of the plant to prevent their sticking together, and in this situation are dried, and packed in chests lined with hides and covered with gunny, each containing 40 cakes, and weighing 2 mands or 149½ lb.; they are exported in this state to the places where the opium is consumed. Turkey opium is in flat pieces, covered with leaves, and the reddish capsules of some species of *rumex*; which is considered an indication of its goodness, as the inferior kinds have none of these capsules adhering to them.

According to Dr. A. T. Thomson, Turkey opium has a peculiar, strong, heavy, narcotic odour, and a bitter taste, accompanied by a sensation of acrid heat, or biting on the tongue and lips, if it be well chewed. Its colour when good is a reddish brown, or fawn colour; its texture compact and uniform. Its specific gravity is 1.336. When soft, it is tenacious; but when long exposed to the air, it becomes hard, breaks with a uniform shining fracture, is pulverulent, and affords a yellowish brown powder.

East Indian opium has a strong empyreumatic smell; but not much of the peculiar narcotic, heavy odour of the Turkey opium; the taste is more bitter, and equally nauseous, but it has less acrimony. It agrees with the Turkey opium in other sensible qualities, except that its colour is blacker, and its texture less plastic, although it is as tenacious. Good Turkey opium has been found to yield nearly 3 times the quantity of *morphia*, or of the peculiar principle of the drug, that is yielded by East Indian opium.

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	Value	Tons
19	406,285	7,928
61	9,651	55
93	318,223	6,089
62	395,570	6,215
75	117,000	2,272
28	1,158,239	25,269

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Opium is regarded as bad when it is very soft, greasy, light, friable, of an intensely black colour, or mixed with many impurities. A weak or empyreumatic odour, a slightly bitter or acrid, or a sweetish taste, or the power of marking a brown or black continuous streak when drawn across paper, are all symptoms of inferior opium. (*Dispensatory*.)

The raising of opium is a very hazardous business; the poppy being a delicate plant, peculiarly liable to injury from insects, wind, hail, or unseasonable rain. The produce seldom agrees with the true average, but commonly runs in extremes; while one cultivator is disappointed another reaps immense gain: one season does not pay the labour of the culture; another, peculiarly fortunate, enriches all the cultivators. This circumstance is well suited to allure man, ever confident of good fortune. (Colebrooke's *Husbandry of Bengal*, p. 119.)

In England, opium is principally used as a medicine. It has been said, however, with some show of evidence, that its use as a narcotic stimulant is on the increase. In 1867 we imported 273,522 lb. By far the largest part of our supply is brought from Turkey. Opium from the latter was worth, in the London market, in 1867, from 16s. to 17s. per lb.

*Cultivation of Opium in India—Monopoly &c.*—Opium is produced in Bengal, principally in the provinces of Bahar and Benares, in parts of Bombay, and in Malwa, in Central India. The opium of Bahar is known in commerce by the name of Patna opium. In Bengal the production of opium is a monopoly, no person being allowed to grow the poppy except on account of Government. The latter make advances to the cultivators, who deliver the entire produce into their hands at a fixed price of about 3s. 6d. per lb. It is afterwards sold by the Government for about 11s. per lb., so that the profit of the latter amounts to about 7s. 6d. per lb.

Opium may be grown and manufactured in Bombay; but it is subjected to the same high duty that is imposed on opium imported into the Presidency. The object of this high duty is to 'discourage its production.' Government purchases what little is produced in Bombay, supplying through licensed dealers all that is required for home consumption.

The poppy being extensively cultivated in India, yields a large revenue. Down to 1831 it was produced under a monopoly; but in that year the business was thrown open to the public, and the revenue collected by imposing a duty on the opium when passing through the Company's territories to Bombay. The capture of Scinde, by closing the route for the smuggling of opium through Kurrachee to the Portuguese settlements of Demau &c., enabled a large addition to be made to the transit duty on Malwa opium, which was raised in 1847 to 400 rup. per chest, affording a revenue to Government of about 5s. 8d. per lb. (We have borrowed these authentic details from the Official Papers relative to India, pp. 73-75, published in 1853.)

No one doubts that opium is an excellent subject for taxation; and the higher the rate to which the duty on it can be raised without encouraging smuggling, so much the better. But a great deal has been said for and against the system under which the opium revenue is raised in Bengal and other parts of India; and, perhaps, it might be the better policy to open the culture of the plant to the unfettered competition of the public, imposing a high duty on the drug when grown or when exported. Without, however,

entering on the discussion of this difficult question we may shortly observe that the monopoly does not appear to have the consequences stated by Mr. Colebrooke, who tells us (*Husb. Bengal*, 118) that, except in a few localities peculiarly favourable, its culture is unprofitable; and that the peasants engage in it with reluctance, being tempted thereto only by the advances made by the Government agents. But if such were the case formerly, it would seem that circumstances have changed in the interval; for it appears from the official accounts, that the exports of Bengal opium, which amounted to 18,827 chests of 100 each in 1840-41, had increased to 53,321 chests in 1854-55. The number of chests of Malwa opium (140 lb. each) exported from Bombay during the same period advanced from about 15,000 to 25,000 a-year. The total value of the opium exported from British India in 1866 was 11,122,746*l.* In 1867 there was exported from the United Kingdom 148,519 lb. of opium, valued at 121,291*l.*

*Consumption and Trade of Opium in China.*—Opium is pretty extensively used, both as a medicatory and in smoking, in Turkey and India; but its great consumption is in China and surrounding countries, where the habit of smoking it has become almost universal. The Chinese or seethe the crude opium; and by this process impurities, resinous and gummy matter, separated, and the remaining extract only is served for use. Thus prepared, the drug loses its ordinary strong and offensive aromatic odour, has even a fragrant and agreeable perfume, and a small ball of it, inserted in a large wooden pipe with some combustible matter, is lighted, and the amateur proceeds to inhale four or five whiffs when he lies down and resigns himself to dreams, which are said to have no inconsiderable resemblance to the sensations produced by inhaling the oxide of azote. Those who do not carry indulgence to excess, do not, it is said, experience any bad effects from it.

It is a curious fact that both the poppy and the produce appear to have been unknown till a comparatively recent period, to the Hindoos. As has been conjectured, apparently on good grounds, that the plant, the method of extracting its juice, and its use, were introduced into India and China by Mohammedan traders, probably in the 9th or 10th century. And if such be really the case, the disciples of the Arabian prophet will not only be entitled to the credit, whatever it may be, of having introduced the art of distillation and use of ardent spirits into the Western world, but also of having introduced its favourite luxury into the East. At all events, it is certain that opium had been introduced into China in the early part of the 16th century; a century and a half before the English had anything whatever to do with its cultivation. (See the tract entitled *China and Opium Trade*, p. 14, by the late John Crawford, the most eminent authority to whom reference can be made in a matter of this sort.)

Nine-tenths of the supplies of opium for the consumption of China have always been derived from India, a comparatively small quantity being derived from Turkey. The trade has recently been contraband, the introduction of the drug having been prohibited by the Chinese Government. Until about 1810 the trade did not attract much attention, or become of any great importance, but it has since been greatly extended, and has been since 1839 of great consequence. It was at first carried on from Whampoa, about 15 miles below Canton; and thence to Macao, whence it was driven by the exclusion of the Portuguese; and thereafter in the boats

Year	Value	Quantity
1866	11,122,746	18,827
1867	12,122,746	25,000
1868	13,122,746	30,000
1869	14,122,746	35,000
1870	15,122,746	40,000
1871	16,122,746	45,000
1872	17,122,746	50,000
1873	18,122,746	55,000
1874	19,122,746	60,000
1875	20,122,746	65,000
1876	21,122,746	70,000
1877	22,122,746	75,000
1878	23,122,746	80,000
1879	24,122,746	85,000
1880	25,122,746	90,000

It is necessary to be aware of the fact that the opium trade in China has been a subject of great interest to the Government, and that the trade has been a source of great revenue to the Government.

Year	Value	Quantity
1866	11,122,746	18,827
1867	12,122,746	25,000
1868	13,122,746	30,000
1869	14,122,746	35,000
1870	15,122,746	40,000
1871	16,122,746	45,000
1872	17,122,746	50,000
1873	18,122,746	55,000
1874	19,122,746	60,000
1875	20,122,746	65,000
1876	21,122,746	70,000
1877	22,122,746	75,000
1878	23,122,746	80,000
1879	24,122,746	85,000
1880	25,122,746	90,000

The total value of the opium trade in China has been a subject of great interest to the Government, and that the trade has been a source of great revenue to the Government.

Here the opium was kept on board ships, commonly called receiving ships, of which there are often 10 or 12 lying together at anchor. Later, however, the opening of the ports on the Yang Tze, and of Chefoo, Tientsin, and Mow Chee, in the North of China, has greatly altered the opium trade at Shanghai. The chief kinds imported are Patna and Malwa. That of Benares will, however, it seems, soon command attention.

The export of opium into the province of Canton is said to be 1,800 piculs (240,000 lb.) a month, of which about 700 piculs pass through the customs, the rest being smuggled. In May 1863, the Government imposed a war tax of 16 taels per picul, and immediately the receipts began to drop, falling from 175 to 200 piculs a month. The import of Ningpo was in 1864, 3,307 chests, and in 1866, less re-exports, 4,321 piculs. At Chefoo the consumption is about 100 chests a month. At Kirang 2,100 chests annually.

The sales have been mostly effected by English and American agents, who give orders for the delivery of the opium; which, on producing the order, is handed over to the Chinese smuggler, who comes alongside at night to receive it. Frequently, however, the smuggler purchases the opium on his own account, paying for it on the spot in silver; it being a rule of the trade, never departed from, to receive the money before the drug is delivered.

During the first 10 years of the present century the exports of opium from India to China averaged about 2,500 chests, of 143½ lb. each. But after the introduction of Malwa opium into the markets of Bombay and Calcutta, the exports began rapidly to increase. We subjoin—

As Account of the Quantities and Value of the Exports of Opium from India, from 1851 to 1865.

Year	Chests	Value	Year	Chests	Value
1851	55,009	5,459,135	1859	75,822	10,827,642
1852	61,265	6,515,214	1860	59,581	9,034,734
1853	61,832	7,034,073	1861	65,490	10,118,713
1854	68,175	6,437,098	1862	65,569	10,555,912
1855	77,297	6,311,278	1863	82,216	12,494,198
1856	82,489	6,200,871	1864	70,839	10,756,093
1857	72,381	7,056,630	1865	81,492	9,911,801
1858	74,866	9,106,635	1868	—	11,122,746

It is necessary, however, to observe that the whole of the opium shipped from India does not go to China. That, indeed, is the destination of the largest portion of the exports, but about one-fourth of the total exports goes to the Straits Settlements.

The following is the amount of opium imported into the undermentioned 11 Chinese ports in 1864 and 1865 as given by the foreign Commissioners of Inspection in China.

	Quantities		Value	
	1864	1865	1864	1865
Amoy	piculs	piculs	taels	taels
Canton	50,321	56,880	4,823,079	16,376,089
Ningpo	5,295	3,170	1,604,991	1,755,400
Swatow	4,490	3,376	1,322,866	1,305,141
Shanghai	6,971	5,863	4,747,336	5,306,418
Shanghai	4,390	4,050	2,919,090	2,411,451
Shanghai	4,771	5,245	2,699,074	3,114,290
Shanghai	1,929	2,455	1,075,565	1,368,096
Shanghai	2,501	4,490	1,111,340	1,866,865
Shanghai	1,389	2,683	840,378	1,621,331
Shanghai	2,838	4,357	1,571,225	3,359,196
Shanghai	506	1,518	205,156	877,892
Total	61,412	75,517	32,060,845	57,882,913

The total imports (less re-exports) at these and other ports in 1866, as given in the last report of the Commissioners, were 64,516 piculs. The occasional diminution in quantity and value

of the imports of opium into China cannot be ascribed to any other cause than the export and import duties, and the impossibility of preventing smuggling, both out and in.

**Confiscation of Opium in 1839.**— We have already seen [CANTON] that opium has till very lately been prohibited in China, and that consequently its importation has always been looked upon as a smuggling speculation. There would seem, however, to be good grounds for thinking that the prohibition of the importation of opium was all along intended to be more apparent than real. At all events, it is certain that the trade grew gradually up, from a small beginning, to be one of great extent and value; and it is rugatory to suppose that this should have been the case, had it encountered any considerable opposition from the Chinese authorities. But the truth is, that these functionaries, instead of opposing the trade, or even merely conniving at it, were parties to its being openly carried on; and received certain regulated and large fees on all the opium that was imported. It has even been alleged that a part of these fees found its way into the Imperial treasury at Peking, though that is more doubtful. The appetite for the drug increased with the increasing means of gratifying it; and there appeared to be no assignable limits to the quantity that might be disposed of in the empire.

The rapid extension of the trade seems at length to have drawn the attention of the court of Peking to the subject. We doubt, notwithstanding what has been alleged to the contrary, whether a sense of the injurious consequences of the use of the drug had much to do in the matter. The alarm of the Chinese Government was not so much about the health or morals of its subjects, as about their bullion. They are still haunted by the same visionary fears of being drained of a due supply of gold and silver, that formerly haunted the people of this country. The imports of opium having increased so rapidly as to be no longer balanced by the exports of tea and silk, silver began also to be exported. The paternal Government of Peking might have tolerated what are called the demoralising effects of opium with stoical indifference, but the exportation of silver was not a thing to be endured. It is, however, only fair to state that the Chinese statesmen were not all of the school of Mun and Gee; and that some of them appear to have taken an enlightened view of the question, and to have emancipated themselves from the prejudices that influenced the majority of their colleagues. The statesmen in question contended, that whether the use of the drug were injurious or not, the taste for it was too deeply seated and too widely diffused to admit of its effectual prohibition; and they, therefore, proposed that its importation should be legalised, subjecting it, at the same time, to a heavy duty. There cannot be a doubt that this was the proper mode of dealing with the subject. In the end, the Government of Peking, influenced by unfounded theories as to the mischievous effect of the export of the precious metals, came to a different conclusion, and resolved to put a stop to the traffic.

After this resolution had been come to, the Chinese appear to have acted with more than their usual vigour; and having proceeded to extremities, they confiscated and destroyed about 20,000 chests of opium. The reader does not require to be told that this violent conduct on the part of the Chinese led to a war with this country. This contest was terminated in 1842, when the Chinese agreed, among other things, to pay 21,000,000 dolrs. towards the expenses of the war, and as an indemnity to the owners of the con-

denied opium, to whom 1,250,000*l.* was ultimately awarded.

A good deal of discussion took place at the time in regard to the propriety of our conduct in compelling the Chinese to indemnify the opium holders. It was contended, that as the introduction of opium into China was prohibited, the Chinese in destroying it had done nothing but what they were entitled to do, and what we should have done had we been in their place; that the only parties to blame were those who violated the law, and smuggled the opium into the empire; and that we acted unjustly, and abused our power, in obtaining an indemnity for those in whose punishment we should have assisted.

But though specious, these objections are not really entitled to much weight. And though the interest in the subject be now gone by, it may be worth while to show that we had good grounds for what we did.

That the Chinese have the same right to exclude opium from their empire, that we have to prohibit the importation of beef, or ammunition, or to lay a duty on corn, does not admit of any question. But in endeavouring to suppress a trade that had been carried on under the sanction of the authorities at Canton, all of whom had largely participated in its profits, justice required that notice should have been given to the parties concerned of the intentions of Government. It is necessary to bear in mind that the Chinese were in the habit of frequently issuing proclamations against the importation of opium; but as no attempt was ever made to give any real effect to these proclamations, the parties engaged in the trade were naturally led to conclude that such would always be the case. Hence the necessity for a distinct intimation being made, that the laws against the importation of opium were, in future, to be bona fide and truly carried into effect, and for fixing some period after which all parties found engaged in the trade would be subject to certain penalties. No valid objection could have been made to such a course of proceeding. The Chinese are clearly entitled to prohibit the importation of opium; but neither the Chinese nor any other nation are entitled, after having, by long connivance at and participation in a trade, induced foreigners to import a large amount of valuable property into their territories, to pounce upon and seize such property on pretence of its being contraband. The Chinese are a remarkably clever people; and it is impossible that they should not see that, in this instance, their Government was guilty of gross injustice; and that it consequently rendered itself liable for the value of the property it so unwarrantably seized upon and destroyed.

Suppose the British Parliament had, in 1796, passed an Act prohibiting the importation of tea; and suppose, further, that the collector of customs and other authorities in Liverpool had paid no attention whatever to this Act, but that, from 1796 down to the present day, they had openly countenanced the trade; that it had rapidly increased; and that every year scores of Chinese ships laden with tea had arrived in the Mersey, safely unloaded their cargoes, and sailed either with silver or other British produce on board; what, under these circumstances, would the Chinese have said, had the British Government suddenly turned round and declared, 'You are engaged in an illegal trade;' and, without further intimation, have proceeded to seize and destroy all the tea belonging to them in England? Would not the Chinese, the Russians, French, and, in short, the whole world, have declared such an act

to be flagrantly unjust? And would not every honest man in England have said that the Chinese had been swindled; and that the Government of China, did not deserve to be treated with ordinary respect, if it did not endeavour to procure redress for its subjects?

Now, this was precisely the case of England against the Chinese. The morality or immorality of the opium trade was wholly beside the question. Though the use of opium were ten times more injurious than has ever been represented, it would not alter the fact, that the trade in it had been openly countenanced by the Chinese authorities for a period of more than forty years; such being the case, foreigners were certainly entitled to infer that that countenance would suddenly be withdrawn; and that, at all events, their property would be respected. This, in fact, is not a question about which there is any room for doubt, or difference of opinion. The conduct of the Chinese was most unwarrantable, and the Government of this country had not even a well founded claim for redress, but was called upon to enforce it by a just regard for the national honour and the interests of the British subject, whose rights had been so outrageously violated.

But we may further observe, in reference to this matter, that though it be laid down by all writers on public law, that it depends wholly on the will of a nation to carry on commerce with another, not to carry it on, and to regulate the manner in which it shall be carried on (*Fattel*, book 1, s. 1), we incline to think that this rule must be interpreted as applying only to such commercial States as recognise the general principles of public or international law. If a State possessed rich and extensive territory, and abounding in products suited for the use and accommodation of the people of other countries, insulates itself by its institutions, and adopts a system of policy that is plainly inconsistent with the interests of every other nation, it appears to us that such a nation may be justly compelled to adopt a course of policy more consistent with the general feelings of mankind. No doubt, the right of interference, in cases of this sort, is one that should be exercised with extreme caution, and on strong grounds for its vindication. But that right does exist, seems sufficiently clear, to admit that a slight degree of inconvenience, experienced from one nation refusing to enter into commercial transactions with another, or from insisting that these transactions should be carried on in a troublesome and vexatious manner, would not warrant any interference with its internal affairs; but this, like all other questions of the same kind, is one of degree. Should the inconvenience resulting from such anti-social conduct, become very oppressive on other parties so oppressed would have as good a right to interfere to enforce a change of conduct, as a State that has adopted this anti-social policy had openly attacked the territory of its citizens. A State has a perfect right to such rules and regulations for its internal government and the conduct of its trade as it provides they do not exercise any very injurious influence over others. But should such influence appear in any case—should the domestic or commercial interests of any particular State involve principles or regulations that trench on the rights or interests of any other party, none can justly be supposed to be in a position to justify the interest of other parties, none can be supposed to be in a position to complain, if the injury be of a grave character, and redress be not obtained on complaint being made. It is reasonable doubt can be entertained that an aggrieved party is justified in resorting to force

These principles appear to apply with peculiar force in the case of China. 'Ten, a peculiar product of that country, has become a necessary of life in England; and no one can doubt that a most serious injury would be inflicted on the people of Britain were any considerable impediment thrown in the way of its importation; and the arbitrary policy of the Chinese Government, which is not influenced by the maxims, and is regardless of the forms, that prevail among civilized States, has on various occasions interrupted the trade, and constantly exposed it to great dangers, it certainly appears that this was a case for forcible intervention—*diplomacia rursive modus*—and that we were entitled to demand that the trade should be placed on a solid footing, that the import and export duties should be rendered intelligible and moderate, and that an end should be put to the extortion and interference of the Chinese authorities. And these desirable results appear to be secured by the treaty of 1868.

The prohibition against the importation of opium into China was not suppressed as it should have been by the treaty of 1842. But since that period the trade has been openly carried on at most places along the coast, and has met with little or no interruption. Since 1841-42, the exports into China have a good deal more than doubled. And, as already seen, the trade has increased to a magnitude that a few years ago was most sanguine would hardly have anticipated. *Repeal of the Prohibition.*—Under the circumstances stated above, combined with the increasing cultivation of the drug in China, the continuance of the prohibition was out of the question. Its repeal was necessitated by the Chinese in 1868; and among the trade regulations stipulated to the treaty of that year, is one legalizing the importation of opium at a duty of 100 taels the picul. It may, however, be doubted whether this duty be not too high to stop the smuggling of the drug; but if so, its reduction will be an easy matter.

*Alleged injurious Influence of Opium.*—The objections that have been made to the trade in opium, because of its supposed injurious influence over those by whom it is used, do not seem to be entitled to much weight. There are no good grounds for thinking that it is at all worse than ready gin, wine or other stimulants. All of these are mischievous, as are most things, when used in excess, but not otherwise. We do not understand the growers of barley, or distillers, or the importers of wines or spirits, and why should we adopt a different course in dealing with the cultivators and sellers of opium? The late Sir Benjamin Hoole, P.R.S., than whom there could be no higher authority, contended that the use of opium is not so injurious as indulgence in spirits. 'The effect of opium,' said he, 'when taken into the stomach, is not to stimulate, but to soothe the nervous system. It may be otherwise in some instances, but these are exceptions to the general rule. The opium-taker is in a passive state, satisfied with his own dreamy condition, while under the influence of the drug. He is useless, but not mischievous. It is quite otherwise with alcoholic liquors. When Bishop and his partners murdered the Italian boy that they might sell his body, it appeared in evidence that they prepared themselves by a plentiful libation of gin. The same scene is pursued by housebreakers and others who engage in desperate criminal undertakings. It is worthy of notice, also, that opium is much more destructive to the understanding than gin or ready. Many opium-takers live to a great age, while the dram drinking induces diseases of the liver, and their attendant bodily suffering, ill-temper,

wretchedness, and premature death.' (*Physiological Inquiries.*)

It would be useless or worse to attempt to add anything to this conclusive statement. It disposes satisfactorily of the moral part of this question.

*Opium as a Source of Revenue.*—It is not easy to imagine a more unexceptionable source of revenue than the tax laid by the Government of India on opium when exported. It is no part of their duty to look beyond the interests of their own subjects; but it is evident that in raising the duty on opium to the point at which it will yield the greatest amount of revenue, they are causing, at one and the same time, the best interests of their own people and those of the Chinese. A large amount of revenue is produced for the service of the former by a tax laid on an article consumed by the latter. But as the abuse of opium, which, like the abuse of spirits, would be highly prejudicial, is checked and in part prevented by the duty, it is plain that the well being, as well of the buyers as the sellers of the drug is promoted by its imposition. The tax is, in truth, one of the very best that has ever been imposed; and its productiveness is not one of the least of its good qualities. Of the entire net revenue of India, amounting in 1865-6 to 48,514,740*l.*, no less than 8,618,252*l.* was derived from opium; and in 1866 67, 8,808,411*l.* was received—that is, from a tax paid by the Chinese and Malaya. [CANTON; EAST INDIES.]

**OPONAX.** [*BALSAEM.*] **OPONONAX** (Ger. *opononax*; Fr. *opononax*; Ital. *opononax*; Span. *opononax*; Arab. *jawshmeer*). A gum resin obtained from the *Opopanax Chironium*, a species of parsnip. It is a native of the south of Europe and Asia Minor. The stem rises to the height of 6 or 7 feet, with a thick branched yellow coloured root. The roots being wounded, a milky juice flows from them, which, being dried in the sun, is the opoponax of the shops. It is in lumps of a reddish yellow colour and white within. Smell peculiar. Taste bitter and acrid. Specific gravity 1.322. It is imported from Turkey. Being used only to a small extent in medicine, the consumption is inconsiderable. (Thomson's *Chemistry*; Ainslie's *Materia Indica*; Pereira's *Materia Medica*.)

**OPORTO** or **PORTO**. A large city and seaport of Portugal, on the north bank of the Douro, about 2 miles from its mouth, lat. 41° 10' 30" N., long. 80° 37' 18" W. It is a beautifully situated, well-built city; and contained in 1864, including the suburbs of Villanova and Gaya, on the opposite bank of the river, a population of 89,321.

*Harbour.*—The harbour of Oporto is a bar harbour, and can only be entered, at least by vessels of considerable burden, at high water; and it is seldom at any time practicable for vessels drawing more than 16 feet. On the north side of the entrance is the castle of St. João de Foz, whence a ledge of rocks, some of which are at all times above water, extends in a south-west direction. The outermost of these rocks, named *Filgueira*, which is always visible, is on the left or larboard side on entering. Cabedelo Point, forming the southern extremity of the entrance, is low and sandy. The bar being liable, from the action of the tides, and of sudden *freshes* in the river, to perpetual alterations, it is exceedingly dangerous for any vessel to attempt crossing it without a pilot. Pilots are always on the alert, and ready to offer their services when a vessel comes in sight, unless the weather be so bad that they cannot go off. On some few occasions of this sort, vessels have been detained for three weeks off the port, without having an opportunity of

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entering. The chapel of St. Catherine, in a line with that of St. Michael, leads over the bar. The ordinary rise of spring tides is from 10 to 12 feet, and of neaps from 6 to 8 feet. The Oporto lighthouse on the Nossa Senhora da Luz is fixed, and 218 feet above high-water mark. It is visible for 20 miles, but is described in the Admiralty list as a very bad light.

The swellings of the river, already referred to, most commonly occur in spring, and are caused by heavy rains, and by the melting of the snow on the mountains. The rise of water at such times is frequently as much as 40 feet; and the rapidity and force of the current are so very great that no dependence can be placed on anchors in the stream. Fortunately a fresh never occurs without previous warning; and it is then the practice to moor with a cable made fast to trees, or stone pillars, erected on the shore for that purpose. (For further information as to the harbour of Oporto, see Purday's *Sailing Directions for the Bay of Biscay*.)

*Trade.*—Oporto is the emporium of a large portion of the kingdom of Portugal, and enjoys a pretty considerable foreign commerce. The well-known red wine, denominated Port, from its being exclusively shipped at this city, forms by far the largest article of export. The exports vary in different years, from about 20,000 to above 40,000 pipes. England is much the largest consumer of port. The high discriminating duties on French wine originally introduced port into the British markets, and gave it a preference to which, though an excellent wine, it had no just title: this preference first generated, and its long continuance has since so confirmed, the taste for port among the great bulk of the population, that until 1860 it bade fair to maintain its ascendency as an after-dinner wine, notwithstanding the equalisation of the duties. At an average of the 7 years ending with 1858, there were shipped from Oporto for England 27,294 pipes a-year. In 1866 we imported of the red wines of Portugal 3,573,744 gals, of which 2,976,817 were entered for consumption. It is remarkable, that while the entries of port for consumption have increased but little since 1851, those of sherry and Rhenish have more than doubled since 1860, and those of French wines have more than trebled in the interval, 1860-67. And though the scarcity and dearth of port consequent on the vine disease may account to a great extent for its decreased consumption, it is not at all likely again to supersede the lighter French and Spanish wines, now that they have so firm and extensive a hold on the public taste in this country.

Next to England, Brazil, Russia, and the north of Europe are the principal consumers of port; but it appears, from the subjoined account, that the total exports to them do not amount to a half of those sent to England. The other exports are oil, oranges and other fruits, wool, refined sugar, cream of tartar, shumac, leather, cork &c. The imports are corn, rice, beef, salt fish, and other articles of provision; sugar, coffee &c. from Brazil; cotton and woollen goods, hardware, tin plates &c. from England; hemp, flax, and deals, from the Baltic &c.

Besides the British manufactured goods imported into Portugal for the use of the natives, a considerable quantity is destined for the consumption of Spain; being smuggled into that country through Braganza and other towns on the frontier.

The vintages in the Upper Douro fluctuate very greatly, but previously to the breaking out of the *oidium* or vine disease, in 1853, they might, at an

average, be taken at from 70,000 to 80,000 pipes, of which about 33,000 were exported. The production and exportation of wine would, however, have been much greater but for the policy adopted by the Oporto Wine Company, to which Government conceded a monopoly of the trade. They divided all wine produced on the Douro into three qualities, viz. 1st, 2nd, 3rd, and refuse. But the merchants engaged in the wine trade affirmed that the distinction between the 1st and 2nd qualities was quite imaginary; and that they were, in fact, 'precisely the same.' (*Report of Commons' Com. on Wine Duties*, 1852, part i. p. 65.) Delusive though it were, the classification was not without an object. No wine, other than the 1st quality, was allowed to be shipped for any port in Europe, and it was charged, on being exported, with a duty of 3l. 10s. a pipe; whereas what is called the 2nd quality, though it were really as good as the 1st, was only charged, on being shipped for America, or any country out of Europe, with a nominal duty of 6d. a pipe. This extraordinary regulation, besides being injurious to the Portuguese, was offensive and unjust to others, and especially to us who are the great consumers of port. It had not, however, all the success which its contrivers anticipated; for it led to an indirect importation of port wine from the United States, which would, no doubt, have continued till the duties on the wines shipped from Oporto had been equalised or abolished.

The British Government did not fail strongly to remonstrate against this system, which, indeed, was in direct contradiction to the engagements of our treaties with Portugal. And in the end the Portuguese authorities appear to have been satisfied that by raising the cost of their wine, limiting their consumption, and substituting other nations as exporters of Portuguese wine, their system was a great deal more injurious to themselves than to any one else.

In consequence a decree was issued on October 13, 1852, which effected some very important reforms. Instead, for example, of being divided into 1st, 2nd, and 3rd qualities, wine was thenceforth to be divided into wine fit and unfit for exportation. The latter was to be retained in the country either for home consumption or conversion into brandy; while the former, or the wine fit for exportation, might be sent to all parts of the world, on paying a reasonable duty of about 10s. a pipe. The Douro Wine Company was abolished, and other changes effected.

These were great improvements. Still the trade was far from being free. Power was given to a 'Regulating Commission,' or Committee of Taste, to say how much wine should be exported so as to prevent a glut of the foreign market. It would be but an equivocal compliment to the intelligence of the reader were we to dwell on the folly of such a regulation. Neither could there be any legitimate excuse for prohibiting the export of inferior wine. It would either be bought, under a free system, by the foreigner, or it would be sold to the natives. If it would not be bought, the prohibition is superfluous; and if it would be bought, the prohibition was mischievous, and hindered the Portuguese from sending an important product to the market. On the whole, however, a great change for the better was effected, and it paved the way for others.

It was soon found in practice, that if the Committee of Taste made any difficulty about the export of any wine, a permit or 'bilhete' could be readily purchased. Our treaty of 1850 with France too had some effect in enlightening the Portuguese Cortes, and at length, in 1855,

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passed an Act, declaring the export of port wine, of whatever quality, free and unfettered. One thing is certain—that port wine now reaches us in a much more genuine state than it did under the auspices of the Oporto Wine Company or the Committee of Taste. See a curious discussion on the alleged blending and adulteration of port wines in the Reports of Mr. Secretary of Legation Lytton and Mr. Consul Crawford, presented to Parliament in 1867 and 1868.

Sometimes wine is purchased from the farmer in the wine country. In this case the casks are

sent about 60 miles up the river, in bonts, to be filled. Owing to the miserable state of the roads, the expense of carriage is very considerable; the cartage from and to the river side frequently costing from 1*l.* to 2*l.* per pipe. The freight from the upper country down the river to Oporto is about equal to that from the latter to England. There is also an internal duty on all wine brought down the river. Inasmuch, however, as these charges are perpetually varying, it is not possible to lay before the reader any pro formâ account of the cost of wine bought in the Upper Douro.

Shipments of Wine from Oporto from 1858 to 1867.

	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867
Great Kingdom	11,592	14,531	22,417	22,915	24,833	30,014	29,912	33,499	30,546	25,105
Ireland	3,888	1,909	2,128	1,734	2,078	2,718	3,331	5,082	5,661	6,449
French Colonies	62	711	982	1,013	1,359	588	769	613	882	633
Brazil	298	719	885	215	560	176	691	534	616	955
Bona Towns	191	481	399	57	151	113	132	410	726	139
United States	290	299	397	256	514	266	190	287	439	469
Portugal and Colonies	119	474	330	194	139	79	190	185	181	152
Sweden and Norway	95	94	158	101	190	223	87	277	505	218
Denmark	155	315	256	178	50	68	85	—	—	339
Russia	48	—	81	68	70	101	128	124	151	184
Holland	—	—	—	11	—	—	—	—	969	—
Prussia	—	—	—	21	27	—	61	183	—	761
Other Ports	93	38	38	31	—	—	—	—	—	—
Total Pipes	16,691	19,547	27,561	26,908	29,711	31,905	35,620	39,208	40,185	41,672

Mr. Consul Crawford says, in his Report of January 30, 1867, that the new wine is brought down the river Douro in the early spring months, the river transport costing about 8*s.* 10*d.* for each pipe, and is lodged in the warehouses of the merchants at Oporto. It is here kept till ready for shipment to England, seldom being fit for that purpose for at least 18 months. [WINE.]

The *oedem* or disease, which attacked the vines here and elsewhere, first appeared in Portugal in 1846, and has continued more or less every year since. It has greatly diminished the production. There can indeed be no doubt that the application of sulphur has given it a decided check. But this is an expensive remedy, and unless it be judiciously applied it is apt to spoil the wine.

The port charges, including tonnage duties, on a vessel of 300 tons, amount to about 50 dollars. Vessels sailing without a cargo pay for lights 200 reis per cent, instead of 50 reis, in order to encourage the export trade. Commission 2½ per cent, and *del credere* 2½ per cent.

**PILOT REGULATIONS.**—These were published at Oporto in 1841. They declare that the navigation over the bar of the Douro must be conducted by pilots regularly appointed, and their number shall be nineteen of the first and second classes, besides supernumerary pilots.

The outward and inward pilotage of every vessel over the bar to be confined to the nineteen pilots of the first and second classes; the pilotage in the river by the supernumerary pilots.

Pilots are prohibited to stipulate for the sum to be received when they board vessels in distress, and are bound to give immediate assistance, under pain, in case of the slightest delay, of suspension from their functions; or, in case of misconduct, to more severe punishment.

The pilots are obliged to reside at St. João de Matos, and all vessels except small craft are bound to take over the bar a supernumerary pilot.

When a supernumerary pilot is on board a vessel exercising his functions, and cannot bring into port, he must remain on board such vessel; the master or owner of which to pay him the whole of his due, and a ration per day, until he is landed at Oporto. In case of dispute, the Portuguese consuls are required to make the vessel's master fulfil the above regulation.

The pilotage rates for the entrance or the de-

parture of vessels, in ordinary cases, are fixed as follow:—

	reis.	dols.	cts.
Small craft	—	—	800 = 0 90
Fishing boats	—	—	1,200 = 1 36
Steam vessels	—	—	2,400 = 2 71
Sloop	—	—	3,500 = 3 96
Three-masted schooners and brig	—	—	4,000 = 4 52
Each pilot boat (including the crew)	—	—	2,400 = 2 71
To each supernumerary pilot boat	—	—	1,800 = 1 36
To each pilot, per day, outside the bar	—	—	800 = 0 90

Any extra fee to pilots is optional. The remuneration due in extraordinary cases, to pilot boats outside the bar, to be rated in accordance to the difficulty of the pilotage and the danger incurred.

The first pilot, and in his absence the second, will be charged to hold council with the others as to the possibility of the entrance or departure of the vessels, and decide by the majority of voices. A pilot who, in the execution of the decision of the council, does not conform to such decision, will immediately be suspended from his functions, and be responsible for all indemnifications, and subject also to corporal punishment.

When an accident happens on account of a pilot refusing to conform to the above results, the pilot cannot demand, for his defence, the opposition of the captains or proprietors of vessels to the free exercise of his functions, except this opposition was manifested with violence; in such case the pilot must immediately protest, so as to cover his responsibility.

The first pilot is bound to sound the bar at least every fourteen days, and to make known the result to the intendant of the marine, as well as any change that may take place in the river.

Any pilot losing a vessel in consequence either of intemperance or incapacity will be punished according to the full extent of the law. Every pilot is bound to have by him the regulations of signals appropriated for the service of the Douro. (*Parliamentary Reports already referred to, and valuable private information.*)

**ORANGES** (Ger. pomeranzen; Dutch, orajen; Fr. oranges; Ital. melarancia; Span. naranjas; Russ. pomeranze; Hin. nerunge; Malay, simamans). The fruit of the orange tree. The common or sweet orange (*Citrus sinensis* or *Citrus nobilis*), and the Seville or bitter orange (*Citrus aurantium*), are natives of China: and the Portuguese are entitled to the honour of having trans-

0 to 80,000 pipes, ported. The province would, however, but for the policy company, to which copy of the trade, on the Douro into, and refuse. But wine trade affirmed the 1st and 2nd try; and that they same. (Report of ties, 1852, part i. p. re, the classification No wine, other than d to be shipped for as charged, on being 10*s.* a pipe; whereas ality, though it was was only charged, on or any country out duty of 6*d.* a pipe, ion, besides being as was offensive and un- ly to us who are the t had not, however, all drivers anticipated; for ation of port wine from would, no doubt, have on the wines shipped alised or abolished. did not fall strong system, which, indee- to the engagements of l. And in the end it appear to have been the cost of their wine and, substituting other Portuguese wine, they s injurious to themse- heree was issued on O effected some very in- d, for example, of be- and 3rd qualities, wir- into wine fit and un- ater was to be retained on consumption or e- ile the former, or the t be see: to all parts of onable duty of about l. Vine Company was d- nges effected. improvements. Still g free. Power was g- mission,' or Commit- wine should be expo- t. of the foreign mar- divocal compliment to er were we to dwell on- ion. Neither could t- for prohibiting the ex- id either be bought, a- foreigner, or it would- ight, the prohibition- would be bought, the- hindered the Portug- rant product to the- , however, a great ch- d, and it paved the wa- practice, that if the O- s any difficulty abou- permit or 'billet' of- Our treaty of 1860- effect in enlightening- d at length, in 1865,

ferred the plant to other countries. Particular species of *Citrus* seem to be indigenous to various Eastern countries; but the birth-place of the proper orange may be distinctly traced to China. It is now to be found in our green-houses. Oranges are imported in chests and boxes, packed separately in paper. The best come from the Azores and Spain; very good ones are also brought from Portugal, Italy, Malta, and other places.

The orange trade carried on by this country is of considerable value and importance. Oranges are not much more expensive than most of our superior domestic fruits, while they are, perhaps, the most refreshing and wholesome of those of warmer climates. The entries for home consumption amounted, at an average of the years 1850 and 1851, to 359,142 boxes a-year. The duty produced, at an average of the above years, 73,246*l.* a-year. The number of persons employed in the importation and sale of oranges must be very considerable. The duty was reduced in 1853, from about 2*s.* 8*d.* to 8*d.* the bushel. It was repealed in 1862. In 1867 we imported no fewer than 1,453,566 bushels of oranges and lemons, valued at 744,732*l.* There were imported in the same year, 2,281 pipes of orange and lemon peel in brine, and 22,302 lb. dried or candied, of the total value of 14,217*l.*

ORCHILLA WEED, ORCHELLA, ORCHAL or ARCHIL (Ger. *orselle*; Fr. *orselle*; Ital. *oricello*, *orella*; Span. *orchilla*). A whitish lichen (*Lichen orcella*), found in the Isle of Portland; but that which is used is imported from the Canary and Cape de Verd Islands, Madeira, Barbary, and the Levant. From it is obtained the archil, or orchal, of commerce, which yields a rich purple tincture, fugitive, indeed, but extremely beautiful. The preparation of orchilla was long a secret, known only to the Florentines and Hollanders; but it is now extensively manufactured in this country. Orchal is generally sold in the form of cake, but sometimes in that of moist pulp; it is extensively used by dyers; and in times of scarcity the weed or lichen has sold as high as 1,000*l.* per ton. (Thomson's *Dispensatory*.) The Portuguese orchal was valued at 30*s.*; that from the Eastern coast of Africa at 30*s.* 10*d.*; the imports from New Granada at 39*s.* 6*d.*; and those from Ecuador at 40*s.* 11*d.* per cwt. The entries for consumption amounted, at an average of the 3 years ending with 1842, to 6,050 cwt. 3 qr. 10 lb. The duty, which had been 3*s.* per cwt., was reduced in 1842 to 1*s.* per cwt., and was wholly repealed in 1846. In 1867 the imports amounted to 24,443 cwt. valued at 45,454*l.*, and the exports to 5,608 cwt.

ORGOL. [Arsol.]

ORPIMENT (Ger. *orpiment*; Fr. *orpiment*; Ital. *orpimento*; Span. *oropimente*; Lat. *auripigmentum*). The name usually given to sulphuret of arsenic.

When artificially prepared, it is in the form of a fine yellow-coloured powder; but it is found native in many parts of the world, particularly in Bohemia, Turkey, China, and Ava. It is exported from the last two in considerable quantities; and is known in the East by the name of hartal. Native orpiment is composed of thin plates of a lively gold colour, intermixed with pieces of a vermilion red, of a shattery foliaceous texture, flexible, soft to the touch like talc, and sparkling when broken. Specific gravity 3.45. The inferior kinds are of a dead yellow, inclining to green, and want the bright appearance of the best specimens. Its principal use is as a colouring drug among painters, bookbinders &c. (Thomson's *Chemistry*; Milburn's *Orient. Com.*) Only 4 cwt., of the value of 16*l.*, were imported in 1867.

OSTRICH FEATHERS (Lat. *plumæ struthionis*; Fr. *plumes d'autruche*). The feathers of the ostrich, but more especially the long feathers of the wings and tail. These feathers have been highly prized from the remotest antiquity; and have been employed, either singly or intermixed with others (those of the swan, heron, peacock &c.), to heighten the magnificence of processions, the splendour of warriors, and the beauty of the fair.

The ostrich, as every one knows, is chiefly found in the sandy deserts of Arabia and Africa. Dr. Livingstone, in his *Travels into the Interior*, the latter, says that, 'notwithstanding the difficulty of their capture, the quantity of feathers collected annually shows that the numbers slain must be considerable, as each bird has only a few in the wings and tail. The male bird is of a black glossy colour, with the single exception of the white feathers, which are objects of trade. Nothing can be finer than the adaptation of the glossy feathers for the climate of the Kalahari, where these birds abound; for they afford perfect shade to the body, with free ventilation beneath them. The hen-ostrich is of a tawny brownish-grey colour, and so are the half-grown cocks' (p. 155).

The emu, or cassowary, a variety of the ostrich is a native of Malacca, the Islands of the Asiatic Archipelago, and Australia. There is, also, a variety of the ostrich in South America. In the feathers of these varieties have hardly as yet become articles of commerce; and are very inferior to those of the Arabian and African ostriches.

One of the earliest as well as the most celebrated notices of ostrich feathers in modern times refer to those which adorned the helmet of the king of Bohemia, who fell at Cressy in 1346. The motto *Ich dien* (I serve), having been assumed by the Black Prince, whose gallantry greatly contributed to the success of the English, have since formed the insignia of the Princes of Wales, and have been borne by them on several occasions. Henry VIII. is represented with an ostrich plume in his velvet cap, in a portrait by Holbein; and a portrait of his contemporary Francis I. is similarly decorated. In more modern times, these feathers, or substitutes for them, have been, and continue to be, used in the bonnets of the Scottish Highland regiments. At present they are extensively used in the decoration of ladies' bonnets and head-dresses in children's hats, in artificial flower-making, funeral plumes; military plumes, and in various kinds of fancy trimmings and ornaments.

Leghorn, after the decline of its commerce in the Levant, remained the great entrepôt of ostrich feathers, and did business in that article to the amount of about 1,200,000 francs annually. Since the establishment of steam navigation, London has gradually become the principal centre of that branch of trade, and Leghorn now does business to about half the preceding amount. A part of the diminution is, however, owing to the decline which has taken place in prices. Now only the eighth parts of the ostrich feathers which Leghorn receives come from Egypt, and the rest from Tripoli and Aleppo. (Annales du Commerce Étranger.) The Cape of Good Hope supplies the most valuable feathers, chiefly on account of their white colour. Black feathers come principally from Mogadore and Aleppo. A good black feather comes from the Cape, but in small quantities. White and grey feathers may be dyed to suit the prevailing taste; but black feathers are always dyed to a darker shade before they are made into plumes by the manufacturer. It is estimated that

ERS (Lat. plume str. austrache). The feathers especially the long feathers. These feathers have been the remotest antiquity; and either singly or intermixed with the swan, heron, peacock, the magnificence of professional fairs, and the beauty of the every one knows, is chiefly from Arabia and Africa. Travels into the Interior of Africa, notwithstanding the distance, the quantity of feathers shows that the numbers slain, as each bird has only a feather. The male bird is of a size with the single exception of which are objects of trade than the adaptation of the climate of the Kalahari; abundant; for they afford a body, with free ventilation. The hen-ostrich is of a different size, and so are the half-grown.

owary, a variety of the ostrich, the Islands of the Azores, Australia. There is, also, rich in South America. Some varieties have hardly any commerce; and are very inferior to the African ostriches. At as well as the most celebrated feathers in modern times were the helmet of the king of all at Cressy in 1346. The ostrich (I serve), having been Black Prince, whose gallantry led to the success of the English, the insignia of the Princes been borne by them on the VIII. is represented with this velvet cap, in a portrait of his contemporary, richly decorated. In more recent times, or substitutes for the continue to be, used in the Scottish Highland regiments are extensively used in the es' bonnets and head-dresses, in artificial flower-making, military plumes, and in various trimmings and ornaments. The decline of its commerce is the great entrepôt of ostrich business in that article to 2,000,000 francs annually. The shipment of steam navigation has become the principal trade, and Leghorn now about half the preceding amount. It is, however, owing to the taken place in prices. Some ostrich feathers which Leghorn in Egypt, and the rest in the world. (Annales du Commerce de Good Hope supplies the feathers, chiefly on account of the ostrich feathers come principally from Aleppo. A good black feather is obtained from the Cape, but in small quantities. Ostrich feathers may be dyed to suit the color of the ostrich, but black feathers are always made before they are made by the manufacturer. It is estimated that

at present prices, the value of the annual consumption of the rough undressed article may amount to from 30,000*l.* to 35,000*l.*; of which  $\frac{1}{2}$  may come from the Cape,  $\frac{1}{4}$  from Mogadore, and the remaining  $\frac{1}{4}$  from Egypt and Aleppo, by way of France.

In the estimation of the value of ostrich feathers, dealers, as a rule, consider the *whites* and most perfect to be the best. The best *whites* vary from 15*l.* to 30*l.* per lb. *voidupois*, and the *whites* of all qualities mixed together, from 10*l.* to 17*l.* per lb. *Blacks* vary from 15*s.* to 5*l.* per lb., according to their length and quality, the longest being the most valuable. The ostrich feather is esteemed of the greatest value of all other feathers, if we except the Marabouts or feathers from the White Paddybird, which are worth from 25*s.* to 5*l.* per ounce.

The French have for many years past obtained supplies of Cape feathers and Marabouts from London, and they often purchase Mogadore feathers in the same market. They export to most of the ports in Europe both the manufactured and undressed article.

Since 1850, the fashion of Continental Europe, guided chiefly by the Imperial Court of France, has shown a decided preference for feathers as ornaments for ladies and children's hats and bonnets, and as trimmings for dresses and mantles, not exclusively confined to ostrich feathers. Tropical birds of rare and brilliant plumage contribute a large share to the prevailing fashion, such as the bird of Paradise, the Himalaya or Imphian pheasant, the Argus pheasant, the parrot, the turkey from India, the vulture, the cassowary, various specimens of humming birds, from South America, the emu or Australian ostrich, the silver duck from European Turkey, the golden and silver pheasant, the common pheasant, and the heron from the British Isles. These are the most important among the birds whose plumage is now used for ornament and trimmings, and the value of many of them has greatly increased. The manufacturers of London and Paris supply nearly the whole civilised world with these productions in their finished state, London having the largest share in ostrich feathers, and Paris in those of a fancy character. A leading manufacturer of great experience (Mr. Da Costa Andrade) estimates that in London alone at the present time the number of young women employed must exceed one thousand, whose wages vary from 5*s.* to 20*s.* per week, and that the value of ostrich and other feathers imported into the United Kingdom for this branch of commerce may amount to 215,000*l.* per annum.

Experiments are now being made in South Africa to domesticate the ostrich on large farms. At a meeting of the Colesberg Agricultural Society's Committee on October 8, 1864 (*Grasshoppers Journal*, January 24), a Mr. Von Mallitz stated, from his own experience, 'The opinion I have formed with reference to the extent of ground requisite for their grazing is, that 35 acres can be carried, year in and year out, upon 100 acres of good grazing land, I mean land rather superior to the common run. At the end of last year, I had the wings of the birds plucked where the feathers of commerce grow. In consequence of the youth of the birds, those feathers then obtained were valueless. I now find, by recent examination, that the birds will be fit to pluck again at the end of the present month, verifying the statement made at the last Swellendam show by one of its members, who was, like myself, experimenting in this novel description of farming, that he obtained feathers fully grown from his

ostriches every six months. The general opinion is, that the largest feathers, of which there are 24 on the wing of each male bird, are worth 25*l.* per lb., and that the yield of the whole plucking, the majority of the birds being males, will not fall short of 10*l.* each on the average. The original cost of the young birds was about 5*l.* each.

As yet no definite results have been published to show the success of these experiments in South Africa. An attempt has been made by the 'Acclimatisation Society' of Paris to obtain feathers from ostriches reared there, but it is found that such feathers are far inferior to those imported, having more of the downy character of the swan, than the rich flue of the ostrich.

The imports in 1867 were as under:—

	Quantities	Declared Value
	lb.	£
<b>White.</b>		
From Hamburg	518	1,150
France	6,163	17,312
Morocco	611	5,338
Argentine Confederation	4,151	260
British Possessions in South Africa	7,182	50,851
Other parts	334	708
<b>Total</b>	<b>18,957</b>	<b>75,519</b>
<b>Black.</b>		
From France	16,352	24,877
Portugal	819	4,225
Egypt	1,982	2,080
Brazil	1,876	30
Argentine Confederation	755	200
British Possessions in South Africa	10,508	34,064
Other parts	160	479
<b>Total</b>	<b>32,462</b>	<b>62,645</b>
<b>Grand total</b>	<b>51,419</b>	<b>136,164</b>

In the same year we exported 2,247 lb. of white and 2,069 lb. of black feathers. No duty is now paid on feathers.

[We are indebted for this curious and valuable article to Robert Slater, Esq., of Fore Street.]

**OWNERS OF SHIPS.** Property in ships is acquired, like other personal property, by fabricating them, or by inheritance, purchase &c.

No ship is entitled to any of the privileges of a British ship until she be duly registered as such, and all the provisions connected therewith, embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104, be complied with. [REGISTRY.]

A British ship may belong either to one individual, or to several individuals. It is ordered by the Act just cited, that the property of every vessel of which there are more owners than one, shall be divided into 64th shares; that no person shall be entitled to be registered as an owner who does not, at least, hold one 64th share; but that any number of persons not exceeding five may be registered as joint owners of a share. It is further provided by the same statute, that not more than *thirty-two* persons shall be owners of any one ship at any one time. Companies or associations may hold property in ships on a special declaration in regard to the ownership of such body being made by their secretary or other authorised functionary in the terms prescribed by the statute.

Neither the property of an entire ship, nor any share or shares in such ship, can be transferred from one individual to another, except by bill of sale or other instrument in writing; and before the sale is valid, such bill or instrument must be produced to the registrar of the port at which the ship is registered, who is to enter the names, residences &c., of the seller and buyer, the number of shares sold &c. in the book of registry of such vessel, and to indorse the particulars on

the bill of sale. [Secs. 57 and 58 of statute, art. [REGISTRY.]

But, though compliance with the directions in the statute accomplishes a complete transference of the property when the transaction is not in its nature illegal, it gives no sort of security to a transference that is otherwise bad. The purchaser should in all cases endeavour to get possession of the ship, or of his share in her, as soon as his title to her or it is acquired, by the registration of the particulars of the bill of sale; for though all the formalities of sale have been completed, yet, if the sellers continue as apparent owners in possession of the ship, their creditors may, in the event of their becoming bankrupt, acquire a right to it, to the exclusion of the purchasers. In the case of a sale or agreement for a part only, it is enough if, the sale being completed, the seller ceases to act as a part owner. (Lord Tenterden *On the Law of Shipping*, part i. c. 1.)

Property in ships is sometimes acquired by capture. During war, her Majesty's ships, and private ships having letters of marque, are entitled to make prizes. But before the captors acquire a legal title to such prizes, they must be condemned in the Admiralty or other court constituted for that purpose. When this is done, the captors are considered to be in the same situation, with respect to them, as if they had built or purchased them.

No person having the mortgage of a ship, or a share of a ship, made over to him as a security for a debt, shall be deemed an owner, or part owner, of such ship. And when such mortgage has been duly registered according to the provisions of the Act, the right and interest of the mortgagee are not to be affected by the bankruptcy of the mortgagor, though he be the reputed owner, or part owner, of such ship. [Secs. 70-72 of statute, art. REGISTRY.]

In the article MASTERS OF SHIPS is given an account of the liabilities incurred by the owners of ships for the acts of the masters. But it has been attempted to encourage navigation by limiting the responsibility of the owners, without, however, depriving the freighter of a ship of an adequate security for the faithful performance of the contract. To effect this desirable object, it has been enacted, that the owner or owners shall not be liable to make good any loss or damage happening, *without their fault or privity*, to any goods put on board any ship or vessel belonging to such owner or owners, further than the value of such ship or vessel, with all its appurtenances, and the freight due, or growing due, during the voyage that may be in prosecution, or contracted for, at the time when the loss or damage has taken place. (17 & 18 Vict. c. 104 s. 504.)

This limitation was first introduced into our law by the 7 Geo. II. c. 15. But it had previously been adopted in the law of Holland, and in the justly celebrated French Ordinance of 1681. In the Ordinance of Rotterdam, issued in 1721, it is expressly declared that 'the owners shall not be answerable for any act of the master, done without their order, any further than their part of the ship amounts to.' Independently, however, of this general agreement, the expediency of the limitation appears, for the reasons already stated, sufficiently obvious.

It was also enacted in 1786 (26 Geo. III. c. 60) that neither the master nor owners of any ship or vessel shall be liable to answer for or make good any gold or silver, diamonds, watches, jewels, or precious stones, lost or embezzled during the course of the voyage, unless the shipper thereof insert in his bill of lading, or declare in writing to

the master or owners, the true nature, quality, and value of such articles. This restriction is embodied in the Mercantile Shipping Act (sec. 503); with the further condition that the owners shall not be liable for any damage done to goods on board by fire. We subjoin the clauses in the statute having reference to the liability of the owners.

*Owner not liable in respect of certain Articles.*—No owner of any sea-going ship or share therein shall be liable to make good any loss or damage that may happen without his actual fault or privity of or to any of the following things, viz. :—

1. Of or to any goods, merchandise, or other things whatsoever taken in or put on board any such ship, by reason of any fire happening on board such ship.

2. Of or to any gold, silver, diamonds, watches, jewels, or precious stones taken in or put on board any such ship, by reason of any robbery, embezzlement, making away with or secreting thereof, unless the owner or shippers thereof has, at the time of shipping the same, inserted in his bills of lading, or otherwise declared in writing to the master or owner of such ship, the true nature and value of such articles, to any extent whatever. (17 & 18 Vict. s. 503.)

*Measure of Owner's Liability.*—By the Merchant Shipping Act of 1854 this liability was limited to the value of the ship and freight due, but the 25 & 26 Vict. c. 63 further limited the liability as follows :—

*Ship-owners' Liability limited.*—The owners of any ship, whether British or foreign, shall not be liable in cases where all or any of the following events occur without their actual fault or privity, to the extent of, viz. :—

1. Where any loss of life or personal injury is caused to any person being carried in such ship;

2. Where any damage or loss is caused to any goods, merchandise, or other things whatsoever on board any such ship;

3. Where any loss of life or personal injury is by reason of the improper navigation of such ship as aforesaid caused to any person carried in any other ship or boat;

4. Where any loss or damage is by reason of the improper navigation of such ship as aforesaid caused to any other ship or boat, or to any goods, merchandise, or other things whatsoever on board any other ship or boat;

but the owners shall be answerable in damages in respect of loss of life or personal injury, either alone or together with any loss or damage to ships, boats, goods, merchandise, or other things, to an aggregate amount exceeding 15*l.* for each ton of their ship's tonnage; nor in respect of loss or damage to ships, goods, merchandise, or other things, when there be in addition loss of life or personal injury, or not, to an aggregate amount exceeding 5*l.* for each ton of the ship's tonnage; such tonnage to be the registered tonnage in the case of sailing ships, and in the case of steam ships the gross tonnage without deduction on account of engine room.

In the case of any foreign ship which has been or can be measured according to British law, the tonnage as ascertained by such measurement shall, for the purposes of this section, be deemed to be the tonnage of such ship.

In the case of any foreign ship which has not been and cannot be measured under British law, the surveyor-general of tonnage in the United Kingdom, and the chief measuring officer in

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of the following things

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in or put on board any  
of any fire happening or

gold, silver, diamonds,  
precious stones taken in  
ship, by reason of any  
t, making away with  
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Liability.—By the Me-  
of 1854 this liability was  
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British or foreign, shall  
any of the following events  
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anges in respect of loss of  
either alone or together with  
hips, boats, goods, mercha-  
s, to an aggregate amount  
ach ton of their ship's ton-  
nage of loss or damage to shi-  
or other things, which  
loss of life or personal inju-  
t amount exceeding £100.

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tonnage in the case of sailing  
se of steam ships the pro-  
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y foreign ship which has  
according to British law,  
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es of this section be de-  
such ship:

y foreign ship which has  
measured under British law,  
l of tonnage in the United  
chief measuring officer in

British possession abroad, shall, on receiving from  
or by direction of the court hearing the case such  
evidence concerning the dimensions of the ship  
as it may be found practicable to furnish, give a  
certificate under his hand, stating what would in  
his opinion have been the tonnage of such ship if  
she had been duly measured according to British  
law, and the tonnage so stated in such certificate  
shall, for the purposes of this section, be deemed  
to be the tonnage of such ship. (25 & 26 Vict.  
c. 63 s. 54.)

Limitation of Invalidity of Insurances.—In-  
surances effected against any or all of the events  
enumerated in the section last preceding, and  
occurring without such actual fault or privity  
as therein mentioned, shall not be invalid by  
reason of the nature of the risk. (Sec. 55.)

Proof of Passengers on board lost Ship.—  
In any proceeding under the 506th section of  
the principal Act or any Act amending the same  
against the owner of any ship or share therein in  
respect of loss of life, the master's list or the  
duplicate list of passengers delivered to the proper  
officer of customs under the 16th section of 'The  
Passengers Act, 1855,' shall, in the absence of  
proof to the contrary, be sufficient proof that the  
persons in respect of whose death any such pro-  
secution or proceeding is instituted were passen-  
gers on board such ship at the time of their  
deaths. (Sec. 56.)

Provision for separate Losses.—The owner of  
every sea-going ship or share therein shall be  
liable in respect of every such loss of life, personal  
injury, loss of or damage to goods as aforesaid,  
arising on distinct occasions to the same extent  
as if no other loss, injury, or damage had arisen.  
(17 & 18 Vic. s. 506.)

When several freighters sustain losses exceed-  
ing in the whole the value of the ship and freight,  
they are to receive compensation thereout in pro-  
portion to their respective losses; and any one  
freighter, on behalf of himself and the other  
freighters, or any part owner, on behalf of himself  
and the other part owners, may file a bill in a  
court of equity for the discovery of the total  
amount of the losses, and of the value of the ship,  
and for an equal distribution and payment. If  
the bill be filed by or on behalf of the part owners,  
the plaintiff must make affidavit that he does not  
collude with the defendants, and must offer to pay  
the value of the ship and freight, as the court shall  
direct.

It is usual in most countries, where the part-  
owners of a ship disagree as to her employment,  
to give those possessed of the greater number of  
shares power to bind the whole. But in this  
country, while the majority of the owners in value  
have authority to employ the ship as they please,  
the interests of the minority are secured from  
being prejudiced by having their property en-  
gaged in an adventure of which they disapprove.  
For this purpose it has been the practice of the  
Court of Admiralty to take an obligation from  
those who desire to send the ship on a voyage, in  
sum equal to the value of the shares of those  
who object to it, either to bring back and restore  
to them the ship, or to pay them the value of their  
shares. When this is done, the dissentient part-  
owners bear no portion of the expense of the out-  
fit, and are not entitled to a share in the profits of  
the voyage; the ship sails wholly at the charge  
and risk, and for the profit, of the others. (Abbott,  
part i. c. 3.)

For the statutory enactments as to the sale and  
transfer of ships, see REGISTER.  
OYSTER (*Ostrea edulis*), OYSTERS (Lat.  
name: Fr. huîtres). A well-known and highly

valued shell-fish, found in great abundance and in  
the greatest perfection in many places along our  
shores. In antiquity, as in modern times, the  
oysters of Britain were held in the highest esti-  
mation. Juvenal, in illustration of the fastidious  
taste of the Roman epicures, says:—

*Circius nata ferent, an  
Lacrumum ad sanum, Rotupinove \* edita funilo  
Ostrea, callobat primo deprendere morso.* Sat. iv. 110.  
(\* Richborough in Kent.)

Oysters differ in size and quality, according to  
the different nature of the grounds or beds on  
which they are found. They are particularly  
abundant in the creeks and rivers of Essex and  
Kent, and in various parts along the south coast  
and the coast of Wales. Ireland is also well  
supplied with oysters; those of Carlingford being  
the greatest favourites. The beds in the Frith of  
Forth, adjacent to Edinburgh, are very valuable.  
And those of the Channel Islands, especially Jer-  
sey, furnish large supplies.

Oysters are not always carried direct from the  
places where they are found to market, but are  
frequently conveyed to artificial beds, where they  
are fattened, and where their flavour is said to be  
improved. This sort of industry has been long  
practised by the traders who supply the London  
market. The small, ovate, deep-shelled oysters,  
called *natives*, which are here most esteemed, are  
all brought from artificial beds at Whitstable,  
Rochester, Milton, Colechester, Burnham &c.;  
those from Burnham being reckoned the best.  
Inasmuch as the oyster does not breed freely, and  
often not at all on these beds, they would require,  
even though they were not dredged, constant re-  
stocking.

The consumption of oysters in London is im-  
mense; for, notwithstanding their high price, they  
are largely consumed by the middle and lower  
classes. It has been variously estimated, but  
may, perhaps, annually amount to from 25,000 to  
30,000 bushels of natives, and to 100,000 bushels  
of other varieties. The consumption of oysters  
in Edinburgh and Leith has been estimated at  
7,350 a day. The export of oysters from Jersey  
amounted, at an average of the 4 years ending  
with 1822, to 208,023 bushels a-year: of these a  
large portion came to London; but in the accounts  
for 1863-67 the total exports of fish from the  
Channel Islands are given in cwt. without dis-  
tinction of varieties.

Oysters are very abundant on many parts of  
the shores of the United States; and their con-  
sumption in New York and other great cities is  
very large, though some of the statements that  
have been put forth with respect to it appear to be  
extremely exaggerated. Baltimore is the grand  
seat of the American oyster trade. Supplies of  
oysters are sent from the feeding grounds and beds  
belonging to that city to most parts of the Union.  
(For further information with respect to this  
curious and interesting subject, see the excellent  
article on the Oyster in the work of Forbes and  
Hanley *On British Mollusca*, ii. pp. 305-329;  
Eyton *On the Oyster*, passim; Pennant's *British  
Zoology*; *The Oyster, when, how, and where to  
Find* &c. 1863; *Oyster Fishery; the Laws  
which regulate it in Ireland, being chiefly a  
reprint of Articles from various sources*, Dublin  
1864; &c.)

The disposition of the English and French, as of  
all other fishermen, to encroach, in pursuing their  
business, on the grounds belonging to the others,  
gave rise to many disputes and collisions. To  
terminate these a convention was agreed to in  
1839, by which commissioners were appointed to  
ascertain and fix the limits of the fishing grounds

belonging to each nation. These, which were laid down in a chart affixed to the award of the commissioners, were fixed, speaking generally, at 3 miles' distance from low-water mark along the shores of both countries; and the fishing boats of either were prohibited from coming within these limits of the coasts of the other, except from stress of weather, the influence of the tides, or other specified cause. The regulations laid down by the commissioners were carried into effect by the Act 6 & 7 Vict. c. 79, to which they were appended; and it further provided that the oyster fisheries should open on September 1, and close on April 30. It was afterwards enacted by the 18 & 19 Vict. c. 101, that all oysters and dredges found on board fishing vessels between May 1 and August 31 might be seized, and that oysters landed between the above dates might also be seized.

A deficiency in the ordinary supply of oysters, and the risk of their permanent decline, led the Legislature in 1866 (29 & 30 Vict. c. 85) to make provision for the maintenance of oyster and mussel fisheries; and to attain the same end certain rules are laid down in the Sea Fisheries Act of 1868, 31 & 32 Vict. c. 45, which repeals the previous Acts already referred to and confirms the Fishery Convention with France of November 11, 1867.

The following is an abstract of Part III. of the last-mentioned Act, which refers to oysters.

The Board of Trade, on memorial, can make an order for the establishment or improvement, and for the maintenance and regulation of these beds, (Sec. 29.)

If on consideration the Board of Trade approve, the promoters must cause printed copies of the draft of the order to be circulated among all persons having interests in the land adjoining, who may make objections within one month. (Secs. 30, 31.)

After this interval, the Board shall appoint some fit person to act as inspector, who is to hold a sitting or sittings concerning the subject matter of the said order, and receive evidence (sec. 32); the inspector must report (sec. 33), and as soon as convenient the Board of Trade shall settle and make the order (sec. 34), after which it must be published by the promoters (sec. 35), who shall defray all expenses. (Sec. 36.)

The confirmation of the orders must be made by Act of Parliament (sec. 37); if petition be presented against Bill confirming order, the Bill shall be treated as a private one (sec. 38). The Board of Trade may amend the order. (Sec. 39.)

Those who obtain an order shall have the exclusive right of depositing, propagating, dredging, and fishing for and taking oysters and mussels within the limits of their fishery (sec. 40).

The limits of the fishery to be marked. (Sec. 42.)

The portion of the seashore shall be held to be within the county. (Sec. 43.)

No grant can be conferred for more than 60 years. (Sec. 44.)

If the fishery is mismanaged, the grant may be resumed. (Sec. 45.) Consent of the Crown needed when the seashore is adjacent to Crown lands. (Sec. 46.)

Compensation, if needed, to be made to the owners of the shore under the Lands Clauses Consolidation Act. (Sec. 47.) The order must not be made against rights conferred by special Act of Parliament or royal charter, prescription, or immemorial usage, without the consent of the parties interested. (Sec. 48.) Copies of the order and Acts must be kept for sale, under a penalty of 5*l.* and 1*l.* per diem. (Sec. 49.) Annual Report to Parliament to be made by the Board of Trade (sec. 50). The fishery shall be protected against the use of any fishing tackle, other than for floating fish, against dredging, deposit of ballast or rubbish, placing any implement &c. likely to be prejudicial to the beds, under penalties varying from 2*l.* to 10*l.* besides damages. (Sec. 53.) There follow certain additional regulations for protection of oyster beds. The Act does not extend to Ireland or the Channel Islands and Man. The execution of this Act is committed to certain sea fishery officers, viz. commissioned officers of her Majesty's ships on full pay, officers of the coast guard and customs, and persons appointed by the French Government to superintend the fisheries referred to in the convention with France, s. 8. An order in council of February 4, 1869, contains a series of regulations for lettering, numbering, and registering sea fishing boats under the Sea Fisheries Act of 1868. The 31 & 32 Vict. c. 53 continues in force the Act 2 Geo. II. c. 19 for regulating the Oyster Fishery in the Medway.

*Irish Oyster Fisheries.*—Licenses had been granted under 5 & 6 Vict. c. 106, and 13 & 14 Vict. c. 88, for the purpose of establishing oyster beds in Ireland. By 29 & 30 Vict. c. 88, the license is granted by commissioners; the fisheries are protected by the same provisions as are quoted above, and the commissioners may revoke the license, if no proper steps are taken to use the license after the lapse of three years. The power of the Irish Fishery Commissioners, and the process by which the fisheries shall be developed are carried out by another Act of the same session, 29 & 30 Vict. c. 97, the particulars of which, mutatis mutandis, are the same as those of the Act for Great Britain; and by 31 & 32 Vict. c. 45 s. 67, the Irish Fishery Commissioners are authorised to lay before her Majesty in council by-laws for restricting or regulating the dredging in any oyster beds near the Irish coast, but outside the exclusive fishery limits of the British Isles.

## P

**PACKAGE, SCAVAGE, BAILLAGE, AND PORTAGE.** Duties formerly charged in the port of London on the goods imported and exported by aliens, or by denizens being the sons of aliens.

During the dark ages, it was usual to lay higher duties upon goods imported or exported by aliens, whether in British or foreign ships, than were laid on similar goods when imported or ex-

ported by natives. But according as sounder and more enlarged principles prevailed, this illiberal distinction was gradually modified, and was at length wholly abolished, in so far at least as it was of a public character, by the 24 Geo. III. c. 16. This Act, after reciting that the several duties and restrictions imposed by various Acts of Parliament upon merchandise are, by the alterations of the trade now carried on between this

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kingdom and foreign States, in some cases become an unnecessary burden upon commerce, without producing any real advantage to the public revenue, and that it is expedient they should no longer continue," enacts, that the duty commonly called 'the petty customs,' imposed by the 12 Ch. II. and all other additional duties imposed by any Act upon the goods of aliens above those payable by natural-born subjects, should be no longer payable. The Act then goes on to provide, that nothing contained in it shall 'alter the duties due and payable upon goods imported into or exported from this kingdom in any foreign ship, nor the duties of *package* and *seavage*, or any duties granted by charter to the city of London;' and then follows provisions to prevent the city being introduced of such duties by false entries of aliens' goods in the name of a British subject. (Chitty's *Commercial Law*, vol. i. p. 160.)

The duties thus preserved to the city were not very heavy; but the principle on which they were imposed was exceedingly objectionable, and their collection was attended with a great deal of trouble and inconvenience. Not being levied in other places, they operated to the prejudice of the trade of the metropolis. For these reasons, we observed, in the first edition of this work, that 'if the funds of the corporation will not admit of their following the liberal example of the Legislature, by voluntarily abandoning this vexatious impost, it would be good policy to give them a compensation for relinquishing it.' And this suggestion has since been carried into effect. The Act 3 & 4 Wm. IV. c. 66 authorised the Lords of the Treasury to purchase up the duties in question from the city. This was done, at an expense of about £100,000, and the duties were abolished. There is a table of the duties in the first edition of this work.

PACKETS. [DOCKS (SOUTHAMPTON, LIVERPOOL &c.); NEW YORK; PASSENGERS; POST-OFFICE.]

PALERMO (anciently PANORMUS). A large city and seaport, the capital of the noble island of Sicily, on the north coast of which it is situated, the lighthouse being in lat. 38° 8' 16" N., long. 15° 22' 50" E. Population, in 1862, 167,625.

The bay of Palermo is about 5 miles in breadth, the city being situated on its south-west shore. A fine mole, fully  $\frac{1}{2}$  mile in length, having a lighthouse and battery at its extremity, projects in a westerly direction from the arsenal into 9 or 10 fathoms water, forming a convenient port, capable of containing a great number of vessels. This immense work cost about 1,000,000 sterling in its construction; the lighthouse was improved in 1833. It gives a flash every 2 minutes, and is visible at from 11 to 14 miles. It is 92 feet above high water. There is an inner port, which is reserved for the use of the arsenal. Ships that do not mean to go within the mole may anchor about  $\frac{1}{2}$  mile from it, in from 16 to 23 fathoms, the mole light bearing N.W.  $\frac{1}{2}$  W. A heavy sea sometimes rolls into the bay, but no danger need be apprehended by ships properly found in anchors and chain cables. In going into the bay, it is necessary to keep clear of the nets of the tunny fishery, for these are so strong and well moored as to be capable of arresting a ship under sail. (Smyth's *Sicily*, p. 70, and Appen. p. 4.)

Money.—Since 1818, the coins of Sicily have been the same as those of Naples, their names only differing. [NAPLES.] The *ducat*, = 3s. 5-2d. sterling, is subdivided into 100 *baocchi* and 10 *piccioli*; but accounts are still generally kept in *oncia*, *tari*, and *grani*: 20 *grani*=1 *taro*; 30 *tari*=1 *oncia*. The *oncia*=3 *ducats*; and 1 *carlino* of

Naples=1 *taro* of Sicily. The Spanish dollar is current at 12 *tari* 8 *grani*. For money of the Kingdom of Italy, see COINS; GENOA; &c.

Weights.—These are the *cantaro grosso*, subdivided into 100 *rottoli grossi* of 33 *oncie*, or into 110 *rottoli sottili* of 30 *oncie*; and the *cantaro sottile*, subdivided into 100 *rottoli sottili* of 30 *oncie*, or 250 lb. of 12 *oncie*. The *rottolo* of 33 *oncie*=1.93 lb. *avoirdupois*=2.34 lb. Troy=8.73 hectogrammes=1.77 lb. of Amsterdam=1.8 lb. of Hamburg. The *rottolo* of 30 *oncie*=1.75 lb. *avoirdupois*=2.13 lb. Troy=7.94 hectogrammes=1.6 lb. of Amsterdam=1.64 lb. of Hamburg.

100 Sicilian pounds of 12 *oncie*=70 lb. *avoirdupois*=85.11 lb. Troy=31.76 *kilog.*=64.23 lb. of Amsterdam=65.58 lb. of Hamburg.

Measures.—The *salma grossa*=9.48 Winch. bush.; the *salma generale*=7.62 Winch. bush.

The principal liquid measure is the *tonna*, divided into 4 *barili*, each equivalent to 9 $\frac{1}{2}$  wine gallons. 1 *barile*=2 *quartare*; 1 *quartara*=20 *quartucci*. The *catso* of oil=44 Eng. gallons.

The yard or *canna*=8 *palmi*; 2 $\frac{1}{2}$  *palms*=1 yard Eng. (Nelkenbrücher; Smyth, p. 62 App.) These local measures are now, however, superseded in great measure by the adoption of the metrical system, which is legalised throughout the kingdom of Italy.

Taxes.—Coffee, indigo, pepper, and dye woods, 2 per cent. and weight of package. Cinnamon, 6 *rottoli* per *seron*, with 1 wrapper, or 8 *rottoli*, with 2 wrappers; cocoa, 2 per cent. weight of package, and 3 per cent. for dust; cod-fish, 3 per cent.; herrings, 12 per cent.; tin, 13 *rottoli* per barrel; wax, weight of package, and 3 to 4 per cent. extra allowance; Havannah sugars, 16 per cent.; Brazil do., in short cases, 18 per cent., and in long cases, 20 per cent.; crushed sugar, weight of cask, and 5 per cent., or 13 per cent. in all, at the option of the buyer; East India do. in bags, 8 rot, to 10 rot. per bag. 1 *rottolo* taken as weight of bag, for coffee and cocoa in bags.

Charges on Goods.—The regular charges on the sale of goods consigned to Palermo are—commission, 3 per cent.; brokerage,  $\frac{1}{2}$  per cent.; warehouse rent,  $\frac{1}{2}$  per cent.; and portorage and boat hire; with 2 per cent. *del credere*—imports being almost always sold on credit. The charges may occasionally vary  $\frac{1}{2}$  to 1 per cent., and imports are frequently sold duty paid; the prices, however, so obtained, fully compensate for the trifling increase of charges.

The charges on goods exported are—3 per cent. commission; brokerage, so much per *cantaro*, *salma* &c., generally amounting to about  $\frac{1}{2}$  per cent., except on fruit, on which equivalent to from 2 to 3 per cent.

Trade of Sicily.—The shipping rose from 7,340 vessels, 935,000 tons, in 1865, to 8,970 vessels, 1,331,769 tons in 1866; 290,000 tons were British, 450,300 tons French, 440,000 tons Italian, in the latter year. In 1867 the number of vessels fell to 8,170, but the tonnage rose to 1,584,179, the British tonnage having decreased, while that of the French, Italians, and Americans increased.

The following is the summary of Sicilian trade in 1867:—

Countries	Imports	Exports	Total
America, United States	£ 33,450	428,130	461,880
Baltic, Belgium, Ger- many	351,075	394,500	745,575
France	398,960	309,160	708,060
Great Britain and Co- lonias	757,819	930,959	1,688,769
Italian States	165,177	244,530	409,707
Other countries	594,950	514,500	909,470
Total	2,997,815	2,821,519	5,118,562

The rate of exchange during the year 1867 was 20.60 livres per pound sterling.

*Imports and Exports.*—During the years 1862—1864 the imports and exports of Sicily were entered at 3,267,659*l.*, and 2,851,954*l.*, 1,733,624*l.*, and 2,702,805*l.*, 2,004,194*l.*, and 2,892,575*l.*

The great articles of export from Sicily are—olive oil, grain, particularly wheat and barley; silk, brimstone, wine and brandy, barilla, lemons and oranges, lemon juice, manna, shumac, linseed, fruit, salted fish and salt; with argol, liquorice, pumice stone, rags, skins, honey, cotton wool, saffron &c. Wheat is largely exported. It is of a mixed quality, hard, and is generally sold from the public magazines, or *caricatori* (post), by measure, without weight. But the best hard wheat grown in the neighbourhood of Palermo is sold by the salma of 272 rottoll=476 lb. Eng.; the difference between weight and measure being made good by the seller or buyer, as the case may be. Wine is principally shipped from Marsala; lemons, oranges, and lemon juice, from Messina; salt, from Trapani; and barilla, from the southern coast. But all the articles to be found on the coast may, for the most part, be had at Palermo; unless, however, the quantity required be small, it is usually best to ship them from the outports, the expense of their conveyance to Palermo being very heavy. The crops of barilla and shumac come to market in August; but brimstone, salt, oil, wine, rags &c. may generally be had all the year round. The first shipments of lemons and oranges may be made in the beginning of November. Purchases of produce are always paid for in cash, generally  $\frac{1}{2}$  on making the purchase, and the other  $\frac{1}{2}$  on delivery, when in Palermo, and on receiving order for delivery on the coast.

The imports consist of cotton stuffs, linens, and woollens; sugar, coffee, cocon, dye stuffs, iron, earthenware, spices, coal, tin, hides, Newfoundland cod, timber for building &c. The best of the old accounts of the trade of Sicily that we have met with is contained in Swinburne's *Travels in the Two Sicilies*, Ato. e. l. vol. ii. pp. 401—413. We have, also, derived much valuable information from the elaborate *Reports* of Mr. Consul Goodwin, one of the most intelligent of that class of functionaries.

The value of the imports into Sicily from the United Kingdom amounted in 1856 to 451,000*l.*, in 1857 to 399,000*l.*, and in 1867, as we see above, to 757,610*l.* The principal articles are cotton stuffs and yarn, linens and woollens, iron, coal, hardware and earthenware, colonial produce &c.

*Remarks on the Trade &c. of Sicily.*—This noble island contains about 10,500 square miles, being the largest in the Mediterranean, and one of the most fertile and best situated in the world. Its population in 1862 was 2,391,802. In ancient times, Sicily was celebrated for the number, magnitude, and opulence of its cities. Notwithstanding that its population was then probably treble its present amount, it obtained, from its furnishing vast supplies of corn and other articles of provision for the use of Rome, the appropriate epithet of 'horreum Romanorum,' and is said by Livy to have been 'Populo Romano, pace ac bello, fidissimum annonæ subsidium.' (Lib. xxvii. cap. 5.) But ('quantum mutatus!') there are now few countries in which agriculture and the arts are in so degraded a state. It does not, however, appear very difficult to account for this melancholy change. After the overthrow of the Roman power, Sicily was occupied successively by the Greeks, Saracens, Normans, and French, till at length it became a dependency, first of the Crown of Spain, and more recently of that of

Naples. It is to this dependence, and to the introduction of the feudal system by the Normans that its backward state is principally to be ascribed. The multiplied abuses which grew up in Spain under the reign of Ferdinand and his successors of the Austrian line, flourished with equal luxuriance in Sicily, and have proved to be destructive of the industry and civilization of its inhabitants than those of Spain. Misgovernment, the abuses of the feudal system, insecurity, an unequal and arbitrary taxes, have here, as every where else, paralysed industry, and impoverished the people.

But the grand curse of Sicilian, as of Sardinian industry, will probably be found in the oppressive restrictions that were for a long time laid on the exportation of corn. Down to a late period corn could be exported without leave being obtained from the *Real Patrónnia*, a body pretended to take an account of the crops, and which determined whether there were to be an exportation; and in the event of its being allowed it issued, or rather sold, licences to a few favoured individuals, authorising them to export certain specified quantities. Even had Sicily been at times more productive than she really is, it is quite impossible that agriculture could have flourished under such discouragements. Luckily these oppressive restraints have been abolished and there are no longer any obstacles to the exportation of corn. Oppressive taxes, the sale of leases of a reasonable length, and of practical periods, are still, perhaps, the greatest obstacles to agriculture.

At the present time (1869) the union of nearly all Italy, with the chief islands adjoining, and one and that a responsible Government, leads to hope that at no very remote date the commercial prosperity of Sicily will progress with social and political liberties. At present, as might be expected, this progress is slow. The development of the kingdom of Italy has been checked at the great cost of the wars undertaken for the purpose of securing Italian unity, by the expense which a popular Government invariably entails, and for some time after its establishment, by the fact that political changes do unsettle and derange trade, and by the delays which timidity and inaction have put in the way of those changes which must be accepted before any great progress possible. These difficulties and hindrances have been felt most fully in the outlying parts of the Italian kingdom. Thus, during the year 1860 there was an insurrection in Sicily; and Mr. Consul Goodwin has been justified in affirming that the industry of Sicily has been checked by the event, as well as by the severe visitation of cholera in that year and 1867.

The property of the island was valued in 1820 when the English garrison and fleet occasioned a great demand, and high prices for produce of all kinds; and this valuation has been continued to this day, as the basis on which the land and house tax (*fondiaría*) is levied. A rate of 7 per cent. on the valuation was first charged, which was subsequently raised to 12½ per cent., at which it is now fixed. Owing, as is stated, to the fall in the price of agricultural produce since 1811, this tax has been alleged to be more the equivalent to a duty of 25 per cent. on the produce of the soil taken at its present value, and to be a very great obstacle to improvement. We believe, however, that its influence in this respect, though considerable, has been much overrated, and that the backward state of Sicily is principally owing to other and different causes.

Though there be in Sicily a very considerable

number of small proprietors, by far the greater part of the land belongs to the Crown, the Church, and the nobility, some of whom have very extensive and valuable estates. Down to a recent period these were held under a system of strict entail, and their occupiers, as well as those of the estates of the Crown and the Church, usually held under feudal leases, and were in a state of feudal bondage, and subject to numerous exactions on the part of their lords. Under such circumstances, even though there had been no restrictions on exportation nor a land tax, the depressed condition of the peasantry, and the low state of agriculture, need not be wondered at.

But the dawn of a better day had arisen, even before the establishment of the Kingdom of Italy; several important changes having been introduced anterior to the expulsion of the Bourbons. We have already noticed the removal of the restrictions on exportation; and in 1812 and 1818 laws were passed for the abolition of the feudal system, and the complete emancipation of the peasantry. And, notwithstanding the poverty and ignorance of the latter will hinder them from especially profiting to the extent that might be anticipated from the passing of these laws, this cannot fail, in the end, to be productive of the best effects. It was also enacted in 1819, that in future, on the death of any individual possessed of an estate in land, and having more than one son, the half only of the estate should descend to the eldest son, and that the other half should be divided in equal shares among the other children.

This law, which appears to have been framed on the model of that which regulates the succession to property in France, will probably have nearly similar effects. In both countries, the abuses of entails might have been obviated without running into the opposite extreme, and establishing a system that can hardly fail in the end to occasion the great division of landed property.

Exclusive of wheat and barley, hemp, flax, and cotton are raised without much labour. The culture of the last is said to be extending of late years, especially in the neighbourhood of Mazzara. It is mostly short-stapled, and but little is exported, and that only to Naples and Trieste. It is probable, however, that by attention to its culture and the introduction of improved varieties, its quality might be improved, and it might become an article of some importance. The sugarcane was formerly a staple product of the south shore of Sicily. But owing to the introduction of cheaper sugar from the West Indies and Brazil, the culture of the cane is now restricted to some small plantations near Avola, and will probably at no distant period be wholly abandoned. The culture of wheat is now to a great extent abandoned for that of rice, flax, and cotton.

The district round Marsala is the principal seat of the vine culture; and, thanks to the exertions of some English capitalists established in that city, the production of wine is become an important branch of industry, and it forms a principal article of export. [WINE.] But, except in the English establishments, little care is in general bestowed upon the vintage. Along the north coast, the mountain slopes and valleys are almost wholly covered with olive groves; though elsewhere they are scarce, and do not furnish sufficient oil for the inhabitants. But for the imperfections in the mode of its preparation, the oil of Sicily would be excellent. The olives are permitted to hang on the tree till they come off with shaking, or with light canes; and they are then

kept in vats till they get quite black, so that the oil becomes pungent and rancid, and, though fit for the lamp, is totally unfit for the table. It is only near the capital and in a few other places that a more improved process is followed. Lemons and oranges, which grow luxuriantly, are of excellent quality, well adapted for long voyages, and, when intended for exportation, are collected with more care than any other agricultural product. They are largely exported, and are altogether highly important. Almonds, pistachios, dates, madder, the barilla plant, hazel-nuts, the *Rivinus palma*, or castor oil plant, saffron, tobacco &c., might all be raised in any quantity; but their culture is for the most part neglected, or ill-conducted. The mulberry is grown in the vicinity of Messina, and in the north-east part of the island; but the produce of silk does not exceed 400,000 lb. a-year; and the seasons of 1860 and 1867 have been so unfavourable that it is feared Sicily will become permanently the least productive of the silk districts of the Italian Kingdom. The manna ash is grown near the capital, and, manna not being monopolised by the Government in Sicily, it might be a much more extensive and profitable article of trade than it really is, if there were any public enterprise. Liquorice is found growing wild in several parts of the island, and considerable quantities of juice are exported. The culture of shumae is a good deal attended to, and it forms a principal article of export.

Formerly there were only certain ports from which corn could be exported; a limitation which gave rise to the establishment at these ports of public magazines or *caricatori*, where the corn may be deposited till an opportunity occurs of shipping it off. Provided it be of good quality (*mercantibile* or *recetibile*), and provided it be brought in immediately after harvest, or, at furthest, in August, it is warehoused free of expense; what it gains in bulk after that period (about 5 per cent.) being sufficient to defray all expenses. The receipt of the *caricator*, or keeper of the magazine, is negotiable like a bill of exchange, and is the object of speculative purchases on the exchange at Palermo, Messina &c., according to the expected rise or fall in the price of corn. The depositor of a quantity sells it in such portions as he pleases, the whole being faithfully accounted for. The public magazines, in some parts of the island, are either excavations into calcareous rocks, or holes in the ground shaped like a bottle, walled up, and made waterproof, containing each about 200 salme of corn, or about 1,600 English bushels. The neck of the bottle is hermetically closed with a stone fastened with gypsum. Corn may be thus preserved for an indefinite length of time; at least, it has been found in perfectly good order after the lapse of a century. (Simpson, p. 540; Swinburne, vol. ii. p. 405. For an account of the oil *caricatori* of Naples, see OILIVE OIL.)

The fisheries are chiefly conducted by corporations of fishermen, or moneyed individuals. That at Palermo employs, during the season, from 900 to 1,000 boats, and 3,500 fishermen; and the produce is valued at from 20,000l. to 25,000l. a-year. Tunnies, the fish principally caught on the Sicilian coasts, and which were in great request in antiquity, as well as in modern times, are of large dimensions, being generally from 4 to 8 feet in length, with a nearly equal girth. Their flesh is highly nutritious. The shoals of tunny enter the Mediterranean early in the year. The *tonnare*, or fishing establishments, on the Sicilian coast, are more extensive and valuable than those

of any other part of the Mediterranean. The fishery of the sword-fish is confined chiefly to the Straits of Messina, and the anchovy and pilchard fisheries to Siciliania. Lentini has some trade in *botarga*, made of the roe of the mullet. The coral fishery, near Bona, in Africa, is principally frequented by fishermen from Trapani, at which city the coral is polished, and brought for exportation to Catania, Naples, Leghorn &c.

The minerals of Sicily are important and valuable. Sulphur ranks first; it is found in great quantities imbedded in blue marl, or in gypsum and limestone, over most of the central and south parts of the island. The sulphur mines have been wrought for upwards of 300 years; but it is only since 1820 that any extraordinary quantity has been prepared for exportation. Subsequently to 1833, the trade with this country increased so much that the export of sulphur to the United Kingdom rose from 19,122 tons in the above year, to 38,654 tons in 1838. In this year, however, the Neapolitan Government granted to a French company the monopoly of the trade in sulphur, the production of which was to be limited to 600,000 quintals, to be supplied to the company by the proprietors of the mines at certain fixed prices, on condition of the latter paying to the Government a bonus of 400,000 Neapolitan ducats a-year. It is needless to dwell on the impolicy and absurdity of such a project. Instead of attempting to limit the export of sulphur, Government should have given it every possible facility; and taking the export under a free system at only 1,000,000 quintals, it would have yielded, at the low duty of 2s. per cwt. on export, a larger sum than was to be paid by the company for their monopoly. Luckily, a firm remonstrance by England occasioned the suppression of the monopoly, and the sulphur trade is again restored to its former state. In 1863, 152,762,615 kilos were exported. The total export of sulphur from Italy (almost entirely from Sicily) in 1865 was 145,516,635 kilos. Some sulphur mines are wrought by English speculators, with machinery brought from England, and workmen from Wales, Cornwall, and Scotland; but in most of the other mines the processes are very rude, and, in melting, a great part of the sulphur is allowed to escape in gas, to the destruction of the surrounding vegetation. Sicily furnishes saltpetre of excellent quality in sufficient quantity for her own consumption, but from want of enterprise little if any is produced for exportation. Rock salt, bitumen, gypsum, and marble of different kinds, are found in various places; and good salt is made at Trapani, and other coast towns. There are also ores of copper, lead, mercury, and iron, but very few of these are wrought. There are no iron foundries in the island, and iron and tin goods are principally imported from England, lead from Spain, and steel from Germany.

Had not the bounty of nature towards Sicily been counteracted by vicious laws and institutions, she would undoubtedly have been one of the richest and finest of European countries. All that she requires is security of property and freedom of industry. Let but these be given to her, and a few years will develop her gigantic resources, and elevate Girgenti, Termini, and Sciacca to a very high rank among corn-shipping ports, though so late as 1866 Eastern Sicily was dependent on foreign countries for corn. A railway 58 miles long has been opened between Messina and Catania with good prospects of success.

PALM OIL (Ger. palmöl; Fr. huile de palme, huile du Sénégal; Ital. olio di palma; Span. aceite de palma) is obtained from the fruit of several

species of palms, but especially from that of the *Elais Guineensis*, growing on the west coasts of Africa, south of Fernando Po, for some distance inland, and in Brazil.

The oil palm reaches a height of from 15 to 40 feet. Its fruit consists of a nut or kernel, surrounded by an arillus or pulp, and when fully grown is about the size of a chestnut, the pulp being about  $\frac{1}{3}$  of the whole bulk. The fruit grows in clusters, much after the manner of clusters of grapes, only a great deal larger, some clusters weighing as much as a cwt. When fully ripe, the fruit, which has a very thin skin, is of a beautiful bright orange colour; in taste, the pulp has a slight approach to sweetness, and is both wholesome and agreeable to eat.

The oil season on the west coast of Africa is from February to September. When ripe the fruit is collected in troughs or reservoirs of the most primitive description—occasionally even in holes dug in the ground, paved at the bottom with stones—where it is exposed to the heat of the sun, which in a short while partially separates the pulp from the kernels or nuts, the separation being completed by beating or bruising the fruit with pieces of wood or stones. The kernels and stems having been removed by hand, the pulp is put into earthen pots and boiled; the oil being in this way separated from a fibrous substance which pervades the pulp, and from other impurities. The whole of this process is so rudely performed, that there is necessarily great waste. When the oil has cooled down, it concretes about the consistence of butter, and is then ready for the cask. It retains nearly the same consistence upon importation into this country; it has no particular taste, but has a pleasant aromatic smell, and is of a yellowish to a deep orange colour. The finest oil is generally of the deeper shade. By keeping it loses its bright colour, first into a dirty white, and becomes rancid, in which state it is rejected.

The natives on the coast use it for the same purpose that we use butter. In this country, and on the continent of Europe, it is made into soap, candles &c.; and it is employed, in conjunction with other materials, to lubricate the axles of railway carriages. By far the greatest consumption of palm oil, however, is in soap making, which purpose, as well as for candles, it requires to undergo the somewhat expensive process of bleaching. It is sometimes imitated with bladder, coloured with turmeric, and scented with Florentine iris root.

Hitherto our supplies of palm oil have been derived almost entirely, if not exclusively, from the Bights of Biafra and Benin, and other parts of the west coast of Africa, of which it is the staple article of export. It is occasionally brought in small quantities from the Cape de Verde Islands, the West Indies, and Brazil; but it is nevertheless the produce of the coast of Africa indirectly imported.

The trade in palm oil, which took its rise at the beginning of the present century, is now of great magnitude and value. In 1806 the oil exported into England was estimated at only 200 tons, received from the Bight of Biafra; whereas in 1857, the whole importations amounted, according to the official returns, to 22,740 tons worth, at the market price of 40l. per ton, or 1,700,000l., and affording employment to a large amount of shipping. Since 1838, and down to 1867, the imports have been nearly stationary at a little over 40,000 tons per annum. The re-exports of palm oil in 1867 were 18,645 tons valued at 526,168l.

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ng. Since 1838, and down to  
have been nearly stationary,  
40,000 tons per annum.  
oil in 1867 was 13,663 tons

Of late years an oil has to some small extent  
been abstracted from the kernel or nut of the oil  
palm; but it is essentially different in character  
from that known as palm oil, and, probably from  
the unskillful manner in which the natives ex-  
tract it, is of considerably less value. It is hardly  
necessary to observe that the trade in palm oil  
seems to do more than anything to introduce  
a taste for commercial pursuits, and consequently  
the civilisation, among the natives of Africa. [OIL.]  
PAMPHLET. A small book, usually printed  
in the octavo form, and stitched, popularly under-  
stood to comprise from 1 to 10 sheets.

It is enacted by 10 Anne c. 19 s. 113, that no  
person shall sell, or expose to sale, any pamphlet  
without the name and place of abode of some  
known person, by and for whom it was printed or  
published, written or printed, thereon, under a  
penalty of 20s. and costs.

It is enacted by the 55 Geo. III. c. 185, that  
every book containing 1 whole sheet, and not  
exceeding 8 sheets in 8vo. or any lesser size; or  
not exceeding 12 sheets in 4to. or 20 sheets in  
8vo. shall be deemed a pamphlet. The same Act  
imposed a duty of 3s. upon each sheet of one copy  
of all pamphlets published. This duty, which was  
at one vexatious and unproductive, hardly ever  
yielding more than 1,000l. a-year, was  
repealed in 1833.

In the 1859 edition of this work was given  
(under Books) an account of the number and  
selling price of the pamphlets published in 1850,  
1851, and 1852. Some pamphlets have a very  
large sale; but, speaking generally, their publi-  
cation is quite as hazardous as that of books.  
The establishment of Quarterly and other Reviews  
has lessened the occasions and the demand for  
pamphlets.

PANAMA. A city and seaport of New Gra-  
mada, on the Pacific, 38 miles S.E. of Chagres, lat.  
9° 36' N., long. 79° 13' 2" W. Population about  
22,000? It stands on a rocky peninsula, pro-  
jecting into the Bay of Panama, and has an  
imposing aspect from the sea. Its streets are  
well ventilated, and it is said to be cleaner than  
most Spanish American cities. It is encircled by  
regular and not very strong fortifications, com-  
menced at different periods. The houses are  
entirely of wood, straw, and other fragile materials;  
but many are substantially built of stone, the larger  
being courtyards, or *patios*, in the old Spanish  
style; and no doubt it has been much improved  
within the last two or three years. Its roadstead  
is one of the finest in the world. There are a number  
of islands a short distance from the main land,  
which afford secure anchorage for ships of any  
size, and from which supplies of provisions,  
including excellent water, may easily be obtained.  
The tides daily rise and fall from 20 to 27 ft., so  
that it is peculiarly well fitted for the repair and  
fitting of ships.

Previously to 1740, when the trade with the  
Pacific first began to be carried on round Cape  
 Horn, Panama was the principal entrepôt of  
the trade between Europe and West America. From  
that period, however, it fell off; and its decay was  
particularly rapid after the independence of South  
 America, and the opening of the other ports of the  
 Pacific. But since the occupation of California by  
 the Americans, and especially since the discovery  
 of the auriferous deposits in that country, it has  
 rapidly increased. And now that a railway  
 has been carried across the isthmus, it will, in all proba-  
 bility, attain to greater commercial distinction than  
 any other port of the Pacific. Great numbers of steamers are now (1869)  
 employed in the trade between Panama and San  
 Francisco, Vancouver's Island &c.

*Passage across the Isthmus of Panama or Darien.*  
—Latterly, or since the discovery of the mineral  
riches of California, the isthmus has become a  
great thoroughfare, vast numbers of individuals  
having crossed from the port of Chagres on the  
Caribbean Sea to Panama on the Pacific Ocean,  
and conversely.

The port of Chagres is within the mouth of  
the river of that name, in lat. 9° 18' 6" N., long.  
79° 59' 2" W. A bar at the mouth of the river  
has only from 10 ft. to 12 ft. water, though with-  
in the bar the river deepens to from 4 to 6  
fathoms. It is probable that the bar might be  
deepened without much difficulty, and a canal  
might be cut from the bottom of the bay of  
Manzanilla to the river, from which it is only 3  
miles distant. A short while ago the town (if  
so it might be called) was a mere cluster of huts,  
unhealthy, and without any accommodation for  
passengers. But having lately become one of  
the starting points in the nearest and shortest  
route from the east to California, it has been  
greatly improved.

A railway from Aspinwall to Panama, a dis-  
tance of upwards of 47 miles (completed in 1864),  
has been constructed by a joint-stock company of  
New York, and reflects great credit on American  
enterprise and perseverance. (See Mr. Bidwell's  
description of it, furnished in M'Culloch's *Geographi-  
cal Dictionary*, ed. 1866.) The difficulties to be  
overcome were of a very formidable description,  
partly from the nature of the ground, which not  
unfrequently consisted of deep marshes, but more  
from the luxuriance and strength of the vegeta-  
tion through which it was necessary to penetrate,  
and the heat, moisture, and unhealthiness of the  
climate. Unluckily, the desire to accomplish  
their task in the shortest time and at the least  
expense, tempted the engineers to execute the  
work in a superficial manner, substituting, in many  
instances, bridges, viaducts, pillars &c., of wood,  
for those of stone, mortar, and iron. In a country  
where the decomposition of vegetable matter is so  
very rapid, this was as false and spurious a species  
of economy as can well be imagined. Already  
many miles of the railway have had to be re-  
paired or rather reconstructed, by the substi-  
tution of *lignum vita* and other hard woods for  
the softer ones that were first used. This, how-  
ever, will do little more than palliate the evil;  
and there can be no doubt that eventually stone  
and iron bridges and viaducts will have to be used  
instead of wooden ones everywhere along the line.

Trains take about 3 hours in passing from sea  
to sea; but supposing (which is not the case)  
that this railway were everything that could be  
desired, still it is plain that the grand desideratum  
is the carrying across the isthmus of a water com-  
munication between the Atlantic and Pacific  
Oceans. We do not mean by this a canal suitable  
only for coasters, or vessels of comparatively  
small burden. Such a channel would be of little  
use, except to the countries contiguous to its ter-  
mini. What is really wanted is a canal that will  
admit ships of the largest burden, and bound on  
the longest voyages. The advantages that would  
result from having the isthmus perforated by  
such a channel cannot be easily exaggerated. No  
other project that appears to be within the limits  
of possibility, perhaps not even the carrying of a  
ship canal across the Isthmus of Suez, would give  
so great a stimulus to commerce and navigation.  
It would remove the barrier which renders the  
navigation between the eastern and western coasts  
of America so tedious and difficult. And, by doing  
this, it would enable ships from Europe to reach  
the latter and the Pacific in less than half the

time they do at present, while it would greatly facilitate the voyage to Australia and China.

A grand project of this sort is on foot. It is proposed to cut a canal that shall admit ships of 1,000 tons burden and upwards, between Porto Escozes (lat. 8° 5' N., long. 77° 21' W.), near Point Caledonia, in the Gulf of Darien, on the Caribbean Sea, and the Rio Savanna, which falls into the Gulf of San Miguel, on the Pacific. The intervening space (about 38 or 40 miles) is said to be comparatively flat; the ports at each extremity are easy of access, and have deep water; and it is proposed that the canal should be constructed throughout on the same level, and have no locks. The cost of the project is estimated at from 12 to 15 millions sterling. Considering the vast importance of such a work to the United States, to this country, and, indeed, to all maritime nations, this expense, heavy as it may appear, should be reckoned a subordinate matter. Were the country through which it is to pass in the possession of England or the United States, it would, most probably, have been undertaken. But the unsettled state of Central America, and the knotty questions that might eventually arise as to the property and management of the canal, are serious obstacles to its being proceeded with. (See for ample details on this interesting subject the work of Dr. Cullen, entitled *Isthmus of Darien Ship Canal*. The learned doctor is, probably, a little too sanguine in favour of the project, but despite this excusable bias, his work is instructive and valuable.)

**PAPAL DOMINIONS (TRADE WITH).** The *Gazette* of January 6, 1853, contained the following declaration on the part of Great Britain, establishing a system of perfect reciprocity in trade and navigation with the Papal States. The declared value of our exports to these States amounted in 1858 to 409,475*l.*, and in 1867, these States having in the interval been seriously reduced in extent by recent annexations to the Kingdom of Italy, took from us British produce to the extent only of 15,801*l.*

**Declaration.**—The undersigned, her Britannic Majesty's Chargé d'Affaires at the Court of Tuscany, having received from his Eminence the Cardinal Antonelli, Secretary of State to his Holiness Pope Pius IX., the assurance that no other or higher duties or charges are levied in the ports of the Papal States on British vessels than are payable on national vessels, nor on goods imported or exported in British vessels than are payable on the like goods imported or exported in national vessels, has received the commands of her Majesty to declare:

1. That no duties of tonnage, harbour, lighthouse, pilotage, quarantine, or other similar or corresponding duties, of whatever nature or under whatever denomination, levied in the name or for the profit of the Government, public functionaries, corporations, or establishments of whatever kind, shall be imposed in British ports upon Papal vessels, from whatever port or place arriving, which shall not be equally imposed in the like cases on national vessels, and that no duty, charge, restriction, or prohibition shall be imposed upon, nor any drawback, bounty, exemption, or allowance withheld from, goods imported into or exported from British ports in Papal vessels, which shall not be equally imposed upon or withheld from such goods, when so imported or exported in national vessels.

2. That no other or higher duties shall be imposed on the importation into the dominions of her Britannic Majesty of any article the growth, produce, or manufacture of the Papal States, than are or shall be payable on the like article

being the growth, produce, or manufacture of any other foreign country. That no other or higher duties or charges shall be imposed in the British dominions on the exportation of any article to the Papal States, than such as are or may be payable on the exportation of the like article to any other foreign country; and that no prohibition shall be imposed upon the importation of any article the growth, produce, or manufacture of the Papal States into the British dominions, nor upon the exportation of any article from the British dominions to the Papal States, unless such prohibition shall extend to all other nations.

3. That Papal vessels shall be at liberty to import into British ports any article legally importable, and to export from British ports any article legally exportable, on payment of the same duties, and with a right to the same bounties or drawbacks as are or may be payable or allowed in respect of the same articles if imported or exported in national vessels.

4. That all vessels which, according to the laws of the Papal States, are to be deemed Papal vessels, shall, for the purposes of this declaration, be deemed Papal vessels.

5. That the following stipulations shall apply to the coasting trade, which is reserved exclusively to national vessels.

6. That if any ship of war or merchant vessel of the Papal States shall be wrecked on any part of the British dominions, such ship or any parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise which shall be saved therefrom, the produce thereof, if sold, shall be faithfully restored to the owners, upon being claimed by them or by their duly authorised agents. If there are no such owners or agents on the spot, then the said ships or parts of ships, furniture, appurtenances, goods, and merchandise, or proceeds thereof, if sold, as well as all property found on board such wrecked ships or vessels, shall be delivered to the Papal consul or consul in whose district the wreck may be taken place, upon being claimed by him; such consul, vice-consul, owners, or agents shall pay only the expenses incurred in the preservation of the property, together with the salvage, or other expenses which would have been payable in like cases of a wreck of a national vessel.

Charge for such salvage and other expenses shall be made and settled immediately, subject to the right of appeal on the part of the person paying the same, as may exist in the British dominions. The goods and merchandise saved from the wreck shall not be subject to duties unless cleared for consumption, in which case they shall be liable to the same duties as if they had been imported in a British ship.

7. That the foregoing concessions are granted on condition of a perfect and entire reciprocity in favour of British vessels in the ports of the Papal States. They shall come into operation from the date of the present declaration, and shall remain in force for seven years, and further for the expiration of 12 months after notice shall have been given by the British Government to the Papal Government, for terminating the reciprocal arrangement.

In witness whereof the undersigned has signed the present declaration, destined to be exchanged against a similar declaration, on the part of his Eminence the Cardinal Secretary of State, and has affixed thereto the seal of his arms.

Done at Florence, the 17th day of November, 1853.

P. CAMPBELL SCARLETT

The 'similar declaration' of Cardinal Antonelli

is given with the foregoing in the *Gazette*. It is the exact counterpart of that made by Mr. Scarsdale. [CIVITA VECCHIA.]

PAPER (Ger. and Dutch, papier; Fr. papier; Ital. carta; Span. papel; Russ. bumaga; Lat. charta; Arab. kartas; Pers. kaghlas). This highly useful substance is, as everyone knows, thin, flexible of different colours, but most commonly white, being used for writing and printing upon, and for various other purposes. It is manufactured of vegetable matter reduced to a sort of pulp. The term paper is derived from the Greek *πάπυρος* (*papyrus*, see post), the name of the plant on the inner bark of which (*liber*, βιβλος, whence our word book) the ancients used to write. Paper is made up into sheets, quires, and reams; each quire consisting of 24 sheets, and each ream of 20 quires.

*Historical Sketch of Paper.*—Difference between ancient and Modern Paper.—Some of those sagacious and ingenious persons who have investigated the arts of the ancient world, have expressed their surprise that the Greeks and Romans, though they possessed an immense number of books, and approached very near to printing in the stamping of words and letters, and similar devices, should not have discovered the art; the first rude attempts at typography being sufficiently obvious, though much time and labour have been required to bring the process to its present state of perfection. But they should rather, perhaps, have wondered that the more civilised nations of antiquity did not invent paper; an invention which, it may easily be shown necessarily preceded that of printing.

But this was an exceedingly difficult task; the more so, that the vast importance of paper could not be appreciated, or even imagined, till after it had been generally introduced. At first, the history of important events appears to have been handed down by inscriptions cut on rocks, or on stone or marble, and the walls of edifices; and this primitive usage is still retained by the monks in our churches and cemeteries.

At a later, though still very remote age, men were accustomed to write upon portable surfaces of various kinds. Everybody knows that the Phoenicians wrote upon tables of stone; and the Jews wrote a copy of the law upon the like materials. (Josh. viii. 32.) The Greeks and Romans engraved laws, treaties, contracts, and other important documents, on plates of brass; and it is said that a fire broke out in the reign of Vespasian, consumed

many of these valuable monuments. (*Nouveau Voyage de L'Empire*, i. 451.) But exclusive of plates of brass, which were necessarily inconvenient, costly, and quite unfit for ordinary use, thin and flexible plates of lead and other metals (Job xix. 23, 24), thin pieces of wood, parchment, linen, and a variety of similar substances, were used in writing. Cheaper materials, such as the leaves and bark of trees, palms, &c. were also used from a very remote period for the same purpose; but leaves (*χάρται*, *chartae*) were, when dry, apt to split in the direction of the fibres, it was found to be necessary, in preparing them for writing, to glue them together, so that the fibres might cross each other in opposite directions. The texture of the leaf, or bark, if we may so call it, is thus greatly strengthened; and when it has been smoothed, pressed, and fitted for use, it is less inconvenient and better looking than might be supposed.

In fact, is the principle on which the paper of the ancients was formed. This, however, which was called *charta Egyptiaca*, from the place of its manufacture, did not consist of

leaves, but of the inner bark of the famous reed or rush, the *Cyperus papyrus*, found along the banks of the Nile, or rather in the pools and ditches which communicate with the river. The ancients applied this useful plant to an immense variety of purposes; but here we shall only notice that from which it has acquired an immortality of renown. The inner bark having been divided by a needle or other sharp instrument into very thin and broad layers or filaments, portions of these were placed side by side longitudinally, and glued together at the ends; another portion being glued crosswise on the backs of the latter, to give the paper the requisite strength. Pliny and other writers have described the process (*Hist. Nat. lib. xiii. c. 11, 12, 13*), which has been further elucidated by Hardouin and other commentators. But the fullest and ablest discussion of this curious subject is contained in the very learned and elaborate work, the *Nouveau Traité de Diplomatique* (i. pp. 448–521), where the most interesting particulars respecting the history and manufacture of papyrus, as well as of the greatest number of the other writing materials used in antiquity, have been collected and set in the clearest point of view. (*Dictionnaire Diplomatique* de Vaines, art. 'Papier,' ii. pp. 165–174.) Bruce has given a summary of the authorities in the seventh volume of the 8vo. edition of his *Travels*; and, not satisfied with this, he attempted to make paper from the papyrus, in which, not being very successful, he imputes his failure to errors in the statements of Pliny; not reflecting that, had he endeavoured, trusting to written directions, without experience and traditional art, to make modern paper, or even a pair of shoes, he would, most probably, have been equally infelicitous. Egypt enjoyed for a lengthened period a natural monopoly of this valuable article; and even attempted, in anticipation of a later policy, by prohibiting the growth of the papyrus, except in certain localities, and limiting its supply, to sell its produce at an artificially enhanced price. (Amelion, *Commerce des Egyptiens*, p. 238.) But this policy ceased on the conquest of Egypt by the Romans, who, having imported the plant into Rome, succeeded in preparing from it a very superior article. Pliny enumerates the various kinds of paper, from the coarsest, which was used, like our brown paper, for packing, to the most expensive and finest. The latter, which was made of the innermost filaments, was of a snowy whiteness; and when properly dressed and polished, was easily written upon. The consumption was very considerable; and being, after the foundation of Alexandria, principally made in that city, it formed an important article in her commerce, and furnished employment for many workmen and much capital. Flavius Vopiscus relates, that in the third century, the tyrant Firmus used to say there was so much paper there, and so large a quantity of the glue or size used in its preparation, that he could maintain an army with it: 'Tantum habuisse de chartis, ut publice saepe diceret, exercitum so alere posse papyro et glutino.' We may doubt whether the value of the paper at present belonging to any single city would do the like. *Charta Egyptiaca* is very ancient, having, notwithstanding the assertion of Varro and Pliny to the contrary (*Hist. Nat. lib. xiii. cap. 11*), been in common use long before the age of Alexander. This is evident from the statement of Herodotus, who, though he lived about a century before that

conqueror, tells us, that in former times, when papyrus was scarce, the Ionians wrote on the skins of goats and sheep: and that that practice continued to be customary among several barbarous nations. (Lib. v. cap. 58.)

Though white, smooth, durable, and not ill-adapted for writing, ancient paper was not suited for the printer: by reason of the closeness of the grain, it would not have received the ink from types more kindly than shavings of wood, and such like materials; and its texture was so very brittle, that it would have shivered to pieces under the press. It was, in truth, an artificial mass ('viscera nivea virentium herbarum'), no great invention or ingenuity being discovered in its preparation. Modern paper, on the other hand, is wholly artificial; and the contrivances for its manufacture are marvellous alike for the sagacity evinced in their design and their practical efficiency. Like the paper of antiquity, it is formed of the filaments of various sorts of vegetable substances, derived principally from the tearing to pieces or pounding cotton and linen rags, and similar materials, mixed with water. This process is called beating them into pulp; and when examined with a microscope, the floating filaments are found to be well fitted for adhering together, being jagged and rough, and mixed in every possible way. A portion of this mixture or pulp being, when properly prepared, poured upon moulds or sieves of fine woven wire, the water is drained off, and the suspended fibres, falling to the bottom, form a layer or sheet, which, being consolidated by pressure and dried, becomes paper, its strength and goodness depending, of course, in a great measure, on the quality of the rag or other material of which it is made. Paper used to be manufactured by dipping sieves or frames into the pulp; the portion of filaments so lifted up forming the sheet of paper. But the application of rotary motion to the manufacture has effected a total change in the mode in which it was carried on: instead of dipping the sieves or frames into the cistern of pulp, a circular web, or round towel of woven wire, revolves horizontally under the vessel (technically called the vat), receives the deposit, conveys it away, and, by an adjustment of extraordinary delicacy, transfers it uninjured, though as fragile as a wet cobweb, to a similar revolving towel of felt; thus an endless web of paper is spun, as long, at least, as the machine continues to move, and pulp is supplied.

The pervious and spongy texture of paper make it readily imbibe and retain the ink impressed on it by types in printing, and by the pen in writing; its toughness hinders it from being easily torn; and, in a well-bound book, under favourable circumstances, its duration is indefinite, and, for all practical purposes, eternal. It is true that legal documents are sometimes written or printed on parchment, which is less liable to be torn, or injured by rubbing; the luxury of typography occasionally, also, exhibits a few impressions of a splendid work upon vellum; and, it is further true, that these substances were used for writing upon by the ancients; but they are necessarily expensive, and the cost of either far exceeds the means of the great majority of book buyers: so that it would be altogether unprofitable to cast types, to construct presses, and to incur the various and heavy charges of an establishment for printing, unless we possessed a cheaper material on which to print.

Almost all the more ancient and valuable

existing Greek and Latin manuscripts written either on parchment or vellum, are generally on the latter. It is singular, however, that while such is the case, all or almost all very old charters and diplomas are written papyrus. Indeed the learned authors of the *Nouveau Traité de Diplomatique* affirm that parchment charter has been discovered anterior to the 6th century. (i. 479.)

It appears to be sufficiently established that paper, fabricated like that now in use, of cotton and other vegetable materials, and of silk, has been manufactured in China from a very remote epoch. (*Nouveau Traité de Diplomatique*, i. 51.) The Arab historians state that similar paper was manufactured in Mecca about the beginning of the 8th century (Andres, *Origine e Progresso della Letteratura*, i. 202, ed. Rom. 1808, and Gibbon, ix. 379); and most probably the mode of production was then, also, known to the Greeks. It appears to have been soon after introduced into Europe; but it is doubtful whether it were done by the Arabians or Greeks. The mode of fabricating paper from cotton and other vegetable materials being once discovered, fabrication from linen rags was a comparatively easy, and in Europe, where cotton was extremely scarce, an all but necessary step. It is singular, however, that we have no positive information either as to the country where the epoch when, paper from rags began to be manufactured in Europe. 'Mais on ne peut reculer son invention plus tard qu'au treizième siècle, ni son usage ordinaire au-delà du quatorzième.' (*Nouveau Traité* &c. i. 524.) In Egyptian paper, or paper made of papyrus in the manner described above, continued to be partially employed down to the middle of the 11th century, though parchment was then principal material used in writing.

It is curious to observe how shortly the introduction of paper preceded the invention of printing, to which, indeed, as already seen, it is an indispensable preliminary. Muratori attributes the ignorance of the barbarous ages principally to the scarcity and high price of paper, and the superior intelligence of modern times to its abundance and cheapness. (Andres, i. 202.) And whatever opinion may be entertained as to the first part of this statement, there can be no question that the latter is perfectly well founded.

Not only are we in the dark as to the history of modern paper, but we are unable to make a very satisfactory conjectural estimate of the manner in which it was invented. It is, however, almost certain that the invention must have been suggested by accident, or by observing the effect produced by the accidental drying of trifling vegetable matter, or in some such way; and the hint thus afforded was gradually improved upon. It is not possible to imagine that the invention should have been wholly the result of design; for we cannot conceive how any man without any previous knowledge, should have proposed to himself to produce paper by pounding rags, or other vegetable matter, mixing the mass in water, and then pressing and drying the sheet. But, without indulging in unprofitable conjecture, it is at all events certain, that however it was, whomsoever discovered, no invention has been of greater importance. 'Cum charte usu maxime humanitas vitæ constet et memoria.' (Plin. *Nat. lib. xiii. cap. 21.*) The processes by which the most worthless and vilest materials are converted into such admirable substances as paper and glass, are probably the greatest triumphs of human talent and ingenuity. They have

than realised the dreams of the alchemists; and have been incomparably more advantageous than if we had become acquainted with a means of transmuting the inferior metals into gold.

**Manufacture of Paper in England.**—The application of paper to the purposes of writing and printing, and the fact of its being indispensable to the prosecution of the latter, render its manufacture of the highest utility and importance. But, even in a commercial point of view, its value is very considerable. France, Holland, and Genoa had, for a lengthened period, a decided superiority in this department. The finest and best paper being made of linen rags, its quality may be supposed to depend, in a considerable degree, on the sort of linen usually worn in the country where it is manufactured; and this circumstance would account for the greater whiteness of the French and Belgian papers, as compared with those of the French and Italians, and still more the Germans. The rags used in the manufacture of writing paper in Great Britain are collected at home; but those used in the manufacture of the best printing paper are imported, principally, from Italy, Hamburg, and the Austrian States, by way of Trieste. [RAGS.] We believe, however, that it was owing rather to the want of skill, than, as has sometimes been supposed, to the inferior quality of the linen of this country, that the manufacture of paper was not carried on with much success in England till a comparatively recent period. During the 17th century, most part of our supply was imported from the Continent, especially from France. The manufacture is said to have been considerably improved by the French refugees who fled to this country in 1685. But it is distinctly stated in *The British Merchant* (vol. ii. p. 266), that hardly any sort of paper, except brown, was made here previous to the Revolution. In 1690, however, the manufacture of white paper was attempted; and within a few years, six branches were much improved. In 1712, it is supposed that there were about 300,000 reams of paper annually produced in Great Britain, which was equal to about two-thirds of the whole consumption. In 1783, the value of the paper annually manufactured was estimated at 780,000*l.* In 1807, besides making a sufficient quantity of most sorts of paper for our own use, and for exportation, we exported upwards of 600,000*l.* worth of books. The importation of foreign paper for British consumption had nearly ceased prior to the abolition of the paper duty; but since then the importation has gradually increased, and in 1816 we imported (deducting re-exports) 561,959*l.* worth, chiefly printing paper, from Belgium, Germany, and France, while we exported British-made paper of about the same value, 569,438*l.* A small quantity of French paper was used in this country for copper-plate printing till within these few years; but, in this respect, we now surpass the French, and there is no artist of either country who does not consider English paper, manufactured according to the latest improvements, best adapted for prints. The French have, however, always excelled in the manufacture of very thin letter paper; and we obtain from them a small portion of this article, and some paper hangings, and printing paper.

In 1813, Dr. Colquhoun estimated the value of paper annually produced in Great Britain at 1,000,000*l.*; but Mr. Stevenson, an incomparably better authority upon such subjects, estimated it nearly half this sum. From information obtained from those engaged in the trade, we incline to think that the total annual value of the paper manufactured in the United Kingdom, may at

present (1869) amount to about 5,000,000*l.* There were, in 1868, 272 paper-mills in working order in England, and 57 in Scotland. The number in Ireland is but inconsiderable. So that, while the quantity of paper manufacture has greatly increased since the abolition of the paper duty, the number of mills in working order has been reduced. That is, while the large mills have been increased in size and power and employment, the small ones have been very high abolished.

Many of the mills make a variety of papers, but the following statement from the *Paper Mills Directory* for 1869 shows how the different classes of manufacture are divided among the English mills:—

	Mills.
Making Writing Papers, Hand-made	21
" " " Machine-made	22
" Printing, News, and Long Elephants or Paper	96
" Hangings	99
" Cartridges	48
" General Papers, White and Coloured	60
" Small Hands and Caps	108
" Browns	108

In 1861, 18,067 individuals were directly engaged in the trade, viz. 13,357 in England, 4,421 in Scotland, and 289 in Ireland; and, besides the workmen employed in the mills, the paper manufacture creates a considerable demand for the labour of millwrights, machinists, smiths, carpenters, iron and brass founders, wire-workers, woollen manufacturers, and others, in the machinery and apparatus of the mills. Some parts of these are very powerful, and subject to severe strain; and other parts are complicated and delicate, and require continual renovation. Owing to this, the manufacture is of much greater importance, as a source of employment, than might at first be supposed, or than it would seem to have been formerly considered by Government, who loaded it, down to a very recent period, with an excise duty amounting to more than *three times as much as the total wages of the workpeople employed.*

It was formerly customary to collect the rags used in the manufacture into large heaps, in order that, by their beating and fermentation, they might be the more easily reduced to filaments. But this injured the rags; and it is now the practice to tear them to pieces, without any such preparation, by powerful machines, constructed for the purpose.

During the present century this manufacture has been signally promoted by the combined influence of science, ingenuity, and mechanical skill. These have been successfully exerted in the preparation of the pulp; the conversion of the pulp into paper; and the provision of materials; and in none has their influence been more remarkable than in the last. This is evident from the fact, that while the manufacture has been more than quadrupled since 1820, the demand for continental rags and other foreign materials has actually been reduced within that time, in consequence of the immense supply we derive from substances previously regarded as worthless, and treated as refuse. The sweepings of cotton and flax mills, owing to the grease and dirt with which they are mixed up, were, until within these few years, of no value whatever, except as manure. But means having been discovered of rendering them clean and white, they are now made into very good paper; and the neighbourhood of Manchester has, in consequence, become a principal seat of the manufacture. The chemical and mechanical processes by which these materials are purified, whitened, and made available for the production of paper, without their strength being impaired, are not only exceedingly interesting in themselves, but are of great national importance; and, by reducing

the cost of paper, have done ten times more to lower the price of books, and diffuse literature, than all the efforts of all the societies that ever existed.

But our paper-makers, after the repeal of the paper duty, found much difficulty in competing with foreign manufacturers, inasmuch as the trade in rags was not free, and the latter had greater facilities for getting them at a cheaper rate. This led our paper-makers to search diligently for good substitutes for rags, and their choice seems to have fallen chiefly on Esparto. In the ten months ended October 31, 1868, we imported no less than 74,618 tons of it, and but 14,096 tons of rags. Esparto is used chiefly in the manufacture of printing and wrapping, and second-class writing papers. [Escarro.]

The first idea of a machine for converting pulp into paper originated in France, the inventor being an ingenious workman of the name of Louis Robert. A model of this machine was brought to England by M. Leger Didot; and though at first it was far from giving an assurance of success, it sufficed to induce English capitalists and engineers, particularly Mr. Donkin, to follow up the scheme; and in the course of a few years they brought it to a high degree of perfection. The late Mr. Dickinson, of Hertfordshire, one of the most intelligent mechanists and extensive paper manufacturers in England, invented a machine of a different construction for the same purpose, and introduced also various subsidiary improvements into the manufacture. One of these consists in the application of air pumps to the process, by the action of which he produces a partial vacuum under a portion of the wire on which the pulp is in the act of settling; and thus very much accelerates its consolidation; in fact, prepares it almost instantaneously for the first mechanical pressure. The result is all but miraculous. By the agency of a great deal of complicated machinery, so admirably contrived as to produce the intended effect with unerring precision and in the very best manner, a process, which in the old system of paper-making occupied about *three weeks*, is performed in as many minutes. A continuous stream of fluid pulp is, within this brief space of time, and the short distance of 30 feet, not only made into paper, but actually dried, polished, and every separate sheet cut round the edges, and rendered completely ready for use. The paper manufactured by this wonderful combination of intelligence and power is, at once, moderate in price, and, for most purposes, superior in quality to what was formerly made by hand. The sample before the reader, though not the finest that is made, will warrant what is now stated. Mr. Dickinson also made an important improvement in the paper manufacture, on the principle of veneering in cabinet work. By making two webs of paper, each by a separate process; and by laying them together while in an early stage, they are rendered inseparable by the pressure to which they are subjected. This paper is used in copper-plate printing; and by adopting a peculiar method of preparing the pulp, and selecting a finer rag for the web which forms the face of the paper, it is much better calculated for taking a fine impression. Its introduction has put a total stop to the importation of that species of French paper, which was formerly used in considerable quantities by copper-plate printers. Probably, however, the most ingenious of the modern inventions in the manufacture is that by which Mr. Dickinson contrived, without increasing the thickness of paper, to embody parallel coloured threads in its fabric. This novel

description of paper is now used in the printing exchequer bills and postage envelopes, for which it is admirably fitted, inasmuch as it cannot be counterfeited, except by employing similar machinery, which it would cost a great deal to construct, and be all but impossible to conceal.

The same gentleman introduced the use of magnets for removing any iron that might be present in the pulp, so as to prevent the appearance of iron mould in the paper.

*Duty on Paper.*—Previously to 1836, all writing coloured, or wrapping papers, cardboards and pasteboards, were denominated first-class paper, and paid 3d. per lb. duty (28s. per cwt.); unless *manufactured wholly of tarred ropes, without tar being previously extracted*, in which case the paper was denominated 2nd class, and paid 1s. per lb. (14s. per cwt.). Millboards and scaleboards, made of the same materials as 2nd class paper, paid 2½d. per lb. (21s. per cwt.) duty.

This duty varied on the different descriptions of 1st class paper from about 25 or 30 per cent. the finest, to about 200 per cent. on the coarsest. A duty so oppressive led to the commission of very great frauds, which all the vigilance of officers, and the endless multiplication of checks and penalties, were unable to prevent; the effect of such devices being to injure the honest manufacturers, and to give those of a different character greater facilities for carrying on the fraudulent schemes. But, laying out of view a moment the oppressiveness of the duty, can anything be more absurd than to interdict a manufacturer of third-class wrapping paper (he is to him that the regulation applied) from using any other material than *tarred ropes*? After the repeal of 1815, and the very general introduction of iron cables, tarred ropes advanced considerably in price; but as the use of *any other material* *whenever* would have occasioned an increase of 25 per cwt. of duty, advantage could not be taken of this circumstance; so that the exchequer regulated without putting one sixpence into the pockets of the Government, obliged the public to pay an increased price for an inferior article. Neither was this its only effect: a good deal of the material thrown out in sorting rags, which might have been used in the manufacture of coarse wrapping paper, was sold by the manufacturers for about 3s. per cwt.; while a good deal that might have been used in the same way, could not be sold at all, but was absolutely lost. It is plain, therefore, that this regulation had a twofold operation: first, in adding to the cost of wrapping paper, by compelling it to be made from a comparatively expensive article; and secondly, in adding to the expense of fine paper, by preventing the re-employment of the rags used in its manufacture from being beneficially employed.

It may, perhaps, be doubted, considering the purposes to which paper is applied, whether it should have been subject to any duty whatever. Printers, stationers, bookbinders, type-founders, artists, copper-plate and lithographic printers, engravers, makers, paper-stainers and paper-hangers, &c. are all affected by a duty on it. And if it be kept within reasonable bounds, it increases the price, and hinders the publication of books. It places a great obstacle in the way of the progress of knowledge, of useful and necessary arts, and of sober, industrious habits. Books carry the impressions of the human mind over the whole world, and may be truly called the raw material of every kind of science and art, and of all social improvement. (Sir H. Parnell *On Financial Reform*, 3rd ed. p. 30.)

But though, in 1836, the exigencies of

public service did not permit the total repeal of the duties on paper, they were then materially lowered. The duty on first-class papers was reduced to the same level as that on papers of the second class, or from 3*d.* per lb. to 1*d.* per lb.; the manufacturers of the coarser descriptions of paper being at the same time relieved from the restraints under which they had previously laboured, and allowed to use any material in the manufacture which they may judge best. The duty of 1*d.* per square yard laid on paper when printed or stained, over and above the ordinary duty on paper, was then also repealed, and the various Acts relating to paper were combined into a single statute.

The influence of this wise and judicious measure in reducing the price of paper used in printing and writing was decidedly manifested. The abolition of the discriminating duty on stained or printed paper, was also of material importance. The reduction of price it occasioned enabled a much larger class of persons to get their apartments papered; and it was in this way productive, not only of an additional demand for paper and labour, but of an increase of comfort and cleanliness.

This measure also in great part obviated the injustice done to authors and publishers, by compelling them to pay a duty on the paper used in printing books previously to their publication; and, consequently, before it could be known whether the books would sell. When they did not sell, the tax had obviously to be paid out of the capital of the authors or publishers, and the loss arising from an unsuccessful publishing speculation was increased by its amount. [Ante, Books.] It is true that every duty on paper, how limited soever, operates in this way, and is therefore objectionable on principle; but the practical hardship inflicted on authors by the last paper duty was not very material.

As respects revenue, too, the measure was completely successful. In 1835, the net produce of the old duties on paper, in the United Kingdom, amounted to 796,305*l.* In 1840, the reduced duties produced 581,429*l.*; and in 1858 they produced 1,118,433*l.*, being 323,128*l.* more than their produce when the rate of charge was doable. This statement, however, gives but an imperfect view of the progress of the manufacture: for, owing to the premium (for so it may be called) which the present postage regulations give on the use of thin and light paper, the increase in its production was, no doubt, a good deal greater than we might infer from the mere increase of weight.

After an unsuccessful attempt in 1860, the paper duty was totally repealed in 1861. In the last year of its existence, the receipts were 1,530,000*l.*

**PAPER HANGINGS.** In 1867, we exported 49,411 cwt. of paper hangings of our own manufacture, valued at 123,042*l.*, chiefly to North America and Australia, and we imported 7,753 cwt., chiefly from France, valued at 32,563*l.* [Paper.]

**PARÁ or GRAM PARÁ.** A port of Brazil, situate about 80 miles from the mouth of the Amazon. Population 35,000.

**Shipping.**—In 1865, the total number of ships which entered the port of Pará was 96, with 22,709 tonnage; in 1866, 139, with 52,168 tonnage, and in 1867, 160, of 58,798 tons. There also entered in 1866, 96 vessels of 61,752 tonnage, and in 1867, 80 vessels of 59,927 tons, all engaged in the coasting trade. These were chiefly Brazilian. The trade of Pará is of great and increasing importance, the exports having risen during the

five years 1863-7 from about 525,000*l.*, to upwards of 900,000*l.* in value. The principal exports are India rubber, cacao, Brazil nuts, and hides. Of these articles the first is by far the most important, the export in the year 1867 having been 2,324,912 lb., worth about 570,000*l.* It is collected in large quantities throughout the swamp on the banks of the Amazon. The exports of cacao and Brazil nuts, having declined, are again increasing.

The neighbourhood of Pará also produces annatto, isinglass, sarsaparilla, and a little sugar. The imports of Pará, on an average of the three years 1861-3, amounted in value to 510,000*l.*, and in 1867 to 599,416*l.*

**Weights and Measures.**—1 Brazilian lb. = 1.012 lb. avoirdupois; 1 arroba = 32.38 lb.; 1 quintal = 129.517 lb.; 100 alquieres = 1 bushel; 17 canadas = 16 imperial gallons; 1 vara = 1.198 yard; 1 corado = 0.714 yard. The depreciation of the currency of the country consequent on the war with Paraguay has created alarm among capitalists, and caused embarrassment in business transactions.

The rates of freight to England in 1866 were for India-rubber, 30*s.* to 45*s.* per ton; cacao, 50*s.*; Brazil nuts, from 35*s.*

Pará is already a growing town, and will become more important, from its position on the Amazon, and from the fact that it therefore is on the road to the interior and Peru, since the navigation of the Amazon was opened to the shipping of all nations in September 1867. (The above information is chiefly obtained from Mr. Consul Hay's *Reports* of March 9, 1867, and February 1868.)

**PARCEL.** A term indifferently applied to small packages of wares, and to large lots of goods. In this latter sense, 20 hogsheds of sugar or more, if bought at one price, or in a single lot, are denominated a *parcel of sugar*.

**PARCELS, BILL OF.** An account of the items composing a parcel.

**PARCHMENT and VELLUM.** The former consists of the skins of sheep, and the latter of those of calves, prepared in such a manner as to render them suitable for being written upon, for covering books, and other purposes. The consumption of these articles is very considerable. In this and most other countries, it is customary to use them instead of paper in the drawing up of a great variety of deeds and other legal instruments. They are also extensively used, especially in Italy, in the binding of books. The finest copies of the magnificent classics which issued from the Dutch presses, in the 17th century and the early part of the 18th, were all bound in vellum.

Parchment is coarser than vellum, and not so well adapted for writing upon. The qualities of both articles differ very widely; so much so, that the best parchment is preferable to inferior or even middling vellum. The goodness of each depends partly on the quality of the skins of which they are made, and partly, and indeed in a very high degree, on the care and skill with which they are manufactured.

**Historical Notice.**—The history of these articles is involved in some obscurity. Varro and Pliny (*Hist. Nat. lib. xiii. cap. 11*), who have been generally followed, state that they were originally manufactured at Pergamus, in Asia Minor, the capital city of Eumenes II., one of Alexander's successors, but who must not be confounded with Eumenes, the secretary and general of the conqueror, during the reign of that prince; and that parchment owes to this circumstance its classical name of *charta Pergumena*. But there

seems to be little if any foundation for this statement. We have seen, in the preceding article on PAPER, that Herodotus, who flourished rather more than a century before Alexander the Great, states distinctly, that previously to his era, when paper (*charta Egyptiaca*) was scarce, the Ionians were accustomed to write on the skins of sheep and goats, and that that practice was then followed (viz. in his time) by several barbarous nations. (Lib. v. cap. 68.) And it is all but certain, seeing that the practice of writing on skins had been in use for at least 2½ centuries, and probably much more, previously to the era of Eumenes, that their preparation would, in the course of that lengthened period, be so much improved as to render them little different from parchment. It is probable, indeed, that their manufacture may have been improved in Pergamum; but we incline to think that parchment owes its name rather to the extensive demand for it in that city, in consequence of Eumenes having amassed a large and valuable library, than to anything else. He was, in fact, compelled to use parchment and vellum in the copying of books, as his contemporary Ptolemy Philadelphus had prohibited the exportation of paper. (Plin. ubi supra.)

The scarcity of parchment during the middle ages, and in antecedent times, led to the practice of obliterating the writing on old parchments, by rubbing them with pumice stone, immersing them in boiling water, and such like devices; and there can be no manner of doubt that the prevalence of this practice has been most injurious to literature, and that it has most probably occasioned the total destruction of some of the noblest chefs-d'œuvre of antiquity. In the middle ages these were erased, that room might be made for some worthless treatise on scholastic theology or logic. Sometimes, however, it happens that the ancient writing is not so much obliterated, but that it may still be read; and to that circumstance the recent discovery of a portion of Cicero's treatise *De Republicâ* is to be ascribed. It had been effaced to make room for a commentary of St. Augustine on the Psalms. (See the preface of Mai, the ingenious discoverer of this lost treatise.) Parchments from which the writing has been erased in this way are called *palimpsests* (from *πάλιον*, again, and *ψάω*, to efface or clean), or repeatedly cleaned parchments; because they have been repeatedly cleaned, renewed, or prepared for writing upon. If the learned world is ever to be gratified by the recovery of the lost comedies of Menander, or the lost books of Polybius, Livy, and Tacitus, it will most probably be by finding them under some homily or poem of the middle ages. (*Nouveau Traité de Diplomatique*, i. 482 &c.; *Dom de Vaines*, ii. 177; &c.)

#### PARTIAL LOSS. [INSURANCE (MARINE).]

**PARTNERSHIP.** The association of two or more individuals for carrying on some business or undertaking in common; each deriving a certain share of the profits, and bearing a corresponding share of the loss arising therefrom.

The term *partnership* is usually applied to those smaller associations in which the partners personally conduct their joint affairs: the term *company* being applied to those great associations conducted by the directors and servants appointed by the body of the partners to act for them; the latter having no direct concern in the management of the affairs of the company. [COMPANIES.]

The advantages of partnership are obvious. Many businesses could not be successfully carried on without a larger command of capital than usually belongs to an individual; and most of them require the combination of various species of

talent. An individual may have capital sufficient to undertake a particular business; but he may not be thoroughly versed in any of its details, or he may be familiar with certain parts of it and not with others; so that it might be for his advantage to assume one or more individuals as his partners, supposing them to be without capital, provided they possessed the skill and other qualifications required in prosecuting the business. Associations of this sort enable capital and talent to derive all the assistance that each is capable of lending to the other. And as the gains of each partner usually consist of a certain proportion of the total profits made by the company, each has the most powerful motive to exert himself for the benefit of the concern. It is not, indeed, to be denied, that associations of this sort are occasionally productive of mischievous consequences. The public interest requires that the whole partners in a firm should be bound by the acts of any one of their number; so that the folly or fraud of a single partner may entail very serious consequences upon those associated with him. Generally, however, this is not an evil of frequent occurrence; and there can be no question that both in a private and public point of view, partnerships are highly beneficial.

To enter into anything like a full discussion of the law of partnership would very far exceed our limits. We shall, therefore, merely state a few of those leading principles with which it is of importance that mercantile men, and the public generally, should be well acquainted.

**Formation of Partnerships.**—The mere coming of the partners, fixed and certified by acts or contracts, is quite sufficient to constitute a private partnership; so that if two or more merchants or other persons, join together in trade, or in any sort of business, with a mutual, though it may be unequal, participation in the profit and loss of the concern, they are in every respect to be considered as partners. No particular form of agreement or proceeding is necessary to constitute a partnership. It may be entered into either by an express written agreement, or by a merely verbal one. The former ought in almost all cases to be preferred. The contract of copartnership should be made by the parties to it, the business to be carried on in the space of time the partnership is to continue, the capital each is to bring into the business, the proportion in which the profit and loss are to be divided, the manner in which the business is to be conducted, the mode agreed upon for settling accounts at the dissolution of the partnership, together with the special covenants suggested by the circumstances of each particular case.

To constitute a partnership, there must be participation in uncertain profits and losses: the true criterion to determine, when money is advanced to a trader, whether the individual making the advance is to be looked upon as a partner or not, is to ascertain whether the money or profit be certain and defined, or casual, indefinite, and depending upon the accidents of trade. In the former case he is a lender merely; in the latter he is a partner. The mere participation in the profits of any business or adventure, without a participation in the losses, constitutes a partnership, so far as to render the individual so participating liable to third parties for the engagements of the concern, though as between the partners themselves it may be no partnership. Thus, a clerk or other servant stipulate for a share of the profits of any business as a reward for his labors, he becomes responsible to third parties as a partner, and no private arrangement can exempt his liability.



A bookseller, or newspaper proprietor, is answerable for the acts of his agent or copartner, not only civilly but also criminally.

**Dissolution of Partnerships.**—A partnership may be dissolved by the effluxion or expiration of the time during which it was originally agreed that it should continue. When a partnership is formed for a single dealing or transaction, the moment that is completed, it is at an end. Partnerships may also be dissolved by death, agreement, bankruptcy, outlawry &c. A court of equity will interfere to dissolve a partnership, in cases where a partner so misconducts himself as to be injurious to the firm, or to defeat the object for which the partnership was formed; or when a partner becomes insane, or is in such a state of mind as to render him permanently incapable of transacting the peculiar business of the firm; or where a partnership is formed for an impracticable purpose. Indeed, in all cases, where even a partnership may be dissolved without the interference of a court of equity, it may be most prudent, if the dissolution be opposed by one of the partners, to file a bill, praying a dissolution and account, and an injunction against using the partnership name.

When a partnership is dissolved by agreement, or one of the partners withdraws from it, public notice of the dissolution must be given in the *London Gazette*; and a specific intimation of the circumstance must be sent to ALL individuals accustomed to deal with the firm. Where such intimation has not been sent, the individual withdrawing from the firm may be made liable to third parties after he has ceased to have anything to do with it. A dormant partner, whose name has never been announced, may withdraw from a firm without making the dissolution of partnership publicly known.

When the joint debts of the firm are paid, and the property duly distributed among the partners, the dissolution may be said, in a general sense, to be accomplished. If any one of the firm be guilty of a breach of duty in misapplying the effects before the concern is finally wound up, the proper course is to apply to the Court of Chancery to appoint a manager.

Within a reasonable time after the death of one partner, the survivors must account to the representatives of the deceased; and if not willing to do so, a court of equity will compel them. In taking partnership accounts at the death of a partner, they must commence with the last stated account; or, if there be none such, with the commencement of the partnership; and they must end with the state of the stock at the time of the partner's death, and the proceeds thereof until it be got in.

No notice is necessary to third parties of the death of a partner; the partnership is dissolved, and all liabilities for subsequent acts cease. The surviving parties are to be sued alone for the partnership liabilities and obligations, for which they are liable to the full extent. But they are not liable for the separate debts of the deceased partner, unless, after payment of all the joint debts, they have a surplus of the partnership effects in their hands.

Upon a dissolution by death, if the joint effects be insufficient to pay the partnership debts, the separate estate of the deceased partner, if he have any, is liable for the deficiency.

The Act 28 & 29 Vict. c. 86 sanctions a further alteration in the law of partnership.

Advances by way of loan to a person engaged or about to engage in any trade or undertaking upon a contract in writing with such person that

the lender shall receive a rate of interest varying with the profits, or shall receive a share of profits arising from carrying on such trade or undertaking, shall not of itself constitute the lender partner with the person or persons carrying on such trade or undertaking, or render him responsible as such.

No contract for the remuneration of a servant or agent by a share of profits &c. shall render the servant responsible as a partner, or give him the rights of a partner.

No person being widow or child of the deceased partner, and receiving as such a share of profits shall be deemed a partner.

No person receiving an annuity in consideration of the sale of good will, to be deemed a partner.

In case of bankruptcy or composition, the lender not to be entitled to recover.

The term 'person' to include a partnership firm, a joint-stock company and a corporation.

The statements now made will, probably, be sufficient to give our readers a tolerably distinct notion of the formation of partnerships; and the more important rights, duties, liabilities arising out of such institutions. Those who wish to go deeper into the subject may consult the treatises of Watson and Montague on the Law of Partnership; Chitty's *Commercial Law*, vol. 2, pp. 225—269; Woolrych *On Commercial Law*, pp. 298—317; Smith's *Mercantile Law*, p. 11, sec. 95.

**PARTNERSHIPS WITH LIMITED LIABILITY.** We have previously made some general remarks on this subject, to which we now beg to refer the reader. [COMPANIES.] We there endeavoured to show the extremely objectionable nature of such partnerships, and that there was nothing in the circumstances peculiar to this country which either required or excused their introduction. The opinion of the greater, not the better informed, part of the public has, however, for a while at least, strongly been in favour, they were established by the Act 19 & 20 Vict. c. 47, amended by the 20 & 21 Vict. c. 12, and are now regulated by the Companies' Act of 1862 and 1867, 25 & 26 Vict. c. 89, and 30 & 31 Vict. c. 131.

The two schedules annexed to the Act of 1862 give the following memorandums of association, and comprise a summary of the various proceedings connected with the formation and management of companies with liability limited by shares, and limited by guarantee, of which we beg to annex copies.

*Memorandum of Association of a Company Limited by Shares.*

- 1st. The name of the company is 'The Eastern Steam Packet Company, limited.'
  - 2nd. The registered office of the company shall be situate in England.
  - 3rd. The objects for which the company is established are, 'the conveyance of passengers and goods in ships or boats between such places as the company may from time to time determine, and the doing all such other things as are incidental or conducive to the attainment of the above object.'
  - 4th. The liability of the shareholders shall be 'limited.'
  - 5th. The capital of the company is 2000 £, divided into 1,000 shares of 200 £, each.
- We, the several persons whose names and addresses are subscribed, are desirous of being formed into a company in pursuance of the above memorandum of association, and we respectively agree to take the number of shares in the company

of the company set opposite our respective names.

Names and Addresses of Subscribers.		Number of Shares taken by each Subscriber
1. John Jones of	in the county of	200
2. John Smith of	in the county of	25
3. Thomas Green of	in the county of	30
4. John Thompson of	in the county of	40
5. John White of	in the county of	15
6. Andrew Brown of	in the county of	5
7. David White of	in the county of	10
Total Shares taken		325

**Regulations for Management of a Company Limited by Shares.** (See also Act of 1867.)

**Shares.**—1. If several persons are registered as joint holders of any share, any one of such persons may give effectual receipts for any dividend payable in respect of such share.

2. Every member shall, on payment of one shilling, or such less sum as the company in general meeting may prescribe, be entitled to a certificate, under the common seal of the company, specifying the share or shares held by him, and the amount paid up thereon.

3. If such certificate is worn out or lost, it may be renewed, on payment of one shilling, or such less sum as the company in general meeting may prescribe.

**Calls on Shares.**—4. The directors may from time to time make such calls upon the members in respect of all moneys unpaid on their shares as they think fit, provided that 21 days' notice at least is given of each call, and each member shall be liable to pay the amount of calls so made to the persons and at the times and places appointed by the directors.

5. A call shall be deemed to have been made at the time when the resolution of the directors authorising such call was passed.

6. If the call payable in respect of any share is not paid before or on the day appointed for payment thereof, the holder for the time being of such share shall be liable to pay interest for the same at the rate of 5% per cent. per annum from the day appointed for the payment thereof to the time of the actual payment.

7. The directors may, if they think fit, receive from any member willing to advance the same, all or any part of the moneys due upon the shares held by him beyond the sums actually called for; and upon the moneys so paid in advance, or so much thereof as from time to time exceeds the amount of the calls then made upon the shares in respect of which such advance has been made, the company may pay interest at such rate as the member paying such sum in advance and the directors agree upon.

**Transfer of Shares.**—8. The instrument of transfer of any share in the company shall be presented both by the transferor and transferee, and the transferor shall be deemed to remain a holder of such share until the name of the transferee is entered in the register book in respect thereof.

9. Shares in the company shall be transferred in the following form:

I, A.B. of \_\_\_\_\_ in consideration of the pounds paid to me by C.D. do hereby transfer to the said \_\_\_\_\_ the share [or shares] numbered \_\_\_\_\_ standing in my name in the books of the \_\_\_\_\_ company, to hold unto the said C.D., his executors, administrators, and assigns, subject to the several conditions on which I held the same at the time of the execution hereof; and I the said C.D. do hereby agree

to take the said share [or shares] subject to the same conditions. As witness our hands, the \_\_\_\_\_ day of \_\_\_\_\_

10. The company may decline to register any transfer of shares made by a member who is indebted to them.

11. The transfer books shall be closed during the fourteen days immediately preceding the ordinary general meeting in each year.

**Transmission of Shares.**—12. The executors or administrators of a deceased member shall be the only persons recognised by the company as having any title to his share.

13. Any person becoming entitled to a share in consequence of the death, bankruptcy, or insolvency of any member, or in consequence of the marriage of any female member, may be registered as a member upon such evidence being produced as may from time to time be required by the company.

14. Any person who has become entitled to a share in consequence of the death, bankruptcy, or insolvency of any member, or in consequence of the marriage of any female member, may, instead of being registered himself, elect to have some person to be named by him registered as a transferee of such share.

15. The person so becoming entitled shall testify such election by executing to his nominee an instrument of transfer of such share.

16. The instrument of transfer shall be presented to the company, accompanied with such evidence as the directors may require to prove the title of the transferor, and thereupon the company shall register the transferee as a member.

**Forfeiture of Shares.**—17. If any member fails to pay any call on the day appointed for payment thereof, the directors may at any time thereafter, during such time as the call remains unpaid, serve a notice on him, requiring him to pay such call, together with interest and any expenses that may have accrued by reason of such non-payment.

18. The notice shall name a further day, on or before which such call, and all interest and expenses that have accrued by reason of such non-payment, are to be paid. It shall also name the place where payment is to be made (the place so named being either the registered office of the company or some other place at which calls of the company are usually made payable). The notice shall also state, that in the event of non-payment at or before the time and at the place appointed, the shares in respect of which such call was made will be liable to be forfeited.

19. If the requisitions of any such notice as aforesaid are not complied with, any share in respect of which such notice has been given may at any time thereafter, before payment of all calls, interest, and expenses due in respect thereof has been made, be forfeited, by a resolution of the directors to that effect.

20. Any share so forfeited shall be deemed to be the property of the company, and may be disposed of in such manner as the company in general meeting thinks fit.

21. Any member whose shares have been forfeited shall, notwithstanding, be liable to pay to the company all calls owing upon such shares at the time of the forfeiture.

22. A statutory declaration in writing, that the call in respect of a share was made and notice thereof given, and that default in payment of the call was made, and that the forfeiture of the share was made by a resolution of the directors to that effect, shall be sufficient evidence of the facts

therein stated, as against all persons entitled to such share, and such declaration, and the receipt of the company for the price of such share, shall constitute a good title to such share, and a certificate of proprietorship shall be delivered to a purchaser, and thereupon he shall be deemed the owner of such share discharged from all calls due prior to such purchase, and he shall not be bound to see to the application of the purchase money, nor shall his title to such share be affected by any irregularity in the proceedings in reference to such sale.

*Conversion of Shares into Stock.*—23. The directors may, with the sanction of the company previously given in general meeting, convert any paid-up shares into stock.

24. When any shares have been converted into stock, the several holders of such stock may thenceforth transfer their respective interests therein, or any part of such interests, in the same manner and subject to the same regulations as and subject to which any shares in the capital of the company may be transferred, or as near thereto as circumstances admit.

25. The several holders of stock shall be entitled to participate in the dividends and profits of the company according to the amount of their respective interests in such stock; and such interests shall, in proportion to the amount thereof, confer on the holders thereof respectively the same privileges and advantages for the purpose of voting at meetings of the company, and for other purposes, as would have been conferred by shares of equal amount in the capital of the company; but so that none of such privileges or advantages except the participation in the dividends and profits of the company, shall be conferred by any such aliquot part of consolidated stock as would not, if existing in shares, have conferred such privileges or advantages.

*Increase in Capital.*—26. The directors may, with the sanction of a special resolution of the company previously given in general meeting, increase its capital by the issue of new shares, such aggregate increase to be of such amount, and to be divided into shares of such respective amounts, as the company in general meeting directs, or, if no direction is given, as the directors think expedient.

27. Subject to any direction to the contrary that may be given by the meeting that sanctions the increase of capital, all new shares shall be offered to the members in proportion to the existing shares held by them, and such offer shall be made by notice specifying the number of shares to which the member is entitled, and limiting a time within which the offer, if not accepted, will be deemed to be declined, and after the expiration of such time, or on the receipt of an intimation from the member to whom such notice is given that he declines to accept the shares offered, the directors may dispose of the same in such manner as they think most beneficial to the company.

28. Any capital raised by the creation of new shares shall be considered as part of the original capital, and shall be subject to the same provisions with reference to the payment of calls, and the forfeiture of shares on non-payment of calls, or otherwise, as if it had been part of the original capital.

*General Meetings.*—29. By the Act of 1867, a general meeting shall under a heavy penalty be held within 4 months after the registration of the company, and at such place as the directors may determine.

30. Subsequent general meetings shall be held at such time and place as may be prescribed by the company in general meeting; and if no other time or place is prescribed, a general meeting shall be held on the first Monday in February in every year, at such place as may be determined by the directors.

31. The above-mentioned general meetings shall be called ordinary meetings; all other general meetings shall be called extraordinary.

32. The directors may, whenever they think fit, and they shall upon a requisition made in writing by not less than one-fifth in number of the members of the company, convene an extraordinary general meeting.

33. Any requisition made by the members shall express the object of the meeting proposed to be called, and shall be left at the registered office of the company.

34. Upon the receipt of such requisition, the directors shall forthwith proceed to convene an extraordinary general meeting. If they do not proceed to convene the same within twenty-one days from the date of the requisition, the requisitioners, or any other members amounting to the requisite number, may themselves convene an extraordinary general meeting.

*Proceedings at General Meetings.*—35. Seven days' notice at the least, specifying the place, the day, and the hour of meeting, and in case of special business the general nature of such business, shall be given to the members in manner hereinafter mentioned, or in such other manner, if any, as may be prescribed by the company in general meeting; but the non-receipt of such notice by any member shall not invalidate the proceedings at any general meeting.

36. All business shall be deemed to be transacted at an extraordinary meeting, and that is transacted at an ordinary meeting, with the exception of sanctioning a dividend and the consideration of the accounts, balance sheets, and the ordinary report of the directors.

37. No business shall be transacted at a general meeting, except the declaration of a dividend, unless a quorum of members is present the time when the meeting proceeds to business, and such quorum shall be ascertained as follows: that is to say, if the persons who have taken shares in the company at the time of the meeting do not exceed ten in number, the quorum shall be five; if they exceed ten, there shall be added to the above quorum one for every five additional members up to fifty, and one for every ten additional members after fifty, with this limitation, that no quorum shall in any case exceed twenty.

38. If within one hour from the time appointed for the meeting a quorum is not present, the meeting, if convened upon the requisition of members, shall be dissolved: in any other case it shall stand adjourned to the same day in the next week, at the same time and place; and if at such adjourned meeting a quorum is not present, it shall be a quorum *sine die*.

39. The chairman (if any) of the board of directors shall preside as chairman at every general meeting of the company.

40. If there is no such chairman, or if at any meeting he is not present within fifteen minutes after the time appointed for holding the meeting, the members present shall choose one of their number to be chairman.

41. The chairman may, with the consent of the meeting, adjourn any meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than

the business left unfinished at the meeting from which the adjournment took place.

42. At any general meeting, unless a poll is demanded by at least five members, a declaration by the chairman that a resolution has been carried, and an entry to that effect in the book of proceedings of the company, shall be sufficient evidence of the fact, without proof of the number or proportion of the votes recorded in favour of or against such resolution.

43. If a poll is demanded by five or more members, it shall be taken in such manner as the chairman directs, and the result of such poll shall be deemed to be the resolution of the company in general meeting. In the case of an equality of votes at any general meeting, the chairman shall be entitled to a second or casting vote.

**Votes of Members.**—44. Every member shall have one vote for every share up to ten; he shall have an additional vote for every five shares beyond the first ten shares up to one hundred, and an additional vote for every ten shares beyond the first hundred shares.

45. If any member is a lunatic or idiot, he may vote by his committee, curator bonis, or other legal curator.

46. If one or more persons are jointly entitled to a share or shares, the member whose name stands first in the register of members as one of the holders of such share or shares, and no other, shall be entitled to vote in respect of the same.

47. No member shall be entitled to vote at any general meeting unless all calls due from him have been paid, and no member shall be entitled to vote in respect of any share that he has acquired by transfer at any meeting held after the expiration of three months from the registration of the company, unless he has been possessed of the share in respect of which he claims to vote for at least three months previously to the time of holding the meeting at which he proposes to vote.

48. Votes may be given either personally or by proxy.

49. The instrument appointing a proxy shall be in writing, under the hand of the appointor, or if such appointor is a corporation, under their common seal, and shall be attested by one or more witnesses or witnesses; no person shall be appointed a proxy who is not a member of the company.

50. The instrument appointing a proxy shall be deposited at the registered office of the company not less than seventy-two hours before the time for holding the meeting at which the person named in such instrument proposes to vote, but the instrument appointing a proxy shall be valid after the expiration of twelve months from the date of its execution.

51. Any instrument appointing a proxy shall be in the following form:—

Company limited.

I, \_\_\_\_\_ of \_\_\_\_\_ in the county of \_\_\_\_\_ being a member of the company limited, and entitled to \_\_\_\_\_ vote or \_\_\_\_\_ votes, hereby appoint \_\_\_\_\_ of \_\_\_\_\_ as my proxy, to vote for me and on my behalf at the [ordinary or extraordinary, as the case may be] general meeting of the company to be held on the \_\_\_\_\_ day of \_\_\_\_\_, and at any adjournment thereof for, at any meeting of the company that may be held in the year \_\_\_\_\_.

As witness my hand, this  
day of \_\_\_\_\_  
Signed by the said \_\_\_\_\_ in the  
presence of \_\_\_\_\_

**Directors.**—52. The number of the directors, and the names of the first directors, shall be determined by the subscribers of the memorandum of association.

53. Until directors are appointed, the subscribers of the memorandum of association shall be deemed to be directors.

54. The future remuneration of the directors, and their remuneration for services performed previously to the first general meeting, shall be determined by the company in general meeting.

**Powers of Directors.**—55. The business of the company shall be managed by the directors, who may pay all expenses incurred in getting up and registering the company, and may exercise all such powers of the company as are not by the foregoing Act, or by these articles, required to be exercised by the company in general meeting, subject nevertheless to any regulations of these articles, to the provisions of the foregoing Act, and to such regulations, being not inconsistent with the aforesaid regulations or provisions, as may be prescribed by the company in general meeting; but no regulation made by the company in general meeting shall invalidate any prior act of the directors which would have been valid if such regulation had not been made.

56. The continuing directors may act notwithstanding any vacancy in their body.

**Disqualification of Directors.**—57. The office of director shall be vacated:—

If he holds any other office or place of profit under the company;

If he becomes bankrupt or insolvent;

If he is concerned in or participates in the profits of any contract with the company; but the above rules shall be subject to the following exceptions: that no director shall vacate his office by reason of his being a member in any company which has entered into contracts with or done any work for the company of which he is director: nevertheless he shall not vote in respect of such contract or work; and if he does so vote his vote shall not be counted.

**Rotation of Directors.**—58. At the first ordinary meeting after the registration of the company, the whole of the directors shall retire from office; and at the first ordinary meeting in every subsequent year, one-third of the directors for the time being, or if their number is not a multiple of three, then the number nearest to one-third, shall retire from office.

59. The one-third or other nearest number to retire during the first and second years ensuing the first ordinary meeting of the company shall, unless the directors agree among themselves, be determined by ballot; in every subsequent year the one-third or other nearest number who have been longest in office shall retire.

60. A retiring director shall be re-eligible.

61. The company, at the general meeting at which any directors retire in manner aforesaid, shall fill up the vacated offices by electing a like number of persons.

62. If at any meeting at which an election of directors ought to take place, the places of the vacating directors are not filled up, the meeting shall stand adjourned till the same day in the next week, at the same time and place; and if at such adjourned meeting the places of the vacating directors are not filled up, the vacating directors, or such of them as have not had their places filled up, shall continue in office until the ordinary

meeting in the next year, and so on from time to time until their places are filled up.

63. The company may from time to time, in general meeting, increase or reduce the number of directors, and may also determine in what rotation such increased or reduced number is to go out of office.

64. Any casual vacancy occurring in the board of directors may be filled up by the directors, but any person so chosen shall retain his office so long only as the vacating director would have retained the same if no vacancy had occurred.

65. The company, in general meeting, may, by a special resolution, remove any director before the expiration of his period of office, and may by an ordinary resolution appoint another person in his stead; the person so appointed shall hold office during such time only as the director in whose place he is appointed would have held the same if he had not been removed.

*Proceedings of Directors.*—66. The directors may meet together for the despatch of business, adjourn, and otherwise regulate their meetings as they think fit, and determine the quorum necessary for the transaction of business: questions arising at any meeting shall be decided by a majority of votes: in case of an equality of votes, the chairman shall have a second or casting vote: a director may at any time summon a meeting of the directors.

67. The directors may elect a chairman of their meetings, and determine the period for which he is to hold office; but if no such chairman is elected, or if at any meeting the chairman is not present at the time appointed for holding the same, the directors present shall choose some one of their number to be chairman of such meeting.

68. The directors may delegate any of their powers to committees consisting of such member or members of their body as they think fit: any committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on them by the directors.

69. A committee may elect a chairman of their meetings: if no such chairman is elected, or if he is not present at the time appointed for holding the same, the members present shall choose one of their number to be chairman of such meeting.

70. A committee may meet and adjourn as they think proper: questions arising at any meeting shall be determined by a majority of votes of the members present; and in case of an equality of votes, the chairman shall have a second or casting vote.

71. All acts done by any meeting of the directors, or of a committee of directors, or by any person acting as a director, shall, notwithstanding that it be afterwards discovered that there was some defect in the appointment of any such directors or persons acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such person had been duly appointed and was qualified to be a director.

*Dividends.*—72. The directors may, with the sanction of the company in general meeting, declare a dividend to be paid to the members in proportion to their shares.

73. No dividend shall be payable except out of the profits arising from the business of the company.

74. The directors may, before recommending any dividend, set aside out of the profits of the company such sum as they think proper as a reserved fund to meet contingencies, or for equalising dividends, or for repairing, or maintaining, the works connected with the business of the company, or any part thereof; and the directors may invest

the sum so set apart as a reserved fund upon such securities as they may select.

75. The directors may deduct from the dividends payable to any member all such sums of money as may be due from him to the company on account of calls or otherwise.

76. Notice of any dividend that may have been declared shall be given to each member in manner hereinafter mentioned; and all dividends unclaimed for three years, after having been declared, may be forfeited by the directors for the benefit of the company.

77. No dividend shall bear interest as against the company.

*Accounts.*—78. The directors shall cause true accounts to be kept—

Of the stock in trade of the company; Of the sums of money received and expended by the company, and the matters in respect of which such receipt and expenditure takes place; and,

Of the credits and liabilities of the company. The books of account shall be kept at the registered office of the company, and, subject to any reasonable restrictions as to the time and manner of inspecting the same that may be imposed by the company in general meeting, shall be open to the inspection of the members during the hours of business.

79. Once at the least in every year the directors shall lay before the company in general meeting a statement of the income and expenditure for the past year, made up to a date not more than 3 months before such meeting.

80. The statement so made shall show, arranged under the most convenient heads, the amount of gross income, distinguishing the several sources from which it has been derived, and the amount of gross expenditure, distinguishing the expenses of the establishment, salaries, and other like matters: every item of expenditure fairly chargeable against the year's income shall be brought into account, so that a just balance of profit or loss may be laid before the meeting; and in cases where any item of expenditure which may in fairness be distributed over several years has been incurred in any one year, the whole amount of such item shall be stated, with the addition of the reasons why only a portion of such expenditure is charged against the income of the year.

81. A balance sheet shall be made out in every year, and laid before the company in general meeting, and such balance sheet shall contain a summary of the property and liabilities of the company arranged under the heads appearing in the form given in the annexed table, or as modified thereto as circumstances admit.

82. A printed copy of such balance sheet shall be sent seven days previously to such meeting, be served on every member in the manner in which notices are hereinafter directed to be served.

*Audit.*—83. Once at the least in every year the accounts of the company shall be examined, and the correctness of the balance sheet ascertained, by one or more auditors or auditors.

84. The first auditors shall be appointed by the directors: subsequent auditors shall be appointed by the company in general meeting.

85. If one auditor only is appointed, all the provisions herein contained relating to auditors shall apply to him.

86. The auditors may be members of the company; but no person is eligible as an auditor who is interested otherwise than as a member in any transaction of the company; and no director or other officer of the company is eligible during his continuance in office.

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117. additional fees  
118. annual capital

57. The election of auditors shall be made by the company at their ordinary meeting in each year.

58. The remuneration of the first auditors shall be fixed by the directors; and of subsequent auditors shall be fixed by the company in general meeting.

59. Any auditor shall be re-eligible on his quitting office.

60. If any casual vacancy occurs in the office of any auditor appointed by the company, the directors shall forthwith call an extraordinary general meeting for the purpose of supplying the same.

61. If no election of auditors is made in manner aforesaid, the Board of Trade may, on the application of not less than five members of the company, appoint an auditor for the current year, and fix the remuneration to be paid to him by the company for his services.

62. Every auditor shall be supplied with a copy of the balance sheet, and it shall be his duty to examine the same, with the accounts and vouchers relating thereto.

63. Every auditor shall have a list delivered to him of all books kept by the company, and shall at all reasonable times have access to the books and accounts of the company; he may, at the expense of the company, employ accountants or other persons to assist him in investigating such accounts, and he may, in relation to such accounts, examine the directors or any other officer of the company.

64. The auditors shall make a report to the

members upon the balance sheet and accounts, and in every such report they shall state whether, in their opinion, the balance sheet is a full and fair balance sheet, containing the particulars required by these regulations, and properly drawn up so as to exhibit a true and correct view of the state of the company's affairs, and in case they have called for explanations or information from the directors, whether such explanations or information have been given by the directors, and whether they have been satisfactory; and such report shall be read, together with the report of the directors, at the ordinary meeting.

65. A notice may be served by the company upon any member either personally, or by sending it through the post in a prepaid letter addressed to such member at his registered place of abode.

66. All notices directed to be given to the members shall, with respect to any share to which persons are jointly entitled, be given to whichever of such persons is named first in the register of members; and notice so given shall be sufficient notice to all the holders of such share.

67. Any notice, if served by post, shall be deemed to have been served at the time when the letter containing the same would be delivered in the ordinary course of the post; and in proving such service it shall be sufficient to prove that the letter containing the notices was properly addressed and put into the post office.

Form of Balance Sheet referred to above.

Dr. Balance Sheet of the Co. made up to 18 . Cr.

CAPITAL AND LIABILITIES				PROPERTY AND ASSETS								
		£	s.	d.	£	s.	d.					
I. Capital	Showing:				III. Property held by the Company -	7	Showing:					
	1	a. The number of shares						Immovable property, distinguishing:				
	2	b. The amount paid per share						g. Freehold land				
	3	c. If any arrears of calls, the nature of the arrears, and the names of the defaulters.						h. buildings				
4	d. The particulars of any forfeited shares.					i. Leasehold "						
II. Debts and Liabilities of the Company	Showing:				8	Movable property, distinguishing:						
	5	The amount of loans on mortgage or debenture bonds						d. Stock in trade				
	6	The amount of debts owing by the Company, distinguishing:						e. Plant				
		a. Debts for which acceptances have been given.										
		b. Debts to tradesmen for supplies of stock in trade or other articles.										
		c. Debts for law expenses.										
VII. Reserve Fund	Showing:				9	Debits considered good for which the Company hold bills or other securities.						
		The amount set aside from profits to meet contingencies.										
VIII. Profit and Loss	Showing:				10	Debits considered good for which the Company hold no security.						
		The disposable balance for payment of dividend &c.										
Contingent Liabilities					11	Debits considered doubtful and bad.						
		Claims against the Company not acknowledged as debts. Moneys for which the Company is contingently liable.										
					V. Cash and Investments	12	Showing:					
									The nature of investment and rate of interest.			
					13							
									The amount of cash, where lodged, and if bearing interest.			

Table of Fees to be paid to the Registrar of Joint-Stock Companies by a Company having a Capital divided into Shares.

	£	s.	d.
For registration of a company whose nominal capital does not exceed 2,000.	2	0	0
For registration of a company whose nominal capital exceeds 2,000, the above fee of 2s. with the following additional fees, regulated according to the amount of nominal capital (to be set out):—			

For every 1,000l. of nominal capital, or part of 1,000l., after the first 2,000l., up to 5,000l.	£	s.	d.
	1	0	0
For every 1,000l. of nominal capital, or part of 1,000l., after the first 5,000l., and up to 100,000l.	0	5	0
For every 1,000l. of nominal capital, or part of 1,000l., after the first 100,000l.	0	1	0
For registration of any increase of capital made after the first registration of the company, the same fees per 1,000l. or part of 1,000l., as would have been payable if such increased capital had formed part of the original capital at the time of registration.			
Provided that no company shall be liable to pay in respect			

of nominal capital, on registration or afterwards, any greater amount of fees than 5 <i>l.</i> , taking into account, in the case of fees payable on an increase of capital after registration, the fees paid on registration.	£ s. d.
For registration of any existing company, except such companies as are by this Act exempted from payment of fees in respect of registration under this Act, the same fee as is charged for registering a new company.	0 5 0
For registering any document hereby required or authorised to be registered, other than the memorandum of association.	0 5 0
For making a record of any fact hereby authorised or required to be recorded by the Registrar of Companies, a fee of	0 5 0

**Table of Fees to be paid to the Registrar of Joint-Stock Companies by a Company not having a Capital divided into Shares.**

For registration of a company whose number of members, as stated in the articles of association, does not exceed 20	£ s. d.
For registration of a company whose number of members, as stated in the articles of association, exceeds 20, but does not exceed 100.	2 0 0
For registration of a company whose number of members, as stated in the articles of association, exceeds 100, but is not stated to be unlimited, the above fee of 2 <i>l.</i> , with an additional 5 <i>s.</i> for every 20 members or less number than 20 members after the first 100.	5 0 0
For registration of a company in which the number of members is stated in the articles of association to be unlimited, a fee of	20 0 0
For registration of any increase on the number of members made after the registration of the company in respect of every 20 members, or less than 20 members, of such increase.	0 5 0
Provided that no one company shall be liable to pay on the whole a greater fee than 20 <i>l.</i> in respect of its number of members, taking into account the fee paid on the first registration of the company.	
For registration of any existing company, except such companies as are by this Act exempted from payment of fees in respect of registration under this Act, the same fee as is charged for registering a new company.	
For registering any document hereby required or authorised to be registered, other than the memorandum of association.	0 5 0
For making a record of any fact hereby authorised or required to be recorded by the Registrar of Companies	0 5 0

**MEMORANDUM AND ARTICLES OF ASSOCIATION OF A COMPANY LIMITED BY GUARANTEE, AND NOT HAVING A CAPITAL DIVIDED INTO SHARES.**

*Memorandum of Association.*

1. The name of the Company is 'The Mutual London Marine Association, Limited.'
2. The registered office of the company will be situated in England.
3. The objects for which the company is established are, the 'mutual insurance of ships belonging to members of the company, and the doing all such other things as are incidental or conducive to the attainment of the above objects.'
4. Every member of the company undertakes to contribute to the assets of the company in the event of the same being wound up during the time that he is a member, or within one year afterwards, for payment of the debts and liabilities of the company contracted before the time at which he ceases to be a member, and the costs, charges, and expenses of winding up the same, and for the adjustment of the rights of the contributories amongst themselves, such amount as may be required, not exceeding 10*l.*

We, the several persons whose names and addresses are subscribed, are desirous of being formed into a company, in pursuance of this memorandum of association.

*Names, Addresses, and Descriptions of Subscribers.*

- |                     |                  |           |
|---------------------|------------------|-----------|
| 1. John Jones of    | In the county of | Merchant. |
| 2. John Smith of    | In the county of |           |
| 3. Thomas Green of  | In the county of |           |
| 4. John Thompson of | In the county of |           |
| 5. Caleb White of   | In the county of |           |
| 6. Andrew Brown of  | In the county of |           |
| 7. Caspar White of  | In the county of |           |
- Dated the 22nd day of November 1861.  
Witness to the above Signatures,  
A. H., No. 15, Hate Street, Clerkenwell, Middlesex.

**ARTICLES OF ASSOCIATION TO ACCOMPANY PRECEDING MEMORANDUM OF ASSOCIATION.**

1. The company, for the purpose of registration, is declared to consist of 500 members.
2. The directors hereinafter mentioned may,

whenever the business of the association requires it, register an increase of members.

*Definition of Members.*—3. Every person shall be deemed to have agreed to become a member of the company who insures any ship or share in a ship in pursuance of the regulations hereinafter contained.

*General Meetings.*—4. The first general meeting shall be held at such time, not being more than three months after the incorporation of the company, and at such place, as the directors may determine.

5. Subsequent general meetings shall be held at such time and place as may be prescribed by the company in general meeting; and if no other time or place is prescribed, a general meeting shall be held on the first Monday in February in every year, at such place as may be determined by the directors.

6. The above-mentioned general meetings shall be called ordinary meetings; all other general meetings shall be called extraordinary.

7. The directors may, whenever they think fit, and they shall, upon a requisition made in writing by any five or more members, convene an extraordinary general meeting.

8. Any requisition made by the members shall express the object of the meeting proposed to be called, and shall be left at the registered office of the company.

9. Upon the receipt of such requisition the directors shall forthwith proceed to convene a general meeting: if they do not proceed to convene the same within twenty-one days from the date of the requisition, the requisitionists, or any other five members, may themselves convene a meeting.

*Proceedings at General Meetings.*—10. Seven days' notice at the least, specifying the place, the day, and the hour of meeting, and in case of special business the general nature of such business, shall be given to the members in manner hereinafter mentioned, or in such other manner, if any, as may be prescribed by the company in general meeting; but the non-receipt of such notice by any member shall not invalidate the proceedings at any general meeting.

11. All business shall be deemed special that is transacted at an extraordinary meeting, and that is transacted at an ordinary meeting, with the exception of the consideration of the accounts, balance sheets, and the ordinary report of the directors.

12. No business shall be transacted at a meeting, except the declaration of a dividend, unless a quorum of members is present at the commencement of such business, and such quorum shall be ascertained as follows; that is to say, the members of the company at the time of the meeting do not exceed ten in number, the quorum shall be five; if they exceed ten there shall be added to the above quorum one for every five additional members up to fifty, and one for every additional members after fifty, with this limitation, that no quorum shall in any case exceed thirty.

13. If within one hour from the time appointed for the meeting a quorum of members is not present, the meeting, if convened upon the requisition of the members, shall be dissolved: in any other case it shall stand adjourned to the same day in the following week at the same time and place; and if at such adjourned meeting a quorum of members is not present, it shall be adjourned sine die.

14. The chairman (if any) of the directors shall preside as chairman at every general meeting of the company.

15. If there is no such chairman, or if at any meeting he is not present at the time of holding the same, the members present shall choose some one of their number to be chairman of such meeting.

16. The chairman may, with the consent of the meeting, adjourn any meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.

17. At any general meeting, unless a poll is demanded by at least 5 members, a declaration by the chairman that a resolution has been carried, and an entry to that effect in the book of proceedings of the company, shall be sufficient evidence of the fact, without proof of the number or proportion of the votes recorded in favour of or against such resolution.

18. If a poll is demanded in manner aforesaid the same shall be taken in such manner as the chairman directs, and the result of such poll shall be deemed to be the resolution of the company in general meeting.

**Votes of Members.**—19. Every member shall have one vote and no more.

20. If any member is a lunatic or idiot, he may vote by his committee, curator bonis, or other legal curator.

21. No member shall be entitled to vote at any meeting unless all monies due from him to the company have been paid.

22. Votes may be given either personally or by proxy: a proxy shall be appointed in writing under the hand of the appointor, or, if such appointor is a corporation, under its common seal.

23. No person shall be appointed a proxy who is not a member, and the instrument appointing him shall be deposited at the registered office of the company not less than 48 hours before the time of holding the meeting at which he proposes to vote.

24. Any instrument appointing a proxy shall be in the following form:—

Company, Limited.

I, \_\_\_\_\_ of \_\_\_\_\_ in the county of \_\_\_\_\_ being a member of the \_\_\_\_\_ company, limited, hereby appoint \_\_\_\_\_ of \_\_\_\_\_ as my proxy, to vote for me and on my behalf at the [ordinary or extraordinary, as the case may be] general meeting of the company to be held on the \_\_\_\_\_ day of \_\_\_\_\_, at any adjournment thereof to be held on the \_\_\_\_\_ day of \_\_\_\_\_ next [or at any meeting of the company that may be held in the \_\_\_\_\_ year].

As witness my hand, this \_\_\_\_\_ day of \_\_\_\_\_ Signed by the said \_\_\_\_\_ in the presence \_\_\_\_\_

**Directors.**—25. The number of the directors, and the names of the first directors, shall be determined by the subscribers of the memorandum of association.

26. Until directors are appointed, the subscribers of the memorandum of association shall for all the purposes of this Act be deemed to be directors.

**Powers of Directors.**—27. The business of the company shall be managed by the directors, who may exercise all such powers of the company as are not hereby required to be exercised by the company in general meeting; but no regulation made by the company in general meeting shall invalidate any prior act of the directors which would have been valid if such regulation had not been made.

**Election of Directors.**—28. The directors shall

be elected annually by the company in general meeting.

**Business of Company.** [Here insert Rules as to Mode in which Business of Insurance is to be conducted.]

**Accounts.**—29. The accounts of the company shall be audited by a committee of five members, to be called the audit committee.

30. The first audit committee shall be nominated by the directors out of the body of members.

31. Subsequent audit committees shall be nominated by the members at the ordinary general meeting in each year.

32. The audit committee shall be supplied with a copy of the balance sheet, and it shall be their duty to examine the same with the accounts and vouchers relating thereto.

33. The audit committee shall have a list delivered to them of all books kept by the company, and they shall at all reasonable times have access to the books and accounts of the company: they may, at the expense of the company, employ accountants or other persons to assist them in investigating such accounts, and they may in relation to such accounts examine the directors or any other officer of the company.

34. The audit committee shall make a report to the members upon the balance sheet and accounts, and in every such report they shall state whether in their opinion the balance sheet is a full and fair balance sheet, containing the particulars required by these regulations of the company and properly drawn up, so as to exhibit a true and correct view of the state of the company's affairs, and in case they have called for explanation or information from the directors, whether such explanations or information have been given by the directors, and whether they have been satisfactory, and such report shall be read together with the report of the directors at the ordinary meeting.

**Notices.**—35. A notice may be served by the company upon any member either personally, or by sending it through the post in a prepaid letter addressed to such member at his registered place of abode.

36. Any notice, if served by post, shall be deemed to have been served at the time when the letter containing the same would be delivered in the ordinary course of the post; and in proving such service it shall be sufficient to prove that the letter containing the notice was properly addressed, and put into the post office.

**Winding-up.**—37. The company shall be wound up voluntarily whenever an extraordinary resolution, as defined by the Companies Act 1862, is passed, requiring the company to be wound up voluntarily.

**Names, Addresses, and Descriptions of Subscribers.**

- |                           |                        |          |
|---------------------------|------------------------|----------|
| 1. John Jones of _____    | in the county of _____ | Merchant |
| 2. John Smith of _____    | in the county of _____ |          |
| 3. Thomas Green of _____  | in the county of _____ |          |
| 4. John Thompson of _____ | in the county of _____ |          |
| 5. Coleh White of _____   | in the county of _____ |          |
| 6. Andrew Brown of _____  | in the county of _____ |          |
| 7. Cesar White of _____   | in the county of _____ |          |
- Dated the 22nd day of November 1861.  
Witness to the above Signatures,  
A. B., No. 13, Horse Street, Clerkenwell, Middlesex.

**MEMORANDUM AND ARTICLES OF ASSOCIATION OF A COMPANY LIMITED BY GUARANTEE, AND HAVING A CAPITAL DIVIDED INTO SHARES.**

**Memorandum of Association.**—1. The name of the company is 'The Highland Hotel Company, Limited.'

2. The registered office of the company will be situate in Scotland.

3. The objects for which the company is established are 'the facilitating travelling in the Highlands of Scotland, by providing hotels and conveyances by sea and by land for the accommodation of travellers, and the doing all such other things as are incidental or conducive to the attainment of the above object.'

4. Every member of the company undertakes to contribute to the assets of the company in the event of the same being wound up during the time that he is a member, or within one year afterwards, for payment of the debts and liabilities of the company contracted before the time at which he ceases to be a member, and the costs, charges, and expenses of winding up the same, and for the adjustment of the rights of the contributories amongst themselves, such amount as may be required, not exceeding 20*l*.

We, the several persons whose names and addresses are subscribed, are desirous of being formed into a company, in pursuance of this memorandum of association.

#### Names, Addresses, and Descriptions of Subscribers.

1. John Jones of	in the county of	Merchant.
2. John Smith of	in the county of	
3. Thomas Green of	in the county of	
4. John Thompson of	in the county of	
5. Calah White of	in the county of	
6. Andrew Brown of	in the county of	
7. Cesar White of	in the county of	

Dated the 22nd day of November 1861.

Witness to the above Signatures.

A.B., No. 13, Hute Street, Clerkenwell, Middlesex.

**Articles of Association to accompany preceding Memorandum of Association.**—1. The capital of the company shall consist of 500,000*l*., divided into 5,000 shares of 100*l*. each.

2. The directors may, with the sanction of the company in general meeting, reduce the amount of shares.

3. The directors may, with the sanction of the company in general meeting, cancel any shares belonging to the company.

4. All the articles of table A. shall be deemed to be incorporated with these articles, and to apply to the company.

We, the several persons whose names and addresses are subscribed, agree to take the number of shares in the capital of the company set opposite our respective names.

Names, Addresses, and Descriptions of Subscribers	Number of Shares taken by each Subscriber
1. John Jones of	in the county of - 200
2. John Smith of	in the county of - 25
3. Thomas Green of	in the county of - 30
4. John Thompson of	in the county of - 40
5. Calah White of	in the county of - 15
6. Andrew Brown of	in the county of - 5
7. Cesar White of	in the county of - 10
Total shares taken	- 325

Dated the 22nd day of November 1861.

Witness to the above Signatures.

A.B., No. 13, Hute Street, Clerkenwell, Middlesex.

By the Companies Act of 1867 (30 & 31 Vict. c. 131) the liability of the directors or managers, or the managing director of a limited company, may, if so provided by the memorandum of association, be unlimited, sec. 4. And any existing limited company may by special resolution make the liability of the directors unlimited, sec. 8. But these provisions, insufficient as they are, should have been made compulsory, and not left to the option of the limited companies themselves.

N.B.—We have not thought it necessary to lay before the reader any abstract of those parts of

the Companies Acts of 1862 and 1867 which refer to the winding up of companies, and to the legal proceedings connected therewith. Such abstract would we think have been of little or no use for in such cases lawyers must be employed, and not merely the exact words of the statute, but also the interpretation given to them by the courts of law, must be referred to. It is most probably too that the law on this subject will be speedily modified. At present it is in a most discreditable state. It should be rendered not only clearer and more precise, but more in accordance with sound principles.

It may be supposed, perhaps, to be needless after the statements we have already laid before the reader [COMPANIES], to make any further remarks upon this subject. But the system is all respects so objectionable, and has already been and must continue to lead, to such mischievous results, that we may be excused for making it (in the last edition of this work) one or two additional statements with respect to it. The experience of the last 3 years will have doubled the force, and rendered them conclusive.

**Objections to Companies with Limited Liability.**—In countries like France, where the people are mostly in narrow circumstances, and unaccustomed to, and afraid of, speculative enterprises, there may perhaps be some ground for permitting the formation of partnerships *en commandite*. And if they were confined to undertakings that admitted of being carried on according to a system of routine, such as railways, canals, and life insurances, gas-works, and so forth, we do not know that they would be open to much objection. But in a country like this, where capital is abundant, and where all enterprises, however hazardous, that promise anything like a reasonable return, are eagerly undertaken, extraordinary inducements to make capital come forward are unnecessary, and therefore objectionable. We admit, indeed, that in the case of companies of the special class now alluded to, though nothing be gained, there is no great hazard of much being lost by the shareholders being endowed with the privilege of limited liability. Such companies are not easily diverted to improper purposes; and though the capital of the shareholders may be unproductive, yet, as it is most commonly laid out in visible, permanent, and sometimes valuable works, there is a fund on which the creditors in the event of the concern failing, may fall back. But modifying circumstances of this sort are very rarely any place in companies formed for conducting ordinary industrial or commercial businesses. In their case the entire capital of the association may be lost or embezzled, without a farthing being left to the creditors. And moreover, if anything can be, a contradiction and an absurdity to suppose that ordinary industrial pursuits can be so well managed by individuals of any sort, whether the partners be indefinitely responsible or not, as they will be in individuals or small associations. The latter, on their own account, and reap all the advantages of superior skill, attention, and economy, at the same time that they are indefinitely responsible for all the losses they may incur, and for all mistakes into which they may fall, whether by the contrivance or the execution of their partners. However may be the case, one would hardly be disposed to further encourage the non-liability of the partners in limited liability companies, and more productive of mischief.

results, than those in which there is no such limitation. It must, indeed, be conceded, that, despite the heavy responsibility under which the partners in ordinary associations or partnerships now act, they too often display an incensurable degree of foolhardiness. It is probable, indeed, that the late experience of the ruin that may result from placing too much confidence in directors will lead to an improvement in this respect, and that the character and conduct of these functionaries will be more carefully enquired into. But without insisting further on considerations of this sort, if parties will every now and then be careless of their interests, and forget or decline to adopt the necessary precautions to guard against these and loss when everything they have is at stake on the result, their carelessness, it is obvious, will be immeasurably increased when they may limit their liability at pleasure, and speculate without any fear of the consequences. No one can doubt that, under such circumstances, wild projects of all sorts have been, and will be, very greatly increased; and that the number of those extensive bankruptcies which are productive of so much misery have been and will be largely augmented. To suppose the contrary is to suppose what is plainly contradictory. It is equivalent to supposing that a man cares as much for 1,000*l.*, as for 500,000*l.*, or any greater sum; or is as anxious about a small part as about the whole of his fortune, how large soever it may be.

The affairs of not a few of the non-liability companies set on foot in England during the last few years have already, especially since the crisis of 1867, come before the courts of law; and if we look these for samples of the others, we should have to regard them as little better than mere swindling engines. But it would not be fair to conclude from the instances referred to that such was their uniform character. A good many have no doubt been honestly got up; and the greater number of these being for routine purposes, such as the supply of towns with water and gas, it may be assumed that they will be fairly conducted, and will succeed. But there are very many of a totally different character. And it would be childish to suppose that in any case the same consideration will be given either to their formation in the first instance, or to their future management, that would be given were the partners indefinitely liable. Hence, while the system operates to the prejudice even of the best schemes, it holds out every temptation to set on foot projects with the intention of deceiving and victimising the public. The contrivers of the new system tell us that, whatever it may really be, it is at all events popular with the public; and in proof of this, they refer to the great number of companies that have been already formed with limited liability. But such reference was needed to enable anyone to suppose that if a plan were set on foot to enable persons to contract debts without being bound to pay them, it would be eagerly grasped at. Gambling-houses are at present prohibited; but if they were to be licensed, does anyone doubt that numbers of them would be opened in most considerable towns? And we should be told that this was a conclusive proof that the prohibition of gambling was disapproved by the public, and that it required the healthy excitement furnished by the newly opened places of entertainment. But whatever may be the case with this or that institution, one would think that the former facilities of swindling might have sufficed, without giving any further encouragement.

But however powerful the deleterious influence of the non-liability system (for such it is when the

shares are paid up) on the formation and conduct of companies, we were assured that it would be more than counterbalanced by the greater caution it would infuse into those who might deal with them. The names and the number of shares held by the partners in such associations, and the magnitude of their capital, or of the 'fund' to which their creditors have to look, were all to be made known; so that those who transacted business with them would be really aware of what they had to depend upon. But we take leave to say that they have not had, and will not have, any such knowledge. Suppose that a non-liability company had a capital of 50,000*l.* or 100,000*l.*, and that it was wholly paid up when it was established: it may have been greatly reduced, or wholly lost, in the next or in any subsequent year; and yet, as the public can know nothing, or nothing certain, of its losses, and may, on the contrary, suppose it has been successful, its credit may not be impaired, and it may go on extending its business and adding to its obligations after it is really insolvent. We have had since 1866 very numerous and sad illustrations of this. Ordinary partnerships, unless they consist of parties of very questionable solvency or character, have seldom any considerable difficulty in obtaining large amounts of credit; and companies, it matters not of whom composed, which are reported to have some 10,000*l.*, 20,000*l.*, 50,000*l.*, or 500,000*l.* of paid-up capital, will be sure to obtain loans to a much greater extent and with still greater readiness. In their case we have a kind of authorised guarantee for the possession of wealth. And this, it will be said, precludes all room for distrust; so that, unless we had access to peculiar sources of information, it might be not a little dangerous to question the solidity of such an association. And yet the whole thing may be a snare and a delusion. The assurance, whether official or otherwise, that a certain amount of capital has been paid up, is, as has been proved over and over again, really not worth a farthing. But the chances are, that it will, notwithstanding, serve its purpose with the million. It will make that appear to them to be gold which may not even be copper, and enable parties without a shilling to borrow large sums, and to trade or speculate on the means of others. In such cases the public is helpless. There is nothing on which it can rely; and when the imposture is discovered by the bursting of the bubble, no one is to be responsible for anything.

However it may be accounted for, there is nothing that is so lavishly and inconsiderately bestowed as credit. Frequently, indeed, it is rather thrust upon than given to individuals and firms. And it would be ludicrous to suppose that this is a case in which we can place any dependence on the caution of the public. The only real security is in the discretion, good sense, and, more than all, in the unlimited liability of partners. They know, or may know, what they are worth, and what they are about, which no one else can know. And, in the vast majority of cases, they further know that they will be bankrupts and beggars unless they act prudently and circumspectly. Hence our late legislation is precisely the reverse of what it ought to have been. Instead of diminishing, we should have increased the responsibility of partners by abstaining from all interference with their indefinite liability, and giving additional stringency to the bankruptcy laws.

That increased caution on the part of the public which, it was said, would be a result of the new system, is really, therefore, and has proved to be, no better than moonshine. It can have no practical influence. The only security which in such matters

is worth a pinch of snuff consists in the responsibility of partners. It is not to those who deal with this or that house, but to the houses themselves—to the guaranties under which they have been placed—that we must look for protection against foolhardiness and fraud.

It may therefore be reasonably concluded, that in ordinary businesses—that is, in all businesses for carrying on branches of agriculture, manufacture, or trade—partnerships with limited liabilities can be neither more nor less than unmixed nuisances. If honestly conducted, they must fail in their competition with private parties; and if otherwise, they will only add to the means, which were already sufficiently extensive, of wasting capital and fleecing the public.

In the scheme laid down by Providence for the government of the world, there is no shifting or narrowing of responsibilities, every man being personally answerable for all his actions. But the advocates of limited liability proclaim, in their superior wisdom, that the scheme of Providence may be advantageously modified, and that debts and obligations may be contracted which the debtors, though they have the means, shall not be bound to discharge. Borrow, say they, as much as you please, and pay as little as you like—the less, it would seem, the better. And can it be doubted that the adventurous, the needy, the unprincipled, and the desperate, will be eager to avail themselves of such extraordinary privileges? The reckless speculation, and the consequent bankruptcy and ruin, that have on former occasions overspread the kingdom have been trifling compared with those that resulted in the crisis of 1866, and those future revulsions which may be anticipated, should the new system be allowed to spread its roots and scatter its seeds on all sides. Even the soberest individuals may be tempted to embark in hazardous projects; for, by limiting the risk, they in great measure secure themselves against loss by failure, at the same time that they reap all the advantages of success. Were Parliament to set about devising means for the encouragement of speculation, over-trading, and swindling, what better could it do than to carry out the non-liability system?

We may be told that Parliament has provided, by the Joint-Stock Companies Act, that in the event of the directors of a company declaring and paying a dividend when the company is known by them to be insolvent, they are to repay the same out of their own pockets. This is the statement in the body of the Act; but in the 'regulations for the management of companies' attached to it, and already quoted, we are told that 'no dividend shall be payable, except out of the profits arising from the business of the company.' We of course do not presume to decide whether this or the other statement be the more correct; but their contradictory nature affords a curious illustration of the slovenly, slipshod style in which the most important statutes are often compiled. Perhaps the reader may be inclined to think that those who are disposed to trust to a security of this sort are rather easily satisfied. A body of directors who would, under any circumstances, declare a dividend when they knew that the concern over which they presided was bankrupt, will not be kept in the right path by the threat now referred to. The declaration of dividends when there is nothing to divide is not the way in which dishonest directors would be most likely to defraud their constituents and the public. They would make loans to each other, or, if that be prohibited or apt to excite suspicions, they may do the same thing indirectly by the

intervention of third parties. The capital and credit of the institution may be perverted, abused, and dissipated in a thousand ways before the circumstance becomes known to the public.

Some who are friendly to the principle of limited liability, but who are at the same time aware of the abuses to which it cannot fail to lead if the liability be limited to the mere amount of the shares, say that they would not object to its increase. It has, in consequence, been proposed to fix the liability at double or treble the amount of the shares; so that when a limited company failed, the subscribed capital of which had been fully paid up, the partners would not, as in the case, be relieved of all responsibility, but would be obliged to make a further payment, that were required, equal to the amount of the shares, or to double that amount, as might be decided upon. This plan has been enforced in Canada and in some other countries. And it is undoubtedly a very great improvement upon the system existing here; for, while it raises the character of the partners in limited associations and makes them more careful in regard to the individuals they choose for directors, and more disposed to watch their proceedings, it makes them contribute to the entire or partial relief of the whom they might otherwise have involved in total ruin. If, therefore, the system is to be continued, we should strongly recommend that liability of the partners should be raised to at least double the amount of their shares. This would add to its solidity, and divert it of some of its worst features.

But, after all, this is only paltering with mitigating an evil which should be cut up by its roots. Every sound principle is outraged when a man who has the means of paying his just debts does not pay them. Whether they are contracted by himself directly, or in company with others of no importance. He is in either case bound to pay them; and to pass laws to protect him from declining to pay them, is to give a legislative sanction to dishonesty and villainy.

It is alleged, however, that these representations are fallacious; that it is a manifest encroachment on the great principle of the freedom of industry to hinder individuals from engaging in partnerships under such conditions as they choose to lay down; that in the event of conditions being publicly declared, and every man made aware of what they are, they cannot justly be objected to; for as it is optional to do or not deal with the association, those who do so do so on the conditions upon which it is established and keep aloof from it. But sophistry of this sort is too transparent to deceive anyone, and might as well be employed to excuse almost any jugglery or delusion. The question is, not whether limited liability be consistent with this abstract principle, but what are its practical results—what its probable influence over the conduct of individuals, to promote which either is or should be the object of all legislation? It is with its results in this respect, and with it only, that we have to deal. Now, if there be one principle which is more than another conducive to the public advantage, and may be said to constitute the foundation of all dealings between man and man, it is the obligation to discharge one's debts and engagements. And it is the bounden duty of Government to enforce the rule of unlimited liability, in all cases, if such there be, when it can be done, and made out that the public interest will be promoted by its relaxation or suspension. The case of this sort be satisfactorily established, undoubtedly the rule referred to should be

as far as it is concerned. But we entirely deny that when tried by this test, it either has been or can be shown that partnerships *en commandite* are publicly advantageous. On the contrary, we have seen that they are in the last degree injurious, and that their extensive introduction must necessarily give an immense stimulus to fraud and reckless speculation.

In dealing with ordinary firms or associations, people trust, or believe they may trust, to the reputation for skill and integrity, and to the presumed wealth, of one or more of the partners. Such presumptions are not, indeed, always to be depended upon. In these, as in other matters, people may be misled by appearances, and may place an unmerited degree of confidence in loud though insincere professions and promises. But how deceptive soever, the presumptions or inducements referred to afford not merely the best, but the only guarantees that can really be had for upright conduct. Most people engaged in business, whether carried on, are impressed with the well-founded conviction that their interests will be best promoted by their preserving an unblemished reputation; and when they act under the nearest responsibility, the chances are ten to one that they will behave discreetly and honourably. But we have no such guarantees for the conduct of the partners of a society *en commandite*. Character is, in their case, of little, or rather of no consequence. Instead of being responsible, they are all or may be all, but irresponsible. A., who is worth 50,000*l.* or 100,000*l.*, has not more, perhaps, than some 1,000*l.* or 2,000*l.* vested in the society. Whether he lose or gain by such investments is a matter about which he probably cares very little. Most likely he has joined the association that he might engage, without fear or apprehension, in the boldest speculations. But whether this be or be not his object, it is an insult to common sense to suppose that associations of this description will be as carefully and skillfully conducted as those in which the partners are indefinitely liable for their proceedings.

It would be the easiest thing imaginable, were it at all necessary, to corroborate the previous statements by illustrations drawn from the United States, where the principle of limited liability has been long established. But these must be familiar to almost all our readers. Everybody knows that, notwithstanding the peculiarly favourable circumstances under which the Americans are placed, from their free institutions, their enterprising character, and the boundless extent of their fertile and unoccupied lands, bankruptcy is ten times more prevalent among them than in England. The revulsions by which we are sometimes visited, though sufficiently severe, are made in the extreme compared with those that periodically devastate the United States. In various instances, every banking company in the Kingdom has stopped payment, while great numbers have been totally destroyed. And it is the same with associations of all sorts. A spirit of overtrading, or a determination, at all hazards, to 'go ahead,' is universally prevalent, and bears there, as here, its legitimate harvest of bankruptcy and disaster. So much so, indeed, is this the case, and such and so violent are the convulsions referred to, that it is no exaggeration to affirm that the wrecked fortunes and personal property are more secure in Austria and Russia than in the United States. The national character has suffered through this miserable system. Those repudiations which have so justly damaged the credit of the Americans, originated in their attempting to limit their responsibilities in their public as

well as in their private capacity. And it could hardly, indeed, be expected that people who may contract debts to their neighbours which they are not bound to pay, should be disposed to make an exception in the case of their foreign creditors.

We sometimes hear the rather unwarrantable assertion, that, unless their liability be limited, neither the poorer nor the richer classes are generally disposed to engage in extensive partnerships. But if it really had the effect of tempting the poorer classes to engage in them, that alone would be a very sufficient reason why all associations with limited liability should be suppressed. The condition of these classes will never be improved by withdrawing their attention from the business to which they have been bred, and in which they are engaged, to fix it on joint-stock adventures. The spirit of gambling and speculation is already quite enough diffused, without seeking to spread its baneful influence among the lower classes. Nothing should be done which it is possible to avoid, to divert their attention from the pursuits of sober, persevering industry. Their surplus earnings may be far more beneficially invested in savings-banks, in loans, and in contributions to friendly societies, than in joint stock adventures.

And while, on the one hand, it would be very wrong to tempt by immunities of any sort the labouring classes to engage in such schemes, it is, on the other, quite superfluous in the case of their richer brethren. They are already much too prone to embark in them. Even in those businesses, the hazard of which is extreme, there is no good reason for exempting those by whom they are carried on from the fullest responsibility. If the demand for gunpowder were doubled, the supply would very shortly be increased in an equal degree. Wherever there is extra risk, it is compensated by extra profits; and, practically, it is not found that the cost of gunpowder, or of any like article, is in any degree increased from capitalists being disinclined to face the hazard of its production.

Cautious men are content with moderate profits, and encounter only moderate risks; while those who are sanguine and adventurous, whether they be rich or poor, eagerly grasp at the highest profits, and to realise them do not hesitate to run the greatest hazards. Now, there is nothing surely to object to or amend in this. And yet the whole doctrine of limited responsibility proceeds on the contrary assumption—on the principle, if we may so call it, that profit and risk shall be divorced from each other; that speculators may undertake adventures, having, on the one hand, the chance of making unlimited profits if they turn out well, and on the other, of escaping, though they may ruin others, with a comparatively trifling loss if they turn out ill. In that peculiar class of cases in which it would seem, at the first blush of the matter, that limited responsibility would be least objectionable, it will be found to be most pernicious; for it will give an unnatural stimulus to what certainly does not require it, that is, to hazardous enterprises and desperate adventures.

On the whole, nothing but mischief can be legitimately anticipated from the establishment of partnerships with limited liability, or *en commandite*. It was not by the aid of the principles which they involve—by shirking responsibility, and evading the risks inseparable from all undertakings—that we have attained to our pre-eminence in character, in wealth, and in manufacturing and commercial industry. But are we well assured that the adoption of a contrary system will not mark the era of our decline?

*Application of Limited Liability to Banking.*—

The limited liability system was not applied in the outset to the business of banking. But this exemption was of short continuance, a statute having been passed in the course of 1858, 21 & 22 Vict. c. 91, followed by that of 1862, 25 & 26 Vict. c. 89, which authorised banking companies, not issuing notes, to be established with limited liability. It was alleged in defence of these measures, that there should be no exception to the general rule; and that Parliament, having introduced the system of limited liability into other businesses, was bound, in consistency, to extend it to banking. But if this sort of reasoning is to have any influence in such matters, it would not justify merely, but require, that the system should be extended to all companies, however small the number of partners, and even to all individuals. Why is a privilege to be conceded to 10 or 12 persons, and denied to 6, to 4, or to 1? Where, may we ask, is the justice of such a proceeding? Why should not Mr. A. be permitted to limit his liability; to declare, à priori, that whatever debts he may contract, he shall be liable only to the extent of some 500*l.* or 1,000*l.*; and that it is to this 'fund,' and not to his estates, his factories, or his consols, that his creditors have exclusively to look? But everybody knows, or ought to know, that there is something more than mere logical sequence to be attended to in public affairs. When a law has been enacted which affects certain businesses or certain individuals, the question, whether it should be extended to others, depends in no degree on hypothetical notions about the symmetry of legislation, but on the fact whether it is a beneficial law, and whether it is fitted to promote the interests of those to whom it is proposed to extend its operation. Now as limited liability has not a single good quality to recommend it, the sphere of its operation, instead of being extended, should be contracted as much as possible. In so far, however, as banks are concerned, we incline to think that its extension to them will not have much influence either one way or other; for we cannot believe it possible, if an ordinary bank limit its liability, that half-a-dozen individuals will be found foolishly enough to entrust their money to its keeping. If they do, they will well deserve the fate which may be expected to await them—that is, to lose their entire deposits. If such bank attempt, as it will probably do, to allure loans by the offer of a comparatively high rate of interest, that will make its ruin more certain and immediate, and is a bait that will be swallowed by those only whose ignorance is even greater than their voracity. We therefore have little doubt that the device of limited liability will be rejected by such banking companies as have any pretensions to character, or that have any wish to possess and deserve any portion of the public confidence. We subjoin the Act, 25 & 26 Vict., so far as it refers to Banking Companies.

**On registration with Limited Liability Notice to be given to Customers.**—Provided that every company so registering itself again as a limited company, and every existing banking company which shall register itself as a limited banking company, shall, at least 30 days previous to obtaining a certificate of registration with limited liability, give notice that it is intended so to register the same to every person and partnership firm who shall have a banking account with the company, and such notice shall be given either by delivering the same to such person or firm, or leaving the same or putting the same into the post addressed to him or them at such address as shall

have been last communicated or otherwise become known as his or their address to or by the company; and in case the company shall omit to give any such notice as is hereinbefore required to be given, then as between the company and the person or persons only who are for the time being interested in the account in respect of which such notice ought to have been given, and so far as respects such account and all variations thereof, down to the time at which such notice shall be given, but not further or otherwise, the certificate of registration with limited liability shall have no operation. (Sec. 188.)

**Banking Company to publish a Statement periodically.**—Every limited banking company shall, before it commences business, and also in February and August, in every year during which it carries on business, make a statement in the form contained in the schedule hereto annexed, or near thereto as circumstances will admit, and a copy of such statement shall be put up in a conspicuous place in the registered office of the company, and in every branch office or place where the banking business of the company is carried on; and if default is made in due compliance with the provisions of this section, the company shall be liable to a penalty not exceeding 5*l.* every day during which such default continues, and every director and manager who shall knowingly permit such default shall incur the like penalty. Every member and creditor of any such company shall be entitled to a copy of the statement, on payment of a sum not exceeding 5*l.* (Sec. 41.)

**Form of Statement to be published by a Limited Banking Company, referred to in Part III. of the Act 25 & 26 Vict. c. 89.**

The capital of the company is divided into shares of the amount of <i>£</i> . . . . .	
The number of shares issued is . . . . .	
Calls to the amount of <i>£</i> per share have been made, under the sum of <i>£</i> . . . . .	
The liabilities of the company on the first day of January or the day next were—	
On Judgment . . . . .	<i>£</i> . . . . .
On specialty . . . . .	“ . . . . .
On notes or bills . . . . .	“ . . . . .
On simple contracts . . . . .	“ . . . . .
On estimated liabilities . . . . .	“ . . . . .
Total . . . . .	“ . . . . .
The assets of the company on that day were—	
Government securities (stating them) . . . . .	“ . . . . .
Bills of exchange . . . . .	“ . . . . .
Promissory notes . . . . .	“ . . . . .
Cash at the bankers . . . . .	“ . . . . .
Other securities . . . . .	“ . . . . .
Total . . . . .	“ . . . . .

By the 30 & 31 Vict. c. 29, joint-stock banking companies are bound to show their list of shareholders to any registered shareholder between the hours of 10 and 4.

**PASSENGERS.** In Commercial Navigation individuals conveyed for hire from one place to another on board ship. Passage ships are peculiarly appropriated to the conveyance of passengers.

Passage ships are generally placed under certain regulations; and the extent to which emigration is now carried renders it of the utmost importance that these regulations should be carefully compiled and properly carried out.

By far the largest proportion of these emigrants especially of late years, has consisted of natives of Ireland. The scarcity, or rather the want, of labour in 1846-47, gave an extraordinary stimulus to emigration; and it has since been continuing, partly by the depressed condition of the peasantry, and partly by the wish of the bulk of the landless population to diminish the number of petty holdings on the estates, and partly also by the enticements more effectually still by the large sums of money

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which have been sent to Ireland by parties who have emigrated, to encourage and assist the emigration of others. But there is no reason to fear that this emigration, however promoted, will be carried to excess. The rise of wages consequent on the diminution of the population will effectually hinder this result. It has latterly, indeed, declined considerably; and there can be no manner of doubt that emigration from Ireland might be carried to a much greater extent than it has yet been carried, without its being otherwise than advantageous to that island and to the United Kingdom generally.

Emigration from the United Kingdom during the 53 Years, from 1815 to 1867 inclusive.

Year	North American Colonies	United States	Australian Colonies and New Zealand	All other Places	Total
1815	680	1,209	•	102	2,091
1816	5,270	9,022	•	118	12,510
1817	6,921	10,280	•	257	20,631
1818	15,136	19,429	•	225	27,787
1819	32,541	33,724	•	575	31,747
1820	12,921	6,745	•	1,063	25,729
1821	12,955	4,958	•	584	18,497
1822	16,015	5,152	•	479	20,422
1823	18,255	6,034	•	163	16,550
1824	4,714	5,152	•	99	11,065
1825	6,245	5,117	485	114	11,961
1826	10,416	7,063	903	116	18,498
1827	16,648	14,536	715	111	28,003
1828	12,084	12,437	1,066	155	26,092
1829	15,507	15,678	2,016	197	31,198
1830	20,774	24,887	1,242	204	36,907
1831	28,067	23,419	1,561	114	43,161
1832	68,839	52,872	5,733	196	103,140
1833	18,908	39,109	4,003	517	62,537
1834	40,663	53,071	8,049	988	102,771
1835	35,523	36,720	1,660	325	74,228
1836	34,216	37,774	5,121	393	77,517
1837	32,941	36,250	5,653	396	74,051
1838	32,941	36,250	5,653	396	74,051
1839	16,658	33,556	15,786	327	66,307
1840	24,225	40,612	18,859	1,258	84,953
1841	31,161	45,017	22,625	2,786	111,592
1842	34,125	63,822	4,558	1,835	103,340
1843	25,519	28,555	5,778	1,851	61,703
1844	22,628	43,660	3,249	1,873	70,410
1845	31,903	36,558	830	2,530	71,821
1846	43,459	32,339	2,317	1,846	79,961
1847	109,680	118,154	4,949	1,487	228,270
1848	31,065	188,223	23,304	4,587	247,179
1849	41,567	215,450	31,191	6,490	294,708
1850	36,961	225,078	16,637	8,773	286,479
1851	49,605	267,557	21,552	4,472	343,186
1852	32,473	241,361	27,881	5,749	267,464
1853	34,292	230,885	41,401	3,129	309,607
1854	43,761	194,065	35,257	3,366	276,389
1855	17,996	105,414	32,509	3,118	159,037
1856	16,328	111,817	14,284	3,755	146,184
1857	31,041	126,905	61,348	3,721	223,015
1858	5,704	59,716	39,993	5,257	110,670
1859	6,068	70,303	51,015	12,427	139,813
1860	9,786	87,500	34,302	6,881	138,469
1861	13,707	49,264	25,738	5,561	94,270
1862	15,292	69,706	41,842	5,443	132,283
1863	18,083	116,813	53,051	5,808	187,755
1864	12,721	117,082	40,942	8,195	178,940
1865	17,211	147,208	37,063	8,049	209,531
1866	13,455	161,000	24,097	6,530	205,082
1867	15,505	129,275	14,466	6,709	165,955
Total	1,501,523	3,919,841	953,618	139,110	6,514,952

Emigration from the United Kingdom:—  
From 1815 to 1867 - 118,912  
For the 10 years ending 1867 - 161,915

The Customs Returns do not record any Emigration to Australia during these 10 years, but it appears from other sources that there were in 1841, 2012; in 1842, 275; in 1843, 25; in 1844, 25; in 1845, 280; and in 1845, 458 passengers. The numbers have not been included in the above of this table.

It is seen from the above account, that in 1852 no fewer than 268,764, and in 1854, 323,429 voluntary emigrants left the United Kingdom; and such being the vast extent to which emigration is now carried, the propriety, or rather necessity, of enacting some general regulations, with respect to the conveyance of emigrants to their destination, must be obvious to everyone at all acquainted with the subject. The greater number of emigrants are in humble life; few among them know anything of ships, or of the precautions necessary to insure a safe and comfortable voyage; they are, for the most part, poor, and exceedingly anxious to economise, so that they seldom hesitate to embark in any ship, however unfit for the

conveyance of passengers, or inadequately furnished with provisions, if it be cheap. Unprincipled masters and owners have not been slow to take advantage of this; and in order to prevent the frauds that would otherwise be practised on the unwary, it has been found indispensable to lay down some general regulations as to the number of passengers to be taken on board ships as compared with their tonnage, the quantity of water and provisions as compared with the passengers &c. But this is no very easy task. If the limitations be too strict, that is, if comparatively few passengers may be carried, or if the stock of provisions to be put on board be either unnecessarily large or expensive, the cost of emigration is proportionally enhanced; and an artificial and serious impediment is thrown in the way of what should be made as easy as possible, consistent with security. But, on the other hand, if too many passengers be allowed, their health is liable to suffer; and should the supply of provisions be inadequate, or the quality bad, the most serious consequences may ensue. The Act 6 Geo. IV. c. 116 obliged too great a quantity of expensive provisions to be put on board, and was in consequence objected to by emigrants as well as shippers. The Act 9 Geo. IV. c. 21 avoided this error; but it was defective, inasmuch as it made no provision with respect to the sufficiency of the ship, the having a surgeon, or other properly qualified medical person on board ships carrying a certain number of passengers, and in other particulars. These deficiencies were in part supplied by the Act 5 & 6 Wm. IV. c. 53, and subsequent statutes, including the 15 & 16 Vict. c. 41. But the provisions in these Acts having been found to be in several respects inadequate, they have been repealed, and the following regulations, embodied in the 18 & 19 Vict. c. 119 and 26 & 27 Vict. c. 51, have been substituted. We doubt, however, whether these will be much longer lived than those by which they have been preceded. They seem to be singularly deficient in the precision and clearness so very necessary in such matters, and to be encumbered with a host of details altogether foreign to the real business of the statute.

ACT OF 1855, THE 18 & 19 VICT. CAP. 119, FOR REGULATING THE CARRIAGE OF PASSENGERS BY SEA, AMENDED BY THE ACT OF 1863, 26 & 27 VICT. CAP. 51, AND RELATIVE ORDERS IN COUNCIL.

The sections referred to are those of the Act of 1855, unless that of 1863 be cited.

Commencement of this Act, and repeal of former Act &c.—'The Passengers Act 1852' shall be repealed; except so far as the said Act repeals any former Act or enactment; and except as to existing passage brokers' licenses, which shall continue in force as mentioned in sec. 68 of this Act, and except as to any ship which shall have cleared out from any colonial port under the said Act, and before this Act shall have come into operation in such colony; and except so far as may be necessary for supporting or continuing any proceeding taken or to be taken upon any bond given under the said Act, or upon any other civil process; and except as to the recovery and application of any penalty for any offence committed against the said Act; and except also as to an order in council made by her Majesty on October 16, 1852, in pursuance of the powers given by sec. 55 of the said Act, which said order in council shall remain in force until altered or revoked by any order in council to be made under the provisions of this Act. (Sec. 1.)

Section 2 directs that in reciting this Act in other Acts of Parliament, or in any instrument, document, or proceeding, it shall be sufficient to use the expression 'The Passengers Act 1855.'

Section 3 lays down the definition of terms used in this Act. The description of 'passenger ship' is repealed in the Act of 1863, and the term is intended to signify every description of seagoing vessel, whether British or foreign, carrying, upon any voyage to which the Act of 1855 extends, more than 50 passengers, or a greater number of passengers than in the proportion of one statute adult to every 33 tons of the registered tonnage of such ships if propelled by sails, or than one statute adult to every 20 tons if propelled by steam.

*To what Vessels and Voyages this Act extends.*—This Act shall extend to every 'passenger ship' proceeding on any voyage from the United Kingdom, to any place out of Europe, and not being within the Mediterranean Sea, and on every colonial voyage as after described, and in the particulars mentioned or referred to in secs. 100, 101, and 102, to every ship bringing passengers into the United Kingdom from any place out of Europe, and not being within the Mediterranean Sea; but shall not extend to any of her Majesty's ships of war, nor to any ships in the service of the lords of the Admiralty of the United Kingdom, nor to any ship of war or transport in the service of the East India Company, nor to any steam vessel regularly employed in the conveyance of mails under an existing contract with the Government of the state or colony to which such steam vessel may belong, provided the master thereof shall, on demand, produce to the emigration officer at the port of clearance or port of departure a certificate of exemption in the form given in schedule (A) hereto annexed, under the hand of the postmaster-general of the United Kingdom, or of some person deputed by him for the purpose, or in the case of a colony, under the hand of the governor thereof, or in the case of a foreign state, under the hand of the postmaster-general or other competent government officer, whose signature shall be authenticated by the signature of a British consular officer in such foreign state. (Sec. 4.) But by the provisions of the Act of 1863, steam vessels carrying mails, if they carry other than cabin passengers in sufficient numbers to bring the vessel within the definition of a 'passenger ship,' are brought within the Act.

*Penalty on fraudulently using Certificates or using Fraudulent Certificates.*—Such certificate of exemption shall be issuable at the discretion of the officer authorised to grant the same as herein mentioned, and shall remain in force for the period specified therein, unless sooner revoked, or unless the vessel for which it shall have been issued shall sooner cease to be employed in carrying the public mails; and if any person shall make or attempt to make any fraudulent use of any such certificate, or shall forge, counterfeit, alter, or erase the whole or any part thereof, or shall use or attempt to use any spurious or fraudulent certificate, the person so offending, and every person aiding and abetting in such offence, shall be liable to a penalty not exceeding 500*l.*, and the vessel for which the exemption is claimed shall not be cleared out until all the requirements of this Act have been complied with. (Sec. 5.)

Clause 6 enacts that the commissioners of emigration shall carry this Act into execution.

Clause 7 enacts that the emigration commissioners may sue and be sued in the name of their Secretary &c.

Clause 8 enacts that the emigration officers and

assistants are to act under the commissioners of emigration, and that existing appointments are to continue until revoked.

Clause 9 enacts that the duties of emigration officer may be performed by his assistant or by the chief officer of customs.

*Facilities to be given for the Inspection of all Ships fitting for Passengers.*—The master of every ship, whether a 'passenger ship' or otherwise, fitted or intended for the carriage of passengers, or which shall carry passengers upon any voyage to which this Act extends, shall afford to the emigration officer at any port or place in her Majesty's dominions, and, in the case of British ships, to her Majesty's consular officer at any foreign port or place at which such ship shall be or arrive, every facility for inspecting such ships, and for communicating with the passengers, and for ascertaining that the provisions of this Act, so far as the same may be applicable to such ships, have been duly complied with; the master of any ship who shall omit or fail to comply with any of the requirements of this section, shall be liable to a penalty not exceeding 50*l.* (Sec. 10.)

*No Passenger Ship to clear without Certificate from Emigration Officer &c.*—No ship fitted or intended for the carriage of passengers as a 'passenger ship,' shall clear out or proceed to sea until the master thereof shall have obtained from the emigration officer at the port of clearance a certificate of clearance under his hand that all the requirements of this Act, so far as the same may be applicable to such ship, have been duly complied with, and that such ship is, in his opinion, seaworthy, in safe trim, and in all respects fit for her intended voyage, and that her passengers and crew are in a fit state to proceed, nor until the master shall have joined and executed such bond to the Crown as required by sec. 63 of this Act: provided, that if such emigration officer shall refuse to grant such certificate, and the owner or charterer of such ship shall appeal in writing to the emigration commissioners, such commissioners shall appoint any 2 other emigration officers, or any 2 competent persons, at the expense of the appellant, to examine into the matter, and if the persons so appointed shall grant a certificate under their joint hands to the purport herebefore required, such certificate shall be held to be of the same effect as if granted by the emigration officer at the port of clearance. (Sec. 11.)

*Where Passengers may be carried.*—No ship shall carry passengers or cabin passengers on more than 2 decks: provided, that cabin passengers in a proportion not exceeding 1 cabin passenger for every 100 tons of the ship's tonnage, and sick persons placed in a hospital, as after provided, may be carried in a poop or deck house, notwithstanding that passengers are carried on 2 other decks, and if passengers are carried under the poop or in any round house or deck house, such poop or round house, or deck house shall be properly lighted and secured, to the satisfaction of the emigration officer at the port of clearance: for any breach of this enactment the master of the ship shall be liable to a penalty not exceeding 500*l.*, nor less than 20*l.* sterling. (Sec. 12.)

*Rule for determining the Number of Passengers to be carried.*—For determining the number of passengers to be carried in any 'passenger ship' the following rules shall be observed:—

1. No ship shall carry under the poop, or in the round house or deck house, or on the upper passenger deck, a greater number of passengers than in the proportion of 1 statute adult to every 100 clear superficial feet of deck allotted to their use.

3. No ship shall carry on her lower passenger deck a greater number of passengers than in the proportion of 1 statute adult to every 18 clear superficial feet of deck allotted to their use: provided nevertheless, that if the height between such lower passenger deck and the deck immediately above it shall be less than 7 feet, or if the apertures (exclusive of side scuttles) through which light and air shall be admitted to the lower passenger deck shall be less in size than in the proportion of 3 square feet to every 100 superficial feet of the lower passenger deck, no greater number of passengers shall be carried on such deck than in the proportion of 1 statute adult to every 25 clear superficial feet thereof:

4. No ship, whatever be her tonnage or superficial space of 'passenger decks,' shall carry a greater number of passengers on the whole than in the proportion of 1 statute adult to every 5 superficial feet, clear for exercise, on the upper deck or poop, or (if secured and fitted on the top with a railing or guard to the satisfaction of the emigration officer at the port of clearance) on any second house or deck house:

5. In the measurement of the passenger decks, poop, second house, or deck house, the space for the hospital and that occupied by such portion of the personal luggage of the passengers as the emigration officer may permit to be carried there shall be included.

Two clauses which limited the number of passengers by the registered tonnage and laid penalties on the violation of this rule, were repealed by the Act of 1863.

Not to repeal 16 & 17 Vict. c. 84.—Provided, nevertheless, that nothing in this Act shall repeal the Act 16 & 17 Vict. c. 84, intitled 'An Act to Amend the Passengers Act 1852, so far as it relates to the Passages of Natives of Asia, Africa, and also Passages between the Island of Ceylon and certain Parts of the East Indies.' (See 15.) The Indian Act No. 13 of 1864 regulates the emigration from British India.

*Passengers' Lists to be delivered in Duplicate by the Master before Clearance.*—The master of every ship, whether a 'passenger ship' or otherwise, carrying passengers on any voyage to which this Act extends, shall, before demanding a clearance for such ship, sign 2 lists, made out according to the form contained in schedule (11.) hereto annexed, correctly setting forth in the manner therein directed, the name and other particulars of every passenger on board thereof:

The said lists, when countersigned by the emigration officer, where there is one at the port, shall be delivered by the master to the officer of the customs from whom a clearance of the said ship shall be demanded, and such officer shall thereupon also countersign and return to the said master 1 of such lists, called 'The Master's List;' and the said master shall note in writing on such list, and on any additional lists to be made out as next provided, the date and supposed cause of death of any passenger who may die, and the date of birth and sex of any child who may be born on the voyage, and shall extend such list, with any additions which may from time to time be made thereto, to the chief officer of customs at any port or place in her Majesty's possessions, or to her Majesty's consul or officer at any foreign port at which the said passengers or any of them shall be landed, and shall deposit the same with such chief officer of customs or such consular officer, as the case may be, at the final port or place of discharge, and the officer of customs or consular officer shall thereupon forthwith transmit the particulars re-

specting any passenger who may die, or of any child who may be born on the voyage, to the registrar-general of births, deaths, and marriages in England, who shall file the same, and enter a copy thereof in the 'marine register book,' which entry shall be dealt with and be of the same value as any other entry made in such book under the provisions of the 6 & 7 Wm. IV. c. 86: in case of non-compliance with any of the requirements of this section on the part of the master, or if such lists shall be wilfully false, the master shall for each offence be liable to a penalty of not more than 100*l.*, nor less than 5*l.* (Sec. 16.)

*Lists of Passengers embarked after Clearance to be delivered by Master.*—If at any time after such lists have been signed and delivered, any additional passenger shall be taken on board, in such case the master shall add to 'the master's list' the names and other particulars of every such additional passenger, and shall also sign a separate list, made out according to the aforesaid form, containing the names and other particulars of every such additional passenger, and such last-mentioned list, when countersigned by the emigration officer, where there is one at the port, shall, with 'the master's list' to which such addition has been made, be delivered to the chief officer of customs, and thereupon such officer shall countersign 'the master's list,' and shall return the same to the said master, and shall refrain the separate list, and so on in like manner whenever any additional passenger or passengers may be taken on board; or if no officer of customs be stationed at the port or place where such additional passenger or passengers may be taken on board, the said lists shall be delivered to the officer of customs at the next port or place at which such vessel shall touch or arrive and where any such officer shall be stationed, to be dealt with as before mentioned: provided, that when any additional passengers are taken on board, the master shall obtain a fresh certificate from the emigration officer of the port that all the requirements of this Act have been duly complied with before the ship proceeded to sea: in case of non-compliance with any of the requirements of this section, the master of such ship shall for each offence be liable to a penalty of not more than 50*l.*, nor less than 5*l.* (Sec. 17.) By the Act of 1863, the regulations of the 16th and 17th secs. are extended to cabin passengers, who are to be distinguished as under and over 12.

*Penalty on Persons found on board Ships without Consent of Owners &c.*—If any person be found on board any 'passenger ship' with intent to obtain a passage therein without the consent of the owner, charterer, or master thereof, such person and every person aiding and abetting him in such fraudulent intent, shall respectively be liable to a penalty not exceeding 5*l.*, and in default of payment to imprisonment, with or without hard labour, for not exceeding 3 calendar months; and such person so found on board may be taken before any justice of the peace, without warrant, and such justice may summarily hear the case, and on proof of the offence, convict such offender as aforesaid. (Sec. 18.) By the Act of 1863 the penalty is extended to 20*l.*

*All Passenger Ships to be surveyed before clearing out.*—No 'passenger ship' shall clear out or proceed to sea unless she has been surveyed, under the direction of the emigration officer at the port of clearance, but at the expense of the owner or charterer thereof, by 2 or more competent surveyors, to be appointed by the said emigration commissioners for each port at which there may be an emigration officer, and for other ports by the

the commissioners of  
appointments are to  
duties of emigration  
by his assistant or by

the inspection of all  
—The master of every  
ship' or otherwise,  
carriage of passengers,  
passengers upon any voyage  
shall afford to the  
port or place in her  
in the case of British  
consular officer at any  
which such ship shall be  
inspecting such ship,  
with the passengers and  
provisions of this Act,  
be applicable to such  
applied with; the master  
it or fail to comply with  
of this section, shall be  
ceeding 50*l.* (Sec. 16.)  
clear with a Certificate  
ge.—No ship fitted out  
of passengers as a 'passen-  
ger' or proceed to sea shall  
have obtained from the  
port of clearance a certifi-  
cate in his hand that all the  
requirements of this Act,  
so far as the same con-  
cern the departure of such  
ship, shall be complied with,  
and that such compliance  
is satisfactory, in safe trim,  
and intended voyage, and that  
the crew are in a fit state to pro-  
ceed. The master shall have joined in  
the Crown as required by  
this Act, provided, that if such emi-  
gration officer refuse to grant such certifi-  
cate, or charterer of such ship  
refuse to sign such certificate, or  
if the emigration officer shall appoint  
two assessors, or any 2 competent  
persons, one of the appellants, to  
hear, and if the persons so  
appointed shall certify under the  
port hereinafore required to be  
held to be of the same value  
as the emigration officer of the  
port. (Sec. 11.)

may be carried.—No ship  
of cabin passengers shall  
be provided, that cabin passen-  
gers shall not exceed, in any  
ship, the number of cabin passen-  
gers of the ship's tonnage, as  
certified in the certificate of  
hospital, as after provided,  
on the poop or deck house, or  
on any other part of the ship,  
where passengers are carried on 2  
other decks, such passengers  
shall be carried under the  
poop or deck house, such pas-  
sengers shall be properly  
satisfied, for any breach of  
this section, the master of the  
ship shall be liable to a  
penalty not exceeding 50*l.*  
sterling. (Sec. 13.)  
The Number of Passengers  
determining the number of  
passengers in any 'passenger  
ship' shall be observed:—  
The number of passengers shall  
be observed under the poop or  
on the upper passenger  
house, or on the upper pas-  
senger deck, or on the upper  
passenger deck, or on the  
statute adult to every 18  
deck allotted to their use.

commissioners of customs, nor unless it shall be reported by such surveyors that such 'passenger ship' is in their opinion seaworthy, and fit for her intended voyage. The survey shall be made before any part of the cargo is taken on board, except so much as may be necessary for ballasting the ship, and such portion of cargo if laden on board shall be shifted, if required by the emigration officer or surveyors, so as to expose to view successively every part of the frame of the ship. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty not exceeding 100*l*. nor less than 5*l*.: provided always, that in case any 'passenger ship' be reported by such surveyors not to be seaworthy, or not fit for her said intended voyage, the owner or charterer, if he think fit, may require, by writing under his hand, the emigration officer, or in his absence the chief officer of customs, to appoint 3 other competent surveyors, of whom 2 at least shall be shipwrights, to survey the said ship, at the expense of the said owner or charterer; and the said officer shall thereupon appoint such surveyors, who shall survey the said ship, and if they shall, by an unanimous report under their hands (but not otherwise), declare the said ship to be seaworthy, and fit for her intended voyage, the said ship shall then, for the purposes of this Act, be deemed seaworthy for such voyage. (Sec. 19.)

**As to the Construction of Beams and Decks.**—In every 'passenger ship' the beams supporting the 'passenger decks' shall form part of the permanent structure of the ship: they shall be of adequate strength, in the judgment of the emigration officer at the port of clearance, and shall be firmly secured to the ship to his satisfaction. The 'passenger decks' shall be at least 1½ in. in thickness, and shall be laid and firmly fastened upon the beams continuously from side to side of the compartment in which the passengers are berthed. The height between that part of any deck on which passengers are carried and the deck immediately above it shall not be less than 6 ft. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty of not more than 50*l*. nor less than 5*l*. (Sec. 20.)

**Arrangement and Size of Berths.**—There shall not be more than 2 tiers of berths on any 1 deck in any 'passenger ship,' and the interval between the floor of the berths and the deck immediately beneath them shall not be less than 6 in., nor the interval between each tier of berths and between the uppermost tier and the deck above it less than 2½ ft.: the berths shall be securely constructed, and of dimensions not less than 5 ft. in length and 18 in. in width for each statute adult, and shall be sufficient in number for the proper accommodation of all the passengers contained in the lists of passengers hereinbefore required to be delivered by the master of the ship. No part of any berth shall be placed within 9 in. of any water-closet, erected in the between-decks. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty not exceeding 50*l*. nor less than 5*l*. (Sec. 21.)

**Single Men to be berthed in a Separate Compartment.**—In every 'passenger ship' all the male passengers of the age of 14 years and upwards who do not occupy berths with their wives shall, to the satisfaction of the emigration officer at the port of clearance, be berthed in the fore part of the ship,

in a compartment divided off from the space appropriated to the other passengers by a substantial and well secured bulk-head, without opening into, or communication with, any adjoining passenger berth, or in separate rooms the ship be fitted with enclosed berths. Not more than 1 passenger, unless husband and wife, or females or children under 12 years of age, shall be placed in or occupy the same berth. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty of not more than 50*l*. nor less than 5*l*. (Sec. 22.)

**Berths not to be removed till Passengers are landed.**—No berths in a 'passenger ship' occupied by passengers during the voyage shall be taken down until 48 hours after the arrival of such ship at the port of final discharge, unless all the passengers shall have voluntarily quitted the ship before the expiration of that time. In case of non-compliance with any of the requirements of this section, the master of such ship shall be liable for each offence to a penalty not exceeding 50*l*. nor less than 5*l*. (Sec. 23.)

**Space to be allotted as an Hospital.**—In every 'passenger ship' there shall be a sufficient space properly divided off to the satisfaction of the emigration officer at the port of clearance, to be used exclusively as an hospital or hospitals for the passengers: this space shall be under the poop, in the round house, or in any deck house which shall be properly built and secured to the satisfaction of such emigration officer, or on the passenger deck, and not elsewhere, and shall in case be less than 18 clear superficial feet for every 50 passengers which the ship shall carry. Such hospitals shall be fitted with bed-places, and supplied with proper beds, bedding, and steens to the satisfaction of the emigration officer at the port of clearance, and throughout the voyage be so fitted and supplied. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship shall for each offence be liable to a penalty not exceeding 50*l*. nor less than 5*l*. (Sec. 24.)

**Regulation as to the Construction of Privies.**—Every 'passenger ship' shall clear out or proceed to unless fitted, to the satisfaction of the emigration officer at the port of clearance, with at least 2 privies, and with 2 additional privies on deck every 100 passengers on board, and in all ships carrying as many as 50 female passengers, with at least 2 water-closets under the poop, or elsewhere on the upper deck, to the satisfaction of the emigration officer, for the exclusive use of women and young children; all of which privies and water-closets shall be firmly constructed and maintained in a serviceable and cleanly condition throughout the voyage, and shall not be taken down until the expiration of 48 hours after the arrival of the ship at the port of final discharge, unless all the passengers sooner quit the ship; provided that such privies shall be placed in numbers on each side of the ship, and need in any case exceed 12 in number. In case of non-compliance with any of the requirements of this section, the master shall be liable to a penalty for each offence of not more than 50*l*. nor less than 5*l*. (Sec. 25.)

**As to Light and Ventilation.**—No 'passenger ship' shall clear out or proceed to sea without such provisions for affording light and air to the passenger decks as the circumstances of the case may, in the judgment of the emigration officer at the port of clearance, require; nor if there are more than 100 passengers on board, without having

an adequate and proper ventilating apparatus, to be approved by such emigration officer and fitted to his satisfaction; the passengers shall, moreover, have the free and unimpeded use of the whole of each hatchway situated over the space appropriated to their use, and over each such hatchway there shall be erected such a boobyhatch or other substantial covering as shall, in the opinion of such emigration officer, afford the greatest amount of light and air, and of protection from wet, as the case will admit. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec. 26.)

**Regulations as to the Carrying of Boats.**—Every passenger ship shall carry throughout the voyage a number of boats according to the following scale: viz.:

- 1 boat for every ship of less than 200 tons;
- 2 boats for every ship of 200 and less than 400 tons;
- 3 boats for every ship of 400 and less than 600 tons;
- 4 boats for every ship of 600 and less than 1,000 tons;
- 5 boats for every ship of 1,000 and less than 1,500 tons;
- 6 boats for every ship of 1,500 tons and upwards;

provided that no 'passenger ship' shall be required to carry a greater number of boats than are sufficient, in the judgment of the emigration officer at the port of clearance, to carry all the persons on board of such ship:

(One of such boats shall in all cases be a long boat, and one shall be a properly fitted life boat, which shall be carried in such a manner as to be, in the opinion of the emigration officer, most available for immediate service: each of such boats shall be of a suitable size and description, to be approved by the emigration officer at the port of clearance, and shall be seaworthy, and properly supplied with all requisites, and kept clear at all times for immediate use at sea: there shall likewise be on board each 'passenger ship,' if proceeding to any place to the southward of the equator, at least 2 chronometers, and if to any place to the northward of the equator, at least 1 chronometer, and on board of all 'passenger ships' at least 3 steering and 1 azimuth compass, 4 properly fitted life buoys, kept ready at all times for immediate use, and some adequate means, to be approved by the emigration officer at the port of clearance, of making signals by night and in day; also a fire engine, in proper working order, and of such description and power and either with or without such other apparatus for extinguishing fire as such officer may approve; and not less than 2 lower anchors of such weight, and with cables of such length, size, and material, as in the judgment of such emigration officer shall be sufficient for the size of the ship. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty of not more than 50*l.* nor less than 5*l.* (Sec. 27.)

**Regulations as to Carrying an Efficient Crew.**—Every passenger ship shall be manned with an efficient crew for her intended voyage, to the satisfaction of the emigration officer from whom a clearance of such ship may be demanded, and the strength of the crew shall not be diminished, nor any of the men changed when once passed by the emigration officer, without his consent in writing, or that of the shipping master of the port of clearance, as required by the laws then in force

regulating the shipping of seamen on board merchant vessels. Where the consent of the shipping master is obtained, it shall, within 24 hours thereafter, be lodged with such emigration officer. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l.*; provided, that if the emigration officer shall consider the crew inefficient, and the owner or charterer of the ship shall thereupon appeal in writing to the said emigration commissioners, such commissioners shall, at the expense of the appellant, appoint 2 other emigration officers or 2 competent persons to examine into the matter, and the unanimous opinion of the persons so appointed, expressed under their hands, shall be conclusive on the point. (Sec. 28.)

**Certain Articles prohibited as Cargo and Ballast.**—No 'passenger ship' shall clear out or proceed to sea if there shall be on board as cargo, horses, cattle, gunpowder, vitriol, lucifer matches, guano, or green hides, nor if there shall be on board any other article or number of articles, whether as cargo or ballast, which by reason of the nature or quantity or mode of stowage thereof shall, either singly or collectively, be deemed by the emigration officer at the port of clearance likely to endanger the health or lives of the passengers or the safety of the ship; no part of the cargo, or of the passengers' luggage, or of the provisions, water, or stores, whether for the use of the passengers or of the crew, shall be carried on the upper deck, or on the 'passenger decks,' unless, in the opinion of such emigration officer, it shall be so placed as not to impede light or ventilation, nor interfere with the comfort of the passengers; nor unless the same be stowed and secured to the satisfaction of such emigration officer, and the space occupied thereby or rendered, in the opinion of such officer, unavailable for the accommodation of the passengers, shall (unless occupied by passengers' luggage) be deducted in calculating the space by which, under the provisions of this Act, the number of passengers is regulated. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master, or any of them, shall for each offence be liable to a penalty not exceeding 300*l.* nor less than 5*l.* (Sec. 29.)

By the Act of 1863, horses and cattle may be carried in 'passenger ships' under these conditions:—

1. The animals not to be carried on any deck below that in which passengers are berthed, nor in any compartment in which passengers are berthed, nor in any adjoining compartment; except in a ship built of iron, and of which the compartments are divided off by water-tight bulkheads extending to the upper deck.
2. Clear space on the spar or weather deck to be left at 10 superficial feet for each adult.
3. In 'passenger ships' of less than 500 tons registered passage, not more than two head of large cattle to be carried, nor in larger ships more than one additional head for each 200 tons, nor in any ship more than ten head. Large cattle to be oxen or cows, deer, horses, and asses. Four sheep of either sex, and four female goats, to be equal to one large cattle.
4. Emigration officer to be satisfied as to housing, maintenance, and cleanliness of animals, and stowage of fodder.
5. Not more than six dogs, and no pigs or male goats, to be carried in any 'passenger ship.'

Penalty for violating these rules, in case of owner, charterer, or master of ship, 5*l.* to 300*l.*

**Computation of Voyages.**—For the purposes of this Act, the length of the voyage for a 'pas-

senger ship' proceeding from the United Kingdom to the under-mentioned places respectively, shall be determined by the following scale; viz.— (See first table, annexed).

For the like purposes, the said emigration commissioners, acting by and under the authority of one of her Majesty's principal secretaries of state, from time to time, by any notice in writing issued under the hands of any 2 such commissioners, and published in the *London Gazette*, may nevertheless decline what shall be deemed to be the length of the voyage from the United Kingdom to any of the before-mentioned places, or to any other port or place whatsoever, and may fix such different lengths of voyage as they may think reasonable for such different descriptions of vessels as aforesaid. (Sec. 30.)

**Before Clearance, Provisions and Water to be surveyed.**—Before any 'passenger ship' be cleared out, the emigration officer at the port of clearance shall survey, or cause to be surveyed, by some competent person, the provisions and water required by this Act to be on board for the consumption of the passengers, and shall satisfy himself that the same are of a good and wholesome

quality, and in a sweet and good condition, and are in quantities sufficient to secure throughout the voyage the issues herein prescribed: in addition to the allowance of pure water for the use of each passenger, there shall be shipped for cooking purposes an additional supply of pure water, after the rate of at least 10 gallons for every day of the prescribed length of voyage for every 100 statute adults on board; and also for the use of the crew and all other persons on board an ample supply of wholesome provisions and pure water, which shall not be inferior in quality to the supply of the same articles provided for the consumption of the passengers: all such water, provisions, and stores shall be provided and properly stowed away in accordance with the requirements of the 29th section of this Act, by and at the expense of the owner, charterer, or master of the ship: and if a clearance be obtained for any 'passenger ship' which is not then stored with the requisite quantities of such water, provisions, and stores as are required by this Act, the owner, charterer, or master of such ship, or any of them, shall for each offence be liable to a penalty not exceeding 300*l.* (Sec. 31.)

	If the ship be propelled by sails alone, or by steam power not sufficient without the aid of sails to propel the ship after the rate of 5 miles an hour.	If the ship be propelled wholly or in aid of sails by steam engines of not less power than sufficient, without the aid of sails, to propel the ship after the rate of 10 miles an hour.
To North America (except the W. coast thereof): For ships clearing out between January 16 and October 14, both days inclusive	days	days
For ships clearing out between October 15 and January 15, both days inclusive	70	40*
To the West Indies, and any part of the E. coast of Central or South America, N. of the Equator	80	45†
To any part of the E. coast of South America lying between the Equator and the 25th deg. of N. lat.	80	40
To the W. coast of Africa N. of the Equator	84	53
To the coast of Africa S. of the Equator, or to the Falkland Islands, or to any part of the E. coast of South America, S. of the 25th deg. of S. lat.	84	50
To the Mauritius, and to the W. coast of America, S. of the Equator	103	65
To Ceylon	126	75
To Western Australia	140	85
To any other of the Australian colonies	120	85
To New Zealand and to the W. coast of America between the Equator and the 4th deg. of N. lat.	140	90
To the W. coast of America N. of the 10th deg. of N. lat. and the Islands adjacent thereto	150	90
	182	96

\* For Steamers 52 days.

† For Steamers 57 days.

**Power to Emigration Officer to reject and mark Bad Provisions &c.**—If such emigration officer shall consider that any of the provisions or stores or water are not of a good and wholesome quality, or are not in a sweet and good condition, it shall be lawful for him to reject and mark the same, or the packages or vessels in which they are contained, and to direct the same to be landed or emptied; and if such rejected provisions or stores or water be not thereupon forthwith landed or emptied, or if, after being landed, the same or any part thereof shall be reshipped in such ship, the owner, charterer, or master thereof, or any of them, or if reshipped into any other 'passenger ship,' the person causing the same to be reshipped, shall for each offence be liable to a penalty not exceeding 100*l.* (Sec. 32.)

**Water Tanks or Casks to be approved by Emigration Officer.**—In every 'passenger ship' the water to be laden on board, as herein required, shall be carried in tanks or in casks, to be approved by the emigration officer at the port of clearance. When casks are used, they shall be sweet and tight, of sufficient strength, and if of wood properly charred inside, and shall not be capable severally of containing more than 300 gallons each: the staves of the water casks shall not be made of fir, pine, or soft wood. In case of non-compliance with any of the requirements of this section, the owner,

charterer, or master of such ship, or any of them, shall for each offence be liable to a penalty not more than 50*l.* (Sec. 33.)

By orders in council of May 5, 1857, and December 5, 1865, steamers and sailing vessels which carry an approved apparatus for distilling fresh from salt water of not less than one gallon per diem for each person on board, need not carry in tanks or casks one-half the water prescribed by the Act.

**Provision for touching at intermediate Ports and fill up Water.**—If any 'passenger ship' be intended to call at any intermediate port or place during the voyage, for the purpose of taking in water, and if an engagement to that effect be inserted in the bond mentioned in the 63rd section of this Act, then it shall be sufficient to place on board at the port of clearance such supply of water as may be requisite, according to the rate hereinafter mentioned, for the voyage of the said ship to such intermediate port or place, subject to the following conditions; viz. :—

1. That the emigration officer signify his approval in writing of the arrangement, to be carried amongst the papers of the ship, and exhibited to the chief officer of customs, or to her Majesty's consular officer, as the case may be, at such intermediate port or place, and to be delivered to the chief officer of customs, or to be

Majesty's consular officer, as the case may be, on the arrival of the said ship at the final port or place of discharge:

2. That if the length of either portion of the voyage, whether to such intermediate port or place, or from such intermediate port or place, to the final port or place of discharge, be not prescribed in or under the provisions of this Act, the emigration officer at the port of clearance shall in every such case declare the same in writing, to be carried amongst the papers of the ship:

3. That the ship shall have on board at the time a clearance is demanded, tanks or water casks, of the description hereinbefore mentioned, sufficient for stowing the quantity of water required for the longest of such portions of the voyage as aforesaid. (Sec. 34.)

**Diary Scales of Provisions.**—The master of

every 'passenger ship' shall, during the voyage, including the time of detention at any place before the termination thereof, issue to each passenger, or where the passengers are divided into messes, to the head man for the time being of each mess, on behalf and for the use of all the members thereof, an allowance of pure water and sweet and wholesome provisions, of good quality, according to the following dietary scale; viz. if the length of the voyage, computed as before mentioned, shall not exceed 84 days for ships propelled by sails only, or 50 days for ships propelled by steam, or steam in aid of sails, then according to the dietary scale marked 'A.:' but if the length of the voyage, computed as aforesaid, shall exceed 84 days for ships propelled by sails only, or 50 days for ships propelled by steam, or steam in aid of sails, then according to the dietary scale marked 'B.'

**WATER.**

Three Quarts of Water daily to each Statute Adult, exclusive of the quantity before specified as necessary for cooking the articles herein required to be issued in a cooked state.

**PROVISIONS.**

Weekly per Statute Adult:

	SCALE A. For Voyages not exceeding 84 days for Sailing Vessels, or 50 days for Steamers		SCALE B. For Voyages exceeding 84 days for Sailing Vessels, or 50 days for Steamers		SCALE C. For Voyages not exceeding 84 days for Sailing Vessels, or 50 days for Steamers		SCALE D. For Voyages exceeding 84 days for Sailing Vessels, or 50 days for Steamers	
	lb.	oz.	lb.	oz.	lb.	oz.	lb.	oz.
Bread or biscuit, not inferior in quality to ordinary biscuit	3	8	3	8	0	2	0	2
White flour	1	0	2	0	0	4	0	4
General	1	8	1	0	0	4	0	4
Rice	1	8	0	8	—	—	—	—
Peas	1	8	1	8	—	—	—	—
Potatoes	2	0	2	0	—	—	—	—
Butter	1	4	1	4	—	—	—	—
Eggs	1	0	1	0	—	—	—	—
Tea	0	2	0	2	—	—	—	—
Sugar	1	0	1	0	—	—	—	—
Salt	—	—	—	—	0	2	0	2
Mustard	—	—	—	—	0	4	0	4
Black or white pepper, ground	—	—	—	—	—	—	—	—
Vinegar	—	—	—	—	One Gill	—	One Gill	—
Lime juice	—	—	—	—	—	—	—	—
Preserved meat	—	—	—	—	—	—	—	—
Suet	—	—	—	—	—	—	—	—
Raisins	—	—	—	—	—	—	—	—
Butter	—	—	—	—	—	—	—	—

By the Act of 1855, the issue of lime juice is confined to the period during which the ship is in the Tropics; during other portions of the voyage, the issue shall be at the discretion of the medical officer, or in case no such person be on board, at that of the master.

**Substitutions.**—Substitutions at the following rates may, at the option of the master of any 'passenger ship,' be made in the above dietary scales, that is to say:—

1 lb. of preserved meat, for 1 lb. of salt pork or beef.

1 lb. of flour or of bread or biscuit, or 1/2 lb. of beef or of pork, for 1 1/2 lb. of oatmeal, or 1 lb. of rice, or 1 lb. of peas.

1 lb. of rice, for 1 1/2 lb. of oatmeal, or vice versa.

1 lb. of preserved potatoes, for 1 lb. of potatoes.

10 oz. of currants, for 8 oz. of raisins.

2 1/2 oz. of cocoa, or of coffee, roasted and ground, for 3 oz. of tea.

2 lb. of treacle, for 1/2 lb. of sugar.

1 gill of mixed pickles, for 1 gill of vinegar.

1/2 lb. of soft bread (Act of 1863) may be issued instead of 1 lb. of flour, biscuit, rice, and peas, or of 1 1/2 lb. of oatmeal.

Provided, that the substituted articles be set forth in the contract tickets of the passengers. In case of non-compliance with any of the requirements of this section, the master of the ship shall be liable for each offence to a penalty not exceeding 50l. (Sec. 35.)

**Size of Messes.**—The messes into which the passengers in any 'passenger ship' may be divided shall not consist of more than 10 statute adults in each mess, and members of the same family, whereof 1 at least is a male adult, shall be allowed to form a separate mess. The provisions according to the above scale shall be issued, such of them as require to be cooked, in a properly cooked state, daily before 2 o'clock in the afternoon, to the head person for the time being of each mess, on behalf and for the use of the members thereof. The first of such issues shall

be made before 2 o'clock in the afternoon of the day of embarkation or for such passengers as shall be then on board. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50l. (Sec. 36.)

**Power to Emigration Commissioners to authorise an alternative Dietary Scale.**—The emigration commissioners for the time being, acting under the authority of 1 of the principal secretaries of state, may from time to time, by any notice for that purpose, issued under the hands of any 2 of such commissioners, and published in the *London Gazette*, authorise the issue of provisions in any 'passenger ship' according to such other dietary scale (besides that before prescribed) as shall in their opinion contain in the whole an equivalent amount of wholesome nutriment; and after the publication of such notice it shall be lawful for the master of any 'passenger ship' to issue provisions to his passengers either according to the scale by this Act prescribed, or according to the scale authorised by the said commissioners, whichever may have been set forth in the contract tickets of the passengers: provided always, that the said commissioners, acting under such authority and by such notice as aforesaid, may revoke or alter any such dietary scale authorised by them, as occasion may require. (Sec. 37.)

**As to Passengers' Stewards.**—Every 'passenger ship' carrying as many as 100 passengers shall have on board a seafaring person, who shall be rated in the ship's articles as passengers' steward, and who shall be approved by the emigration officer at the port of clearance, and who shall be employed in messing and serving out the pro-

in good condition, and to secure throughout as prescribed: in addition water for the use of be shipped for cooking only of pure water, after allons for every day of voyage for every 100 and also for the use of ns on board an ample nsions and pure water, rior in quality to the s provided for the con- s: all such water, pro- s provided and properly e with the requirements his Act, by and at the rterer, or master of the e obtained for any pas- t then stored with the h water, provisions, and his Act, the owner, char- ship, or any of them, liable to a penalty not

If the ship be propelled wholly or in aid of sails by steam engines of not less power than sufficient, without the aid of sails, to propel the ship after the rate of 1 mile an hour.

days	45*	40*	40	50	50	65	75	85	85	90	90	96
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such ship, or any of them, liable to a penalty of 100l.

3.)  
of May 5, 1857, and  
amers and sailing vessel  
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of not less than one gallon  
son on board, need only  
ss one-half the water pre-

g at intermediate Port  
passenger ship' be intere-  
diate port or place of dis-  
ose of taking in water  
o that effect be inserted  
in the 63rd section of the  
ufficient to place on board  
e such supply of water  
ording to the rate herein-  
e voyage of the said ship  
rt or place, subject to the  
iz:—  
ation officer signify his  
f the arrangement, to the  
papers of the ship, and  
ficer of customs, or the  
ficer, as the case may be  
e port or place, and to be  
ficer of customs, or to be

visions to the passengers, and in assisting to maintain cleanliness, order, and good discipline among the passengers, and who shall not assist in any way in navigating or working the ship. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec. 38.)

*As to Passenger Cooks and Cooking Apparatus.*—Every 'passenger ship' carrying as many as 100 passengers, shall also have on board a seafaring man, or if carrying more than 300 'statute adults,' 2 seafaring men, to be rated and approved as in the case of passengers' stewards, who shall be employed in cooking the food of the passengers: a convenient place for cooking shall also be set apart on deck; and a sufficient cooking apparatus, properly covered in and arranged, shall be provided, to the satisfaction of the said emigration officer, together with a proper supply of fuel adequate, in his opinion, for the intended voyage. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec. 39.)

*In what Cases Interpreters to be carried.*—In every foreign 'passenger ship' in which as many as half the passengers are British subjects, unless the master and officers, or not less than 3 of them, shall understand and speak intelligibly the English language, there shall be carried, where the number of passengers does not exceed 250, 1 person, and where it exceeds 250, 2 persons, who understand and speak intelligibly the language spoken by the master and crew and also the English language, and such persons shall act as interpreters, and be employed exclusively in attendance on the passengers, and not in the working of the ship; and no such ship shall clear out or proceed to sea without having such interpreter or interpreters on board; and the master of any such foreign ship clearing out or proceeding to sea without having such interpreter or interpreters on board as aforesaid, shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec. 40.)

*In what Cases a Medical Man must be carried.*—Every 'passenger ship' shall in the following cases carry a duly qualified medical practitioner, who shall be rated on the ship's articles:—

1. When the duration of the intended voyage, as before computed, exceeds 80 days in the case of ships propelled by sails, and 45 days in the case of ships propelled by steam, and the number of passengers on board exceeds 50:
2. Whenever the number of persons on board (including cabin passengers, officers, and crew) exceeds 300:

By order of council of August 9, 1866, issued under sec. 69 of the Act, every 'passenger ship' carrying more than 50 passengers on any voyage to which the Act extends, whatever be the duration of the voyage, must carry a duly qualified medical man.

In case of non-compliance with any of the requirements of this section, the master shall for each offence be liable to a penalty not exceeding 100*l.* nor less than 20*l.* (Sec. 41.)

*Qualification of Medical Man.*—No medical practitioner shall be considered to be duly qualified for the purposes of this Act unless authorised by law to practise in some part of her Majesty's dominions, or, in the case of a foreign ship, in the country to which such ship may belong, as a physician, surgeon, or apothecary, nor unless his name shall have been notified to the emigration

officer at the port of clearance, and shall not be objected to by him, nor unless he shall be provided with proper surgical instruments to the satisfaction of such officer: provided nevertheless, that where the majority of the passengers in any 'passenger ship,' or as many as 300, are foreigners, any medical practitioner who may be approved by such emigration officer may be carried therein. In case any person shall proceed or attempt to proceed as medical practitioner in any 'passenger ship' without being duly qualified as aforesaid, or contrary to any of the requirements of this section, such person, and all persons aiding or abetting therein, shall for each offence be liable to a penalty not exceeding 100*l.* nor less than 10*l.* (Sec. 42.)

*Medicines and Medical Comforts.*—The owner or charterer of every 'passenger ship' shall provide for the use of the passengers a supply of medicines, medical comforts, instruments, and other things proper and necessary for diseases and accidents incident to sea voyages, and for the medical treatment of the passengers during the voyage, including an adequate supply of disinfecting fluid or agent, together with pointed or written directions for the use of the same respectively; and such medicines, medical comforts, instruments, and other things shall, in the judgment of the emigration officer at the port of clearance, be good in quality, and sufficient in quantity, for the probable exigencies of the intended voyage, and shall be properly packed and placed under the charge of the medical practitioner, when there is one on board, to be used at his discretion. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 10*l.* (Sec. 43.)

*Medical Inspection of Passengers and Medicines.*—No 'passenger ship,' except as after provided, shall clear out or proceed to sea until some medical practitioner, to be appointed by the emigration officer at the port of clearance, shall have inspected such medicines, medical comforts, and other articles as are required to be supplied by the last section, and also all the passengers on crew about to proceed in the ship, and shall have certified to the said emigration officer that the said ship contains a sufficient supply of medicines, medical comforts, disinfecting fluid or agent, instruments, and other things requisite for the medical treatment of the passengers during the intended voyage, nor until such medical practitioner shall have certified, and the said emigration officer shall be satisfied, that none of the passengers or crew appear, by reason of any bodily or mental disease, unfit to proceed, or likely to endanger the health or safety of the other persons about to proceed in such vessel. Such medical inspection of the passengers shall take place either on board the vessel, or, at the discretion of the said emigration officer, at such convenient place on shore before embarkation as he may appoint; and the master, owner, or charterer of the ship shall pay to such emigration officer a sum at the rate of 1*l.* for every 100 persons so examined: provided also, that in case the emigration officer on any particular occasion shall be unable to obtain the attendance of a medical practitioner, it shall be lawful for the master of any such ship to clear out and proceed to sea, on receiving from the said emigration officer written permission for that purpose. In case any 'passenger ship' shall clear out or proceed to sea without having complied with all the requirements of this section, the master of such ship shall for each offence be

liable to a penalty not exceeding 100*l.*, nor less than 5*l.* (Sec. 41.)

**Reland of Passengers on account of Sickness or for purifying Ships.**—If the emigration officer at any port shall be satisfied that any person on board or about to proceed in any 'passenger ship' is by reason of sickness unfit to proceed, or is for that or for any other reason likely to endanger the health or safety of the other persons on board, the said emigration officer shall prohibit the embarkation of such person, or if embarked shall require him to be re-landed; and if such emigration officer shall be satisfied that it is necessary, for the purification of the ship or otherwise, that all or any of the passengers or persons on board should be re-landed, the said emigration officer may require the master of the ship to re-land all such passengers or persons, and the master shall thereupon re-land such passengers or persons, with so much of their effects and with such members of their families as cannot, in the judgment of such emigration officer, be properly separated from them; and in case of non-compliance with any of the requirements of this section, the master, owner, or charterer of the ship shall for each offence be liable to a penalty not exceeding 200*l.* nor less than 10*l.*; and any passenger or person embarking after such prohibition, or refusing or neglecting to leave the ship when so directed to be re-landed, shall be liable to be summarily removed, and to a penalty not exceeding 2*l.* for each day which he shall remain on board after the giving of such prohibition or direction. (Sec. 45.)

**Return of Passage Money to Passengers re-landed on account of Sickness &c.**—Any passenger so re-landed on account of the sickness of himself or of any member of his family, who may not be re-embarked and finally sail in such ship, or any emigration officer on his behalf, shall be entitled to recover, by summary process, the whole of the moneys which may have been paid by or on account of such passenger for his passage, and that of the members of his family so re-landed, from the party to whom the same may have been paid, or from the owner, charterer, or master of such ship, or any of them, at the option of such passenger or emigration officer. (Sec. 46.) The same regulation now applies to cabin passengers. But they can recover only half of their passage money.

**Subsistence Money to be paid to Passengers re-landed.**—The master of any 'passenger ship,' from which the whole or any part of the passengers shall be re-landed on account of any of the reasons mentioned in sec. 45, shall pay to each passenger so re-landed (or if he shall be lodged and maintained in any hulk or establishment under the superintendence of the said emigration commissioners, then to the emigration officer at the port) subsistence money at the rate of 1*s.* 6*d.* a day for each statute adult until he shall be re-embarked, or decline or neglect to proceed, or until his passage money, if recoverable under sec. 45 of this Act, be returned to him. (Sec. 47.)

**Return of Passage Money &c.**—If any person by whom or on whose behalf any contract shall have been made for a passage in any ship proceeding on any voyage to which this Act extends, shall be at the place of embarkation before 6 o'clock in the afternoon of the day of embarkation appointed in such contract, and shall, if required, pay the stipulated passage money, or the unpaid balance thereof, and if from any cause whatever, other than his own refusal, neglect, or default, or the prohibition of an emigration officer, as before mentioned, or the requirements of any order in pursuance thereof, such passenger shall not be received on board before that hour, or if from any such cause

as aforesaid any passenger who shall have been received on board shall not either obtain a passage in such ship to the port at which he may have contracted to land, or, together with all the immediate members of his family who may be included in such contract, obtain a passage to the same port in some other equally eligible ship, to sail within 10 days from the expiration of the said day of embarkation, and in the meantime be paid subsistence money from the time and at the rate after mentioned, such passenger, or any emigration officer on his behalf, shall be entitled to recover either from the party to whom or on whose account the same may have been paid, or (in case such contract shall have been made with the owner, charterer, or master of such ship or with any person acting on behalf or by the authority of any of them respectively) from such owner, charterer, or master of such ship, or any of them, at the option of such passenger or emigration officer, all moneys which shall have been paid by or on account of such passengers for such passage, and also such further sum, not exceeding 10*l.*, in respect of each such passage, as shall, in the opinion of the justices of the peace who shall adjudicate on the complaint, be a reasonable compensation for the loss or inconvenience occasioned to such passenger by the loss of such passage. (Sec. 48.)

**Subsistence in case of Detention.**—If any ship, whether a 'passenger ship' or otherwise, shall not actually put to sea, and proceed on her intended voyage before 3 o'clock in the afternoon of the day next after the said day of embarkation, the owner, charterer, or master of such ship, or his or their agent, or any of them, at the option of such passenger or emigration officer, shall pay to every passenger entitled to a passage (or if such passenger shall be lodged and maintained in any establishment under the superintendence of the said emigration commissioners, then to the emigration officer at the port of embarkation), subsistence money after the rate of 1*s.* 6*d.* for each statute adult in respect of each day of delay for the first 10 days, and afterwards 3*s.* a day for each statute adult, until the final departure of such ship on such voyage, and the same may be recovered in manner after mentioned: provided that, if the passengers be maintained on board in the same manner as if the voyage had commenced, no such subsistence money shall be payable for the first 2 days next after the said day of embarkation, nor if they shall be maintained shall such subsistence money be payable if the ship be unavoidably detained by wind or weather, or by any cause not attributable, in the opinion of the emigration officer, to the act or default of the owner, charterer, or master. (Sec. 49.)

**Ships putting back to replenish Provisions &c.**—If any 'passenger ship' shall, after clearance, be detained in port for more than 7 days, or shall put into or touch at any port or place in the United Kingdom, she shall not put to sea again until there shall have been laden on board, at the expense of the owner, charterer, or master of such ship, such further supply of pure water, wholesome provisions of the requisite kinds and qualities, and medical comforts and stores, as may be necessary to make up the full quantities of those articles before required to be laden on board for the intended voyage, nor until any damage she may have sustained shall have been effectually repaired, nor until the master of the said ship shall have obtained from the emigration officer or his assistant, or, where there is no such officer, or in his absence, from the officer of customs at such port or place, a certificate to the same effect as the certificate

before required to enable the ship to be cleared out; and in case of any default herein, the said master shall be liable, on conviction, as hereinafter mentioned, to a penalty not exceeding 100*l.* nor less than 50*l.* And if the master of any 'passenger ship' so putting into or touching at any port or place as aforesaid, shall not within 12 hours thereafter report, in writing, his arrival, and the cause of his putting back, and the condition of his ship, and of her stores and provisions, to the emigration officer, or, as the case may be, to the officer of customs at the port, and shall not produce to such officer the official or 'master's list' of passengers, such master shall for each offence be liable to a penalty not exceeding 20*l.* nor less than 2*l.* (Sec. 50.)

*Secretary of State &c. may pay Expenses of taking off Passengers at Sea.*—If the passengers or cabin passengers of any 'passenger ship' shall be taken off from any such 'passenger ship,' or shall be picked up at sea from any boat, raft, or otherwise, it shall be lawful, if the port or place to which they shall be conveyed shall be in the United Kingdom, for one of the principal secretaries of state, or if in any colonial possession, for the governor of such colony, or for any person authorised by him for the purpose, or if in any foreign country, for her Majesty's consular officer, at such port or place therein, to defray all or any part of the expenses thereby incurred. (Sec. 52.)

In place of the 12th, 51st, 53rd, & 54th clauses of the Act of 1855, the following are substituted in the Act of 1863 (26 & 27 Vict. c. 51):—

If any 'passenger ship' shall clear out or proceed to sea, without the master having first obtained a certificate of clearance, or without his having joined in executing such bond to the Crown as by the said Passengers Act of 1855 are required, or if such ship, after having put to sea, shall put into any place or port of the United Kingdom in a damaged state, or shall leave, or attempt to leave, such port or place with passengers on board, without the master having first obtained such certificate of clearance as is required by sec. 58 of the said Passengers Act of 1855, such ship shall be forfeited to the use of her Majesty, and may be seized by any officer of customs, if found within 2 years from the commission of the offence in any port or place of her Majesty's dominions, and such ship shall thereupon be dealt with in the same manner as if she had been seized as forfeited for an offence, incurring forfeiture under any of the laws relating to the customs. (26 & 27 Vict. c. 51 s. 13.)

If any 'passenger ship' be wrecked, or otherwise rendered unfit to proceed on her intended voyage, while in any port of the United Kingdom or after the commencement of the voyage, and if any of the passengers be brought back to the United Kingdom, or if any passenger ship shall put into any port or place in the United Kingdom in a damaged state, the master, charterer, or owner shall, within 48 hours, give the nearest emigration officer, or, in the absence of such officer, the chief officer of customs, a written undertaking to the effect: 1. Transfer of passengers, if necessary, to some other ship, to sail within 6 weeks for the port or place for which their passages had been taken. 2. Maintenance or payment at the rate of 1*s.* 6*d.* a day to each statute adult. If these conditions are not complied with, passengers may recover passage money by summary process. Passengers may be removed from damaged ships, if emigration officer requires, under a penalty of 40*s.* or imprisonment for 1 calendar month if any passenger refuse to leave. (Sec. 14.)

Governors or consuls may forward passengers,

left without fault of their own, unless master of ship gives, within 48 hours of passengers' arrival, a written undertaking to forward the passengers within 6 weeks. (Sec. 15.)

Expenses under this and preceding section and those of sec. 52 of the Passengers Act to be a debt to the Crown. But passengers forwarded by the governor or consul are not entitled to the return of passage money. Not more than twice the total amount of passage money to be recoverable against the charterer, master &c. (Sec. 16.)

In all particulars the Act of 1863 and the Passengers Act of 1855 shall be construed together as one Act. (Sec. 18.)

*Insurance of Passage Money not to be void on account of the nature of the Risk.*—No policy of assurance effected in respect of any passages, or of any passage or compensation money, by any person by this Act made liable, in the event aforesaid, to provide such passages or to pay such moneys, or in respect of any other risk under this Act, shall be deemed to be invalid by reason of the nature of the risk or interest sought to be covered by such policy of assurance. (18 & 19 Vict. c. 119 s. 55.)

*Penalty on wrongfully landing Passengers.*—any passenger in any ship, whether a 'passenger ship' or otherwise, shall be landed at any port or place other than the port or place at which he may have contracted to land, unless with his previous consent, or unless such landing shall be rendered necessary by perils of the sea, or other unavoidable accident, the master shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 10*l.* (Sec. 56.)

*Passengers to be maintained for 48 Hours after Arrival.*—Every passenger in a 'passenger ship' shall be entitled, for at least 48 hours next after his arrival at the end of his voyage, to sleep in the ship, and to be provided for and maintained on board thereof, in the same manner as during the voyage, unless within that period the ship shall quit such port or place in the further prosecution of her voyage. In case of non-compliance with any of the requirements of this section, the master shall for each offence be liable to a penalty not exceeding 5*l.* (Sec. 57.)

*Passengers' Right of Action preserved.*—Nothing herein contained shall take away or abridge the right of action which may accrue to any passenger in any ship, or to any other person, in respect of the breach or non-performance of any contract made or entered into between or on behalf of such passenger or other person, and the master, charterer, or owner of any such ship, or his agent, or any passage broker. (Sec. 58.)

*Her Majesty's Orders in Council, power to prescribe Rules for Purposes herein described.*—It shall be lawful for her Majesty, by any order in Council, to prescribe such rules and regulations as to her Majesty may seem fit, for the following purposes, viz.:

1. For preserving order, promoting health, and securing cleanliness and ventilation on board 'passenger ships' proceeding from the United Kingdom to any port or place in her Majesty's possessions abroad.
2. For permitting the use on board of 'passenger ships' of an apparatus for distilling water, and for defining in such case the quantity of water to be carried in tanks or casks for the passengers.
3. For prohibiting emigration from any ports at any time when choleraic or any epidemic disease may be generally prevalent in the United Kingdom or any part thereof, or for reducing the number of passengers allowed to be carried

'passenger ships' generally, or from any particular parts under the provisions of this Act.

4. For requiring duly qualified medical practitioners to be carried in 'passenger ships' in cases where they would not be required to be carried under the provisions of this Act.

Any such order in council may from time to time in like manner be altered, amended, and revoked, as occasion may require. Any copy of such order in council contained in the *London Gazette*, or purporting to be printed by the Queen's printer, shall throughout her Majesty's dominions be received in all legal proceedings as good and sufficient evidence of the making and contents of any such order in council. (Sec. 59.)

*Navigation or Master to exact Obedience to Rules and Regulations.*—In every such 'passenger ship' the medical practitioner on board, aided by the master thereof, or, in the absence of such medical practitioner, the master of such ship, is hereby empowered to exact obedience to all rules and regulations which may be prescribed by any such order in council to be observed on board 'passenger ships' as aforesaid; and any person on board who shall neglect or refuse to obey any such rule or regulation, or who shall obstruct the medical practitioner or master of such ship in the execution of any duty imposed upon him by any such rule or regulation, or who shall offend against any of the provisions of this Act, or who shall be guilty of riotous or insubordinate conduct, shall be liable for each offence to a penalty not exceeding 2*l.*, and in addition thereto, to be confined in the common goal for any period not exceeding 1 month, at the discretion of the justice who shall adjudicate on the complaint. (Sec. 61.)

*Emigration Commissioners to prepare an Abstract of Act and Orders in Council.*—The said emigration commissioners shall from time to time prepare such abstracts as they may think proper of the whole or any part of this Act, and of any such order in council as aforesaid; and four copies of such abstracts, together with a copy of this Act, shall on demand, be supplied by the principal officer of customs at the port of clearance to the master of every 'passenger ship' proceeding from the United Kingdom to any port or place in her Majesty's possessions abroad; and such master shall, on request made to him, produce a copy of this Act to any passenger on board, for his perusal, and, further, shall post, previous to the embarkation of the passengers, and shall keep posted so long as any passenger shall be entitled to remain in the ship, in at least two conspicuous places between the decks on which passengers are to be carried, copies of such abstracts; and such master shall be liable to a penalty not exceeding 5*l.* for every day during any part of which by his neglect or default such abstracts shall fail to be so posted; and any person displacing or defacing such abstracts so posted shall be liable to a penalty not exceeding 2*l.* (Sec. 61.)

*Sale of Spirits prohibited on board 'Passenger Ships.'*—If in any 'passenger ship' any person shall during the voyage, directly or indirectly, or cause to be sold any spirits or strong liquors to any passenger, he shall be liable for every such offence to a penalty not exceeding 20*l.* (Sec. 62.)

*Bond to be given by Masters of British and Foreign 'Passenger Ships.'*—Before any 'passenger ship' shall clear out or proceed to sea, the master, charterer with the owner or charterer of the ship, or, in the event of the absence of such owner or charterer, or if the master be the owner or charterer, some other good and sufficient person, to be ap-

proved by the chief officer of customs at the port of clearance, shall enter into a joint and several bond, in the sum of 2,000*l.*, to her Majesty, her heirs and successors, according to the form contained in schedule annexed to the Act. Such bond shall not be liable to stamp duty, and shall be executed in duplicate. (Sec. 63.) By the Act of 1863 (sec. 17), the amount of the bond is raised to 5,000*l.*

Clause 64 enacts that a counterpart of the bond referred to shall be certified, and sent to the colony to which the ship is bound, and be received in evidence without proof of execution.

*In the Absence of Agreement to the contrary, the Owner to be responsible in respect of Default.*—In the absence of any agreement to the contrary, the owner shall be the party ultimately responsible, as between himself and the other persons hereby made liable in respect of any default in complying with the requirements of this Act; and if any such last-mentioned person shall pay any moneys hereby made payable to or on behalf of any such passengers as aforesaid, the person so paying the same shall be entitled, in the absence of any such agreement as aforesaid, to sue for and recover from the owner the amount so paid, together with costs of suit. (Sec. 65.)

*No Person to act as a Passage Broker without a License.*—No person whatever shall directly or indirectly act as a passage broker in respect of passages from the United Kingdom to any place out of Europe, and not being within the Mediterranean Sea, or shall sell or let, or agree to sell or let, or be in anywise concerned in the sale or letting of passages in any ship, whether a 'passenger ship' or otherwise, proceeding from the United Kingdom to any such place as aforesaid, unless such person, with 2 good and sufficient sureties to be approved by the emigration officer at the port nearest to the place of business of such person, shall have previously entered into a joint and several bond, in the sum of 1,000*l.*, to her Majesty, her heirs and successors, which bond shall be renewed on each occasion of obtaining such license as after mentioned, and shall be in duplicate, without stamps, and one part thereof shall be deposited at the office in London of the said emigration commissioners, and the other part thereof with the emigration officer at the port nearest to the place of business of such person; nor unless such person shall have obtained a license, as after mentioned, to let or sell passages, nor unless such license shall then be in force; and if any person shall offend in any particular against this enactment, every person so offending shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 20*l.*, to be sued for and recovered as after mentioned: provided that such bond shall not be required of any person who shall be one of the sworn brokers of the city of London: provided also, that there shall be excepted from the operation of this section the said emigration commissioners, and any persons contracting with them, or acting under their authority, and also any person acting as the agent of any passage broker in pursuance of an appointment signed by such passage broker, and countersigned by such emigration officer as aforesaid: provided further, that the acts and defaults of any person acting under the authority or as agent of any passage broker shall, for the purposes of this Act, be deemed to be also the acts and defaults of such passage broker: provided also that nothing before contained shall be held or construed to prevent the said emigration officer from accepting the bond of a guarantee society, such bond and such guarantee

society as shall have been approved by the commissioners of her Majesty's treasury, in lieu of the bond of 2 good and sufficient securities as aforesaid. (Sec. 66.)

Clause 67 directs how passage brokers are to obtain licenses.

Clause 68 limits the duration of the then existing licenses.

Clause 69 enacts that passage brokers shall employ no agents except those expressly appointed by them.

*Penalty on Persons fraudulently inducing others to engage Passage.*—If any person shall by false representation as to the size of a ship, or otherwise, or by any false pretence or fraud whatsoever, induce any person to engage a passage in any ship, the person so offending shall for each offence be liable to a penalty not exceeding 20*l.* nor less than 5*l.* (Sec. 70.)

*Contract Tickets for Cabin and other Passengers.*—Every person whatever, except the said emigration commissioners and persons acting for them and under their direct authority, who shall receive money from any person for or in respect of a passage in any ship, or of a cabin passage in any 'passenger ship' proceeding from the United Kingdom to any place out of Europe, and not being within the Mediterranean Sea, shall give to the person paying such money a contract ticket, signed by the owner, charterer, or master of the ship or 'passenger ship' (as the case may be) in which the passage is to be provided, or by some person in their or his name, and on their or his behalf: such contract ticket shall be made out in plain and legible characters on a printed form, which in the case of cabin passengers shall be according to the form contained in schedule annexed to the Act, and in the case of all other passengers in the form contained in schedule L. hereto annexed, or according to such other form as in either case may from time to time be prescribed by the said emigration commissioners in any notice issued under their hands, or the hands of any two of them, and published in the *London Gazette*:—and any directions contained on the face of such form of contract ticket shall be obeyed in the same manner as is herein set forth. In case of non-compliance with any of the requirements of this section, or of any of the directions on such form of contract ticket not inconsistent with this Act, the person so offending shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.*: provided always, that such contract tickets shall not be liable to any stamp duty. (Sec. 71.)

Clauses 72 to 94 inclusive relate to matters of detail and to legal procedure.

*Colonial Voyages defined.*—And whereas it is expedient to provide in certain cases for the carriage of passengers by sea from her Majesty's possessions abroad: Be it therefore enacted as follows:

For the purposes of this Act, the term *colonial voyages* shall signify any voyage from any place within any of such possessions (except the territories (then) under the government of the East India Company and the island of Hong Kong) to any place whatever where the distance between such places shall exceed 400 miles, or the duration of the voyage, to be prescribed as hereinafter mentioned, shall exceed 3 days. (Sec. 95.)

*This Act shall apply to all Colonial Voyages, except as relates to Matters herein named.*—This Act shall apply, so far as the same is applicable, to all ships carrying passengers on any such 'colonial voyage,' except as to such parts of the Act as relate to the following matters; viz.:—

1. To passage brokers and their licenses:

2. To passengers' contract tickets:

3. To emigrant runners:

4. To the giving bond to her Majesty:

5. To the keeping on board a copy of this Act:

6. To orders in council regulating emigration from the United Kingdom, or prescribing rules for promoting health, cleanliness, order, and ventilation:

Provided that if the prescribed duration of any 'colonial voyage' be less than three weeks, then in addition to the matters lastly herebefore excepted, the provisions of this Act shall not extend or apply, so far as they relate to the following subjects; viz.:—

The construction or thickness of the decks:

The berths and berthing:

The height between decks:

Privies:

Hospitals:

Light and ventilation:

Manning:

Passengers' stewards:

Passengers' cooks, and cooking apparatus:

The surgeon, and medicine chest:

The maintenance of passengers for 48 hours after arrival:

Provided also, that in the case of such 'colonial voyages' whereof the prescribed duration is less than 3 weeks, the requirements of this Act respecting the issue of provisions shall not, except to the issue of water, be applicable to any passenger who may have contracted to furnish his own provisions. (Sec. 96.)

Clause 97 empowers the governors of colonial India in council, to declare length of voyage and prescribe scale of diet, medicines, and medical comforts.

Clause 99 authorises the Governor-General of India in council, by any Act to be passed for that purpose, to adopt this Act for India, and make rules respecting food, passengers, surgeons, &c.

*List of Passengers brought into the United Kingdom &c.*—The master of every ship bringing passengers into the United Kingdom from any place out of Europe, and not within the Mediterranean Sea, shall, within 24 hours after arrival, deliver to the emigration officer or his assistant, or in their absence to the chief officer of customs at the port of arrival, a correct list, signed by such master, and specifying the names, ages, and callings of all the passengers embarked, and the port or ports at which they respectively have embarked, and showing which, if any of them, may have died, with the supposed cause of death, or been born on the voyage; and if the master shall fail so to deliver such list, or if the same shall be wilfully false, he shall, on conviction, as before mentioned, be liable to a penalty not exceeding 50*l.* Such emigration customs officer shall, upon receipt of such list, transmit the particulars respecting any passengers named therein who may have died, with the supposed cause of death, or been born on the voyage, to the registrar-general of births, deaths, and marriages, who shall file the same, and send a copy thereof under his hand in the 'Marriage Register Book,' which entry shall be deemed to be of the same value as evidence as any other entry made in such book under the provisions of the 6 & 7 Wm. IV. c. 86. (Sec. 100.)

*Penalty on Masters for having on Board a greater Number of Persons than prescribed by this Act.*—If any ship bringing passengers into the United Kingdom from any place out of Europe shall have on board a greater number of passengers

PASSENGERS

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Schedule B.—Form of Passengers' List.

Ship's Name	Master's Name	Tons per Register	Aggregate Number of Superficial Feet in the several Compartments set apart for Passengers other than Cabin Passengers	Total Number of Statute Adults, exclusive of Master, Crew, and Cabin Passengers, which the Ship can legally carry	Where Bound
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I hereby certify, that the provisions actually laden on board this ship are sufficient, according to the requirements of the Passenger Act, for statute adults for a voyage of \_\_\_\_\_ days.

Date \_\_\_\_\_ 185\_\_\_\_ Master. \* \* \* By the Act of 1863, this schedule must include cabin passengers.

Names and Descriptions of Passengers.

Port of Destination	Names of Passengers	Age of each Adult of 12 Years and upwards				Children between 1 and 12 Years		Infants		Profession, Occupation, or Calling of Passenger	State whether English, Scotch, or Irish	Port at which Passengers have contracted to land
		Married		Single		M.	F.	M.	F.			
		M.	F.	M.	F.							

SUMMARY.

	Number of Souls				Equal to Statute Adults
	English	Scotch	Irish	Total	
Males					
Children between 1 and 12					
Females					
Total					

We hereby certify, that the above is a correct list of the names and descriptions of all the passengers who embarked at the port of \_\_\_\_\_

(Signed) \_\_\_\_\_ Master.  
(Countersigned) \_\_\_\_\_ Emigration Officer.  
\_\_\_\_\_ Officer of Customs at \_\_\_\_\_

Date \_\_\_\_\_ 185\_\_\_\_

This form should be ruled in the same Form for any additions to the list after the ship first clears out; and similar certificates be subject to such additions, according to the requirements of the Act.

SCHEDULE L.—FORM OF PASSENGER'S CONTRACT TICKET.

1. A contract ticket in this form must be given to every passenger engaging a passage from the United Kingdom to any place out of Europe, and not being within the Mediterranean Sea.
2. The victualling scale for the voyage must be printed in the body of the ticket.
3. All the blanks must be correctly filled in, and the ticket must be legibly signed with the Christian names and surname and address in full of the party issuing the same.
4. The day of the month on which the passengers are to embark must be inserted in words, and not in figures.
5. When once issued, this ticket must not be withdrawn from the passenger, nor any alteration, addition, or erasure made in it.

Ship \_\_\_\_\_ of \_\_\_\_\_ tons register, to take in passengers at \_\_\_\_\_ for \_\_\_\_\_ on the \_\_\_\_\_ day of \_\_\_\_\_ 185\_\_\_\_.

I engage that the person named in the margin hereof shall be provided with a steerage passage to, and shall be landed at, the port of \_\_\_\_\_

in \_\_\_\_\_ in the ship \_\_\_\_\_ with not less than ten cubic feet for luggage for each statute adult, and shall be victualled during the voyage and the time of detention at any place before its termination, according to the annexed scale, for the sum of £ \_\_\_\_\_ including Government dues before embarkation, and head money, if any, at the place of landing, and every other charge, except freight for excess of luggage beyond the quantity above specified, and I hereby acknowledge to have received the sum of £ \_\_\_\_\_ in {full / part} payment.

The following quantities, at least, of water and provisions (to be issued daily), will be supplied by the master of the ship, as required by law, viz., to each statute adult 3 quarts of water daily, exclusive of what is necessary for cooking the articles required by the Passenger Act to be issued in a cooked state; and a weekly allowance of provisions according to the following scale:—

[Here insert the victualling scale intended to be used on the voyage. This must be either the scale prescribed in the 35th section of the Passenger Act 1855, or that scale modified by the introduction of articles authorized by the Act to be substituted for oatmeal, rice, and potatoes.]

[N.B.—If mess utensils and bedding are to be provided by the ship, the stipulation must be inserted here.]  
Signature in full \_\_\_\_\_  
Place and date \_\_\_\_\_

[If signed by a broker or agent, state on whose behalf.]

Deposit £ \_\_\_\_\_ to be paid of \_\_\_\_\_  
Balance £ \_\_\_\_\_  
Total £ \_\_\_\_\_

NOTICES TO PASSENGERS.

1. If passengers, through no default of their own, are not received on board on the day named in the contract tickets, or fail to obtain a passage in the ship, they should apply to the Government emigration officer at the port, who will assist them in obtaining redress under the Passenger Act.
2. Passengers should carefully keep this part of their contract ticket till after the end of the voyage.

N.B.—This contract ticket is exempt from stamp duty.

persons than in the proportions respectively prescribed in sec. 14 of this Act for ships carrying passengers from the United Kingdom, the master of such ship shall be liable, on such conviction as before mentioned, to a penalty not exceeding 10*l*. nor less than 5*l*. for each such person or statute adult constituting any such excess. (Sec. 101.)

*Provisions and Water to be issued to Passengers brought into the United Kingdom &c.*—The master of every 'passenger ship' bringing passengers into the United Kingdom from any place out of Europe, shall make to each statute adult during the voyage, including the time of detention, if any, at any port or place before the termination thereof, issues of pure water and of good and wholesome provisions in a sweet condition, in quantities not less in amount than is prescribed in sec. 35 of this Act for passengers proceeding from the United Kingdom; and in case of non-compliance with any of the requirements of this section, the master of such ship shall, on such conviction as hereinbefore mentioned, be liable for each offence to a penalty not exceeding 50*l*. (Sec. 102.)

The United States, in imitation of the policy followed in the United Kingdom, have passed several Acts in regard to the conveyance of passengers in ships belonging to the different ports of the Union. The last of these Acts is as follows:—

**AN ACT TO REGULATE THE CARRIAGE OF PASSENGERS IN STEAM SHIPS AND OTHER VESSELS, APPROVED MARCH 3, 1855.**

N.B.—A bill to amend this Act was introduced into Congress in January 1865.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that no master of any vessel owned in whole or in part by a citizen of the United States, or by a citizen of any foreign country, shall take on board such vessel, at any foreign port or place other than foreign contiguous territory of the United States, a greater number of passengers than in proportion of 1 to every 2 tons of such vessel, not including children under the age of 1 year in the computation, and computing 2 children over 1 and under 8 years of age as 1 passenger. That the spaces appropriated for the use of such passengers, and which shall not be occupied by stores or other goods nor the personal baggage of such passengers, shall be in the following proportions, viz.—on the main and poop decks or platforms and in the deck-houses, if there be any, 1 passenger for each 16 clear superficial feet of deck, if the height or distance between the decks or platform shall not be less than 6 feet; and on the lower deck (not being an orlop deck), if any, 1 passenger for 18 such clear superficial feet, if the height or distance between the decks or platforms shall not be less than 6 feet, but so as that no passenger shall be carried on any deck or platform nor upon any deck where the height or distance between the decks is less than 6 feet, with intent to bring such passenger to the United States, and shall leave such port or place and bring the same, or any number thereof, within the jurisdiction of the United States; or if any such master of any vessel shall take on board his vessel, or at any port or place within the jurisdiction of the United States, any greater number of passengers than in the proportion aforesaid, to the space aforesaid, or to the tonnage aforesaid, with intent to carry the same to any foreign port or place other than foreign contiguous territory as aforesaid, every such master shall be deemed guilty of a misdemeanor, and upon conviction thereof, before any circuit or district court of the United States, shall, for each

passenger taken on board beyond the limit aforesaid, or the space aforesaid, be fined in the sum of 50 dollars, and may also be imprisoned, at the discretion of the judge before whom the penalty shall be recovered, not exceeding six months; but should it be necessary for the safety or convenience of the vessel that any portion of her cargo, or any other articles or article, should be placed on or stored in any of the decks, cabins, or other places appropriated to the use of passengers, the same may be placed in lockers or inclosures prepared for the purpose, on an exterior surface impervious to the wave, capable of being clensed in like manner as the decks or platforms of the vessel. In no case, however, shall the places thus provided be deemed to be a part of the space allowable for the use of passengers, but the same shall be deducted therefrom, and in all cases where prepared or used, the upper surface of said lockers or inclosed spaces shall be deemed and taken to be the deck or platform from which measurement shall be made for all the purposes of this Act. It is also provided that one hospital in the space appropriated to passengers, and separated therefrom by an appropriate partition, and furnished as its purposes require, may be prepared, and when used, may be included in the space allowable for passengers, but the same shall not occupy more than 100 superficial feet of deck or platform; provided, that on board two deck ships, where the height between the decks is 7½ feet or more, 14 clear superficial feet of deck shall be the proportion required for each passenger. (Sec. 1.)

And no such vessel shall have more than two tiers of berths, and the interval between the lower part thereof and the deck or platform beneath shall not be less than 9 inches, and the berths shall be well constructed, parallel with the side of the vessel, and separated from each other by partitions, as berths ordinarily are separated, and shall be at least 6 feet in length and at least 2 feet in width, and each berth shall be occupied by no more than 1 passenger; but double berths twice the above width may be constructed, each berth to be occupied by no more, and by no other than 2 women, or by 1 woman and 2 children under the age of 8 years, or by husband and wife, or by a man and 2 of his own children under the age of 8 years, or by 2 men, members of the same family; and if there shall be any violation of this section in any of its provisions, then the master of the vessel and owners thereof shall severally forfeit and pay the sum of 5 dollars for each passenger on board of said vessel on such voyage, where such vessel may arrive or depart. (Sec. 2.)

And all vessels, whether of the United States or any foreign country, having sufficient capacity of space, according to law, for 50 or more passengers (other than cabin passengers), shall, when employed in transporting such passengers between the United States and Europe, have, on the upper deck, for the use of such passengers, a house or passage-way leading to the apartments allotted to such passengers below deck, firmly secured to the deck or combings of the hatch with 2 doors the sills of which shall be at least 1 foot above the deck, so constructed that one door be left open in such house may at all times be left open for ventilation; and all vessels so employed, and having the capacity to carry 150 such passengers, or more, shall have 2 such houses; and the main or ladder leading down to the aforesaid apartments shall be furnished with a hand-rail of wood or strong rope; but booby hatches may be substituted for such houses. (Sec. 3.)

And every such vessel so employed, and having

the legal capacity for more than 100 such passengers, shall have at least 2 ventilators to purify the apartment or apartments occupied by such passengers; 1 of which shall be inserted in the after part of the apartment or apartments, and the other shall be placed in the forward portion of the apartment or apartments, and one of them shall have an exhausting cap to carry off the foul air, and the other a receiving cap to carry down the fresh air; which said ventilators shall have a capacity proportioned to the size of the apartment or apartments to be purified; namely, if the apartment or apartments will lawfully authorize the reception of 200 such passengers, the capacity of such ventilators shall each be equal to a cube of 12 inches diameter in the clear, and in proportion for larger or smaller apartments; and all said ventilators shall rise at least 4 feet 6 inches above the upper deck of any such vessel, and be of the most approved form and construction: but if it shall appear, from the report to be made and approved, as hereinafter provided, that such vessel is equally well ventilated by any other means, such other means of ventilation shall be deemed and held to be a compliance with the provisions of this section. (Sec. 4.)

And every vessel carrying more than 50 such passengers shall have for their use on deck, housed and conveniently arranged, at least one caboose or cooking range, the dimensions of which shall be equal to 4 feet long and 1 foot 6 inches wide for every 50 passengers; and provision shall be made in the manner aforesaid, in this ratio, for a greater or less number of passengers; but nothing herein contained shall take away the right to make such arrangements for cooking between decks, if that shall be deemed desirable. (Sec. 5.)

And all vessels employed as aforesaid shall have on board, for the use of such passengers, at the time of leaving the last port whence such vessel shall sail, well secured under deck, for each passenger, at least 20 pounds of good navy bread, 15 pounds of rice, 15 pounds of oatmeal, 10 pounds of wheat flour, 15 pounds of peas and beans, 20 pounds of potatoes, 1 pint of vinegar, 60 gallons of fresh water, 10 pounds of salted pork, and 10 pounds of salt beef, free of bone, all to be of good quality; but at places where either rice, oatmeal, wheat flour, or peas and beans, cannot be procured, of good quality, and on reasonable terms, the quantity of either or any of the last-named articles may be increased and substituted therefor; and in case potatoes cannot be procured on reasonable terms, 1 pound of either of said articles may be substituted in lieu of 5 pounds of potatoes; and the captains of such vessels shall deliver to each passenger at least one-tenth part of the aforesaid provisions weekly, commencing on the day of sailing, and at least 3 quarts of water daily; and if the passengers on board of any such vessel in which the provisions and water herein required shall not have been provided as aforesaid, shall at any time be put on short allowance during any voyage, the master or owner of any such vessel shall pay to each and every passenger who shall have been put on short allowance, the sum of 3 dollars for each and every day they may have been put on short allowance, to be recovered in the circuit or district court of the United States; and it shall be the duty of the captain or master of every such ship or vessel to cause the food and provisions of all the passengers to be well and properly cooked daily, and to be served out and distributed to them at regular and stated hours, by messes, or in such other manner as shall be deemed best and most conducive to the health and comfort of such passengers, of which hours

and manner of distribution due and sufficient notice shall be given. If the captain or master of any such ship or vessel shall wilfully fail to furnish and distribute such provisions, cooked as aforesaid, he shall be deemed guilty of a misdemeanor, and upon conviction thereof before any circuit or district court of the United States, shall be fined not more than 1,000 dollars, and shall be imprisoned for a term not exceeding 1 year, provided that the enforcement of this penalty shall not affect the civil responsibility of the captain or master and owners to such passengers as may have suffered from said default. (Sec. 6.)

And the captain of any such vessel so employed is hereby authorized to maintain good discipline and such habits of cleanliness among such passengers as will tend to the preservation and promotion of health; and to that end he shall cause such regulations as he may adopt for this purpose to be posted up before sailing on board such vessel, in a place accessible to such passengers, and shall keep the same so posted up during the voyage; and it is hereby made the duty of said captain to cause the apartments occupied by such passengers to be kept at all times in a clean, healthy state, and the owners of every such vessel so employed are required to construct the decks, and all parts of said apartment, so that it can be thoroughly cleaned; and they shall also provide a safe, convenient privy or water-closet for the exclusive use of every 100 such passengers. And when the weather is such that said passengers cannot be mustered on deck with their bedding, it shall be the duty of the captain of every such vessel to cause the deck occupied by such passengers to be cleaned with chloride of lime, or some other equally efficient disinfecting agent, and also at such other times as said captain may deem necessary. (Sec. 7.)

And the master and owner or owners of any such vessel so employed, which shall not be provided with the house or houses over the passageways, as prescribed in the third section of this chapter, or with ventilators, as prescribed in the fourth section of this chapter, or with the cabooses or cooking ranges, with the houses over them, as prescribed in the fifth section of this chapter, shall severally forfeit and pay to the United States the sum of 200 dollars for each and every violation of or neglect to conform to the provisions of each of said sections; and 50 dollars for each and every neglect or violation of any of the provisions of the seventh section of this chapter, to be recovered by suit in any circuit or district court of the United States, within the jurisdiction of which the said vessel may arrive, or from which she may be about to depart, or at any place within the jurisdiction of such courts, wherever the owner or owners, or captain of such vessel may be found. (Sec. 8.)

And the collector of the customs at any port of the United States at which any vessel so employed shall arrive, or from which any such vessel shall be about to depart, shall appoint and direct one or more of the inspectors of the customs for each port to examine such vessel, and report in writing, to such collector, whether the requirements of law have been complied with in respect to such vessel; and if such report shall state such compliance, and shall be approved by such collector, it shall be deemed and held as *prima facie* evidence thereof. (Sec. 9.)

And the provisions, requisitions, penalties, and liens of this Act, relating to the space in vessels appropriated to the use of passengers, are hereby extended and made applicable to all spaces appropriated to the use of steerage passengers in

vessels propelled, in whole or in part, by steam, and navigating from, to, and between the ports and in manner as in this Act named, and to such vessels and to the masters thereof, and so much of the Act entitled "An Act to amend an Act entitled "An Act to provide for the better Security of the Lives of Passengers on board of Vessels propelled in whole or in part by Steam, and for other Purposes," approved August 30, 1852, as conflicts with this Act, is hereby repealed; and the space appropriated to the use of steerage passengers in the vessels so as above propelled and navigated is hereby subjected to the supervision and inspection of the collector of the customs at any port of the United States at which any such vessel shall arrive, or from which she shall be about to depart; and the same shall be examined and reported in the same manner and by the same officers, by the next preceding section directed to examine and report. (Sec. 10.)

And the vessels bound from any port in the United States to any port or place in the Pacific Ocean, or on its tributaries, or from any such port or place to any port in the United States on the Atlantic or its tributaries, shall be subject to the foregoing provisions regulating the carriage of passengers in merchant vessels, except so much as relates to provisions and water; but the owners and masters of all such vessels shall in all such cases furnish to each passenger the daily supply of water therein mentioned; and they shall furnish a sufficient supply of good and wholesome food, properly cooked; and in case they shall fail so to do, or shall provide unwholesome or unsuitable provisions, they shall be subject to the penalties provided in the sixth section of this chapter, in case the passengers are put on short allowance of water or provisions. (Sec. 11.)

And the captain or master of any ship or vessel arriving in the United States, or any of the territories thereof, from any foreign place whatever, at the same time that he delivers a manifest of the cargo, and if there be no cargo, then at the time of making report or entry of the ship or vessel, pursuant to law, shall also deliver and report to the collector of the district in which such ship or vessel shall arrive, a list or manifest of all the passengers taken on board of the said ship or vessel at any foreign port or place, in which list or manifest it shall be the duty of the said master to designate, particularly, the age, sex, and occupation of the said passengers respectively, the part of the vessel occupied by each during the voyage, the country to which they severally belong, and that of which it is their intention to become inhabitant; and shall further set forth whether any, and what number, have died on the voyage; which list or manifest shall be sworn to by the said master, in the same manner as directed by law in relation to the manifest of the cargo, and the refusal or neglect of the master aforesaid to comply with the provisions of this section, or any part thereof, shall incur the same penalties, disabilities, and forfeitures as are provided for a refusal or neglect to report and deliver a manifest of the cargo aforesaid. (Sec. 12.)

And each and every collector of the customs to whom such manifest or list of passengers as aforesaid shall be delivered, shall quarterly return copies thereof to the Secretary of State of the United States, by whom statements of the same shall be laid before Congress at each and every session. (Sec. 13.)

And in case there shall have occurred on board any ship or vessel arriving at any port or place within the United States or its territories, any

death or deaths among the passengers (other than cabin passengers), the master or captain, or owner or consignee of such ship or vessel shall, within twenty-four hours after the time within which the report and list of manifest of passengers mentioned in section 12 of this Act is required to be delivered to the collector of the customs, pay to the said collector the sum of 10 dols. for each and every passenger above the age of 8 years who shall have died on the voyage by natural disease; and the said collector shall pay the money so received at such times, and in such manner as the Secretary of the Treasury by general rules shall direct, to any board or commission appointed by, and acting under the authority of, the state within which the port where such ship or vessel arrived is situated, for the care and protection of sick, indigent, or destitute emigrants, to be applied to the objects of their appointment; and if there be more than one board or commission who shall claim such payment, the Secretary of the Treasury for the time being shall determine which is entitled to receive the same, and his decision in the premises shall be final and without appeal: provided that the payment shall in no case be awarded or made to any board, or commission, or association, formed for the protection or advancement of any particular class of emigrants, or emigrants of any particular nation or creed; and if the master, captain, owner, or consignee of any ship or vessel, refuse or neglect to pay the collector the sum and sums of money required, and within the time prescribed by this section, he or they shall severally forfeit and pay the sum of 50 dols., in addition to such sum of 10 dols. for each and every passenger upon whose death the same has become payable, to be recovered by the United States in any circuit or district court of the United States where such vessel may arrive, or such master, captain, owner, or consignee may reside; and when recovered, the said money shall be disposed of in the same manner as is directed with respect to the sum and sums required to be paid to the collector of customs. (Sec. 14.)

And the amount of the several penalties imposed by the foregoing provisions, regulating the carriage of passengers in merchant vessels, shall be liens on the vessel or vessels violating those provisions, and such vessel or vessels shall be liable therefor in any circuit or district court of the United States where such vessel or vessels shall arrive. (Sec. 15.)

And all and every vessel or vessels which shall or may be employed by the American Colonisation Society, or the colonisation society of any state to transport, and which shall actually transport from any port or ports of the United States any colony or colonies on the west coast of Africa, coloured emigrants to reside there, shall be, and the same are hereby, subjected to the operation of the foregoing provisions regulating the carriage of passengers in merchant vessels. (Sec. 16.)

And the collector of the customs shall examine such emigrant ship or vessel on its arrival at any port, and ascertain and report to the Secretary of the Treasury, at the time of sailing, the length of the voyage, the ventilation, the number of passengers, their space on board, their food, native country of the emigrants, the number of deaths, the age and sex of those who died during the voyage, together with his opinion of the cause of the mortality, if any, on board, and if none, what precautionary measures, arrangements, or habits, are supposed to have been used, and what agency in causing the exemption. (Sec. 17.)

And this Act shall take effect, with respect to vessels sailing from ports in the United States, on the eastern side of the continent, within 30 days from the time of its approval; and with respect to vessels sailing from ports to the United States, on the western side of the continent, and from ports in Europe, within 60 days from the time of its approval; and with respect to vessels sailing from ports in other parts of the world, within 6 months from the time of its approval: And it is hereby made the duty of the Secretary of State to give notice in the ports of Europe and elsewhere of this Act, in such manner as he shall deem proper. (Sec. 18.)

And from and after the time that this Act shall take effect with respect to any vessels, in respect to such vessels, the Act of March 2, 1819, entitled 'An Act regulating Passenger Ships and Vessels,' the Act of February 22, 1817, entitled 'An Act to regulate the Carriage of Passengers in Merchant Vessels,' the Act of March 2, 1817, entitled 'An Act to amend an Act entitled "An Act to regulate the Carriage of Passengers in Merchant Vessels," and to determine the time when said Act shall take effect,' the Act of January 31, 1848, entitled 'An Act exempting Vessels employed by the American Colonisation Society in transporting Coloured Emigrants from the United States to the coast of Africa from the provisions of the Acts of February 22 and March 2, 1817, regulating the Carriage of Passengers in Merchant Vessels,' the Act of May 17, 1818, entitled 'An Act to provide for the Ventilation of Passenger Vessels, and for other Purposes,' and the Act of March 3, 1849, entitled 'An Act to extend the Provisions of all Laws now in force relating to the Carriage of Passengers in Merchant Vessels and the regulation thereof,' are hereby repealed: But nothing in this Act contained shall in anywise obstruct or prevent the prosecution, recovery, distribution or remission of any fines, penalties, or forfeitures which may have been incurred in respect to such vessels prior to the day this Act goes into effect, in respect to such vessels under the laws hereby repealed, for which purpose the said laws shall continue in force.

But the Secretary of the Treasury may, in his discretion, and upon such conditions as he shall think proper, discontinue any such prosecution, or remit or modify such penalties. (Sec. 19.)

**Passenger Ships in Australia.**—By 24 & 25 Viet. c. 32, the governor in each of the Australian colonies may, by any proclamation to be by him issued, furnish such rules as he shall think proper for determining the number of passengers to be carried in any passenger ship from any such colony to any other of her Majesty's possessions in Australasia, with other regulations, and prescribe penalties for infraction and non-observance of the rules laid down.

While the proclamation is in force, the rules and enactments of the Passenger Act of 1855 shall not apply to intercolonial voyages.

The requirements of these proclamations shall be valid as law in all her Majesty's dominions, as though they formed part of the Passenger Act of 1855.

**Chinese Passenger Ships.**—Our readers are aware that there is at present (1869), and that there has been for some considerable time past, an extensive emigration from China to California and Australia. This emigration (especially that to Australia) has been principally carried on in British ships; and the abuses connected therewith have been such as to attract the attention of Parliament, which has been induced, in the view of putting them down, to enact the following trade:—

**ACT FOR THE PREVENTION OF ABUSE IN CHINESE PASSENGER SHIPS, AND THEIR REGULATION. 18 & 19 VICT. c. 101.**

Clause 1 defines the terms used in the Act.

Clause 2 authorises the Legislature of Hong Kong to make regulations respecting passenger ships, providing that until such regulations be made, those contained in the annexed schedule A. shall be in force: provided always, that no ordinance shall come into operation until her Majesty's confirmation of the same shall have been proclaimed in Hong Kong by the governor thereof.

**Governor of Hong Kong to declare Length of Voyages.**—It shall be lawful for the governor of Hong Kong to declare by proclamation, for the purposes of this Act and of the said regulations, what shall be deemed to be the duration of the voyage of any Chinese passenger ship, and by such proclamation to alter the scales of dietary, medicines, and medical comforts contained in the annexed schedule A. (Sec. 3.)

**No Chinese Passenger Ship to clear out on Voyage of more than 7 Days without &c.**—No Chinese passenger ship shall clear out or proceed to sea on any voyage of more than 7 days' duration until the master thereof have received from an emigration officer a copy of the aforesaid regulations, and a certificate in the form contained in the annexed schedule B. or in such other form as may be prescribed by the Legislature, which copy and certificate, with any documents to be attached thereto (herein designated as emigration papers), shall be signed by the said emigration officer, nor until the master shall, with two sufficient sureties, to be approved by the said emigration officer, have entered into a joint and several bond in the sum of 1,000*l.* to her Majesty, her heirs and successors, in such form as may be prescribed by the said Legislature. (Sec. 4.)

**Penalty of Bond, when recoverable.**—The said penal sum of 1,000*l.* shall be due and recoverable notwithstanding any penalty or forfeiture imposed by this Act or by the aforesaid regulations, and whether such penalties or forfeitures shall have been sued for and recovered or not. (Sec. 5.)

Clause 6 authorises the commanders of ships of war &c. to search ships, require production of papers &c.

**Penalty for neglect to comply with Regulations &c.**—In case of any neglect or refusal to comply with any of the provisions of this Act or any of the regulations aforesaid, or to perform any stipulation in any of the contracts made with passengers, the master of the ship and any other person who may have been guilty of or have aided or abetted such neglect or refusal, shall each be deemed for each offence guilty of a misdemeanor. (Sec. 7.)

**Ship to be forfeited for clearing without Emigration Papers &c.**—If any Chinese passenger ship clears out or proceeds to sea on any voyage exceeding 7 days in duration without such emigration papers as aforesaid, or if the emigration papers of any Chinese passenger ship are forged or fraudulently altered, such ship shall, if she is a British ship, or if, not being a British ship, the offence is committed and the ship is seized in her Majesty's dominions, be forfeited to her Majesty. (Sec. 8.)

**Penalties in addition to Forfeiture.**—Every person who commits, or aids, or abets in committing any act or default by which any Chinese passenger ship may become liable to forfeiture, shall be liable to a penalty not exceeding 100*l.* for each offence. (Sec. 9.)

The following clauses refer to the mode of enforcing and applying forfeitures.

## SCHEDULE A.

## REGULATIONS RESPECTING CHINESE PASSENGER SHIPS.

Note.—The wilful and fraudulent breach of any of these regulations by the person in charge of any Chinese passenger ship is punishable by forfeiture of the ship, and every person concerned in such breach is liable to a fine of 100*l.* for such offence.

I. No Chinese passenger ship shall clear out or proceed to sea on any voyage of more than 7 days' duration without a certificate from an emigration officer; and such certificate shall be in the annexed form.

II. No emigration officer shall be bound to give such certificate in respect of any Chinese passenger ship till 7 days after receiving notice that the ship is to carry passengers, and of her destination, and of her proposed day of sailing, nor unless there are on board a surgeon and an interpreter approved by such emigration officer.

III. After receiving such notice, the emigration officer shall be at liberty at all times to enter and inspect the ship, and the fittings, provisions, and stores therein, and any person impeding him in such entry or inspection, or refusing to allow of the same, shall be liable to a fine of not more than 100*l.* for each offence.

IV. The emigration officer shall not give his certificate unless he be satisfied—

(1.) That the ship is seaworthy, and properly manned, equipped, fitted, and ventilated; and has not on board any cargo likely from its quality, quantity, or mode of stowage, to prejudice the health or safety of the passengers.

(2.) That the space appropriated to the passengers in the between decks contains at the least 12 superficial and 72 cubical feet of space for every adult on board; that is to say, for every passenger above 12 years of age, and for every two passengers between the ages of 1 year and 12 years.

(3.) That a space of 5 superficial feet per adult is left clear on the upper deck for the use of the passengers.

(4.) That provisions, fuel, and water have been placed on board, of good quality, properly packed, and sufficient to supply the passengers on board during the declared duration of the intended voyage, according to the following scale:—

## Dietary Scale.

	per diem
Rice	1 lb. 1 1/2
Salted provisions	2 "
Wholly pork, or 1/2 pork and 1/2 fish, or 1/2 pork, 1/2 beef, and 1/2 fish	4 "
Salted vegetables or pickles	3 "
Water	imp. quart 5
Firewood	2 "
Tea	oz. 1/2

(5.) That medicines and medical comforts have been placed on board according to the following scale:—

For every 100 passengers, and in like proportion for any greater or less number.

Calomel	5 oz.
Blue pill	2 "
Rhubarb powder	2 "
Compound jalap powder	12 "
Ipecacuanha powder	2 "
Opium	2 "
Dover's powder	2 "
Magnesia	2 "
Epsom salts	6 lb.
Chloride of lime	20 "
Tartar emetic	4 drams
Quinine	2 oz.
Antimonial powder	0 1/2 "
Extract of colocynth, compound	1 "
Carbonate of ammonia	1 "
Asafoetida	1 "
Camphor	15 "
Camphorated tincture	2 "
Caccha	2 "
Prepared chalk	2 "
Tincture of opium	16 "
Turpentine	2 "
Senna leaves	8 "

Blistering plaster	8 oz.
Sulphur, sublimed	16 "
ointment	12 "
Lined flour	4 lb.
Country soap	24 "
Caster oil	24 "
Oil of peppermint	6 bottles
Adhesive plaster, spread	2 oz.
Simple ointment	2 oz.
Blister ointment	16 "
Jergin's opiate	16 "
Aromatic spirits of hartshorn	1 "
Cholera pills in pill	12 drams
Cuba powder	4 lb.
Sweet spirits of nitre	16 oz.
Copaiba	16 "
Sulphate of copper	16 "
Sulphate of zinc	1 "
Lunar caustic	4 drams
Lime juice	26 quarts
Rum or brandy	26 "

## INSTRUMENTS &amp;c.

1 Set of amputating and other surgical instruments (if there be any person on board competent to use them).

1 One-ounce glass measure.

1 Minim glass measure.

1 Pestle and mortar (Wedgwood).

1 Set of weights and scales (grains in box).

1 Set of common splints.

1 Set of bleeding lancets.

1 Silver catheter.

1 Spatula.

1 Dressing scissors.

1 Infusion box.

1 Quire of country paper.

1 Penknife.

2 Metal bed pans.

2 Trusses for hernia, right and left.

2 Small syringes.

4 Ounces prepared lint.

2 Pieces cloth for bandages.

V. The master of any Chinese passenger ship being a British ship and proceeding on a voyage of more than 7 days' duration, shall, during the whole of the intended voyage, make issues of provisions, fuel, and water, according to the aforesaid dietary scale, and shall not make any alteration, except for the manifest advantage of the passengers, in respect of the space allotted to them as aforesaid, or in respect of the means of ventilation, and shall not ill-use the passengers or require them (except in case of necessity) to help in working the vessel; and shall issue medicines and medical comforts, as shall be requisite, to the best of his judgment, and shall call at such ports as may be mentioned in the emigration officer's clearing certificate for fresh water and other necessaries; and shall employ them without unnecessary delay to the destination to which they have contracted to proceed.

VI. The emigration officer shall not give his certificate until he has mustered the passengers and ascertained, to the best of his power, that they understand whither they are going, and comprehend the nature of any contracts of service which they have made; he shall also take care that a copy of the form of such contracts, or an abstract of their substance, signed by himself, is appended to the said certificate: if any of the passengers are in bad health, or indisposed, he shall provide, by clothing, or if the contracts are unfair, or if there is reason to suspect that fraud or violence has been practised in their collection, or embarkation, he may detain the ship, and he shall think fit, may order all or any of the passengers to be re-landed.

## SCHEDULE B.

## EMIGRATION OFFICER'S CERTIFICATE &amp;c.

I hereby authorise the Chinese passenger ship to proceed to sea for the port of \_\_\_\_\_ and I certify that the said ship can legally carry \_\_\_\_\_ adults, and that there are

on board passengers, making in all adults, viz. men, women, male children, and female children, such children being between the ages of 1 and 12 years; that the space set apart and to be kept clear for the use of such emigrants is as follows: On the upper deck, superficial feet, being [here describe the space], and in the between-decks superficial feet, being [here describe the space]; that the ship is properly manned and fitted, and that the means of ventilating the part of the between decks appropriated to passengers are as follows [here describe the means of ventilation]; that the ship is furnished with a proper quantity of good provisions, fuel, and water for days' use to the passengers according to the annexed dietary scale, and with a proper quantity of medicines, instruments, and medical comforts according to the annexed scale of medical necessities; that I have inspected the contracts between the emigrants and their intended employers (the terms of which are annexed to this certificate), and consider them reasonable; that no fraud appears to have been practised in collecting the emigrants; and that there are on board a surgeon † [and interpreter] approved by me, and designated [respectively and] ‡ [The master of the ship is to put into and for water and fresh vegetables.]

(Signed)  
Dated this day of 18 .

† The scales must be those prescribed by the regulations in Schedule A.  
‡ If the ship has been authorized to proceed without an interpreter, omit the part between brackets, and add "and that the ship has been authorized to proceed without an interpreter."  
§ The part between brackets is to be inserted or not, as may be required.

**Indian Emigration Act.**

Emigration from British India is regulated by the Indian Act of March 18, 1864, No. 13 of that year.

This Act, which came into operation on July 1, 1864, repeals and consolidates, with amendments, 16 Acts, and a portion of another Act, passed between 1869 and 1863, on the subject of emigration. The following are some of its main provisions.

1. **Ports of Emigration.**—Emigration is prohibited from any port of India except Calcutta, Madras, and Bombay. (Sec. 7.)

2. **What Labour Contracts, and to what Places Emigration, legal.**—Contracts for labour, out of India, are declared to be unlawful, except when made under the provisions of the Act, and for such places as the Governor-General in council may notify in the *Gazette of India*, in addition to Mauritius, the Seychelles, Jamaica, British Guiana, Trinidad, St. Lucia, Grenada, St. Vincent, St. Kitt's, Natal, and the Danish colony of St. John. (Secs. 3, 4, 5, and 6.)

3. **Emigration may be prohibited.**—The Governor-General in council may, by notification in the *Gazette of India*, prohibit emigration to any place to which it has been sanctioned, if he has reason to believe that proper measures have not been taken for the protection of emigrants, or for their safe return to India when they are entitled to a return passage. This prohibition may, however, in like manner be removed when the Governor-General is satisfied that such measures have been adopted. (Secs. 64 and 67.)

4. **Emigration Agents.**—The Governments of the various places to which emigration is allowed may appoint emigration agents in Calcutta, Madras, and Bombay (subject to the approval of the

Presidency Government) to collect emigrants and act for them. (Sec. 10.) The remuneration, however, of these agents is not to be regulated by the number of emigrants sent off, but is to be in the nature of a fixed annual salary. (Sec. 12.)

5. **Recruiters.**—The Protector of Emigrants, an officer appointed by the Presidency Government, is empowered (but only on the application of an emigration agent of a colony) to license annually as many recruiters as he may think necessary for that particular colony; and no person can act as a recruiter without such license, under a penalty of 500 rupees. (Secs. 13, 24, 25, 26, and 70.) The fee for the license is 10 rupees. (Sec. 27.)

6. **Recruitment and Registration of Emigrants.**—Natives in the country engaging with a recruiter to emigrate are not to leave their district without appearing, with the recruiter, before the magistrate of the district, who must register, in a book for the purpose, the name and particulars of the emigrant, unless he finds that the emigrant does not understand the nature of his engagement, or has been induced to enter into it by fraud or misrepresentation. The fee for registration is one rupee. A copy of this registration is to be given to the emigrant. (Secs. 30 and 31.) The registration of emigrants recruited in the three Presidency towns of Calcutta, Madras, and Bombay, is to be effected under similar conditions, by the protector of emigrants, instead of by magistrates. (Secs. 30 and 34.) The emigration agent of any colony may, with the consent of the protector, set aside any contract of his recruiter; but if he sets it aside without such consent, he must pay to the protector a sum sufficient to enable the emigrant to return to the place where he was registered. (Sec. 41.)

7. **Emigration Season.**—The emigration season for steamers going anywhere, and for sailing vessels to any place east of the Cape of Good Hope, is the whole year; but for sailing vessels to any place west of the Cape it is confined to the period between July 31 and March 16. (Sec. 45.)

8. **Length of Voyage.**—The declared length of voyage from Calcutta to the West Indies is 20 weeks, from Madras and Bombay 19 weeks. To Natal 12 and 10 weeks respectively. To the Mauritius, from 5 to 10 weeks, according to the time of the year and the Presidency from which the voyage is made. (Sec. 8.)

9. **Shipping Arrangements.**—The vessels must obtain a license from the Presidency Government (sec. 46), must have a height of not less than 5½ feet between decks, and must not carry more than one adult for every 10 superficial feet on deck (by Order of the Indian Government, February 24, 1868, the superficial space per adult has been increased from 10 to 12 feet), and for every cubic space of 72 feet. Every emigrant above 10 years, and two children from 1 to 10, are to count as one adult. Women and children must occupy a distinct compartment from the single men (sec. 47). Vessels fitted with any water-distilling apparatus approved by the protector of emigrants is to be allowed a reduction of one-third of the quantity of water (seven gallons for every emigrant for each week of the computed voyage) required by the Act to be shipped in tanks or casks (sec. 48). Vessels sailing from Calcutta are to be towed to sea by steamers (sec. 60) under a penalty not exceeding 1,000 rupees. (Sec. 78.)

10. **Governor-General may make Rules.**—The Governor-General is empowered to make, from time to time, rules (which must be published in the *Gazette of India*) not inconsistent with the Act, on the following subjects, viz.: 1, the proportion of women to be taken, and the age at

which children are not to be taken; 2, the dietary and clothing of emigrants on the voyage; 3, the medical care, medicines, and medical journals &c., of the emigrants; 4, ventilation and cleanliness, and boats for the voyage; and 5, the security, well-being, and protection generally of the emigrants.

11. *Exemption of French Colonies.*—With the exception of sections 19 to 41, both inclusive, which relate to the recruitment of native labourers, the Act is not to apply to emigration to the French colonies. (Sec. 83.)

Emigration to the French colonies is regulated by sections 19 to 41 of the Act of 1864, and by Act No. 46 of 1860, which Act was passed to give effect to two conventions entered into between the English and the French Governments, dated Paris, July 25, 1860, as regards Reunion, and July 1, 1861, as regards the West India Colonies of France.

The passenger trade between India and Ceylon is regulated by sections 19 to 41, both inclusive, of the Indian Act, No. 13 of 1864, and by the Acts No. 25 of 1859, No. 7 of 1862, and by the Ceylon Ordinances, No. 1 of 1860, and No. 10 of 1862.

*Abstract of Order in Council (Jan. 7, 1864) for promoting Order and Health, &c. in Passenger Ships to any of her Majesty's Possessions abroad. (59 sec. Pass. Act.)*

1. Every passenger to rise at 7 A.M., unless otherwise permitted by the surgeon; or if no surgeon, by the master.

2. Breakfast from 8 to 9 A.M., dinner at 1 P.M., supper at 6 P.M.

3. The passengers to be in their beds at 10 P.M., except under permission of the surgeon, or, if no surgeon, of the master.

4. Fires to be lighted by the passengers' cook at 7 A.M., and kept alight by him till 7 P.M.; then to be extinguished unless otherwise directed by the master, or required for the use of the sick.

5. The master to determine the order in which each passenger or family of passengers shall be entitled to the use of the fires. The cook to take care that this order is preserved.

6. On each passenger deck three safety lamps to be lit at dusk, and kept burning all night, and such further number as shall allow one to be placed at each of the hatchways used by the passengers.

7. No naked light between deck or in the hold to be allowed at any time or on any account.

8. The passengers, when dressed, to roll up their beds, to sweep the decks (including the space under the bottom of the berths), and to throw the dirt overboard.

9. Breakfast not to commence till this is done.

10. The sweepers for the day to be taken in rotation from the males above 14, in the proportion of 5 for every 100 passengers.

11. Duties of the sweepers to be to clean the ladders, hospitals, round houses, and water-closets, to pump water into the cisterns or tanks for the supply of the water-closets, to sweep the decks after every meal, and to dry holy-stone and scrape them after breakfast.

12. But the occupant of each berth to see that his or her own berth is well brushed out; and single women are to keep their own compartment clean in ships where a separate compartment is allotted to them.

13. The beds to be well shaken and aired on deck, and the bottom boards, if not fixtures, to be removed, and dry-scrubbed and taken on deck, at least twice a week.

14. Two days in the week to be appointed by the master as washing days, but no clothes or any account to be washed or dried between decks.

15. The coppers and cooking vessels to be cleaned every day, and the cisterns kept full with water.

16. The scuttles and stern ports, if any, to be kept open (weather permitting) from 7 A.M. to 7 P.M., and the hatches at all hours.

17. On Sunday the passengers to be mustered at 10 A.M., when they will be expected to appear in clean and decent apparel. The day to be observed as religiously as circumstances will admit.

18. No spirits or gunpowder to be taken aboard by any passenger. Any that may be discovered to be taken into the custody of the master till the expiration of the voyage.

19. No loose hay or straw to be allowed below deck. No smoking to be allowed between decks.

21. All immoral or indecent acts or conduct, improper liberties or familiarities with the female passengers, blasphemous, obscene, or indecent language, or language tending to a breach of peace, swearing, gambling, drunkenness, fighting disorderly, riotous, quarrelsome, or insubordinate conduct, and also all deposits of filth or offensive acts of uncleanness in the between decks, are strictly prohibited.

22. Fire-arms, swords, and other offensive weapons, as soon as the passengers embark, to be placed in the custody of the master.

23. No sailors to remain on the passenger deck among the passengers, except on duty.

24. No passenger to go to the ship's cockpit without special permission from the master, or to remain in the fore-castle among the sailors on any account.

*Offences at Sea Punishable in the Colonies.*

Formerly offences at sea might, under the 11 & 12 Wm. III. c. 7, be tried in any colony and were to be dealt with according to the law, and the method and rules of the Admiralty, and subsequently (under the 46 Geo. III. c. 54), according to the common course of the law of this realm, applicable to like offences committed on land. But now, by the 12 & 13 Wm. IV. c. 96 (1849), these offences, when dealt with in a colony, are to be tried according to the law of the colony, but punished according to the law of England.

The Act of Victoria which was passed in August 1849 for the prosecution and trial in colonies of offences committed within the jurisdiction of the Admiralty, provides that all persons charged in any colony with piracy, felony, murder, or other offence, of what nature or soever, committed on the sea, or within the admiral's jurisdiction, may be brought to trial in the same manner, according to the laws of the colony as if the offence had been committed on land within the local jurisdiction of the criminal law of the colony, and upon conviction shall suffer the same punishments as they would have been liable to had the offence been committed, tried, and judged in England.

Where death ensues in a colony from an offence inflicted at sea, the offence, whether murder, manslaughter, or accessory before or after the fact, is to be dealt with in the colony as if it had been committed there; but in the converse case, of death ensuing at sea from an injury inflicted in the colony, the offence shall be held to have been wholly committed upon the sea.

The jurisdiction of the Supreme Courts of New South Wales and Tasmania, as established by Geo. IV. c. 83, is left intact.

Exclusive of the statutes and regulations

... refers to, and in cases to which they may not apply, the relation between masters of ships and passengers is governed by the general rules of maritime law. 'Whatever,' says Lord Tenterden, 'is necessary for the security of the vessel, the discipline of the crew, the safety of all on board, the master may lawfully require, not only of the ship's company who have expressly contracted to obey him, but of those also whom he has engaged to carry to their destination on the implied condition of their submission to his rule.' *Law of Shipping*, part ii. c. 8, p. 180, Stobbs ed. 1834. Hence in certain cases, such as those of imminent peril, from whatever cause arising, passengers are to be considered as a portion of the crew, and may be called upon to contribute by their exertions to the safety of the ship and cargo. And in the event of their refusing so to act, they make themselves amenable to such reasonable punishment as the captain may choose to inflict. A passenger is not, however, bound to remain on board ship in the hour of danger, but may quit it if he have an opportunity; and he is not required to take upon himself any responsibility as to the *conduct* of the ship. If he incur any responsibility, and perform extraordinary services in relieving a vessel in distress, he is entitled to a corresponding reward. The goods of passengers contribute to general average; and their conduct should in all cases be such as may be consistent with the good order and discipline of the ship. They are not to set a bad example to the crew, or excite a spirit of insubordination, but to assist in maintaining the just and proper authority of the captain. The latter, however, in repressing disorder and improper conduct on the part of passengers, should act with much circumspection, and exercise his authority within the limits required by the exigencies of the case. His conduct in regard to passengers is always viewed with considerable jealousy; and though the courts of law will support him in the exercise of his authority when circumstances require it, they will not go beyond what is necessary; much less support him in any wanton or oppressive exercise of his authority. (Tenterden, in loco cit.; Holt's *Navigation Laws*, 2d ed. p. 425 &c.)

PASSPORT (Fr. and Ger., passeport; Ital., passaporto; Spanish, pasaporte). The use of passports or safe-conducts is of great antiquity, and no doubt originated during periods of war and civil commotion.

In its modern acceptance a passport is a document issued by the Foreign Minister of any State, requesting that the holder may receive at the hands of foreign Powers such 'assistance and protection' as he may require, during his travels in their territories.

In the United States of America and in England, the internal passport system has no existence; but on the Continent, though now (1863) much modified, it was, until recently, peculiarly strict and unchangeable. Annexed are our Foreign Office regulations respecting passports.

1. Applications for Foreign Office passports must be made in writing, and inclosed in a cover addressed to 'The Chief Clerk, Foreign Office, London,' with the word 'Passport' conspicuously written on the cover.

2. The charge on the issue of a passport, whatever number of persons may be named in it, is 2s.; and if it is desired that the passport should be sent by post, that sum must be forwarded with the application for the passport by a post-office order, made payable at the post office, Charing Cross, London, to the chief clerk of the Foreign

Office, Francis B. Alston, Esq. Postage stamps will not be received in payment.

3. Foreign Office passports are granted only to British-born subjects, or to such foreigners as have become naturalised either by Act of Parliament or by a certificate of naturalisation granted by the Secretary of State for the Home Department. When the party is a 'naturalised British subject,' he will be so designated in his passport; and if his certificate of naturalisation be dated subsequently to August 24, 1850, and previously to August 1, 1858, his passport will be marked as good for one year only; or should the certificate be dated subsequently to August 1, 1858, his passport will in that case be marked as good for six months only, except in cases where a license for a longer period of residence abroad has been granted by the Secretary of State for the Home Department; but this regulation will not preclude any person whom it affects from obtaining at the Foreign Office, at any future time, on his producing his old passport, a fresh passport in exchange for it for a further limited period, without being required to pay a fresh charge. A Foreign Office passport granted to a British-born subject or to a 'naturalised British subject' who has been naturalised by Act of Parliament, or whose certificate of naturalisation is dated previously to August 24, 1850, is not limited in point of time, but is available for any time, or for any number of journeys to the Continent.

4. Passports are granted to all persons either known to the Secretary of State or recommended to him by some person who is known to him; or upon the application of any *Banking Firm* established in London or in any part of the United Kingdom; or upon the production of a *Certificate of Identity* signed by any mayor, magistrate, justice of the peace, minister of religion, physician, surgeon, solicitor, or notary, resident in the United Kingdom.

5. If the applicant for a passport be a naturalised British subject, his certificate of naturalisation, with his signature subscribed to the oath printed on the third page of it, must be forwarded to the Foreign Office with the certificate of identity granted on his behalf; and his certificate of naturalisation will be returned with the passport to the person who may have granted the certificate of identity, in order that he may cause such naturalised British subject to sign the passport in his presence. The agents at the outports are not authorised to grant passports to naturalised British subjects; and such persons, if resident in London or in the suburbs, should apply *personally* for their passports at the Foreign Office.

6. Passports are issued at the Foreign Office between the hours of 11 and 4 on the day following that on which the application for the passport has been received at the Foreign Office; but the passports will be issued at the outports immediately on application, accompanied by the production of a certificate of identity, within such hours as may be fixed with regard to the convenience of persons desirous of embarking for the Continent.

7. A passport cannot be sent by the Foreign Office, or by an agent at an outport, to a person already abroad; such person, being a British-born subject, should apply for one to the nearest British mission or consulate. A passport cannot be issued abroad to a naturalised British subject except for a direct journey to England, or in the case of a colonial naturalised subject for a journey back to the colony where he has been naturalised. Neither can a passport granted at the Foreign Office to a naturalised British subject for a limited period

... crew to be appointed to... days, but no clothes... d or dried between decks... cooking vessels to be... the cisterns kept fill... stern ports, if any, to... (mitting) from 7 A.M. to... all hours. Passengers to be mustered... will be expected to appear... pared. The day to be... circumstances will admit... powder to be taken... r. Any that may be... to the custody of the master... the voyage. Straw to be allowed below... be allowed between decks... indecent acts or conduct... familiarities with the female... is, obscene, or indecent... ending to a breach of the... ling, drunkenness, fighting... arselone, or insubordinating... deposits of filth or offensive... in the between decks, and... ds, and other offensive ve... passengers embark, to... of the master. The main on the passenger, r... except on duty. To go to the ship's cockpit... mission from the master... castle among the sailors... ishable in the Colonies... at sea might, under the... c. 7, be tried in any col... with according to the... and rules of the Admiralty... under the 46 Geo. III.,... common course of the law... eable to like offences oc... t now, by the 12 & 13 V... offences, when dealt with... ed according to the law... shed according to the law... ria which was passed in... prosecution and trial in... committed within the juris... ally, provides that all... colony with piracy, rebellion... of what nature or kind... on the sea, or within the... may be brought to trial in... ing to the laws of the colony... d been committed on wa... sisdiction of the criminal co... pon conviction shall suffer... they would have been... en committed, trial, and... nes in a colony from an inju... ffence, whether murder, m... y before or after the first... colony as if it had been wh... it in the converse case, of... a from an injury inflicted... ee shall be held to have b... pon the sea. The Supreme Courts of... asmania, as established by... t infact. statutes and regulations

he renewed by her Majesty's diplomatic or consular agents in foreign countries; but only at the Foreign Office.

8. The bearer of every passport granted by the Foreign Office should sign his passport as soon as he receives it; without such signature, either the *visa* may be refused, or the validity of the passport questioned abroad. Travellers about to proceed to Russia, Turkey, and Portugal can have their passports *visé* at the under-mentioned places respectively: for Russia, at the Russian consulate, 32 Great Winchester street; for Turkey, at the Turkish embassy, 1 Bryanston square; and for Portugal, at the Portuguese consulate, 5 Jeffrey's square. Travellers about to proceed to Austria, Bavaria, Belgium, Denmark, The Netherlands, France, Italy, Prussia, Saxony, Spain, Sweden and Norway, or Wurtemberg, need not obtain the *visa* of the diplomatic or consular agents of those countries respectively resident in the United Kingdom.

N.B.—Travellers who may have any intention of visiting the Russian empire at any time in the course of their travels, are particularly and earnestly advised not to quit England without having had their passports *visé* at the Russian consulate in London.

*Model form of Certificate of Identity to be written out in full, signed and sealed by the person giving it; and also by the person in whose behalf it is granted.*

(Date of Place, and Day of Month.)

The undersigned, Mayor of (Magistrate, Justice of the Peace, Minister, Physician, Surgeon, Solicitor or Notary, as the case may be), residing at \_\_\_\_\_

hereby certifies that *A. B.* (Christian and surname to be written at length), whose signature is written at foot, is a British subject, \_\_\_\_\_ and a naturalised British subject, \_\_\_\_\_

quires a passport to enable him \_\_\_\_\_ to proceed to \_\_\_\_\_ to travel on the

Continent (accompanied, as the case may be, by his

wife and children, with their tutor, named *C. D.* (Christian and surname to be written at length), a British subject, \_\_\_\_\_ and

a naturalised British subject, \_\_\_\_\_ and governess, \_\_\_\_\_ and

maid servant [or servants], and man servant [or servants], named *E. F.*, a British subject [or subjects], and a courier, named *G. H.*, a naturalised British subject.

(Signed)

(With the usual signature.)

(Seal.)

Signature of the above-named \_\_\_\_\_

Foreign Office, December 1867.

There are Foreign Office passport agents at Bath, Belfast, Birmingham, Dover, Dublin, Folkestone, Great Grimsby, Harwich, Hull, Liverpool, Londonderry, Lowestoft, Manchester, Newcastle-on-Tyne, Newhaven, Queenstown (Cork), Southampton, Swansea, and Weymouth.

The impolicy of the passport system, as impeding the free intercourse of nations for commercial and other purposes, is self-evident, and its abolition would be a great advantage. It is proverbial that those alone of deservedly suspicious character have their passports invariably *en règle*.

The passport duty was reduced in 1858 from 5s. to 6d.

**PATENT.** A privilege from the Crown granted by letters patent (whence the name), conveying to the individual or individuals

specified therein the sole right to make, use, dispose of some new invention or discovery, for certain specified period.

The power to grant patents seems to exist in common law; but it is limited and defined by the famous statute 21 Jas. I. c. 3, which enacts, "That any declaration before mentioned shall not extend to any letters patent and grants of privilege for the term of 14 years or under, thereafter to be made, of the sole working or making any manner of new manufactures within the realm, to the true and first inventor and inventor of such manufactures, which others at the time making such letters patent and grants shall use, so as also they be not contrary to the law nor mischievous to the State, by raising prices of commodities at home, or hurt of trade, or generally inconvenient." The said 14 years to be accounted from the date of the first letters patent or grant of such privilege thereafter to be made; but that the same shall be of such force as should be if that Act had never been made, and none other."

*Policy of Patents.*—The law with respect to patents is unavoidably encumbered with several difficulties. The expediency of granting patents has been disputed; though, as it would seem without sufficient reason. Were they refused the inducement to make discoveries would, in many cases, be very much weakened; at the same time that it would plainly be for the interest of every one who made a discovery to embrace, if possible, to conceal it. And notwithstanding the difficulties in the way of concealment, they are not insuperable; and it is believed that several important inventions have been lost, from the secret dying with their authors. On the other hand, it is not easy to decide as to the cases for which the patent, or exclusive privilege, should be granted. Some have proposed that it should be made perpetual; but this would be a very great obstacle to the progress of improvement, and would lead to the most pernicious results. Perhaps the term of 14 years, to which the duration of a patent is limited in England, as proper a one as could be suggested. It may be too short for some inventions, and too long for others; but, on the whole, it seems a pretty average.

*Specification.*—Previously to the reign of Queen Anne, it was customary to grant patents without any condition, except that they should be really new inventions. But a condition was introduced into all patents, and is still retained, declaring that if the inventor did not, by instrument under his hand and seal, denominated a specification, particularly describe and ascertain the nature of his invention, and in what manner the same is to be performed, and also cause the same to be enrolled in Chancery within a certain time (generally a month), the letters patent, all liberties and advantages whatever therein granted, should utterly cease and become void. This was a very judicious regulation. However the invention from being lost; and the moment the patent expired, every one was in a situation to profit by it. The deliverance of the specification is now made precedent to granting letters patent; and they will not be granted unless it be distinct and explicit.

*Letters patent* were formerly obtained by petition and affidavit to the Crown, setting forth that the petitioner had, after great labour and expense, made a certain discovery, which he believed, would be of great public utility; that he was the first inventor. The petition was then referred to the Attorney and Solicitor





and of 257 other foreign vessels 17,826 tons. The principal exports are currants, oil, valonia, wax &c. Of these, currants are by far the most important. The fruit is larger, and freer from sand and gravel, than that of the Ionian Islands. They are shipped in casks of various sizes; but the weight of the cask is included in that of the fruit, it is said to be, for the most part, heavier and stronger than necessary. Morea currants are preferred in most countries, except England; but here the currants of Zante are held in equal, or perhaps greater, estimation. The export of currants from Patras may, in good seasons, average from 150,000 to 200,000 cwt. a year. hitherto the produce of the crop has varied extremely in different seasons. But within the last few years it has been found that, through the judicious application of sulphur in the cultivation of the plant, the attacks of blight are obviated, and the security of the crop greatly increased. The entire annual produce of currants in Greece may be estimated on the average at about 50,000 tons; but though the shipments of currants from the Morea in 1867 reached 48,650 tons, being 7,647 tons in excess of those

of the previous year, the price was so low that the value of the exports in 1867 was only 744,172*l.*, while that of the exports in 1866 was 720,885*l.* In 1867 we imported 1,002,366 cwt. currants, of which 970,681 cwt. came from Greece. The crops of oil are even more fluctuating than those of currants formerly were. 5,000 tons of valonia, valued at 50,000*l.*, were exported from Patras in 1867; and the silk crop having proved good, about 65,000 okes (178,750 lb.) of cocoons were exported; her total exports in that year being valued at 538,880*l.* The imports at Patras (valued at 52,900*l.* in 1867), as at the other Greek ports, consist principally of sugar, coffee, and other colonial products; plain and printed cotton stuffs, woollen goods, salted fish, iron, tin plates, hardware, coal, cordage, hemp, deals &c. Imported articles are brought principally from the Ionian Islands, Malta, Venice, Leghorn, Marseilles, and Trieste; but, from the want of authentic details, it is quite impossible to form any perfectly accurate estimate of their amount, either as respects Patras, or any other Greek port.

We subjoin an account of the trade between the United Kingdom and Greece for the years 1864—1867.

Imports from Greece into the United Kingdom, 1864—1867.

Articles	Quantities				Computed Real Value				
	1864	1865	1866	1867	1864	1865	1866	1867	
Corran, &c.	cwt.	3,800	9,556	790	916	39,246	48,907	2,391	1,152
Essence	"	3,786	9,502	17,138	15,321	1,793	4,047	7,713	6,894
Frank, &c.	"	586,510	690,921	546,761	725,712	515,380	595,003	586,101	668,679
Lead	"	688	1,056	2,410	1,227	1,027	1,473	3,884	1,714
Resin	"	—	—	1,222	6,515	—	—	25,781	123,076
Lead, pig-sheet	cwt.	6,919	2,508	3,378	712	17,551	5,719	2,895	1,604
Molasses	"	6,341	2,500	65	100	29,129	7,576	156	184
Oil of sweet turpentine	tons	7,393	6,609	308	345	11,075	7,655	201	180
Oil	"	137,366	110,851	186,536	422,791	15,690	25,506	19,544	36,555
Sugar	"	388,516	41,049	221,818	517,514	7,845	881	4,541	10,535
Wax	"	27,014	16,189	—	—	35,015	14,709	—	4,875
Wool	"	1,992	4,170	2,675	1,914	24,998	59,115	38,262	26,809
Wool, raw	"	10,451	42,737	52,063	12,574	1,945	4,311	4,114	1,107
Wool, manuf.	"	—	—	—	—	19,861	20,267	13,559	11,303
Wool, manuf.	value	—	—	—	—	710,559	795,469	613,963	885,793
Total									

Exports to Greece of the Produce of the United Kingdom, 1864—1867.

Articles	Quantities				Declared Real Value				
	1864	1865	1866	1867	1864	1865	1866	1867	
Wool, raw	cwt.	11,192	13,513	11,664	5,543	4,021	4,950	5,169	2,609
Wool, manuf.	value	—	—	—	—	11,974	14,323	10,484	11,444
Wool, manuf.	tons	22,468	37,853	38,949	56,256	11,915	21,430	23,491	36,236
Wool, manuf.	value	3,227	2,408	1,981	1,421	17,461	11,808	6,291	6,073
Wool, manuf.	value	431,888	984,426	441,237	1,184,660	45,627	82,658	35,162	74,551
Wool, manuf.	value	7,219,761	12,169,890	9,508,372	12,900,906	19,221	293,587	211,035	261,469
Wool, manuf.	value	—	—	—	—	1,419	2,356	2,766	4,071
Wool, manuf.	value	588,750	495,367	556,081	519,375	—	4,887	6,480	1,454
Wool, manuf.	value	—	—	—	—	15,942	14,087	14,751	15,446
Wool, manuf.	value	1,509	1,251	1,193	872	7,570	6,015	5,857	2,990
Wool, manuf.	value	1,783	3,114	2,510	2,638	18,686	28,816	22,881	21,427
Wool, manuf.	value	495,738	550,271	370,227	265,031	16,580	29,076	11,084	10,554
Wool, manuf.	value	1,050	579	195	2,882	1,408	870	283	5,192
Wool, manuf.	value	821	540	565	176	4,363	4,496	2,536	809
Wool, manuf.	value	—	—	—	—	4,639	2,559	2,455	2,808
Wool, manuf.	value	456,638	513,721	557,923	271,604	27,009	32,192	32,131	15,700
Wool, manuf.	value	—	—	—	—	1,592	1,255	1,322	223
Wool, manuf.	value	—	—	—	—	47,937	35,815	29,391	40,820
Total						433,887	582,209	417,643	514,686

Between 1859-63, the trade of Greece was as follows:—

Year	Imports		Exports	
	value	value	value	value
1859	£1,784,268	£996,069	—	—
1860	2,038,951	1,088,122	—	—
1861	1,913,969	1,139,280	—	—
1862	1,753,917	1,121,119	—	—
1863	2,750,280	935,605	—	—

One-half of the exports of Greece are shipped to the United Kingdom. The import trade is shared between Great Britain, Turkey, France, Austria, and Russia.

Money, Weights and Measures.—The following are the British equivalents of the Greek moneys, &c.:—

100 lepta	equal to	1 drachma
2412 drachmas	"	1 £ sterling
2,128 Venetian lb.	"	1 ton
400 drams	"	1 oke
1 oke	"	22 lb.
1 klio	"	1 bushel
1 pik	"	2 1/2 inches
1 dts. for cloth	"	27 inches
33 stremma	"	1 acre

The paper circulation of the Greek National Bank on Dec. 31, 1867 (Old Style), was 20,127,435 drachmas. The specie in the coffers of the bank

and its branches, was 9,505,722 drachmas, and the debt due to it by the Government 9,521,943 drachmas.

**Tariff.**—In February 1867, the duty on all articles of export was abolished, except on valonia, raisins (including currants), and figs, and it was to cease on these also on Oct. 5, 1867.

On the other hand, the duties on almost every article of import have been increased. The basis of the tariff, supposed to be 10 per cent. ad valorem, is in reality on many articles a great deal higher. Thus:—

	per cent.
Manufactured goods pay about	15 to 30
Bottled wine of ordinary quality	30 "
Scented soap	60 "
Gloves	15 "

In addition to this there is about  $\frac{1}{2}$  per cent. town dues, and  $\frac{1}{2}$  per cent. mole dues. (Mr. Consul Ongley's and Mr. Consul Martin's Reports of April 24 and June 9, 1868.)

#### PORT CHARGES IN THE KINGDOM OF GREECE.

##### Tonnage.

*In the Ports of Patras, Syra, Nauplia, Piræus, Marathonensis, Pylos, Calamata, and Navarino.*

On vessels under 5 tons	-	-	free
of 20 "	-	-	9 lep.
above 20 "	-	-	12 lep.

##### In the other Ports.

On vessels under 5 tons	-	-	free
of 20 "	-	-	6 lep.
above 20 "	-	-	9 lep.

##### Permit of Departure.

On vessels under 5 tons	-	-	free
of from 5 to 20 tons	-	-	50 lep.
21 to 50 "	-	-	1 dr.
51 to 100 "	-	-	2 drs.
101 to 200 "	-	-	3 drs.
201 to 300 "	-	-	4 drs.
301 tons and above	-	-	5 drs.

##### Lighthouse (only where there is one).

On vessels under 5 tons	-	-	free
of from 5 to 20 tons	-	-	50 lep.
21 to 50 "	-	-	1 dr.
51 to 101 "	-	-	2 drs.
101 to 200 "	-	-	5 drs.
201 to 300 "	-	-	8 drs.
301 tons and above	-	-	9 drs.
When gunpowder remains on board, for every 2½ lb. per month of 30 days	-	-	2 lep.
When it is placed in the public magazine, for the same quantity and time	-	-	3 lep.

**Observations on the Tonnage Duty.**—1. Vessels arriving from abroad loaded, and which discharge their cargoes, and depart loaded, pay the whole duty.

2. Vessels arriving from abroad loaded, and which depart in ballast, pay two-thirds of the duty, which is also exacted if they arrive in ballast and depart loaded.

3. Vessels arriving from abroad in ballast, and departing without lading, or arriving and departing with cargo, and not discharging any of it, pay one-third of the duty.

4. Vessels arriving from and going to another port of the kingdom pay but one-half of the duty.

5. A vessel is considered as loaded, whether she be so fully or partially.

**Exceptions.**—1. Every vessel forced to enter a port, either by a storm or in consequence of damage, is exempted from all charges during 8 days.

2. Every vessel entering a port, from whatever cause, and destined to another port, and the master of which shall immediately make a declaration to the captain of the port, that he has no intention either of loading or discharging his goods, may remain 5 days without paying any duty except the lighthouse duty. He is permitted also to receive or to deliver letters or

money, unless otherwise provided for by special ordinances.

In 1867 a new tax, called *mole dues*, of 10 leptas ( $\frac{1}{2}$  shilling, per ton) was imposed on all vessels entering the port.

**Quarantine.**—From the Board of Trade notice of Sept. 3, in the *London Gazette* of Sept. 4, 1868, it appears that a steamboat or merchant vessel, whatever its nationality or port of departure, is not required, on entering a Greek port, to have a bill of health visé by a Greek or other consul, unless cholera or other infectious disease is prevalent on the Mediterranean coast. If cholera be prevalent, and there is no Greek or any foreign consul at the port of departure, the Greek authorities will ascertain the sanitary condition of that port, and take such steps with regard to quarantine as seem to them best calculated to promote the public health. The certificate of a merchant (Greek or foreign, at the port of departure, would influence, though it would not bind, the quarantine authorities.

**Commerce, Shipping &c.**—The Greeks have particularly distinguished themselves by their energy and success with which they have engaged in naval and mercantile enterprises. Their commerce, next to their freedom, was the grand source of the prosperity of Athens, Corinth, and other Greek cities of antiquity. "C'est, au reste, à cet esprit de commerce, qui s'empara de la plus grande partie des habitans de la Grèce, que ces peuples ont été redevables de ce degré de puissance et de considération dont ils ont joui pendant quelques siècles. Une nation commerçante est, en général, une nation active et industrielle. Le trafic maritime surtout exige beaucoup de travail, de hardiesse et de sagacité. Ces qualités influent nécessairement sur les mœurs, et rendent les esprits plus propres aux grandes entreprises." (Coguet, *De l'Origine des Loix* etc. iii. 155.) And in these respects the modern Greeks have been no unsuccessful imitators of their illustrious progenitors. The great articles of export from Greece consist of currants, silk, figs, wool, olive oil, valonia, wine, sponge, wax, tobacco &c.; the principal imports being manufactured cotton and woollen goods, corn, with a great variety of subordinate articles, principally from England, but partly, also, from France and Germany. The mercantile navy of Greece was in 1865 estimated at 4,422 vessels, of the aggregate burden of 262,531 tons, employing 24,672 seamen. The Greeks have, in fact, attained to the distinction of being the carriers, factors, and traders of the Levant.

We borrow from Mr. Consul Merlin's last report the annexed table, showing the trade at Piræus in 1866 and 1867:—

Entered	Total No. of all Vessels, including Coasting Trade	Total Tonnage	Total Value of Cargoes
1866	5,768	390,876	£ 13,130,000
1867	5,442	392,127	13,000,000
Cleared	5,516	390,874	13,130,000
1867	5,330	387,128	13,000,000

It is expected that the railway from the Piræus to Athens will be completed this year, 1868.

We avail ourselves of this opportunity to observe that the prejudices entertained in the country against the Greeks are alike unreasonable and ill-founded. It was not to be expected that they should be trodden under foot, and subjected for centuries to the brutal tyranny of the Turks without contracting many of the vices incident to so degraded a state. But their enterprises

urgency, and activity have not been impaired; and the bad habits that were forced upon them in their enslaved condition are gradually disappearing. Whatever there is of industry or improvement in Turkey, is wholly owing to the Greeks, or, if not to them, to some Christian tribe. The Turks have not made, and we believe we may safely affirm never will make, the smallest advance. Their character and their religion are insuperable obstacles to their progress; and their expulsion from Europe would be more for the advantage of this quarter of the world than any other that appears possible. Neither have we any doubt that eventually they will be expelled. The Greeks are gaining every day upon the Turks; and, as the antipathy between the two races is strong, deep-rooted, and all but irreconcilable, the presumption is, that as soon as the Christians gain the ascendancy, the Turks will themselves withdraw to Asia. The selfishness of some of the Christian Powers, and the insupportable jealousies of others, may retard for a time this desirable consummation. But in whatever way it may be brought about, whether with or without Russian assistance, it will be most beneficial; and we hardly think that it is likely to be long delayed.

It is deeply to be regretted that Candia, or Crete, was not either added to the new kingdom of Greece, or made independent. We cannot help regarding it as disgraceful to the Christian nations of Europe, that this famous island, where European civilisation first struck its roots, should be assigned to the barbarians by whom it is now laid waste. It is as well entitled to the favourable consideration of England, France, and Russia, as any part of Continental Greece; and we do hope that measures may yet be devised for rescuing it from the atrocious despotism by which it has been so long weighed down.

**PATTERNS.** Specimens or samples of commodities transmitted by manufacturers to their correspondents, or carried from town to town by travellers, in search of orders.

**PAWNBROKERS AND PAWNBROKING.** A pawnbroker is a species of banker, who advances money, at a certain rate of interest, upon security of goods deposited in his hands; having power to sell the goods, if the principal sum and the interest thereon be not paid within a specified time.

**1. Advantages and Disadvantages of Pawnbroking.**—The practice of impledging or pawning goods in order to raise loans, is one that must necessarily always exist in civilised societies, and in many cases, productive of advantage to the parties. But it is a practice that is extremely liable to abuse. By far the largest proportion of the bona fide borrowers of money on pawn consist of the lowest and most indigent classes; and were the lenders not subjected to any species of regulation, advantage might be taken (as, indeed, it is occasionally taken, in despite of every precaution) of their necessities, to subject them to the most grievous extortion. But, besides those whose wants compel them to resort to pawnbrokers, there is another class, who have recourse to them in order to get rid of the property they have unlawfully acquired. Not only, therefore, are pawnbrokers instrumental in relieving the pressing urgent necessities of the poor, but they may, even without intending it, become the most efficient allies of thieves and swindlers, by rendering them ready and convenient outlets for the disposal of their ill-gotten gains. The policy of giving legislative protection to a business so liable to abuse, has been doubted by many. But

though it were suppressed by law, it would always really exist. An individual possessed of property which he may neither be able nor willing to dispose of, may be reduced to a state of extreme difficulty; and in such case, what can be more convenient or advantageous for him than to get a loan upon a deposit of such property, under condition that if he repay the loan, and the interest upon it, within a certain period, the property will be returned? It is said, indeed, that the facilities of raising money in this way foster habits of imprudence; that the first resort for aid to a pawnbroker almost always leads to a second, and that it is impossible so to regulate the business, as to prevent the ignorant and the necessitous from being plundered. That this statement, though exaggerated, is, to a certain extent, true, no one can deny. On the other hand, however, the capacity of obtaining supplies on deposits of goods, by affording the means of meeting pressing exigencies, in so far tends to prevent crime, and to promote the security of property; and it would seem as if the desire to redeem property in pawn would be one of the most powerful motives to industry and economy. At the same time, too, it must be borne in mind, that it is not possible, do what you will, to prevent those who are poor and uninstructed from borrowing; and that they must, in all cases, obtain loans at a great sacrifice, and be liable to be imposed upon. But the fair presumption is, that there is less chance of any improper advantage being taken of them by a licensed pawnbroker, than by a private and irresponsible individual. Although, however, the business had all the inconveniences, without any portion whatever of the good which really belongs to it, it would be no purpose to attempt its suppression. It is visionary to imagine that those who have property will submit to be reduced to the extremity of want, without endeavouring to raise money upon it. Any attempt to put down pawnbroking would merely drive respectable persons from the trade, and throw it entirely into the hands of those who have neither property nor character to lose. And hence the object of a wise Legislature ought not to be to abolish what must always exist, but to endeavour, so far at least as is possible, to free it from abuse, by enacting such regulations as may appear to be best calculated to protect the ignorant and the unwary from becoming the prey of swindlers, and to facilitate the discovery of stolen property.

**2. Obligations under which Pawnbrokers should be placed.**—For this purpose it seems indispensable that the interest charged by pawnbrokers should be limited; that they should be obliged to give a receipt for the articles pledged, and to retain them for a reasonable time before selling them; that the sale, when it does take place, should be by public auction, or in such a way as may give the articles the best chance for being sold at a fair price; and that the excess of price, if there be any, after deducting the amount advanced, and the interest and expenses of sale, should be paid over to the original owner of the goods. To prevent pawnbrokers from becoming the receivers of stolen goods, they should be liable to penalties for making advances to any individual unable to give a satisfactory account of the mode in which he became possessed of the property he is desirous to pawn; the officers of justice should at all times have free access to their premises; and they should be obliged carefully to describe and advertise the property they offer for sale.

**3. Law as to Pawnbrokers.**—It may appear singular that pawnbrokers should hardly have

provided for by special  
 ed *moie dues*, of 10  
 ), was imposed on all  
 Board of Trade notice  
*gazette* of Sept. 4, 1868,  
 at or merchant vessel,  
 e port of departure, is  
 Greek port, to have a  
 Greek or other consular  
 official disease is preven-  
 tion of cholera is  
 coast. If cholera be  
 Greek or any foreign  
 ture, the Greek authori-  
 tary consular officer of that  
 with regard to quaran-  
 tine calculations, promote  
 certificate of a merchant,  
 port of departure, would  
 not bind, the quarantine

—The Greeks have  
 themselves by their in-  
 they have engaged in  
 enterprises. Their com-  
 freedom was the grand  
 of Athens, Corinth, and  
 tiquity. "C'est, au reste,  
 qui s'empara de la plus  
 ans de la Grèce, que ce  
 des de ce degré de puis-  
 dont ils ont joui pendant  
 nation commerçante est  
 a active et industrieuse  
 tout exige beaucoup d  
 de sagacité. Ces quinze  
 sur les mœurs, et rendre  
 a aux crâmes entreprises.  
*des Loix etc.*, iii, 153.  
 the modern Greeks have  
 imitations of their illustri-  
 at articles of export fre-  
 quents, silk, furs, wool, olive  
 ge, wax, tobacco &c.; the  
 of manufactured cotton are  
 with a great variety of sub-  
 stances, principally from  
 Russia and Germany. The  
 value was in 1865 estimated  
 the aggregate burden of  
 being 24,672 seamen. The  
 claimed to be the diminished  
 factors, and traders of the

Consul Merlin's last  
 showing the trade at the  
 7:—

Total Tonnage	Total Value of Cargoes
390,876	£ 52,330
394,127	56,000
390,854	11,200
287,158	15,800

the railway from the Pinar  
 (etc.) this year, 1868.  
 of this opportunity  
 edices entertained in the  
 eeks are alike unreasonable  
 as not to be expected the  
 under foot, and subjected  
 tal tyranny of the Turk  
 any of the vices incident  
 e. But their enterpris-

been named in any legislative enactment till after the middle of last century. It was enacted by the 30 Geo. II, c. 24 that a *duplicate* or receipt should be given for goods pawned; and that such as were pawned for any sum less than 10*l.* might be recovered any time within two years, on payment of the principal and interest; but the rate of interest was not fixed. This defect was supplied by the 25 Geo. III, c. 48; but the Act 39 & 40 Geo. III, c. 99 (though slightly modified by subsequent Acts) contains the latest and most complete regulations on the subject.

Every person exercising the trade of a pawnbroker must take out a license, renewable annually, 10 days at least before the end of the year, for which he shall pay, within the cities of London and Westminster and the limits of the twopenny post, 15*l.*, and everywhere else, 7*l.* 10*s.* No person shall keep more than 1 house by virtue of 1 license; but persons in partnership need only take out 1 license for 1 house. All persons receiving goods by way of pawn or pledge for the repayment of money lent thereon, at a higher rate of interest than 5 per cent., to be deemed pawnbrokers.

Upon every pledge on which there shall have been lent not exceeding 2*s.* 6*d.*, interest may be charged at the rate of  $\frac{1}{4}$ *l.* per month.

<i>£</i>	<i>s.</i>	<i>d.</i>	<i>d.</i>	per month.
10	0	0	1	13
0	7	0	1	13
0	10	0	1	13
0	14	0	1	13
0	15	0	1	13
0	17	0	1	13
1	0	0	1	13
2	0	0	1	13

And for every sum exceeding 40*s.* and not exceeding 10*l.*, at the rate of 3*l.* in the pound by the calendar month, including the current month; and so in proportion for any fractional sum.

Pawnbrokers are to give farthings in exchange.

Persons applying to redeem goods pawned within 7 days after the first calendar month after the same shall have been pledged, may redeem the same without paying anything for the first 7 days; and, upon applying before the expiration of 14 days of the second calendar month, shall be at liberty to redeem such goods, upon paying the profit payable for 1 calendar month and the half of another; and in all cases where the parties so entitled, and applying as aforesaid, after the expiration of the first 14 days, and before the expiration of the second month, the pawnbroker is allowed to take the interest of the whole second month; and the same regulations and restrictions shall take place in every subsequent month.

When goods are pawned for more than 5*s.*, the pawnbroker, before advancing the money, shall immediately enter in his books a description of the pawn, the money lent thereon, the day of the month and year, the name of the person pawning, and the name of the street, and number of the house, if numbered, where such person resides, and use of the letter L, if the person be a lodger, and the letters H K, if a housekeeper; and also the name and abode of the owner of the party offering such pledge; and if the money lent shall not exceed 5*s.*, such entry shall be made within 4 hours after the goods shall have been pawned; and the pawnbroker shall, at the time of taking the pawn, give to the person so pawning a duplicate, corresponding with the entry in the book, which the party pawning shall take in all cases; and the pawnbroker shall not receive any pledge, unless the party so pawning shall receive such duplicate.

#### Rates Payable for Duplicates.

* If under 10 <i>s.</i>	-	1 <i>d.</i>
10 <i>s.</i> and under 50 <i>s.</i>	-	1 <i>d.</i>
50 <i>s.</i> and under 1 <i>l.</i>	-	1 <i>d.</i>
1 <i>l.</i> and upwards	-	1 <i>d.</i>

\* (25 Vict. c. 21. A pawnbroker may take  $\frac{1}{4}$ *l.* on 1*l.* or 1*l.* on 1*l.* memorandum, when the sum is below 10*s.*)

The duplicate to be produced to the pawnbroker before he shall be compelled to deliver the respective goods and chattels, except as hereinafter excepted.

The amount of profits on duplicates shall be added on pledges redeemed, and such duplicate shall be kept by the pawnbroker for 1 year.

Persons pawning other people's goods without their consent may be apprehended by the warrant of 1 justice, and convicted in a penalty not exceeding 5*l.* nor less than 20*s.*, and the full value of the goods pawned; and if the forfeiture be not immediately paid, the justice shall commit the party to the house of correction, to be kept to hard labour for 3 calendar months; and if within 3 days before the expiration of the commitment the forfeiture shall not be paid, the justice may order the person to be publicly whipped, and the forfeitures shall be applied towards making satisfaction to the party injured, and defraying the costs; but if the party injured shall decline to accept such satisfaction and cost, or if there be any surplus, such forfeitures or surplus shall be paid to the poor of the parish.

Persons forging or counterfeiting duplicates may be seized and delivered to a constable, who shall convey them before a justice; and, upon conviction, such person shall be committed to the house of correction for any time not exceeding 3 calendar months.

Persons offering pledges, not giving a satisfactory account of themselves, or the means by which they became possessed of such goods, wilfully giving any false information, or if they shall be reason to suspect that such goods are stolen, or illegally obtained, or if any person so entitled to redeem goods in pawn shall endeavor to redeem the same, they may be seized and delivered to a constable, to be carried before a justice; and if there should appear ground for a second examination, they shall be committed to the common goal or house of correction, to be dealt with according to law; or where such proceedings are not authorised by the nature of the offence, the party shall be committed to any time not exceeding 3 calendar months.

Persons buying or taking in pledge unfinished goods, linen, or apparel, intrusted to others to wash or mend, shall forfeit double the sum lent, and restore the goods.

Peace officers are empowered to search for unfinished goods which shall be come by unlawfully.

When goods are unlawfully pawned, the pawnbroker is to restore them; and their house may be searched during the hours of business by a warrant from a magistrate, for the discovery of such property.

Persons producing notes or memorandums to be deemed the owners of the property.

Where duplicates are lost, the pawnbroker, upon affidavit made by the owner of such loss before a magistrate, shall deliver another duplicate.

Goods pawned are deemed forfeited at the end of a year; but on notice from persons having goods in pledge, 3 months further are to be allowed beyond the year for redemption; and notice to be given before the twelvemonth expired.

All goods pawned may be sold at the expiration

tion of one whole year; and all goods so forfeited, on which above 10s. and not exceeding 10l. shall have been lent, shall be sold by public auction, and not otherwise; notice of such sale being twice given at least 3 days before the auction, in a public newspaper, upon pain of forfeiting to the owner of the goods not more than 5l. nor less than 2l.

All pictures, prints, books, bronzes, statues, busts, carvings in ivory and marble, encaustic, etchings, musical, mathematical and philosophical instruments, and china, shall be sold by themselves, and without other goods, 4 times only in every year; viz. on the first Monday in January, April, July, and October, in every year.

Pawnbrokers are not to purchase goods while in their custody, nor take in pledges from persons under 12 years of age, or intoxicated; nor take in any goods before 8 in the forenoon or after 7 in the evening between Michaelmas-day and Lady-day, or before 7 in the forenoon or after 8 in the evening during the remainder of the year, excepting only until 11 on the evenings of Saturday, and the evenings preceding Good Friday and Christmas-day, and every fast or thanksgiving day.

An account of the sale of pledges on which advances of more than 10s. have been made, is to be entered by pawnbrokers in a book, and the surplus is to be paid to the owner of the goods pawned, if demanded within three years of the sale, under penalty of 10l. and treble the sum lent.

Pawnbrokers are to place in view the table of goods and their name and business is to be placed over the door, on penalty of 10l.

Pawnbrokers injuring goods, or selling them before the time specified, shall, upon application to a magistrate, be compelled to make satisfaction for the same; and if the satisfaction awarded shall be equal to or exceed the principal and profits, the pawnbroker shall deliver the goods pledged to the owners without being paid anything for principal or profit.

Pawnbrokers shall produce their books before a magistrate; or, refusing so to do, shall forfeit a sum not exceeding 10l. nor less than 5l.

Pawnbrokers offending against this Act, shall forfeit for every offence not less than 40s. nor more than 10l.

It has been held by the Court of King's Bench, that a pawnbroker has no right to sell unredeemed pledges, after the expiration of a year from the time the goods were pledged, if, while they are in his possession, the original owner tender him the principal and interest due. (Waller v. Smith, January 22, 1820.) On a motion for a new trial, Lord Tenterden said, 'I am of opinion, that if the pledge be not redeemed on the expiration of a year and a day (and no notice given that 3 months further are to be allowed for its redemption), the pawnbroker has a right to expose it to sale so soon as he can, consistently with the provisions of the Act: but if at any time before the sale has actually taken place, the owner of the goods tender the principal and interest, and expenses incurred, he has a right to his goods, and the pawnbroker is not injured; for the power of sale is allowed him merely to secure to him the money which he has advanced, together with the high rate of interest which the law allows to him in his character of pawnbroker.'

By 22 & 23 Vict. c. 14, the provisions of 2 & 3 Geo. c. 71 ss. 32-35 are applied to pawnbrokers. The provisions give magistrates power to award amends against frivolous informations

to the extent of 5l., and any penalties to the extent of 10l. on common informers in compounding informations; with power to lessen the share of informers, and to mitigate penalties. The word magistrato must be taken to include stipendiary magistrates or justices of the peace.

Such is the present state of the law with respect to pawnbrokers. On the whole, the regulations seem to be judiciously devised. Perhaps, however, the rate of interest on small deposits might be advantageously lowered. The law allows interest at the rate of 1/4 per month to be charged on loans of 2s. 6d., which is at the rate of 20 per cent.; but the same sum of 1/4 per month is exigible from all smaller loans; and a very many do not exceed 1s. 6d., and even 6d., the interest on them is exceedingly oppressive. No doubt there is a great deal of trouble with respect to such loans, and the pawnbrokers allege that they form the least profitable part of their business; but still, considering the vast number of advances under 2s. 6d., it would seem that the interest on them might be somewhat reduced. Perhaps, too, it might be advisable, still better to secure compliance with the statute, to enact that no one should be licensed as a pawnbroker without producing sufficient security for a certain sum, to be forfeited in the event of his knowingly or wilfully breaking or evading any of its provisions. This would prevent (what Colquhoun says is not an uncommon practice) swindlers from becoming pawnbrokers, in order to get the means of selling stolen goods. (*Treatise on the Police of the Metropolis*, 2nd ed. p. 156; and *private information*.)

It would be a useful regulation to oblige pawnbrokers to insure against losses by fire. Much mischief has been occasioned by the neglect of this precaution.

The duties on pawnbrokers' licenses produced, in the United Kingdom in 1867, 32,107l.

1. *Notices of Pawnbroking in Italy, France &c.*

—The practice of advancing money to the poor, either with or without interest, seems to have been occasionally followed in antiquity. (Beckmann, vol. iii. p. 14, 1st Eng. ed.) But the first public establishments of this sort were founded in Italy, under the name of *Monti di Pietà*, in the 14th and 15th centuries. As it was soon found to be impossible to procure the means of supporting such establishments from voluntary contributions, a bull for allowing interest to be charged upon the loans made to the poor was issued by Leo X. in 1521. These establishments, though differing in many respects, have universally for their object to protect the needy from the risk of being plundered by the irresponsible individuals to whom their necessities might oblige them to resort, by accommodating them with loans on comparatively reasonable terms. And though their practice has not, in all instances, corresponded with the professions they have made, there seems no reason to doubt that they have been, speaking generally, of essential service to the poor.

From Italy these establishments have gradually spread over the Continent. The *Mont de Piété* in Paris, was established by a royal ordinance in 1777; and after being destroyed by the Revolution, was again opened in 1797. In 1804, it obtained a monopoly of the business of pawnbroking in the capital. Loans are made, by this establishment, upon deposits of such goods as can be preserved, to the amount of two-thirds of the estimated value of all goods other than gold and silver, and to four-fifths of the value of the latter. No loan is for less than 3 francs (2s. 6d.). The advances are made for a year, but the borrower may renew

the engagement. Interest is fixed at the rate of one per cent. per month.

The *Mont de Piété* has generally in deposit from 600,000 to 650,000 articles, worth from 12,000,000 to 13,000,000 francs. The expense of management amounts to from 60 to 65 centimes for each article, so that a loan of 3 francs never defrays the expenses it occasions, and the profits are wholly derived from those that exceed 5 francs. At an average the profits amount to about 280,000 francs, of which only about 155,000 are derived from loans upon deposit, about 125,000 being the produce of other funds at the disposal of the company.

In some respects, particularly the lowness of interest upon small loans, and the greater vigilance exercised with respect to the reception of stolen goods, the *Mont de Piété* has an advantage over the pawnbroking establishments in this country. It may be doubted, however, whether it is, on the whole, so well fitted to attain its objects. The limitation of the loans to 3 francs would be felt to be a serious grievance here, and it can hardly be otherwise in France; nor is it to be supposed, that the servants of a great public establishment will be so ready to assist poor persons, having none but inferior articles to offer in security, as private individuals anxious to get business. And such, in point of fact, is found to be the case, not in Paris only, but in all those parts of the Continent where the business of pawnbroking is confined to a few establishments. And hence, though the question be not free from difficulty, it would seem that, were the modifications already suggested adopted, our system would be the best of any.

For further information with respect to this curious and interesting subject, the reader is referred to the *Traité de la Bienfaisance publique* of Degerando, iii. 1-55; besides giving a succinct historical notice of *Monts de Piété*, the learned author has discussed, with equal sagacity and ability, most part of the knotty questions connected with the proper organisation of these establishments, and with their influence on society.

#### PEARL-ASH. [POTASH.]

PEARLS (Dutch, *paarlen*; Fr. *perles*; Ger. *perlen*; Ital. *perle*; Lat. *margaritæ*; Russ. *shemtschug*; *perli*; Span. *perlas*; Arab. *looloo*; Cing. *mootoo*; Hin. *mootie*). Well-known globular concretions found in several species of shell-fish, but particularly the mother-of-pearl oyster (*Concha margaritifera*, Linn.). Pearls should be chosen round, of a bright translucent silvery whiteness, free from stains and roughness. Having these qualities, the largest are of course the most valuable. The larger ones have frequently the shape of a pear; and when these are otherwise perfect, they are in great demand for earrings. Ceylon pearls are most esteemed in England.

*Value &c. of Pearls.*—Pearls were in the highest possible estimation in ancient Rome, and bore an enormous price. ('Principium culmenque omnium rerum pretii, margaritæ tenent.' Plin. *Hist. Nat.* lib. x. c. 35.) Their price in modern times has very much declined; partly, no doubt, from changes of manners and fashions; but, more probably, from the admirable imitations of pearls that may be obtained at a very low price. According to Mr. Milburn, a handsome necklace of Ceylon pearls, smaller than a large pea, costs from 170*l.* to 300*l.*; but one of pearls about the size of peppercorns may be had for 15*l.*; the pearls in the former sell at a guinea each, and those in the latter at about 1*s.* 6*d.* When the pearls dwindle to the size of small shot, they are denominated *seed* pearls, and are of little value. They are mostly sent to China. One of the most remarkable pearls of

which we have any authentic account was bought by Tavernier, at Catifa, in Arabia, a fishery famous in the days of Pliny, for the enormous sum of 110,000*l.* It was pear-shaped, regular, and without blemish. The diameter was 63 inch at the largest part, and the length from 2 to 3 inches.

Mr. Emanuel says, in 1865 (*Diamonds and Precious Stones*), that 'a perfect white drop pearl of 80 to 100 grains, is worth from 7*l.* to 11*l.* per grain; those of 50 to 80 grains from 4*l.* to 7*l.*; those from 30 to 50 grains from 3*l.* to 6*l.*; smaller sizes bringing from 20*s.* to 60*s.* per grain. Misshapen pearls, called *barrok* pearls, are worth from 10*l.* to 200*l.* per ounce, depending on quality, colour, and size. Pink pearls are worth from 3*s.* to 40*s.* the grain. Black and lead-coloured pearls bring a large price, when they are of a fine shape and good colour. Unboiled pearls are called *virgins*, worn ones *widows*. Boring is done best in India, for the Indian borers make the hole smaller and straighter than the English. In drilling, a bow and steel are used with a very fine drill, the pearl being held between two pieces of wood. It is said that the finest pearl necklaces in existence are, that possessed by the Empress of the French, and that presented to the Queen by the East India Company. The Duke of Abercorn possesses a matchless drop pearl of great size.

Much difference of opinion has existed among naturalists with respect to the production of pearls in the oyster; but it seems now to be generally believed that it is the result of disease, and is formed in the same manner as bezoar [*Bezoar*] pearls, like it, consisting of successive coats spread with perfect regularity round a foreign nucleus. In fact, the Chinese throw into a species of shell fish (*Mytilus cygneus*, or swan muscle), when it opens, 5 or 6 very minute mother-of-pearl beads strung on a thread; and in the course of a year they are found covered with a pearly crust, which perfectly resembles the real pearl. (Milburn's *Orient. Com.*; Ainslie's *Mat. India*; &c.)

*Pearl Fisheries.*—The pearl oyster is fished in various parts of the world, particularly on the west coast of Ceylon, though of late years the fishery here has not been productive; at Tuticoreen, in the province of Tinnevely, on the coast of Coromandel; at the Bahrein Islands, in the Gulf of Persia; at the Sooloo Islands; off the coast of Algiers; off St. Margarita, or Pearl Islands in the West Indies, and other places on the coast of Colombia; and in the Bay of Panama, in the South Sea. Pearls have sometimes been found on the Scotch coast, in Scotch rivers, and in various other places in Europe.

The pearl fishery of Tuticoreen is monopolized by the Indian, and that of Ceylon by the Colonial Government. But these monopolies are of no value; as in neither case does the sum for which the fishery is let equal the expenses incurred in guarding, surveying, and managing the banks. It is, therefore, sufficiently obvious that this system ought to be abolished, and everyone allowed to fish on paying a moderate license duty. The fear of exhausting the banks is quite ludicrous. The fishery would be abandoned as unprofitable long before the breed of oysters had been seriously diminished; and in a few years it would be as productive as ever. Besides giving more life to the fishery, the abolition of the monopolies would put an end to some very oppressive regulations, enacted by the Dutch more than a century ago.

*Persian Gulf.*—The most extensive pearl fisheries are those on the several banks not far distant from the island of Bahrein, on the west side of the Persian Gulf, in 1*st.* 26° 30' N., long

account was bought Arabia, a fishery of the enormous sum of 453,000, and regular, and with diam from 2 to 3 inches. 565 (*Diamonds and* perfect white drop worth from 7 to 11. 0 grains from 34 to 50, 20s. to 60s. per grain. *Brook pearls*, are worth depending on quality, pearls are worth from neck and lead-coloured when they are of a fine shored pearls are called Boring is done best in make the hole smaller English. In drilling, a with a very fine drill, the two pieces of wood. In necklaces in existence Empress of the French, Queen by the East India of Abercorn possesses a rent size.

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se most extensive pearl the several banks not f of Bahrein, on the We of, in lat. 26° 30' N., lon

110° E.; but pearl oysters are found along the whole of the Arabian coast, and round almost all the islands of the Gulf. Such as are fished in the sea, near the Islands of Karrak and Corgo, contain pearls said to be of a superior colour and description. They are formed of 8 layers or folds, whilst others have only 5, but the water is too deep to make fishing for them either very profitable or easy. Besides, the entire monopoly of the fishery is in the hands of the sheik of Bushire, who seems to consider these islands as his immediate property.

The fishing season is divided into two portions—the one called the short and cold, the other the long and hot. In the cooler weather of the month of June, diving is practised along the coast in shallow water; but it is not until the intensely hot months of July, August, and September, that the Bahrein banks are much frequented. The water on them is about 7 fathoms deep, and the divers are much inconvenienced when it is cold; indeed, they can do little when it is not as warm as the air, and it frequently becomes even more so in the hottest months of the summer. When they dive, they compress the nostrils tightly with a small piece of horn, which keeps the water out, and stuff their ears with beeswax for the same purpose. They attach a net to their waist, to contain the oysters; and aid their descent by means of a stone, which they hold by a rope attached to a boat, and shake it when they wish to be drawn up. From what I could learn, 2 minutes may be considered as rather above the average time of their remaining under water. Although severe labour, and very exhausting at the time, diving is not considered particularly injurious to the constitution; even old men practise it. A person usually dives 12 to 15 times a day in favourable weather, but when otherwise, 3 or 4 times only. The work is performed on an empty stomach. When the diver becomes fatigued, he goes to sleep, and does not eat until he has slept some time.

At Bahrein alone, the annual amount produced by the pearl fishery may be reckoned at from 200,000 to 240,000*l.* If to this, the purchases made by the Bahrein merchants or agents at Abouthebe Sharga, Ras-ul Khymack &c. be added, which may amount to half as much more, there will be a total of about 300,000*l.* or 360,000*l.*, but this is calculated to include the whole pearl trade of the Gulf; for it is believed that all the principal merchants of India, Arabia, and Persia, who deal in pearls, make their purchases, through agents, at Bahrein. I have not admitted in the above estimate much more than one-sixth of the amount some native merchants have stated it to be, as a good deal seemed to be matter of guess or opinion, and it is difficult to get at facts. My own estimate is in some measure checked by the estimated profits of the small boats. But even the sum which I have estimated is an enormous annual value for an article found in other parts of the world as well as here, and which is never used in its best and most valuable state, except as an ornament. Large quantities of the seed pearls are used throughout Asia, in the composition of majoons or electuaries, to form which all kinds of precious stones are occasionally mixed, after being pounded, excepting, indeed, diamonds; these being considered, from their bitterness, as utterly indigestible. The majoon, in which there is a large quantity of pearls, is much sought for and valued, on account of its supposed stimulating and restorative qualities.

The Bahrein pearl fishery boats are reckoned to amount to about 1,500, and the trade is in the hands of merchants, some of whom possess con-

siderable capital. They bear hard on the producers or fishers, and even those who make the greatest exertions in diving hardly have food to eat. The merchant advances some money to the fishermen at cent. per cent., and a portion of dates, rice, and other necessary articles, all at the supplier's own price; he also lets a boat to them, for which he gets one share of the gross profits of all that is fished; and, finally, he purchases the pearls nearly at his own price, for the unhappy fishermen are generally in his debt, and therefore at his mercy. (*Manuscript Notes communicated by Major D. Wilson, late Political Resident at Bushire.*)

The total number of towns, villages and hamlets which send boats to the pearl fishery is about 140, including those of Bahrein, while the mean number of boats furnished by each is about 40. The sum of fishing vessels would therefore equal 5,600 in all. Each boat owner has to pay for every boat that he mans for the pearl season, a sum amounting to about 30*l.* of English money, besides a small percentage on the produce seldom exceeding a rial and a half, i.e. about 8*s.*; this added to the boat tax gives 38*s.* (*Palgrave's Arabia.*)

The fishery at Algiers was farmed by an English association in 1826, but we are ignorant as to the success of this undertaking.

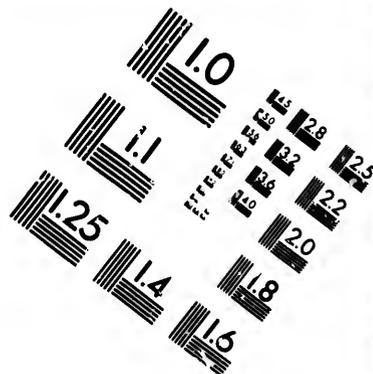
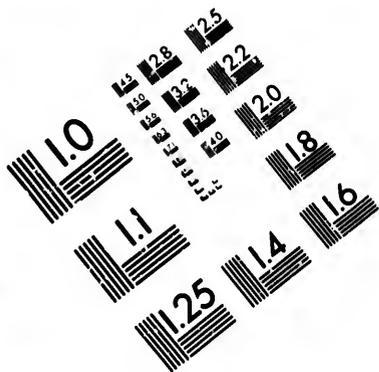
The pearl fisheries on the coast of Colombia were at one time of very great value. In 1587, upwards of 637 lb. of pearls are said to have been imported into Seville. Philip II. had one from St. Margarita, which weighed 250 carats, and was valued at 150,000 dollars. But, for many years past, the Colombian pearl fisheries have been of comparatively little importance. During the mania for joint-stock companies, in 1825, two were formed—one, on a large scale, for prosecuting the pearl fishery on the coast of Colombia; and another, on a smaller scale, for prosecuting it in the Bay of Panama and the Pacific. Both were abandoned in 1826.

The best fishery ground is said to be in from 6 to 8 fathoms water. The divers continue under water from a minute to a minute and a half, or at most 2 minutes. They have a sack or bag fastened to the neck, in which they bring up the oysters. The exertion is extremely violent; and, contrary to Major Wilson's opinion, it is believed that the divers are unhealthy and short-lived.

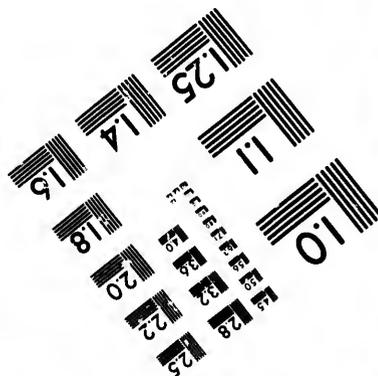
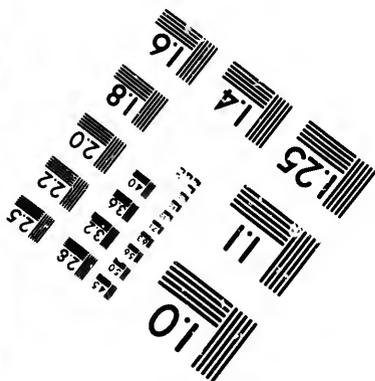
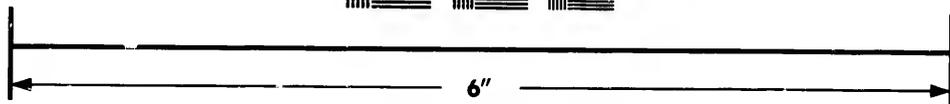
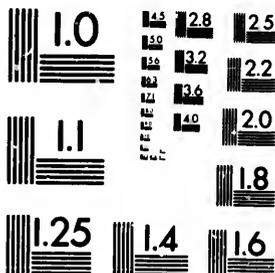
In 1866, we imported pearls of the value of 51,816*l.*, chiefly from Egypt, and in 1867, 38,096*l.* worth, chiefly from St. Thomas.

PEARL SHELLS, commonly called *Mother-of-pearl shells*, are imported from various parts of the East, and consist principally of the shells of the pearl oyster from the Gulf of Persia and other places, particularly the Sooloo Islands, situate between Borneo and the Philippines, the shores of which afford the largest and finest shells hitherto discovered. On the inside, the shell is beautifully polished, and of the whiteness and water of pearl itself; it has the same lustre on the outside, after the external laminae have been removed. Mother-of-pearl shells are extensively used in the arts, particularly in inlaid work, and in the manufacture of handles for knives, buttons, toys, snuff-boxes &c. The Chinese manufacture them into beads, fish, counters, spoons &c.; giving them a finish to which European artists have not been able to attain. Shells for the European market should be chosen of the largest size, of a beautiful pearly lustre, thick and even, and free from stains. Reject such as are small, cracked, or broken, or have lumps on them. When stowed loose as dunnage, they are sometimes allowed to pass free of freight. (*Milburn's Orient. Com.*)





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22 12.0  
25 11.8

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In 1867, 36,175 cwt. were imported, valued at 70,426*l*. They are used largely in lacker and in-laid work at Birmingham. [HARDWARE INDUSTRIES.]

PEAS (Ger. erbsen; Fr. pois; Ital. piselli, pisi; Span. pesoles, guisantes; Russ. goroch). The pea is one of the most esteemed of the leguminous or pulse plants. It is supposed to be indigenous to the south of Europe, and was cultivated by the Greeks and Romans, the latter of whom probably introduced it into Britain. There are many varieties; but the common garden pea (*Pisum sativum*) and the common grey or field pea (*Pisum arvense*) are the most generally cultivated; being reared in large quantities in all parts of the country, particularly in Kent. But since the introduction of the drill husbandry the culture of the pea as a field crop has been to a considerable extent superseded by the bean. Sometimes, however, it is drilled along with the latter; for, being a climbing plant, it attaches itself to the bean, so as to admit the ground being hoed; at the same time that the free admission of air about its roots promotes its growth. It is not possible to frame any estimate of the consumption of peas. The field pea is now hardly ever manufactured into meal for the purpose of being made into bread, as was formerly the case in many parts of the country; but there is reason to think that the garden pea is now more extensively used than ever. In 1868, the total acreage in the United Kingdom devoted to the cultivation of peas was 297,612, and the crop of 1866 occupied 323,184, and that of 1867, 320,697 acres. (Loudon's *Encyc. of Agriculture*; Brown *On Rural Affairs*, vol. ii. p. 72; *Agricultural Returns*, 1867 and 1868. For an account of the laws regulating the importation &c. of peas, see CORN LAWS AND CORN TRADE.) Leguminous crops are very extensively cultivated in India. In 1867 we imported 1,586,129 cwt. of peas, chiefly from Prussia and North America, of the value of 721,604*l*.

PECK. A dry measure for grain, pulse &c. The standard or Imperial peck contains 2 gallons, or 554.55 cubic inches. Four pecks make a bushel, and 4 bushels a coomb. [WEIGHTS AND MEASURES.]

PELLITORY. The root of a perennial plant (*Anthemis pyrethrum*), a native of the Levant, Barbary, and the south of Europe. The root is long, tapering, about the length and thickness of the little finger, with a brownish cuticle. It is imported packed in bales, sometimes mixed with other roots, from which, however, it is easily distinguished. It is inodorous. When chewed, it seems at first to be insipid, but after a few seconds it excites a glowing heat, and a pricking sensation on the tongue and lips, which remains for 10 or 12 minutes. The pieces break with a short resinous fracture; the transverse section presenting a thick brown bark, studded with black shining points, and a pale yellow radiated inside. It is used in medicine as a stimulant. (Thomson's *Dispensatory*; *British Pharmacopœia*, 1867.)

PENANG. [SINGAPORE.]

PENCILS (Ger. pinsel; Dutch penseelen; Fr. pinceaux; Ital. pennelli; Span. pinceles). The instruments used by painters in laying on their colours. They are of various kinds, and made of various materials; some being formed of the bristles of the boar, and others of camel's hair, the down of swans &c.

PENCILS, BLACK LEAD. [BLACK LEAD PENCILS.]

PENKNIVES (Ger. federmesser; Fr. canifs; Ital. temperini; Span. cortaplumas). Small knives, too well known to need any particular

description, used in making and mending pens. The best and most highly ornamented penknives are manufactured in London and Sheffield. [CUTLERY.]

PENNY. Formerly a silver, but now a copper coin. This was the first silver coin struck in England by our Saxon ancestors, being the 240th part of their pound; so that its weight was about 223 grains troy. [COINS.]

PENNYWEIGHT. A troy weight, being the 20th part of an ounce, containing 21 grains. [WEIGHTS AND MEASURES.]

PENS (Fr. plumes à écrire; Ger. schreibfedern; Ital. penne da scrivere; Russ. pera stwoli). Well-known instruments for writing, usually formed of the quills of the goose, swan, or some other bird. Metallic pens have been occasionally employed for a lengthened period; but it is only within the last quarter of a century that they have been extensively introduced. They are now, however, manufactured in vast quantities, and of an immense variety of forms. But though they have superseded, to a very considerable extent, the use of quills, and have some peculiar advantages, it does not appear possible to give them the elasticity of the quill, nor to fit them so well for quick and easy writing on common descriptions of paper.

PEPPER (Fr. poivre; Ger. pfeffer; Dutch, peper; Ital. pepe; Span. pimienta; Russ. perez; Lat. piper). The berry or fruit of different species of plants, having an aromatic, extremely hot, pungent taste, used in seasoning &c. The following sorts of pepper are met with in commerce:—

1. BLACK PEPPER (Fr. poivre; Ger. schwarzer pfeffer; Ital. pepe negro; Span. pimienta; Sansc. mercha; Hin. col-mirch; Malay, lada; Jav. marika). The fruit of a creeping plant (*Piper nigrum*), one of the pepper genus, of which there are upwards of 80 species. It is cultivated extensively in India, Siam, the Eastern islands &c. It requires the support of other trees, to which it readily adheres. It climbs to the height of 20 feet; but is said to bear best when restrained to the height of 12 feet. It begins to produce at about the 3rd year, and is in perfection at the 7th; continues in this state for 3 or 4 years; and declines for about as many more, until it ceases to be worth keeping. The fruit grows abundantly from all the branches, in long small clusters of from 20 to 50 grains; when ripe, it is of a bright red colour. After being gathered, it is spread on mats in the sun, when it loses its red colour, and becomes black and shrivelled as we see it. The grains are separated from the stalks by hand rubbing. That which has been gathered at the proper period shrivels the least; but if plucked too soon, it will become broken and dusty in its removal from place to place. The vine produces two crops in the year; but the seasons are subject to great irregularities.

Pepper should be chosen of a pungent aromatic odour, an extremely hot and acrid taste, in large grains, firm, sound, tegument brownish black, and with few wrinkles—for these it always has some. Reject that which is shrivelled, or small grained, or which on being rubbed will break to pieces.

In point of quality, the pepper of Malabar is usually reckoned the best; but there is no material difference between it and that of Sumatra, and the other islands. In the market of Bengal, where they meet on equal terms, the produce of Malabar is generally about 2 per cent. higher than the other. In Europe, there is generally a difference of 4*d*. per lb. in favour of Malabar; but in China they are held in equal estimation.

PEPPER

Black pepper sold ground is said to be often adulterated with burnt crust of bread.

II. WHITE PEPPER is made by blanching the finest grains of the common black pepper by steeping them for a while in water, and then gently rubbing them, so as to remove the dark outer coat. It is milder than the other, and is much prized by the Chinese; but very little is imported into England.

III. CAYENNE PEPPER is the produce of several varieties of the *Capsicum*, an annual plant, a native of both the Indies. The best, which is brought home from the West Indies ready prepared, is made from the *Capsicum baccatum* (bird pepper). It has an aromatic, extremely pungent, acrimonious taste, setting the mouth, as it were, on fire, and the impression remaining long on the palate. It is sometimes adulterated with muriate of soda; and sometimes with a very deleterious substance, the red oxide of lead; but this fraud may be detected by its weight, and by chemical tests. [CUCULIÆ.]

IV. LONG PEPPER.—This species is the produce of a perennial (*Piper longum*), a native of Malabar and Bengal. The fruit is hottest in its immature state; and is therefore gathered while green, and dried in the sun. It is imported in entire spikes, which are about 1½ inch long. It has a weak aromatic odour, an intensely fiery pungent taste, and a dark grey odour. The root of long pepper is a favourite medicine among the Hindus.

The quantities of the last 3 species of pepper imported are quite inconsiderable, compared with the quantity of black pepper. (Milburn's *Orient. Com.*: *Asiatic Mat. Indica*; Thomson's *Dispensary*: *British Pharmacopœia*, 1867; &c.)

*Trade in Pepper. Consumption of, and Duties on, in England.*—Pepper is extensively used, all over Europe and the East, as a condiment. It was originally imported into this country by way of the Levant (ante, EAST INDIA COMPANY); and for many years after the establishment of the East India Company, it formed the most important article of their imports. In nothing has the beneficial effect of opening the Indian trade been so unequivocally displayed as in the instance of pepper. The private traders have resorted to new markets, and discovered new sources of supply, which had previously been wholly unexplored; so that there has been not only a very great increase in the quantity of pepper brought to Europe, but also a very great fall in its price, which does not now exceed a third part of what it amounted to in 1814.

Pepper for a lengthened period was one of the most grossly over-taxed articles in the British tariff. Until 1823, the duty was 2s. 6d. per lb.—a duty so exorbitant, that one would be inclined to think it had been imposed to put a total stop to the use of the article. In 1826, the duty on pepper from a British possession was reduced to 1s. per lb.; but even this duty, as compared with the price of the article (3d. to 5d. per lb.), was quite oppressive, amounting to no less than from 240 to 300 per cent.; so that it was further and most properly reduced, in 1837, to 6d. per lb.

And in consequence principally of these reductions, the entries of pepper for home consumption, which, previously to 1826, had not amounted to 1,450,000 lb. in any one year, amounted in 1846 to 3,303,365 lb. Still, however, the duty, as compared with the price of pepper, was decidedly too high; and should not have exceeded 1d., or at most 2d. per lb. And in proof of this statement it is enough to mention that from 1846 down to 1866 the entries for consumption did not sensibly increase; in 1857 they amounted to only 3,656,445

PERIODICAL PUBLICATIONS 1047

lb. The duty of 6s. 6d. per lb. produced, in 1865, 124,400l. In 1866 it was repealed. By the abolition of the duty, pepper has become accessible to the lower classes, to whom its free use will be of much importance; and the probability is, that the consumption will, in no very lengthened period, be doubled or more.

Years	Imports	Exports
	lb.	lb.
1859	8,719,566	6,651,824
1860	12,840,010	9,131,807
1861	11,681,389	8,065,951
1862	18,115,375	12,621,115
1863	16,810,400	10,911,600
1864	18,536,795	13,151,470
1865	19,215,592	13,833,002
1866	14,612,181	19,448,207
1867	15,915,924	16,329,910

*Supply of Pepper.*—The following instructive details with respect to pepper are taken from the *Singapore Chronicle*, to which they were contributed by the late John Crawford, Esq.—than whom there could be no more competent authority as to such subjects.

Of all the products of the Eastern islands, and of the countries immediately in their neighbourhood, in demand among strangers, black pepper is the most important, both in value and quantity.

The pepper countries extend from about the longitude of 96° to that of 115° E., beyond which no pepper is to be found; and they reach from 5° S. latitude to about 12° N., where it again ceases. Within these limits we have Sumatra, Borneo, the Malayan peninsula, and certain countries lying on the east coast of the Gulf of Siam.

The pepper ports on the north-east coast of Sumatra are Lankat and Delli, with Sardang. The cultivation is carried on by the Batta nation in the interior.

The ports and pepper districts on the southwest coast, are as follow: port and district of Trumah, districts of Pulo Dua and Cluat, coast from Tampat Tuan to Susu, port of Susu, Kuala Batta, Analabu, and districts to the north of Analabu.

Here it is of importance to remark that the culture and production are extremely fluctuating.

On the east coast of the Malayan peninsula, the production of pepper is very considerable, the ports being Patani and Calantan—chiefly the latter. A portion of this, and of the produce of the islands at the mouth of the straits of Malacca and Singapore, is brought to Singapore and Penang; but we believe the greater proportion goes direct to China in junks.

The east coast of the Gulf of Siam, from the latitude of 10½° to that of 12½° N., affords an extensive crop of pepper. The principal ports here are Chantibun, Lungyai, Pongsom, and Kampong; the first two being under the dominion of Siam, and the latter under that of Kamboja. The produce of Borneo is also considerable.

Mr. Crawford more recently supplied the subjoined revised estimate of the production of pepper, viz. :—

	lb.
Sumatra (west coast)	20,000,000
Do. (east do.)	8,000,000
Islands in the Straits of Malacca	5,000,000
Malay peninsula	5,735,333
Borneo	2,686,667
Siam	4,000,000
Malabar	4,080,000
Total	50,000,000

PERCH. A long measure, 16½ feet in length. [WEIGHTS AND MEASURES.]

PERIODICAL PUBLICATIONS. These, as the name implies, are publications which appear at fixed periods or stated intervals, and consequently include newspapers, monthly and other

magazines, quarterly reviews, and journals, and all such books as appear at monthly or other intervals. But the term *periodical publications* is usually understood in a more confined sense, or as comprising only magazines and such political, literary, and scientific journals as appear at regular intervals, without including newspapers or works published in parts.

Even when thus restricted, this is a very extensive and important department of literature. No doubt a vast deal of trash gets into print by the agency of magazines that might not otherwise see the light; but most part of these publications contain at the same time some superior articles; and a few are ably conducted and embrace a wide range of topics. Since the establishment of the *Edinburgh Review* in 1802, the quarterly journals, especially those that embrace politics and literature, have risen to great eminence, and have had a powerful influence over the public mind. At present, however, and for some time past, the influence of this class of journals has been declining. An ably conducted daily paper is, at this moment, by far the most powerful engine the press can bring into the field.

From a mercantile point of view, periodical literature is of more importance than most persons would probably be at first disposed to admit. We have enquired with some care into the subject, and we are inclined to think that the following estimate of its extent and value in 1868 may be considered as near the mark as such an estimate can be made.

*Monthly Magazines.*—These in the United Kingdom amounted, in 1868, including all descriptions, to about 367; and taking their average price at 8*d.*, and their average sale at 2,000 copies, their produce will be 24,467*l.* a month, and 293,604*l.* a year.

*Quarterly Journals.*—There are 74 of these; and taking the average price of each at 2*s. 9*d.**, and their average sale at 2,000 copies, they will produce 20,350*l.* a quarter, and 81,400*l.* a year. Hence, supposing these estimates to be nearly accurate, the annual produce of the sale of periodical publications (exclusive of what they yield by advertisements) will amount to about 375,000*l.*

**PERMIT.** A license or instrument, granted by the officers of excise, certifying that the excise duties on certain goods have been paid, and permitting their removal from some specified place to another.

The Acts relative to permits were consolidated by the stat. 2 Wm. IV. c. 16. The Commissioners of Inland Revenue provide moulds or frames for making the paper used in the printing of permits, which have the water mark 'Excise Office' visible in its substance; and the counterfeiting of such frames or paper, or the having the latter in one's possession without being able satisfactorily to account for it, is a felony punishable by transportation. Permits are not delivered except on the receipt of 'request notes,' specifying the places from and to which the goods are to be conveyed. A penalty of 500*l.* is to be imposed on all persons counterfeiting 'request notes,' or fraudulently procuring or misapplying permits; and all goods, for the removal of which permits are necessary, if they be removed without them, are to be forfeited, and the various parties engaged in their removal are to be each amerced in a penalty of 20*l.* It is needless to dwell on the extreme inconvenience that would result from such regulations were permits in extensive use. But such is not the case, and they are now wholly dispensed with, except in the case of a very few articles.

**PERNAMBUCO.** A city and seaport in the empire of Brazil, inferior only to Rio Janeiro and Bahia in commercial importance; capital of the province of the same name, distant from Bahia 410 miles, from Rio 1,130. The harbour light-house is in lat. 8° 3' 20" S., long 34° 46' 40" W. Light revolving with three changes; two white, one following after the other is invisible, then red. Time of revolution, 5' 15"; each light showing 1' 45". Light visible 20 miles in clear weather.

Pernambuco is situated near the most easterly point of the South American continent, nearly in the track of vessels proceeding to India, China, Australia, New Zealand, and the west coast of South America; and is advantageously placed for calling for orders, seeking freight, provisions, or refitting. Distance by mail from England and France, 19 days; Lisbon or Gibraltar, 14 days; New York, 22 days.

There is good anchorage in the roads, for draught, about 2 miles distant from, and in front of, the harbour. Water supplied in the roads at 70 milreis per 1,200 gallons, in pipes. There is no charge of any kind on vessels calling for orders, water, or provisions. Steamers requiring coals can enter in distress (*por força maior*), without paying anchorage dues.

The harbour is formed by the united mouths of the rivers Capibaribe and Berberibe, and is perfectly safe and easy of access in all weathers. It is protected from the ocean swell by a natural breakwater or reef of soft calcareous or siliceous stone, varying from 15 to 30 feet in breadth at the top, almost perpendicular inside, and sloping rapidly off outside to a great depth. 'No vessel drawing more than 14½ feet can enter at neap-tide, nor more than 18½ feet at springs.' (Cowell Hunt's Report, 1864.) There are from 30 to 50 feet of water at parts of the anchorage. The regular traders of the port are sailing vessels of 300 tons and under, and steamers of 500 tons. In December 1867, a vessel of 1,413 tons anchored in the harbour, having entered in ballast, and drawing 17 feet.

Various projects have been submitted from time to time to the Imperial Government for the improvement and enlargement of the port. Meanwhile, it would be possible to effect a great deal at little cost by dredging the bar, and deepening the water in the harbour, so as to admit vessels of greater tonnage. If, in addition, the quays were secured, and the water near them deepened, so as to admit of vessels coming up and lying alongside, every commercial necessity which could be demanded for the next fifty years would be supplied. At the head of the harbour, there is a vast natural basin, at present dry at every low tide, but capable, when dredged out, of forming one of the finest natural docks in the world.

Water is supplied within the harbour, by canoes or covered barges, at 50 milreis the whole or 25 milreis the half canoe; the latter being sufficient to water any trading ship. Smaller quantities, at 500 reis per pipe, are to be had at the fountains on the quay. There is a small wharf in front of the custom-house, alongside which vessels can lie, but its accommodation is so limited as not to be generally available. Steamers prefer to go alongside this wharf.

Vessels generally discharge into, and carry load from, lighters. (See *Table of Lighters* below.) These lighters can be employed only in the presence of a custom-house officer or guard, on board the vessels using them. The hours fixed by the regulations are from daylight—say 5.30 A.M. to 8 A.M. In order to economise time, the

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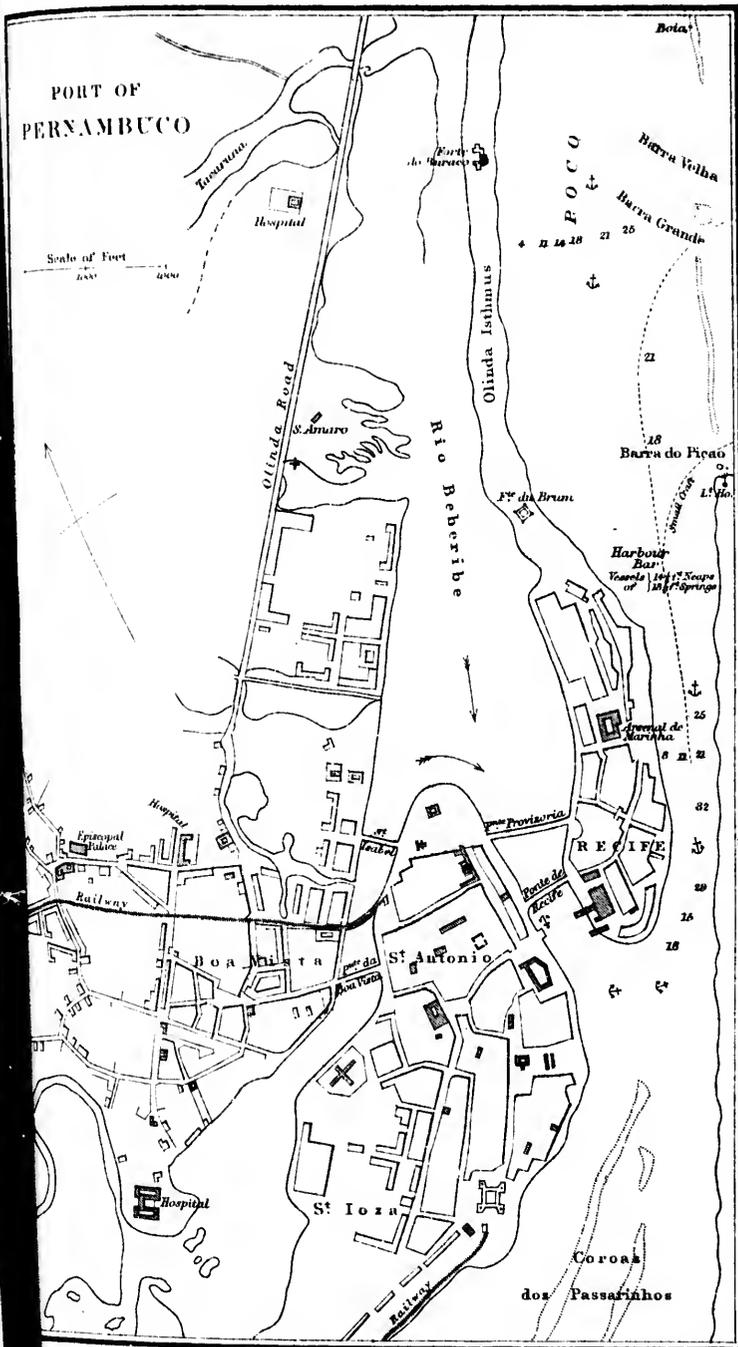
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sum of 10 milreis per diem is paid to an officer to go on board before the hour fixed by the regulations, every day that the ship's discharge may last.

All visits to vessels discharging in the port must be made under a license, the stamp of which costs 200 reis (3/4 at par). The commander of a vessel lying in the harbour cannot go on board the nearest ship, unless furnished with this permission, under a penalty of 50 milreis and the forfeiture of the boat. These licenses are obtainable on demand at the custom-house.

By the custom of the port, though it is not obligatory, every British vessel pays 240 reis per ton to the British Hospital, and can have its crew examined and medicinally treated there, free of any extra expense.

The anchorage dues are the same in the harbour and roads; vessels loading or discharging in the latter will be under the item *franja*. To take cargo in the roads, a license from the President of the province is necessary. It is easily obtained.

There is a quarantine hospital at the head of the harbour; about a mile from the city there are barracks, with apparatus for careening and masting vessels.

Goods may be warehoused in bond for re-exportation.

Ballast slightly varies in price, but may be stated as costing 1,500 reis for sand, and 3 milreis for stone per ton alongside the ship.

All port charges are by the Brazilian measurement ton, an advance of 40 to 45 per cent. on British register tons. Vessels are manned by the custom-house officials on their first voyage to the port. Tables of all dues will be found below, also practical examples of their working in the ships' disbursements account, and pro forma invoices of sugar and cotton shipments. It may be stated that the charges on a ship entering and being out loaded average roughly from 20s. to 25s. per British register ton.

Owing to the high price of cotton, the entries of ships, exports and imports, at Pernambuco represent a far larger amount of business than ordinary.

Exports pay the duties of the general tariff, and in addition those imposed by the Provincial Assembly, which has no power to tax imports. These duties of importation are assessed by a weekly table of average values, prepared by the customs. The rates were in December 1867 as follows:—

Articles	General Duty	Provincial Duty
Cotton	9 per cent.	5 per cent. and 3 per cent. on the 5 per cent.
Sugar		50 reis per arroba and 3 per cent. on the 50.
Indigo		8 per cent. and 3 per cent. on the 8 per cent.
Wool		20 reis per medida and 3 per cent. on the 20.
Others		7 per cent. and 3 per cent. on the 7 per cent.

The capital of the province of Pernambuco is the city of RECIFE (of the reef), situated at thefluence and mouth of the rivers Capibaribe and Beberibe, which unite within the city, and through it in the form of the letter Z, forming two isthmuses parallel to the mainland, one being in front of the other. The harbour is at the outer or seaward side of the outer isthmus, which is united to the second isthmus by two bridges, and this again to the mainland by two bridges.

The city is partially surface-drained, but not paved; it is paved, and lighted with gas, and supplied with excellent water.

The greatest extent of the city, from east to west, is about three miles, and from north to south about two miles. In 1862 it contained about 10,000 separate properties, in 230 streets and 15 squares; and it has increased since that time. The population is estimated at about 120,000. The city proper has four parishes: Recife proper, or S. Pedro Gonçalves, where the principal Government and merchants' offices &c. are; S. Antonio; S. José; Boa Vista. There is a street railway, 5 miles long, from the suburbs to the city.

The exchange is a new building, one of the finest and largest in Brazil. There are branches of two British banks in the city, besides native institutions. Mr. Secretary of Legation Pakenham, in his Report of February 13, 1867, stated the capital of the Bank of Pernambuco at 120,000.

The postal service is very defective. There is one daily delivery only in the city, one weekly to the country and interior towns. There is a poste-restante to which letters should be addressed, with the superscription 'Para ficar no Correio.'

Communication out of the province, monthly; neighbouring provinces, twice monthly; the whole coast, from Para to Rio de Janeiro, twice monthly; Bahia and Rio de Janeiro, six monthly; River Plate, three monthly; United States: New York via S. Thomas, once monthly; Europe: Lisbon, Bordeaux, Southampton, Marseilles and Gibraltar, twice monthly.

In January 1868 there were 80 wholesale import houses in Pernambuco, of the following nationalities: Brazilian 27, Dutch 1, English 17, French 2, German 6, Portuguese 21, Spanish 1, United States 2.

There are foundries and engine works, capable of repairing trading steamers' engines, and two private steam-driven hydraulic cotton-pressing establishments. There are also two daily newspapers.

*Province of Pernambuco.*—This region, to which the town is the capital, is situated between 7° 12' 1" and 9° 11' 30" S. lat., and between 37° 22' and 41° 8' W. long. The area is 4,467 square leagues of 20 to a degree. It has 22 leagues of sea-coast, from the river Abiahy to the Iersinnuga, and is protected by the remarkable reef, which extends, more or less continuously, from Maranhão to Sergipe, at a variable distance from the shore.

Population estimated at 1,220,000. The natives are of every shade of colour, and of every possible admixture of blood, between European, Indian, and Negro. There is hardly any prejudice of colour.

The climate varies. Near the coast it is warm and moist, with a constant breeze. Temperature 85° mean maximum, 70° mean minimum. The hottest months are December and January, the coolest June and July.

The rivers do not take their rise far into the country; but several are navigable for some leagues above their mouths. The province is healthy, except on the low grounds and river banks, on which intermittent fever is occasionally prevalent. Of late years the sanitary condition of the province has improved.

The surface of the soil is very varied, the only level land being the sea-coast. In the interior there are mountainous ranges, dividing large and somewhat arid plains. Brazilians exaggerate the fertility of the soil; but the country is very liable to drought and to the ravages of insects. The soil near the coast is very suitable for sugar, that of the inland region for cotton. But unless

cotton reaches a high price, its production, owing to the deficiency of roads, is unprofitable. Cotton is generally cultivated by free labour. There are about 700 sugar plantations, but this branch of industry is declining. The number of slaves (about 50,000) is diminishing, and since the abandonment of the trade, the price of slaves has trebled. Senhor Luiz de Carvalho, Deputy Collector of Customs at Pernambuco, states that two-thirds of the plantations are mortgaged at interests varying from 18 to 20 per cent. Many of the slaves have been exported to Rio, though the duties and charges amount to 117 milreis per head.

There are only four roads in the province, three of which extend about 34 miles, the fourth 50 miles, from the capital. On these roads bullock carts are used; but much of the transit is on pack-horses, each of which carries from 300 lb. to 345 lb., and travels 25 miles a day in the dry season. In the wet season the tracks are impassable, and the roads not much better.

The Recife and San Francisco Railway is an English enterprise. It is a single line, 77½ miles long, and 5 ft. 3 in. gauge, running into the country at an angle of about 35° with the coastline. It is intended to continue the line to about 400 miles. The administration and locomotive drivers are English, the train and station staff

Brazilian. A single telegraphic wire extends along the line, and is available for the public at a moderate tariff. The number of cubic yards of earthwork and excavation per mile is about half what is used in England.

The province sends 6 senators and 13 deputies to the general Parliament at Rio de Janeiro. It is governed by a President, appointed by the general Government, and has an Assembly of 25 members, which legislates and taxes for purely provincial matters.

No one is permitted to quit the province and empire without previously advertising his departure for three consecutive days in the local journals, and obtaining a passport from the authorities at the cost of 21 milreis. This rule does not apply to passengers landing for a few days, and proceeding on their journey.

The products of the province are cotton, sugar, hides, rum, and molasses. Farinha, or the conversion of the manioc root, takes the place of bread, wheaten flour being rarely consumed, except in the shape of hard biscuit, similar to those used on shipboard.

For the soundings we are indebted to Messrs. Law and Blount; and to G. O. Mann, Esq., superintendent of the Pacific and San Francisco Railway Company, for the following—

Account of the Traffic for 3 Years ending 1866, on the Pacific and San Francisco Railway (77½ miles) first opened throughout in 1862.

Years	Tons carried up the Country	Tons carried from the Country	Passengers	Receipts		Expenses		Percentage
				£	s. d.	£	s. d.	
1864	5,003	18,788½	145,969	18,294	5 2	45,890	1 4	5.09
1865	6,740	33,885½	165,423	41,057	4 11	39,715	6 1	6.06
1866	7,898½	35,625½	182,958	22,815	10 4	40,065	2 1	5.66

Coasting Trade with the Principal Ports of the Province of Pernambuco for the 6 Years ending 1867.

Articles	1861-2				1862-3				1863-4				Tons
	Rio Grande del Norte	Parahiba	Alagoas	Total	Rio Grande del Norte	Parahiba	Alagoas	Total	Rio Grande del Norte	Parahiba	Alagoas	Total	
Rum - canadais	—	—	3,861	3,861	—	—	—	—	—	—	—	—	—
Cotton - arrobas	9,631	6,843	315	16,789	18,056	12,588	1,455	31,899	83,376	156,719	—	—	—
Sugar, refined "	2,115	3,020	178,689	183,824	3,225	4,056	183,182	190,683	375	1,101	32,094	33,570	—
" brown "	95,325	50,157	231,810	377,292	127,825	42,732	210,280	380,737	42,735	20,410	22,231	85,376	—
Hides, salted lb.	109,011	185,308	57,622	351,941	219,310	311,816	75,193	604,659	70,625	92,331	35,749	208,705	—
dry "	10	7,905	—	7,921	54,809	—	288	—	55,094	—	191	55	—
Louro wood, rough logs	—	—	2,455	2,455	—	—	869	869	—	65	—	551	39
Sundry "	40	50	5,437	5,527	—	—	869	869	—	—	—	89	—
Treacle - canadais	50	—	12,177	12,207	30	—	—	—	30	16	—	596	16
Indian corn - arrobas	—	200	—	200	1,748	—	3,429	5,157	299	52,194	35	35	—
Castor oil - lb.	—	—	35,850	35,850	10,580	—	—	—	—	—	—	14,619	18,888
Sole leathers - pieces	1,521	190	—	1,711	494	177	—	671	1,610	—	50	4,391	3,400
Sucupira - logs	—	896	934	1,830	—	155	212	367	—	8	10	16	—
Vinhatico, rough logs	—	—	1,638	1,638	—	—	659	659	—	—	—	497	67

Articles	1864-5				1865-6				1866-7				Tons
	Rio Grande del Norte	Parahiba	Alagoas	Total	Rio Grande del Norte	Parahiba	Alagoas	Total	Rio Grande del Norte	Parahiba	Alagoas	Total	
Rum - canadais	—	—	—	—	—	—	5,600	5,600	—	—	—	—	—
Cotton - arrobas	28,162	112,658	7,206	178,116	41,600	141,283	27,111	210,021	54,729	155,135	—	—	—
Sugar, refined "	—	50	155,048	155,098	—	—	3,052	3,123	3,429	100	215,800	215,800	—
" brown "	135,830	8,570	171,772	316,172	37,460	2,117	239,066	276,643	6,000	57,700	292,718	357,490	—
Hides, salted lb.	131,935	215,395	68,436	415,766	123,909	207,296	63,885	395,190	115,061	234,716	57,556	407,333	—
dry "	—	—	5,587	5,587	—	—	3,100	12,671	1,000	16,861	—	—	—
Louro wood, rough logs	—	—	305	305	—	—	498	498	—	—	—	1,383	1,383
Sundry "	117	465	1,681	2,111	—	—	1,681	1,681	—	—	—	591	715
Treacle - canadais	—	—	950	950	426	—	2,229	2,665	190	1,900	—	2,431	454
Indian corn - arrobas	38	17,931	30,928	48,067	—	1,900	4,723	6,623	600	1,900	2,431	454	3,479
Castor oil - lb.	—	—	10,368	10,368	—	5,403	5,735	6,133	—	—	2,610	2,610	8,353
Sole leathers - pieces	803	185	3,263	4,251	3,917	—	2,108	6,025	30,532	98	1,215	37,923	30,377
Sucupira - logs	—	—	—	—	—	81	81	81	115	—	716	83	3,366
Vinhatico rough logs	—	—	—	—	—	—	61	61	—	—	1,341	1,341	3,366

Account of the Official Value of the Coasting Trade during each of the 6 Years ending with 1867 and the Average Current Value.

Years	Rio Grande del Norte	Parahiba	Alagoas	Total
1861-2	reis 426,291,504	reis 261,156,937	reis 1,163,715,371	reis 1,511,098,512
1862-3	688,688,219	379,637,026	1,023,411,704	2,091,736,949
1863-4	606,265,587	1,892,405,394	1,309,004,029	3,807,675,010
1864-5	891,940,232	2,759,191,467	1,088,615,131	4,739,746,830
1865-6	992,857,102	2,322,918,027	1,225,551,238	5,114,895,999
1866-7	950,031,410	2,297,277,103	1,272,706,237	5,000,645,960
Total	4,649,130,084	9,883,186,554	8,183,088,923	22,715,405,561
Average	774,855,014	1,647,197,759	1,363,848,054	3,785,900,827

telegraphic wire extends available for the public at a number of cubic yards of iron per mile is about half.

3 senators and 15 deputies at Rio de Janeiro. The president, appointed by the Emperor, has an Assembly of 30 members and taxes for purely

to quit the province and usually advertising his executive days in the local press. A passport from the ambassador costs 1 milreis. This rule does not apply to a few days' journey.

provinces are cotton, sugar, coffee, and farinha, or the coarse flour, which takes the place of bread, and is rarely consumed, except in the interior, similar to those used

are indebted to Messrs. G. O. Mann, Esq., superintendent of the San Francisco Railway.

San Francisco Railway

Expenses	Percentage
£. s. d.	
45,890 1 4	55.92
39,715 6 1	63.95
40,365 2 1	50.26

the 6 Years ending 1867

1865-1		
Ho Grande del Norte	Paraiba	Alagoas, Total
85,376	126,749	212,125
375	1,110	1,485
46,755	26,410	73,165
70,665	57,531	128,196
—	191	58
—	—	531
—	65	83
16	—	56
299	24,492	24,791
—	—	14,000
1,610	30	4,200
—	8	11
—	—	45

1866-7		
Paraiba	Alagoas	Total
—	4,688	4,688
155,415	11,686	167,101
100	215,860	215,960
57,700	299,718	357,418
254,718	55,550	310,268
—	1,053	1,053
—	1,820	1,820
—	—	1,002
—	595	715
1,500	2,841	4,341
—	2,400	2,500
—	1,215	3,175
—	746	515
—	1,141	2,141

6 Years ending with 1867

Total
1,531,063,512
2,091,663,819
5,838,421,624
4,722,746,530
3,114,826,297
5,010,684,780
22,716,094,561
3,786,000,887





41 pounds of bristles, singlas, leather, and wax; 5 dozen of deals; 3,500 hare skins; 8 chevrets of wheat or linseed; and 60 pieces of sail-cloth.

The following regulations for the importation of foreign goods are strictly enforced:—

All goods imported must be accompanied by the following documents:—

1. The declaration of the captain, according to the form ordered by the custom-house.

2. An attestation from the Russian consul, and, where there is no consul, from the custom-house of the place, of the quantity and quality of the goods, and a declaration that they are not the produce, manufacture, or property of an enemy's country.

3. Bills of lading of all goods, in which the weight, measure, or quantity of each package must be specified. In case the bills of lading are not exactly after this regulation, the goods pay double duty as a fine. In case more is found than specified in the bill of lading, the surplus is confiscated; if less is found, the duty must be paid on the quantity specified. Of wine, it is not sufficient to specify the number of pipes or hogsheds only, but also their contents in gallons &c. Of lemons, the number in each box must be specified. Of manufactured goods, the measure of each piece must be specified, and the number of pieces in each bale. It is indifferent whether the gross or the nett weight be specified. If the packages be all of the same weight, measure, or contents, a general specification will do; as, for example, 100 casks alum, of 17 lb pound each. Of dye woods, the weight of the whole need only be mentioned. Of goods of small bulk, as pepper &c., it is sufficient to state the weight of every 5 or 10 bales, but with specification of the numbers. There must not be any erasures or blots in the bill of lading. All goods not accompanied by these documents, or where the documents are not according to the above regulations, will be sent back.

Bills of lading may be made out either to some house, or to order.

The following charges have been fixed by the merchants of Petersburg:—

	per cent.
Commission on sales and purchases	2
Extra charges on all goods	1
Commission and extra charges for goods delivered up	1
Brokerage on sales and purchases	1
Ditto on bills	1
Ditto on freight, per ton, 60 copecks	1
Stamps	1
Charges on duty, paid inwards	4
Ditto, paid outwards	4
Commission for collecting freight, or average inwards	3
Commission for procuring freight outwards	2
For clearances, 40 roubles.	
Dues to be paid to the church, 10 roubles each vessel.	
Clearing of ships, of or under	
45 lasts each	40 roubles each vessel
45 to 50 "	60 "
50 " 75 "	80 "
75 " 100 "	100 "
100 " 150 "	150 "
150 or above	200 "

**Tare on Goods Exported, as fixed by the Custom-house.**

	per cent.
Dry goods.	
In barrels or chests	10
In sacks	2
In mats, or sacks made of mats	17
Except Matcovy leather, of which is deducted	5
Moist goods.	
Pressed caviare	13
Snap	7
Meat and salt fish	20
Tallow	17
Honey	17
Treacle	10
All other moist goods	17

**Tare on Goods Imported.**

	per cent.
Dry goods.	
In barrels or chests	10
In vessels of glass or earthenware	20
In sacks	2
In double sacks	4
In mats	3
In casks and mats together	5
In baskets	5

**Moist Goods Imported.**—The following are some of the tares specified in the tariff:—

Olive oil in casks		17 per cent.
of Italy, in flasks and straw		10 "
of France, in flasks and earthenware		10 "
Salt fish in barrels		15 "
And generally on all moist goods in barrels		15 "
Miscellaneous goods.		10 "
Cotton twist in bales		6 "
in chests and barrels		15 "
Cochineal must be weighed in the sacks, every thing taken from the casks; for every sack of from 1 to 7 pounds		2 lb.
sacks of from 7 to 25 pounds		1 "
Indigo in serons; every seron of from 25 to 7 pounds		1 "
in 3 serons, 25 to 1 1/2 sacks		20 "
of Guatemala		20 per cent.
in boxes		20 "

It should be stated, however, that some of the customary charges for the statement of freight, between the consignees and masters of vessels are constantly complained of. Among these are:— 1. The commission of 3 per cent. for the collector of freight, which is payable whether the cargo belongs to the consignee or is only addressed to him, and is payable notwithstanding any stipulation to the contrary in the charterparty. 2. A charge which certain German merchants, dealing principally in coals, have recently endeavoured to impose, under the title of 'discount for cash.' It appears that the legal remedies against fraud and contention are not complete as yet. (See Mr. Consul Michel's Report for 1867.)

Bills drawn in Russia, and payable after date, are allowed 10 days' grace; but if payable at sight, 3 days only: Sundays and holidays are included in both cases. The Julian calendar, or Old Style, is still retained throughout Russia. This is 12 days later than the New Style; and in leap years, 13 days, after the month of February.

**Port Charges.**—The regular charges which British ships have to pay at the ports of Petersburg and Cronstadt comprise the following fixed dues and expenses, viz. lastage, passes, cleaning at Cronstadt, address money, Petersburg and Cronstadt church money, Cronstadt expedition and allowance to the Russia Company's agent, for all which a charge is made in the ship's account in one sum, proportionally to the ship's register tonnage, according to the following scale, viz.:

For	61 ton register	silver roubles
62 to 81		45 0
82 to 101		55 0
102 to 121		65 25
122 to 141		75 0
142 to 161		85 0
162 to 181		95 25
182 to 201		105 0
202 to 221		115 0
222 to 241		125 25
242 to 261		135 0
262 to 281		145 0
282 to 301		155 25
302 to 321		165 0
322 to 341		175 0
342 to 361		185 25
362 to 381		195 0
382 to 401		205 0
402 to 421		215 0
422 to 441		225 25
442 to 461		235 0
462 to 481		245 0
482 to 501		255 25
502 to 521		265 0
522 to 541		275 0
542 to 561		285 0
562 to 581		295 0
582 to 600		305 25

In 1866, the differential duty of 16 copecks per food, in favour of certain Russian harbours in the Baltic, was abolished.

**Trade &c.**—Petersburg has the most extensive foreign trade of any city in the north of Europe. This arises from its being the only great maritime outlet on the Gulf of Finland, and from its vast and various communications with the interior of the country. Few countries have such an extent of internal navigation as Russia. By means

following are some  
 17 per cent.  
 10  
 36  
 17  
 39  
 6  
 15  
 2 lb.  
 1  
 31  
 39  
 39 per cent.

partly of rivers, and partly of canals, Petersburg is connected with the Caspian Sea. Goods are conveyed from the latter to the capital, through a distance of 1,434 miles, without once landing them. The iron and furs of Siberia, and the teas of China, though not to the same extent as formerly, are received at Petersburg in the same way; but owing to the great distance of those countries, and the short period of the year during which the rivers and canals are navigable, they take 3 years in their transit. Immense quantities of goods are also conveyed during winter upon the ice, in sledges, to the different ports, and to the nearest *pristans*, or places in the interior where barks are built for river or canal navigation. They are put on board in anticipation of the period of sailing, that the barks may be ready to take advantage of the high water, by floating down with the current as soon as the snow and ice begin to melt. The cargoes carried up the river into the interior during summer are principally conveyed to their ultimate destinations by the sledge roads during winter. The conveyance by the latter is generally the most expeditious; and it, as well as the internal conveyance by water, is performed at a very moderate expense.

The barks that come from the interior are mostly of a very rude construction, flat-bottomed, and seldom drawing more than 20 or 30 inches water. When they arrive at their destination they are sold or broken up for fire-wood. Those that leave the ports for the interior are of a superior description, and are comparatively few in number; the commodities imported being, on an average, of much greater value, relatively to their bulk and weight, than those that are exported.

The following is an account showing the total tonnage of the shipping that entered Cronstadt and St. Petersburg, in each year, from 1856 to 1866, and the portion thereof that was British:—

Year	Total Tonnage	British	
		Tonnage	Per Cent. of Total
1856	599,001	218,412	42
1857	436,548	309,708	45
1858	453,802	221,012	48
1859	514,470	253,726	49
1860	485,492	227,598	50
1861	475,668	269,512	55
1862	408,278	211,352	60
1863	460,000	281,956	61
1864	471,768	311,564	73
1865	511,831	355,116	69
1866	684,920	421,202	61
Total	5,396,074	3,039,168	—
Per cent.	—	56	Average

**Tariff**—A new tariff of Russian custom duties came into operation on January 1 (13), 1869, when ceased to be levied the additional charge of 5 per cent. on the duties established by ukases of March 14, 1858, and Dec. 30, 1861. We borrow the following remarks and tables from a review of the tariff given in the *Times* of Jan. 5, 1869, and from the tariff itself the rates of duty:—

An English edition of it (the new tariff) has just been published by Mr. Michell in parallel columns, showing the English equivalents for the Russian rates. The following are its principal features.

The number of paragraphs or positions has been reduced from 367 to 253, of which 42 refer to goods admitted duty free, and 12 to those of which the importation is prohibited, leaving 197 groups or classes of duties leviable, with two exceptions, on specific weights or certain units. The two ad valorem rates of 85 per cent. on ready-made clothes, and 80 per cent. on linen, cambric,

and lawn, mark, as it were, the highest limits of the protection which the new tariff was intended to bestow on native manufactures. A reference, however, to the memoranda which Mr. Michell submitted to the Tariff Commission will clearly show that even some of the reduced specific rates range up to 100 per cent. and more on the value of the goods imposed. The reductions are evidently not based on any system or general plan, either for protective or fiscal purposes. Compared with the customs duties levied in other countries, the new Russian rates present the most extraordinary deviation from the general European basis, and look, indeed, what they in reality are, the result of compromises between the interests of powerful manufacturers and those of 70,000,000 consumers, as represented at the Council of the Empire. Fortunately for the maritime trade of Russia, the recommendation of the Minister of Finance for the abolition of the differential duties was adopted by the Council except in the case of tools, which are still to be favoured with a reduction of duty when imported overland (1s. 11d. per cwt. by land, instead of 7s. 10d. per cwt. by sea), with the object of protecting the manufacture of tools at St. Petersburg, it being all the while notorious that the Russian markets are glutted with cheap German tools bearing counterfeited Sheffield trade-marks. The official remonstrances of Sir Andrew Buchanan, the British Ambassador, against this injustice to British trade appear to have been unheeded, and the influential manufacturer at St. Petersburg has obtained the premium which will enable him to impose inferior tools on the Russian workman. Next to the abolition of differential duties we notice with satisfaction the disappearance of the 10 per cent. additional duties and the special bridge tax of 2 per cent. levied at the port of St. Petersburg, "which taxes," says M. de Kestner, "have complicated the accounts of the Customs, while the bridge-tax was not unfrequently avoided by clearing goods destined for St. Petersburg and Moscow at custom-houses on the land frontier."

Apart from these improvements in the Russian Tariff, the following reductions may be mentioned as bearing more particularly on the export and carrying trade from Great Britain to Russia:—

Articles of Food,

Articles	Rates of Duty			Reduction in Duty*
	per cwt.	£ s. d.	per c.	
Coffee	per cwt.	2 14 8	45	312
Cocoa	"	0 14 8	45	394
Pickles and sauces	"	1 9 6	39	254
Buttles	"	1 9 6	39	62
Cheese	"	1 19 2	53	52
Porter and ale, in casks	per bottle	0 9 9	62	—
bottles	"	0 0 3	72	—

Raw and Half-manufactured Materials.

Articles	Rates of Duty			Reduction in Duty*
	per cwt.	£ s. d.	per c.	
Cotton yarn, grey and bleached	per cwt.	1 11 11	152	221
dyed	"	2 1 7	221	48
Iron-plate, armour-plate, and sheet	"	0 4 11	35	24
Tin plate	"	0 12 2	24	77
Litharge and lead ashes	"	0 0 6	32	39
Zinc and spelter, in blocks	"	0 2 11	34	55
Indigo	"	0 5 11	39	55
Iron	"	1 9 6	39	45
Flax	"	0 1 0	55	55
Sulphuric acid and sulphate of iron	"	0 1 1	55	12
Oil, olive and wood	"	0 17 1	12	70
cocoa nut and palm	"	0 4 11	70	—
Phosphorus	"	4 18 3	70	—

\* These reductions are calculated on the rates previously charged at ex-ports.

over, that some of the statement of freight masters of vessels are Among these are: cent. for the collection whether the cargo or is only addressed to the charterparty. 2. A man merchants, dealing recently endeavoured to discount for cash. It edies against fraud and tete as yet. (See Mr. or 1867.) and payable after date, race; but if payable at and holidays are The Julian calendar, used throughout Russia, man the New Style; and after the month of Feb- regular charges which y at the ports of Peters- ay the following fixed lastage, passes, cleaning money, Petersburg and ey, Cronstadt expedition Russia Company's agent, made in the ship's account ally to the ship's register the following scale, viz.:-  
 110 25  
 115 14  
 123 11  
 124 25  
 126 0  
 141 11  
 143 14  
 151 0  
 162 11  
 167 11  
 173 14  
 180 0  
 188 0  
 195 14  
 206 56  
 208 0  
 211 0  
 215 56

tial duty of 16 copecks per  
 in Russian harbours in the  
 arg has the most extensiv  
 ty in the north of Europ  
 ang the only great mariti  
 Finland, and from its wa  
 ations with the interior  
 countries have such an exte  
 on as Russia. By mean

Manufactures.

Article.	Rate of Duty	Reduction in Duty*	
		£ s. d.	per ct.
Alabaster, washed - - - - -	per cwt.	0 10 9	50
Pottery ware, common	"	0 1 11½	51½
Earthenware, white, and of one colour - - - - -	"	0 7 5	35
Ditto, and of variegated patterns - - - - -	"	1 4 7	35
Porcelain, white or of one colour - - - - -	"	1 19 2	39
variegated	"	7 17 3	39
ornaments, without painting &c. - - - - -	"	"	39
with glazing &c. - - - - -	"	"	38
Glassware, common - - - - -	"	0 4 11	65½
of white glass - - - - -	"	0 10 9	33
cut and ground - - - - -	"	1 19 2	62
with painting &c. - - - - -	"	3 18 0	23
Mirrors, large, according to measurement - - - - -	"	"	17
Copper or brass manufactures from castings, without finish, weighing more than 2 lb. - - - - -	"	1 9 6	32
Cast-iron utensils, enamelled - - - - -	"	0 4 11	43
Cast-iron fire, stove &c., weighing more than 10 lb. ft. - - - - -	"	0 7 10	39½
Locksmiths' work, unpollished - - - - -	"	0 13 2	18
Ditto, polished - - - - -	"	1 4 7	43
Ditto, weighing more than 40 lb. ft. each - - - - -	"	2 1 1	49
Tinplate manufactures, gilt, painted &c. - - - - -	"	2 9 1	43
Wire of iron and steel - - - - -	"	0 11 8	54½
copper brass - - - - -	"	0 14 8	54½
Manufactures of iron or steel: wire - - - - -	"	1 9 6	32
copper or brass - - - - -	"	1 9 6	32
iron - - - - -	"	0 1 9	19
steel - - - - -	"	2 19 0	52
Cutlery, common - - - - -	cwt.	11 15 10	45½
Manufacture of tin, zinc, or Britannia metal: - - - - -	"	"	"
1. Not polished or painted - - - - -	"	0 9 9	77
2. Polished and painted - - - - -	"	1 4 7	45
Manufactures of food, shot &c. - - - - -	"	0 7 4½	39
Tinsel and foil - - - - -	lb.	7 2 5½	70
Joinery and turners' work: - - - - -	"	"	"
1. Not varnished or polished - - - - -	cwt.	0 10 9	43
2. Varnished or polished - - - - -	"	1 16 11	33
Carvers' work, wood - - - - -	"	4 18 3	14½
India-rubber boots and shoes, tissues, with silk &c. - - - - -	"	10 16 3	25
Paper: - - - - -	"	"	"
Unbleached, or printing &c. - - - - -	"	0 19 8	67
Sized, for printing and writing - - - - -	"	1 9 6	50
Ornamented, stamped &c. - - - - -	"	3 18 8	27½
Tissue - - - - -	"	2 19 0	43
Hangings - - - - -	"	2 4 1	25½
Paper-maché articles, lacquered and polished, without ornaments of other materials pay as carved wood - - - - -	"	"	66

Tissues.

Articles	Rates of Duty	Reduction in Duty*	
		£ s. d.	per ct.
1. Flax or hemp: - - - - -	per lb.	0 1 7	57
Drills - - - - -	"	"	"
Cambric, lawn &c., reduced to 50 per cent. ad valorem - - - - -	"	"	"
2. Silk: - - - - -	"	"	"
Pure silk and transparent stuffs, gauzes, crapes - - - - -	"	0 17 4	35
Mixed silk not transparent ditto &c. - - - - -	"	0 7 8½	25
Foulards, printed in the cloth - - - - -	"	0 10 6	32
Hosiery, trimmings &c. - - - - -	"	0 3 6	51½
3. Wool: - - - - -	"	"	"
Cloth, half cloth &c. - - - - -	"	0 4 2½	22
Meltons, union meltons, pilots, indigo pilets, beaver, doeskin, union cloth, presidents, wintees, ladies' cloth &c. - - - - -	"	0 3 0	41½
Flannel, white, and blankets - - - - -	"	0 1 5	51½
Unmilled stuffs, having up to 5 sq. arshins to a lb. - - - - -	"	0 1 9	9
Ditto, 5 to 9 sq. arshins to a lb. - - - - -	"	0 3 0	35½
(This class includes Orleans, alpaca lustras, mixtures and motles, carbarga, satens, lenos, mohairs, figured Orleans, ribbs, alpaca &c.) - - - - -	"	"	"
Unmilled stuffs having more than 9 sq. arshins to a lb. (fine stuffs) (In addition to these reductions, a considerable advantage accrues from a 30 per cent. additional rate on printed woollens in lieu of previous specific rates.) - - - - -	"	6 5 10	16½
Shawls, handkerchiefs, easimir - - - - -	"	0 10 6	31½
Carpets - - - - -	"	0 1 0½	31½
4. Cotton: - - - - -	"	"	"
Tissue, grey, bleached or dyed, having up to 8 sq. arshins to a lb. (This class includes about two-thirds of the quantities of grey shirtings, nine-tenths of grey longcloths, every quality of grey T-cloths, and nine-tenths of grey printers.) - - - - -	"	0 0 11½	28
Tissues, grey, bleached or dyed, having 12 to 16 sq. arshins to a lb. - - - - -	"	0 1 9	51½

\* These reductions are calculated on the rates previously charged at napurs.

Tissues—continued.

Articles	Rates of Duty	Reduction in Duty*	
		£ s. d.	per ct.
Cotton: - - - - -	"	"	"
(This class will include a few qualities of jacquets and cambrics.) - - - - -	"	"	"
Tissues, printed, having 8 up to 12 sq. arshins to a lb. - - - - -	"	0 1 4½	30
(This reduction will be applicable to a great proportion of heavy prints.) - - - - -	"	"	"
Tissues, printed, having 8 to 12 sq. arshins to a lb. - - - - -	"	0 2 1	16
Ditto, more than 16 sq. arshins to a lb. - - - - -	"	0 4 2½	32
Ditto, with patterns, tints &c. - - - - -	"	0 1 7	32
Cotton velvets, plush &c. - - - - -	"	0 7 0	54½
Tulle (net) for ladies' dresses - - - - -	"	0 40 6	34
Laces, edgings &c. - - - - -	"	0 1 5	34
Muslins (57 per cent. of qualities) - - - - -	"	"	"

\* These reductions are calculated on the rates previously charged at napurs.

Against these reductions must, however, be set off a slight increase of several duties (those on calcined and caustic soda, white lead, hemp, flax, and woollen yarn, silk twist, silk stuffs &c.), and a new duty on machinery, except agricultural, spinning, weaving, paper-making, and letter-pressing machinery, which is to continue free of taxation. The duty on machinery (7s. 6d. per cwt. on locomotives, and copper and brass fittings, and 2s. 11½d. per cwt. on locomobiles and other machines and fittings) was yielded at the last moment by the Council of the Empire, owing to the organised agitation which was set up by the leading Protectionists.

But, favourable even as it appears, and although averaging 41 per cent. in 88 classes, the above list of reductions conveys a very erroneous impression of the new Russian tariff, which still remains one of the least liberal in Europe, Portugal excepted.

This will be seen from the following comparison of the tariffs of Austria and Russia:—

Articles	Duties in	
	Austria	Russia
	per cent.	per cent.
Iron and steel wire - - - - -	0 8 14	0 14 4
Zinc, in sheets - - - - -	0 1 6	0 3 11
Cotton yarn - - - - -	0 8 19	11 11½
{ minimum	0 18 3	2 1 7
{ maximum	0 1 6	0 3 11
Flax and hemp - - - - -	0 12 24	1 19 4
Woolen - - - - -	0 1 6	2 1 1
Cotton goods - - - - -	0 12 24	5 9 4
{ minimum	8 2 6	23 11 4
{ maximum	0 12 2	2 13 0
Linen of flax or hemp - - - - -	0 2 4	18 7 7
Silk goods - - - - -	6 2 0	19 13 1
Paper for writing and printing - - - - -	0 2 0	0 19 1
{ minimum	0 12 2	3 18 8
{ maximum	0 12 2	16 3
Glass wares - - - - -	0 1 6	0 4 11
{ minimum	0 12 2	3 19 4
{ maximum	0 4 0	0 7 3
Earthenware - - - - -	0 12 2	7 17 1
{ minimum	0 2 0	0 19 1
{ maximum	1 10 5	9 16 7
Nevelles (sewing) - - - - -	1 10 5	9 16 11
Fircurms - - - - -	1 10 5	9 16 11

Compared, therefore, with the most modern protective tariff of Europe, that of Russia appears to be four or five times higher in all the principal groups of merchandise.

We must conclude this review by expressing hope that the vast difference apparent in the tariffs does not in reality give the measure of the relative industrial and financial condition of Russia. From the many documents now published on this question it is to be inferred that the Russian Government is far in advance of the political intellect of the country, but that its capabilities for doing good are to a great extent neutralised by a fear of the old Russian party.

Customs at St. Petersburg. —The amount of duties collected at the custom-house at St. Petersburg in 1866 was as follows: Duties on



stated in the same article that such, in many parts of the empire, is the scarcity and high price of iron, that the peasants are all but ignorant of its use, and neither employ it in their implements, nor even in shoeing their horses, whose feet are left without any protection. It may be supposed, perhaps, that this can be true only of the more remote and backward districts; but such is not the case. And nothing is more common in the immediate vicinity of Petersburg and Moscow than for horses to be unshod, and spades, ploughshares, harrows, and such like implements, to consist wholly of wood. See a remarkable and conclusive paragraph to the same effect in the work of Tegoborski, referred to above, i, 238.

It is really astonishing that any Government, and especially one so generally intelligent as that of Russia, does not eagerly adopt every possible means of putting an end to such a state of things, and of adding to the efficacy of the labour of its subjects. And to introduce a better system, all that is required is to admit foreign iron and iron-ware free of duty; that is, to allow the people freely to exchange their corn, tallow &c., for the iron and iron implements of England and the Netherlands. The extraordinary magnitude of the exports of corn from the empire, even with its present barbarous husbandry, shows what they might amount to were agriculture a little improved, and means of communication opened from the interior to the seaports. Under such circumstances there can be little doubt that the exportation of corn, tallow, flax, bristles &c., would speedily be doubled or trebled; and the population and the Government would be enriched by abandoning a system which confers no kind of advantage on anyone, except, perhaps (for even that is very doubtful), a mere handful of forest proprietors.

But a better system commenced with the tariff introduced in 1867, which, though in many respects most objectionable, effected sundry beneficial changes, and was a very great improvement on that by which it was preceded. It repealed various prohibitions, and effected large reductions in the duties on some important articles. Pig iron, bars, and rails, that were formerly prohibited, were admitted at reasonable duties; the duty on cotton twist was reduced from 5 roubles per pood to 3½ do.; while cotton, linen, woollen, and silk fabrics, earthenware, sugar, salt &c., might all be imported at considerably lower rates of duty than formerly. It is true that many of these duties were still much too high. But in matters of this sort it is a great thing to have laid the foundations of a better system. And as the reductions that have been made in the rates of duty did not occasion any reduction of revenue, and have given a great stimulus to commerce, it would seem, from the issue of the still more liberal tariff of 1869, that their prospective reduction from time to time may be anticipated. There can be no question that it will be at once the readiest and most effective means of developing the productive capacities of this vast empire.

Notwithstanding its reduction, the duty on raw sugar imported by sea now (1869) rather exceeds 3*d.* per lb. English, which, for a country like Russia, is a great deal too high. But it has been imposed not so much for the sake of revenue, as to encourage the production of beet-root sugar, the duty on which is under 1*d.* per lb. Tegoborski has shown the pernicious influence of this system over the trade and revenue of the empire, and the interests of the consumers. And this immense sacrifice is incurred for no better purpose than to divert a portion of the scanty capital and labour of

the country to a business of which the eventual success, even with this extraordinary encouragement, is, if not problematical, not worth the cost.

Speaking generally, the duties were formerly a good deal higher (frequently as much as a third part) on goods imported by sea than on the same goods when imported by land. This was a most unwise distinction, and in the tariff of 1869 it applies only to sugar and tools. It matters not through what channel an article finds its way to the consumers. Its cost is the only thing to which they attend. And if they can get it cheaper by sea than by land, why force them to resort to the dearer mode of conveyance? If this distinction be resorted to as a means of raising revenue, it is, perhaps, the very worst that can be devised. The business of Government is to impose reasonable duties on commodities, leaving it to their subjects to import, or procure them through the cheapest channels.

According to Tegoborski (iii, 37), and Mr. Consul Michell, the imports of raw cotton and cotton yarn into the empire at different dates from 1824-26 to 1866 have been as under, viz. :—

Years	Raw Cotton	Cotton Thread	Years	Raw Cotton	Cotton Thread
	poods	poods		poods	poods
1824-26 av.	74,268	537,901	1813-17 av.	750,149	591,774
1827-29 "	98,100	410,582	1818-50 "	1,739,001	781,360
1830-32 "	115,996	553,630	1851 "	1,160,715	1,071,171
1833-35 "	171,189	840,309	1852 "	1,748,316	1,127,571
1836-38 "	283,270	620,713	1853 "	756,303	588,575
1839-41 "	355,774	512,125	1856 "	1,313,612	750,171
1842-44 "	521,511	592,193			

It is seen from this table that the annual imports of raw cotton increased between 1824-26 and 1852 from a mere trifle to about 63,000,000 lb., while the imports of yarn appear to have declined during the same period to about 1/3 of their amount at its commencement. But we can not help regarding the extension of the cotton manufacture as a serious loss to Russia; for to suppose that a country without coal, without improved means of communication, with iron at an exorbitant price, and whose inhabitants, thinly scattered over the surface, are but just emerging from a state of preclial slavery, should succeed in manufacturing industry, is to suppose what is contradictory and absurd. It may be fairly presumed that under a free commercial system the progress of Russia in agriculture and in the rude and coarser species of manufacture would be surpassed by few other countries. But she has no aptitude or means for the successful prosecution of the finer description of manufactures. And it is mere self-deceit policy to make her, as has been done, neglect the former by forcing the cultivation of the latter.

In addition to those on imports, some of the most important articles of native growth were formerly subjected to duties on their being exported; the effect of these being to increase their price and narrow their sale in the foreign market. But these have, for the most part, been either repealed or reduced, and the tariff of 1869 imposes duties on but 5 items of export; viz. bone, not worked except burned or ground, 1*s.* per cwt.; leather, 2*s.* 10*d.* per lb.; silkworm eggs, 1*s.* per lb.; rags, from 1*s.* 11*d.* to 4*s.* 5*d.* per cwt.; and calamine or zinc ore, 3*d.* per cwt. It is a common, though, perhaps, an exaggerated complaint that the customs authorities are extremely corrupt; and the procedure in contested cases slow, cumbersome, and expensive.

We may further observe that the accuracy of the official returns of the trade of the empire is not always to be relied on. They frequently involve very grave errors. And though the

were as accurate as they might be made, they would necessarily be very defective, inasmuch as they take no account of the smuggling which is extensively carried on.

The charge sometimes made against the Russians of designedly underrating the exports to England is wholly groundless. It arises from the circumstance of many of the ships destined for England clearing out for the Sound. And these being classed, in the official returns, under the head of cleared for 'other countries,' it is proportionally though unintentionally exaggerated, while the clearances for England are proportionally and unintentionally diminished.

**Inspection of Goods.**—At Petersburg, Riga, and other Baltic ports, when goods are brought from the interior to be shipped, they are inspected and classified according to their qualities, by officers (*brackery*) appointed by Government for that purpose, and sworn to the faithful performance of their duty. All sorts of timber, linen and canvas, fax and hemp, linned and hempseed, ashes, wax &c. are subject to such inspection. They are generally divided into three qualities: *Krohu* (brown), or superior; *Brack*, or middling; and *Brack-Brack*, or inferior. This classification is said to be, in most cases, made with considerable fairness. A factor or commission agent in Russia is instructed to buy, on account of his correspondent in England or Holland, a specified quantity of any description of produce subject to the official visit, is not liable to any action in the event of the article being found upon delivery to be of inferior quality, provided he produce a certificate to show that it had been officially inspected, or *bracked*. But a factor is at liberty, should any article delivered to him be manifestly defective, to name it or other *brackers* to decide whether the article be merchantable or not.

**Native and Foreign Merchants &c.**—Every Russian carrying on trade must be a burgher, and have his name registered in the burghers' book. All whose names are in this book are either townsmen who have property within the city, or members of a guild. There are three guilds. Those who belong to the first must possess 10,000 silver roubles; they may engage in all sorts of commercial transactions, may establish banks, fit out privateers in case of war, and drive about the city in carriages drawn by two horses. Those belonging to the second guild declare themselves possessed of 6,000 roubles; they are not confined to inland trade, but they can only import foreign goods worth 50,000 roubles. A capital of 2,400 roubles entitles its owner to admission into the third guild, which comprises shopkeepers and petty dealers. The rates paid by the members of these guilds amount to 1 per cent. upon their declared capital, the 'statement of which is left to the conscience of every individual.' Burghers are not obliged to serve in the army, but may procure a substitute, or pay a fine. The *guests*, or foreign merchants, who enrol themselves in the city register on account of their commercial affairs, enjoy privileges nearly similar to those enjoyed by members of the first guild.

Tegoborski gives (iii. 319) the following account of the number of merchants inscribed in the different guilds, viz.:

Years	1st Guild	2nd Guild	3rd Guild	Total
1811-13 av.	57	1,874	35,516	36,301
1811-15 "	304	1,941	35,877	36,796
1811-16 "	871	2,152	36,671	39,671
1817-18 "	862	2,293	37,774	40,929
1819-22 "	921	2,591	42,527	45,642

Tegoborski supposes that the capital belonging

to each of the merchants of the first guild may amount, at an average, to 100,000 silver roubles; to the second, to 40,000 roubles; and to the third, to 1,000 roubles. In addition to the above there are about 4,500 small dealers with certificates.

It is useless to enlarge on the impolicy of these distinctions. They prevent men of limited capital, but of enterprise and intelligence, from engaging in those branches in which they would be most likely to succeed. The duties on *guests*, or foreign merchants, may, at an average, amount to about 180*l.* or 190*l.* a-year.

None but native Russians are allowed to engage in the internal trade of the country; and hence a foreigner who imports goods into Russia, must sell them to Russians only, and at the port where they arrive. A few foreigners, indeed, settled in Russia, and having connections with the natives, do carry on a trade with the interior; but it is contrary to law, and the goods are liable to be seized.

The merchants engaged in foreign trade are mostly foreigners, of whom the English are the principal. The peculiar privileges formerly enjoyed by the latter are now nearly obsolete; and their rights, in common with those of other foreigners, are merely those of *guests*. The English factory is, at present, little more than a society formed of some of the principal English merchants, several of whom, however, do not belong to it: its power extends to little else than the management of certain funds under its control.

**Purchase and Sale of Commodities &c.**—Owing to the scarcity of capital in Russia, goods, the produce of the country, are frequently paid for in advance; and foreign goods are most commonly sold upon credit. From the month of November to the shipping season in May, the Russians who trade in flax, hemp, tallow, bristles, iron &c., either come themselves to Petersburg, or employ agents to sell their goods to foreigners, to be delivered, according to agreement, in May, June, July, or August. The payments are made according to the circumstances of the sellers and buyers: sometimes the buyer pays the whole amount, in the winter months, for the goods which are to be delivered in the summer or autumn; and sometimes he pays a part on concluding the contract, and the remainder on delivery of the goods. The manufacturers and dealers in linen usually come to Petersburg in March, and sell their goods for ready money.

Foreign goods were formerly almost entirely sold at a twelve-month's credit, and some at a still longer term; but of late years several articles, as coffee and sugar, are sold for ready money; still, however, the great bulk of foreign goods for the supply of the interior is sold on credit. Most part of the Russians who buy goods on credit of foreigners, for the use of the interior, have no other connection or trade with Petersburg; than merely coming there once or twice a-year to make purchases; which having accomplished, they set off with the goods, and the foreigner neither sees nor hears of them again till the bill becomes due.

It is obvious from this statement, that experience and sagacity are nowhere more requisite in a merchant than here. He has nothing, in fact, but his own knowledge of the native dealers to depend upon; and it is highly creditable to the Russians, that foreigners do not hesitate to trust them with immense sums on such a guarantee. A foreign merchant, carrying on business in Russia, must also be acquainted with the customary forms and obligations of contracts; the mode of making payments; the many formalities that encumber,

and sometimes turn aside, the course of justice; the spirit, still more than the letter, of the tariff and the Custom-house regulations; the privileges claimed by the Crown, and the different orders; with a variety of other particulars, which attentive, able men may learn on the spot, and nowhere else.

Another circumstance connected with the British trade is too curious to be passed in silence. Every mercantile house in Petersburg employs certain men, called in the language of the country *artelschicks*, who are the counting-house men, and employed by every merchant to collect payment on bills, and to receive money, as well as, in many instances, to pay it in very considerable sums. This is an important part of their trust. There being no bankers in Russia, every mercantile house keeps its own cash; and as the payments between merchants, and for bills of exchange, are made entirely in bank notes of no higher value than 5, 10, 25, 50, and 100 roubles—most of them in so tattered a state as to require several hours to count over a sum of 2,000, or 3,000. —this business is performed by *artelschicks*; and very few instances have occurred of loss by their inattention, either in miscounting the notes, in taking false notes, or, where they are much torn, in receiving parts of different bank notes.

These *artelschicks* are also employed to superintend the loading and unloading the different cargoes; they receive the most valuable into the warehouse, where they are left solely under their care; and in these warehouses, not merely merchandise, but often large quantities of dollars, are deposited. These Russians are mostly natives of Archangel, and the adjacent governments, of the lowest class: are often slaves, generally of the Crown; and the only security of the

merchant arises in some degree from the natural reluctance of the Russian to betray confidence reposed in him; but in a much greater from their association, which is called an *artel*.

An *artel* consists of a certain number of labourers, who voluntarily become responsible, as a body, for the honesty of each individual. The separate earnings of each man are put into the common stock; a monthly allowance is made for his support; and at the end of the year the surplus is equally divided. The number varies in different associations from 50 to 100; and so advantageous is it considered to belong to one of these societies, that 500 and even 1,000 roubles are paid for admission. These societies are not bound by any law of the empire, or even written agreement; nor does the merchant restrain them under any legal obligation; yet there has been no instance of their objecting to any just claim, or of protecting an individual whose conduct had brought a demand on the society.' (Cox's *Travels in Russia*, vol. iii, p. 315.)

*Marine Insurance.*—The usual rates of marine insurance at St. Petersburg are 1 to 6 per cent. in the case of sailing vessels, and  $\frac{1}{2}$  to 3 per cent. in the case of steamers, according to the time of the year, the premiums rising about the month of August. Marine insurances are generally effected in London or Amsterdam. An insurance company against fire has been established in Petersburg, and enjoys several privileges. It is a joint-stock company, divided into actions or shares. It has been very successful; and its shares are at a high premium. No insurance on houses or goods in Russia, made in a foreign country, can be legally recovered; no official documents of being allowed to be furnished for such a purpose. A life insurance company has also been established.

TRADE OF THE UNITED KINGDOM WITH RUSSIA.

I.—Account of the Quantities and Values of the Principal Articles Imported from the Northern Ports of Russia into the United Kingdom in 1865-67.

Principal and other Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
Bones of animals and fish (except whalefin) - - - - - tons	9,940	8,899	8,534	£ 51,040	£ 49,461	£ 48,145
Berries - - - - - lb.	2,032,478	2,142,072	1,723,970	828,325	899,147	802,743
Candles, stearine - - - - - cwt.	10,499	12,055	9,709	36,414	39,788	35,223
Cordage and cables, not of iron - - - "	16,232	15,997	11,862	30,475	29,821	21,776
Corn: Wheat - - - - - "	841,045	1,507,741	1,533,265	373,079	638,557	675,648
Oats - - - - - "	1,857,582	3,019,078	2,791,837	700,237	1,209,724	1,220,033
Other kinds - - - - - "	35,040	25,783	75,960	12,702	11,115	36,410
Wheatmeal and flour - - - - - "	88	193,737	110,846	60	175,078	109,100
Feathers for beds - - - - - "	4,490	2,794	5,243	46,098	27,318	31,169
Fine, dressed - - - - - "	47,622	26,105	21,955	156,389	98,121	85,403
Rough or undressed - - - - - "	1,203,060	1,005,749	919,435	3,122,909	2,786,229	2,521,381
tow and cordilla of - - - - - "	199,553	212,613	120,257	470,585	527,076	290,643
Hair, camel - - - - - lb.	691,388	191,035	867,061	20,165	6,231	22,841
horse - - - - - "	4,458	5,777	2,547	18,551	17,219	12,043
Hemp, dressed - - - - - cwt.	49,064	34,948	36,473	112,976	79,800	81,525
rough or undressed - - - - - "	682,857	595,868	488,648	905,672	923,571	830,271
tow and cordilla of - - - - - "	4,944	4,277	8,605	6,160	5,722	10,292
Hides, not tanned - - - - - "	9,408	15,760	11,933	45,620	70,226	41,964
tanned, tawed, curried, or in any way dressed - - - - - lb.	7,498	79,114	84,946	459	4,798	1,127
Muscovy or Russia Lides - - - - - "	212,230	106,537	124,393	27,414	13,223	17,099
Iron in bars, unwrought - - - - - tons	1,972	2,853	2,690	31,552	42,833	31,489
chromate of - - - - - "	8,748	5,060	7,370	40,627	41,935	48,887
Ironfilze - - - - - cwt.	719	884	786	39,436	52,407	34,407
Linen manufactures - - - - - value	..	..	..	77,199	60,558	67,440
Mats and matting - - - - - "	..	..	..	9,027	11,411	10,226
Oil seed cake - - - - - tons	5,134	8,460	9,959	41,892	68,685	82,721
Pitch - - - - - cwt.	23,437	48,991	35,624	11,135	20,995	13,110
Quills, goose and swan - - - - - number	5,633,300	8,856,801	8,706,100	5,921	8,118	4,009
Rags and other materials for making paper - - - - - tons	1,154	1,661	914	25,404	37,697	28,220
Seeds: linseed and flaxseed - - - - - qrs.	360,512	453,182	419,552	866,999	1,173,003	1,217,188
Silk, raw - - - - - lb.	8,800	11,940	11,940	57,746	4,027	5,275
Tallow - - - - - cwt.	628,196	612,991	559,485	1,524,127	1,528,370	1,307,789
Tax - - - - - lasts	10,718	16,332	11,984	121,879	188,199	100,479
Wood and timber, not sawn or split - - - - - loads	211,418	191,855	106,123	747,680	544,543	257,445
deals, battens, boards &c., sawn or split - - - - - "	461,814	483,791	428,878	1,639,551	1,588,585	1,718,717
lathwood - - - - - "	45,439	41,199	37,623	95,012	74,901	61,808
Wool or hair, goats' - - - - - lb.	71,510	25,460	..	10,517	3,810	..
Wool, sheep and lambs' - - - - - "	6,816,114	6,685,719	5,478,852	271,878,528	400,626	169,914
Yarn, cotton - - - - - "	10,775,843	12,906,730	12,927,990	159,494	185,740	215,538
All other articles - - - - - value	..	..	..	141,864	236,159	168,995
Total - - - - - "	..	..	..	12,349,801	15,536,917	11,211,927

II.—Account of the Quantities and Declared Values of the Principal Articles of the Produce and Manufacture of the United Kingdom, Exported to the Northern Ports of Russia in 1865-7.

Principal and other Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
Alkali, soda	cwt. 119,857	117,685	182,455	62,497	68,816	112,668
Apparel and haberdashery	.. value ..	.. ..	.. ..	7,286	7,060	7,777
Beer and ale	.. barrels 9,759	9,302	9,332	10,061	9,114	9,274
Bacon	cwt. 174,356	165,611	19,372	18,480	17,519	13,530
Textile materials	.. cwt. 81,866	130,185	152,632	10,752	17,423	18,255
Cloak, cloths, and culm	.. tons 344,183	492,095	467,259	175,419	276,542	241,150
Copper, wrought and unwrought	cwt. 15,336	5,102	26,514	68,751	17,705	114,772
Cotton yarn	.. lb. 1,607,527	1,128,370	1,309,575	191,122	145,081	171,015
Cottons, entered by the yard	.. yards 907,517	801,229	918,311	30,303	27,079	31,734
Drugs and chemicals	.. at value ..	.. ..	.. ..	224,119	40,526	20,988
Earthenware and porcelain	.. ..	.. ..	.. ..	15,797	15,769	27,491
Fish, herrings	cwt. 6,558	10,363	12,181	6,531	6,267	8,226
Hardware and cutlery, unenumerated	cwt. 8,087	6,182	7,105	6,511	10,594	15,110
Iron, wrought and unwrought	.. tons 70,734	84,635	159,807	667,461	759,917	1,257,128
Lead and shot	.. ..	.. ..	.. ..	58,807	75,800	77,107
Linen yarn	.. lb. 8,417	50,390	73,170	741	4,126	38,729
Linen, entered by the yard	.. yards 325,670	181,977	100,190	17,429	11,050	7,581
Machinery, steam engines	.. at value ..	.. ..	.. ..	3,467	5,915	7,936
Machinery, at other sorts	.. ..	.. ..	.. ..	143,623	170,160	45,770
Oil, fish	.. yards 250,147	34,064	395,570	12,000	17,058	17,951
Oil, tallow and sperm	.. gallons 26,582	31,573	45,700	9,990	14,326	18,320
Paints, colours (not otherwise described)	.. value ..	.. ..	.. ..	6,065	7,753	6,195
Paper of all sorts (including paper hangings)	.. cwt. 943	908	932	5,501	5,785	5,663
Salt	.. tons 56,141	46,223	72,207	28,581	24,157	46,183
Silk, thrown and yarn	.. lb. ..	.. ..	.. ..	2,750	5,598	18,022
Manufactures	.. value ..	.. ..	.. ..	4,237	4,167	4,677
Tin, unwrought	.. ..	.. ..	.. ..	41,311	37,465	32,876
Tin plates	.. lb. 215,135	95,760	94,760	18,325	13,072	38,474
Wool, sheep and lambs	.. ..	.. ..	.. ..	21,737	9,604	21,848
Woolen and worsted yarn	.. ..	.. ..	.. ..	263,203	216,022	284,640
Woolens, entered by the yard	.. yards 458,064	1,539,276	1,785,185	49,378	58,762	51,783
Woolens, at value	.. ..	.. ..	.. ..	7,313	6,267	6,608
All other articles	.. ..	.. ..	.. ..	261,370	236,711	239,196
Total	.. ..	.. ..	.. ..	2,588,554	2,766,148	3,157,396

III.—Account of the Exports of Foreign and Colonial Produce and Manufactures from the United Kingdom to the Northern Ports of Russia in 1865-7.

Principal and other Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
Ceanothus	cwt. 2,465	2,976	3,297	18,323	30,033	28,794
Chechnal	.. lb. 2,944	2,218	2,495	55,691	48,031	46,948
Coffee	.. lb. 4,774,566	4,855,755	4,670,707	189,775	160,635	155,580
Cones, rice	cwt. 276,238	380,574	427,254	2,263,253	2,413,429	2,023,138
Cash	.. tons 44	12	51	1,108	367	2,010
Gunpowder	.. cwt. 214	191	264	5,070	4,636	7,498
Gunpowder, shell lac	.. cwt. 1,670	1,415	1,644	7,077	5,471	5,617
Gunpowder, stick	.. ..	.. ..	.. ..	6,761	6,982	4,378
Hides, untanned	.. ..	.. ..	.. ..	9,150	19,860	24,495
Indigo	.. ..	.. ..	.. ..	245,625	253,590	247,320
Lawson	.. tons 514	501	1,098	4,246	4,371	4,800
Norwegian wood	.. ..	.. ..	.. ..	1,011	6,087	1,667
Oil, cocconut	cwt. 4,243	8,186	3,839	9,565	19,101	9,782
.. site	.. tons 16	31	29	842	1,943	1,195
.. ..	cwt. 6,330	4,436	3,687	17,635	12,421	11,988
.. ..	lb. 433,641	387,083	475,269	6,303	5,645	6,205
.. ..	.. ..	.. ..	.. ..	2,943	14,629	3,775
.. ..	.. ..	.. ..	.. ..	9,039	2,806	11,292
.. ..	cwt. 87,641	24,041	127,080	9,439	2,806	11,292
.. ..	.. ..	.. ..	.. ..	14,051	9,991	14,606
.. ..	.. ..	.. ..	.. ..	163	3,591	20,474
.. ..	.. ..	.. ..	.. ..	2,781	3,084	38,119
.. ..	.. ..	.. ..	.. ..	165	5,591	18,173
.. ..	.. ..	.. ..	.. ..	46,128	359,417	191,923
.. ..	.. ..	.. ..	.. ..	6,628	1,981	657
.. ..	.. ..	.. ..	.. ..	58,199	14,334	18,607
.. ..	.. ..	.. ..	.. ..	1,014	5,429	9,912
.. ..	.. ..	.. ..	.. ..	22,901	1,018	10,692
.. ..	.. ..	.. ..	.. ..	106,151	118,691	175,148
Total	.. ..	.. ..	.. ..	3,097,566	3,500,668	3,016,206
Total of British and Foreign produce	.. ..	.. ..	.. ..	5,675,920	6,516,616	6,594,292

IV.—List of Prices of Russian Produce, 1866.

Ports and Goods	May	June	July	Aug.	Sept.	Oct.
London—Tallow	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Wheat	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Barley	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Oats	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Beet	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Onions and Potatoes—Flax	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..

The following were the Average Rates of Exchange on London, at the Port of Petersburg, between the Years 1857 and 1866.

Quotations	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866
Exchange	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Lowest	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Average	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Rate of full average	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..

The shipping season commenced in 1866 with the breaking up of the ice on April 21 (May 3), and closed on November 10 (22), having been later by two days than in 1865.

The following tables (VII. and VIII.) give some very interesting and important particulars in respect of the Russian corn and linseed trade; the area over which corn is produced, the yield, and the gross estimated amount of the harvest being stated.

VI.—Table showing the Medium Rouble Price and the corresponding Sterling Cost, free on board at Cronstadt, at the average Rates of Exchange, of the Principal Articles of Export from St. Petersburg between 1857 and 1866.

	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866
Average rate of exchange	371	353 15-16	31 15-16	351	314	319-16	36 15-16	324	311	299-16
Hemp, clean pence per rouble	271	251	253	261	288	288	288	288	288	288
per ton free on board	249 12	6 26 11 0 46 3	0 27 3	0 23 6	0 33 8	0 35 13	0 30 3	0 40 15	0 30 3	0 29 15
Flax, St. Petersburg, usual, 12 head	32	40	51	45	45	44	42	41	41	41
per ton free on board	254 4	0 10 15 0 49 5	0 15 12 0 43 8	0 11 12 0	0 11 12 0	0 18 1	0 12 19 0	0 12 19 0	0 12 19 0	0 12 19 0
Tallow, J. Y. C. per berkowets II.	50	46 1	55 3	51	51	52	47	47	47	47
per ton free on board	251 13	0 16 9 0 53 3	0 11 10 0 49 2	0 11 12 0	0 11 12 0	0 10 7	0 12 19 0	0 12 19 0	0 12 19 0	0 12 19 0
Linsced, No. 1 per chevret II.	113	103	93	103	113	113	113	113	113	113
per imp. qr. free on board	2 2 15 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6
Wheat, Saxonia per chevret II.	109	93	93	109	109	109	109	109	109	109
per imp. qr. free on board	2 2 3 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6	2 2 6 2 2 6
Oats, 6 jds. gross per chevret II.	31	4	4	4	4	4	4	4	4	4
per imp. qr. free on board	2 0 19 3	0 19 9 0 19 0	0 19 1 0 19 1	0 19 1 0 19 1	0 19 1 0 19 1	0 19 1 0 19 1	0 19 1 0 19 1	0 19 1 0 19 1	0 19 1 0 19 1	0 19 1 0 19 1

	Average of Medium Prices		Average Rise or Fall between 1857-1861 and 1862-1866, per Cent.	
	1857-1861	1862-1866	Rise	Fall
Average rate of exchange	359-18	33	33	7
Hemp, clean	271	288	13	0
Flax, St. Petersburg, usual, 12 head	42	45	7	0
Tallow, J. Y. C.	51	47	7	0
Linsced, No. 1	103	113	10	0
Wheat, Saxonia	109	109	0	0
Oats, 6 jds. gross	4	4	0	0

VII.—Account of the Corn Sown and Reaped in Russia in Europe (not including Poland or Finland) Compiled from the Reports of Governors, 1859 and 1863.

Province	Sown		Reaped		Yield		Chevrets for each Inhabitant	
	Winter Corn	Spring Corn	Winter Corn	Spring Corn	Winter Corn	Spring Corn	Winter	Spring
<b>Northern Zone:</b>								
1. Archangel	15,740	64,150	65,600	206,000	4-2	3-3	0-22	0-11
2. Vologda	235,900	453,400	1,140,500	1,310,800	4-0	6-0	0-32	1-17
3. Olonets	58,350	86,670	215,400	330,000	3-7	3-7	0-74	0-11
<b>Aldan Zone:</b>								
4. St. Petersburg	150,500	267,100	503,150	917,000	3-3	2-4	0-12	0-11
5. Novgorod	336,000	712,100	1,190,000	1,999,000	3-1	2-6	1-05	1-13
6. Pskov	632,900	1,317,500	2,917,000	4,012,000	4-1	2-5	1-27	2-10
7. Takoff	325,000	539,000	1,172,500	1,534,000	3-6	2-8	1-23	1-11
8. Smolensk	231,454	1,145,000	2,450,000	3,100,000	3-3	2-9	2-14	2-23
<b>Baltic Zone:</b>								
9. Esthonia	92,500	151,500	455,000	470,000	4-9	3-8	1-41	1-23
10. Livonia	227,000	326,000	1,315,000	2,100,000	3-7	2-4	1-41	1-23
11. Courland	135,000	162,500	815,000	921,000	6-0	5-0	1-41	1-23
<b>Lower Zone:</b>								
12. Viatka	270,550	421,500	765,000	1,185,500	3-8	2-8	0-98	1-11
13. Mohileff	346,200	556,000	818,300	1,410,000	2-1	2-3	0-88	1-21
14. Minsk	490,000	590,000	1,060,000	1,992,000	4-0	3-5	1-91	1-21
15. Irodno	407,000	291,000	1,100,000	815,000	3-1	2-8	1-06	0-91
16. Wilna	362,000	400,000	1,075,000	1,115,000	3-0	2-8	1-19	1-23
17. Kovno	389,100	415,200	1,745,630	1,891,000	4-5	4-2	1-65	1-17
<b>Cornubian Zone:</b>								
18. Kief	680,400	753,100	3,520,000	5,081,200	5-2	4-1	1-71	1-23
19. Volhynia	511,600	621,500	2,060,000	2,090,000	3-8	3-3	1-28	1-30
20. Podolia	745,500	715,000	3,000,000	2,752,000	4-1	3-6	1-05	1-21
21. Chernigoff	551,000	560,000	2,160,000	1,150,000	3-0	2-5	1-44	0-91
22. Poltava	605,900	1,100,000	2,980,000	3,600,000	3-7	3-3	1-35	1-31
23. Kharkoff	485,000	865,600	1,561,000	2,820,000	3-2	3-2	0-97	1-17
<b>Steppe Zone:</b>								
24. Kherson	355,000	421,000	2,100,000	2,110,000	5-9	5-0	1-18	1-23
25. Bessarabia	453,400	453,400	1,140,500	2,745,800	6-0	6-0	1-40	1-23
26. Ekaterinabaf	460,000	650,000	910,000	2,905,000	3-5	3-3	0-80	1-23
27. Taurida	125,000	300,000	425,000	1,600,000	3-5	3-5	0-69	1-23
28. Don Cosacka	265,500	788,500	3,732,600	3,517,100	5-0	4-1	1-09	1-23
29. Saratoff	951,000	1,405,000	4,229,000	4,637,000	4-1	3-3	2-25	1-21
30. Astrakhan	32,593	84,000	125,140	310,000	3-8	3-6	0-26	0-61
<b>Central Zone:</b>								
31. Yaroslaf	390,000	786,000	1,580,000	2,152,000	3-5	2-7	1-11	1-23
32. Kostroma	512,000	984,000	1,616,000	2,294,000	3-2	2-3	1-53	1-11
33. Nijegorod	735,000	1,040,000	2,550,000	4,100,000	4-0	3-0	2-02	1-23
34. Penza	765,200	1,146,000	3,225,000	4,370,000	4-2	3-8	2-17	1-23
35. Tamboff	993,200	1,471,000	4,226,000	6,005,000	4-2	4-0	2-14	1-23
36. Voronej	1,095,000	1,715,000	3,860,000	5,550,000	3-5	3-0	1-56	1-23
37. Smensk	917,000	1,598,000	3,850,000	4,450,000	4-0	3-1	2-11	1-23
38. Orel	982,130	1,191,600	4,050,000	4,230,000	4-1	2-8	2-61	1-23
39. Kaluga	405,000	605,000	1,125,400	2,315,000	3-4	2-6	1-58	1-23
40. Tula	663,900	1,040,000	2,530,000	4,115,000	4-0	3-6	2-06	1-23
41. Moscow	217,100	831,500	1,585,000	1,950,000	2-6	2-3	0-88	1-23
42. Vladimir	526,600	907,500	2,000,000	3,120,000	3-4	2-6	1-58	1-23
43. Riazan	708,174	1,176,000	4,330,000	5,161,000	4-1	4-3	2-03	1-23
44. Smolensk	680,000	880,000	3,501,000	2,763,000	4-8	3-1	2-79	1-23
<b>Ural Zone:</b>								
45. Kajan	815,300	1,132,500	2,665,000	2,700,000	3-1	2-3	1-65	1-23
46. Viatka	1,450,180	2,156,800	3,250,000	6,155,000	2-2	2-8	1-46	1-23
47. Perm	516,000	1,650,000	1,375,100	4,910,000	2-6	3-0	0-69	1-23
48. Orenburgh	650,000	1,800,000	3,250,000	4,800,000	5-0	4-0	1-16	1-23
49. Ufa	642,200	1,064,400	2,368,000	7,667,000	3-6	3-9	1-41	1-23
50. Samara	480,000	1,064,400	2,368,000	7,667,000	3-6	3-9	1-41	1-23
<b>Total</b>	25,555,971	40,870,980	99,618,000	156,636,700	3-9	3-3	1-64	1-23

\* Chevret = 632 quart. † About 161,125,000 quarters.

Cost, free on board at  
of Export from St.

Lineed.—The following Table as to shipments and contract prices, are borrowed from Messrs. Cattley & Co.'s statistics. The first shipment was made in 1771.

Table No. VIII.

Years	Total Shipment	Of which destined to Hull	Contract Prices of No. 1, per Imp. qr. f.o.b.	Years	Total Shipment	Of which destined to Hull	Contract Prices of No. 1, per Imp. qr. f.o.b.
1771	cheetverts 310	cheetverts	s. d.	1819	cheetverts 32,179	cheetverts	s. d.
1772	377	..	..	1820	53,546	..	..
1773	407	..	..	1821	40,500	..	..
1774	497	..	..	1822	55,234	..	..
1775	14,134	..	..	1823	50,031	..	..
1776	11,149	..	..	1824	45,842	..	..
1777	18,453	..	..	1825	58,109	..	..
1778	32,531	..	..	1826	52,759	11,998	29 0
1779	13,921	..	..	1827	95,451	28,672	31 2
1780	15,743	..	..	1828	144,493	38,392	29 8
1781	15,462	..	..	1829	162,289	25,017	28 8
1782	2,782	..	..	1830	185,167	42,554	33 4
1783	4,852	..	..	1831	211,287	61,929	36 3
1784	35,065	..	..	1832	152,278	49,558	33 8
1785	28,325	..	..	1833	128,569	34,107	39 10
1786	21,712	..	..	1834	144,245	39,032	42 4
1787	19,475	..	..	1835	27,193	56,219	41 8
1788	45,291	..	..	1836	109,906	91,101	38 10
1789	49,291	..	..	1837	259,473	111,302	51 0
1790	33,492	..	..	1838	268,843	119,715	58 10
1791	15,992	..	..	1839	236,315	151,801	45 6
1792	25,519	..	..	1840	296,635	129,704	42 8
1793	21,857	..	..	1841	268,286	79,989	38 10
1794	25,532	..	..	1842	276,628	79,407	36 0
1795	65,963	..	..	1843	315,077	135,634	55 10
1796	58,441	..	..	1844	315,348	131,536	55 10
1797	54,951	..	..	1845	385,662	146,917	55 10
1798	75,272	..	..	1846	171,250	89,872	45 10
1799	78,132	..	..	1847	245,511	77,794	52 7
1800	65,254	..	..	1848	279,125	127,453	56 0
1801	55,005	..	..	1849	307,100	135,645	58 7
1802	78,132	..	..	1850	242,148	114,953	54 6
1803	61,039	..	..	1851	244,702	141,178	53 8
1804	55,556	..	..	1852	201,091	89,313	55 5
1805	67,511	..	..	1853	355,357	198,903	55 5
1806	40,638	..	..	1854	War	..	..
1807	26,741	..	..	1855	527,411	200,493	55 5
1808	War	..	..	1856	341,342	135,750	62 4
1809	War	..	..	1857	211,745	145,656	62 4
1810	25,781	..	..	1858	314,159	147,018	66 6
1811	18,015	..	..	1859	390,080	141,465	48 2
1812	64,966	..	..	1860	179,927	146,121	47 8
1813	39,181	..	..	1861	346,514	120,580	62 6
1814	38,035	..	..	1862	317,284	128,836	59 2
1815	47,670	..	..	1863	436,809	316,719	65 2
1816	29,042	..	..	1864	456,242	297,253	66 6
				1865	526,336	416,267	55 3

Per Month C. & Co's Annual Calendar

Per Day Price Current at about March 1-15

Trading Poland or Finland, 1863.

Year	Spring Corn	Winter	Spring
4-9	3-3	0-12	0-11
4-1	2-8	0-28	1-17
3-7	3-8	0-72	1-11
3-3	3-4	0-12	0-5
3-1	3-5	1-87	1-21
3-6	2-8	1-63	1-11
3-3	2-9	2-11	1-17
4-9	3-4	1-41	1-15
5-7	6-4	1-11	1-15
6-0	5-6	1-41	1-15
2-8	2-8	0-98	1-11
4-0	3-5	0-98	1-11
3-1	2-4	1-58	0-21
3-0	2-2	1-19	1-12
2-5	2-2	1-63	1-12
4-9	4-1	1-74	1-13
3-8	3-5	1-28	1-19
4-1	3-6	1-26	1-11
3-7	3-3	1-41	0-98
3-9	2-5	1-26	1-11
3-2	5-0	0-97	1-17
5-9	5-0	1-18	1-15
6-0	6-0	1-10	1-15
3-5	3-3	0-89	1-13
3-3	5-3	0-69	1-13
3-4	4-3	0-71	1-13
5-0	4-4	1-33	1-19
4-4	4-3	1-33	1-19
3-8	3-6	0-76	0-94
3-5	2-7	1-13	1-13
3-5	2-3	1-33	1-13
4-4	4-0	1-18	1-13
4-2	3-8	1-13	1-13
4-2	4-0	1-11	1-13
3-5	3-0	1-26	1-13
3-5	3-1	2-14	1-13
4-0	3-5	2-14	1-13
4-1	2-8	1-18	1-13
4-7	3-8	1-18	1-13
2-0	2-3	1-18	1-13
2-6	2-3	1-18	1-13
3-4	2-6	1-18	1-13
3-1	4-3	2-19	1-13
6-1	3-1	2-19	1-13
3-1	2-5	1-45	1-13
2-2	2-8	1-14	1-13
2-6	3-0	1-16	1-13
4-0	4-0	1-16	1-13
2-6	3-9	1-16	1-13
3-9	3-3	1-64	1-13

5,000 quarters.

Summary.

Years	Total Shipped	Shipments to Hull
1771 to 1780	cheetverts 108,455	cheetverts ..
1781 1790	279,160	..
1791 1800	407,758	..
1801 1810	398,770	..
1811 1820	558,411	..
1821 1830	815,696	..
1831 1840	2,154,915	617,136
1841 1850	2,906,533	1,119,508
1851 1860	2,578,877	1,450,852
1861 1866	12,372,658	11,625,596

\* Eighteen shipments, as there was war in 1854 and 1855. † Sixteen only. For 10 years, at the same rate, the quantities would be, respectively, total cheetverts, 5,350,000; Hull, 2,709,526.

Estimated supply for 1867, about 650,000 cheetverts, equal to 455,000 imperial quarters.

Price of No. 1 for August, on { February 25, }  
45s. 10d. to 47s. { March 9, }

Finland.—The trade with Finland during the years 1863-5 was as follows:—

	1863	1864	1865
Imports	£ 2,460,110	£ 2,201,980	£ 2,492,702
Exports	£ 1,145,615	£ 1,091,737	£ 1,287,925

The chief trade being carried on at Helsingfors, Wiborg, and Abo. The chief imports are manufactured iron, coffee, and other colonial produce, the exports being timber and fish.

The following Table shows the total value of the imports and exports, exclusive of specie, by each frontier of the Russian empire in the years 1861-3:—

Table No. IX.

Ports	Imports		Exports	
	1861	1862	1861	1862
White Sea	£ 79,275	£ 85,335	£ 1,076,180	£ 1,118,455
Finland	351,786	437,336	611,415	1,132,231
Baltic	15,773,346	12,191,175	10,737,517	11,552,830
European land frontier	4,890,684	5,899,949	4,543,223	5,508,385
Black Sea and Sea of Azov	4,456,806	2,251,127	9,987,132	8,605,540
Trans-Caucasian frontier	976,732	980,505	596,051	470,591
Australian	126,432	147,652	41,708	68,149
Germany and Siberia	1,325,535	1,486,413	951,370	873,261
Khukha and China	1,176,697	1,385,884	1,114,573	695,522
Amoor	..	2,392	..	..
Total	£ 26,439,565	£ 29,804,415	£ 24,935,849	£ 28,568,058
Dut received	£ 4,607,122	£ 4,642,756	£ 4,854,352	£ 5,000,919

The following table, compiled from a return published by Messrs. Maynard and Fishwick, shipping agents at Cronstadt, gives an account of the exportation of Russian produce through St. Petersburg in 1864-66. The increase, as will be seen, is chiefly to Great Britain.

X.—Table showing the Principal Items of Export from St. Petersburg to Great Britain between the Years 1864 and 1866.

Description of Goods	1864	1865	1866	1865-1866	
				Increase	Decrease
Hemp - - - - - poods	1,185,398	1,116,625	1,231,982	per cent.	per cent.
Flax - - - - - "	924,298	997,113	891,822	..	13
Wool - - - - - "	216,471	211,817	208,055	50	..
Tallow - - - - - "	1,316,580	1,916,580	2,011,110	61	..
Lard and tallow - - - - - "	197,900	244,821	249,056	72	..
Lard - - - - - " chetverts	531,427	588,112	481,230	21	..
Wheat - - - - - "	399,411	291,416	306,698	80	..
Oats - - - - - "	66,534	672,862	1,133,291	64	..
Wheat flour - - - - - bags	4,094	..	125,926	..	..
Lath wood - - - - - pieces	607,531	1,080,900	673,766	..	..
Deals - - - - - stand. doz.	305,192	440,113	426,109	..	3

XI.—Table showing the Principal Items of Import at St. Petersburg from Great Britain, between 1864 and 1866.

Description of Goods	1864	1865	1866	1865-1866	
				Increase	Decrease
Cotton, raw - - - - - poods	662,666	753,217	1,128,232	per cent.	per cent.
Machinery, value - - - - - roubles	3,831,718	3,098,903	5,317,711	71	..
Coal - - - - - "	3,595,566	665,750	1,085,016	53	..
Coffee - - - - - poods	105,076	117,212	122,693	..	..
Sugar, raw and crushed - - - - - "	59,878	2,755	36,129	1,222	..
Oil - - - - - "	65,628	6,996	35,036	8	..
Porter, bottles - - - - - "	118,786	159,116	168,073	54	..
Salt - - - - - poods	8,183	8,277	7,988	..	..
Tea - - - - - "	785,128	79,522	794,766	..	..
Tobacco - - - - - "	8,710	11,776	2,691	..	..
Rice - - - - - "	21,570	48,765	57,175	17	..
Tea of all qualities - - - - - "	39,938	23,819	81,808	215	..
Cotton T-wale - - - - - "	43,571	39,526	26,881	..	..
Indigo - - - - - "	16,570	20,612	20,938	15	..
Cashmere - - - - - "	9,658	7,697	9,571	..	..
Logwood - - - - - "	81,886	105,222	112,259	23	..
Cast iron, unmanufactured - - - - - "	776,962	550,880	536,406	524	..
Iron, wrought - - - - - "	794,522	1,015,638	988,095	..	..
Copper - - - - - "	22,575	41,516	10,052	..	..
Lead - - - - - "	81,817	118,925	212,795	101	..
Soda - - - - - "	377,771	311,202	365,569	5	..
Wool - - - - - "	36,112	38,742	38,743	..	..
Iron, manufactured - - - - - roubles	1,304,119	2,628,836	3,227,273	224	..
Cotton goods - - - - - "	478,742	219,562	234,180	35	..
Flax - - - - - "	32,727	275,551	218,888	..	..
Silk - - - - - "	11,192	19,571	37,122	91	..
Woolen - - - - - "	522,215	517,221	537,570	511	..

XII.—Table showing the Principal Items of Import into St. Petersburg from Countries in Europe during the Year 1866, and the Increase or Decrease of Importations as compared with 1865.

Goods	Quantity	As compared with 1865			
		Increase	Per cent.	Decrease	Per cent.
Sugar, raw and crushed - - - - - poods	1,553,309	914,015	155	..	..
Tea - - - - - "	94,790	8,860	10	..	..
Coffee - - - - - "	228,549	..	..	9,892	4
Other Colonial goods - - - - - "	20,123	..	..	2,302	10
Tobacco - - - - - "	38,368	218	3	..	..
Wine in casks - - - - - "	265,110	38,685	14	..	..
bottles, No. - - - - - "	721,316	21,727	3	..	..
Spiritous liquors - - - - - poods	10,789	1,913	214	..	..
Oil - - - - - "	634,931	159,504	353	..	..
Fruit - - - - - No.	28,907,274	10,761,046	29	..	..
salt - - - - - poods	766,780	11,991	14	..	..
Iron, unmanufactured - - - - - "	990,968	497,513	43	..	..
cast - - - - - "	595,718	190,927	..	..	..
Cotton, raw - - - - - "	1,545,642	787,159	101	..	..
twist - - - - - "	36,619	..	2,188	6	..
Woolen yarn - - - - - "	56,880	1,305	21	..	..
Silk, raw and spun - - - - - "	900	475	1111	..	..
Indigo - - - - - "	31,823	6,212	94	..	..
Other dye stuffs - - - - - "	709,328	167,102	301	..	..
Cotton manufactures - - - - - "	6,760	504	8	..	..
Flax - - - - - "	8,110	..	658	7	..
Silk - - - - - "	829	161	..	..	..
Woolen - - - - - "	12,293	2,148	21	..	..
Petroleum - - - - - "	246,707	78,625	461	..	..
Other goods, value in roubles - - - - - "	25,571,695	2,821,262	22	..	..
Total value, silver roubles - - - - - "	83,700,253	21,094,504	401	..	..

Before the tariff reforms of 1857, the value of the exports given above (Table XIII), was only a little more than 1,000,000 sterling. It is most likely, indeed, as already observed, that the increase may have been in some degree occasioned by a decrease of clandestine importation. But, independently of

this indirect effect, there can be no manner of doubt that there has been a large increase of consumption. It may be observed with reference to our trade with Russia, that a large proportion of the British ships and produce destined for Odessa and other ports on the Black Sea, and the Sea of Azov, clear out for Constantinople, and are included among the clearances and exports for Turkey.

XIII.—Table showing the Principal Items of Export from St. Petersburg to Countries in Europe during the Year 1866.

Goods	Quantity	As compared with 1865			
		Increase	Per cent.	Decrease	Per cent.
Hemp - - - - - poods	1,738,778	..	..	205,247	12
Flax - - - - - "	921,116	..	..	260,427	28
Tallow - - - - - "	2,356,572	197,518	8	..	..
Hides, raw - - - - - "	69,921	27,693	63	..	..
Leather, yuffs - - - - - "	12,199	..	..	610	5
Iron - - - - - "	401,451	277,123	217	..	..
Copper - - - - - "	9,419	..	..	125,199	13
Bristles - - - - - "	7,176	..	..	18,917	26
Cordage - - - - - "	121,263	..	..	12,891	10
Linens - - - - - pieces	19,580	..	..	1,289	6
Headstuffs - - - - - chets.	2,519,211	1,398,296	151	..	..
Horns - - - - - poods	397,778	..	..	26,513	6
Timber - - - - - pieces	10,469	9,603	116	..	..
Potashes - - - - - poods	53,551	..	..	..	..
Mats and bags, pieces - - - - - "	218,600	30,706	16	..	..
Rags - - - - - poods	91,007	24,096	125	..	..
Miscellaneous value in roubles - - - - - "	18,294,859	1,777,576	102	..	..
Total value in roubles - - - - - "	55,885,600	6,151,728	171	..	..
	26,372,000	..	..	..	..

Note.—In 1866 the exportation of gold and silver from Petersburg exceeded the importation by 16,615,800 roubles (1,823,000 £).

Average Annual Exportation of Wool from Russia

From 1800 to 1815 - - - - -	poods.	In 1819 - - - - -	poods.
1814	19,813	1855	358,000
1815	35,713	1856	1,000,000
1816	111,616	1857	1,000,000
1817	300,100	1858	1,000,000
1818	375,980	1859	1,000,000
In 1841 - - - - -	436,181	1860	1,000,000
1845 - - - - -	785,283	1861	1,000,000



Year	Value	Year	Value
1861	\$1,200,000	1865	\$7,000,000
1862	10,000,000	1866	91,100,000
1863	70,000,000		

The largest shipments were to Antwerp, Bremen, London, Havre, and Marseilles, these five ports receiving 912,914 barrels out of 1,462,049 exported from the 4 American ports just mentioned. But there is scarcely a port of any consequence in Europe to which consignments of this oil are not made.

The price of the oil at the wells, in 1866, according to Mr. Consul Cortwright, was only 2 dols. (currency), 6s. 7d. per barrel, whereas the carriage to Philadelphia and New York amounted to 4 dols. (13s. 2d.) per barrel. To remedy this state of things, it has been proposed to lay down a vast oil pipe from the wells to the sea-coast. 'So important is petroleum,' adds the Consul, 'as a substitute for fuel, that, odd as the project is, it is not impossible that it may be realised.' See also the work on Petroleum of Messrs. Daddon and Bannan, of Poltville, United States, 1866.

In 1867, exclusive of 1,166 tons of unrefined, valued at 13,451L, we imported, chiefly from the United States, 5,374,532 gallons of refined petroleum, valued at 354,271L. [PHILADELPHIA.]

In consequence of its inflammable nature two Acts were passed (in 1862 and 1868) to regulate the storing and testing of this and kindred substances. After February 1, 1869, 'no petroleum shall be kept otherwise than for private use within 50 yards of a dwelling house, or of a building in which goods are stored, except by license.'

PEWTER (Ger. zinn, zinngiesserzinn; Fr. étain; Ital. stugno; Span. estaño, peltre; Russ. olovo). A factitious metal used in making plates, dishes, and other domestic utensils. It is a compound, the basis of which is tin. The best sort consists of tin alloyed with about  $\frac{1}{5}$  or less of copper, or other metallic bodies, as the experience of the workmen has shown to be most conducive to the improvement of its hardness and colour, such as lead, zinc, bismuth, and antimony. There are 3 sorts of pewter, distinguished by the names of *plate*, *trifle*, and *ley-pewter*. The 1st was formerly much used for plates and dishes; of the 2nd are made the pints, quarts, and other measures for beer; and of the ley-pewter, wine measures and large measures. (Ure.)

PHILADELPHIA. A large city and seaport of the United States, in Pennsylvania, near the confluence of the rivers Delaware and Schuylkill, lat. 39° 57' N., long. 75° 10' 59" W. It was founded by William Penn in 1682. Population in 1860, 562,522.

Harbour, Lighthouses, Pilotage &c.—Vessels of the largest burthen ascend the river as far as Newcastle, but those drawing above 18 or 20 feet water cannot reach Philadelphia, on account of a bar a little below the city. The entrance to the magnificent bay formed by the embouchure of the Delaware has Cape May on its north, and Cape Henlopen on its south side. The former, in lat. 38° 55' 50" N., long. 75° 57' 16" W., is a sandy headland, rising about 12 feet above the level of the sea. It is surmounted by a lighthouse 152 feet in height. The light revolves every half minute. It is seen, in clear weather, 19 miles off. Cape Henlopen, marking the southern boundary of the bay, is in lat. 36° 46' 38" N., long. 75° 4' 45" W. A little south from it is a hill, elevated about 60 feet above the level of the sea; and on it is erected a lighthouse, 72 feet in height, furnished with a powerful *fixed* light, visible, in clear weather, 20 miles off. To the north of this principal light, and close to the extremity of the Cape, a second

lighthouse has been constructed, 45 feet above the level of the sea, which is also furnished with a *fixed* light, which may be seen about 9 miles off. The channel for large ships is between Cape Henlopen and the banks called the Overfalls. The navigation is, however, a little difficult, and it is compulsory on ships to take pilots. The latter frequently board them at sea; but if not, as soon as a ship comes between the Capes she must hoist the signal for a pilot, and heave to as soon as one offers to come on board. (Concise *Navig. in Phares*, 2nd ed. See post, for regulations as to pilotage.)

Trade.—The trade of Philadelphia is pretty extensive. She communicates by various canals (one of which, 3954 miles in length, unites her with Pittsburg, on the Ohio) and by railways with the interior, and is the grand depot for the coal and petroleum of the Union, the increase of the trade in which has been quite unprecedented. Previous to 1825 no coal had been sent down the Schuylkill, and in that year only 5,306 tons were brought by that channel to Philadelphia; whereas in 1857 the quantity amounted to 3,042,378 tons, exclusive of about twice as much supplied by other channels. Large quantities of this coal are sent coastwise to other parts of the Union. Exclusive of coal, petroleum, and iron, the exports principally consist of wheat and wheat flour, Indian corn, and other agricultural products: Philadelphia is, however, becoming as much a manufacturing as a trading city.

The exports of petroleum from Philadelphia in the 5 years 1863-67 were, in quantities and values, as follow, viz. :—

Years	Quantity	Value
1863	4,200,708 gals.	1,300,000 dols.
1864	7,200,000 "	2,300,000 "
1865	12,000,000 "	6,111,000 "
1866	26,500,000 "	11,774,000 "
1867	38,500,000 "	9,600,000 "

The principal imports are cotton, woollen, and silk goods; sugar, coffee, and tea; iron and hardware; wines, brandies, spices, dye-stuffs &c. In point of shipping, Philadelphia is the fourth port in the Union, being, in this respect, inferior only to New York, Boston, and New Orleans. The registered, enrolled, and licensed tonnage belonging to the port on June 30, 1858, amounted to 219,852 tons, of which more than two-thirds (151,615 tons) were engaged in the coasting trade, which was very large. In 1805, 531 vessels of 159,579 tons entered the port. The total value of the articles imported into Pennsylvania from foreign countries in 1866 amounted to 14,115,000 dols., and that of the exports to 17,913,901 dols. The coasting trade of the port is, however, more extensive and of greater importance than its foreign trade.

Account of the Value of Foreign Imports into and Exports from Philadelphia in the 10 Years ending with 1866.

Years	Value of Exports	Value of Imports
1857	dols. 7,135,156	dols. 12,850,000
1858	5,987,251	11,900,000
1859	5,299,095	12,000,000
1860	7,939,286	14,500,000
1861	10,227,034	8,600,000
1862	11,518,070	8,500,000
1863	19,628,964	8,000,000
1864	15,661,962	8,100,000
1865	12,984,152	8,800,000
1866	17,913,901	14,115,000

There are numerous banks in Philadelphia, but they stand no higher in point of character than those in most other parts of the Union, and have over and over again suspended payments. The Bank of the United States had its head-office

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Philadelphia is, however, be-  
manufacturing as a trading

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Value	1,500,000
1,500,000	4,200,000
4,200,000	6,411,000
6,411,000	11,221,000
11,221,000	8,035,000

ports are cotton, woolen, and  
lce, and tea; iron and hand-  
s, spices, dye-stuffs &c. In  
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1866 amounted to 14,115,000  
exports to 17,913,000 dol-  
the port is, however, more  
reater importance than in

of Foreign Imports into  
Philadelphia in the  
1866.

Exports	Value of Imports
4,136	446
17,251	17,250,500
8,095	15,600,000
2,286	15,350,000
7,934	8,000,000
2,950	8,500,000
2,968	9,125,000
1,962	8,845,000
4,132	14,115,000
3,901	

s banks in Philadelphia, but  
r in point of character than  
arts of the Union, and have  
suspended payments. The  
States had its head-office

here. Besides banks, there are numerous in-  
surance companies and joint-stock associations,  
The exports of flour, wheat, corn &c., or of  
bread-stuffs, as they are called by the Americans,  
from Philadelphia to foreign countries, have been  
as follow—

Year	Flour		Corn Meal		Rye Flour		Wheat		Corn	
	bbls.	101,380	bbls.	73,800	bbls.	21,227	bbls.	37,831	bbls.	17,117
1850	287,271	89,186	36,171	280,017	50,571	76,719	80,256	87,574	71,013	110,008
1851	181,806	67,884	22,530	24,503	32,235	21,900	28,375	86,089	129,256	279,849
1852	198,517	106,184	21,900	115,101	17,098	215,136	545,378	402,009	1,102,801	917,159
1853	106,435	102,356	20,107	141,857	20,107	25,953	205,670	177,312	606,800	531,648
1854	201,056	115,101	18,537	140,011	18,537	10,265	193,011	491,165	115,895	29,772
1855	766,010	141,857	26,556	91,719	26,556	3,780	582,910	187,689	625,649	686,932
1856	83,091	91,531	3,780	71,189	3,780	9,192	205,670	613,850	1,791,255	605,236
1857	179,507	140,011	6,882	70,014	6,882	13,757	226,071	901,010		
1858	280,746	91,719	5,780	71,189	5,780	13,757	226,071			
1859	83,091	91,531	3,780	71,189	3,780	9,192	205,670			
1860	299,166	65,305	9,192	70,014	9,192	187,689	625,649			
1861	311,453	68,182	6,882	70,014	6,882	13,757	226,071			
1862	518,475	71,189	5,780	71,189	5,780	9,192	205,670			
1863	331,498	70,014	9,192	70,014	9,192	187,689	625,649			
1864	419,197	91,168	13,757	13,757	13,757	226,071	686,932			
1865	346,256	91,830	13,015	91,830	13,015	13,757	226,071			
1866	198,560	47,571	8,354	47,571	8,354	901,010				

Account of the Quantity of Grain produced in the State of Pennsylvania in 1866.

Articles	Bushels	Value
Indian Corn	55,831,827	\$4,007,008
Wheat	10,319,600	29,087,192
Rye	6,509,690	7,606,557
Oats	51,851,569	27,127,980
Barley	621,271	677,515
Potatoes	9,718,728	9,329,979

Shipping and Navigation.—In 1864 there entered the port of Philadelphia 276 foreign ships, and 342 American; and 192 American and 313 foreign cleared the port.

In Pennsylvania, the dollar is worth 7s. 6d. currency; so that 1l. sterling = 1l. 13s. 4d. currency. [NEW YORK.]

Weights and Measures same as those of England.

Account of the Trade with Philadelphia in British Vessels, 1864—1866.

Year	Entered			Cleared			
	Number	Tonnage	Crews	Number	Tonnage	Crews	Estimated Value of Cargoes
1864	256	80,990	2,891	217	79,611	2,821	£1,082,255
1865	285	100,755	3,557	285	100,755	3,557	1,503,700
1866	200	99,127	3,477	200	99,127	3,477	1,383,000

Statement of the Number and Tonnage of American Vessels that have Entered and Cleared through the Philadelphia Custom-house during the same period, viz., from 1864 to 1866 inclusive.

Year	Entered				Cleared			
	From Foreign Countries		From other American Ports		From Foreign Countries		From other American Ports	
	Number	Tonnage	Number	Tonnage	Number	Tonnage	Number	Tonnage
1864	507	89,802	1,255	562,824	159	51,784	8,995	1,170,583
1865	474	76,399	1,196	535,051	208	68,816	3,570	698,870
1866	419	145,126	..	..	471	115,376	..	..

The above account does not include all the vessels engaged in the coasting trade, but only such as have entered and cleared at the Custom-house.

The following table will show the number of vessels engaged in the coasting trade. No flag but American is allowed to engage in this trade.

Statement of the Arrivals at Philadelphia of Vessels engaged in the Coasting Trade of the United States during the Years 1861 to 1866 inclusive—

1861	34,577	1861	33,898
1862	35,161	1865	31,833
1863	34,996	1866	35,060

Regulations of the Port.—If any master or captain of any ship or vessel, or other person, shall refuse or neglect to comply with the directions of the harbour master, in matters within the jurisdiction of his office, such person shall, for each and every such offence, severally forfeit and pay any sum not exceeding 100 dollars. And the said harbour master shall, in full compensation for his services, be entitled to have, recover, and receive from the master, captain, owner, or consignee of each and every ship or vessel arriving at the port of Philadelphia (coasting

vessels not exceeding the burden of 75 tons excepted) the sum of 1 dollar for each and every voyage by such ship or vessel performed, and no more.

Every ship or vessel that may arrive in this harbour, and that shall come to anchor in the stream anywhere between Almond and Vine Streets, having previously caused her gunpowder, if any she had on board, to be landed as the law directs, may remain in that situation 2½ hours, and no longer, taking care to lie as near to the island or sand-bar as may be consistent with her safety. But if, from the circumstance of a vessel having servants on board, or from any other cause, it may be thought necessary or convenient to lie a longer time in the stream, then, and in every such case, the owner, master, pilot, or other person having the charge or direction of such vessel, shall remove her from opposite the city, and shall moor her, or cause her to be moored, to the northward of Vine Street with 1 anchor and cable up and 1 anchor and cable down the stream; and in both the above-mentioned situations, the regulation contained in the next succeeding article to be duly attended to.

If any vessel properly moored in the stream shall have her anchor or cable overlaid by any other vessel in anchoring or mooring, the master

or person having the care or direction of such last-mentioned vessel shall immediately, or as soon as may be after application made to him by the party aggrieved, cause the said anchor or cable so overlaying to be taken up and cleared. When a ship or vessel shall be hauled in to any wharf or dock, or alongside of another vessel that may be lying at such wharf or dock, the owner, master, pilot, or whoever may have the command, care, or direction of her, shall have her securely made fast; and if outside of another vessel, shall get one good fast from each end of the vessel to the shore, with sufficient fenders between them and the inside vessel; and shall cause the flukes of their anchors to be taken on board; and, within 24 hours thereafter, cause her jib boom, spritsail yard, main boom, spanker and ringtail booms, if any they have, to be rigged in, and their lower yards topped up, in such a manner as least to interfere with vessels passing.

If the fasts of vessels when moored at a wharf shall extend across a dock, so as to obstruct the passing or repassing of shuttles, lighters, or other craft or vessel, the master or other person having the command of such ship or vessel shall, upon the first application, immediately cause such fast or fasts to be cast off or slackened down.

No outward bound vessel, putting off from wharf, shall lie longer in the stream, between Vine Street and Almond, in the district of Southwark, above mentioned, than 24 hours.

And if vessels lying at the end of wharves so much interlock with each other as to prevent vessels hauling in and out of docks, the master, owner, pilot, or other person having the charge of the same, shall, immediately on application from any person so wanting to haul his vessel in or out of docks aforesaid, have the vessel or vessels so interfering, moved in such a manner as to accommodate the one applied for; in which case the vessel making room for another to haul in or out shall have liberty to make her warps fast to the most convenient place adjacent, for a reasonable time; and all sea vessels, when transporting or wanting to haul into a wharf or dock, or to make sail in order to proceed to sea, shall have the same privilege.

When any ship or vessel may be lying alongside any wharf, and not taking in or discharging, she shall make way for and permit any vessel that wants to unload or load, to come inside, next the wharf, until she discharges or loads her cargo; and the said vessel, when so discharged or loaded, shall haul outside and give way to the vessel that first occupied the wharf; provided that, from the 10th of December to the 1st of March, no vessel shall be compelled to move from her berth (only those at Gloucester Point piers), excepting to let vessels in and out of docks.

RATES OF PILOTAGE.

Table A.

Inwards up to 12 feet, at 3 dollars per foot; over 12 feet, for every foot, at 3 dollars 33 cents.

5 feet is	dols.	cents	15 1/2 feet is	dols.	cents
5	15	00	15 1/2	45	00
5 1/2	16	50	16	48	67
6	18	00	16 1/2	48	33
6 1/2	19	50	17	50	00
7	21	00	17 1/2	51	67
7 1/2	22	50	18	53	33
8	24	00	18 1/2	55	00
8 1/2	25	50	19	56	67
9	27	00	19 1/2	58	33
9 1/2	28	50	20	60	00
10	30	00	20 1/2	61	67
10 1/2	31	50	21	63	33
11	33	00	21 1/2	65	00
11 1/2	34	50	22	66	67
12	36	00	22 1/2	70	00
12 1/2	37	50	23	72	33
13	39	00	23 1/2	73	66

Table B.

Inwards, up to 12 feet, 5 1/4 dollars per foot; over 12 feet, 1 1/2 dollars per foot. Outwards, up to 12 feet, at 3 1/2 dollars; over 12 feet, 10 cents for every foot.

Inwards			Outwards		
5 feet is	dols.	cents	5 feet is	dols.	cents
5	18	75	5	11	00
5 1/2	19	00	5 1/2	11	33
6	19	25	6	11	66
6 1/2	20	50	6 1/2	12	00
7	21	00	7	12	33
7 1/2	22	25	7 1/2	12	66
8	23	50	8	13	00
8 1/2	24	00	8 1/2	13	33
9	24	25	9	13	66
9 1/2	25	50	9 1/2	14	00
10	26	00	10	14	33
10 1/2	26	25	10 1/2	14	66
11	27	50	11	15	00
11 1/2	28	00	11 1/2	15	33
12	28	25	12	15	66
12 1/2	29	50	12 1/2	16	00
13	30	00	13	16	33
13 1/2	30	25	13 1/2	16	66
14	31	50	14	17	00
14 1/2	32	00	14 1/2	17	33
15	32	25	15	17	66
15 1/2	33	50	15 1/2	18	00
16	34	00	16	18	33
16 1/2	34	25	16 1/2	18	66
17	35	50	17	19	00
17 1/2	36	00	17 1/2	19	33
18	36	25	18	19	66
18 1/2	37	50	18 1/2	20	00
19	38	00	19	20	33
19 1/2	38	25	19 1/2	20	66
20	39	50	20	21	00
20 1/2	40	00	20 1/2	21	33
21	40	25	21	21	66
21 1/2	41	50	21 1/2	22	00
22	42	00	22	22	33
22 1/2	42	25	22 1/2	22	66
23	43	50	23	23	00

The table marked A contains the fees levied upon vessels as they towed by steamers to Philadelphia.

The table marked B contains the fees which are charged in case where no steerman has been employed to tow the vessel from one berth to another.

No ship or vessel loading or discharging hemp at any wharf, or within any dock, shall be allowed to have any fire on board; neither shall any vessel lying outside or near her be permitted to have fire on board, while it may be considered dangerous. And no tar, turpentine, resin, or pitch shall be heated on the wharf, or on board any vessel lying at any wharf within the limits of the city.

There are 4 classes of pilots. 1. Those capable of piloting vessels of any practicable depth of water. 2. Those capable of piloting vessels drawing 22 feet of water or under. 3. Those capable of piloting vessels drawing 9 feet of water or under.

Every vessel arriving from, or bound to a foreign port, is required by law to receive a pilot, or to pay half pilotage in the warden's office, where the master of every such vessel is required, under a penalty of 10 dollars, to make report within 36 hours after his arrival, and again before his departure, signing his name to said report in the warden's book.

Every vessel of 75 tons and upwards arriving from, or bound to, any port within the United States, and the masters of all such vessels, are bound as above.

The pilot of every vessel is required to inform the master of his having to report at the warden's office.

All vessels obliged to receive a pilot are required to pay 10 dollars in addition, as winter pilotage, from November 20 to March 10, both days inclusive.

Foreign vessels, i.e. Spanish, Portuguese, Neapolitan, Danish, Russian, South American, and Haytian, to pay 2 dollars 67 cents in addition to other pilotage.

Every pilot detained more than 24 hours by any master, owner, or consignee, is entitled to 1 dollar per day for every day he is so detained.

Every pilot detained more than 48 hours by the ice, after he has conducted his vessel to a place of safety, is entitled to 3 dollars per day for every day he is so detained.

Every pilot compelled to perform quarantine is entitled to 2 dollars per day, for every day he is so detained.



about 6 cwt., and the salt about 3½ cwt.; but the weight of the hogshend when cured and pressed is reduced to about 4½ cwt., including the weight of the cask, from 20 to 24 lb. We subjoin—

An Account of the Exports of Pilchards during each of the 17 Years ending with 1866; specifying the Places for which they were exported, &c. Quantity shipped for each, and their Price at the Port of Shipment.

Years	Genoa	Leghorn	Civita Vecchia	Naples	Ancona, Venice, Trieste	Total	Price per Hogshend on Shore
1850	hhds. 2,054	hhds. 4,000	hhds. 1,102	hhds. 10,170	hhds. 8,017	25,343	41s. to 50s. to 60s.
1851	2,031	4,672	1,532	8,961	9,161	26,357	45s. 6d. to 45s. 0d.
1852	2,971	4,115	828	5,218	5,618	18,743	30s. 6d. to 30s. 0d.
1853	2,229	5,120	1,237	5,657	7,012	21,255	35s. 0d. to 40s. 0d.
1854	1,166	2,295	460	1,557	1,329	6,807	27s. 0d. to 30s. 0d.
1855	1,987½	2,425	—	881½	1,007½	6,102	47s. 0d. to 51s. 0d.
1856	1,851	4,657	—	5,238	5,569	16,533	47s. 0d. to 51s. 0d.
1857	2,317	3,627	1,020	4,551	4,617	15,915	42s. 0d.
1858	1,881	1,129	791	6,686	4,902	15,179	60s. to 64s. to 68s. 0d.
1859	1,629	—	632	613	202	2,476	52s. to 56s. to 47s.
1860	560	781	—	1,613	968	3,920	60s. 0d. to 80s. 0d.
1861	2,528	1,980	—	4,141	2,336	10,986	60s. 0d. to 72s. 0d.
1862	4,277	3,594	1,516	6,223	5,654	17,307	51s. 0d. to 63s. 0d.
1863	5,171	4,439	1,172	12,962	2,006	26,657	41s. 0d. to 53s. 0d.
1864	3,063	5,225	963	9,213	5,178	22,539	46s. 0d. to 47s. 0d.
1865	3,477	1,793	408	1,919	1,711	9,298	46s. 0d. to 47s. 0d.
1866	4,017	2,583	928	5,490	5,203	14,294	

Of the fish cured in 1866, 2,944 hhds. were caught eastward of Lizard; 5,700 in Mount's Bay; 5,650 in St. Ives and north of St. Ives. Total, 14,294 hogsheds.

N.B.—Of the quantity sent to the Adriatic, full 3 have been sold in Venice, and the remainder chiefly in Ancona.

The export of pilchards has been rather declining of late years. This has been ascribed to various causes, such as the withdrawal of the bounty of 8s. 6d. per hogshend formerly paid on their export, the relaxed observance of Lent in the countries to which they are principally exported, and the imposition of a heavy duty on their importation into Naples. The falling off in the demand of the latter has, however, been in great measure compensated by the increased demand at Venice.

Pilchards are not used in England, except in Cornwall and Devon, where from 4,000 to 5,000 hhds. a-year may at present be consumed.

The sea-fishery employs about 1,500 hands regularly throughout the season, and a vast number more when any considerable shoals are enclosed. There are at present (1865) about 260 seans afloat, of which above 180 belong to St. Ives. The first cost of a sean on the south coast is about 450l.; but a St. Ives sean does not cost above 300l. The drift fishery employs, during the season, from 900 to 1,000 men, and about 230 boats; the cost of each boat and nets amounting to about 250l. The labour in the cure of the fish may be taken at about 5s. per hogshend. The total capital embarked in the fishery has been estimated by those engaged in it at from 200,000l. to 250,000l.

The drift fishermen employ themselves, when not engaged in the pilchard fishery, in the mackerel, herring, and hook-line fisheries. The sea fishermen consist principally of agricultural labourers, miners &c. attracted to the business in the expectation (in which, however, they are not unfrequently disappointed) of making a comparatively large sum by a few weeks' exertion. But at St. Ives only able-bodied and expert fishermen are employed. In all sean boats 3 or 4 individuals of the crew are regularly bred, expert fishermen.

Four-fifths of the persons employed on shore in the salting, curing, packing &c. of the fish are women.

The wages of those employed in the fishery are made sometimes to depend on the number of fish taken; but in other instances they are independent of any such contingency.

The fishery at St. Ives is carried on under a particular Act of Parliament, passed in 1811. The

exaction of a title of the fish is a very serious burden on the fishery; sometimes it is taken in kind, but is more generally compounded for. (Dr. Paris's *Guide to Mount's Bay and the Land's End*, 2nd ed. pp. 146-156; *Beauties of England and Wales*, vol. ii. p. 471; but we are principally indebted to private information obtained from the most authentic sources, and obligingly communicated, by Mr. Conlson, of Penzance.)

PILOTS AND PILOTAGE. The name of pilot or steersman is applied either to a particular officer, serving on board a ship during the course of a voyage, and having charge of the helm and the ship's route; or to a person taken on board at any particular place for the purpose of conducting a ship through a river, road, or channel, or from or into a port.

It is to the latter description of persons that the term pilot is now usually applied; and pilots of this sort are established in various parts of the country by ancient charters of incorporation, or by particular statutes. The most important of these corporations are those of the Trinity House, Deptford Strond, with which the fellowship of the pilots of Dover, Deal, and the Isle of Thanet, commonly called the *Cinque Port Pilots*, is now consolidated; and the Trinity Houses of Hull and Newcastle. The 5 Geo. IV. c. 73 established a corporation for the regulation and licensing of pilots in Liverpool.

*Principles of the Law as to Pilots.*—These are sufficiently obvious, and differ but little in most maritime codes. When a master is obliged by law to employ a pilot, and does so accordingly, the vessel having ceased to be under the command of their servants, the owners are no longer responsible for such loss or damage as may be occasioned by her mismanagement (17 & 18 Vict. c. 104 s. 388) unless it be made to appear that it arose from the neglect or misconduct of the master or crew in obeying or carrying out the orders of the pilot. It is, therefore, a very serious matter for a master or captain to interfere with or supersede a pilot in the exercise of his peculiar functions. But still there are cases, and those, too, not of rare occurrence, of such a nature as to make interference indispensable. Pilots are anything but infallible; and whenever it becomes evident to a master, or to the authorities on board, that the pilot is acting inconsiderately, or that he is drunk or incompetent, it is not the right only, but the bounden duty of the master to provide for the safety of the ship by resuming his authority; and taking the command upon himself. On this



such pilotage authority, their wives, widows, or children) entitled to participate in the benefits of such existing or future funds, and the terms and conditions upon which they are to be so entitled:

8. To repeal or alter any by-law made in exercise of the above powers, and to make a new by-law or new by-laws in lieu thereof: And every by-law duly made by any pilotage authority in exercise of the powers hereby given to it, shall be valid and effectual, notwithstanding any Act of Parliament, rule, law, or custom to the contrary, 17 & 18 Vict. c. 104 (sec. 333). In cases where the pilotage is not compulsory, and where there is no restriction on the power of duly qualified persons to obtain licenses as pilots, the Board of Trade has power by provisional order to enable the existing authorities to grant licenses and to fix, raise, and facilitate the recovery of, pilotage rates, and also to give facilities to qualified persons to obtain licenses as pilots, 25 & 26 Vict. c. 63 s. 39.

**Publication of By-laws.**—Every by-law proposed to be enacted by any pilotage authority in pursuance of the foregoing powers shall, before it is submitted to her Majesty in council for her assent, be published in such manner as may from time to time be prescribed by the Board of Trade, 17 & 18 Vict. c. 104. (Sec. 334.)

**By-laws to be laid before Parliament.**—Every order in council made in pursuance of the provisions of this Act shall be laid before both Houses of Parliament as soon as possible after the making thereof. (Sec. 335.)

**Power of Appeal to Board of Trade.**—If the greater part in number of the qualified pilots belonging to any port, or the Local Marine Board, where there is one, or at any port where there is no Local Marine Board, if any masters, owners, or insurers of ships, being not less than six in number, consider themselves aggrieved by any regulation or by-law in force when this Act comes into operation or hereafter made under some authority other than the provisions of this Act, or by any defect or omission therein, they may appeal to the Board of Trade, and the said Board may thereupon revoke or alter any such regulation or by-law or may make additions thereto in such manner as, having regard to the interests of the persons concerned, may appear to be just and expedient; and every order so made shall be conclusive in the matter. (Sec. 336.)

#### Returns by Pilotage Authorities (general).

**Pilotage authorities to make Returns to Board of Trade.**—Every pilotage authority shall deliver periodically to the Board of Trade, in such form and at such times as such Board requires, returns of the following particulars with regard to pilotage within the port or district under the jurisdiction of such authority, viz. :—

1. All by-laws, regulations, orders, or ordinances relating to pilots or pilotage for the time being in force:

2. The names and ages of all pilots or apprentices licensed or authorised to act by such authority, and of all pilots or apprentices acting either mediately or immediately under such authority, whether so licensed or authorised or not:

3. The service for which each pilot or apprentice is licensed:

4. The rates of pilotage for the time being in force, including therein the rates and descriptions of all charges upon shipping made for or in respect of pilots or pilotage:

5. The total amount received for pilotage, distinguishing the several amounts received from

British ships and from foreign ships respectively and the several amounts received in respect of different classes of ships paying different rates of pilotage, according to the scale of such rates for the time being, and the several amounts received for the several classes of service rendered by pilots; and also the amount paid by such ships (if any) as have, before reaching the outer limits of pilotage water if outward-bound, or their port of destination if inward-bound, to take or pay for two or more pilots, whether licensed by the same or by different pilotage authorities; together with the numbers of the ships of each of the several classes paying such several amounts as aforesaid:

6. The receipt and expenditure of all moneys received by or on behalf of such authority, or by or on behalf of any sub-commissioners appointed by them, in respect of pilots or pilotage:

And shall allow the Board of Trade, or any persons appointed by such Board for the purpose, to inspect any books or documents in its possession relating to the several matters herein required to be returned to the Board of Trade. (Sec. 337.)

**The Jurisdiction of local Authorities failing to give the required Returns, to be transferred to Trinity House.**—If any of such pilotage authorities as aforesaid (other than the Trinity House, or sub-commissioners of pilotage appointed by it) fail to deliver to the Board of Trade the periodical returns above required within 1 year of such time as may be fixed by such Board for the purpose, or if any of such authorities do not allow the said Board, or any persons who may be appointed by it for the purpose, to inspect any books or documents in their possession relating to the matters herein required to be returned by them, it shall be lawful for her Majesty, by and with the advice of her Privy Council, to direct that all the rights and powers of such authorities in respect of pilotage shall cease or be suspended during such time as her Majesty directs; and thereupon the Trinity House shall thereafter, or during such time as such suspension may continue, have and exercise the same powers of appointing sub-commissioners of pilotage, and of licensing pilots, and of establishing and altering rates of pilotage within the district within which the authority aforesaid has previously appointed or licensed pilots, as it is by this Act authorised to exercise in any district for which no particular provision is made by any Act of Parliament or charter for the appointment of pilots, and shall, also, during such time as aforesaid, have and exercise the same rights, title, and powers to and in respect of any pilotage funds or other pilotage property which the said pilotage authorities would otherwise have had or exercised if not so suspended as aforesaid. (Sec. 338.)

**Returns to be laid before Parliament.**—The Board of Trade shall without delay cause the several returns hereinbefore required to be made to such Board to be laid before both Houses of Parliament. (Sec. 339.)

#### Licensing of Masters and Mates (general).

**Master or Mate, if examined and passed, receive a Pilotage Certificate.**—The master or mate of any ship may, upon giving due notice, and consenting to pay the usual expenses, apply to any pilotage authority to be examined as to his capacity to pilot the ship of which he is master, mate, or any one or more ships belonging to the same owner, within any part of the district over which such pilotage authority has jurisdiction; and such master or mate shall, if such authority thinks fit, thereupon be examined; and if found

competent, a pilotage certificate shall be granted to him, containing his name, a specification of the ship or ships in respect of which he has been examined, and a description of the limits within which he is to pilot the same, such limits to be within such jurisdiction as aforesaid; and such certificate shall enable the person therein named to pilot the ship or any of the ships therein specified, of which he is acting as master or mate at the time, but no other, within the limits therein described, without incurring any penalties for the non-employment of a qualified pilot. (Sec. 340.)

**Renewal of Pilotage Certificate.**—The pilotage certificate so granted shall not be in force for more than 1 year, unless the same is renewed, which may from time to time be done by an indorsement under the hand of the secretary or other proper officer of the authority by whom such certificate was granted. (Sec. 341.)

**Board of Trade examine and grant Pilotage Certificates.**—If upon complaint to the Board of Trade it appear to such Board that any such authority as aforesaid has without reasonable cause refused or neglected to examine any master or mate who has applied to them for the purpose, or, after he has passed the examination, has without reasonable cause refused or neglected to grant him a pilotage certificate, or that the examination of any such master or mate has been unfairly or improperly conducted, or that any terms imposed or sought to be imposed by such authority are unfair or improper, or that any pilotage certificate granted by such authority has been improperly withdrawn, the Board of Trade may, if in its judgment the circumstances appear to require it, appoint persons to examine such master or mate, and if he is found competent may grant him a pilotage certificate, containing the same particulars as would have been inserted in any certificate granted by such pilotage authorities as aforesaid, upon such terms and conditions, and subject to such regulations, as such Board may think fit; and such certificate shall have the same effect as if it had been granted by such pilotage authority as aforesaid; and such certificate shall be in force for 1 year, and may be renewed from year to year, either by the said authorities in manner hereinbefore mentioned, or by the Board of Trade, if such Board thinks fit, such renewal to be indorsed on the said certificate, either by such person as the Board of Trade may appoint for the purpose, or in manner hereinbefore provided as to certificates granted by any pilotage authority. (Sec. 342.)

**Fees paid upon Certificates and Renewals thereof.**—All masters or mates to or for whom any such pilotage certificates are granted or renewed by any pilotage authority shall pay to such authority, or as it directs, such fees upon their respective certificates and upon the renewals thereof as are from time to time fixed for that purpose by such authority, with the consent of the Board of Trade; and all masters and mates to or for whom any such certificates are granted or renewed by the Board of Trade shall pay to such Board, or as it directs, such fees upon their certificates and upon the renewals thereof as may be fixed by such Board, notwithstanding that in the case of pilotage certificates granted or renewed by the Board of Trade, such fees shall in no case be less than the fees payable by the qualified pilots in the same district upon their licenses and the renewal thereof; and such fees shall, in the case of certificates and renewals granted by pilotage authorities, be applicable either to paying the expense of the examinations, or any other general expenses con-

nected with pilotage incurred by such authorities, or to the Pilots' Superannuation Fund of the district (if any), or otherwise for the benefit of the pilots appointed by such authorities, as such authorities think fit; and such fees shall in the case of pilotage certificates granted or renewed by the Board of Trade be applicable to the expense of the examinations, and the surplus (if any) shall be applied for the benefit of the qualified pilots of the port or district to which such certificates apply, in such manner as such Board thinks fit. (Sec. 343.)

**Power to withdraw Pilotage Certificates.**—If at any time it appear to the Board of Trade or to any pilotage authority, that any master or mate to whom a pilotage certificate has been granted by such Board or authority has been guilty of misconduct, or has shown himself incompetent to pilot his ship, such Board or such authority (as the case may be) may thereupon withdraw his certificate, and such certificate shall thenceforth cease to be of any effect whatever. (Sec. 344.)

#### *Pilot Boat (general).*

**Pilot Boats how to be provided.**—All boats and ships regularly employed in the pilotage service of any district shall be approved and licensed by the pilotage authorities of such district, who may, at their discretion, appoint and remove the masters of such boats and ships. (Sec. 345.)

**Characteristics of Pilot Boats.**—Every pilot boat or ship shall be distinguished by the following characteristics, viz.:—

1. A black colour painted or tarred outside, with the exception of the names and numbers hereinafter mentioned; or such other distinguishing colour or colours as the pilotage authority of the district, with the consent of the Board of Trade, directs:

2. On her stern the name of the owner and of the port to which she belongs painted in white letters at least 1 inch broad and 3 inches long, and on each bow the number of the license of such boat or ship:

3. When afloat, a flag at the mast-head or on a sprit or staff, or in some other equally conspicuous situation; such flag to be of large dimensions compared with the size of the boat or ship carrying the same, and to be of two colours, the upper horizontal half white, and the lower horizontal half red:

And it shall be the duty of the master of such boat or ship to attend to the following particulars: First, that the boat or ship possess all the above characteristics; secondly, that the aforesaid flag is kept clean and distinct, so as to be easily discerned at a proper distance; and, lastly, that the names and numbers before mentioned are not at any time concealed; and if default is made in any of the above particulars, he shall incur a penalty not exceeding 20*l.* for each default. (Sec. 346.)

**Qualified Pilot to display Flag though not in Pilot Boat.**—Whenever any qualified pilot is carried off in a boat or ship not in the pilotage service, he shall exhibit a flag of the above description, in order to show that such boat or ship has a qualified pilot on board; and if he fail to do so without reasonable cause, he shall incur a penalty not exceeding 50*l.* (Sec. 347.)

**Penalty on ordinary Boat displaying Pilot Flag.**—If any boat or ship, not having a licensed pilot on board, display a flag of the above-mentioned description, there shall be incurred for every such offence a penalty not exceeding 50*l.*, to be recovered from the owner or from the master of such boat or ship. (Sec. 348.)

*Pilot License (general).*

**Registry of Pilot License.**—Every qualified pilot on his appointment shall receive a license, containing his name and usual place of abode, together with a description of his person, and a specification of the limits within which he is qualified to act; and it shall be the duty of the principal officer of customs at the place at or nearest to which any qualified pilot may reside, upon his request, to register his license; and no qualified pilot shall be entitled to act as such until his license is so registered; and any qualified pilot acting beyond the limits for which he is qualified by his license shall be considered as an unqualified pilot. (Sec. 349.)

**Regulations to be furnished to qualified Pilot, and produced by him.**—Every qualified pilot shall, upon receiving his license, be furnished with a copy of such part of this Act as relates to pilotage, together with a copy of the rates, by-laws, and regulations established within the district for which he is licensed; and he shall produce such copies to the master of any ship, or other person employing him, when required to do so, under a penalty in case of default not exceeding 50l. (Sec. 350.)

**Qualified Pilot to produce License to Employer.**—Every qualified pilot, while acting in that capacity, shall be provided with his license, and produce the same to every person by whom he is employed, or to whom he tenders his services as pilot; and if he refuse to do so at the request of such person, he shall incur for each offence a penalty not exceeding 10l., and shall be subject to suspension or dismissal by the pilotage authority by whom he is licensed. (Sec. 351.)

**Licenses to be delivered up when required &c.**—Every qualified pilot, when required by the pilotage authority who appointed him, shall produce or deliver up his license; and on the death of any qualified pilot the person into whose hands his license happens to fall shall without delay transmit the same to the pilotage authority who appointed the deceased pilot; and any pilot or person failing to comply with the provisions of this section shall incur a penalty not exceeding 10l. (Sec. 352.)

*Compulsory Pilotage (general).*

**Compulsory Pilotage, how enforced.**—Subject to any alteration to be made by any pilotage authority in pursuance of the powers in that behalf given, the employment of pilots shall continue to be compulsory in all districts in which the same was by law compulsory immediately before the time when this Act comes into operation; and all exemptions from compulsory pilotage then existing within such districts shall also continue in force; and every master of any unexempted ship navigating within any such district who, after a qualified pilot has offered to take charge of such ship or has made a signal for that purpose, either himself pilots such ship without possessing a pilotage certificate enabling him so to do, or employs or continues to employ an unqualified person to pilot her, and every master of any exempted ship navigating within any such district who, after a qualified pilot has offered to take charge of such ship or has made a signal for that purpose, employs or continues to employ an unqualified pilot to pilot her, shall, for every such offence, incur a penalty of double the amount of pilotage demandable for the conduct of such ship. (Sec. 353.)

**Home Trade Passenger Ships to employ qualified Pilots, unless &c.**—The master of every ship carry-

ing passengers between any places situate in the United Kingdom, or the Islands of Guernsey, Jersey, Sark, Alderney, and Man, and any other place so situate, when navigating upon any waters situate within the limits of any district for which pilots are licensed by any pilotage authority under the provisions of this or any other Act, or upon any part thereof so situate; shall, unless he or his mate has a pilotage certificate enabling such master or mate to pilot the said ship within such district, employ a qualified pilot to pilot his ship; and if he fail so to do, he shall for every offence incur a penalty not exceeding 100l. (Sec. 354.)

**Certificates, how to be granted to Masters and Mates.**—Any master or mate of a ship which by the preceding section is made subject to compulsory pilotage may apply to the Board of Trade for a certificate, and the Board of Trade shall thereupon, on satisfactory proof of his having continuously piloted any ship within the limits of any pilotage district or of any part or parts thereof for two years prior to the commencement of this Act, or upon satisfactory proof by examination of his competency, or otherwise as it may deem expedient, cause to be granted to him, or to be indorsed on any certificate of competency or service obtained by him under this Act, a certificate to the effect that he is authorised to pilot any ship or ships belonging to the same owner, and of a draught of water no greater than such draught as may be specified in the certificate within the limits aforesaid; and the said certificate shall remain in force for such time as the Board of Trade directs, and shall enable the master or mate therein named to conduct the ship or ships therein specified within the limits therein described to the same extent as if the preceding section had not been passed, but not farther or otherwise; and every such master or mate shall upon applying for such certificate or for any renewal thereof, pay to the Board of Trade or as it directs such fees not exceeding the fees payable on an examination for a master's certificate of competency under this Act as the Board of Trade directs; and such fees shall be applied in the same manner in which the fees payable on such last-mentioned examination are made applicable. (Sec. 355.)

*Rights, Privileges, and Remuneration of Pilots (general).*

**Qualified Pilot unable to board when entitled to Pilotage.**—If any boat or ship, having a qualified pilot on board, leads any ship which has not a qualified pilot on board when such last-mentioned ship cannot from particular circumstances be boarded, the pilot so leading such last-mentioned ship shall be entitled to the full pilotage for the distance run as if he had actually been on board and had charge of such ship. (Sec. 356.)

**Allowance to qualified Pilot taken out of his District.**—No pilot, except under circumstances of unavoidable necessity, shall without his consent be taken to sea or beyond the limits for which he is licensed in any ship whatever; and every pilot so taken under circumstances of unavoidable necessity or without his consent shall be entitled over and above his pilotage, to the sum of 10s. for a day, to be computed from and inclusive of the day on which such ship passes the limit to which he was engaged to pilot her, up to and inclusive of the day of his being returned in the said ship to the place where he was taken on board, or up to and inclusive of such day as will allow him, if discharged from the ship, sufficient

time to return thereto; and in such last-mentioned case he shall be entitled to his reasonable travelling expenses. (Sec. 357.)

**Penalty on Pilot receiving or Master offering improper Rate.**—Any qualified pilot demanding or receiving, and also any master offering or paying to any pilot, any other rate in respect of pilotage services, whether greater or less, than the rate for the time being demandable by law, shall for each offence incur a penalty not exceeding 10*l*. (Sec. 358.)

**Penalty on making a Declaration as to Draught of Ship &c.**—If any master, on being requested by any qualified pilot having the charge of his ship to declare her draught of water, refuse to do so, or himself makes or is privy to any other person making a false declaration to such pilot as to such draught, he shall incur a penalty for every such offence not exceeding double the amount of pilotage which would have been payable to the pilot making such request; and if any master or other person interested in a ship make or is privy to any other person making any fraudulent alteration in the marks on the stern or stem post of such ship denoting her draught of water, the offender shall incur a penalty not exceeding 50*l*. (Sec. 359.)

**Qualified Pilot to supersede an unqualified Pilot.**—A qualified pilot may supersede an unqualified pilot, but it shall be lawful for the master to pay to such unqualified pilot a proportionate sum for his services, and to deduct the same from the charge of the qualified pilot. and in case of dispute the pilotage authority by whom the qualified pilot is licensed shall determine the proportionate sums to which each party is entitled. (Sec. 360.)

**Penalty on unqualified Person acting as Pilot.**—An unqualified pilot assuming or continuing in the charge of any ship after a qualified pilot has offered to take charge of her, or using a license which he is not entitled to use for the purpose of making himself appear to be a qualified pilot, shall for each offence incur a penalty not exceeding 100*l*. (Sec. 361.)

**Persons on which unlicensed Persons may act as Pilots.**—An unqualified pilot may, within any pilotage district, without subjecting himself or his employer to any penalty, take charge of a ship as pilot under the following circumstances, viz.:—

1. When no qualified pilot has offered to take charge of such ship, or made a signal for that purpose; or,

2. When a ship is in distress or under circumstances making it necessary for the master to avail himself of the best assistance which can be procured at the time; or,

3. For the purpose of changing the moorings of any ship in port, or of taking her into or out of any dock, in cases where such act can be done by an unqualified pilot without infringing the regulations of the port or any orders which the harbour master is legally empowered to give. (Sec. 362.)

**Liability for and Recovery of Pilotage Dues.**—The following persons shall be liable to pay pilotage dues for any ship for which the services of a qualified pilot are obtained, viz., the owner or master, or such consignee or agents thereof as are paid or made themselves liable to pay any charge on account of such ship in the port of her arrival or discharge, as to pilotage inwards, in the port from which she clears out as to pilotage outwards; and in default of payment of such pilotage dues may be recovered in the same manner as penalties of the like amount may be recovered by virtue of this Act; but such recovery shall not take place until a previous demand

thereof has been made in writing, and the dues so demanded have remained unpaid for 7 days after the time of such demand being made. (Sec. 363.)

**Power of Consignees to retain Pilotage Dues paid by them.**—Every consignee and agent (not being the owner or master) hereby made liable for the payment of pilotage dues in respect of any ship may, out of any moneys in his hands received on account of such ship or belonging to the owner thereof, retain the amount of all dues so paid by him, together with any reasonable expenses he may have incurred by reason of such payment or liability. (Sec. 364.)

#### OFFENCES OF PILOTS (GENERAL).

**Penalties on qualified Pilots.**—If any qualified pilot commits any of the following offences, viz.:—

1. Keeps himself, or is interested in keeping by any agent, servant, or other person, any public house or place of public entertainment, or sells or is interested in selling any wine, spirituous liquors, tobacco, or tea;

2. Commits any fraud or other offence against the revenues of Customs or Excise or the laws relating thereto;

3. Is in any way directly or indirectly concerned in any corrupt practices relating to ships, their tackle, furniture, cargoes, crews, or passengers, or to persons in distress at sea or by shipwreck, or to their moneys, goods, or chattels;

4. Lends his license;

5. Acts as pilot whilst suspended;

6. Acts as pilot when in a state of intoxication;

7. Employs or causes to be employed on board any ship of which he has the charge any boat, anchor, cable, or other store, matter, or thing beyond what is necessary for the service of such ship, with the intent to enhance the expenses of pilotage for his own gain or for the gain of any other person;

8. Refuses or wilfully delays, when not prevented by illness or other reasonable cause, to take charge of any ship within the limits of his license upon the signal for a pilot being made by such ship, or upon being required to do so by the master, owner, agent, or consignee thereof, or by any officer of the pilotage authority by whom such pilot is licensed, or by any principal officer of customs;

9. Unnecessarily cuts or slips or causes to be cut or slipped any cable belonging to any ship;

10. Refuses, on the request of the master, to conduct the ship of which he has the charge into any port or place into which he is qualified to conduct the same, except on reasonable ground of danger to the ship;

11. Quits the ship of which he has the charge, without the consent of the master, before the service for which he was hired has been performed: He shall for each such offence, in addition to any liability for damages at the suit of the person aggrieved, incur a penalty not exceeding 100*l*, and be liable to suspension or dismissal by the pilotage authority by whom he is licensed; and every person who procures, abets, or connives at the commission of any such offence shall likewise, in addition to any such liability for damages as aforesaid, incur a penalty not exceeding 100*l*, and, if a qualified pilot, shall be liable to suspension or dismissal by the pilotage authority by whom he is licensed. (Sec. 365.)

**Penalty on Pilot endangering Ship, Life, or Limb.**—If any pilot, when in charge of any ship, by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, does any act tending to the immediate loss, destruction, or serious

damage of such ship, or tending immediately to endanger the life or limb of any person on board such ship; or if any pilot, by wilful breach of duty or by neglect of duty, or by reason of drunkenness, refuse or omit to do any lawful act proper and requisite to be done by him for preserving such ship from loss, destruction, or serious damage, or for preserving any person belonging to or on board of such ship from danger to life or limb; the pilot so offending shall for each such offence be deemed guilty of a misdemeanor, and if a qualified pilot, also be liable to suspension and dismissal by the authority by which he is licensed. (Sec. 366.)

*Penalty on Pilot in Charge of a Ship doing her wilful Injury.*—If any person, by wilful misrepresentation of circumstances upon which the safety of a ship may depend, obtains or endeavours to obtain the charge of such ship, such person, and every other person procuring, abetting, or conniving at the commission of such offence, shall, in addition to any liability for damages at the suit of the party aggrieved, incur a penalty not exceeding 100*l.*; and, if the offender be a qualified pilot, he shall also be liable to suspension or dismissal by the pilotage authority by which he is licensed. (Sec. 367.)

#### *General Power of Trinity House.*

*Power of Trinity House to alter Regulations.*—The Trinity House may, in exercise of the general power hereinbefore given to all pilotage authorities of doing certain things in relation to pilotage matters, alter such of the provisions hereinafter contained as are expressed to be subject to alteration by them, in the same manner and to the same extent as they might have altered the same if such provisions had been contained in any previous Act of Parliament instead of in this Act. (Sec. 368.)

#### *Sub-Commissioners and Pilots (Trinity House).*

*Power of Trinity House to appoint Sub-Commissioners.*—The Trinity House shall continue to appoint sub-commissioners, not being more than 5 nor less than 3 in number, for the purpose of examining pilots in all districts in which they have been used to make such appointments, and may, with the consent of her Majesty in council, but not otherwise, appoint like sub-commissioners for any other district in which no particular provision is made by any Act of Parliament or charter for the appointment of pilots; but no pilotage district already under the authority of any sub-commissioners, appointed by the Trinity House, shall be extended, except with such consent as aforesaid, and no sub-commissioners so appointed shall be deemed to be pilotage authorities within the meaning of this Act. (Sec. 369.)

*Trinity House to license Pilots to act within certain Limits.*—The Trinity House shall continue, after due examination by themselves or their sub-commissioners, to appoint and license under their common seal pilots for the purpose of conducting ships within the limits following or any portion of such limits: that is to say:—

1. 'The London District,' comprising the waters of the Thames and Medway as high as London Bridge and Rochester Bridge respectively, and also the seas and channels leading thereto or therefrom as far as Orfordness to the North and Dungeness to the South; so nevertheless that no pilot shall be hereafter licensed to conduct ships both above and below Gravesend:

2. 'The English Channel District,' comprising the seas between Dungeness and the Isle of Wight:

3. 'The Trinity House Outport Districts,' comprising any pilotage district for the appointment of pilots within which no particular provision is made by any Act of Parliament or charter. (Sec. 370.)

*Publication of Notices of Licenses of Pilots by Trinity House.*—Subject to any alteration to be made by the Trinity House, the name of all pilots licensed by the Trinity House shall be published in manner following, viz.:—

1. The Trinity House shall at their House in London fix up a notice specifying the name and usual place of abode of every pilot so licensed, and the limits within which he is licensed to act:

2. The Trinity House shall transmit a copy of such notice to the Commissioners of Customs in London, and to the principal officers of customs resident at all ports within the limits for which such pilot is licensed; and such notice shall be posted up by the commissioners at the Custom-house in London, and by such officers at the custom-houses of the ports at which they are respectively resident. (Sec. 371.)

*Bonds to be given.*—Subject to any alteration to be made by the Trinity House, every Trinity House pilot on his appointment shall execute a bond for 100*l.* conditioned for the due observance on his part of the regulations and by-laws of the Trinity House, such bond to be free from stamp duty, and from any other charge except the actual expense for preparing the same. (Sec. 372.)

*Liability limited.*—No qualified pilot who has executed such bond as is hereinbefore mentioned shall be liable for neglect or want of skill beyond its penalty and the amount of pilotage payable to him in respect of the voyage on which he is engaged. (Sec. 373.)

*Continuance and Renewal of Licenses.*—Subject to any alteration to be made by the Trinity House, no license granted by them shall continue in force beyond the 31st day of January next ensuing the date of such license; but the same may, upon the application of the pilot holding such license, be renewed on such 31st day of January in every year, or any subsequent day, by instrument under the hand of the Secretary of the Trinity House, or such other person as may be appointed by them for that purpose. (Sec. 374.)

*Power to revoke and suspend Licenses.*—The Trinity House shall have power to revoke or suspend the license of any pilot appointed to them, in such manner and at such time as they think fit. (Sec. 375.)

#### *Compulsory Pilotage (Trinity House).*

*Penalty on Masters employing unlicensed Pilots.*—Subject to any alteration to be made by the Trinity House, and to the exemptions hereinafter contained, the pilotage districts of the Trinity House within which the employment of pilots compulsory are the London district, and the Trinity House outport districts, as hereinbefore defined, and the master of every ship navigating within any part of such district or districts, who, after a qualified pilot has offered to take charge of such ship, or has made a signal for that purpose, employs himself pilots such ship without possessing a certificate enabling him so to do, or employs or continues to employ an unqualified person to do so, shall for every such offence, in addition to the penalty hereinbefore specified, if the Trinity House certify in writing under their common seal that the prosecutor is to be at liberty to sue for the recovery of such additional penalty, incur an additional penalty not exceeding 5*l.* for every 50 tons burden of such ship. (Sec. 376.)

*Trinity House to insure constant Supply of qualified Pilots at Dungeness.*—Subject to any alteration

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Pilotage (Trinity House).  
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ngness.—Subject to any altera-

tion to be made by the Trinity House, a sufficient  
number of qualified pilots shall always be ready  
to take charge of ships coming from the westward  
part Dungeness; and the Trinity House shall  
make such regulations with respect to the pilots  
under their control as may be necessary to provide  
for an unintermitted supply of qualified pilots for  
such ships, and to insure their constant attend-  
ance upon and due performance of their duty both  
by night and day, whether by cruising between  
the South Foreland and Dungeness, or by going off  
from shore upon signals made for the purpose, or  
by both such means, or by any other means, and  
whether in rotation or otherwise, as the Trinity  
House think fit. (Sec. 377.)

Ship coming past Dungeness without Pilot to take  
the first qualified Pilot who offers.—Subject to any  
alteration to be made by the Trinity House, every  
master of any ship coming from the westward,  
and bound to any place in the rivers Thames and  
Medway (unless she has a qualified pilot on board  
or is exempted from compulsory pilotage), shall,  
on the arrival of such ship off Dungeness, and  
thenceforth until she has passed the South Buoy  
of the Brake, or a line to be drawn from Sandown  
Castle to the said buoy, or until a qualified pilot  
has come on board, display and keep flying the  
usual signal for a pilot; and if any qualified pilot  
is within hail, or is approaching and within  $\frac{1}{2}$  mile,  
and has the proper distinguishing flag flying in  
his boat, such master shall, by heaving to in pro-  
per time or shortening sail, or by any practicable  
means consistent with the safety of his ship, facili-  
tate such pilot getting on board, and shall give  
the charge of piloting his ship to such pilot; or if  
there are two or more of such pilots offering at  
the same time, to such one of them as may, ac-  
cording to the regulations for the time being in  
force, be entitled or required to take such charge;  
and if any such master fail to display or keep  
flying the usual signal for a pilot in manner  
hereinbefore required, or to facilitate any such  
qualified pilot as aforesaid getting on board  
as hereinbefore required, or to give the charge  
of piloting his ship to such pilot as before men-  
tioned, he shall incur a penalty not exceeding  
double the sum which might have been de-  
manded for the pilotage of his ship, such penalty  
to be paid to the Trinity House, and to be carried  
to the account of the Trinity House Pilot Fund.  
(Sec. 378.)

Exemptions from compulsory Pilotage.—The fol-  
lowing ships, when not carrying passengers, shall  
be exempted from compulsory pilotage in the  
London district, and in the Trinity House out-  
er districts; viz. :—

1. Ships employed in the coasting trade of the  
United Kingdom :
2. Ships of not more than 60 tons burden :
3. Ships trading to Boulogne or to any place  
in Europe north of Boulogne :
4. Ships from Guernsey, Jersey, Alderney, Sark,  
Man, which are wholly laden with stone being  
the produce of those islands :
5. Ships navigating within the limits of the  
district to which they belong :
6. Ships passing through the limits of any  
pilotage district on their voyages between two  
ports both situate out of such limits, and not  
bound to any place within such limits, nor  
stopping therein. (Sec. 379.)

#### Rates of Pilotage (Trinity House).

Rates of Pilotage.—Subject to any alteration to  
be made by the Trinity House, there shall con-  
tinue to be paid to all Trinity House pilots, in  
respect of their pilotage services, such dues as are

immediately before the time when this Act comes  
into operation payable to them in respect of such  
services. (Sec. 380.)

Certificate of Payment of Pilotage to be given.—  
Subject to any alteration to be made by the  
Trinity House, the collector of customs shall, on  
receiving any pilotage dues in respect of foreign  
ships, give to the person paying the same a receipt  
in writing; and no officer of customs in the port  
of London shall grant a clearance or transire for  
any such foreign ship as aforesaid without the  
production of such receipt; and if any such ship  
attempts to go to sea without such clearance or  
transire, any such officer may detain her until the  
said receipt is produced. (Sec. 382.)

Application of such Moneys by Trinity House.—  
Subject to any alteration to be made by the  
Trinity House, the said collector shall pay over  
to the Trinity House the pilotage dues received  
by him in respect of any foreign ship; and the  
Trinity House shall apply the same in manner  
following:—

1st, in paying to any pilot who may bring  
sufficient proof of his having had the charge of  
such ship such dues as would have been payable  
to him for such pilotage service if the ship had  
been a British ship, after deducting therefrom the  
poundage due to the Trinity House :

2nd, in paying to any unlicensed person who  
may bring sufficient proof of his having, in the  
absence of a licensed pilot, had the charge of such  
ship, such amount as the Trinity House may  
think proper, not exceeding the amount which  
would under similar circumstances have been  
payable to a licensed pilot, after deducting  
poundage :—

And 3rd, shall pay over to the Trinity House  
Pilot Fund the residue, together with all pound-  
age deducted as aforesaid. (Sec. 383.)

Settlement of Difference as to Draught of  
Ship.—Whenever any differences arise between  
the master and the qualified pilot of any ship  
trading to or from the port of London as to her  
draught of water, the Trinity House shall, upon  
application by either party, made, in case of a  
ship inward-bound, within 12 hours after her  
arrival or at some time before she begins to dis-  
charge her cargo, and in the case of a ship out-  
ward-bound before she quits her moorings, appoint  
some proper officer who shall measure the ship,  
and settle the difference accordingly; and there  
shall be paid to the officer measuring such ship,  
by the party against whom he decides, the follow-  
ing sums, viz. 1*l.* 1*s.* if the ship be below and  
10*s.* 6*d.* if the ship be above the entrance of the  
London Docks at Wapping. (Sec. 384.)

#### Pilot Fund (Trinity House).

Payments to be made to the Pilot Fund.—Subject  
to any alteration to be made by the Trinity House,  
there shall continue to be paid to them, and  
carried over to the Trinity House Pilot Fund, the  
sums of money following, viz. :—

(1.) A poundage of 6*d.* in the pound upon the  
pilotage earnings of all pilots licensed by the  
Trinity House :

(2.) A sum of 3*l.* 3*s.* to be paid on January 1  
in every year by every person licensed by the  
Trinity House to act as pilot in any district not  
under the superintendance of sub-commissioners,  
or in any part of such district :

And any qualified pilot giving a false account of  
his earnings, or making default in payment of  
any sum due from him under this section, shall  
forfeit double the amount payable, and shall  
further be liable, at the discretion of the Trinity  
House, to suspension or dismissal. (Sec. 385.)





**Towage.**—40 tons and upwards *1d.* per ton, and if using the boat either outwards or inwards *1d.* per ton extra each way. These rates to and from the outermost buoy. Higher rates for farther distances.

**Ballast.**—Put on board *6d.* per ton; discharged, *1d.*

**ARBOATH.**

	per ton	per vessel
s. d.	s. d.	s. d.
<b>Harbour Dues.</b> —In vessels navigating to the south of the Tropic of Capricorn	1 6	-
On vessels navigating between the Equator and the Tropic of Capricorn	1 3	-
On vessels navigating between the Tropic of Cancer and the Equator	1 0	-
On vessels navigating to and from any port in North Africa, and within the Straits of Gibraltar	0 8	-
On vessels navigating to and from any port in Norway, north of Drontheim, Agnes, Madeira, or Teneriffe Islands	0 7	-
On vessels navigating to and from any port between Gibraltar and Dunkirk, and any port in the Baltic	0 5	-
On vessels navigating to and from any port in Great Britain	0 3	-
On vessels with coals or lime from any port in Great Britain, excepting Scotland	0 2	-
On vessels with coals or lime from any port in Scotland, and all vessels engaged in the herring trade	0 1 1/2	-
On all steam-vessels, with passengers and their luggage exclusively, from any port in Great Britain	2 0	-
All steam-vessels, with goods and passengers, to pay the same rates as sailing vessels	0 3	-
On vessels entering the harbour for refuge half the above rates are to be charged.		
All vessels remaining in harbour, after 2 months, to pay <i>1d.</i> per ton per month, in advance.		
Vessels loading or unloading goods, or ballast, to pay in name of plank money, viz.:		
On vessels under 20 tons	-	1 0
20 and under 50 tons	-	2 0
50 " 100 "	-	3 0
100 " 150 "	-	4 0
150 " 200 "	-	5 0
200 " 300 "	-	6 0
300 " 400 "	-	7 0
400 tons and upwards	-	8 0
<b>Lights.</b> —Each harbour light, <i>1d.</i> per ton on each vessel.		
Public dues <i>1d.</i> per register ton.		
<b>Ballast.</b> —The charge for ballast varies from <i>1d.</i> to <i>1s.</i> per ton, the parties purchasing when they had charge, and not under the management of any party.		
Vessels under 40 tons, <i>6d.</i>		
40 and under 80 tons, <i>1s.</i>		
80 " 100 " <i>1s. 6d.</i>		
100 " 150 " <i>2s.</i>		
150 " 180 " <i>2s. 6d.</i>		
180 and upwards <i>3s.</i>		
The charge for harbour dues, lights, and pilotage, levied under the Act 2 Vict. c. 16, by the Harbour Commissioners.		

**BELFAST.**

**Tonnage.**—For every ton of the burden of every vessel coming into the harbour of Belfast, except through stress of weather, *1d.*

Pilotage	Vessels not having British Registers, arriving from or sailing on a foreign Voyage	Vessels with British Registers arriving from or sailing on a foreign Voyage	Vessels not returning trading to or from a Port in the United Kingdom	Vessels being Steamers
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
For all vessels carrying merchandise, or passengers, coming from sea into Larnacoe, or to the quay, and going from the quay to Larnacoe, or to the sea:				
15 tons and under 30 tons	0 8 0	0 7 0	0 4 0	0 2 0
30 " 40 "	0 10 0	0 7 6	0 5 0	0 2 6
40 " 50 "	1 0 0	0 12 0	0 6 0	0 3 0
50 " 60 "	1 4 0	0 15 0	0 10 0	0 3 0
60 " 70 "	1 8 0	1 1 0	0 12 0	0 6 0
70 " 80 "	1 12 0	1 4 0	0 16 0	0 6 0
80 " 90 "	1 16 0	1 7 0	0 18 0	0 9 0
90 " 100 "	2 0 0	1 10 0	1 2 0	0 11 0
100 " 110 "	2 4 0	1 13 0	1 2 0	0 11 0
110 " 120 "	2 8 0	1 16 0	1 4 0	0 12 0
120 " 130 "	3 2 0	1 19 0	1 6 0	0 13 0
130 " 140 "	3 6 0	2 2 0	1 8 0	0 15 0
140 " 150 "	4 0 0	2 5 0	1 10 0	0 17 0
150 " 160 "	4 4 0	2 8 0	1 12 0	0 19 0
160 " 175 "	5 0 0	3 11 0	1 14 0	1 0 0
175 " 200 "	5 12 0	3 14 0	1 16 0	1 3 0
200 " 250 "	6 4 0	4 0 0	2 0 0	1 6 0
250 " 300 "	7 6 0	4 6 0	2 4 0	1 10 0
300 " 400 "	8 8 0	5 2 0	2 11 0	2 0 0
400 tons and upwards	10 0 0	6 0 0	3 0 0	2 5 0

**Pilotage.**

	£ s. d.
Outside the Black Head, or outside the buoy of the Brigs, to the Whitehouse Roads:—	
Vessels of 300 tons and upwards	2 3 0
above 100 and under 300 tons	1 11 6
not exceeding 100 tons	1 0 0
Outside the Grey Point, or outside Kilnot Point, to the Whitehouse Roads:—	
Vessels of 300 tons and upwards	1 1 0
above 100 and under 300 tons	0 15 0
not exceeding 100 tons	0 10 0
These charges are for out-pilots, stationed by the corporation at Groomsport, Donaghadee, Carrickfergus, and Island Magee, for the accommodation of strangers to the port, but it is optional with the masters of vessels to employ them or not.	
<b>Mooring Buoys.</b>	
At Garmoye, vessels under 300 tons, per week	0 10 0
At Garmoye, vessels 300 and not exceeding 500 tons, per week	1 0 0
At Garmoye, vessels 500 tons and upwards, per week	0 15 0
At the quays, per ton	0 0 1
In the old channel, per ton	0 0 1

**Sand Ballast.**

For every ton delivered at any place between the Pool of Garmoye and Belfast Bridge	0 1 4
For every ton delivered in the Pool of Garmoye, or below it towards the sea	0 2 0
Foreign vessels to be charged one-third part more.	
For every ton delivered at any vessel at the ballast wharf	0 1 6

**Stone Ballast.**

Common stone ballast, per ton	0 2 6
Small sea stone for cotton vessels, per ton	0 3 0
An extra charge of <i>6d.</i> per ton if sent from the quays to Garmoye.	

**Quayage at the Corporation Quays.**

	£ s. d.
On vessels from foreign ports, per ton	0 5 0
On vessels coastways, per ton	0 5 0
On all vessels loading outwards, per ton	0 5 0
On lighters loading or discharging, each	7 0
Vessels discharging from one to the other pay half quayage.	
Vessels are charged half quayage when loaded to the beams only; if above the beams, whole quayage.	
Steamers to pay per special agreement.	
<b>Local Lights or Beacons.</b> —No charge.	
<b>Note.</b> —Foreign vessels belonging to countries having treaties of reciprocity with Great Britain are charged with the like rates as are paid by British vessels to this corporation.	

**BENWICK.**

**Tonnage Dues.**

Every vessel trading between Benwick and any place between Sandeford and that port and Fifema	1d. per ton
Between the Humber and Aberdeen	1 1/2 "
Between the N. Foreland and Shetland	2d. "
Any other place in Great Britain, or any place in Ireland	2d. "
Any place on the coast of Europe between Dunkirk and the North Cape	2d. "
Any place in the Baltic S. S., or on the coast of Europe between Dunkirk and the Straits of Gibraltar	3d. "



Porthead, Kingroad, Hungroad, or Broad Pill, the sums following, viz.—for a tow-boat, 6s.; for a yawl, 3s.

And he shall receive for every boat used in towing, unmooring, and mooring any ship or vessel from either of the following places to any part of such places, viz.—Porthead, Kingroad, Pill, or Hungroad; or for unmooring, new berthing, and again mooring any ship or vessel in either of the said last-mentioned places, the sum following, viz.: for every yawl, 2s. 6d.

And every man who shall be engaged or be discharged at Hungroad or Pill, without being employed to assist in mooring or unmooring, shall be entitled to, for his fee or wages, 2s. 9d.; and the pilot shall be entitled, for the boats not employed in so mooring and unmooring, for a tow-boat, 4s.; and for a yawl, 2s. 6d., and no more.

The pilot of all vessels above 800 tons shall be allowed for an assistant pilot in the river pilotage, the sum of 10s.—such an assistant being a licensed pilot; in default whereof only 3s. 9d. shall be paid for such assistant.

There shall be allowed for each horse used in towing any ship or vessel a sum not exceeding 6s., and to the driver 1s.

If under 100 tons register burden . . . . . 1s.  
If 100 tons and under 200 . . . . . 2s.  
If 200 tons and upwards . . . . . 3s.

And that such sums shall be added to the pilotage note and paid therewith by the master and commander, merchant, or owner of such ship or vessel.

In case any ship or vessel shall be in distress, either in the outward or homeward bound voyage, and any pilot or men shall run an imminent risk or hazard in going to the relief of such ship or vessel, the pilot or men assisting shall have reasonable satisfaction for the assistance so given, according to such assistance, and the risk and hazard run; and in case of a difference of opinion as to the amount of such satisfaction, the same to be ascertained by two of her Majesty's justices of the peace acting for the city and county of Bristol.

If any licensed pilot shall proceed with any ship or vessel as far as Minthead, Combe, or Lundy Island, and shall be forced by stress of weather to return to Kingroad or Porthead, he shall be allowed one-third part of the channel pilotage, according to the distance such vessel may have reached before she shall have put back.

Each pilot shall, within two days after his return from a voyage to the westward, return to the haven; after the number of the skiff so returned from the westward, the time of her sailing, the time of her return, the distance she has been, and the names of the persons employed in navigating her, and all the material particulars of the voyage; and each pilot who shall neglect to make such return, or shall make a false return, shall for each offence forfeit and pay any sum not exceeding 40s.

ADDENDA TO PILOTAGE.

From Lundy Island to Swansea.—A uniform charge of 4l. 4s.

From Lundy Island to Bridgewater.

If such vessel be under 100 tons register . . . . . £ s. d.  
If 100 tons and under 200 . . . . . 2 15 0  
If 200 . . . . . 3 10 0  
If 300 . . . . . 4 7 6  
If 300 tons and upwards . . . . . 5 5 0

From Lundy Island to Cardiff.—The same rates as to Bridgewater.

From Lundy Island to Newport.—The same rates as to Kingroad.

CARDIFF.—See DOCKS, CARDIFF.

COLCHESTER.

Tonnage dues	per ton
Under 50 tons register	1s. 6d.
50	2s. 0d.
70	2s. 6d.
90	3s. 0d.
100	3s. 6d.
110	4s. 0d.
130	4s. 6d.
150	5s. 0d.
175	5s. 6d.
200	6s. 0d.
250	6s. 6d.
300	7s. 0d.
350 tons and upwards	7s. 6d.

Coal vessels half rates.

Pilotage.—Limits from a line drawn from the Naze Tower to the N.E. buoy of the Gunfleet, up the river Calve to Wyvenhoe:—

From or to eastward of Eastness . . . . . 1s. per foot  
Westness to Wyvenhoe . . . . . 1s. 6d. per foot  
From or to westward of Eastness . . . . . 1s. 6d. per foot

Ballast 10d. per ton put on board.

CONK.

Tonnage.

On every vessel reporting at custom-house, except coasters and colliers . . . . . per ton  
Colliers from any port in Ireland . . . . .  
Vessels from any port in Ireland . . . . .

Ballast.

Other than limestones . . . . . 1s. 0d.  
Limestones . . . . . 1s. 6d.  
For every ton of ballast taken from any vessel, if by lighter . . . . . 0s. 4d.  
Otherwise . . . . . 0s. 1d.

Anchorage.

On vessel's calling for orders or refuge . . . . . 0s. 4d.

Pilotage.—During summer months, vessels outside the limits of Cork Harbour, by special agreement.

From the Outward Limits of Cork Harbour into Cove, Passage, and Cork per Vessel.

British vessels	Cove			Passage			Cork		
	£	s.	d.	£	s.	d.	£	s.	d.
Under 80 tons	0	6	0	0	8	0	0	12	0
80 to 120	0	8	0	0	10	0	0	16	0
120 to 160	0	10	0	0	12	0	0	19	0
160 to 200	0	12	0	0	14	0	0	22	0
200 to 250	0	15	0	0	17	0	0	27	0
250 to 300	0	18	0	0	20	0	0	32	0
300 to 400	1	0	0	1	0	0	0	40	0
400 and upwards	1	13	0	1	13	0	1	13	0

The whole of the foregoing charges are levied by the Cork Harbour Commissioners, established by local Act (1 Geo. IV. c. 24).

COWES.

Harbour Dues.

From 5s. to 1l. 10s. according to tonnage. Mooring posts and rings in addition, if used.

Ballast.—In harbour 1s. 6d. per ton, in the roads 2s.

DARTMOUTH.

Harbour Dues.—6d. per vessel.

Pilotage.

Bob's Nose to the Start . . . . . 6d.  
If boarded without the run of Newstone East, or the Election West . . . . . 6d.  
10 feet and under, per foot . . . . . 1s. 6d.  
10 to 12 . . . . . 2s. 0d.  
12 to 14 . . . . . 2s. 6d.  
14 to 16 . . . . . 3s. 0d.  
16 and upwards . . . . . 3s. 6d.

If boarded within the above-mentioned line one quarter part, subject to circumstances of weather.  
If boarded within the castle, half rates.  
Pilotage out, one-third less.

Towage.—2d. per register ton.

Ballast.—Put on board, 1s. per ton.

DOUGLAS.

Pilotage.

Under 40 tons . . . . . 5s.  
40 to 60 . . . . . 7s.  
60 to 100 . . . . . 10s.  
100 and upwards . . . . . 15s.  
Ballast, 5d. to 6d. per ton.

Harbour Dues.—Nil.

DOVER.

Harbour Dues.—Every decked vessel, 3d. per ton. But coal, coke, culm, stone, and ballast 1½d. per ton.

Vessels remaining in harbour longer than a month charged 1d. per week per registered ton.

Vessels entering the inner harbour, and being kept water-borne, to pay additional rates; if in foreign trade 1½d., coasting 1d. per registered ton.

Dues on Vessels passing from and to Dover.—Every vessel, except in ballast, or wholly laden with coal, culm, or stone, from 20 to 800 tons, 3d. per ton. For every chaldron of coal or culm, or ton of stone, 1½d.

Bridge-money.—For swinging bridge for passage of any vessel, 1s. 6d. This charge not to be made on those which pay for being water-borne.

Pilotage not compulsory, but 5s. per foot if needed.

Towage from Harbour to Edge of Flood Tids.

Under 50 tons	£ 1. 0.
50 to 75 "	0 15 0
75 to 100 "	0 17 6
100 to 200 "	1 0 0
200 to 300 "	1 5 0
300 to 400 "	1 10 0

Ballast.—2s. 3d. per ton (chalk).

Shipway without Cargo or Ballast.

Under 60 and under, 11, 10s. and per day	7 6
60 and above, 6d. per ton, and per day	10 0

With Cargo and Ballast.

60 and under, 5s. and per day	10s.
60 and above, 6d. per ton, and per day	15s.

Steamers having engines and boilers on board in the second category.

Gridiron.—Half the shipway rates.

DUBLIN.

Nature of the Dues and Charges	Data	Particulars and Rates of the several Charges and Dues	In what manner charged	Amount
City dues	Corporation cannot trace the date, but very old.	On every vessel arriving with cargo: Anchorage	per vessel	5 1
		Shipway	"	0 11
		On every vessel, if under 40 tons register: Anchorage	"	1 10½
		On vessels with coals: Anchorage	"	3 1
		Shipway	"	0 11
		Lord Mayor	"	2s. 7½d.
		Water billift	"	5s. 6½d.
		With coals under 40 tons: anchorage	"	1 10½
		In addition to the above charges, on each vessel, once in every year, for chapter and guild	"	1 6
Harbour dues.	—	On all vessels with foreign cargo, whether delivered in whole or in part: Invoice or report inwards	per ton	2 0
Doubt, now called Knapton.	—	Co. burden or tonnage	"	1 4
	—	Ditto on vessels not privileged	"	0 6
	—	Anchorage &c.	per vessel	7 6
	—	Invoice or report outwards	"	2 0

Charges and Dues Payable by Shipping to the Corporation, for Preserving and Improving the Port.

Dues and Charges	Particulars and Rates of the several Dues and Charges	Tonnage Duty	Ballast put on Board	Quay Walls
Dublin	Vessels from Foreign ports, or from Colonies of Great Britain.	8½d. per ton register	1s. 9½d. per ton of dwt.	1½d. per ton register.
Quay walls	Collars, British and Irish coasting vessels. All vessels in distress, or seeking refuge, or calling for orders.	8½d. ditto	ditto.	1d. ditto.

Nature of the Dues and Charges	Particulars and Rates of the several Dues and Charges	From outside Banks over Bar	From inside Banks over Bar	From the Hay over Bar	From Postber to Harb., Docks, or Quays.	Outwards
Foreign	Foreign vessels not privileged	5s. 6½d. per foot.	3s. 8½d. per foot.	2s. 9½d. per foot.	1s. 4½d. per foot.	1s. 10½d. per foot.
	Foreign vessels privileged	2s. 9½d. per foot.	1s. 10½d. per foot.	1s. 4½d. per foot.	11d. per foot.	
	British vessels from Foreign ports	ditto.	ditto.	ditto.	ditto.	
	Collars and coasters	1s. 10½d. per foot.	11d. per foot.	11d. per foot.	5½d. per foot.	
	Vessels in distress, seeking refuge, or calling for orders, exempt from dues.					

DUNDALK.

Pilotage.

Registered Tonnage	Vessels not having British Registers, arriving from or sailing on a Foreign Voyage	Vessels with British Registers, arriving from or sailing on a Foreign Voyage	Vessels not Steamers, trading to or from a Port in the United Kingdom	Registered Tonnage	Vessels not having British Registers, arriving from or sailing on a Foreign Voyage	Vessels with British Registers, arriving from or sailing on a Foreign Voyage	Vessels not Steamers, trading to or from a Port in the United Kingdom
30 and under	40	£ s. d. 0 12 0	0 9 0	150 and under	160	£ s. d. 2 8 0	£ s. d. 1 16 0
40	50	0 15 0	0 11 3	160	175	2 11 0	1 18 3
50	60	0 18 0	0 13 6	175	200	2 14 0	2 0 6
60	70	1 1 0	0 15 9	200	225	2 17 0	2 2 9
70	80	1 4 0	0 18 0	225	250	3 0 0	2 5 0
80	90	1 7 0	0 20 3	250	275	3 3 0	2 7 3
90	100	1 10 0	1 2 6	275	300	3 6 0	2 9 6
100	110	1 13 0	1 4 9	300	325	3 9 0	2 11 9
110	120	1 16 0	1 7 0	325	350	3 12 0	2 14 0
120	130	1 19 0	1 9 3	350	375	3 15 0	2 16 3
130	140	2 2 0	1 11 6	375	400	3 18 0	2 18 6
140	150	2 5 0	1 13 9	400 and upwards	4	4 1 0	3 0 9

N.B.—Steam vessels do not at present come within 1½ mile of the quays. No distinction between coasting and foreign trade as to tonnage duty.

**Tonnage Duty.**—Sailing vessels, 6d. per ton registered tonnage.

Steam vessels, 1½d. per ton registered tonnage.

**Ballast.**—British vessels, 1s. 2d. per ton, on quantity delivered on board.

**Vessels taking Refuge.**—British and foreign, under 50 tons registry, 5s. per vessel, British and foreign, 50 and under 100 tons registry, 10s. per vessel.

British and foreign, above 100 tons registry, 20s. per vessel.

## DUNDEE.

## Tonnage Rates and Duties.

	per register ton
For all vessels navigating to the southward of the Tropic of Capricorn	£ 4. 0.
Between the Equator and the Tropic of Capricorn	1 6.
Between the Tropic of Cancer and the Equator	1 5.
To and from any port in North America, Greenland, Davis's Straits fisheries, and all within the Straits of Gibraltar	0 8.
To and from any port in Europe to the north of Drontheim in Norway, and to or from the Azores, Madeira, or the Canary Islands, and the west coast of Africa, between the Tropic of Cancer and the Straits of Gibraltar	0 7.
To and from any port on the coast of Europe, between Gibraltar and Drontheim in Norway, including both these ports, and all ports in the Baltic	0 5.
To or from any port in Great Britain or Ireland, including the islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkney	0 3.
All vessels loaded with coals, lime, or manure only, from any port in Great Britain &c., excepting Scotland	0 2.
All vessels loaded with coals, lime, or manure only, from any port in Scotland	0 1½.
All vessels employed in the river Tay, carrying goods and entering the precincts of the port or harbour of Dundee	0 1½.
All steam vessels from any port in Great Britain or Ireland, including the islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkney, carrying passengers and their baggage exclusively	0 2.
All steam vessels (from any port in Great Britain) employed on the river Tay, carrying passengers and their baggage exclusively, and vessels trading from the harbour, or carrying passengers to any port within the precincts	0 1.
Vessels sailing outwards and coming under the first two classes pay 1s. instead of 1s. 6d. and 1s. 3d.	

All steam vessels carrying goods and passengers to pay the same rates as sailing vessels.

All vessels from any part of the river Tay, not exceeding 30 tons register, withstones, and having no other goods on board, and delivering their cargoes in the precincts of the said harbour, to pay 2s. each voyage in name of tonnage dues, and 1s. for every 20 tons, or part of 20 tons, additional.

All vessels from any part of the river Tay, with sand, and having no other goods on board, to pay 1s. for each trip in name of tonnage dues.

It shall be in the option of the trustees to charge either the tonnage dues on the voyage inwards, or on the voyage outwards, at the rates specified in the above schedule; and if the charge be made on the voyage outwards, there shall be deducted from it the amount of the dues that may have been previously paid on the voyage inwards; but if such vessels sail in ballast, they shall be charged with dues on the inward voyage only.

All vessels launched within the harbour of Dundee, or precincts thereof, to pay half dues on the voyage outwards, if sailing in ballast; but if loaded in whole or in part, or taking passengers, to pay full dues.

All vessels to be permitted to enter the harbour of Dundee for safety, by payment of one-half of the tonnage dues; but if such vessels shall remain in the harbour, or any of the docks, beyond the space of 21 days, or shall take goods on board (stores for their own use excepted), or break bulk, they shall be liable in the full tonnage dues.

All vessels remaining in harbour to pay, after 2 months, 1d. per register ton per month, in advance, when they are lying in any of the tide-harbours, and 1½d. per ton when lying in any of the docks.

Each vessel, with the exception after-mentioned, entering the harbour and loading or unloading

goods or ballast within the same, or performing both operations, before leaving the harbour to pay, in name of plank-money (whether a plank be used or not), as follows:—

Vessels not exceeding 10 tons	£	s.	d.
exceeding 10 tons and not exceeding 50	20	0	0
50	100	0	0
100	150	0	0
150	200	0	0
200	250	0	0
250	300	0	0
300	350	0	0
350	400	0	0
400 tons and upwards	400	0	0

All vessels loaded with lime, coals, or manure only, and discharging their cargoes within the precincts of the harbour, to the eastward of the Road Yards, or to the westward of the Magdalen Yard, to pay one-half of the dues in the above schedule.

Vessels with fish of any kind for curing, per ton register, or admeasurement, 2d.

## Exemptions.

All vessels leaving the harbour for the purpose of taking on board ballast in any part of the river Tay, and returning to the said harbour, or precincts thereof, with ballast, shall not be liable in shore dues for such return.

Any vessel sailing from the port of Dundee, and put back by stress of weather, or any other cause, without having accomplished her voyage, shall not be liable in additional dues for such return.

Vessels partly loaded with coals, lime, or manure, or in ballast, but having dunage deals or storewood on board, which have been used as such, and are intended to be unloaded; or having goods on board, which are neither to be landed, nor re-shipped into any other vessel within the harbour or precincts, shall be charged the same dues as vessels wholly loaded with coals, lime, or manure.

All vessels arriving in ballast for the purpose of being repaired in the graving-dock, or on the patent slip, and departing in ballast, shall be exempted from tonnage dues, provided such vessels enter for the dock or slip immediately on arrival, and sail within 1 month after leaving such graving-dock or patent slip; otherwise to be charged 1d. per register ton per month in advance when they are lying in any of the tide harbours, and 1½d. per ton when lying in any of the docks.

Vessels with cargoes, arriving for the express purpose of being repaired in the graving-dock or on the patent slip, shall not be liable in shore dues, provided they neither take goods on board (stores for their own use excepted) nor break bulk, except to lighten for getting into the dock, or upon the slip, and that they shall again reload all the goods so landed.

All vessels loading or unloading goods within the precincts of the harbour of Dundee, to the eastward of the Road Yards, and the westward of the Magdalen Yard, shall be exempted from payment of plank-money.

All vessels not carrying passengers arriving in the harbour in ballast, and departing again in ballast, shall be subject only in half dues; but if such vessels, after arriving in ballast, shall take in cargoes, or parts of cargoes, before their departure, they shall be liable in full dues.

## Table of Rates for Pilots licensed by the Trustees of the Harbour of Dundee.

For vessels to or from foreign ports, boarded at the distance of not more than 3 miles outward of the Fairway Buoy of Tay, or at any point between that distance and the said buoy, and from thence to and including the harbour of Dundee, 3s. 6d. per foot, according to the draught of water.

EXETER.

**Harbour Dues.**—1s. 2d. per vessel: the same charge at the creeks.

**Coast Dues.**—Vessels under 110 tons register, 4d. per ton; 110 tons and over, 6d.; and besides 2d. per register ton for horse trackage.

**Ballast.**—4d. per ton, payable to the lord of the manor.

**Pilotage.**—As per annexed rate, established under Act 6 Geo. IV. c. 125, but amended under sanction of the Trinity Board of July 1864.

Vessels coasting, or in the foreign trade, are liable to the same charges, except pilotage.

Vessels taking shelter only, are not liable to any charges beyond pilotage.

**Definition of Limits.**—From Lyme to Bob's Nose, and vice versa, and to and from mud and mud out of all ports and places within those limits.

The following are the rates of pilotage for ships in and over Exmouth Bar, to the moorings in the Bight at Exmouth, and out again over the Bar:—

	£	s.	d.
Coasters, if not exceeding per register 60 tons	1	0	per foot
If exceeding 60 and under 80	2	0	"
80	3	0	"
90	4	0	"
100	5	0	"
125	6	0	"
150	7	0	"
175	8	0	"
200	9	0	"
250	10	0	"
300	11	0	"
400	12	0	"
Outwards half rates.			

	£	s.	d.
All vessels carried from Bight at Exmouth to Sands	-	3	6
Back	-	3	6
All vessels under 100 tons to Topsham Quay	-	13	0
Back	-	13	0
To Turf	-	9	0
Back	-	9	0

	£	s.	d.
Ships upwards of 100 tons to Topsham	-	11	per ton
Back	-	11	"
Ships upwards of 100 tons to Turf	-	11	"
Back	-	11	"

Pilotage of Foreign Ships.

	£	s.	d.
80 tons	-	3	0
80 to 100	-	3	0
100 to 150	-	5	0
150 to 200	-	6	0
200 to 250	-	6	3
250 to 300	-	7	0
300 to 400	-	9	0
400	-	9	0
For each additional 100 tons	-	1	0
Outwards half rates.			

	£	s.	d.
All ships carried from Bight at Exmouth to Sands	-	3	6
Back	-	3	6
All ships under 100 tons, to Topsham Quay	-	13	0
Back	-	13	0
To Turf	-	9	0
Back	-	9	0
All ships above 100 tons carried to Topsham Quay	-	11	per ton
Back	-	11	"
To Turf	-	11	"
Back	-	11	"

TEIGNMOUTH.

**Harbour Dues.**—1d. per ton for every vessel.

**Coast Dues.**—Nil.

**Ballast Dues.**—Nil.

**Pilotage.**—As per annexed rate, established under Act 6 Geo. IV. c. 125, but amended under sanction of the Trinity Board of Nov. 1862.

Vessels coasting, or in the foreign trade, are liable to the same charges, except pilotage.

Vessels taking shelter only are not liable to any charge beyond pilotage.

Masters of ships taking a pilot off the Bill of Portland or the Start (which is optional to the mate) are to pay, beyond the pilotage, from Bob's Nose, or Lyme, as follows, viz.:—

	£	s.	d.
Coasters and coasters	-	1	3
Ships from foreign parts	-	1	3
And proportionally for intermediate distances.			

For vessels to or from foreign, boarded between the Fairway Buoy of Tay and the buoy on the Elbow-end, marked No. 3, and thence to and including the Buoy of Dundee, 2s. 6d. per foot.

For vessels to or from foreign, boarded between the Elbow-end buoy, No. 3, and Broughty Castle, and from thence to and including the harbour of Dundee, 1s. 8d. per foot.

All coasting vessels boarded at the respective distances above mentioned to pay as follows, viz.:— vessels boarded not more than 3 miles outward of the Fairway Buoy of Tay, to pay 1s. per foot; between the Fairway Buoy of Tay and the Elbow-end Buoy No. 3, 2s. per foot; and between the Elbow-end Buoy and Broughty Castle, to and including the harbour, 1s. per foot.

All vessels, whether foreign or coasting, boarded above Broughty Castle, to and including the harbour, 1s. per foot.

In the event of having to stop in Carolina Roads for want of water in the harbour, or otherwise, the master of the vessel shall have it in his option either to dispense with the services of the pilot, or detain him on board till the vessel can enter the harbour. In the former case the pilot shall be entitled to full pilotage dues; in the latter, the pilot shall be entitled, besides these dues, to 5s. for each day, or part of a day, in name of river fees.

When pilots enter the river on board vessels bound for places above Dundee, the river or sea pilotage, including the harbour, shall be payable in full by such vessels when moored or off Carolina Roads.

All vessels boarded between 3 miles and 6 miles beyond the Buoy of Tay to pay 10s. 6d. additional for distance money; and vessels boarded 6 miles beyond said Buoy of Tay to pay 15s. of distance money.

In case of dispute, the distance to be ascertained by the beatings of the different headlands when the vessel was boarded.

Tay Light Duties (local).

The 'Fraternity of Masters and Seamen of Dundee, incorporated by Royal Charter,' possess the right, by charter, to levy, inter alia, the following dues on vessels arriving within the Firth of Tay, being the whole charges presently made in respect of said right; and those for and in name of the expense an erection and maintenance of 4 light-houses owned exclusively by said fraternity, 2 of which are situated on the north side and 2 on the south side of said Firth; and of certain buoys placed in the Fairway thereof:—

On every British ship coming within the entrance of the Firth of Tay, whether with cargo on board or in ballast, or driven therewithin by stress of weather or otherwise, at the rate of 1s. for every 10 tons register; under 10 tons, charged at the same ratio.

On every foreign ship, privileged, the same rate of dues when in either of the above situations; but the Trinity House makes good an equal amount to the said incorporation, in consequence of the half charge being only made on foreign vessels so privileged.

On every foreign ship, unprivileged, situated as above, the rate of charge is 2s. for every 10 tons register; under 10 tons charged at this ratio.

No dues are levied on British ships, nor on foreign vessels privileged or otherwise, leaving the Tay on their outward voyage, whether laden or in ballast, excepting in the case of new ships, built within the ports of Dundee and Perth respectively, which pay the above dues on British shipping when leaving on their first voyage, whether foreign or coasting.

**Buoyage.**—½d. per register ton.

the same, or performing... (whether a plank be pay...

	£	s.	d.
exceeding 50	-	1	0
100	-	2	0
150	-	3	0
200	-	4	0
250	-	5	0
300	-	6	0
350	-	7	0
400	-	8	0
450	-	9	0
500	-	10	0
550	-	11	0
600	-	12	0

any kind for curing, per ton... (mptions...)

the harbour for the purpose... (last, shall not be liable in...)

from the port of Dundee... (stress of weather, or any...)

with coals, lime, or manure... (having been used as such, and...)

in ballast for the purpose... (the graving-dock, or on the...)

either take goods on board... (get into the dock, or upon...)

or unloading goods within... (the Yard, and the westward...)

ing passengers arriving in... (st, and departing again in...)

Pilots licensed by the Trustee... (from foreign ports, boarded at...)

to the draught of water.

*Rates of Pilots for Vessels in and out over Teignmouth Har.*

	Ballast and Coasting Vessels								Vessels from or to Foreign Ports							
	Tonnage		Rate per foot		Rate per foot		Rate per foot		Rate per foot							
	Forwards	Aftwards	Forwards	Aftwards	Forwards	Aftwards	Forwards	Aftwards	Forwards	Aftwards	Forwards	Aftwards	Forwards	Aftwards	Forwards	Aftwards
If not exceeding per register	50	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
If exceeding per register	50	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	100	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	200	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	300	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	400	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	500	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	600	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	700	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	800	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	900	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	1000	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	1200	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	1500	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	2000	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	3000	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	4000	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	5000	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	6000	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	7000	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	8000	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	9000	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8
	10000	1 0	1 0	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8	0 8

The several pilotage rates herein specified are subject to a reduction of one fourth part in respect of vessels propelled by steam, and vessels towed by steam vessels.

**FALMOUTH.—Harbour Dues.**

Foreign trading vessels, 5d. per registered ton; coasters, 2d. per registered ton; steamers taking coals, 1d. per registered ton.

**Light Dues.**

Foreign going vessels, 1d. per registered ton; coasters, 1d. per registered ton.

**Pilotage.**

From the Dalman to the Lizard, and vice versa, and to and from, and into and out of, all ports and places within these limits—Vessels of any size, for which see in detail Lloyd's Annual Register. Since the last edition of the Dictionary they have been altered about 15 per cent.

Vessels propelled or towed by steam have a reduction of 25 per cent. Pilotage taken on board at sea off the Lizard are entitled to—  
 Under 200 tons - - - - - 11s.  
 200 and under 300 - - - - - 12s.  
 300 tons and upwards - - - - - 15s.

**Ballast.—Put on board, 9d. to 1s. per ton.**

**FLEETWOOD.—Harbour Dues.**

Vessels in foreign trade - - - - - 5d. per reg. ton  
 Coasting - - - - - 1d. "  
 Vessels taking refuge; foreign - - - - - 1d. "  
 coasting - - - - - 1d. "  
 In ballast, exempt.

**Pilotage.**

From sea into and out of the port of Fleetwood, and along the coast from Furness Point to Hayling Point, from 5s. to 5s. 6d. per ton, and 2s. to 2s. 6d. per ton.

**Light Dues.**

Waiver Light - - - - - 5d. per reg. ton  
 Vessel taking refuge - - - - - 1d. "  
 Waiver Light, foreign - - - - - 1d. "  
 Coastwise - - - - - 1d. "  
 Vessels taking refuge - - - - - 1d. "  
 In ballast exempt.

**Ballast.**

Foreign trade vessels - - - - - 8d. per ton  
 Coasting - - - - - 1d. "  
 Free on board if discharged in lighters of 15 tons, 11s. each lighter.

**GAINSBOROUGH.**

Nature of Dues	Rates								Under what Authority
	Below Cleanness Buoy		Above Cleanness Buoy and to Buoy of Buoy		White-both Buoy		Hull		
	s.	d.	s.	d.	s.	d.	s.	d.	
Anchorage	From foreign or coastwise								Payable once only each voyage, either outwards or inwards, to Trinity House, Hull, and the authority it is derived from them.
	If 40 tons and under 15, per ship - - - - - 1 0								
	45 " " 100 " " - - - - - 1 4								
	100 " " 200 " " - - - - - 1 9								
Buoys and beaconage	Royal navy, revenue vessels, and small fishing craft exempt.								
Pilotage	All vessels from foreign ports are subject to this. No Hull. Vessels drawing less than 6 feet water are not liable.								
	A further pilotage on vessels proceeding from Hull to Gainsborough, or departing from thence to foreign parts:								
Over pilotage	Under 6 feet, per foot - - - - - 3 6								
	6 to 8 " " - - - - - 4 0								
Dover Harbour	Ballast, 1s. per ton.								
	The British or foreign vessels plying Dover Harbour & 20 to 300 tons, per ton - - - - - 0 1)								
Hamgate Harbour	Under 300 tons, per ton - - - - - 0 2)								
	Foreign ships not entitled to reciprocity: under 300 tons, per ton - - - - - 0 4								
	above 300 tons " " - - - - - 0 1								

**GALWAY.**

*Dues payable to the Harbour Commissioners on all Vessels, whether British or Foreign, entering the Harbour, whether for Refuge or to Discharge their Cargoes in whole or in part, or in Ballast.*

Vessels, Coasting or Foreign, delivering whole or part of Cargo	Vessels taking Refuge	Lights	Ballast	Authority
6d. per ton register	No charge, except in using the docks and quays; in such case 6d. per ton register	No charge	No charge	1) Geo. IV. ans. 1830



Class 3 of harbour rates table, and passing to or re-passing from Glasgow with passengers only, are chargeable at the rate of 1s. 6d. per ton per trip, or 2s. 6d. per ton per voyage.

Class 3A. All steamers plying to or from ports or places, as per Class 4 of harbour rates table, when with passengers only, are chargeable at the rate of 1s. 6d. per ton per trip, or 2s. 6d. per ton per voyage, and so on for steamers plying to or from ports or places, as per Classes 5 and 6 of harbour rates, according to the table.

All British steamers entering the harbours to take in their machinery, or for repairs of the same, shall pay 8d. per ton for harbour dues.

The rates in the foregoing table are exclusive of the harbour police rates on shipping, and of the town dues for anchorage.

Harbour Police Rates		Per reg. ton
In.	Out.	
All ships or other vessels trading to or from ports, bays, or islands, in Classes 7, 8, 9, 10, and 11 of the table of harbour rates.	d.	d.
All ships or other vessels calling to or from ports, bays, or islands, in Classes 3, 4, 5, and 6 of the table of harbour rates.	d.	d.
Steam-packets on the above lines, from the frequency of their voyages.	1	6
All vessels of every description plying in Classes 1 and 2 of the table of harbour rates.	1	6
	1s.	6d.
	1s.	6d.

Tables of Anchorage and Ring Money, inclusive: payable at Clearing Outwards, or previous to leaving, the Port of Greenock.

Ships	400 tons and upwards	350 to 400	300 to 350	250 to 300	200 to 250	150 to 200	125 to 150	100 to 125	75 to 100	50 to 75
Rates per voyage	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
All vessels above 200 tons, whether ship, barque, or brigantine-rigged, to rank as ships; and smaller vessels, of whatever rig, the same to regulate the rate.	10	9	8	7	6	5	4	3	2	1

Modified Table of Anchorage Dues, calculated for Steam Packets, and Boats making frequent Voyages.

Tons	350 to 400	300 to 350	250 to 300	200 to 250	175 to 200	150 to 175	125 to 150	100 to 125	90 to 100	80 to 90	70 to 80	60 to 70	50 to 60	40 to 50	30 to 40	20 to 30
When plying on line:	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.							
Class 1, harbour rates	3	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1
Class 2 "	3	6	3	2	2	1	1	1	1	1	1	1	1	1	1	1
Class 3 "	3	8	3	6	3	2	2	1	1	1	1	1	1	1	1	1
Class 4 "	4	0	3	8	3	4	3	4	3	4	3	4	3	4	3	4

HARWICH.

Quay Dues.

Not exceeding 25 tons, per ton	-	-	-	4
50 "	-	-	-	1
75 "	-	-	-	1
100 "	-	-	-	2
150 "	-	-	-	3
exceeding 150 "	-	-	-	5

Ballast.—Put on board, per register ton.

Discharged.—Exclusive of labour, per register ton.

Harwich Harbour Pilotage.

From	To	Under 10 feet	10 feet to 15 feet	15 feet and upwards
Sea, or Orfordness	Harwich Harbour	£ s. d.	£ s. d.	£ s. d.
	The Rolling Grounds	2 2 0	3 3 0	4 4 0
Harwich Harbour	Sea, or Orfordness	1 1 0	1 11 6	2 2 0
	The Rolling Grounds	1 11 6	2 2 0	3 3 0

Two-thirds of the above.

Harbour Dues.

On all vessels of 30 tons or upwards entering the harbour by sea 1d. per register ton, except vessels in ballast, fishing vessels, and yachts, 1d. per ton. Ten payments in one year, unless in cases of steamers and river barges, clear from further payments in that year.

HULL.

Dock and Harbour Dues payable to the Dock Company at Kingston-upon-Hull.

For every ship or vessel coming to or going between the port of Kingston-upon-Hull and any port to the westward of Yarmouth, in Norfolk, or any port to the southward of Holy Island, for every ton	s. d.	0 2
For every ship or vessel coming to or going between the port of Kingston-upon-Hull and any port or place between the North Foreland and Shetland, on the east side of England, except as above, for every ton, the sum of	s. d.	0 3
For every ship or vessel trading between the said port of Kingston-upon-Hull and any other port or place in Great Britain, not before described, for every ton, the sum of	s. d.	0 5
For every ship or vessel trading between the said port of Kingston-upon-Hull and any port or place in the Baltic Seas, and all other ports or places above the Sound, for every ton, the sum of	s. d.	1 0
For every ship or vessel trading between the said port of Kingston-upon-Hull, and any port or place in Denmark, Sweden, or Norway, below Elsinore, or any port or place in Germany, Holland, Flanders, France to the eastward of Ushant, Ireland, the islands of Guernsey and Jersey, for every ton, the sum of	s. d.	0 6
For every ship or vessel trading between the said port of Kingston-upon-Hull and any island or port or place of Europe to the westward of Ushant, without the Straits of Gibraltar, for every ton, the sum of	s. d.	1 0
For every ship or vessel trading between the said port of Kingston-upon-Hull and any port or place in the West Indies,	s. d.	1 0

North or South America, Africa, Greenland, or any place to the eastward of the North Cape of Norway, all places within the Straits of Gibraltar, and all islands and places in the ocean to the southward of Cape St. Vincent, not hereinbefore named, for every ton, the sum of

For every foreign ship or vessel coming to or going (with merchandise) from any of the above-named ports or places, double the rates, tonnage, or duties above-mentioned, unless the said ship belong to British owners.

For every ship or vessel sailing coastwise or otherwise, or coming into the said haven in ballast to be laid up, for every ton (trossing duty included), the sum of

N.B.—River craft using the docks and harbours at Hull are not charged any tonnage dues, except in cases where they come from and go to other ports.

Mem.—It is important to note that the duties here given include any period of time during which a vessel may lie in the docks. It may also be stated that there is no transhipping duty on goods at Hull. There is no general dock-rate on goods; but for merchandise landed on the quay wharfage is charged. The importer, however, may remove goods by lighters &c, without placing them on the quays; and the quays are perfectly open to the merchant's labourers, if he choose to land them there, so that the charge of the company may, if the merchant and shipowner so desire, be strictly limited to the tonnage rates on the vessel as stated in the above table.

An Account of Charges levied on Shipping by the Corporation of Hull for Buoyage and Beaconage.

Vessels under 40 tons	s. d.	1 0
And for every additional 10 tons	s. d.	0 6

A Scale of Ancient and Usual Dues payable to the Corporation of Hull, upon Ships and Vessels Entering Inwards and Clearing Outwards, Foreign and Coastwise.

Anchorage	Tonnage	
	Inwards	Outwards
If under 40 tons burden	s. d.	s. d.
40 and not 45 tons	1 0	1 0
45 "	1 6	1 6
50 "	1 6	2 6
50 " 100 "	2 0	3 6
150 "	2 0	4 6
200 "	2 6	5 0
250 "	2 6	6 0
300 and upwards	3 6	7 0

The charge for jettage is not made unless with goods landed at or taken in at Hull, or within the harbour.

The above charges are payable to the corporation by prescription and charter.

No charge made on vessels coming into port in distress, unless they take in cargo.

Primage and dock dues are levied on behalf of the Trinity House and the dock company. For these and pilotage dues, see DOCKS, HULL.

IPSWICH.

Dock Dues on Vessels Entering or Departing from the Port, LUDEN.

Vessels under	50 tons	-	-	per ton	d.
from 50 to 60 tons	-	-	-	-	1
60 70 "	-	-	-	-	2
70 80 "	-	-	-	-	3
80 90 "	-	-	-	-	4
90 100 "	-	-	-	-	5
110 120 "	-	-	-	-	6
130 150 "	-	-	-	-	7
150 175 "	-	-	-	-	8
175 200 "	-	-	-	-	9
200 250 "	-	-	-	-	10
250 tons and upwards	-	-	-	-	11

All vessels bringing coals only, and departing in ballast only, half dues. All colliers bringing goods are charged full tonnage duty for them.

Pilotage.

	per foot	s.	d.
Harwich to Ipswich and vice versa, with 2 or more masts	2	3	0
1 mast	2	0	0
Levington Creek to Ipswich and vice versa, 2 or more masts	1	6	6
1 mast	1	3	0
Burham Reach and vice versa, 2 or more masts	1	3	0
1 mast	1	0	0

One-fourth less if propelled or towed by steam.

Ballast—1s. per ton, to be purchased of the dock commissioners.

ISLE OF MAN, PEEL, RAMSAY.

Pilotage.

British vessels under 60 tons	-	-	s.	d.
Vessels of 40 tons and under 60 tons	-	-	0	7
60	100	-	0	13
100 tons and larger	-	-	1	0

KIRKCALDY.

Ports	Harbour Dues	Dock	Pilotage	Ballast
Northleith	1s. per ton	1s.	1s. per foot	9
Southleith	1s. "	1s. "	1s. "	7
Leith	1s. "	1s. "	1s. "	6
Greenock	1s. "	1s. "	1s. "	4
Perth	1s. "	1s. "	1s. "	6
Leith	1s. "	1s. "	1s. "	6
Leith	1s. "	1s. "	1s. "	6

LEITH.

Pilotage, by Order of Council, June 30, 1863.

Vessels drawing not more than	7 feet water	-	-	s.	d.
7 and not more than 8 "	-	-	-	8	0
8 "	-	-	-	9	0
9 "	-	-	-	10	0
10 "	-	-	-	11	0
11 "	-	-	-	12	0
12 "	-	-	-	13	0
13 "	-	-	-	14	0
14 "	-	-	-	15	0

And for every foot or part of a foot above 15, an additional charge of 1s. 6d. Extra attendance every 24 hours—master pilot, 5s.; boatmen, 1s. 6d.

Pilot Boats and Crews.

For vessels from foreign ports under	70 tons	-	-	s.	d.
70 and not exceeding 120 "	-	-	-	4	0
120 "	-	-	-	5	0
120 "	-	-	-	250	0
exceeding 250 "	-	-	-	5	0

Rates outwards one half. The pilotage to be paid to the collectors of shore dues, not to pilots themselves. No. of pilots not necessary.

Light Dues (Act 28 Geo. III. c. 58 s. 36.)

For vessels of whatever burden, to pay to the shore-master	1s. 6d.	to the man for hoisting the flag or putting up the light 1s.	Per vessel.
For every vessel of 40 tons burden and upwards, to pay for each	1s. 6d.	to the shore-master, and 1s. to the man for hoisting the flag or putting up the light	2 6

Harbour Dues (Act 28 Geo. III. c. 58 s. 84).

All vessels, whether ships, bargues, or boats (except drag boats, haddock-boats, yachts, ferry-boats, and pinnaces), shall pay every time they come into the harbour for each ton of four-fifths of their burden

Ballast (Act 1 & 2 Vict. c. 55).

Shipped	-	-	-	s.	d.
Landed	-	-	-	1	3
	-	-	-	0	7

Dock Dues.

For every ship or vessel from any port between Buchaness and Eyemouth, including the Great Canal and the river Clyde, as far down as Greenock, coming by the canal

For every ship or vessel from Norway, Sweden, Denmark, Holstein, Hamburg, Bremen, Holland, and Flanders, that is, without the Baltic, and no further south than Dunkirk

Vessels laden with coal, sold in retail to the inhabitants of Edinburgh and Leith, who are hereby debarred from entering the said dock, are exempted.

LONDON.

Port or Dock Duties.—The following rates are received by the officers of this port on all vessels, entering inwards or clearing outwards, except in ballast, under the authority of Act 4 & 5 Wm. IV. c. 32; and the amount so received is paid into the chamber of the city of London, in conformity with the 6th section of the said Act, viz.:

From or to Denmark, Norway or Lapland, Holstein, Hamburg, Bremen, or any other part of Germany bordering on or near the German Ocean, Holland, or any other of the United Provinces, Brabant, Antwerp, Flanders, the Netherlands, France (within Ushant), Finland, Russia (without or within the Baltic Sea), Livonia, Courland, Poland, Prussia, Sweden, or any other country or place within the Baltic Sea, 1/2d. per ton.

From or to all other places, 3/4d. per ton. The following is the Ramsgate Harbour duty (per Act 32 Geo. III. c. 74), chargeable on all vessels trading to or from foreign ports or places passing the harbour, laden or in ballast:

For every vessel under 300 tons	-	-	2d.	per ton.
above 300 "	-	-	4d.	"

For every vessel trading coastwise passing the harbour, the rates not chargeable oftener than once a year.

Also 1d. per chaldron on coals, and 1d. per ton on stone, payable for each voyage.

Dover Harbour Duty (per Act 9 Geo. IV.), chargeable on all Vessels, British or Foreign.

From 20 to 300 tons burden trading overseas, for each time passing the harbour, if laden, 1 1/2d. per ton; also the like sum for entering the harbour.

Coasters:—The passing and entering, duty once a year; also 3/4d. per chaldron on coals, and 3/4d. per ton on stone, each time passing.

Not having corn or provisions for the greater part of the cargo, having come through the Cinque Port water, a fourth part of the Cinque Port pilotage rates.

Scarborough Pier Duty, chargeable on coasting vessels. If laden, passing the pier, 1/2 of 1d. per ton.

Per reg. ton	In.	Out.
100 to 150	1	1
150 to 200	2	2
200 to 250	3	3
250 to 300	4	4
300 to 350	5	5
350 to 400	6	6
400 to 450	7	7
450 to 500	8	8
500 to 550	9	9
550 to 600	10	10
600 to 650	11	11
650 to 700	12	12
700 to 750	13	13
750 to 800	14	14
800 to 850	15	15
850 to 900	16	16
900 to 950	17	17
950 to 1000	18	18

Boats making frequent	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	120 to 130	130 to 140	140 to 150
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0

Boats making frequent	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	120 to 130	130 to 140	140 to 150
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0

Boats making frequent	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	120 to 130	130 to 140	140 to 150
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0

Boats making frequent	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	120 to 130	130 to 140	140 to 150
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0

Boats making frequent	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	120 to 130	130 to 140	140 to 150
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0

Boats making frequent	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	120 to 130	130 to 140	140 to 150
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0

Boats making frequent	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	120 to 130	130 to 140	140 to 150
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0
s. d.	0 6	0 5	0 4	0 3	0 2	0 1	0 0	0 0	0 0

RATES ON SHIPPERS						
	Tonnage Duty	Light-house Duty	Anchor- age	Pilotage per foot of water drawing	Ballast	
	per ton s. d.	per ton s. d.	per ton s. d.	per ton s. d.	per ton s. d.	
<i>Coasting Trade.</i>						
CLASS 1.—Between the Mull of Galloway and St. David's Head, including the Isles of Man and Anglesa	0 2½	0 0½	1 0	1 0	1 0	
Ditto, if taking refuge in the harbour only	0 0	0 0	0 0	0 0	0 0	
CLASS 2.—Between the Mull of Galloway and Duncaen's Bay Head, including the Orkney Isles, and all the islands on the Western Coast of Scotland, and between St. David's Head and the Land's End, including the Scilly Islands and the East Coast of Ireland, from Cape Clear to Mulling Head	0 4½	0 0½	1 0	1 0	1 0	
Ditto, if taking refuge in the harbour only	0 0	0 0	0 0	0 0	0 0	
CLASS 3.—All parts of the East and Southern Coasts of Great Britain between Duncaen's Bay Head and the Land's End, including the Islands of Shetland and all parts of the West Coast of Ireland, from Cape Clear to Mulling Head, including the Islands on that coast	0 6½	0 0½	1 0	1 0	1 0	
Ditto, if only taking refuge	0 0	0 0	0 0	0 0	0 0	
<i>Foreign Trade, viz.:</i>						
CLASS 4.—All parts of Europe in the Northward of Cape Finisterre, and in the Westward of the North Cape, and without the Cattegat and Baltic Seas, and including the Islands of Guernsey, Jersey, Alderney, Sark, the Faro Isles, and Iceland	0 10	0 1½	1 3	1 3	1 3	
Ditto, if only taking refuge	0 0	0 0	0 0	0 0	0 0	
CLASS 5.—All parts within the Cattegat and Baltic, including Sweden, the White Sea, and all parts in the Eastward of the North Cape, all parts in Europe to the South of Cape Finisterre without the Mediterranean, Newfoundland, Greenland, Davis's Straits, Canaries, Western Islands, Madeira, and Azores	1 1½	0 1½	1 3	1 3	1 3	
Ditto, if only taking refuge in the harbour	0 0	0 0	0 0	0 0	0 0	
CLASS 6.—All parts on the East Coast of North America, the West Indies, the East Coast of South America to the Northward of Rio de la Plata, inclusive; all the West Coast of Africa and Islands to the North of the Cape of Good Hope, and all parts within the Mediterranean, including the Adriatic, the Black Sea and Archipelago, the Islands of St. Helena, Ascension, and Cape de Verde	1 4½	0 1½	1 3	1 3	1 3	
Ditto, if only taking refuge in the harbour	0 0	0 0	0 0	0 0	0 0	
CLASS 7.—All parts in South America to the South of Rio de la Plata in the Pacific Ocean, in Africa and Asia to the Eastward of the Cape of Good Hope	1 4½	0 1½	1 3	1 3	1 3	
Ditto, if only taking refuge in the harbour	0 0	0 0	0 0	0 0	0 0	

LONDONDERRY.

**Tonnage.**—Collected under 2 & 3 Wm. IV.

All ships from foreign parts, 3d. per ton; coasters, 2d. per ton; vessels in distress, or taking refuge from stormy weather, free; vessels in ballast, free; vessels under 20 tons, free; no deduction on vessels delivering their cargo in part.

**Pilotage.**—Collected under 2 & 3 Wm. IV. and reduced by by-laws to the following rates, for ships of every description, or steamboats, viz.:

**INWARDS.**—(Per foot, and inches in proportion.)

7 feet and under to pay 1s.	2	0
Above 7 feet and under 8 to pay at the rate of	2	0
8	2	2
9	2	4
10	2	8
11	3	0
12	3	4
13	3	8
14	4	0
15 feet and upwards at the rate of	4	4

**OUTWARDS.**—(Per foot, and inches in proportion.)

7 feet and under to pay 10s. 6d.	1	6
Above 7 feet and under 8 to pay at the rate of	1	6
8	2	0
9	2	4
10	2	8
11	3	0
12	3	4
13	3	8
14	4	0
15 feet and upwards at the rate of	4	4

Vessels of 80 tons burden, per register, and under, shall pay 10s. inward pilotage, and 6s. outward pilotage; above 80 tons and not exceeding 40 tons, if bound coastwise, and sailing in ballast, only 8s. outward. Boats which have discharged potatoes, under 20 tons, 3s. 6d. outward pilotage, if British. Wind-bound vessels half pilotage in and half pilotage out, to or from Moville or Quigley's Point. Vessels towed by stenners ½ off, if demanded by the master or owner, or by any person for them, on producing a proper order.

All vessels laden with bark, under 120 tons, to pay 6d. per foot extra; 120 tons and not exceeding 150 tons, 9d.; exceeding 150 tons, 1s. per

foot extra. All ships from foreign parts, or, if bound to foreign ports, having on board half their registered tonnage of cargo, or with passengers, to pay 8d. per foot extra, in addition to the above charges.

Vessels which have cleared the Lough, and by stress of weather obliged to return:—It is hereby directed, that as these vessels have paid the full amount of pilotage, they shall pay but ½ in, and ½ out, of the amount of their outward pilotage, to be ascertained by the master's account from the collector of pilotage.

Pilots detained on board vessels, the sum of 2s. 6d. per day; when the measurement exceeds 150 tons, 3s. 6d. per day; detaining them unnecessarily in Derry, the like amount.

**Ballast.**—Collected under the 2 & 3 Wm. IV. Masters of vessels may procure their own ballast in the best and cheapest manner; but those who may wish to be supplied by the ballast office pay, for gravel, 1s. 3d. per ton; sand or sufficient ballast, 1s. per ton.

**Anchorage.**—Collected from time immemorial. Vessels with one mast, 1s. 6d.; vessels with 2 masts or more, 2s. 6d. Vessels unless they come to the ship quays, are not charged.

**Merchants' Quays.**—Vessels arriving or sailing with a cargo are free; and the owners of the goods pay the wharfage.

Vessels arriving in ballast for the purpose of repairing, pay 2d. per ton on the register tonnage, for the berth and use of the quays.

Vessels coming to the quays for the purpose of discharging or taking in ballast, pay 2d. per ton on the quantity discharged or taken in.

Vessels arriving in ballast for the purpose of taking passengers, pay 2d. per ton on the register tonnage, for the berth and use of the quays, and the passengers' luggage is free.

Vessels that have discharged their cargoes, and take in ballast for the purpose of taking passengers, pay 2d. per ton on their register tonnage; the ballast and the luggage are free.

LYNN.

Town dues, foreign and coasting vessels, are as follows:—

Revenue, per ton delivered	s. d.
Keelage, ditto	0 1
Anchorage, per vessel	0 6
Ballast, per vessel, to foreign parts and not belonging to Lynn	3 4
Ballast, for every 3 tons delivered. (vide Ballast.)	0 4

These dues are not payable from vessels taking refuge or discharging their cargoes for the purpose of repairs, and are under the superintendence of the corporation.

Mooring Dues.

1d. per ton delivered; unprivileged vessels double.

Not chargeable upon vessels taking refuge &c. Under the control of the commissioners under the Pilot Act.

Pilotage.

To 16 feet draught of water	s. d.
Exceeding 10 feet to 12 feet	1 9
12 14 ft. 6 in.	2 0
14 ft. 6 in. to 16 ft.	2 6

The rate is the same whether loaded or in ballast, and is chargeable each time up and away, as well as on vessels taking refuge or in distress. The Company of Pilots is under the control of the commissioners under the Pilot Act.

Ballast.—Ballast is supplied to vessels by private individuals at 1s. 3d. per ton. This charge is independent of that of ballast, under the head of town dues, which is payable from all vessels not belonging to freemen of the borough of King's Lynn.

MONTROSE.

The dues and charges levied under the 1st Viet. c. 99 are the following:—

- Vessels from Foreign Parts.*
1. For all vessels sailing to the southward of the Tropic of Capricorn, per register ton - 1 5
  2. Between the Equator and the Tropic of Capricorn - 1 5
  3. Between the Tropic of Cancer and the Equator - 1 0
  4. To and from any port in North America, Greenland, Davis's Straits Fisheries, and all within the Straits of Gibraltar - 0 8
  5. To and from any port to the north of Drontheim in Norway, or from Azores, Madeira, or Tenerife Islands - 0 7
  6. To and from any port between Gibraltar and Dunbarton, including Gibraltar, and from any port in the Baltic, per register ton - 0 5

On Coasting Vessels.

1. To and from any port in Great Britain or Ireland, including the islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkney - 0 5
2. All vessels laden with coals or lime only, from any port in Great Britain &c., excepting Scotland - 0 2
3. All vessels laden with coals or lime only, from any port in Scotland, and all vessels engaged in the herring trade - 0 2
4. All steam-vessels from any port in Great Britain, or places enumerated in No. 1, carrying passengers and their luggage actually on board - 0 2
5. All steam-vessels carrying goods and passengers to pay the same rates as sailing vessels.

It is the option of the harbour trustees to charge either the tonnage dues on the voyage inwards, or on the voyage outwards, at the rates specified in the above schedule, according to the distance; and if the charge be made on the voyage outwards, there shall be deducted from it the amount of the dues that may have been previously paid on the voyage inwards; but if such vessels sail in ballast, they shall be charged with dues on the inward voyage only.

All vessels with cargoes are permitted to enter this harbour for safety or convenience by payment of one-half of the tonnage dues; but if they shall take goods on board (stores for their own use excepted), or break bulk, they shall pay full tonnage dues.

All vessels remaining in harbour pay, after

2 months, 1d. per register ton per month in advance.

Plankage.—Each vessel entering the harbour, loading or unloading goods or ballast within the same, or performing both operations before leaving the harbour, to pay, in name of plank-money (whether a plank be used or not), as follows, viz:—

On vessels amounting to and not exceeding 20 tons	s. d.
exceeding 20 tons	1 0
100	1 5
200	2 0
300	2 5
400	3 0
500	3 5
600	4 0
700	4 5
800	5 0
900	5 5
1000	6 0
1100	6 5
1200	7 0
1300	7 5
1400	8 0
1500	8 5
1600	9 0
1700	9 5
1800	10 0
1900	10 5
2000	11 0
2100	11 5
2200	12 0
2300	12 5
2400	13 0
2500	13 5
2600	14 0
2700	14 5
2800	15 0
2900	15 5
3000	16 0
3100	16 5
3200	17 0
3300	17 5
3400	18 0
3500	18 5
3600	19 0
3700	19 5
3800	20 0
3900	20 5
4000	21 0
4100	21 5
4200	22 0
4300	22 5
4400	23 0
4500	23 5
4600	24 0
4700	24 5
4800	25 0
4900	25 5
5000	26 0
5100	26 5
5200	27 0
5300	27 5
5400	28 0
5500	28 5
5600	29 0
5700	29 5
5800	30 0
5900	30 5
6000	31 0
6100	31 5
6200	32 0
6300	32 5
6400	33 0
6500	33 5
6600	34 0
6700	34 5
6800	35 0
6900	35 5
7000	36 0
7100	36 5
7200	37 0
7300	37 5
7400	38 0
7500	38 5
7600	39 0
7700	39 5
7800	40 0
7900	40 5
8000	41 0
8100	41 5
8200	42 0
8300	42 5
8400	43 0
8500	43 5
8600	44 0
8700	44 5
8800	45 0
8900	45 5
9000	46 0
9100	46 5
9200	47 0
9300	47 5
9400	48 0
9500	48 5
9600	49 0
9700	49 5
9800	50 0
9900	50 5
10000	51 0

Local Lights and Beacons.—The harbour trustees are empowered by the before-mentioned Act to charge at the rate of 3d. per ton on vessels, for the support of the harbour lights and beacons; but, finding that a less rate would cover the expenditure, they reduced it to 2d. per ton.

Pilotage.—By virtue of the powers conferred on the harbour trustees, the following rates of pilotage were fixed by them, viz:—

Tons Register	First Boat		Second Boat	
	Inwards	Outwards	Inwards	Outwards
All under 40 tons	£ 0 6 0	£ 0 4 6	£ 0 5 0	£ 0 4 0
40 and under 50 "	0 7 0	0 5 6	0 6 0	0 5 0
50 " 60 "	0 8 0	0 6 6	0 7 0	0 6 0
60 " 70 "	0 9 0	0 7 6	0 8 0	0 7 0
70 " 80 "	0 10 0	0 8 6	0 9 0	0 8 0
80 " 90 "	0 11 0	0 9 6	1 0 0	0 9 0
90 " 100 "	0 12 0	0 10 6	1 1 0	1 0 0
100 " 120 "	0 13 0	0 11 6	1 2 0	1 1 0
120 " 140 "	0 14 0	0 12 6	1 3 0	1 2 0
140 " 160 "	0 15 0	0 13 6	1 4 0	1 3 0
160 " 180 "	0 16 0	0 14 6	1 5 0	1 4 0
180 " 200 "	0 17 0	0 15 6	1 6 0	1 5 0
200 " 250 "	0 18 0	0 16 6	1 7 0	1 6 0
250 " 300 "	0 19 0	0 17 6	1 8 0	1 7 0
300 tons and upwards	2 0 0	1 10 0	1 9 0	1 11 0

The third boat is paid the same as the second, and the pilot-master's charge is 6d. per mast on each vessel entering the harbour.

Ballast.—Put on board, 9d.; discharge, 3d.

NEWCASTLE.

Tonnage Dues.

On every vessel with a cargo to or from any port or place in the United Kingdom, or the Isle of Man, or the continent of Europe between the river Elbe and Bristol - 0 1  
On every vessel with a cargo to or from any other port or place - 0 2

Steam Vessels, plying on the Tyne, for towing vessels or conveying passengers or goods, per horse power, per annum - 7 6

Harbour light, under 100 tons	s. d.
100 and under 200	0 11
200 " 300	1 3
above 300 tons	1 5

Low lights, not exceeding 50 tons	s. d.
50 " 100	1 3
100 " 200	1 8
200 " 300	2 0
300 " 400	2 4
400 " 500	2 8
Above 500 "	3 2

Holy Island, buoys and beacons, per vessel laden - 1 0  
Fairway buoy.—Each vessel proceeding northwards - 1 0  
River watch and mooring.—On every vessel entering the Tyne, per registered ton - 0 0 1

Pier Dues.

Outwards, Home, per ton - 0 1  
Foreign - 0 2

Dock Police.

20 tons to 50	each 0 1 6	300 tons to 600	each 0 7 6
50 " 80	" 0 3 0	600 " 800	" 0 10 6
80 " 120	" 0 4 0	800 " 1000	" 0 15 0
120 " 200	" 0 5 0	1000 tons and upwards	1 0 0
200 " 300	" 0 6 0		

Ballast.

Discharged in dock by hydraulic cranes, per ton	s. d.
Chalk rubbish	0 6
Clean sand	0 9
Loam	0 6
Stones	0 6
Block chalk	free

**NEWPORT.**

**Harbour Dues.**

Vessels in the coasting trade, with cargo, inwards and outwards, 3d. per ton register, each way  
 Vessels in the foreign trade, with cargo, inwards and outwards, 10d. per ton register, each way

Vessels coming in in ballast pay only on the outward cargo.

**Keelage.**

Vessels loading or discharging at the wharves in the river, on the quantity taken on board and discharged, per ton.

	Newport to Mouth of Taff			Newport to the Holms			Limit No. 1.			Limit No. 2.			Limit No. 3.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Under 100 tons	0	10	0	0	15	0	0	7	6	0	17	6	1	0	0
100 to 200 "	0	15	0	1	0	0	0	10	0	1	5	0	1	12	0
200 to 300 "	0	17	6	1	10	0	0	15	0	1	10	0	1	12	0
300 to 400 "	1	0	0	1	15	0	0	17	6	1	17	6	1	12	0
400 to 500 "	1	5	0	1	15	0	1	0	0	1	10	0	1	12	0
500 to 600 "	1	6	0	1	15	0	1	0	0	1	10	0	1	12	0
600 to 700 "	1	8	0	1	15	0	1	0	0	1	15	0	1	12	0
700 to 800 "	1	10	0	1	15	0	1	10	0	1	15	0	1	12	0
800 to 1000 "	1	12	0	1	15	0	1	15	0	1	15	0	1	12	0
Freighters and upwards															

Coasters and Vessels in ballast, one third less.  
 Limit No. 1.—Between Holms or Cardiff Roads, and Milford or Blybrook, or any point east of Milford and west of Rhosaf.  
 Limit No. 2.—Between Holms or Cardiff Roads, and Conister, or any point west of Milford or Nash Point, or east of Rhosaf.  
 Limit No. 3.—Between Holms or Cardiff Roads and Lundy Island, or any point west of Conister.

**Dock Dues.**

**First Class.—Vessels Entering with Cargoes or Departing with Cargoes.**

	Inwards	Outwards
Vessels from or to any part of Great Britain, Ireland, the Isle of Man, or any of the Islands of Guernsey, Jersey, Alderney, and Sark, not exceeding 100 tons measurement	3d. per ton	3d. per ton
For vessels exceeding 100 tons measurement	5d. "	5d. "
Next after ten weeks from date of entrance, 1d. per ton, per week.		
Vessels from or to any other part of Europe, except places within the Straits of Gibraltar, and round the North Cape	5d. "	5d. "
Next after 4 weeks, as before, 1d. per ton, per week.		
From or to any port or place in Europe, round the North Cape, any port or place within the Straits of Gibraltar, whether in Europe, Asia, or Africa	7d. "	7d. "
Next after 2 weeks, as before, 1d. per ton, per week.		
From or to any port or place in British America, except the West Indies, and any port or place in United States	10d. "	10d. "
Next after 2 weeks, as before, 1d. per ton, per week.		
From or to any port or place in any other part of the world	15d. "	15d. "
Next after 2 weeks, as before, 1d. per ton, per week.		

For every vessel, with a cargo, which shall enter the said dock and deposit thereon without breaking bulk, or which shall discharge and afterwards take on board and depart with the same cargo, per ton measurement, 6d.

Entering and departing in ballast, per ton, 3d.  
 Next after 1 week from date of entrance, 1d. per ton per week.  
 Every vessel of less burden than 10 tons measurement to be rated at 10 tons measurement.  
 For receiving and taking away the ballast, a charge of 1/4d. per ton to be made on the register tonnage.  
 Ballast discharged at various private wharves on the west side of the river costs from 1/4d. to 1/2d. per ton register, from any other wharves varying according to the nature of the ballast, whether gravel or limestone; payable by custom or contract.

Pilots employed on tides work on board vessels—

	£	s.	d.
Under 100 tons	-	-	0 6
100 tons to 200	-	-	0 5
200 to 300	-	-	0 6
300 to 400	-	-	0 7
400 tons and upwards	-	-	0 8

Wharf-hunt vessels to pay pilots 5s. per diem.

Harbour-master's dues, received under the authority of the Commissioners for pilotage—

	£	s.	d.
For vessels under 50 tons	-	-	0 6
50 tons, and under 100	-	-	0 9
100 to 200	-	-	1 0
200 to 300	-	-	1 1
300 to 400	-	-	1 2
400 tons and upwards	-	-	1 4

There is a charge made for what is called a keelage, of 1d. per ton upon the outward cargo of tons of goods shipped or landed, paid by consignees and under the authority of the merchants. This is paid by the masters of vessels on clearing, and we believe is very generally charged to the ship.  
 The following ballast charges are levied by harbour commissioners under Act 8 Wm. IV. c. 68—  
 Ballast discharged in dock, 1s. per ton; additional 5d. for water by night.  
 Vessels coming in in ballast pay only on the outward cargo.  
 The dues levied on vessels for discharging their ballast on the side of the river are 1/4d. per ton register on vessels coming from any place westward of the Holms Islands, and 1/4d. per ton on other places eastward of the Holms.

**NEWRY.**

Description of Charge	How Levied	Rate
Harbour dues	Anchorage on a smack, coasting trade	0 6
	ditto, foreign	0 8
	whomver, coasting	0 6
	ditto, foreign	0 8
	etc., coasting	0 5
	ditto, foreign	0 6
Pilotage	Dredge per ton on the registered measurement	0 1
	From the bar of Carrlingford	each vessel
	If the vessel is 3 miles or less	0 1
Canal dues	On the river, up and down, per foot on the draught of water	0 1
	N.B.—Pilotage is in some cases paid by agreement, there being no branch or established plan.	0 1
	On goods	per ton
	Charge for each horse towing or tracking a vessel	0 6

**PLYMOUTH.**

**Saltish Dues.**

1s. per vessel of every description, whether taking refuge in the harbour only, or to deliver the cargo, whole or in part.

**SUTTON POOL.**

Dues payable to the Sutton Pool Company.—Tolls on Ships.

For all ships or vessels coming from foreign parts, 2d. per ton.

For all ships or vessels employed in the coasting trade, or coming from Ireland, above 50 tons, 1d. per ton.  
 For all such ships or vessels of 50 tons or under 1/4d. per ton.  
 All vessels employed in fishing and belonging to the port, 1d. 1s. per annum.  
 All barges, lighters, and other craft above 20 tons, 1d. per annum.  
 All barges, lighters, and other craft under 20 tons, 1/2d. per annum.  
 All ships or vessels lying within the said harbour more than 3 calendar months (unless under

repair at a shipwright's yard) shall pay, at the expiration thereof, the same dues as if they had again entered the harbour; and so on at the expiration of every 3 months they shall continue therein.

Anchorages and groundage, each vessel	1	0	0
Moorage in quay	1	0	0
Moorage in wharf	1	0	0
Moorage in pier	1	0	0

**For the Use of the Graving Bench.**  
For every ship or vessel of 60 tons, and under 80 tons, 2s. per week.  
of 80 tons and under 100 tons, 2s. 6d. per week.  
of 100 tons and under 200 tons, 3s. per week.  
of 200 tons or upwards, 5s. per week.

**Table of the Rates of Pilotage, for Piloting Ships within the Plymouth District.**  
Limits of Limits.—To the Westward as far as Looe, and Eastward as far as the Start, and to and from, and into and out of, all Ports and Places within those Limits.

	To Cornwall Bay, and vice versa		To Plymouth Sound, and vice versa		To Tamar, and vice versa		To Sutton Pool, and vice versa		To Hamoaze, and vice versa		To St. Ives, and vice versa		To Falmouth, and vice versa		To Malabar, and vice versa	
	11 ft. and up-wards	8 ft. and up-wards	11 ft. and up-wards	8 ft. and up-wards	14 ft. and up-wards	10 ft. and up-wards	13 ft. and up-wards	10 ft. and up-wards	14 ft. and up-wards	10 ft. and up-wards	14 ft. and up-wards	10 ft. and up-wards	14 ft. and up-wards	10 ft. and up-wards	14 ft. and up-wards	10 ft. and up-wards
From an imaginary line drawn from the Mewstone to Fenice Point	5	4	5	4	5	4	5	4	5	4	5	4	5	4	5	4
(On ships loaded or quit-tered within those limits)	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
(On ships loaded or quit-tered outside those limits)	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
From Looe and Fenice	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
From Plymouth Sound	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
From Sutton Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
From Hamoaze	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

All ships drawing less than 8 ft. of water are to pay the same amount of pilotage as if they were of that draught.

The several pilotage rates herein specified are subject to a reduction of one-fourth part in respect of vessels propelled by steam, and vessels towed by steam vessels.

N.B.—Ships returning by distress or weather to pay half the common pilotage.

**Distance Pilotage.**—For every league without a line drawn from the Ram Head to the Mewstone, one-fourth part of the rate of pilotage chargeable on the vessel from sea to the Sound.

The foregoing rates are levied by authority of the Trinity Board, under 6 Geo. IV. c. 125, and were sanctioned November 1862.

There are no charges levied for local lights or beacons at this port.

There is no regulated charge for ballast, nor any Board appointed for its supply; the parties obtain it on the best terms they can from different quarries here abounding with matter fit for the purpose.

**PORTSMOUTH.**

Harbour dues payable to the Corporation of the borough of Portsmouth, per Act 3 Vict., in respect of all ships or other vessels arriving and casting anchor, or making fast, in the harbour of Portsmouth, for each and every time such ship or other vessel shall enter or come into the harbour—

Under 30 tons	1s. per ship
30 and under 60 tons	2s. "
60 " 150 "	3s. "
150 " 300 "	4s. "
300 " 500 "	5s. "
500 " 1000 "	6s. "
1000 tons and upwards	10s. "

Steamboats to be charged only once a day.

**Exemptions.**—Pilot-boats, fishing-vessels, boats not decked, and ships and vessels arriving in distress.

Tonnage dues payable in respect of all ships, boats, or other vessels, lading or unlading, upon or from the wharves and quays or other works, or

in the Cumber, within a line drawn from the north-east angle of Mr. Lindgren's Store, to the south-west angle of the New Gun Wharf—

To or from Rye or Malcombe, or any port or place between them, 2d. per ton.  
To or from any port or place in Great Britain or Ireland, coastwise 3d. per ton.  
To or from parts (foreign), 4d. per ton.

**General Exemptions.**—Her Majesty's ships, vessels, or boats, or any ship, vessel, or boat in the service or employ of her Majesty's Customs or Excise, or Board of Ordnance.

No charge for local lights and beacons at this port.

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SLIGO.

Denomination of Vessels	Harbour Dues per Ton	Pilotage for Vessels coming into the Port to discharge their Cargoes				Pilotage for Vessels taking Refuge in the Port				Ballast	
		From April 1 to Sept. 31		From Oct. 1 to March 31		From April 1 to Sept. 31		From Oct. 1 to March 31			
		In	Out	In	Out	In	Out	In	Out		
	Irish currency	per foot		per foot		per foot		per foot		Vessels taking in	Vessels discharging
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
British vessels from ports in Ireland	0 3	2 6	2 0	3 0	2 6	1 5	1 0	1 6	1 3	1 0	0 0
Vitto from Great Britain	0 6	2 6	2 0	3 0	2 6	1 5	1 0	1 6	1 3	1 0	0 0
Vitto from foreign parts	0 6	2 6	2 0	3 0	2 6	1 5	1 0	1 6	1 3	1 0	0 0
Foreign vessels	1 0	3 6	3 0	4 0	3 6	1 9	1 6	2 0	1 9	1 0	0 0

SCARBOROUGH.

Harbour Dues.

All vessels under 50 tons, 4s. each; above 50 tons, 1d. per registered ton. Coals landed, 6d. per ton.

Corporation Dues.

Each vessel, 1s. 6d. Coals delivered, 1 1/2d. per ton.

SOUTHAMPTON.

Vessels, whether coasting or foreign, entering the port of the town of Southampton, are chargeable with a boomage duty:—

	s. d.
Under 50 tons	1 6 per vessel
Above 50 and under 100 tons	3 0 "
100 tons and upwards	3 0 "

And all vessels, upon loading or unloading in the roads, at the legal quays, or in the docks, 2d. per ton, register tonnage, each voyage; if with half cargoes, 1d.

Dock Dues	Inwards	Outwards
All ships and vessels from any port outside the limits between the North Cape and Ushent	6d. per reg. ton	6d. per reg. ton
From any port in the Mediterranean, including Gibraltar	9d. "	9d. "
Any other port	9d. "	9d. "

Rent after 3 weeks, per register ton, per week - 6 s. d.  
 Coasters landing cargo or passengers, or loading out, with 1 week's privilege - free  
 Rent after 1 week, per register ton, per week - 0 0 1  
 Coilers, transhipping their cargoes into vessels in dock, per coiler - 1 1 0

The docks are part of the port of Southampton, and consequently vessels using them are subject to no extra dues of pilotage.

Rates of Pilotage for the Port of Southampton.

From any place within the Isle of Wight to Southampton, Hambur, or Burisledon: - s. d.  
 For vessels drawing 17 ft. water and under - 4 0  
 For vessels drawing more than 17 ft. - 3 0  
 From any place within the Isle of Wight to Eling, Redbridge, Northam, or Chapel, 1s. per foot more than the above rates.  
 From Southampton to sea: - s. d.  
 For vessels drawing 17 ft. water and under - 6 0  
 17 ft. and not exceeding 20 ft. - 7 0  
 more than 20 feet - 9 0  
 For removing vessels from one place to another within the Southampton Water, or within the Isle of Wight, the following rates, viz.:-  
 From Southampton to Redbridge, Eling, Northam, or Chapel, and vice versa - 1 0  
 From Southampton to Hambur, Burisledon, Lype, or Buckler's Hard, or Beaulieu, and vice versa - 1 6  
 and for any intermediate distance a proportionate part of the above rates.

Ballast.—1s. per ton.

If a master choose to retain or employ a pilot whilst at anchor, the rate for the lay-days is to be 7s. 6d. per day, exclusive of the day on which the vessel comes in or goes out.

N.B.—A new table for Southampton is in preparation.

STOCKTON.

Foreign Trade.

Inwards.—United Kingdom, Isle of Man, White Sea ports between North Cape and Gibraltar, Baltic, and British possessions in North America, per register ton - 0 3  
 Any other place - 0 4

Outwards.—Same dues.

Ships seeking refuge, per register ton - 0 0  
 Ships in ballast - 0 0  
 Local Lights.—Each vessel - 0 0  
 Lifboat - 0 0  
 Town dues - 0 0

Ballast discharged at the Middleboro' crane 4 1/2d. per ton.

Rates of Pilotage for every Foot of Water the Vessel draws.

From the sea and any intermediate place, and vice versa: - s. d.  
 To the fifth buoy, being the first safe place of anchorage, as allowed by Act of Parliament - 1 0  
 To Cargo Fleet - 1 0  
 From Cargo Fleet and any intermediate place, and vice versa: - s. d.  
 To Middleburg - 1 0  
 To Stockton - 1 0

Between October 1 and April 1, 3d. per foot extra.

N.B.—Owners and masters of ships using the Tees and port of Stockton are not to pay more than other rates of pilotage, than the above mentioned; and all pilots acting under the license and authority of the master, wardens, &c. of the Trinity House are hereby ordered and directed to ask, demand, or receive for pilotage any more than the rates as above stated.

SUNDERLAND.

Harbour Tonnage Dues.

United Kingdom, Isle of Man, ports between Ushant and the Scaw, not exceeding 150 tons register - 0 0  
 150 to 250 - 0 0  
 250 tons and upwards - 0 0  
 Other ports, each ton - 0 0  
 This to be paid either on entrance or clearing, but always at the highest rate.  
 Refuge, per register ton - 0 0  
 Port Light - 0 0  
 Groundage Dues, per vessel, per voyage - 0 0  
 Newcastle's Trinity House.—Under 100 tons - 0 0  
 100 " - 0 0  
 200 " - 0 0  
 Fairway Buys, each vessel - 0 0  
 Lifboat, by consent - 0 0  
 River Watch, per ton, each voyage, each year - 0 0

Dock Dues, additional (Inwards).

1. United Kingdom and Isle of Man, per register ton - 0 0  
 2. Europe between Ushant and Nass of Norway, Guernsey, and Jersey - 0 0  
 3. Baltic Sea, Ushant, and Gibraltar, Nass and North Cape - 0 0  
 4. Within Gibraltar, east of North Cape, Madras, Amoy, North America, south of Davis's Straits - 0 0  
 5. All other ports - 0 0  
 Outwards.—Classes 1, 2, 3 - 0 0  
 Class 4 - 0 0  
 Class 5 - 0 0

Pilotage.

April 1 to October 1 - 1 0  
 October 1 to April 1 - 1 4

Ballast.

Under 400 tons - 1 0  
 400 " and upwards - 1 0  
 Discharging clay or rubbish, extra - 0 0  
 Ten per cent. additional between October 1 and April 1 - 0 0  
 Stipping ballast from dock quays - 0 0

Mast'ng Rates.

Vessels under 200 tons - 0 0  
 200 to 300 tons - 0 0  
 300 to 500 tons - 0 0  
 500 tons and upwards - 0 0

SWANSEA.

Tonnage Dues.

per reg. ton		s. d.	
1st	2d	1st	2d
1. Canal Kingdom and bar of Man, under 150 tons	0 4	0 4	0 4
above 150 and under 200 "	0 5 1/2	0 5 1/2	0 5 1/2
200 " 350 "	0 7	0 7	0 7
350 tons and upwards	0 8 1/2	0 8 1/2	0 8 1/2
2. Europe, and within the Straits of Gibraltar, under 100 tons	0 4	0 4	0 4
above 100 and under 250 "	0 6	0 6	0 6
250 " 350 "	0 7 1/2	0 7 1/2	0 7 1/2
350 tons and upwards	0 9	0 9	0 9
3. Other places, under 150 tons	0 7 1/2	0 7 1/2	0 7 1/2
above 150 and under 250 "	0 9	0 9	0 9
250 " 350 "	1 0	1 0	1 0
350 tons and upwards	1 3	1 3	1 3
Vessels coasting in ballast, and departing with cargoes, all in line	0 3	0 3	0 3
1st class	0 3	0 3	0 3
2d class	0 2 1/2	0 2 1/2	0 2 1/2
3d class, 1d., 2d., 3d., according to tonnage.			
Vessels remaining over 30 days, per register ton, per week	0 1	0 1	0 1

NEATH.

per reg. ton		s. d.	
1st	2d	1st	2d
Canal Kingdom and Channel Islands	0 4	0 4	0 4
Under 100 tons	0 5 1/2	0 5 1/2	0 5 1/2
100 and upwards	0 7	0 7	0 7
North Cape and Cape Finisterre	0 3 1/2	0 3 1/2	0 3 1/2
All other ports	0 5 1/2	0 5 1/2	0 5 1/2

PORT TALBOT.

Per vessel	4d. per reg. ton
Vessels with cargo, outwards without ballast	3d. "
" with coal	4d. "

PORT CAUL.

Under 100 tons register	6d. per reg. ton
100 to 150 "	8d. "
150 to 200 "	10d. "
200 tons and upwards	1s. "

Ballast.

Vessels under 100 tons register	6d. per reg. ton
100 to 150 "	8d. "
150 to 200 "	10d. "
200 tons and upwards	1s. "

Neath Discharged	6d. per ton
Port Talbot In river	free
To dock	5d. per ton
Port Caes. Put on board	6d. "
Discharged	4d. "

Pilotage.—Neath District.

	First Station*			Second Station			Third Station		
	per foot	s. d.	per foot	per foot	s. d.	per foot	s. d.	per foot	s. d.
For the pilotage of any vessel—									
Under 50 tons register	1 3	1 4	1 4	1 6	1 6	1 6	1 6	1 6	1 6
50 to 100 "	1 8	1 9	1 9	2 0	2 0	2 0	2 0	2 0	2 0
100 to 150 "	2 3	2 3	2 3	2 6	2 6	2 6	2 6	2 6	2 6
150 to 200 "	2 8	2 8	2 8	3 0	3 0	3 0	3 0	3 0	3 0
200 to 250 "	3 3	3 3	3 3	3 6	3 6	3 6	3 6	3 6	3 6
250 to 300 "	3 8	3 8	3 8	4 0	4 0	4 0	4 0	4 0	4 0
300 to 350 "	4 3	4 3	4 3	4 6	4 6	4 6	4 6	4 6	4 6
350 and upwards	4 8	4 8	4 8	5 0	5 0	5 0	5 0	5 0	5 0

\* From outside of Neath Har to the Layer, and to any distance between the Layer and southern end of Abbey Estate, and vice versa.  
 † From outside of Neath Har to any distance lying between the inner termination of the First Station and the Abbey Pill, and vice versa.  
 ‡ From outside of Neath Har to any distance lying between the Abbey Pill and Neath Bridge, and vice versa.  
 N.B.—No vessel to pay for less than 7 feet.  
 The several pilotage rates herein specified are subject to a reduction of one-fourth part in respect of vessels propelled by steam and vessels towed by steam vessels, provided that if any such vessel shall be propelled by steam, or towed by a steam vessel for a part only of the distance for which any such rate may be payable, the reduction of one-fourth shall be made on such part only of the said rate as shall be proportionate to the distance so propelled or towed.  
 For conducting vessels from one station to another station within the port:  
 Vessels under 100 tons - 5 0  
 over 100 tons and under 150 - 4 0  
 150 - 3 0  
 200 - 2 0  
 250 and upwards - 1 0  
 To or from the Murchies when specially retained - 6 0 extra  
 Vessels under 250 tons - 7 0  
 over 250 " - 8 0  
 Pilot boats and hobbler's fees, 5s., which is included in the rates.

SWANSEA.

Draught	First Station Neath Har to Layer or any distance between Layer and southern end of Abbey Estates		Second Station Neath Har to any distance between the First Station and the Abbey Pill		Third Station Neath Har to Abbey Pill and Neath Bridge	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	Under 40 tons	40 to 60 "	Under 40 tons	40 to 60 "	Under 40 tons	40 to 60 "
	7 0	10 0	8 0	11 0	9 6	13 6
	7 0	10 0	8 0	11 0	9 6	13 6
	Above 60 tons Register		Above 60 tons Register		Above 60 tons Register	
	With Steam	Without Steam	With Steam	Without Steam	With Steam	Without Steam
feet	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
0 11 3	0 8 5	0 8 5	0 12 9	0 9 7	0 14 9	0 11 1
0 12 6	0 9 0	0 9 0	0 13 6	0 10 2	0 16 0	0 12 0
0 13 9	0 9 5	0 9 5	0 14 0	0 10 6	0 16 6	0 12 5
0 15 0	0 9 9	0 9 9	0 15 0	0 10 11	0 17 0	0 13 0
0 16 3	0 10 2	0 10 2	0 15 6	0 11 3	0 18 0	0 13 6
0 17 6	0 10 6	0 10 6	0 16 0	0 11 7	0 19 0	0 14 0
0 18 9	0 10 11	0 10 11	0 16 6	0 12 0	0 20 0	0 14 5
0 20 0	0 11 0	0 11 0	0 17 0	0 12 7	0 21 0	0 15 0
0 21 3	0 11 5	0 11 5	0 17 6	0 13 0	0 22 0	0 15 5
0 22 6	0 11 10	0 11 10	0 18 0	0 13 3	0 23 0	0 16 0
0 23 9	0 11 15	0 11 15	0 18 6	0 13 6	0 24 0	0 16 5
0 25 0	0 12 0	0 12 0	0 19 0	0 14 0	0 25 0	0 17 0
0 26 3	0 12 5	0 12 5	0 19 6	0 14 3	0 26 0	0 17 5
0 27 6	0 13 0	0 13 0	0 20 0	0 14 6	0 27 0	0 18 0
0 28 9	0 13 5	0 13 5	0 20 6	0 15 0	0 28 0	0 18 5
0 30 0	0 14 0	0 14 0	0 21 0	0 15 3	0 29 0	0 19 0
0 31 3	0 14 5	0 14 5	0 21 6	0 15 6	0 30 0	0 19 5
0 32 6	0 15 0	0 15 0	0 22 0	0 16 0	0 31 0	0 20 0
0 33 9	0 15 5	0 15 5	0 22 6	0 16 3	0 32 0	0 20 5
0 35 0	0 16 0	0 16 0	0 23 0	0 16 6	0 33 0	0 21 0
0 36 3	0 16 5	0 16 5	0 23 6	0 17 0	0 34 0	0 21 5
0 37 6	0 17 0	0 17 0	0 24 0	0 17 3	0 35 0	0 22 0
0 38 9	0 17 5	0 17 5	0 24 6	0 17 6	0 36 0	0 22 5
0 40 0	0 18 0	0 18 0	0 25 0	0 18 0	0 37 0	0 23 0
0 41 3	0 18 5	0 18 5	0 25 6	0 18 3	0 38 0	0 23 5
0 42 6	0 19 0	0 19 0	0 26 0	0 18 6	0 39 0	0 24 0
0 43 9	0 19 5	0 19 5	0 26 6	0 19 0	0 40 0	0 24 5
0 45 0	0 20 0	0 20 0	0 27 0	0 19 3	0 41 0	0 25 0
0 46 3	0 20 5	0 20 5	0 27 6	0 19 6	0 42 0	0 25 5
0 47 6	0 21 0	0 21 0	0 28 0	0 20 0	0 43 0	0 26 0
0 48 9	0 21 5	0 21 5	0 28 6	0 20 3	0 44 0	0 26 5
0 50 0	0 22 0	0 22 0	0 29 0	0 20 6	0 45 0	0 27 0
0 51 3	0 22 5	0 22 5	0 29 6	0 21 0	0 46 0	0 27 5
0 52 6	0 23 0	0 23 0	0 30 0	0 21 3	0 47 0	0 28 0
0 53 9	0 23 5	0 23 5	0 30 6	0 21 6	0 48 0	0 28 5
0 55 0	0 24 0	0 24 0	0 31 0	0 22 0	0 49 0	0 29 0
0 56 3	0 24 5	0 24 5	0 31 6	0 22 3	0 50 0	0 29 5
0 57 6	0 25 0	0 25 0	0 32 0	0 22 6	0 51 0	0 30 0
0 58 9	0 25 5	0 25 5	0 32 6	0 23 0	0 52 0	0 30 5
0 60 0	0 26 0	0 26 0	0 33 0	0 23 3	0 53 0	0 31 0
0 61 3	0 26 5	0 26 5	0 33 6	0 23 6	0 54 0	0 31 5
0 62 6	0 27 0	0 27 0	0 34 0	0 24 0	0 55 0	0 32 0
0 63 9	0 27 5	0 27 5	0 34 6	0 24 3	0 56 0	0 32 5
0 65 0	0 28 0	0 28 0	0 35 0	0 24 6	0 57 0	0 33 0
0 66 3	0 28 5	0 28 5	0 35 6	0 25 0	0 58 0	0 33 5
0 67 6	0 29 0	0 29 0	0 36 0	0 25 3	0 59 0	0 34 0
0 68 9	0 29 5	0 29 5	0 36 6	0 25 6	0 60 0	0 34 5
0 70 0	0 30 0	0 30 0	0 37 0	0 26 0	0 61 0	0 35 0
0 71 3	0 30 5	0 30 5	0 37 6	0 26 3	0 62 0	0 35 5
0 72 6	0 31 0	0 31 0	0 38 0	0 26 6	0 63 0	0 36 0
0 73 9	0 31 5	0 31 5	0 38 6	0 27 0	0 64 0	0 36 5
0 75 0	0 32 0	0 32 0	0 39 0	0 27 3	0 65 0	0 37 0
0 76 3	0 32 5	0 32 5	0 39 6	0 27 6	0 66 0	0 37 5
0 77 6	0 33 0	0 33 0	0 40 0	0 28 0	0 67 0	0 38 0
0 78 9	0 33 5	0 33 5	0 40 6	0 28 3	0 68 0	0 38 5
0 80 0	0 34 0	0 34 0	0 41 0	0 28 6	0 69 0	0 39 0
0 81 3	0 34 5	0 34 5	0 41 6	0 29 0	0 70 0	0 39 5
0 82 6	0 35 0	0 35 0	0 42 0	0 29 3	0 71 0	0 40 0
0 83 9	0 35 5	0 35 5	0 42 6	0 29 6	0 72 0	0 40 5
0 85 0	0 36 0	0 36 0	0 43 0	0 30 0	0 73 0	0 41 0
0 86 3	0 36 5	0 36 5	0 43 6	0 30 3	0 74 0	0 41 5
0 87 6	0 37 0	0 37 0	0 44 0	0 30 6	0 75 0	0 42 0
0 88 9	0 37 5	0 37 5	0 44 6	0 31 0	0 76 0	0 42 5
0 90 0	0 38 0	0 38 0	0 45 0	0 31 3	0 77 0	0 43 0
0 91 3	0 38 5	0 38 5	0 45 6	0 31 6	0 78 0	0 43 5
0 92 6	0 39 0	0 39 0	0 46 0	0 32 0	0 79 0	0 44 0
0 93 9	0 39 5	0 39 5	0 46 6	0 32 3	0 80 0	0 44 5
0 95 0	0 40 0	0 40 0	0 47 0	0 32 6	0 81 0	0 45 0
0 96 3	0 40 5	0 40 5	0 47 6	0 33 0	0 82 0	0 45 5
0 97 6	0 41 0	0 41 0	0 48 0	0 33 3	0 83 0	0 46 0
0 98 9	0 41 5	0 41 5	0 48 6	0 33 6	0 84 0	0 46 5
0 100 0	0 42 0	0 42 0	0 49 0	0 34 0	0 85 0	0 47 0

And 10s. for every 1/2 foot above 15 feet. And 7s. for every 1/2 foot above 18 feet. And 8s. for every 1/2 foot above 18 ft.

PORT TALBOT.

	From outer buoy		To outer buoy	
	s. d.	s. d.	s. d.	s. d.
Under 50 tons	0 5 0	0 4 0	0 4 0	0 3 0
50 to 100 "	0 6 0	0 5 0	0 5 0	0 4 0
100 to 150 "	0 7 0	0 6 0	0 6 0	0 5 0
150 to 200 "	0 8 0	0 7 0	0 7 0	0 6 0
200 to 250 "	0 9 0	0 8 0	0 8 0	0 7 0
250 to 300 "	0 10 0	0 9 0	0 9 0	0 8 0
300 to 350 "	0 11 0	0 10 0	0 10 0	0 9 0
350 to 400 "	0 12 0	0 11 0	0 11 0	0 10 0
400 to 450 "	0 13 0	0 12 0	0 12 0	0 11 0
450 to 500 "	0 14 0	0 13 0	0 13 0	0 12 0
500 to 550 "	0 15 0	0 14 0	0 14 0	0 13 0
550 to 600 "	0 16 0	0 15 0	0 15 0	0 14 0
600 to 650 "	0 17 0	0 16 0	0 16 0	0 15 0
650 to 700 "	0 18 0	0 17 0	0 17 0	0 16 0
700 to 750 "	0 1			

**TROON—continued.**

	s. d.
Vessels under 50 tons register	0 3
50 tons and under 100	0 6
100 " " 200	1 0
200 " " 300	1 6
300 " " 400	2 0
400 " " 500	2 6
500 tons and upwards	3 0

Double the above rates are charged if the hawser is used.

**Pilotage.**—1d. per ton register on all vessels above 45 tons register.

**Harbour Light.**—1d. per register ton.

**WATERFORD.**

**Ballast Dues.**

	s. d.	British vessels
For every ton of ballast brought alongside by lighters	1 0	per ton
discharged by lighters	0 8	"
delivered at ballast quay	0 8	"
discharged at ditto	0 6	"
limestone supplied	1 6	"

**Pilotage.**—Every vessel entering the harbour of Waterford between March 25 and September 25, drawing 12 feet and upwards, for every foot of her draught pays as follows, viz.:

Taking Pilots at the following Places	Above Arden Head, and no further than Passage		To Check Point, or Glasshouse Beach, and no further		Above Glasshouse Beach, or up to Waterford	
	British	Foreign	British	Foreign	British	Foreign
Westward						
Great Newtown Head	1 4	2 8	2 5	4 1	3 5	5 2
Folkisirt	1 0	2 5	1 11	3 8	3 1	4 9
Below Duncannon, and nearer than Folkisirt or Bag and Bun Head	0 8	1 9	1 6	3 2	2 0	4 4
Eastward						
Great Newtown Head	1 9	3 2	2 8	4 7	3 10	5 4
Folkisirt	1 4	2 8	2 5	4 1	3 5	5 2
Below Duncannon, and nearer than Folkisirt or Bag and Bun Head	1 0	2 5	1 11	3 8	3 1	4 9
Great Newtown Head	0 10	2 5	1 7	3 2	2 7	4 4
Folkisirt	0 8	1 9	1 5	2 8	2 3	3 10
Below Duncannon, and nearer than Folkisirt or Bag and Bun Head	0 5	1 4	0 10	0 3	2 2	3 3
Great Newtown Head	1 4	2 8	2 0	3 8	3 1	4 9
Folkisirt	1 2	2 5	1 9	3 2	2 11	4 1
Below Duncannon, and nearer than Folkisirt or Bag and Bun Head	0 10	1 0	1 6	2 8	2 7	3 10

Every vessel of the above class entering said harbour between September 25 and March 25 pays for every foot of her draught as follows:

Every vessel entering said harbour between March 25 and September 25, which shall draw more than 6 feet and less than 12 feet water, shall pay as follows, viz.:

Every vessel of the above class entering said harbour between September 25 and March 25 shall pay for every foot of her draught the following rates, viz.:

Vessels taking refuge in this harbour are subject to no other charge than pilotage, at the above-named rates.

Vessels not exceeding 50 tons register, arriving from or sailing to any port in Ireland, are not required to take pilots or pay tonnage duty.

Vessels laden, two-thirds laden, or having 20 tons potatoes, without any other goods on board, arriving at the port of Waterford, and retailing same at the quay, are not charged any of the aforesaid rates and duties.

**Tonnage Duty.**

On British vessels with goods or ballast	8d. per reg. ton
coal laden	2d. "
50 tons register and upwards, from any port in Ireland	1d. "

**Water Bailiff's Fees.**

	Late Currency
Tonnage Dues on British and foreign vessels, per ton	0 1
Anchorage for vessels not exceeding 20 tons register, each vessel	1 8
Ditto, exceeding 20 and not exceeding 50 tons register	2 6
Ditto, exceeding 50 tons register, and upwards	5 0

Colliers requiring the use of beams, scales, and weights, are supplied with same at the following rates, viz.:

For every vessel not exceeding 50 tons register, for use of each set of beams, scales, and weights	5s.
Ditto, exceeding 50 and not exceeding 100 tons register, ditto	4c.

For every vessel exceeding 100 and not exceeding 150 tons register, use of each set of beams, scales, and weights

150	200	250	"
350 tons and upwards	"	"	"

**WESTPORT.**

**Pilotage.**

From Clare Island to Dornick, being about 9 miles, and called the Out Pilotage, per vessel

From Dornick to the quay, vessels are conducted up and down by a river pilot, the charge per foot up, and the same down

**Harbour Dues, Quayage.**

Vessels taking in or delivering cargoes, pay per ton

Vessels coming in ballast and departing with cargo, per ton

N.B.—There is no charge for anchorage in any of the lower roads or harbour.

**Ballast.**—Delivered to vessels, at 1s. per ton. No charge on discharging from the vessel, the master paying the labourers himself, as per agreement.

**Lighterage.**

When large vessels stow their loading down the river, per ton of goods delivered

The foregoing charges, with the exception ballast discharged and lighterage, are levied prescription under the harbour commissioners Westport.

**WEXFORD.**

Dues and Charges	Tonnage	Ballast	Pilotage
For every vessel which shall enter within the limits of said harbour, and be entitled to the privileges of a British ship, upon every ton such vessel shall measure	5d. per ton		
For every vessel not so entitled	1s. "		
For every ton of ballast taken in by any vessel (though the Act levied 1s. 5d. per ton), there is however at present only levied		10d. per ton	
For every ton of ballast discharged from any vessel		2d. "	
For every vessel discharging and receiving cargo, upon every ton such vessel shall measure			5d. per ton
For every vessel that shall enter into the harbour or leave the same in ballast, or shall discharge her cargo, or any part thereof, without taking in any new cargo, or shall, without discharging her cargo or any part thereof, take in new cargo, then, in any of those cases, for every ton such vessel shall measure			6d. "
For every vessel taking refuge in the harbour			5d. "

Steam vessels liable only to one-half the aforesaid rates of pilotage.



were abolished by 24 & 25 Vict. c. 47; and all local exemptions (compensation being provided for) were abolished by 30 Vict. c. 15.

**PIMENTO, ALLSPICE, or JAMAICA PEPPER** (Fr. *poivre de Jamaïque*; Span. *pimiento de la Jamaica*; Ger. *nelkenpfeffer*; Ital. *pimento*). Nat. order *Myrtaceae*. The fruit of the *Eugenia pimenta*, a beautiful tree which grows in great plenty on the hills on the north side of Jamaica. The berries are spherical, and, when ripe, of a black or dark purple colour. But, as the pulp is in this state moist and glutinous, the berries are plucked when green; and being exposed in the sun to dry, they lose their green colour, and become of a reddish brown. They are packed in bags and hogheads for the European market. The more fragrant and smaller they are, the better are they accounted. They have an aromatic, agreeable odour, resembling that of a mixture of cinnamon, cloves, and nutmegs, with the warm, pungent taste of the clove. Pimento is used in medicine; but its principal use is in the seasoning of soups and other dishes. (*British Pharmacopœia*, 1867.)

'The returns,' says Mr. Bryan Edwards, 'from a pimento walk in a favourable season are prodigious. A single tree has been known to yield 150 lb. of the raw fruit, or 100 lb. of the dried spice; there being commonly a loss in weight of  $\frac{1}{4}$  in curing; but this, like many other of the minor productions, is exceedingly uncertain, and perhaps a very plenteous crop occurs but once in 5 years.' (Vol. ii. p. 372, ed. 1819.) The price of pimento in bond, in the London market, has varied of late years from 4*d.* to 5*d.* per lb.

At the period when Edwards's work was published, the annual imports of pimento from Jamaica, which supplies more than  $\frac{10}{100}$  of the pimento brought to England, amounted to about 672,000 lb.; the annual imports in 1833 amounted to 4,844,973 lb.; in 1841, they were only 1,013,400 lb. They have much exceeded this amount of late years. The imports into the United Kingdom during each of the 7 years ending with 1867 were:—

Years	cwt.	Years	cwt.
1861	30,455	1865	43,743
1862	30,192	1866	39,192
1863	26,299	1867	47,129
1864	44,915		

The duty on pimento was reduced in 1836 from 5*d.* to 3*d.* per lb., and in 1842 to 5*s.* per cwt. The duty was repealed in 1866. In 1867 its price averaged in the London market from 18*s.* 5*d.* to 18*s.* 10*d.* per cwt.

**PINCHBECK** (Ger. *tombak*; Dutch, *tombak*; Fr. *tambac*, *similor*; Ital. *tombacco*; Span. *tambac*, *tumbaga*). A name given to one of the many imitations of gold. By melting zinc in various proportions with copper or brass, some alloys result, the colours of which approach more or less to that of gold. This composition is frequently employed as a substitute for gold, in the formation of watch-cases, and various other articles of a like description. Pinchbeck is sometimes called *tambac*, and sometimes *similor*, and *petit-or*.

**PINE or FIR.** A species of forest tree, next, if not superior, to the oak, in point of utility and value. There are above 20 species of pine. They do not bear flat leaves, but a species of spines, which, however, are real leaves. They are mostly, though not all, evergreens; but the appearance of the tree, as well as the quality of the timber, varies with the species, and also with the situation in which it grows. Generally speaking, the timber is hardest and best in exposed, cold situations, and where its growth is slow. We shall

only notice those species the timber of which is most in use in this country.

1. **SCOTCH PINE** (*Pinus sylvestris*) is a native of the Scotch mountains, and of most northern parts of Europe; being common in Russia, Denmark, Sweden, Norway, and Lapland. It is straight, abruptly branched, rising in favourable situations to the height of 80 or 90 feet, and being from 3 to 4 feet in diameter. It is at perfection when 70 or 80 years old. The colour of the wood differs considerably; it is generally of a reddish yellow, or of a honey yellow, of various degrees of brightness. It has no larger transverse septa, and it has a strong resinous odour and taste. In the best timber, the annual rings are thin, not exceeding  $\frac{1}{16}$  inch in thickness; the dark parts of the rings of a bright reddish colour; the wood hard and dry to the feel, neither leaving a woolly surface after the saw, nor filling its teeth with resin. The best Norway is the finest of this kind, and the best Riga and Memel are not much inferior. The inferior sorts have thick annual rings; in some, the dark parts of the ring are of a honey yellow, the wood heavy, and filled with a soft resinous matter, which is clammy, and chokes the saw. Timber of this kind is not durable, nor fit for bearing strains. In some inferior species the wood is spongy, contains less resinous matter, and presents a woolly surface after the saw. Swedish timber is often of this kind.

Scotch fir is the most durable of the pine species. It was the opinion of the celebrated Mr. Brindley, 'that red Riga deal, or pine wood, would endure as long as oak in all situations.' Its lightness and stiffness render it superior to any other material for beams, girders, joists, rafters &c. It is much used in joiners' work, as it is more easily wrought, stands better, is much cheaper, and is nearly, if not quite, as durable as oak.

Scotch fir is exported from Norway and Sweden, under the name of *redwood*. Norway exports no trees above 18 inches diameter, consequently there is much sawwood; but the heart wood is both stronger and more durable than that of larger trees from other situations. Riga exports a considerable quantity under the name of masts and spars: pieces from 18 to 25 inches diameter are called *masts*, and are usually 70 or 80 feet in length; those of less than 18 inches diameter are called *spars*. [RIGA.] Yellow deals and planks are imported from various parts of Norway, Sweden, Prussia, Russia &c. Tar, pitch and turpentine are obtained from the Scotch fir. When the tree has attained to a proper age, it is not injured by the extraction of these products.

2. **SPRUCE PINE.**—Of this there are 3 species: the Norway spruce, or *Pinus abies*; white spruce, or *Pinus alba*; and black spruce, or *Pinus nigra*. These are noble trees, rising in straight stems from 150 to 200 feet in height. They yield the timber known by the name of *white fir*, or *deal*, from its always being imported in deals or planks.

Deals imported from Christiania are in the highest estimation. [CHRISTIANIA.] The trees are usually cut into 3 lengths, generally of about 12 feet each; and are afterwards cut into deals by saw-mills, each length yielding 3 deals. The Norway spruce thrives very well in Britain, and produces timber little inferior to the foreign; it is somewhat softer, and the knots are extremely hard.

The white spruce, or *Pinus alba*, is brought from British North America. The wood is not so resinous as the Norway spruce; it is tougher, lighter, and more liable to twist in drying.

The black spruce, or *Pinus nigra*, is also

American tree; but it is not much imported into this country. The black and white spruce derive their names from the colour of the bark; the wood of both being of the same colour.

The colour of spruce fir, or white deal, is yellowish or brownish white; the hard part of the annual ring a darker shade of the same colour; it often has a silky lustre, especially in the American and British grown kinds. Each annual ring consists of two parts; the one hard, the other softer. The knots are generally very hard. The clear and straight-grained kinds are often tough, but not very difficult to work, and stand extremely well when properly seasoned. White deal, as imported, shrinks about  $\frac{1}{10}$  in becoming quite dry.

3. WEYMOUTH PINE, or WHITE PINE (*Pinus strobus*), is a native of North America, and is imported in large logs, often more than 2 feet square and 30 feet in length. It is one of the largest and most useful of the American trees, and makes excellent masts; but it is not durable, nor fit for large timbers, being very subject to dry rot. It has a peculiar odour.

4. SILVER FIR (*Pinus peicea*) is a native of the mountains of Siberia, Germany, and Switzerland, and is common in British plantations. It is a large tree, and yields the Strasburg turpentine. The wood is of good quality, and much used on the Continent both for carpentry and ship building. The harder fibres are of a yellow colour, compact, and resinous; the softer nearly white. Like the other kinds of fir, it is light and stiff, and does not bend much under a considerable load; consequently, floors constructed of it remain permanently level. It is subject to the worm. It has been said to last longer in the air than in the water; and, therefore, to be fitter for the upper parts of bridges than for piles and piers.

5. LARCH (*Pinus larix*). There are 3 species of this valuable tree; 1 European, and 2 American. The variety from the Italian Alps is the most esteemed, and has lately been extensively introduced into plantations in Great Britain. It is a straight and lofty tree, of rapid growth. A tree 75 years of age was cut down at Blair Athol, in 1817, which contained 252 cubic feet of timber; and one of 80 years of age, at Dunkeld, measured 300 cubic feet. The mean size of the trunk of the larch may be taken at 45 feet in length, and 35 inches diameter. The wood of the European larch is generally of a honey yellow colour, the hard part of the annual rings of a redder cast; sometimes it is brownish white. In common with the other species of pine, each annual ring consists of a hard and a soft part. It generally has a silky lustre; its colour is browner than that of the Scotch pine, and it is much tougher. It is more difficult to work than Riga or Memel timber; but the surface is better when once it is obtained. It bears driving bolts and nails better than any other species of resinous wood. When perfectly dry, it stands well; but it warps much in seasoning. It is in all situations extremely durable. It is useful for every purpose of building, whether external or internal: it makes excellent ship timber, masts, boats, posts, rails, and furniture. It is peculiarly adapted for flooring-boards, in situations where there is much wear, and for staircases: in the latter, its fine colour, when polished with oil, is much preferable to that of the black oaken staircases to be seen in some old mansions. It is well adapted for doors, shutters, and the like; and, from the beautiful colour of its wood when varnished, painting is not necessary. We have extracted these particulars from Mr.

Tredgold's excellent work, *The Principles of Carpentry*, pp. 209-217.)

PINE-APPLE or ANANAS. Though a tropical fruit, it is now extensively cultivated in hothouses in this country, and is well known to everyone. When of a good sort and healthy, it is the most luscious, and perhaps, the best fruit that this country produces; and when carefully cultivated, is superior in point of quality to that produced in the West Indies. A pine-apple raised at Stackpool Court, Pembroke-shire, and served up at the coronation dinner of George IV., weighed 10 lb. 8 oz. (*Vegetable Substances*, p. 379.)

PINT. A measure used chiefly in the measuring of liquids. The word is High Dutch, and signifies a little measure of wine. The English pint used to be of 2 sorts; the one for wine, the other for beer and ale. Two pints make a quart; 2 quarts a pottle; 2 pottles a gallon &c. The pint, imperial liquid measure, contains 34.659 cubic inches.

PIPE. A wine measure, usually containing 105 (very nearly) imperial, or 126 wine gallons. Two pipes, or 210 imperial gallons, make a tun. But, in practice, the size of the pipe varies according to the description of wine it contains. Thus, a pipe of port contains 138 wine gallons, of sherry 130, of Lisbon and Bucellas 140, of Madeira 110, and of Vidonia 120. The pipe of port, it is to be observed, is seldom accurately 138 gallons, and it is usual to charge what the vessel actually contains.

PIPE-CLAY. A species of clay abounding in Devonshire, and other parts of England, employed in the manufacture of various sorts of earthenware, and in bleaching &c.

PIRACY consists in committing upon the seas those acts of robbery and violence which, if committed upon land, would amount to felony.

Pirates hold no commission or delegated authority from any sovereign or State, empowering them to attack others. They can, therefore, be only regarded in the light of robbers or assassins. They are, as Cicero has truly stated, the common enemies of all (*communes hostes omnium*); and the law of nations gives to every one the right to pursue and exterminate them without any previous declaration of war; but it is not allowed to kill them without trial, except in battle. Those who surrender, or are taken prisoners, must be brought before the proper magistrates, and dealt with according to law.

By the ancient common law of England, piracy, if committed by a *subject*, was held to be a species of treason, being contrary to his natural allegiance; and, by an *alien*, to be felony only: but since the Statute of Treasons (25 Edw. III. c. 2) it is held to be only felony in a subject. Formerly this offence was only cognisable by the Admiralty Courts, which proceed by the rules of the civil law; but it being inconsistent with the liberties of the nation that any man's life should be taken away unless by the judgment of his peers, the statute 28 Hen. VIII. c. 15 established a new jurisdiction for this purpose, which proceeds according to the course of common law.

It was formerly a question whether the Algerines, and other African states, should be considered pirates; but, however exceptionable their conduct might have been on many occasions, and however hostile their policy might be to the interests of humanity, still, as they had been subjected to what may be called regular Governments, and had been admitted to enter into treaties with other Powers, they could not be treated as pirates.

Pirates having no right to make conquests, or

the timber of which is

*sybvestria*) is a native of most northern parts, common in Russia, Lapland, &c. It is rising in favourable situations of 80 or 90 feet, and 12 inches in diameter. It is at present all. The colour of the wood is generally of a honey yellow, of various shades, and has no larger transverse annual rings than the other kinds; the annual rings are  $\frac{1}{10}$  inch in thickness; the knots are generally of a bright reddish colour, and dry to the feel, neither after the saw, nor filling; the best Norway is the best Riga and Memel. The inferior sorts have some, the dark parts of yellow, the wood heavy, resinous matter, feels like saw. Timber of this sort is fit for bearing strains, and the wood is spongy, resinous matter, and presents a saw. Swedish timber is

durable of the pine species, celebrated Mr. Brindley, pine wood, would endure in situations. Its lightness is superior to any other timber, joists, rafters &c. It is used for work, as it is more easily worked, is much cheaper, and is durable as oak.

Imported from Norway and some of redwood. Norway pine is 18 inches diameter. It is a soft sapwood; but the heart is much more durable than that of other situations. Riga quantity under the name of Norway pine, is from 18 to 25 inches diameter, and are usually 70 or 80 feet long, and 18 inches diameter. [ROA.] Yellow deal and white deal, from various parts of Norway, Prussia &c. Tar, pitch, and resin, are obtained from the Scotch pine, and are of a proper age, it is the attraction of these products. Of this there are 3 species: the black spruce, or *Pinus nigra*, is inferior in height. They yield by the name of white fir, and being imported in deal of

om Christiania are in the [CHRISTIANIA.] The tree is 100 feet high, and is cut into deal afterwards cut into deal of length yielding 3 deals. The wood is very well in Britain, and is inferior to the foreign: it is the knots are extremely hard, or *Pinus alba*, is brought from America. The wood is not so hard as Norway spruce: it is tougher, and is able to twist in drying. The wood of *Pinus nigra*, is also

to seize upon what belongs to others, capture by them does not divest the owner of his property. At a very early period of our history, a law was made for the restitution of property taken by pirates, if found within the realm, whether belonging to strangers or Englishmen: but any foreigner suing upon this statute must prove that, at the time of the capture, his own sovereign and the sovereign of the captor were in mutual amity; for it is held that piracy cannot be committed by the subjects of states at war with each other.

Piracy was almost universally practised in the heroic ages. Instead of being esteemed infamous, it was supposed to be honourable. ('*Latrocinium maris gloriæ habebatur.*—Justin. lib. xliii. c. 3.) Menelaus, in the *Odyssey*, does not hesitate to inform his guests, who admired his riches, that they were the fruit of his piratical expeditions (lib. iv. ver. 90); and such, indeed, was the way in which most of the Greek princes amassed great wealth. (Goguet, *Origin of Law*, vol. i. p. 383, Eng. trans.)

The prevalence of this piratical spirit in these early ages may, perhaps, be explained by the infinite number of small independent states into which the country was divided, and the violent animosity constantly subsisting amongst them. In this way ferocious and predatory habits were universally diffused and kept alive; and it is not to be supposed that those who were at all times liable to be attacked by hosts of enemies, should very accurately examine the grounds upon which they attacked others. As, however, a more improved system of government grew up in Greece, and a few states, as Athens, Corinth &c., had attained to distinction by their naval power, piracy was made a capital offence; but though repressed, it was never entirely put down. Cilicia was at all times the great stronghold of the pirates of antiquity: and in consequence of the decline of the maritime forces of Athens, Rhodes &c., which had kept them in check, they increased so much in numbers and audacity as to insult the majesty of Rome herself; so that it became necessary to send Pompey against them, with a large fleet and army, and more extensive powers than had been ever previously conferred on any Roman general.

During the anarchy of the Middle Ages, when every baron considered himself a sort of independent prince, entitled to make war on others, piracy was universally practised. The famous Hanseatic League was formed chiefly for the purpose of protecting the ships of the confederated cities from the attacks of the pirates by which the Baltic was then infested. The nuisance was not finally abated in Europe till the feudal system had been subverted, and the ascendancy of the law everywhere secured. In more modern times, some of the smaller West India Islands and Central America have been the great resort of pirates: latterly, however, they have been driven from most of their haunts in that quarter. They are still not infrequently met with in the Indian seas east of Sumatra.

Besides those acts of robbery and depredation upon the high seas, which, at common law, constitute piracy, some other offences have been included under that term. Thus, by the stat. 11 & 12 Wm. IV. c. 7, if any natural-born subject commits any act of hostility upon the high seas against others of his Majesty's subjects, under colour of a commission from any foreign Power, this, though it would only be an act of war in an alien, shall be construed piracy in a subject. And further, any commander or other sea-faring person betraying his trust, and running away with any ship, boat, ordnance, ammunition, or goods, or

yielding them up voluntarily to a pirate, or conspiring to do these acts; or any person assaulting the commander of a vessel, to hinder him from fighting in defence of his ship, or confining him, or causing or endeavouring to cause a revolt on board, shall for each of these offences be adjudged a pirate, felon, and robber, and shall suffer death, whether he be principal, or merely accessory by setting forth such pirates, or abetting them before the fact, or receiving them, or concealing them or their goods after it: and the stat. 4 Geo. I. c. 2 expressly excludes the principals from the benefit of clergy. By the stat. 8 Geo. I. c. 24, the trafficking with known pirates, or furnishing them with stores or ammunition, or fitting out any vessel for that purpose, or in any wise consulting, combining, confederating, or corresponding with them; or the forcibly boarding any merchant vessel, though without seizing or carrying her off, and destroying or throwing any of the goods overboard, shall be deemed piracy; and such accessories to piracy as are described by the statute of King William are declared to be principal pirates, and all pirates convicted by virtue of this Act are made felons without benefit of clergy. To encourage the defence of merchant vessels against pirates, the commanders and seamen wounded, and the widows of such seamen as are slain in any engagement with pirates, are entitled to a bounty, to be divided among them, not exceeding the one fiftieth part of the value of the cargo saved; and the wounded seamen are entitled to the pension of Greenwich Hospital. (11 & 12 Wm. III. c. 7; 8 Geo. I. c. 24.) The first of these statutes also enacts, that if any mariner or inferior officer of any English ship decline or refuse to fight when commanded by the master, or shall utter any words to discourage the other mariners from defending the same, he shall lose all the wages due to him, together with such goods as he hath in the ship, and be imprisoned and kept to hard labour for 6 months.

The 6 Geo. IV. c. 49 enacts that a bounty shall be paid to the officers and crews of such of his Majesty's ships of war as may be engaged in the actual taking, sinking, burning, or otherwise destroying any vessel or boat manned by pirates, or 20*l.* for each pirate taken or killed during the attack, and of 5*l.* for every other man of the crew taken or killed, who shall have been alive on board the said piratical vessel at the attack thereof.

The same statute (sec. 3) enacts that vessels and other property taken from pirates, proved to have belonged to any of his Majesty's subjects, are to be delivered up to them, on their paying sum of money as salvage, equal to  $\frac{1}{3}$  of the value of the same.

PIRÆUS. [PATRAS.]  
PISTACHIA OR PISTACHIO NUTS (Ger. pistazien; Dutch, pistaches; Fr. pistaches; It. pistacchi, fastuechi; Span. alfoncigos; Lat. pistacia). The fruit of the *Pistachia vera*, a kind of turpentine tree. It grows naturally in Arabia, Persia, and Syria; also in Sicily, whence the nuts are annually brought to us. They are oblong and pointed, about the size and shape of a filbert, including a kernel of a pale-greenish colour, covered with a yellowish or reddish skin. They have a pleasant, sweetish, unctuous taste, resembling that of sweet almonds; their principal difference from which consists in their having a greater degree of sweetness, accompanied with a light grateful flavour, and in being more oily. Pistachios imported from the East are superior to those raised in Europe. (Lewis's *Mat. Med.*)

PITCH (Ger. pech; Fr. poix, brai; Ital. pece; Span. pez; Russ. smola gustaja). The residuum

which remains on inspissating tar, or boiling it down to dryness. It is extensively used in ship-building, and for other purposes. Large quantities are manufactured in Great Britain; but exclusive of these, 13,284 cwt. imported from foreign countries were entered for consumption in 1841. The duty, which was then 10*d.* per cwt., after being reduced in 1842 to *6d.*, was finally abolished in 1853. In 1867, 42,814 cwt. were imported, valued at 18,603*l.* [BURGUNDY PRICH.]

An allowance is to be made for tare on pitch, of 93 lb. each on Archangel casks, 36 lb. each on Swedish do., and 56 lb. each on American do.

PLANE. A forest tree, of which there are 2 species—the Oriental plane (*Platanus Orientalis*), and the Occidental plane (*Platanus Occidentalis*).

The Oriental plane is a native of the Levant and other Eastern countries, and is considered one of the finest of trees. It grows to about 60 feet in height, and has been known to exceed 8 feet in diameter. Its wood is much like beech, but more figured, and is used for furniture and suchlike articles. The Occidental plane is a native of North America, and is one of the largest of the American trees, being sometimes more than 12 feet in diameter. The wood of the Occidental plane is harder than that of the Oriental. It is very durable in water.

The tree known by the name of plane in England is the sycamore, or great maple (*Acer pseudo-platanus*). It is a large tree, grows quickly, and stands the sea-spray better than most trees. The timber is very close and compact, easily wrought, and not liable either to splinter or warp. It is generally of a brownish-white or yellowish-white colour, and sometimes it is very beautifully curled and mottled. In this state it takes a fine polish, and bears varnishing well. It is chiefly used in the manufacture of saddletrees, wooden dishes, and a variety of articles of furniture and machinery. When kept dry, and protected from worms, it is pretty durable; but it is quite as liable as beech to be attacked by them. (Tredgold, p. 186.)

PLANKS (Ger. and Dutch, planken; Dan. planker; Swed. plankor; Fr. planches, bordages; Russ. Толстые доски). Thick strong boards, cut from various kinds of wood, especially oak and pine. Planks are usually of the thickness of from 1 inch to 4. They are imported in large quantities from the northern parts of Europe, particularly from the ports of Christiania, Dantzic, Archangel, Petersburg, Narva, Revel, Riga, and Memel, as well as from several parts of North America. [TINSEN.]

PLANTAIN or BANANA. The pulpy fruit of the *Musa paradisiaca*, an herbaceous plant, extensively cultivated in most intertropical countries, but especially in Mexico. It is not, like most other fruits, used merely as an occasional luxury, but is rather an established article of subsistence. Having been long and extensively cultivated, it has diverged into numerous varieties, the fruit of which differs materially in size, flavour, and colour. That of some is not above 2 or 3 inches long, while that of others is not much short of a foot; some sorts are sweet, and of a flavour not unlike nor inferior to that of a good marrow pear; but the larger kinds are, for the most part, coarse and farinaceous. The latter are either used fresh or dried in the sun, in which latter state they are occasionally ground into meal and made into bread. In Mexico, the sweeter sorts are frequently pressed and dried, as figs are in Europe; and, while they are not very inferior to the last-mentioned fruit, they are infinitely cheaper.

'I donbt,' says M. Humboldt, 'whether there be any other plant that produces so great a quantity of nutritive substance in so small a space. Eight or nine months after the sucker is planted, it begins to develop its cluster. The fruit may be gathered in the 10th or 11th month. When the stalk is cut, there is always found, among the numerous shoots that have taken root, a sprout (*pimpollo*), which, being  $\frac{1}{4}$  the height of its parent plant, bears fruit 3 months later. Thus a plantation of bananas perpetuates itself, without requiring any care on the part of man, further than to cut the stalks when the fruit has ripened, and to stir the earth gently once or twice a year about the roots. A piece of ground of 100 square metres of surface will contain from 30 to 40 plants. During the course of a year this same piece of ground, reckoning the weight of the cluster at from 15 to 20 kilog. only, will yield 2,000 kilog., or more than 4,000 lb., of nutritive substance. What a difference between this product and that of the cereal grasses in most parts of Europe! The same extent of land planted with wheat would not produce above 30 lb., and not more than 90 lb. of potatoes. Hence the product of the banana is to that of wheat as 133 to 1, and to that of potatoes as 44 to 1.' (*Essai sur la Nouvelle-Espagne*, tom. ii. p. 388, 2nd ed.)

The banana forms a principal part of the food of the people of Mexico; and the apathy and indolence of the natives in the *tierras calientes*, or hot regions, have been ascribed, and probably with good reason, to the facility with which it supplies them with subsistence. It is by no means in such extensive use in tropical Asia, and in that part of the globe comes nowhere into competition with corn as an article of food.

PLATE. The denomination usually given to gold and silver wrought into articles of household furniture.

Partly in order to prevent fraud, and partly for the purpose of collecting a revenue, the manufacture of plate is placed under certain regulations. Those who carry it on are obliged to take out a license, renewable annually on July 31. Assay offices are established in different places; and any one selling any article previously to its having been assayed and marked forfeits 50*l.* (24 Geo. III. c. 53.) Gold plate, with the exception of gold watch-cases, is to pay a duty of 17*s.* per oz., and silver plate since March 7, 1860 a duty of 1*s.* 6*d.*; but watch-cases, chains, tipplings, mountings, collars, bottle tickets, teaspoons &c. are exempted. The 25 Geo. III. c. 143 made the counterfeiting, or the transference from one piece of plate to another, of the marks, stamps &c. impressed on plate by the assayers, felony without the benefit of clergy. But the offence is now punishable by transportation or imprisonment only. (1 Wm. IV. c. 66.)

In 1867, we imported 58,598 oz. of silver plate, valued at 14,674*l.*, of which 54,445 oz. were entered for consumption.

By 30 & 31 Vict. c. 90, manufacturers of gold and silver plate pay a license duty of 2*l.* 6*s.* for a manufacture of 2 dwts. and under 2 oz. of gold, above 5 dwts. and under 30 oz. of silver, and 5*l.* 15*s.* if the manufacture is above those amounts. Pawnbrokers in gold and silver and refiners pay the same amount. Plate licenses expire on July 5.

The subjoined account (from Porter's *Progress of the Nation*, iii. 25) gives a very complete view of the plate manufacture for half a century from 1800 downwards. It should be borne in mind that this account refers only to articles of standard silver and gold, and that the great consumption of the precious metals consists in plated or electroplated and gilt articles, which are now made of a

very superior quality. Owing also to the fact of old plate being held in the greatest estimation, but little of it is melted down to be remanufactured, so that the principal consumption is by new families. The returns for the year 1826, in the annexed table, afford a striking proof of this. During a considerable portion of that year a crowd of speculators, most of whom were preciously worth little or nothing, believed they had made large fortunes, and launched out, with the proverbial ostentation of *parvenus*, into all sorts of lavish expenditure. Hence the wonderful increase in the demand for plate in the course of that year. No doubt, also, the consumption of plate appears less than it really is, from the facility with which the duties are evaded. We subjoin—

Account of the Number of Ounces of Gold and Silver Plate upon which Duty was paid, and for which Drawback was allowed, showing the Quantity retained for Home Use in each Year, in the undermentioned Years, from 1800 to 1850.

Year ending Jan. 5	Duty paid on		Drawback allowed on		Retained for Home Use	
	Gold	Silver	Gold	Silver	Gold	Silver
1801	5,251	902,966	77	112,705	5,171	760,261
1805	4,851	902,788	21	114,829	4,833	787,959
1810	6,380	1,213,208	53	11,116	6,329	1,202,092
1815	6,729	974,245	29	55,948	6,700	918,297
1820	6,037	1,250,101	1,607	116,507	4,430	1,133,597
1821	6,651	1,081,510	5,755	114,221	9,396	967,089
1822	5,431	1,022,761	1,436	120,600	3,998	902,161
1823	6,997	1,027,782	1,370	64,783	5,627	963,000
1824	6,516	1,075,244	20	27,016	6,496	976,228
1825	7,062	1,208,638	38	70,182	7,024	1,138,456
1826	8,486	1,585,251	81	112,017	8,405	1,473,237
1827	7,108	1,217,880	11	71,923	7,097	1,145,957
1828	7,286	1,207,887	10	60,910	7,276	1,146,977
1829	7,106	1,361,532	2	86,157	7,104	1,275,375
1830	6,111	1,971,522	12	109,307	6,099	1,862,215
1831	5,716	1,076,976	6	84,441	5,710	992,535
1832	4,374	826,052	9	100,127	4,365	725,925
1833	5,189	914,096	15	79,659	5,174	834,437
1834	5,151	879,117	2	78,085	5,149	801,032
1835	6,116	1,050,252	11	104,251	6,116	945,981
1836	6,678	1,071,026	16	110,317	6,662	960,709
1837	7,566	1,272,920	11	164,064	7,555	1,108,856
1838	6,811	1,178,568	4	177,559	6,807	1,001,009
1839	6,784	1,195,463	21	161,458	6,763	1,034,005
1840	6,275	1,270,590	7	135,225	6,268	1,134,867
1841	6,092	1,209,260	7	179,904	6,085	1,029,356
1842	6,301	1,149,070	5	160,195	6,296	988,875
1843	6,305	1,026,046	4	171,574	6,301	854,472
1844	6,415	911,220	2	122,682	6,413	788,538
1845	7,212	1,025,412	8	170,987	7,204	854,425
1846	8,026	1,158,050	16	181,759	8,010	976,291
1847	6,355	1,189,736	18	167,513	6,337	1,022,223
1848	7,629	1,049,268	5	161,483	7,624	887,785
1849	6,810	756,388	3	109,136	6,810	647,252
1850	7,575	755,465	3	76,759	7,570	678,706

It is not easy to account for the nearly stationary demand for plate as exhibited in this return. Most probably it has been mainly occasioned by the greater use of plated articles, which have, to a great extent, been substituted for those made of silver. Perhaps, also, it may be in part accounted for by the fact of the cost of gold and silver having increased from 1809 down to 1849 or 1850. But a large increase in the consumption of the precious metals may now be expected to result from their increasing supply and diminishing value. (See Mr. Cayley's *Report on Gold and Silver Plate*, in connection with the Paris Exhibition of 1867, for some remarks on its classification.)

PLATINA—a metal which, in respect of scarcity, beauty, ductility, and indestructibility, is hardly inferior to gold—was unknown in Europe till about the middle of last century, when it began to be imported in small quantities from South America. It has since been discovered in Estremadura in Spain, and, more recently, in the Ural Mountains in Asiatic Russia, where it is now raised in very considerable quantities.

Platina is of a white colour, like silver, but not so bright, and has no taste or smell. Its hardness is intermediate between copper and iron. Its specific gravity is about 21.5, that of gold being

19.3; so that it is the heaviest body with which we are acquainted. It is exceedingly ductile and malleable; it may be hammered out into very thin plates, and drawn into wires not exceeding  $\frac{1}{1000}$  inch in diameter. In these properties it is probably inferior to gold, but it seems to surpass all the other metals. Its tenacity is such, that a wire of platina 0.678 inch in diameter is capable of supporting a weight of 27.31 lb. avoirdupois without breaking. It is one of the most infusible of all metals, but pieces of it may be welded together without difficulty when heated to whiteness. It is not in the smallest degree altered by the action of air or water. (Thomson's *Chemistry*.)

The late Dr. Wollaston discovered a method of welding platina, and consequently of rendering it easily available in the arts. The Russians issued platina coins of the value of 3, 6, and 20 silver roubles some years since. They have now been recalled. Platina first began to be an object of attention in Russia in 1824, when 1 pood 53 lb. were collected. In 1836 the produce amounted to 138 poods 42 lb. In 1831 a piece of native platina was discovered at Demidoff's gold mines, weighing 29 lb. 2½ zolt. (*Official Statements* published by the Russian Government.) In 1867 17,877 oz. were imported into the United Kingdom, the value of which was 19,660 l. It is chiefly used for sulphuric acid retorts.

PLATING. Slips of bast, cane, straw &c. woven or plaited for making into hats &c. [HATS, STRAW.]

PLUMBAGO. [BLACK LEAD.]

PLUMS, the fruit of the *Prunus domestica*, are too well known to require any description. They were introduced into England in the 15th century, and are cultivated in all parts of the country. There are said to be nearly 300 varieties of plums. In 1867, exclusive of 15,855 cwt. of prunes, valued at 18,377 l., we imported 6,445 cwt. French plums and pruneloes valued at 38,333 l. and 741 cwt. dried plums, (worth 1,702 l.) preserved otherwise than in sugar. On the 2nd inst. mentioned a duty of 7s. per cwt. has been levied since December 10, 1856. [PRUNES.]

POMEGRANATE, POMEGRANATES (Ger. granatäpfel; Fr. grenades; Ital. granati, melograni; Span. granadas). The fruit of the pomegranate tree (*Punica granatum*). This tree, which grows to the height of 15 or 20 feet, appears to be a native of Persia, whence it has been conveyed, on the one side, to Southern Europe, and on the other to the tropical parts of Asia, and eventually to the New World. The fruit is a pulpy many-seeded berry, the size of an orange, covered with a thick brown coriaceous rind. The pulp has a reddish colour, and a pleasant subacid taste. The value of the fruit depends on the smallness of the seed and the largeness of the pulp. The finest, called by the Persians *badana*, or seedless, is imported into India from Cabul and Candahar, where the pomegranate grows in perfection. The tree thrives all the way to the equator; but, within the tropics, the fruit is hardly fit for use. The pomegranates brought to England from the South of Europe and the West Indies are very inferior to those of Persia. (*Private information*.)

POPLAR (Ger. pappel, pappelbaum; Dutch. populier; Ital. pioppa; Span. alamo; Lat. populus). Of the poplar (*Populus* of botanists) there are about 15 species described; of these, 5 are common in England, viz. the common or *White*, the *Black*, the *Aspen* or trembling poplar, the *Abele* or great white poplar, and the Lombardy poplar. In favourable situations, the white poplar grows with great rapidity, sometimes sending forth shoots 16 feet long in a



Table exhibiting the Population of Ireland in 1821, 1831, 1841, 1851, and 1861, according to the Censuses of these Years, and showing the Increase or Decrease per Cent. in the Intervening Periods.

Counties &c.	1821	Increase or Decrease per Cent. 1821-31	1831	Increase or Decrease per Cent. 1831-41	1841	Increase or Decrease per Cent. 1841-51	1851	Increase or Decrease per Cent. 1851-61	1861
<b>Leinster</b>									
Dublin	78,052	+ 3	81,998	+ 5	86,229	- 21	68,059	- 161	57,132
Dublin County	150,011	22	176,012	- 21	140,047	+ 11	146,731	+ 4	153,441
Dublin City	183,081	3	204,133	+ 14	234,726	6	256,133	- 2	254,408
Kildare	99,083	9	109,494	6	114,498	- 6	93,688	- 2	84,000
Kilkenny County	134,716	6	169,943	74	183,349	+ 54	136,773	20	109,946
Kilkenny City	43,260	2	43,741	- 20	18,071	- 43	19,973	31	16,171
King's County	131,208	9	144,923	2	149,857	- 23	119,090	20	116,441
Longford	107,570	4	119,598	2	113,491	28	89,550	17	90,015
Louth	101,011	7	107,491	4	111,979	16	99,812	16	116,688
Down	181,118	- 4	17,265	+ 44	16,391	+ 34	16,843	13	23,373
Down Town	139,183	+ 11	176,826	+ 4	183,828	- 24	140,750	21	147,189
Queen's County	131,275	8	115,831	3	153,950	28	111,663	18	90,550
Westmeath	128,819	6	136,324	3	141,300	83	131,408	18	104,679
Wexford	170,806	7	188,713	11	202,033	10	180,159	20	162,994
Wicklow	110,767	10	121,537	3	126,113	21	99,978	12	86,479
<b>Total</b>	<b>1,757,498</b>	<b>+ 9</b>	<b>1,909,713</b>	<b>+ 3</b>	<b>1,973,731</b>	<b>- 152</b>	<b>1,672,591</b>	<b>- 134</b>	<b>1,457,633</b>
<b>Munster</b>									
Clare	208,089	24	258,322	11	285,391	- 25	219,498	- 91	166,305
Cork County	289,786	12	703,717	9	773,398	23	265,526	174	261,627
Cork City	100,638	6	107,018	- 25	80,730	+ 6	83,748	8	80,811
Kerry	216,185	28	263,126	- 12	293,890	- 19	236,439	15	201,800
Limerick County	218,438	6	248,801	13	281,858	- 20	209,688	12	172,901
Limerick City	39,043	12	66,554	- 274	48,391	+ 10	53,418	17	54,106
Tipperary	246,996	16	404,563	+ 7	435,333	- 25	331,497	23	248,116
Waterford	127,844	1	148,233	11	172,971	- 11	158,731	20	110,939
Waterford City	26,679	-	29,821	+ 4	25,216	+ 81	22,427	-	15,282
<b>Total</b>	<b>1,933,612</b>	<b>+ 13</b>	<b>2,227,152</b>	<b>+ 8</b>	<b>2,296,161</b>	<b>- 224</b>	<b>1,837,412</b>	<b>- 181</b>	<b>1,513,502</b>
<b>Ulster</b>									
Antrim	217,683	23	268,685	21	278,188	- 9	221,581	- 11	211,564
Belfast	43,177	62	46,221	56	75,308	+ 33	100,500	+ 20	121,029
Carrikerfergus	8,023	8	8,706	8	9,379	- 11	8,380	10	8,042
Armagh	197,437	11	220,154	6	232,203	- 15	199,083	3	190,265
Derry	195,076	17	227,933	7	227,158	28	174,071	11	153,906
Down	248,710	16	289,119	3	296,448	14	255,180	7	237,262
Fermanagh	285,410	6	338,014	3	361,446	11	290,917	68	299,306
Fermanagh	130,997	14	149,763	4	156,081	25	116,007	9	105,228
Londonderry	195,869	13	222,012	1,20	222,174	13	191,868	6	169,789
Monaghan	174,637	6	197,306	13	200,432	29	141,613	10	126,480
Tyrone	261,965	16	304,468	3	312,930	18	255,734	6	238,500
<b>Total</b>	<b>1,999,494</b>	<b>+ 4</b>	<b>2,286,622</b>	<b>+ 4</b>	<b>2,386,573</b>	<b>- 16</b>	<b>2,011,756</b>	<b>- 6</b>	<b>1,912,526</b>
<b>Connaught</b>									
Galway	309,399	27	381,564	+ 101	198,933	- 29	298,136	- 111	224,511
Galway Town	27,775	19	33,190	- 484	17,273	+ 37	23,628	228	18,297
Leitrim	32,885	13	141,384	+ 3	153,297	- 28	111,541	6	104,524
Mayo	293,118	25	366,898	6	388,857	39	272,812	1	244,286
Roscommon	208,789	19	249,613	1	253,591	31	173,417	10	132,227
Sligo	146,229	17	171,763	6	180,686	28	129,510	3	116,843
<b>Total</b>	<b>1,110,229</b>	<b>+ 21</b>	<b>1,543,914</b>	<b>+ 5</b>	<b>1,418,659</b>	<b>- 28</b>	<b>1,010,211</b>	<b>- 9</b>	<b>915,120</b>
<b>SUMMARY</b>									
<b>Provinces</b>									
Leinster	1,757,498	+ 9	1,909,713	+ 3	1,973,731	- 152	1,672,591	- 152	1,457,633
Munster	1,933,612	+ 13	2,227,152	+ 8	2,296,161	- 224	1,837,412	- 181	1,513,502
Ulster	1,999,494	+ 4	2,286,622	+ 4	2,386,573	- 16	2,011,756	- 6	1,912,526
Connaught	1,110,229	+ 21	1,543,914	+ 5	1,418,659	- 28	1,010,211	- 9	915,120
<b>Total</b>	<b>6,801,827</b>	<b>+ 14</b>	<b>7,767,401</b>	<b>+ 5</b>	<b>8,173,124</b>	<b>- 20</b>	<b>6,531,970</b>	<b>- 111</b>	<b>5,790,867</b>

Summary of Great Britain and Ireland, including Army and Navy.

	1811	Inc. per Cent.	1821	Inc. per Cent.	1831	Inc. per Cent.	1841	Inc. or Dec. per Cent.	1851	Inc. or Dec. per Cent.	1861
England	9,653,021	174	11,281,823	16	13,080,323	14.5	14,997,427	+ 13.8	16,991,828	13	18,844,000
Wales	611,253	17	718,553	18	806,274	12.0	911,703	10.5	1,003,731	10.5	1,111,210
Scotland	1,803,364	16	2,021,221	12	2,269,586	10.7	2,620,194	10.2	2,988,742	6	3,302,516
Army, Navy &c.	640,500	-	519,300	-	277,011	-	193,469	-	104,474	-	115,100
Islands in British Seas	-	-	89,508	35.8	103,710	35.8	124,000	15.6	143,126	16.1	161,000
<b>Total</b>	<b>12,610,520</b>	<b>14.2</b>	<b>14,300,565</b>	<b>14.2</b>	<b>16,552,810</b>	<b>13.2</b>	<b>18,846,823</b>	<b>13.2</b>	<b>21,109,331</b>	<b>11.2</b>	<b>23,426,826</b>
Ireland	-	-	6,801,827	14.5	7,767,401	5.2	8,173,124	- 16.3	6,531,970	- 11.2	5,790,867
<b>Total population of United Kingdom</b>	-	-	<b>21,502,392</b>	<b>12.1</b>	<b>24,519,811</b>	<b>10.6</b>	<b>27,021,947</b>	<b>+ 9.2</b>	<b>27,721,301</b>	<b>+ 4.8</b>	<b>29,200,000</b>

An Account of the Population of the Principal Cities and Towns of the United Kingdom in 1801, 1811, 1821, 1831, 1841, 1851, and 1861.

N.B.—The same limits have been preserved throughout, or as near as was practicable.

Cities or Towns	1801	1811	1821	1831	1841	1851	1861
<b>ENGLAND.</b>							
London	829,863	1,138,815	1,379,917	1,651,994	1,948,417	2,268,256	2,627,117
Manchester and Salford	91,676	115,754	163,635	271,522	311,009	401,391	498,000
Liverpool	82,295	104,104	138,334	201,251	286,487	375,255	456,000
Birmingham	70,670	84,755	101,722	143,586	182,222	238,911	286,000
Leeds	53,109	65,534	83,796	125,253	162,074	212,970	260,000
Bristol	61,133	71,433	85,108	104,108	123,446	137,228	160,000
Sheffield	45,739	55,251	68,275	91,692	111,091	133,310	161,000
Wolverhampton	20,384	25,100	33,011	43,011	50,443	60,000	70,000
Bradford	13,264	16,012	20,207	25,527	30,715	36,000	42,000
Plymouth and Devonport	20,787	20,496	25,169	30,963	37,340	43,000	49,000
Newcastle-upon-Tyne	33,048	34,573	41,793	50,613	60,337	70,000	80,000
Traill	49,380	37,003	44,520	43,510	67,308	84,690	97,000

Population of the Principal Cities and Towns of the United Kingdom—continued.

1861, according to the  
ent. in the Interfering

1851	Increase or Decrease Per Cent. 1851-61	1861
65,059	-161	57,317
46,731	+ 4	155,444
34,361	- 2	34,361
95,691	- 2	95,691
38,773	804	110,241
19,973	311	14,711
14,900	893	9,013
87,550	153	71,691
90,818	163	73,973
16,945	18	14,740
140,750	911	110,353
111,683	18	90,650
111,409	18	30,733
190,159	10	145,911
98,978	12	86,179
672,591	-152	1,457,633
218,428	-211	166,205
565,295	17	461,897
15,716	86	14,851
236,459	151	301,800
908,668	171	1,180,601
15,418	17	14,156
531,487	951	497,106
138,574	90	110,949
255,734	9	35,023
1,567,812	-161	1,515,558
831,391	- 14	847,564
100,500	+801	1,001,601
8,390	10	9,171
199,085	- 1	199,086
174,071	111	155,986
852,180	7	857,289
390,917	6	299,568
11,56,017	6	10,518
191,968	4	181,294
141,813	10	126,480
255,734	6	338,500
9,011,756	- 8	1,914,236
398,136	-141	551,111
23,693	29	18,97
111,841	6	104,216
274,512	74	201,96
17,717	10	19,127
198,510	3	211,891
1,010,911	- 9	315,121
1,672,591	-151	1,457,633
1,857,412	8	1,811,138
2,917,754	21	3,117,116
1,010,211	9	1,017,131
6,551,970	-11	5,796,787

Cities or Towns	1801	1811	1821	1831	1841	1851	1861
<b>ENGLAND—contd.</b>							
Stoke-on-Trent	23,978	31,557	40,857	51,389	68,444	84,027	101,807
Oldham	81,677	95,179	120,201	150,513	180,453	217,357	244,344
Tromsath	33,326	41,587	46,743	46,389	53,032	74,066	94,793
Burton	7,440	19,205	24,521	41,894	49,170	69,673	87,317
Tranent	17,440	17,360	24,521	32,871	40,947	89,542	122,296
Newcastle	36,358	56,748	69,103	61,846	60,405	68,196	74,511
Sunderland	24,908	25,881	30,891	40,735	53,333	67,394	85,797
Sheffield	10,247	14,945	20,529	27,281	43,031	65,090	85,975
Manchester	17,066	24,799	32,845	51,029	69,465	101,877	130,295
Leicester	17,025	23,153	31,036	40,539	50,408	60,534	68,656
Nottingham	28,951	34,153	40,410	50,890	65,091	87,407	104,628
High	35,198	36,409	46,701	50,800	63,198	84,110	94,898
Leeds	14,230	17,345	21,725	25,469	30,154	35,835	44,681
Blackburn	11,980	12,085	11,940	17,091	26,829	48,536	65,196
Derby	17,418	18,366	23,179	28,242	37,331	49,698	61,749
Exeter	10,838	13,043	17,425	23,627	32,741	49,609	63,091
Sheffield	18,283	17,145	25,154	30,911	38,829	59,018	76,111
Durley	15,107	15,965	18,411	25,430	31,232	37,982	44,975
Coventry	16,034	17,923	21,448	27,298	31,039	35,812	41,617
Tort	18,816	19,099	21,711	26,260	28,818	36,303	45,385
Southampton	7,913	11,325	15,435	19,140	24,816	31,469	37,953
Cheltenham	3,076	4,069	5,325	6,944	9,111	11,911	15,693
Reading	12,010	12,766	17,076	21,552	27,390	33,592	37,113
Worcester	11,477	13,670	17,066	21,066	25,801	30,591	34,650
Swansea	10,197	14,069	17,716	20,772	25,217	31,911	37,626
Bury	9,159	11,365	14,998	19,672	24,604	31,421	37,388
Huddersfield	7,868	9,617	12,394	16,140	20,818	27,486	34,827
Leeds	16,573	20,446	27,107	34,335	42,868	50,460	58,177
London and Lynde	9,222	11,309	14,922	19,140	24,816	31,469	37,953
Reading	8,010	10,392	12,998	16,441	20,772	25,217	29,662
Sheffield	13,711	17,448	22,173	28,006	34,790	42,618	50,460
South Shields	11,011	15,465	19,035	24,735	30,078	36,974	43,939
Sheffield	19,940	15,787	19,177	21,124	24,493	28,174	32,491
Sheffield	11,694	19,931	16,361	20,619	24,206	27,943	32,500
Sheffield	10,067	11,008	14,142	18,517	24,453	27,815	32,501
Sheffield	15,052	16,140	18,428	20,917	24,453	27,815	32,501
Sheffield	11,460	15,811	17,025	14,610	17,004	27,528	31,327
Sheffield	7,080	8,427	10,793	12,342	14,242	16,527	18,813
Sheffield	11,477	11,476	11,476	11,476	11,476	11,476	11,476
Sheffield	10,399	11,189	11,914	15,066	19,827	25,690	31,760
Sheffield	6,397	6,782	7,167	15,177	20,123	25,068	29,987
Sheffield	1,035	1,035	1,035	1,035	1,035	1,035	1,035
Sheffield	9,074	9,074	10,527	11,922	17,795	24,844	32,245
Sheffield	11,331	12,592	14,928	18,184	21,116	23,363	26,917
Sheffield	10,361	11,263	14,164	16,164	18,164	22,057	23,150
Sheffield	9,742	10,788	12,807	15,285	18,327	21,456	25,015
Sheffield	5,919	5,405	6,848	10,096	14,224	20,433	26,710
Sheffield	8,027	9,445	11,008	15,790	20,066	26,801	33,076
Sheffield	7,579	8,380	9,744	11,533	14,152	17,372	19,519
Sheffield	6,676	10,217	17,776	15,303	16,178	17,536	18,893
Sheffield	..	..	..	..	14,616	17,518	17,893
Sheffield	..	..	..	..	..	17,011	22,910
Sheffield	..	..	..	..	..	16,635	18,778
Sheffield	..	..	..	..	..	..	16,005
Sheffield	..	..	..	..	..	14,389	16,168
Sheffield	..	..	..	..	..	15,692	17,958
Sheffield	..	..	..	..	..	19,681	24,163
Sheffield	11,620	14,544	14,016	16,167	17,533	19,453	22,079
Sheffield	10,096	10,259	12,833	15,370	18,335	21,335	24,170
Sheffield	6,110	10,709	14,981	19,427	24,827	31,539	38,539
Sheffield	9,000	10,800	15,799	20,929	25,929	32,929	39,929
Sheffield	..	..	..	..	..	9,714	18,351
Sheffield	..	..	..	..	..	15,841	18,916
<b>SCOTLAND.</b>							
Edinburgh	66,544	81,784	112,253	156,301	198,193	240,502	288,121
Glasgow	110,460	145,043	190,498	240,498	290,498	340,498	390,498
Aberdeen	..	25,270	44,796	29,019	61,923	71,973	73,505
Dundee	..	28,616	50,575	45,355	69,875	78,931	90,417
Perth	..	..	..	..	47,695	24,952	47,006
Glasgow	17,458	19,042	29,088	27,571	35,645	36,689	44,098
Perth	14,876	..	..	..	20,167	25,855	32,250
<b>IRELAND.</b>							
Dublin	..	..	185,881	204,155	222,726	258,361	354,898
Cork	..	..	..	..	60,780	85,749	80,121
Belfast	..	..	45,177	46,224	75,508	100,500	121,602
Limerick	..	..	..	..	46,291	53,148	44,476
Waterford	..	..	..	..	25,516	25,997	25,523
Kilmore	..	..	..	..	19,071	19,973	14,740
Down	..	..	..	..	16,261	16,843	14,740
Galway	..	..	..	..	17,275	25,695	16,967

Army and Navy.

Inc. or Dec. per Cent.	1851	Inc. or Dec. per Cent.	1861
12.8	16,991,833	18	18,500,000
10.3	1,005,791	30.54	1,312,000
10.2	2,817,719	6	3,080,000
..	810,474	..	..
15.9	145,196	..	168,000
19.9	41,109,936	8.98	44,571,000
18.5	5,651,870	11.75	6,300,000
+ 9	27,271,921	+ 1.95	27,800,000

United Kingdom in 1801, 1811

1811	1851	1861
417	2,368,256	2,327,117
497	401,291	400,000
487	375,341	375,000
922	252,841	252,000
674	128,870	128,000
146	137,238	137,000
691	155,200	155,000
343	119,748	119,000
113	103,778	103,000
340	90,401	90,000
137	87,181	87,000
358	84,690	84,000

PORCELAIN or CHINA-WARE. A very fine species of earthenware. The first specimens of this fabric were brought to Europe from China and Japan. The best Chinese porcelain is of a very fine texture, white, semitransparent, and sometimes beautifully colored and gilt; is insensible, and not subject to break by the sudden application of heat or cold. The Chinese term for the article is *tsu-ri*. But the Portuguese, by whom it was first brought in considerable quantities into Europe, bestowed on it the name of porcelain, from *porcella*, a cup.

Common earthenware, sometimes of a very good quality, is manufactured in Canton, Fokien, and several other provinces of China. But it is a curious fact, that the beautiful porcelain imported into Europe is made only in the town of Kingteing, in the province of Kyangsi. Its manufacture is fully described by Dnhalde, in his account of China, under the head 'Porcelain and china-ware.' The porcelain of Japan is decidedly inferior to that of China; very little is imported, and it is valued only as a curiosity.

After porcelain began to be imported, its beauty soon brought it into great request, notwithstanding its high price, as an ornament for the houses and tables of the rich and the great. The emulation of European artists was in consequence excited. Very little information was, however, obtained as to the mode of manufacturing porcelain till the early part of last century, when the process was developed in a letter from a French Jesuit in China, who had found means to make himself pretty well acquainted with the subject. The knowledge that thus transpired and the investigations of Reaumur and other chemists prepared the way for the esta-

ishment of the manufacture in Europe. It was first commenced at Dresden, which has been famous ever since for the beauty of its productions; but the finest and most magnificent specimens of European china have been produced at Sevres, in France, in the factory carried on at the expense of the French Government.

*British Porcelain Manufacture.*—This, though unable to boast of such fine specimens of costly workmanship as have been produced at Sevres and Dresden, is of much greater national importance. Instead of exclusively applying themselves to the manufacture of articles fitted only for the use of the rich, the artists of England have exerted themselves, in preference, to produce china-ware suitable for the middle classes; and have succeeded in producing articles at once excellent in quality, elegant in form, and cheap. We are principally indebted for the improvements made in this important manufacture to the genius and enterprise of the late Mr. Josiah Wedgwood. This extraordinary man owed none of his success to fortuitous circumstances. Devoting his mind to patient investigation, and sparing neither pains nor expense in accomplishing his aims, he gathered round him artists of talent from different countries, and drew upon the stores of science for aid in pursuing the objects of his praiseworthy ambition. The early and signal prosperity that attended his efforts served only as an incentive to urge him forward to new exertions, and as means for calling forth and encouraging talent in others, in a manner calculated to promote the welfare of his country. Previously to his time, the potteries of Staffordshire produced only inferior fabrics, flimsy as to their materials, and void of taste in their forms and ornaments; the best among them being only wretched imitations of the grotesque and unmeaning scenes and figures portrayed on the porcelain of China. But such have been the effects resulting from the exertions and example of this one individual, that the wares of that district are now not only brought into general use in this country, to the exclusion of all foreign goods, which had been largely imported, but English pottery has since been sought for and celebrated throughout the civilised world, and adopted even in places where the art was previously practised. An intelligent foreigner, M. Faujas de St. Fond, writing on this subject, says: 'Its excellent workmanship, its solidity, the advantage which it possesses of sustaining the action of fire, its fine glaze impenetrable to acids, the beauty and convenience of its form, and the cheapness of its price, have given rise to a commerce so active and so universal, that, in travelling from Paris to Petersburg, from Amsterdam to the farthest part of Sweden, and from Dunkirk to the extremity of the South of France, one is served at every inn upon English ware. Spain, Portugal, and Italy are supplied with it; and vessels are loaded with it for both the Indies and the continent of America.'

See the quotation in the '*Account of the Porcelain Manufacture*' (p. 16), in Lardner's *Cyclopædia*; for the statistical details with respect to the manufacture, see the article *EARTHENWARE*, in this work. For much common information on this subject the reader is referred to Birch's *Ancient Pottery*, Marryat's *Pottery and Porcelain*, *Life of Wedgwood*, and M. Arnoux's Report on Pottery in connection with the Paris Exhibition of 1867.

The British porcelain manufacture is principally carried on at the Potteries in Staffordshire, and at Worcester, Derby, Colebrookdale, and other places.

*Murrhine Cups.*—It was long a prevalent opinion among modern critics, that the *vasa murrhina*, so famous in Roman history, were formed of porcelain. Pompey was the first who brought them to Rome from the East, about 64 years before the Christian era. They were used as drinking-cups, and fetched enormous prices; Nero having given, according to the common method of interpreting, 58,000*l.* for a single cup. The extravagance of the purchaser may, in this instance, be supposed to have increased the price; so that the degree of estimation in which these cups were held may be more accurately inferred from the fact that, of all the rich spoils of Alexandria, Augustus was content to select one for his share. (Sueton. lib. ii. c. 71.) Pliny (lib. xxxvii. c. 2) says they were made in Persia, particularly in Karamania. But those who contend they were china-ware chiefly depend on the following line of Propertius:—

Murrhæque in Parthis pecula cœra seen.  
Lib. iv. Eleg. 3, lin. 10.

In despite, however, of this apparently decisive authority, Le Haud and Larcher have, in two very learned dissertations (*Mémoires de l'Académie des Inscriptions*, tom. xliii.), which Robertson has declared are quite satisfactory, endeavoured to prove that the *vasa murrhina* were formed of transparent stone, dug out of the earth in some Eastern provinces, and that they were initiated in vessels of coloured glass. (Robertson's *Disquisition on India*, note 39.) Dr. Vincent (*Commerce and Navigation of the Ancients*, vol. ii. p. 723) inclines to the opposite opinion; but the weight of authority is evidently on the other side. At all events, it is plain that if the murrhine cups were really porcelain, it had been exceedingly scarce at Rome, as their price would otherwise have been comparatively moderate. But it is most probable that the ancients were wholly unacquainted with this article, which indeed was little known in Europe till after the discovery of the route to India by the Cape of Good Hope. (For some further details on this question, see Kipping's, *Antiq. Rom.* lib. iii. c. 3.)

In 1867 we imported 19,854 cwt. of china or porcelain ware, chiefly from France and Germany, valued at 179,391*l.*

**PORK, BACON, AND HAMS** consist of the first of the fresh or uncured flesh of the hog, the second of the sides and belly when cured or salted, and the third of the hind-legs when cured.

These form important articles of food in the quarter of the world and in America. But they are rejected by many nations, and among others by the Jews and Mohammedans, partly from superstitious motives, but in part also from sanitary considerations. (See the profound work of Michaëlis, *On the Laws of Moses*, lib. 230, Eng. trans.)

Previously to 1842, the duty on bacon and hams being 28*s.* per cwt., was in effect prohibitory; of the former, and little or none was imported. It was then, however, reduced to 14*s.* per cwt. In 1844 the duty on bacon was entirely repealed, and that on hams reduced to 7*s.* per cwt., the latter being also repealed in 1853. There has been, in consequence of the abolition of the duty, a great increase in the demand for foreign bacon—the imports which amounted in 1852 to 13,952 cwt., having increased, in 1866, to 578,272 cwt., valued at 1,699,301*l.*; the exports of foreign bacon and hams in the same year being only 66,769 cwt. The imports of hams in 1866 were 57,510 cwt. We subjoin—

An Account of the Quantities of Bacon, Hams, and Pork Imported into the United Kingdom in 1867, specifying the Countries whence they were brought, and the Quantities brought from each.

Countries	Bacon	Hams	Pork
	cwt.	cwt.	cwt.
Dominica	80,174	4,079	90,910
Jamaica	165,374	4,257	55,171
St. Vincent	1,183	-	8,410
Trinidad	99,263	80,759	55,019
United States	1,838	1,375	410
Other parts	14,804	8,121	19,531
Total	493,897	45,487	150,983

PORT. [OPORTO; WINE.]

PORT-AU-PRINCE. The capital of Hayti, or St. Domingo. Population in 1865 from 30,000 to 35,000.

The lighthouse on Lamentin Point is visible for 9 miles in lat. 18° 43' 85" N., long. 79° 25' 12" W. It is situated on the west coast of the island, at the bottom of a large and deep gulf. It was founded in 1749, since which, with few intervals, it has been the capital of French St. Domingo. It is partially fortified, the harbour being protected by a battery on a small island at a little distance from the shore. The country round is low and marshy; and the heat in the summer months being excessive, the climate is then exceedingly unhealthy. The buildings are principally of wood, and seldom exceed 2 storeys in height.

Harbour.—The entrance to the harbour is between White Island and the southern shore. The depth of water varies from about 18 feet at ebb to about 21 feet at full tide. It is customary, but not compulsory, to employ a pilot in entering the harbour. Pilots are always on the look-out. Ships moor head and stern, at from 100 to 500 yards from shore; loading and unloading by means of boats, as there are neither docks nor quays to assist these operations. The harbour is perfectly safe except during hurricanes, which may be expected from August to November. The bay of Port-au-Prince is welligh blocked up to the northward by numerous shoals and islets, which protect the anchorage.

Hayti is, next to Cuba, the largest of the West India islands. It was discovered by Columbus, on December 5, 1492. Its greatest length may be about 400 miles, and its greatest breadth 155. Its superficies is estimated at about 29,500 square miles. Three principal chains of mountains (from which emanate smaller mountain arms) run from the central group of Cibao. The whole of these are described as fertile and susceptible of cultivation, even to their summits; affording great variety of climate, which, contrary to what is the case in the plains, is remarkably healthy. The soil of the plains is, in general, a very rich vegetable mould, exceedingly fertile, and well watered. There are several large rivers, and an immense number of smaller streams, some tributary and others independent. The ports are numerous and good. The harbour of Cape St. Nicholas, the fortifications of which are now in ruins, is one of the finest in the West Indies, being inferior only to the Havannah. Timber of the finest description is most abundant, and mines of gold, silver, copper, tin, iron, and rocksalt, besides other natural productions, are said not to be wanting. The French were therefore fully justified in designating this magnificent island *La Reine des Antilles*. The principal towns, besides Port-au-Prince, are Cap Haitien, formerly Cap François, on the north coast, St. Domingo on the south, Les Cayes, and Jacmel.

Previously to the revolt of the blacks, Hayti was divided in unequal portions between the French

and Spaniards; the former possessing the west, and the latter the eastern and larger portion of the island. The revolution began in 1789, and terminated, after the most dreadful massacres and the destruction of a vast deal of property, in the total abolition of slavery, and the establishment of an independent black republic. The Spanish part of the island and the French, after being consolidated in 1824, were again separated in 1844; since which time the former has been, speaking generally, a mock empire, and the latter a mock republic. But in both disorder and revolution have been recurring at short intervals.

Population.—In 1789 the French part of Hayti was by far the most valuable and flourishing colony in the West Indies. The population was estimated at 521,000; of which 31,000 were white, 27,500 people of colour, and 465,500 slaves. The Spanish part of the island was much less densely peopled, the number in 1785 being estimated at 152,640; of which 122,640 were from people of all colours, mostly mulattoes, and the rest slaves. The population of the entire island, in 1827, was estimated by Humboldt at 820,000, of whom 30,000 were whites; but there are good grounds for thinking that that estimate was exaggerated, and that the present population does not exceed 700,000 or 750,000.

Exports.—There has been an extraordinary falling-off in the trade of Hayti since the Revolution. The exports of sugar, for example, which amounted to above 141,000,000 lb. in 1789, have wholly disappeared. The cultivation of the cane has not, however, been entirely relinquished; but its produce is now wholly converted into rum, an inferior description of rum, of which the blacks are excessively fond. The produce of coffee has also fallen off; and its export, which may amount to about 60,000,000 lb., is in great part derived from the old coffee plantations of the French, which are now almost wild. The remaining articles of export consist principally of mahogany, logwood, and other dyce and fancy woods, which merely require to be cut down; with small quantities of cotton, cacao, tortoiseshell, honey, wax &c. But so inconsiderable is their amount, that the entire value of the exports in 1863 did not exceed 2,458,000*l.*, not certainly  $\frac{1}{10}$  of what it would amount to were the island occupied by a reasonably intelligent and industrious population. The greater part of its foreign trade is with the United States; and that with England is next in importance. In 1867 the value of our exports to Hayti and St. Domingo amounted to only 91,623*l.*, principally consisting of cottons (163,099*l.*) and linens. It is an instructive fact that they took from us no machinery, and only 2,497*l.* worth of iron. At present (1869) they are suffering all the horrors of civil war; anarchy prevails, and commerce is paralysed.

Besides its imports from England, it imports flour, rice, mess and cargo beef, fish &c., and timber, from the United States; wines, satins, liquors, jewellery, toys, haberdashery &c. from France; and linens, canvas, gin &c. from Holland and Germany; but the amounts of the latter are inconsiderable.

The greater part of this extraordinary falling-off is to be accounted for by the change in the condition of the inhabitants. The blacks, being no longer compelled to labour, and regarding with abhorrence the culture of sugar and the other occupations in which they had been principally engaged, sank into a state of idleness and apathy. The condition of all the great branches of industry formerly carried on became, in consequence, most deplorable, and the commerce

of Hayti was reduced within the narrowest limits. Its successive rulers have endeavoured, though with little success, to bring about a revival of industry. The *Code rural*, enacted for this purpose by Boyer in 1826, was exceedingly stringent, its principal provisions being, in fact, copied from the regulations as to slaves embodied in the *Code noir*. But even this code had little influence; and as a proof of the low state of industry in the island, it is enough to refer to the previous statements. And this result is, after all, only what should have been anticipated. To expect that half-civilised Africans, under a burning sun, and without the wants or desires of Europeans, should be equally industrious, is to expect what is contradictory and all but absurd.

**Port Charges.**—The charges on a native and foreign ship of 300 tons are the same, and as follows:—

Tonnage duty	..	..	..	dols. cts.
Administrateur	..	..	..	300 0
Commandant de place	..	..	..	12 0
Commissaire de guerre	..	..	..	12 0
Commandant de port	..	..	..	12 0
Director of customs	..	..	..	12 0
Interpreter	..	..	..	12 0
Treasurer	..	..	..	12 0
Doctor	..	..	..	12 0
Stamps for entry and clearing	..	..	..	16 50
Portain tax	..	..	..	20 0
Pilotage	..	..	..	2 0
Total, currency	..	..	..	454 50

**Custom-house Regulations.**—On arrival, the master of the vessel proceeds to the Custom-house with the interpreter, where he makes his declaration whether he discharges his cargo in the port. If he discharge, his invoices are translated, and the goods verified in the presence of the consignee, who is allowed to land and store them. On clearing outwards, the merchant pays the duties on the cargoes both ways, and exhibits a receipt at the office of the commissaire de guerre, commandant de place, and commandant de port, who sign a certificate that the vessel may depart.

**Warehousing.**—The warehousing and bonding system is established by law, but there are at present no buildings appropriated to the reception of bonded goods. Until very recently, goods were permitted to be bonded under this law in the merchants' stores; a late order has, however, suspended that indulgence. The rate is 1 per cent. per year, and no allowance made for waste or loss. Goods exported in the same vessel they arrive in pay, if landed,  $\frac{1}{2}$  per cent. and wharfage fees.

**Money.**—The weight of the dollar is 216 grains, the  $\frac{1}{2}$  and  $\frac{1}{4}$  dollar being in proportion. But nearly  $\frac{1}{2}$  the weight of the coin consists of tin or other alloy, so that the value of the dollar does not exceed 1s. 6d. sterling.

**Weights in Hayti** are divided as in avoirdupois and apothecaries' weight; but they are about 8 per cent. heavier than British weights.

**Measures.**—Same as these used in France.

**Regulations as to Trade.**—It is enacted that all persons exercising any trade or profession, excepting that of cultivating the soil, must be provided with a patent or licence to carry on such trade or profession; that all strangers admitted as merchants into the republic must, in the first place, procure the permission of the president to take out a patent, which, when obtained, only authorises them, under heavy penalties, to carry on a wholesale business, not with each other but with the Haytians, in the open ports, which are Port-au-Prince, Gonaives, Cap Haïtien, Port-à-Plate, Santo Domingo, Jacmel, Les Cayes, and Jérémie. The minimum quantities of goods that may be sold are fixed by the same law. The

Haytian consignee may be also a retailer, on taking out a corresponding patent.

A charge of 2,000 dollars is made for each patent to a foreigner trading to Port-au-Prince; 1,800 for Les Cayes, Cap Haïtien, and Jacmel; and 1,600 for each of the remaining ports.

**Duties.**—The duties on all imported commodities consigned to foreign merchants are 17 $\frac{1}{2}$  per cent. on an established tariff, whether they be brought in native or foreign ships, with the exception of those from the United States, which pay an additional 10 per cent. on the amount of the duties. Goods consigned to native merchants pay only 16 $\frac{1}{2}$  per cent.

The coasting trade is entirely confined to Haytian citizens.

The commerce of Port-au-Prince is carried on by various classes of persons. The imports from Europe and America are principally consigned to European and North American commission houses, besides a few Haytian establishments.

We have derived these details with respect to Hayti partly from the published *Notes of Charles Mackenzie, Esq.*, late consul in that island, and partly from consular and other Returns.

#### PORT LOUIS or NORTH-WEST PORT

The capital of the Mauritius, at the bottom of a triangular bay, the entrance to which is rather difficult, in lat. 20° 9' 56" S., long. 57° 28' 41" E. Every vessel approaching the harbour must hoist her flag and fire 2 guns; if in the night, light must be shown, when a pilot comes on board, and steers the ship to the entrance of the port. Though not very extensive, the anchorage in Port Louis is generally quite safe, and the dangers to which ships in it were sometimes exposed during the hurricane season have been in great measure obviated by the formation of docks. It used to be reckoned a convenient port for the careening and repair of vessels; but owing to the greatly increased magnitude of the ships and steamers which now navigate the Indian seas, increased means of accommodation in this respect became highly desirable, and have been supplied by the formation of a dock capable of admitting the largest ships. The houses are low, and principally built of wood. The town and harbour are pretty strongly fortified. Almost all the foreign trade of the island is carried on here.

The Mauritius was so called by the Dutch in honour of Prince Maurice; but it was first settled by the French in 1720, and is indebted for most part of its prosperity to the able management of its governor, the famous M. de Bourdonnais. It was taken by the English in 1810, and was definitively ceded to us in 1814.

**Exports and Imports &c.**—Mauritius is very fertile, a considerable part of the surface being however, occupied by mountains. Its shape is circular, being about 150 miles in circumference. The climate is healthy, but subject to hurricanes. The principal product is sugar, which is cultivated to the almost total neglect of everything else, and the island may, indeed, be said to have become an immense sugar-factory. It also produces excellent coffee, indigo, and cocoa. The blackwood or ebony of the Mauritius is abundant, and of superior quality. Very little corn or grain of any kind is raised, most of provision being imported. Previously to the sugar and other articles brought to Great Britain from the Mauritius were charged the same duties as the like articles from Madagascar, but in the above-mentioned year this distinction was done away, and it was enacted (6 Geo. 4. c. 111 s. 44) that all goods of the Mauritius should

on being imported into the United Kingdom, be subject to the same duties and regulations as the like goods from the British West Indies, and that the trade with the Mauritius should be placed as nearly as possible on the same footing as that of the West India Islands.

This was a great boon to the Mauritius, but it is not to it that the increase of its sugar cultivation is to be ascribed. The emancipation of the slaves was as injurious to the planters here as to those in the West Indies; but, owing to its more convenient situation, vast numbers of hill-coolies and other labourers from India, and some also from Madagascar, have been introduced into the Mauritius, and it is to the supply of labour which has thus been obtained that the prosperity of the island is wholly owing. All the best insular authorities admit that but for the immigration it would have retrograded; the emancipated negroes would not have engaged in any sort of severe labour; and it is in part by the example of the immigrants, but more through necessity, that the blacks have been stimulated to exert themselves.

This prosperity, however, has, unfortunately, not been continuous. The rapid increase in the cultivation of beetroot sugar, the excess of immigration into the Mauritius, and the almost entire dependence of the colony on importations of food, have seriously impaired its prosperity. (Lieut. Governor Barkly's Report, 1866.) In 1866, the number of Indian immigrants was 5,596, and of Indian emigrants 3,815.

The imports of sugar into the United Kingdom from the Mauritius increased from 516,076 cwt. in 1840, to 1,006,237 cwt. in 1866, but fell in 1867 to 596,741 cwt. Yet this statement does not give a fair view of the real increase of production, inasmuch as a far greater quantity of sugar is now sent to France, the Cape of Good Hope, and Australia, than formerly. Thus, of the total shipments from the island, amounting in 1866 to 1,483,618 lb., only 75,886,276 lb. were for the United Kingdom; 13,405,756 lb. being for France, 1,137,899 lb. for the Cape of Good Hope, 99,111,415 lb. for Australia, and 51,009,554 lb. for Continental India. With the exception of rum, molasses, and honey, the other exports are too trifling to deserve notice. Sugar pays an export duty of 3d. per 100 lb. net French weight.

The principal imports consist of provisions, particularly grain and flour; the supply required for the use of the island being almost entirely derived from the Cape of Good Hope, Madagascar, India, Reunion &c. Cotton stuffs; iron, hardware, and cutlery; machinery, copper, linens, wine, &c. &c. are also largely imported. Guano has of late years been extensively imported, and has been found to be of the greatest service in the raising of sugar. The total declared value of the exports from the United Kingdom to the Mauritius, in 1866, amounted to 583,403l., and in 1867 to 429,982l., chiefly cotton and iron.

**Money, Weights, and Measures.**—According to the regulations of Government, the franc is deemed equal to 10d., and the Spanish dollar to 4s. 4d. Government accounts are kept in sterling money; but merchants, shopkeepers &c. keep their accounts in dollars and cents, and dollars, livres, &c.

The measures and weights are those of France, introduced by the Revolution. 100 lb. French = 143 lb. English; the French foot is to the English as 100 to 93.93, but in practice they are supposed to be as 16 to 15. The velle = 1 gallon 7.8 English, but in commercial transactions it is always taken at 2 gallons.

**Lighthouses.**—On May 24, 1867, the *Harbour Lights* at the entrance of Port Louis were done away with, and a floating light-vessel, painted white, has been substituted. It is moored a little to the north-west of the well-known Bell Buoy, and shows a flashing white light from sunset to sunrise, visible 9 miles off.

There is a *revolving catoptric light*, of the first order, on the south-west Flat Island, lat. 19° 53' 26" S., long. 57° 41' 12" E. It is 366 feet above the level of the sea, and is visible in clear weather 25 miles off.

There is a *fixed catoptric light*, also of the first order, on Caunonier Point, lat. 20° 0' 35" S., long. 57° 35' 24" E. It is 39 feet above the level of the sea, and can be seen for about ten miles. It indicates the position of a dangerous shoal nearly one mile from the shore, and keeps vessels clear of the coral-reefs to the north-east and south-west of the point.

There is a lighthouse built on a small island called 'Ile aux Fouquets,' lat. 20° 24' 20" S., long. 57° 45' 9" E. It marks the southern entrance to Grand Port, and is 880 yards to the E.N.E. of Ile de Passe, which bounds Grand Port entrance to the northward. The apparatus is a dioptric of the first order, showing a *fixed white light* from sunset to sunrise, visible in every direction from seaward. It is 108½ feet above the sea, and in clear weather can be seen at a distance of 16 miles.

There is a Government pilot stationed at the lighthouse, who will board ships bound to Mahébourg, on their making the usual signal.

No vessel bound into Grand Port ought to approach it *at night*; she should heave-to well to the southward of the light, as, the drift being to the northward, she might find herself to leeward in the morning, and lose much time in working up. (November 3, 1863.)

**Lighthouse on Little Basses Rock, Ceylon.**—Ordinance No. 22 of 1865 provides that there shall be levied and paid in this colony as dues in respect of the light-vessel upon Little Basses Rock, Ceylon, 1d. per ton of the burden of such ship as may have derived benefit therefrom.

**Lighthouses on Coast of Mauritius.**—Extract from Ordinance No. 22 of 1855. Art. 1. There shall be levied by the harbour master, on all vessels excepting coasters employed on the coast of Mauritius, entering the harbour, or discharging, or shipping cargo or immigrants in the roadstead of Port Louis, 2d. per ton.

Art. 2. The above due shall not be levied more than twice within 12 calendar months on any one vessel, and the whole amount collected shall be appropriated to defraying the cost of maintaining lighthouses and lights on the coast of the Mauritius.

The following are the numbers and tonnage of vessels that entered with cargoes and ballast into ports of this colony in the years 1864-65.

	1864		1865	
	Vessels	Tons	Vessels	Tons
Total	658	978,368	713	301,650
British	252	146,343	446	139,563
Colonial	406	74,212	310	78,541

	1864		1865	
	Vessels	Tons	Vessels	Tons
Total	688	880,199	707	301,485
British	260	196,050	447	138,067
Colonial	428	77,589	224	82,255

Tonnage of vessels entered and cleared in 1866, about 800,000.

For Immigration, see COLONIES.  
Population estimated in 1866 at 840,664. Population of Seybelles Islands and other dependencies of Mauritius in 1861, 9,055.

Years	Revenue	Expenditure
1860	585,519	500,853
1861	497,798	484,519
1862	497,372	581,195
1863	554,818	598,568
1864	634,967	679,378
1865	644,793	667,718
1866	659,378	710,118

Total Debt in 1866, 1,000,000.

The revenue in 1866 was, including railway traffic receipts, 689,576l., and the expenditure, including the sinking fund and interest on railway loan, 700,048l.

**Brokerage, Commission, and Fees of Brokers and Exchange Brokers.**

- For sale and purchase of goods, merchandises and movables, payable half by the seller and half by the purchaser, 1 per cent.
- Sales and purchase of immovables, payable half by the seller and half by the purchaser, 1 per cent.
- Sales and purchase of cattle out of the town, payable half by the seller and half by the purchaser, 1 per cent.
- Procuring advances on cargoes of sugar for Europe or elsewhere, 1 per cent, payable half by the party making the advance and half by the party who receives it.
- Estimation of goods of merchandises and all other articles, verification of the state of damaged merchandise and other operations of a like nature, for each attendance of a broker not exceeding three hours (i.e., for each hour beyond the first 3 hours), 1 per cent.
- Negotiating notes of hand (whatever may be the date of payment) payable by the receiver, 1 per cent.
- Negotiating bills of exchange, 1 per cent, payable 1/2 by holder and 1/2 by the receiver.
- Negotiating contracts and lottery bonds, payable by the consignee, 1 per cent.
- Procuring freight and passengers, payable by the persons employing the vessel, 1 per cent.
- Hire of labourers, workmen, immovable property, on the whole amount of hire, if the contract or lease does not exceed one year, and on the amount of hire for each attendance of a broker not exceeding three hours (i.e., for each hour beyond the first 3 hours), half by the party.
- Each signature on certificate or *provis* 4s.
- Lighterage Charges.—The lighterage charges at the port have been fixed at the following rates:—  
Landing or shipping of goods in inner harbour, 50c. per ton.  
Hire of workmen, 1d. 65c. per diem.  
Do cargo boat per ton, 1 dol. per diem.  
Landing or shipping of bricks and coals, guano and shipping sand, 75c. per ton.  
Do wood, 75c. per ton.  
Do for guano and fish in logs, 1d. 50c.  
Do iron, copper or zinc sheathing, and lead in cases, casks or rolls, 75c. per ton.  
Do sugar pans, 3 dol. each.  
Do steam engines, per horse power, 10 dol. each.  
Do axes under 1,000 lb. weight, 3 dol. each.  
Do above 1,000 lb., 5 dol. each.  
Do saws 1,500 lb., 7d. 50c. each.  
Supplying water, 1d. 50c. per ton.  
Do bell buoy, 3 dol. per ton.  
Landing or shipping of chain cables of 5 to 10 lines each, 5 dol. per ton.  
Do 11 to 16 lines each, 10 dol. per ton.  
Do 16 to 18 lines each, 10 dol. per ton.  
Landing oars or rows, 1 dol. each.  
Do bell buoy, 4 dol. each.  
Do cables, 60c. each.  
Do bell buoy, 1 dol. each.  
Do horses or mules, 4 dol. each.  
Do bell buoy, 4 dol. each.  
Do oxen and donkeys, 1 dol. each.  
Do bell buoy, 3 dol. each.  
Do turtles complete, 5 dol. each.  
Transportation from one vessel to another, 1 dol. per ton.  
Landing or shipping of (tanks, full, 4 dol. each.  
Do empty, 1 dol. each.  
Do of goods lying at men-of-war's moorings, 1 dol. per vessel.  
Do from outside men-of-war's moorings to bell buoy, 3 dol. per vessel.  
Do of carriages, two wheels, 2d. 50c. per carriage.  
Do of carriages, four wheels, 4 dol. per carriage.  
Do of coolies in the harbour, 12c. each.  
Do bell buoy, 50c. each.  
Tonnage (lb. to the ton).—Bran, 1,000 lb.; oats, 1,500 lb.; dhol, 2,000 lb.; rice, 2,000 lb.; coffee, 1,500 lb.; pepper, 1,400 lb.; clove, 750 lb.; cloves, 750 lb.; Europe cordage, 1,400 lb.; cotton in balls, 750 lb.; butter, 9,000 lb.; sugar, 2,000 lb.; tallow, 2,000 lb.; lead in pigs, 2,000 lb.; iron and ironmongery, 2,000 lb.; molasses, 2,000 lb.; 3d and rose, 1,000 lb.; dried fish in bulk, 1,000 lb.; mustard seeds, 1,500 lb.; linseed and others, 1,000 lb.; potatoes, 1,100 lb.; bark, 800 lb.; resin in casks, 61 cask or sheath in below; 41 salt provisions in casks, 51 flour in barrels, 31 bottled beer in casks of 6 doz., 41 beef and pork in tins, 31 wine in hog-heads, full or empty, 41 coconuts in shell, 311 do. without shell, 501 horns, 5011 portulaca, 1001 demijohns full, 301 do. empty, 341 planks 1 in. thick, 304 ft. to the ton; 1 case, 421 pieces of Tatanam and other wood, 30 cubic ft.; Malagascar hides, 311 India do., 801 Vacas bags, 300, brandy in pipes, 311 empty barrels, 31 cutlery dishes and bowls, 3001 gunny bags, 3001 soap in bales, 70.

**Statement of Commercial Commissions (from Mauritius Civil Service Almanach).**

- On sales of goods imported of all descriptions, on the net amount if sold by auction, and on the gross amount of all other sales, 2 per cent.
- On sales of colonial sugar and other colonial produce, 1 1/2 per cent.
- Purchase of goods:—  
On purchases effected when the agent is in funds, 1 1/2 per cent.  
On purchases of do. when funds are provided by the agent, 2 per cent.
- On the sale of specie and bills of exchange, 1 per cent.
- On remittance proceeds of the sales of goods, specie, bills of exchange &c., 1 per cent.
- On goods consigned and afterwards withdrawn on invoice value, 1 1/2 per cent.
- On goods landed on account of damage incurred by the vessel and re-shipment of the same, 1 1/2 per cent.
- On remittance proceeds of the sale of goods, specie, bills of exchange &c., 1 per cent.
- On the collection of freight or passage money, 1 1/2 per cent.
- On ship's disbursement when the agent is in funds, 1 1/2 per cent.
- On do. when consignee furnishes funds, 1 per cent.
- On disbursements for vessels under charter, 1 per cent.
- On disbursements for vessels under charter, 1 per cent.
- On letters of credit and advances of funds from which no other commission is derived, 1 per cent.
- On effecting insurances, 1 per cent.
- On the collection of freight or passage money, 1 1/2 per cent.
- On sales or purchases of houses, or other immovable property, under power of attorney, 1 per cent.
- On sales or purchases of vessels, whether abandoned or whether purchased or sold under power of attorney, 1 per cent.
- For recovery of rents, 1 per cent.
- On affairs in court, 1 per cent.
- On affairs before the courts and attended with legal proceedings, according to the trouble and delay, but not less than 2 per cent. on the amount of the transaction.
- On affairs in dispute and withdrawn before brought to a settlement, upon the actual value of the claim, 1 per cent.
- On protested bills returned for recovery, 1 1/2 per cent. on the amount received.
- On negotiation of lottery bonds, 1 per cent.
- On commission in interest of parties absent, at the amount of 10 per cent.
- On guarantee of sales where the term does not exceed 1 month, 1 1/2 per cent. and 1 per cent. additional on each month beyond 6 months.
- Endorsement of bills of exchange or local bills, 1 1/2 per cent.
- For the delivery of goods on a cargo when the freight has been paid before hand, 2s. per ton.

N.B.—Brokerage and auction fees are a separate charge.

The following charges are leviable, by Ordinances Nos. 6 & 82 of 1852, on all vessels entering or clearing from Port Louis:—

- For Pilotage.**—Vessels remaining at the bell buoy, per foot 0 1/2  
Vessels entering the harbour:  
Flying inwards and outwards, per foot . . . . . 0 1/2  
Hire of pilots and boats, per foot . . . . . 0 1/2  
Vessels under 100 tons burden entering the harbour shall not be required to take a pilot.  
For the use of the Harbour, viz:—Inwards, for each vessel of 100 tons burden and above . . . . . 3 0/0  
Ditto, if the port office steamer be employed . . . . . 1 0/0  
Outwards . . . . . 1 0/0  
For the use of Boats without Warps.—For each lanch (manned) per day  
Anchorage dues.—Vessels trading with Madagascar or the dependencies of Mauritius, per ton of register . . . . . 0 4  
Such vessels shall not be charged anchorage dues more than for one year.  
Vessels entering the harbour in distress, or for repairs, provided that they do not receive cargo, nor break bulk, or that they discharge cargo for the purpose of repairs, and that the whole of the same be reloaded (excepting any part condemned as damaged) . . . . . 0  
Vessels entering the harbour, but not breaking bulk nor receiving cargo, per ton of register . . . . . 0 4  
All other vessels breaking bulk or receiving cargo, per ton of register . . . . . 0 4  
The anchorage dues leviable under Ordinance No. 8 of 1835, were reduced as follows by Ordinance No. 31 of 1852, Art. 1. On vessels entering the harbour from any port, shall in no case exceed the following amounts, whatever may be their tonnage, viz:—  
On vessels breaking bulk or receiving cargo . . . . . 3 0/0  
On vessels not breaking bulk nor receiving cargo . . . . . 1 0/0  
Art. 2. All steam vessels touching at this port on their way to some other port, other than those receiving a contribution from this colony, for the carriage of mails between this colony and England and India, shall be exempt from anchorage dues and from all other harbour charges leviable exclusively for the use of the Government.  
**Port and Police Clearance.**—On vessels trading with Madagascar and dependencies of Mauritius, each . . . . . 0 4  
On all other vessels . . . . . 0 1/2  
**For the Dredging Service.**—An additional proportional charge for the use of the steamer and for remaining so long upon the warps, levied upon all vessels, except those which remain at the bell buoy, viz:—  
On vessels under 150 tons, per register, 10 per cent.  
Of 150 tons or upwards, per register, 15 per cent.  
For tugging vessels by the port office steamer boats or cutwads, viz:—  
For vessels under 100 tons, each . . . . . 1 0/0  
from 100 to 150 tons . . . . . 1 1/2  
150 . . . . . 2 0/0  
200 400, per each . . . . . 3 0/0  
above 400 tons, each additional 100 tons . . . . . 1 0/0

This island is, as every body knows, the scene of St. Pierre's inimitable tale of Paul and Virginia. The wreck of the St. Geran, so strikingly affecting an incident in the story, is a real event which took place on August 18, 1744.

Table showing the Value of the Exports from and Imports into Mauritius in the 5 Years 1862-1866, and of the Quantity and Value of the Sugar Exported.

	1862	1863	1864	1865	1866
Imports, excluding specie	£ 1,926,253	£ 2,334,848	£ 2,137,107	£ 1,969,808	£ 2,048,559
Exports	£ 4,110,325	£ 4,681,029	£ 4,409,740	£ 4,689,519	£ 4,511,405
Sugar exported	968,193.55	874,548.96	833,440.19	874,076.537	816,160,900
Value of sugar exported	£ 2,327,249	£ 2,181,556	£ 2,121,365	£ 2,246,875	

[This article has been compiled in great measure from information supplied by *Parl. Papers* and the *Mauritius Civil Service Almanack, 1867-1868.*] We also give from the same *Almanack* for 1868, a schedule of duties levied in the customs department, Mauritius, specifying the laws and authorities under which such duties &c. are levied.

Table of Duties on Imports.

Description of Goods	Rates of Duty	Authority under which Levied.
Dues, imported from the United Kingdom, or from any possession in America, or of any of the British Colonies in America, or of any of the British India Company's charter, into which the importation of rum or brandy, the produce of any foreign country, or of any British possession into which foreign rum may be legally imported, is prohibited. (See Act 11 & 12 Vict. c. 107, s. 148)	2s. for each dog 1s. 12d. per cask 5s. 6d. per dozen bottles	Ordinance No. 38 of 1813. Nos. 25 & 29 of 1867.
Being rum or arrack, the produce or manufacture of the United Kingdom, or of any British possession within the limits of the East India Company's charter, into which the importation of rum or brandy, the produce of any foreign country, or of any British possession into which foreign rum may be legally imported, is prohibited. (See Act 11 & 12 Vict. c. 107, s. 148)	6s. 6d. per gallon of any strength, not exceeding the strength of proof by Nykos' hydrometer, and so in proportion for any greater strength.	Ordinance No. 32 of 1866.
Except rum or arrack	6s. 6d. per gallon	
Or cereals seasoned or mixed with any article, and the degree of strength thereof cannot be exactly ascertained by Nykos' hydrometer	1s. per lb. 2s. 6d. per lb. 1s. 6d. per lb. 11. 21s. per hoghead 2s. per dozen bottles 6d. per cwt. 1s. per dozen bottles 17. per hoghead	Ordinance Nos. 25 & 29 of 1867. Ordinance No. 33 of 1865.
Tobacco	4s. per cwt. 4d. per lb.	Ordinance No. 9 of 1851.
Leaf or unmanufactured	6d. per cwt.	
Manufactured	2s. per cwt.	
Cigars and snuff	6d. per cwt.	
Bees and paper in casks	6d. per cwt.	
in bottles	17. per hoghead	
Bread and biscuits	6d. per cwt.	
Cider and perry, bottled	6d. per cwt.	
in casks	6d. per cwt.	
Hams, hater, cheese, hams, tongues, and sausages	6d. per cwt.	
Tin	6d. per lb.	
Coffee	6s. per cwt.	
Sugar, refined, and sugar candy (British produce, and foreign refined in bond in the United Kingdom)	4s. per cwt. 4d. per lb.	
Raw and mixed	6d. per cwt.	
Malt, beans, biscuits, bread, oats, peas, pollard, and stout	6d. per cwt.	
Wool, gun, lentils, rice, and wheat	6d. per bag of 161 lbs. English	
Leaf and pot, salted	2s. per cwt.	
Fish	1s. per cwt.	
Salt, dried, &c.	2s. per barrel of 200 lbs.	
Public	6s. per cwt. ad valorem	Ordinance No. 9 of 1851, and No. 11 of 1857.
All other goods, wares, and merchandise, not otherwise charged with duty, and not hereinafter declared to be free of duty		

\* N.B.—Ordinance No. 33 of 1865 was continued in force for another year, from January 1, 1867, under Ordinance No. 25 of 1866.

**PORTO RICO.** The capital of the valuable Spanish island of the same name, on the north side of the island, on a peninsula joined to the main land by a narrow isthmus, lat. 18° 29' 10" N., long. 66° 7' 2" W. The fortifications are very strong; the town, which stands on a pretty steep declivity, is well built, clean, and contains about 16,000 inhabitants.

**Harbour.**—The harbour of Porto Rico has a striking resemblance to that of the Havannah, in that it is but little inferior. The entrance to it, about 300 fathoms in width, has the Morro Castle on its east side, and is defended on the west side by forts erected on 2 small islands. Within the harbour expands into a capacious basin, the depth of water varying from 5 to 6 and 7 fathoms. On the side opposite to the town there are extensive sand banks; but the entrance to the port, as well as the port itself, is unobstructed by any bar or shallow.

The island of Porto Rico lies in the same latitude as Jamaica. Though the smallest of the greater Antilles, it is of very considerable size. Its form is that of a parallelogram, being about 116 miles in length from east to west, with a mean breadth of about 38, containing an area of 8,750 square miles. Surface generally diversified with hills and valleys; soil generally fertile. It has, however, suffered much

from hurricanes; those of 1742 and 1825 having been particularly destructive. Since the breaking up of the old Spanish colonial system, the progress of Porto Rico has hardly been less rapid than that of Cuba. Her population, which in 1778 was estimated at 80,650, amounted, according to a census taken in 1836, to 357,086, of whom 188,869 were whites, and only 41,818 slaves. It is obvious from this statement that a large proportion of the free inhabitants are coloured; but the law knows no distinction between the white and the coloured *roturier*; and this circumstance, as well as the whites being in the habit of freely intermixing with people of colour, has prevented the growth of those prejudices and deep-rooted antipathies that prevail between the white and the black and coloured population in the United States, and in the English and French islands. The population is now (1869) probably above 400,000.

**Trade.**—Sugar and coffee are by far the greatest articles of export. Next to them are molasses, tobacco, cotton, rum &c. The imports consist principally of flour, fish, and other articles of provision, lumber &c. from the United States; cottons, hardware, machinery &c. from England; wines, silks, jewellery, perfumery &c. from Spain and France; linen from the Hanse Towns; iron from Sweden &c. Large quantities of rice, maize

commissions (from Maues Almanack).  
descriptions, on the net amount gross amount of all other sales.  
her colonial produce, 21 per cent.  
the agents in funds, 21 per cent.  
lands are provided by the agents.  
of exchange, 1 per cent.  
the sale of goods, specie, bills of exchange, 1 per cent.  
wards withdrawn on invoice rates.  
damage incurred by the vessel and cargo, 1 per cent.  
recovered, 2 per cent.  
passage money, 11 per cent.  
the agents in funds, 21 per cent.  
goods furnished, 2 per cent.  
under receipts, 5 per cent.  
expenses of funds from which no other charges are levied, 1 per cent.  
the amount insured, 1 per cent.  
ware, or other immovable property, 2 per cent.  
ware, whether abandoned or otherwise, 1 per cent.  
power of attorney, 1 per cent.  
ware, 1 per cent.  
and attended with legal proceedings, 1 per cent.  
ad duty, but not less than 2 per cent.  
assault.  
withdrawn before brought to a verdict, 1 per cent.  
of the claim, 21 per cent.  
of recovery, 21 per cent.  
bonds, 1 per cent.  
for parties absent, in the amount of duty, but not less than 2 per cent.  
the term does not exceed 6 months, 1 per cent.  
change on local bills, 21 per cent.  
from a cargo when the freight has been paid, 1 per cent.  
dolls are a separate charge.  
goods are leviable, by Ordinance No. 1852, on all vessels entering the port of—  
Louis:—  
loading at the bell buoy, per foot of cargo, 1 per cent.  
unloading, per foot of cargo, 1 per cent.  
loading and unloading at the harbour, 1 per cent.  
take a pilot, 1 per cent.  
safe, viz.:—Inwards, for each vessel, 1 per cent.  
and above, 1 per cent.  
master be employed, 1 per cent.  
of Warps.—For each launch, 1 per cent.  
loading with Madagascar or the Cape, per ton of register, 1 per cent.  
loading with other goods, per ton of register, 1 per cent.  
our in distress, or for repairs, 1 per cent.  
rescue—cargo, per breast built, 1 per cent.  
specially for the purpose of repairing, 1 per cent.  
sole of the same by re-employment, 1 per cent.  
sterned or damaged, 1 per cent.  
but not breaking bulk nor unloading, 1 per cent.  
of register, 1 per cent.  
bulk or receiving cargo, per ton, 1 per cent.  
table under Ordinance No. 31 of 1865, 1 per cent.  
follows by Ordinance No. 31 of 1865, 1 per cent.  
sole entering the harbour, 1 per cent.  
exceed the following amounts, 1 per cent.  
tonnage, viz.:—  
or receiving cargo, 1 per cent.  
bulk now receiving cargo, 1 per cent.  
touching at this port on their outward passage, 1 per cent.  
policy, for the carriage of mails, 1 per cent.  
England and India, shall be 1 per cent.  
do not exceed from all other harbours, 1 per cent.  
statutory for the use of the port, 1 per cent.  
On vessels trading with Madagascar, 1 per cent.  
of Mauritius, each, 1 per cent.  
—An additional proportional charge (including the port charges) for remaining in the port, 1 per cent.  
steamer and for remaining in the port, 1 per cent.  
levied upon all vessels, except the following, viz.:—  
the bell buoy, viz.:—  
a, per register, 10 per cent.  
per register, 15 per cent.  
the port office steamer inwards or outwards, 1 per cent.  
each, 1 per cent.  
100 tons, 1 per cent.  
200 tons, 1 per cent.  
300 tons, 1 per cent.  
400 tons, 1 per cent.  
500 tons, 1 per cent.  
600 tons, 1 per cent.  
700 tons, 1 per cent.  
800 tons, 1 per cent.  
900 tons, 1 per cent.  
1000 tons, 1 per cent.  
1100 tons, 1 per cent.  
1200 tons, 1 per cent.  
1300 tons, 1 per cent.  
1400 tons, 1 per cent.  
1500 tons, 1 per cent.  
1600 tons, 1 per cent.  
1700 tons, 1 per cent.  
1800 tons, 1 per cent.  
1900 tons, 1 per cent.  
2000 tons, 1 per cent.  
2100 tons, 1 per cent.  
2200 tons, 1 per cent.  
2300 tons, 1 per cent.  
2400 tons, 1 per cent.  
2500 tons, 1 per cent.  
2600 tons, 1 per cent.  
2700 tons, 1 per cent.  
2800 tons, 1 per cent.  
2900 tons, 1 per cent.  
3000 tons, 1 per cent.  
3100 tons, 1 per cent.  
3200 tons, 1 per cent.  
3300 tons, 1 per cent.  
3400 tons, 1 per cent.  
3500 tons, 1 per cent.  
3600 tons, 1 per cent.  
3700 tons, 1 per cent.  
3800 tons, 1 per cent.  
3900 tons, 1 per cent.  
4000 tons, 1 per cent.  
4100 tons, 1 per cent.  
4200 tons, 1 per cent.  
4300 tons, 1 per cent.  
4400 tons, 1 per cent.  
4500 tons, 1 per cent.  
4600 tons, 1 per cent.  
4700 tons, 1 per cent.  
4800 tons, 1 per cent.  
4900 tons, 1 per cent.  
5000 tons, 1 per cent.  
5100 tons, 1 per cent.  
5200 tons, 1 per cent.  
5300 tons, 1 per cent.  
5400 tons, 1 per cent.  
5500 tons, 1 per cent.  
5600 tons, 1 per cent.  
5700 tons, 1 per cent.  
5800 tons, 1 per cent.  
5900 tons, 1 per cent.  
6000 tons, 1 per cent.  
6100 tons, 1 per cent.  
6200 tons, 1 per cent.  
6300 tons, 1 per cent.  
6400 tons, 1 per cent.  
6500 tons, 1 per cent.  
6600 tons, 1 per cent.  
6700 tons, 1 per cent.  
6800 tons, 1 per cent.  
6900 tons, 1 per cent.  
7000 tons, 1 per cent.  
7100 tons, 1 per cent.  
7200 tons, 1 per cent.  
7300 tons, 1 per cent.  
7400 tons, 1 per cent.  
7500 tons, 1 per cent.  
7600 tons, 1 per cent.  
7700 tons, 1 per cent.  
7800 tons, 1 per cent.  
7900 tons, 1 per cent.  
8000 tons, 1 per cent.  
8100 tons, 1 per cent.  
8200 tons, 1 per cent.  
8300 tons, 1 per cent.  
8400 tons, 1 per cent.  
8500 tons, 1 per cent.  
8600 tons, 1 per cent.  
8700 tons, 1 per cent.  
8800 tons, 1 per cent.  
8900 tons, 1 per cent.  
9000 tons, 1 per cent.  
9100 tons, 1 per cent.  
9200 tons, 1 per cent.  
9300 tons, 1 per cent.  
9400 tons, 1 per cent.  
9500 tons, 1 per cent.  
9600 tons, 1 per cent.  
9700 tons, 1 per cent.  
9800 tons, 1 per cent.  
9900 tons, 1 per cent.  
10000 tons, 1 per cent.

Quantities of the Principal Articles Exported from the Island of Porto Rico in each Year from 1861 to 1865.

Articles	1861	1862	1863	1864	1865
Sugar - - - lb.	145,995,818	150,594,628	146,467,263	110,425,025	157,370,685
Molasses - - - gal.	4,616,108	4,987,252	4,974,615	3,739,076	5,534,637
Coffee - - - lb.	14,410,930	13,981,388	30,390,475	14,993,831	23,711,824
Tobacco - - - "	9,391,845	8,331,730	6,024,583	4,838,789	12,038,038
Hides - - - "	279,247	396,246	627,691	569,865	529,269
Cotton - - - "	166,598	125,261	325,810	1,863,197	2,729,706
Rum - - - qt.	399,066	1,029,024	363,205	321,355	191,267

Summary Statement showing the Description and Quantities of the Exports of Porto Rico for the Year ending October 31, 1864, together with the Names of the Countries of Destination.

Countries of Destination	Sugar	Molasses	Coffee	Tobacco	Hides	Cotton	Rum
United States - - -	lb. 35,032,774	gal. 2,421,065	lb. 493,384	lb. 91,438	lb. 71,732	lb. 339,883	qt. 12,400
Great Britain - - -	56,472,774	—	—	—	—	318,175	—
British North American Provinces - - -	6,162,780	287,559	235,918	4,990	—	—	—
Spain - - -	1,386,576	1,368	453,215	85,309	569,775	261,147	5,435
France - - -	9,421,565	—	851,171	199,396	—	—	—
Germany - - -	—	—	—	4,050,899	—	—	—
Italy - - -	—	—	595,843	—	—	—	—
Cuba - - -	—	—	1,938,656	—	—	—	—
St. Domingo - - -	2,080	—	—	—	—	—	—
St. Thomas - - -	105,491	—	3,822	—	—	—	—
Other countries - - -	4,660,370	—	5,841,402	169,177	115,158	429,274	72,205
Total - - -	110,914,015	2,758,963	10,434,029	4,628,222	559,865	1,575,181	32,355

Summary Statement showing the Exports from the several Ports of the Island of Porto Rico for the Year ending October 31, 1864.

Names of Ports whence Shipped	Sugar	Molasses	Coffee	Tobacco	Hides	Cotton	Rum
Ran Juan or Porto Rico - - -	lb. 17,149,994	gal. 379,275	3,167,383	886,556	328,125	350,780	5,707
Manzanillo and Tortuguero - - -	—	—	—	663,476	—	—	—
Arecibo - - -	5,688,205	128,712	—	2,707,352	—	—	—
Mayaguez - - -	22,352,005	809,289	5,785,688	13,562	176,318	231,357	—
Ponce - - -	21,476,532	893,488	1,760,926	811,528	8,264	474,250	—
Arecibo - - -	11,944,356	620,709	74,956	119,933	—	62,333	17,213
Humacao &c. - - -	16,376,783	731,110	—	49,265	—	—	—
Guayama and Guanica - - -	6,905,498	115,185	1,030,885	46,461	9,158	181,283	—
Aguadilla - - -	6,243,900	64,210	9,433	80,800	—	37,000	5,485
Total - - -	110,425,025	3,741,076	14,993,836	4,678,333	569,865	1,575,181	32,355

&c. are raised in the island. The pasture lands in the north and east are superior to any in the West Indies for breeding and fattening cattle.

Previously to 1815, Porto Rico, being excluded from all direct intercourse with other countries excepting Old Spain, was either stationary or but slowly progressive, the entire value of the exports in that year having amounted to only 65,274 dollars. But at that epoch a royal decree appeared, which exempted the trade between Spain and the Spanish colonies and Porto Rico from all duties for 15 years; and she was then, likewise, permitted to carry on a free trade, under reasonable duties, with other countries. In consequence principally of these wise and liberal measures, but partly, also, of a considerable immigration of rich Spanish colonists from South America, Porto Rico has latterly made an extraordinary progress. Great improvements have been effected in the police and internal administration, and roads have been constructed in all parts of the island.

The island of Porto Rico, though exceedingly rich, suffers, according to the Report of Mr. Consul Cowper (*Consular Reports*, 1867), from the maladministration of the Spanish employés, and especially from the state of the currency. American money is current, but not legal; and home merchants are obliged, in order to pay their dues, to purchase Spanish money at a premium of 3 or 4 per cent., while the loss on bills is no less than 8 to 12 per cent., owing to this and similar causes.

Vessels under the Spanish flag have a protective privilege in a 6 per cent. abatement of duties, and the payment of half tonnage dues.

Vessels calling should not enter the port, or they are charged all the port dues, whereas if they send a boat for information they pay only 74 dollars.

*Shipping Dues &c., on a 3-masted Vessel.*—Anchorage dues, 2 piast. o. c.; Tonnage &c. dues, 189 piast. o. c.; captain of port, medical officer, and military and civil authorities 26 p. 75 c.; stamped paper for entry and clearance 9 p. 25 c.

Every vessel in cargo or ballast must be provided with 2 manifests and a bill of health, certified by the Spanish Consul, or in default by two merchants at the port of departure.

Merchandise imported direct is allowed a discount of 6 per cent. on the amount of the duties. In case a vessel shall have touched at an intermediate port, she must be furnished with a Spanish consular certificate, stating she has taken no landing.

The value of the total imports into Porto Rico in 1866 was 1,541,020L., and of her exports to the United Kingdom in 1866 was 308,659L., and of her exports to this country 496,172L.

PORT PHILLIP. [MELBOURNE.]

POSTAGE AND POST-OFFICE.

Postage is the duty or charge imposed on letters or parcels conveyed by post; the Post-office being the establishment by which such letters or parcels are conveyed.

1. *Establishment of Post-offices.*—Regular post-offices or couriers were instituted at a very early period, for the safe, regular, and speedy transmission of public intelligence. Herodotus informs us (lib. viii. c. 98) that in Persia, men and horses, in the service of the monarch, were kept at certain stations along the public roads; and that the despatches, being given to the first courier, were by him carried to the second, and so on, with an expedition which neither snow, nor rain, nor heat, nor darkness could check. A similar institution, under the name of *cursus publicus*, was established at Rome by Augustus, and was extended and

Rico in each Year from

1864	1865
10,425,045	157,321,183
5,732,076	3,554,037
14,995,831	23,714,221
4,618,739	3,558,869
569,865	172,436
1,365,187	1,778,556
3,2155	191,827

ports of Porto Rico for the entries of Destination.

Hides	Cotton	Ram
lb. 71,732	lb. 329,945	sq. 15,200
—	516,113	—
569,775	261,147	9,435
—	—	—
—	—	—
—	—	—
—	—	4,515
113,158	498,074	14,861
559,665	1,574,181	37,553

Island of Porto Rico for the

Hides	Cotton	Ram
lb. 328,125	lb. 250,760	sq. 1,507
—	—	—
175,318	231,937	—
6,264	474,950	—
—	69,935	17,315
—	—	—
—	181,383	—
50,900	275,000	5,615
567,685	1,575,187	59,535

..., on a 3-masted Vessel.—As  
 o. c.; Tonnage &c. they  
 captain of port, medical officer,  
 civil authorities 26 p. 73 c.  
 entry and clearance 9 p. 25 c.  
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[MELBOURNE.]  
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improved by his successors. Horses and carriages were kept in readiness at the different stations along the public roads, not only for the transmission of despatches, but also for the conveyance of official personages, or others who had obtained an order from authority allowing them to travel post. By this means Government was speedily apprised of whatever took place in the remotest corners of the empire; and instructions or functionaries could be sent to, or recalled from, the most distant provinces, with a celerity that would even now appear considerable. (Bergier, *Histoire des Grands Romaines*, liv. iv. c. 4; Bouchaud *Sur la Police des Romaines*, pp. 136-151.)

Posts appear to have been established, for the first time, in modern Europe, in 1477, by Louis XI. They were originally intended to serve merely, as the ancient posts, for the conveyance of public despatches, and of persons travelling by authority of Government. Subsequently, however, private individuals were allowed to avail themselves of this institution; and Governments, by imposing higher duties or rates of postage on the letters and parcels sent through the post-office than are sufficient to defray the expense of the establishment, have rendered it productive of a considerable revenue. Nor, when the rates of postage are confined within due limits, or not carried so high as to form any serious obstacle to correspondence, is there, perhaps, a less objectionable tax.

English Post-office.—The Post-office was not established in England till the 17th century. Postmasters, indeed, existed in more ancient times; but their business was confined to the furnishing of post-horses to persons who were desirous of travelling expeditiously, and to the despatching extraordinary packets upon special occasions. In 1635 Charles I. erected a letter office for England and Scotland; but this extended only to a few of the principal roads, the times of carriage were uncertain, and the postmasters on each road were required to furnish horses for the conveyance of the letters at the rate of 2*d.* per mile. This establishment did not succeed; and at the breaking out of the civil war great difficulty was experienced in the forwarding of letters. At length a post-office, or establishment for the weekly conveyance of letters to all parts of the kingdom, was instituted in 1649, by Mr. Edward Prideaux, Attorney-General for the Commonwealth, the immediate consequence of which was a saving to the public of 7,000*l.* a-year on account of postmasters. In 1657 the Post-office was established nearly on its present footing, and the rates of postage that were then fixed were continued till the reign of Queen Anne. (Blackstone's *Com.* book i. c. 8.)

From the establishment of the Post-office by Cromwell down to 1784, mails were conveyed either on horseback, or in carts made for the purpose; and instead of being the most expeditious and safest conveyance, the post had become, at the latter period, one of the slowest and most easily robbed of any in the country. In 1784 it was usual for the diligences between London and Bath to accomplish the journey in seventeen hours, while the post took forty hours; and on other roads their rate of travelling was in about the same proportion. In consequence of this difference in point of despatch, a very great number of letters were sent by those conveyances; the law being very easily evaded by giving them the form of small parcels.

Under these circumstances, it occurred to Mr. John Palmer, of Bath, afterwards Comptroller-General of the Post-office, that a very great improvement might be made in the conveyance of

letters, in respect of economy as well as of speed and safety, by contracting with the proprietors of the coaches for the carriage of the mail; the latter being bound to perform the journey in a specified time, and to take a guard with the mail for its protection. Mr. Palmer's plan encountered much opposition, but was at length carried into effect. The consequence proved most beneficial: the use of mail coaches was extended to every part of the empire; and while the mail was conveyed in less than half the time required under the old system, the coaches by which it was conveyed afforded, by their regularity and speed, a most desirable mode of travelling. Mr. Palmer was the author of several other improvements in the economy of the Post-office; nor is there any other individual to whose exertions this department owes so much. (Macpherson's *Hist. of Commerce*, anno 1784.)

The Scotch Post-office was established on its present footing in 1710; but, owing to the backward state of Scotland, the limited amount of its trade and population, and the extreme badness of the roads [ROADS], it was very defective in most parts of the country till after the American war. In proof of this, we may mention that the first mail-coach, from London to Glasgow direct, arrived at the latter on July 7, 1788. Previously to that period, the course of post from London to Glasgow was five days; this, however, is not to be entirely ascribed to the slowness of the conveyance by horseback; for the mail came round by Edinburgh, and was detained there *twelve hours*, or till the usual Edinburgh despatch was made up for Glasgow in the evening.

The construction of railways between most of the great towns of the empire has, within these few years, gone far to supersede the use of mail-coaches on the principal lines of road, and has added prodigiously to the facilities of correspondence and travelling. The journey from London to Liverpool, which had been accomplished by the mail, when in its most improved state, in about 20 or 22 hours, is now accomplished by railway in 9 or 10 hours; and on other roads in the same proportion. The principal expense of the Post-office consists, however, not so much in the conveyance of letters from place to place, though that amounts to a very large sum, as in their previous collection, and their subsequent distribution. This necessitates the establishment of a vast number of subordinate offices in the remoter parts of the kingdom, many of which do not repay their expenses. This is particularly the case in Ireland, and in the Highlands and Islands of Scotland.

It does not really seem, though the contrary has been sometimes contended, that the Post-office could be so well conducted by anyone else as by Government. It is indispensable to its satisfactory working that it should be conducted with the greatest regularity and precision; and that all the departments should be made subservient to each other, and conducted on the same plan. It is plain that such results could not be obtained in any extensive country otherwise than by the agency of Government; and the interference of the latter is also required to make arrangements for the safe and speedy conveyance of letters to, from, and through foreign countries.

The organisation of the Post-office supplies one of the most striking examples of the advantages resulting from the division and combination of employments. 'Nearly the same exertions that are necessary to send a single letter from Falmouth to New York will send 50,000. If every man were to effect the transmission of his own correspondence, the whole life of an eminent merchant

might be passed in travelling without his being able to deliver all the letters which the Post-office forwards to him in a single evening. The labour of a few individuals, devoted exclusively to the forwarding of letters, produces results which all the exertions of all the inhabitants of Europe could not effect, each person acting singly.' (Senior *On Political Economy.*)

**Rates of Postage.**—Previously to the introduction of the new system of a uniform penny rate of postage in 1839, under the provisions of the Act 2 & 3 Vict. c. 52, the following rates of postage, increasing progressively according to the distance, were charged on all letters (not privileged) conveyed by post from place to place in Great Britain and in Ireland, and from places in Great Britain to places in Ireland, and conversely:—

Great Britain.		Postage of a Single Letter
From any post-office in Great Britain to any place not exceeding 8 miles from such office		
For any distance above 8 miles, and not exceeding 15 miles		
15	..	3
30	..	4
50	..	5
70	..	6
80	..	7
100	..	8
150	..	9
170	..	10
200	..	11
250	..	12

And so on in proportion, the postage increasing progressively 1d. for a single letter for every 100 miles.

Letters containing one enclosure charged with 2 single rates. Letters containing more than one enclosure, and not exceeding 1 ounce, charged with three single rates. Letters exceeding 1 ounce, whatever the contents may be, were charged with 4 single rates; and for every 4 ounces above that weight, an additional single rate was chargeable.

**Ireland.**

From any post-office in Ireland to any place within the same, not exceeding 7 Irish miles from such office	Postage of a Single Letter
Exceeding 7 and not exceeding 15 Irish miles	3
15	4
25	5
35	6
45	7
55	8
65	9
75	10
85	11
95	12
100	13
150	14
200	15
250	16

And for every 100 miles, Irish measure, above 300 miles, a further sum of 1d. Double and treble letters charged according to the same scale of advance as in England.

**GREAT BRITAIN AND IRELAND.**

*Rates of Postage taken in the Currency of the United Kingdom for the Post and Conveyance of Letters and Packets by Post, from any Place in Great Britain to any Place in Ireland, or from any Place in Ireland to any Place in Great Britain.*

Distance	Single Letter		Double Letter		Treble Letter or other under an Ounce Weight		For every three Weight and for every Fraction exceeding an Ounce in Weight	
	s.	d.	s.	d.	s.	d.	s.	d.
Not exceeding 15 miles, British measure	0	3	0	6	1	0	1	1
Exceeding 15 and not exceeding 30 such miles	0	4	0	8	1	0	1	2
30	0	6	1	0	1	0	1	3
50	0	7	1	2	1	0	1	4
70	0	8	1	4	1	0	1	5
80	0	9	1	6	1	0	1	6
100	0	10	1	8	1	0	1	7
150	0	11	1	10	1	0	1	8
200	0	12	1	12	1	0	1	9
250	0	13	1	14	1	0	1	10
300	0	14	1	16	1	0	1	11
400	0	15	1	18	1	0	1	12
500	0	16	1	20	1	0	1	13
600	0	17	1	22	1	0	1	14
700	0	18	1	24	1	0	1	15
800	0	19	1	26	1	0	1	16
900	0	20	1	28	1	0	1	17
1000	0	21	1	30	1	0	1	18

Exclusive of an additional charge for the packets plying between the two countries.

On comparing the number of non-privileged letters conveyed by the general post with the gross amount of postage, it appears that under the old system they paid an average rate of about 7d. or 7½d. each.

Exclusive, however, of these rates of postage, letters posted in London and other large towns for delivery in such towns, were charged 2d. each in London, and 1d. each in the other towns in which such local posts were established.

In addition, too, to the letters on which postage was charged, all the principal officers of Government, and the members of both Houses of Parliament, enjoyed (either to a greater or less extent) the privilege of 'franking,' or of sending and receiving letters by the post free of postage, and this privilege was very extensively exercised.

**Post-office Revenue.**—The gross produce, deducting overcharges, of the Post-office revenue of Great Britain, exclusive of Ireland, in the under-mentioned years, was—

Years	Duty	Years	Duty
1722	1,207,504	1850	2,053,780
1755	210,663	1855	2,107,677
1775	545,321	1877	2,103,994
1798	745,478	1838	2,116,738
1800	1,083,950	1839	2,168,913
1811	1,675,076	1840	1,239,248
1814	2,005,087	1841	1,566,174
1820	1,995,085	1842	1,439,162
1825	2,160,390		

The progress of the Scotch branch of the Post-office revenue has been quite extraordinary. In 1698, Sir Robert Sinclair, of Stevenson, had grants from William III. of its entire produce, with an extra allowance of 300l. a-year, on condition of his keeping up the post; but, after trial, he abandoned the undertaking as disadvantageous. In 1709 the Scotch Post-office revenue was under 2,000l.; whereas its amount in 1838 was 235,000l. gross, and 211,541l. net—having increased more than a hundredfold in little more than a century. In 1781 the Glasgow post-office produced only 4,341l. 1s. 9d., while in 1839 it produced 47,350l. (Stark's *Picture of Edinburgh*, p. 144; *Glasgow Statistics of Glasgow*; *Finance Book for 1838 and 1839*; &c.)

The expenses of collecting the Post-office revenue amounted, under the old system, to from 24 to 30 per cent. on the gross receipts. In 1842, however, they amounted, for the United Kingdom, to 966,759l., being no less than 60 per cent. on the gross revenue.

**Introduction of the New System.**—The increase of the Post-office revenue, as evinced by the foregoing statements, has been very remarkable. It is, mostly, no doubt, to be ascribed to the increase of population, the diffusion of education, and the growing intercourse among all classes of the community; though a good deal must also be ascribed to the efforts made in the early part of the present

the postage increasing  
each letter for every 100

enclosure charged with  
notaining more than one  
ending 1 ounce, charged

Letters exceeding 1  
ounce may be charged  
for every 1/2 ounce above  
1 single rate was charge

Postage of a Single Letter	
15 Irish miles	1
25 " "	2
35 " "	3
45 " "	4
55 " "	5
65 " "	6
75 " "	7
85 " "	8
95 " "	9
100 " "	10
110 " "	11
120 " "	12
130 " "	13
140 " "	14
150 " "	15

Irish measure, above  
sum of 1d. Double and  
according to the same scale  
and.

and Conveyance of Letters  
to Ireland, or from any Place

For every Ounce Weight, and for every Fraction of an Ounce exceeding 1/2 Ounce	in Weight
1/2	1
3/4	2
1	3
1 1/4	4
1 1/2	5
1 3/4	6
2	7
2 1/4	8
2 1/2	9
2 3/4	10
3	11
3 1/4	12
3 1/2	13
3 3/4	14
4	15

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of George III. to suppress some of the grosser  
abuses that had grown out of the privilege of  
franking, and still more to the additions that were  
repeatedly made to the rates of postage. Unfor-  
tunately, however, the latter were, in the end,  
carried far beyond their proper limits, imposing  
a heavy burden on the public, without any corre-  
sponding advantage to the revenue. This is obvi-  
ous from the fact of the post-office revenue  
having continued stationary for the 20 years end-  
ing with 1838; though, from the great increase of  
population and commerce during that period, it is  
obvious, had the rates of postage not been so high  
as to force recourse to other channels, the revenue  
must have rapidly increased from the termination  
of the war downwards. When the rates of postage  
are moderate, the greater despatch and security of  
their conveyance by post prevent any considerable  
number of letters being sent through other chan-  
nels. But when the rates become oppressive—  
when, for example, a postage (as under the Into  
system) of 11d. is charged on the conveyance of a  
single letter between London and York, of 13d.  
between London and Edinburgh, and so on—a  
serious interruption is given to that facility of  
intercourse which is so important, at the same  
time that a very large proportion of the corre-  
spondence which is carried on is unavoidably  
forced into private channels. It was, no doubt,  
attempted to prevent the transfer of letters from  
the post, by forbidding, under heavy penalties,  
their conveyance by private parties. But, as  
might have been anticipated, this prohibition  
could not be enforced, and had little or no effect.  
Considering, indeed, the facilities which have long  
existed for the transmission of letters in parcels  
between different parts of the country, and the  
oppressive rates of postage, the wonder is, not  
that the post-office revenue was nearly stationary  
previously to 1839, but that it did not fall off.  
Although, however, the rates of postage then  
existing—amounting, as already stated, to an  
average charge of about 7d. or 7 1/2d. on all single  
letters conveyed by the general post—were very  
decidedly too high, it did not therefore follow  
that an invariable charge of 1d. whether a letter  
were conveyed 1 mile or 1,000 miles, or singly  
with 10,000 others, was the precise charge that  
should have been imposed. But, notwithstanding  
this was rushing blindfold from one extreme, or  
rather absurdity, to another, and endangering a  
large amount of revenue without any equivalent  
advantage, the ingenious project, brought forward  
by Mr. Rowland Hill, for a uniform penny postage,  
was paid in advance, was eagerly adopted. It  
must be admitted, too, that it had various recom-  
mendations in its favour. Being calculated to  
prevent trouble and save expense to the public, it  
could not fail to be generally acceptable (what re-  
action of taxation is not?), especially to mercan-  
tile men and others having an extensive correspon-  
dence. No doubt, however, the scheme was far  
more indebted for its popularity to the oppressive-  
ness of the old rates of postage, than to any in-  
trinsic merits of its own. Had these rates been  
properly reduced in 1837 or 1838—that is, had the  
postage of letters of 1/2 oz. weight passing between  
England and Ireland and London been reduced to  
6d., and other letters in proportion, and  
penny circulars, advertisements, and notices  
of sales &c. been allowed to pass under covers open  
at the ends at 1d. or 2d. each—we venture to say  
that the clamour for a uniform penny postage would  
never have made any way. But Government,  
though hostile to the project, took no step calcu-  
lated to stop the agitation in its favour. They  
rather reduced the old rates of postage, nor at-

tempted to give any increased facilities for the  
conveyance of letters by post. And it happened  
on this, as it all but invariably happens on similar  
occasions, that those who decline making reason-  
able and necessary concessions at the outset, are,  
in the end, compelled to concede a great deal more  
than would have at first been satisfactory. Such, at  
all events, was the case in this instance. The clam-  
our for a uniform penny rate became too power-  
ful to be resisted; and Parliament, whether it were  
so inclined or not, was obliged to lend its sanction  
to the measure. The Act 2 & 3 Vict. c. 52, for  
regulating the duty on postage, did not indeed  
enact that the charge for conveying letters of a  
given weight should in all cases be reduced to  
1d.; but it was introduced for the avowed purpose  
of enabling the Treasury to take the necessary  
steps to bring the change about with the least in-  
convenience to all parties. In this view it gave  
the Treasury power to alter and reduce the rates  
of postage, without reference to the distance which  
letters may be conveyed, according to the weight  
of the letters, and not to the number or description  
of their enclosures; it also gave them power to  
adopt such regulations as they might think ex-  
pedient as to stamped covers or envelopes, to sus-  
pend parliamentary franking &c.

In virtue of the powers so conveyed, regulations  
were issued (sanctioned by the Act 3 & 4 Vict.  
c. 196) and since slightly modified, by which all En-  
glish letters, without regard to the number of en-  
closures or the distance conveyed, provided they  
be paid when posted or despatched, are:—

If not exceeding 1/2 oz. weight, charged 1d., 1  
oz. 2d., 1 1/2 oz. 3d., and so on, 1d. being added for  
every additional 1/2 oz. At the outset of the system  
all packets that weighed more than 16 oz.  
were sent to the Dead Letter Office, except—

1. Parliamentary petitions and addresses to her Majesty.
2. Parliamentary proceedings.
3. Letters and packets addressed to or received from places beyond sea.
4. Letters and packets to and from public departments.
5. Deeds, if sent open, or in covers open at the sides. They may be tied with string and sealed, in order to prevent inspection of the contents; but they must be open at the sides, that it may be seen they are entitled to the privilege.
6. Bankers' parcels despatched from London, and specially delivered at the General Post Office, under certain regulations.

But now (1869) there are no limits to the weight, but merely to the bulk of the parcels sent by post.

All letters not paid when they are posted or despatched are charged double the above rates; and if the payment in advance be insufficient, double the deficiency is charged.

All parliamentary and official franking has been put an end to; but members of either House of Parliament are entitled to receive petitions and addresses to her Majesty, and petitions to Parliament, free of charge, provided such petitions and addresses be sent in covers open at the ends, and do not exceed 32 oz. weight.

The punctual delivery of letters may be insured by getting them registered when posted. A fee of 1d., in the shape of additional stamps of that amount, is charged for the registration of each letter over and above the rate of postage to which it may be liable.

To facilitate the working of the plan, Govern-  
ment furnish adhesive stamps of 1d. &c. each,  
which being pasted on letters, they are of course

delivered to those to whom they are addressed free of any further charge for postage; and it also furnishes stamped envelopes at the low rate of 24 for 2s. 8d., the 3d. being for the paper and manufacture. Hence, as any quantity of stamps or stamped envelopes may, in most parts of the country, be procured beforehand, the necessity that must otherwise have existed of paying the postage at the moment when letters are posted, has been pretty generally obviated.

Such are the more prominent features of the new system; and no doubt it has the recommendations of simplicity (if we may apply such a phrase to a uniform charge for services costing widely different sums) and cheapness in its favour, and has greatly facilitated correspondence. But it may, notwithstanding, be easily shown that its adoption was most unwise. It is, no doubt, very convenient for merchants, bankers, middlemen, retail dealers, and indeed for most persons, to get letters for 1d. that previously cost them 7d. or 7½d.; but their satisfaction is not the only thing to be attended to in forming a fair estimate of the measure. The public exigencies require that a sum of about 70 millions a year should be raised, one way or other; and so long as we are pressed by an unreasoning necessity of this sort, it is not much to say in favour of the repeal or diminution of any tax, that those on whom it fell with the greatest severity are delighted with the reduction. Sugar has, in England, become a necessary of life; and its consumption, to say the least, is quite as indispensable to the bulk of the people, and especially to the labouring classes, as the writing of letters. But would it, therefore, be a wise measure to repeal the duty on sugar, or to reduce it to 1s. per cwt.? It has been alleged, indeed, that taxes on the transmission of letters are objectionable on principle, and should therefore be repealed, independently altogether of financial considerations. But it is easier to make an allegation of this sort than to prove it. All taxes, however imposed, if they be carried (as was the case with the old rates of postage) beyond their proper limits, are objectionable; but, provided these be not exceeded, we have yet to learn why a tax on a letter should be more objectionable than a tax on the food of the writer, or on fifty other things.

It was contended, when the plan was under discussion, that there would be no loss of revenue, and that the increase of correspondence growing out of the reduction of the postage would be so vast as fully to balance the reduced rate of charge. But, though there has been a great increase in the number of letters, it has fallen far short of this. Notwithstanding all that has been said about the *furor scribendi*, letter-writing is generally looked upon as a duty rather than a pleasure; and it does not follow, when the expense of postage is reduced, that the occasions for writing letters are proportionally increased.

The annexed table gives the total amount of the gross and nett revenue from the Post-office, and the total cost of management, in each of the years ending December 31, 1862, 1863, and 1864:

Years	Gross Revenue (after deducting for Returned and Mis-sent Letters, Overcharges &c.)	Cost of Management	Nett Revenue (including the Postage charged on the Public Departments)
1862	£ 3,633,589	£ 2,074,573*	£ 1,559,016
1863	3,571,929	2,098,453*	1,473,476
1864	4,109,926	2,136,574*	1,973,352

\* These sums are exclusive of the cost of the packet service, which amounted to 844,961l. in 1862; 948,147l. in 1863, and 968,917l. in 1864.

The following is the amount, from the several sources, of the gross revenue from the Post-office

in Great Britain and Ireland, distinguishing the deductions for returned letters, overcharges &c., in each of the years ending December 31, 1862, 1863, and 1864:—

Source of Revenue	1862	1863	1864
Sale of postage stamps by postmasters, receivers, and window-men	2,303,084	2,444,683	2,656,426
Ditto Ireland Revenue Department	705,330	747,475	767,742
Money for postage taken by country postmasters	195,844	187,530	125,287
Do. metropolitan postmasters	114,783	109,597	107,791
Commission received on money orders	136,251	144,826	151,979
Miscellaneous receipts	14,781	19,356	17,457
Postage charged against public departments	162,567	182,935	185,832
Postage collected by postmasters and agents in the colonies, and foreign countries not forming treaties with Great Britain	142,318	166,285	178,546
Postage collected in Great Britain for credit of colonial offices not under the control of the Imperial post office	40,737	40,099	40,554
Balance for United Kingdom	101,581	126,166	153,011
Postage collected under postal treaties by foreign post offices for Great Britain	187,253	218,891	219,963
Ditto by Great Britain for foreign post offices	201,893	228,441	241,414
Balance against U. Kingdom	14,630	11,547	31,431
Total receipts	5,550,468	5,866,711	6,132,291
Deductions for letters returned, mis-sent, and redirected, and for overcharges and returns	16,897	19,443	13,361
Total gross revenue	5,633,589	5,874,299	6,109,926

We subjoin a detailed statement of the post office expenditure in 1866 and 1867:—

#### Force and Expenditure.

	1866	1867
<b>FORCE.</b>		
<i>Effetive</i> .—Staff officers, postmasters, clerks, sorters, stampers, messengers, guards, letter carriers	25,594	25,602
<i>Non-Effetive</i> .—Retainers	1,425	1,559
<b>COST OF COLLECTION AND DELIVERY, OF MAMMUKATS, AND OF MONEY ORDER BUSINESS.</b>		
Salaries, wages, pensions, travelling allowances, postage on sale of stamps, commission on money order business, cost of uniform clothing, medical expenses, and cost of substitutes during annual holidays or absences of officers and men, official postage, law charges, and incidental expenses	£ 1,368,157	£ 1,401,531
Manufacture of postage stamps, i.e. printing, paper, and miscellaneous charges	23,251	25,681
Stationery	34,989	35,003
Buildings and repairs, rent, rates, taxes, fuel, and light	182,027	206,594
Total cost of collection, delivery, and management, and of money order business	1,608,404	1,715,155
<b>COST OF CONVEYANCE OF MAILS.</b>		
Conveyance by coaches, carts, and omnibuses	139,838	110,009
Conveyance by railways	586,085	539,575
Cost of supply and repair of mail bags and boxes, tolls, and ferryage, cost of apparatus for exchange of bags conveyed by railway, and miscellaneous expenses	21,256	22,451
Conveyance of mails by private ships and by packets under contract with admiralty or post office	817,167	785,815
Conveyance of mails over Isthmus of Suez and Isthmus of Panama and in other foreign parts, and salaries of admiralty agents and other officers in charge of foreign and colonial mails	27,898	25,764
Total cost of conveyance	1,592,671	1,531,687
Total cost of post office service	3,201,075	3,246,842

The total gross receipt of the post-office revenue of the United Kingdom, deducting overcharges and returned letters, amounted in 1838 (before the changes began) to 2,346,278l., while the expenses of the establishment for the same year amounted to 686,768l., leaving a nett revenue of 1,659,510l. In 1867, however, 29 years after the new system had been in full operation, and the Post-office had been converted into a great carry-

and, distinguishing the letters, overcharges &c, being December 31, 1862,

1862	1863	1864
£	£	£
5,084	9,444,695	9,656,616
2,380	747,475	767,241
1,241	187,080	185,707
7,845	109,527	107,291
1,354	144,296	151,979
4,781	15,256	17,437
2,567	182,235	195,814
3,218	166,285	175,545
10,757	40,099	45,534
11,981	126,786	133,011

87,253	216,591	312,963
61,883	228,441	344,414
14,630	11,547	31,451
50,436	5,886,741	4,172,504
16,997	12,412	15,569
33,589	5,874,489	4,109,667

d statement of the post 6 and 1867:—

**Expenditure.**

	1866	1867
Postmasters, messengers, &c.	25,594	25,909
Wages of Clerks	1,423	1,559
Printing, stationery, &c.	3,368,457	1,491,551
Post-charges	25,231	25,594
Post-offices, taxes, &c.	34,899	35,033
Post-offices, and other bus.	189,267	236,572
Post-offices, and other bus.	1,609,007	1,715,165
Post-offices, and other bus.	139,888	110,709
Post-offices, and other bus.	586,085	559,575
Post-offices, and other bus.	21,256	22,431
Post-offices, and other bus.	817,167	755,845
Post-offices, and other bus.	27,595	25,564
Post-offices, and other bus.	1,522,671	1,531,681
Post-offices, and other bus.	5,201,681	5,436,519

t of the post-office revenue, deducting overcharges mounted in 1838 (before 2,346,278*l.*), while the expenditure for the same year leaving a net revenue of 2,999,000*l.* (before 2,999,000*l.*), in full operation, and the converted into a great carry-

ing establishment for the conveyance of books, &c., its gross revenue amounted to only 4,668,214*l.*, while the expenses of the establishment for the same year amounted to 3,246,850*l.*, leaving a net revenue of only 1,421,364*l.*, being no less than 238,146*l.* under its amount in 1838.

**Account of the Gross and Net Post-Office Revenue, 1856-1867, from the 14th Report of the Postmaster-General.**

Years	Total Postal Revenue	Total Cost of Post Office Services	Net Revenue
1856	5,035,954	3,438,732	597,222
1857	3,195,713	2,570,901	624,812
1858	3,141,553	2,494,418	347,137
1859	3,461,914	2,907,169	554,745
1860	3,531,165	2,831,137	700,028
1861	3,685,198	3,161,171	524,027
1862	3,741,004	2,932,095	811,909
1863	3,999,455	2,962,451	1,037,004
1864	4,221,258	3,078,297	1,142,961
1865	4,435,608	3,241,086	1,194,522
1866	4,599,667	3,201,681	1,397,986
1867	4,668,414	3,246,850	1,421,564

It is plain, therefore, that the adoption of the new post-office system for a long time occasioned the sacrifice of from 238,146*l.* to 600,000*l.* a year of revenue, as compared with the revenues of 1838. And, considering the extraordinary progress of the country in the interval, and especially the increase of population and commerce, the loss will immediately be seen to be very much greater—perhaps more than double that amount. And though it be true that a sacrifice of this amount might not, under other circumstances, have been of much consequence, it is to be borne in mind that it was incurred when the revenue was already inadequate to meet the expenditure, and when, consequently, the deficiency had to be otherwise provided for, though probably in some more onerous way. We should not, however, have thought the loss of revenue, nor even the introduction of a uniform penny rate, a valid objection to the new plan, had there been no means other than its adoption of getting rid of the inconveniences attached to the old system. But such was not the case. All its defects might have been effectually obviated without any, or with but a very inconsiderable, loss of revenue. Had franking been abolished, and the old rates of postage so reduced that the average charge might have been about 2*d.* or 3*d.* a letter, the revenue would probably not have lost anything, while every really advantageous object effected by the present system would have been secured. Indeed, we see no good reason why the present rates of postage should not, and very many why they should, be doubled, or increased to 2*d.* for a letter weighing  $\frac{1}{2}$  oz., 4*d.* for one weighing 1 oz., and so on. We are well convinced that, were this done, and the troublesome practice of forcing the prepayment of letters abandoned, the revenue would be nearly doubled, with little or no inconvenience to the public.

It redounds nothing to the credit of the new system that the post-office revenue increases while it is maintained; for this must necessarily follow from the increasing population, wealth, commerce, and education of the country. The revenue would increase quite as fast under any reasonably well-contrived system; all taxes on articles in general use are sure, provided they be not excessive, to increase with every increase of population and wealth.

The abolition of franking—which, however, is in nowise connected with a penny rate of postage—was by far the least exceptional of the alterations introduced in 1837. Franked letters were in most

instances addressed to those who could best afford to pay the expense of postage, and who in this way escaped a burden that fell with its full weight on their less opulent and less known neighbours.

**Money Orders.**—The granting of money orders at the different post-offices, for the payment of sums of 10*l.* and under, is a very great accommodation to the public, and is very extensively resorted to. Such orders cost 3*d.* if for 2*l.* or under, 6*d.* for sums between 2*l.* and 5*l.*, 9*d.* for those from 5*l.* to 7*l.*, and 1*s.* for those from 7*l.* to 10*l.* As orders are not paid unless the parties in whose favour they are drawn, or other parties well known to the postmaster by whom they are payable, appear to receive payment, there is no risk of the money getting into improper hands.

**Despatching of Letters.**—Full details as to the posting of letters in London and elsewhere may be found in the *Postal Guide*, published quarterly—a useful and valuable publication, to which we beg to refer. It is sufficient here to state that, speaking generally, letters may be put into the receiving-boxes of the different post-offices throughout the country at all hours of the day, and mostly, also, of the night. The mails for particular places are made up at certain specified hours, of which public intimation is given in the *Postal Guide*, and letters put in after those hours are not of course despatched till next mail.

We abridge from the *Postal Guide* the following statements, viz. :—

**Inland Letters.**—The rates of postage on inland letters depend on weight only, and are as follows, if paid in advance:—

Letter weighing not more than $\frac{1}{2}$ oz.	1 <i>d.</i>
more than $\frac{1}{2}$ oz. and not exceeding 1 oz.	2 <i>d.</i>
more than 1 oz. and not exceeding $\frac{1}{2}$ lb.	3 <i>d.</i>

and so on; 1*d.* being charged for every additional ounce, or fraction of  $\frac{1}{2}$  ounce.

As a general rule, the postage, if not paid in advance, is doubled; and if the payments in advance be insufficient, double the deficiency is charged.

Petitions and addresses to her Majesty, forwarded direct, are exempted from postage; and such petitions and addresses, and petitions to either House of Parliament, if sent to a member, are likewise exempted, provided they do not weigh more than 2 lb., and are without covers, or are in covers open at the ends.

**Newspapers and other periodical Publications bearing the Newspaper Stamp.**—Although the exclusive privilege of the post-office extends only to letters, all periodical publications, including newspapers, published in the United Kingdom, at intervals not exceeding 31 days, and which bear a stamp or stamps denoting the stamp duty, may be transmitted and re-transmitted through the post within the United Kingdom free of postage under the following rules:—

Stamps Impressed on the Publication	Greatest Number of Sheets	Greatest Superficial Extent of Letterpress on One Side
One penny	Two	3,450 inches
Three-haipence	Three	3,415 "
Two-pence	Four	4,590 "

No publication, or portion thereof, can pass through the post unless the stamp which it bears be of the value of 1*d.* at least.

The title and date of the publication must be printed at the top of every page.

It must be folded in such a manner that the whole of the stamp or stamps shall be exposed to view, and be distinctly visible on the outside.

It must not be printed on pasteboard or cardboard.

It must be posted within 15 days from the date of issue.

If these rules be infringed, the publication will be charged double, as an unpaid book-packet.

It must have either no cover or be open at the ends.

It must not contain any enclosure.

It must have no writing or other mark thereon but the name and address of the person to whom it is sent; nor anything on the cover but such name and address, the printed title of the publication, and the printed name and address of the publisher or vendor who sends it.

If the publication be addressed to any person in the place where it is posted, it is liable to a postage of 1*d.* prepaid, or 2*d.* if not prepaid.

Stamped publications can also be forwarded per book post, but then the impressed stamp does not count.

Newspapers may also be sent abroad by the post-office. But the regulations and postage to which they are liable vary so often, that it would be useless to mention them here.

**Parliamentary Proceedings.**—Printed proceedings of Parliament, without covers, or in covers open at the ends, circulate within the United Kingdom, 1*d.* being charged for every  $\frac{1}{4}$  lb. or fraction of  $\frac{1}{4}$  lb.

The words Parliamentary Proceedings must be written or printed on the cover of the packet; otherwise it is liable to the letter-rate of postage.

Prepayment when the circulation is within the United Kingdom is optional; and if it be made in part, the difference only is charged.

Parliamentary proceedings may be sent as books to all the colonies, and to those foreign states between which and this country there is a book post.

**Book Post, including Newspapers and other periodical Publications, and also Parliamentary Proceedings.**—The postage is 1*d.* for every  $\frac{1}{4}$  lb. or fraction of  $\frac{1}{4}$  lb.

The postage must be prepaid in full, by means of postage stamps.

Every packet must be sent either without a cover, or in a cover open at the ends or sides.

A book-packet may contain any number of separate books or other publications (including printed or lithographed letters), photographs, unglazed prints, or maps, and any quantity of paper, parchment, or vellum. And the books &c. may be bound or unbound &c.

No book-packet to contain anything sealed or otherwise closed against inspection; nor any letter, nor any communication of the nature of a letter (beyond the name of the sender), unless such letter or communication be printed.

No book-packet must exceed 2 feet in length, or 1 foot in width or depth; and if any packet of greater dimensions be presented at a post-office, it will not be received.

Any packet not open at the ends or sides, or which has any written letter or any communication of the nature of a letter written in it, or upon its cover, will be charged with the 'unpaid' letter postage.

Except that the rates of postage are higher, books can be sent to all British colonies and to the various foreign countries enumerated in the *Postal Guide*.

**Pattern and Sample Post.**—Patterns and samples may be transmitted by the inland, colonial, and foreign posts, subject to regulations similar to those affecting the book post.

**Registration.**—By the prepayment of a fee of 4*d.*, paid in stamps, any letter, newspaper, book, or other packet on which the postage has

been prepaid in stamps, may be registered to any place in the United Kingdom. The registration of a packet makes its transmission more accurate, by rendering it practicable to trace it, when inland, from its receipt to its delivery; and when colonial, if not to its delivery, at least to the port of despatch. The post-office does not guarantee the safe delivery of the letter.

For the rules and rates of registration of foreign letters, see table of colonial and foreign postage in the *Postal Guide*.

**Money Orders.**—Applicants for money orders should use printed 'Application Forms,' which save time, and afford greater security than verbal messages, against mistakes. These forms are supplied gratuitously at all money order offices.

The commission on a money order not exceeding 2*l.* is 3*d.*; 2*l.* to 5*l.*, 6*d.*; 5*l.* to 7*l.*, 9*d.*; and 7*l.* to 10*l.*, 1*s.*

No order is allowed to contain a fractional part of a penny.

With few exceptions, no money order is issued unless the applicant furnish, in full, the surname and at least the initial of one Christian name both of the remitter who sends the order, and the payee (or person to whom the money is to be paid) together with the remitter's address.

An order once issued cannot be cancelled.

Money orders do not require a receipt stamp.

Payment of an order must be obtained before the end of the second calendar month after that in which it was issued (for instance, if issued in January it must be paid before the end of March); otherwise the order becomes lapsed, and a new order will be necessary, for which a second commission will be charged. Persons presenting lapsed orders are furnished with copies of a printed notice headed 'Lapsed Money Orders,' containing directions how to proceed. If the order be not paid before the end of the twelfth calendar month after that in which it was issued (for instance, if issued in January, and not paid before the end of next January), all claim to the money is lost.

No application is entertained for compensation for alleged injury from the non-payment of a money order at the expected time; and after once paying a money order, by whomsoever presented, the office is not liable to any further claim.

Money orders are issued at all money order offices in the United Kingdom on money order offices in Alexandria, Bahin, Buenos Ayres, Constantinople, Gibraltar, Hong Kong, Malta, Monte Video, Pernambuco, Rio Janeiro, Shanghai, Suez, and Yokohama, at a charge equal to threefold the commission on inland money orders; and orders on money order offices in our West Indian, North American, Australian, and West and South African colonies, the Falkland Islands, and St. Helena, at a charge equal to fourfold such commission.

All necessary information with regard to the sailing of packets, the postage to foreign countries &c., may be found in the *Postal Guide*, in Kelly's *Post-office Directory*, and other publications.

**Local Postal Guides**, price one penny, containing information special to the locality, are issued at the post-offices at Birmingham, Belfast, Bristol, Cork, Dublin, Edinburgh, Glasgow, Leeds, Liverpool, Manchester, and Sheffield.

**Offences against the Post-office.**—The laws relative to offences against the post-office were consolidated by the Act 1 Vict. c. 36, of the more important parts of which we subjoin an abstract.

**Contravening the Privilege of Post-office.**—Every person who shall convey otherwise than by the post a letter not exempted from the exclusive

Account of the Number of Letters, and of Books, Newspapers, and Patterns, delivered by the Post-offices throughout the United Kingdom, and Amount of Money Orders paid, in 1865-1867. Extracted from 14th Report (1868) of the Postmaster-General.

	Total number of Letters delivered in the Year			Number of Book Packages (including exchangeable Newspapers), Free Newspapers, and Patterns sent by the Pattern Post delivered in the Years			Amount of Money Orders paid		
	1865	1866	1867	1865	1866	1867	1865	1866	1867
	England and Wales	597,377,616	623,400,000	640,385,400	71,138,203	76,809,094	78,137,891	15,121,439	16,059,613
Scotland	87,019,891	73,100,000	75,439,599	11,499,514	11,492,742	11,475	1,599,801	1,656,750	1,707,298
Ireland	56,140,501	56,500,000	58,897,500	14,206,463	15,497,319	16,659,122	1,465,193	1,501,941	1,515,439
The United Kingdom	740,467,907	753,000,000	774,831,000	96,538,882	101,781,155	104,273,501	18,144,550	19,217,906	19,688,706

privilege of the postmaster-general shall for every letter forfeit 5*l.*, and every person who shall be in the practice of so conveying letters not so exempted shall, for every week during which the practice shall be continued, forfeit 100*l.*; and every person who shall perform otherwise than by the post any services incidental to conveying letters from place to place, whether by receiving, taking up, collecting, ordering, despatching, carrying, re-carrying, or delivering a letter not exempted from the exclusive privilege of the postmaster-general, shall forfeit for every letter 5*l.*; and every person who shall be in the practice of so performing any such incidental services shall, for every week during which the practice shall be continued, forfeit 100*l.*; and every person who shall send a letter not exempted from the exclusive privilege of the postmaster-general otherwise than by the post, or shall cause a letter not so exempted to be sent or conveyed other than by post, or shall tender or deliver a letter not so exempted in order to be sent otherwise than by post, shall forfeit for every letter 5*l.*; and every person who shall be in the practice of committing any of the acts last mentioned shall, for every week during which the practice shall be continued, forfeit 100*l.*; and every person who shall make a collection of exempted letters for the purpose of conveying or sending them otherwise than by the post, or by the post, shall forfeit for every letter 5*l.*; and every person who shall be in the practice of making a collection of exempted letters for either of these purposes, shall forfeit, for every week during which the practice shall be continued, 100*l.* And be it declared, that the term post shall herein include all post communications by land or by water (except by outward-bound vessels not employed by the post-office or the Admiralty to carry post letters); and the above penalties shall be incurred whether the letter be sent singly or with anything else, or such incidental service be performed in respect to a letter either sent or to be sent singly or together with some other letter or thing; and in any prosecution for the recovery of any such penalty the onus shall lie upon the party prosecuted to prove that the act, in respect of which the penalty is alleged to have been incurred, was done in conformity to the post-office laws. (Sec. 2.)

**Ship Letters retained after delivering of Letters to Post-office.**—Every person, being either the master of a vessel inward-bound, or one of the officers, or one of the crew, or a passenger thereof, who shall knowingly have any letter in his possession not exempted from the privilege of the postmaster-general, after the master shall have sent any part of his ship's letters to the post-office, shall forfeit for every letter 5*l.*; and every such person who shall detain any such letter after demand made, either by the officer of the customs or by a person authorised by the postmaster-general to demand ship's letters, shall forfeit for every letter 10*l.* Sec. 3.)

**Penalties on Masters of Ships not taking Letters Bags.**—Every master of a vessel bound to Ceylon, the Mauritius, the East Indies, or the Cape of Good Hope, who shall refuse to take a post letter bag delivered or tendered to him by an officer of the post-office for conveyance, shall forfeit 200*l.*; the 3 & 4 Vict. c. 96 extends this penalty to the master of every vessel outward bound, and who shall refuse to take a post letter bag delivered or tendered to him for conveyance. And every master of a vessel who shall open a sealed letter bag, with which he shall be intrusted for conveyance, shall forfeit 200*l.*; and every master of a vessel who shall take out of a letter bag with which he shall have been intrusted for conveyance a letter or any other thing shall forfeit 200*l.*; and every master of a vessel who shall not duly deliver a letter bag with the contents at the post-office on his arrival in port, without wilful or unavoidable delay on his arrival, shall forfeit 200*l.*; and every person to whom letters may have been intrusted by the master of a vessel to bring on shore who shall break the seal, or in any manner wilfully open the same, shall forfeit 20*l.*; and every master of a vessel who shall refuse or wilfully neglect to make declaration of having delivered his ship's letters to the post-office, shall forfeit 50*l.*; and every collector, comptroller, or officer of the customs who is required by the Act 1 Vict. c. 34 to prohibit any vessel reporting until the requisites of such Act shall have been complied with, who shall permit such vessel to report before the requisites of such Act shall have been complied with, shall forfeit 50*l.*; and every master of a vessel (not having been able to send his letters ashore previous to his arrival at the port where the vessel is to report) who shall break bulk or make entry before all letters on board shall be sent to the post-office shall forfeit 20*l.*; and every master of a vessel, or any other person on board any ship liable to the performance of quarantine, who shall neglect or refuse to deliver to the person or persons appointed to superintend the quarantine all letters in his possession, shall forfeit 20*l.* (Sec. 6.)

**Penalties on the Carelessness of Persons engaged or employed in carrying, conveying &c. Letters.**—Every person employed to convey or deliver a post letter bag or a post letter, who shall, whilst so employed, or whilst the same shall be in his custody, care, or possession, leave a post letter bag or a post letter, or suffer any person, not being the guard or person employed for that purpose, to ride in the place appointed for the guard in or upon any carriage used for the conveyance of a post letter bag or post letter, or to ride in or upon a carriage so used and not licensed to carry passengers, or upon a horse used for the conveyance on horseback of a post letter bag or a post letter, or if any such person shall be guilty of any act of drunkenness, or of carelessness, negligence, or other misconduct, whereby the safety of a post letter bag or a post letter shall be endangered, or who shall collect or receive, or

be registered to any m. The registration admission more secure, to trace it, when in a delivery; and when any, at least to the port does not guarantee er.

of registration of foreign and foreign postage in

ants for money orders lication Forms, which ter security than verbal kes. These forms are all money order offices, money order not exceed- d.; 5*l.* to 7*l.*, 9*d.*, and 7*l.*

contain a fractional part no money order is issued mish, in full, the surname of one Christian name both is the order, and the payee money is to be paid) to- r's address. r's address cannot be cancelled. require a receipt stamp- must be obtained before calendar month after that (for instance, if issued in d before the end of March); becomes lapsed, and a new y, for which a second en- gered. Persons presenting shed with copies of a printed Money Orders, containing ocess. If the order be not the twelfth calendar month it was issued (for instance, y, and not paid before the ), all claim to the money is

entertained for compensation from the non-payment of a expected time; and after one r, by whomsoever presented, e to any further claim. issued at all money order Kingdom on money order Bahiu, Buenos Ayres, Cos- r, Hong Kong, Malta, Mozra Rio Janeiro, Shanghai, Suez, charge equal to threefold the money orders; and orders in our West Indian, North an, and West and South the Falkland Islands, and S. e equal to fourfold such con-

formation with regard to the postage to foreign countries in the *Postal Guide*, in Kelly's, and other publications. ades, price one penny, contain- tial to the locality, are issued at Birmingham, Belfast, Bristol, burgh, Glasgow, Leeds, Liver- and Sheffield.

the Post-office.—The laws re- against the post-office were e Act 1 Vict. c. 36, of the more which we subjoin an abstract. e Privilege of Post-office— shall convey otherwise than by t exempted from the exclusi

convey or deliver, a letter otherwise than in the ordinary course of the post, or who shall give any false information of an assault or attempt at robbery upon him, or who shall loiter on the road or passage, or wilfully mispend his time so as to retard or delay the progress or arrival of a post letter bag or a post letter, or who shall not use due and proper care and diligence safely to convey a post letter bag or a post letter at the rate of speed appointed by and according to the regulations of the post-office for the time being, being thereof convicted, shall forfeit 20*l.* (Sec. 7.)

Clauses 8 to 24 inclusive impose penalties on hackney carriages plying for hire opposite the general post-office in London or Dublin; exempt mail coaches from toll; and direct how penalties shall be sued for.

*Opening or delaying Post Letters a Misdemeanor.*—Every person employed by or under the post-office who shall, contrary to his duty, open or procure or suffer to be opened a post letter, or shall wilfully detain or delay, or procure or suffer to be detained or delayed, a post letter, shall in England and Ireland be guilty of a misdemeanor, and in Scotland of a crime and offence, and being convicted thereof shall suffer such punishment, by fine or imprisonment, or by both, as to the court shall seem meet: provided always, that nothing herein contained shall extend to the opening or detaining or delaying of a letter returned for want of a true direction, or of a letter returned by reason that the person to whom the same is directed is dead or cannot be found, or shall have refused the same, or shall have refused or neglected to pay the postage thereof; nor to the opening or detaining or delaying of a post letter in obedience to an express warrant in writing under the hand (in Great Britain) of one of the principal secretaries of state, and in Ireland under the hand and seal of the lord-lieutenant of Ireland.

*Embezzlement &c. of any Letter or Packet, Felony.*—Every person employed under the post-office who shall steal, or shall for any purpose whatever embezzle, secrete, or destroy a post letter, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall, at the discretion of the court, either be transported beyond the seas for the term of 7 years, or be imprisoned for any term not exceeding 3 years; and if any such post letter so stolen or embezzled, secreted or destroyed, shall contain therein any chattel or money whatsoever, or any valuable security, every such offender shall be transported beyond the seas for life. (Sec. 26.)

*Stealing Money &c. from or out of Letters, Felony.*—Every person who shall steal from or out of a post letter any chattel or money or valuable security, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall be transported beyond the seas for life.

*Persons stealing Post Letter Bags &c. to be transported for Life.*—Every person who shall steal a post letter bag, or a post letter from a post letter bag, or shall steal a post letter from a post-office, or from an officer of the post-office or from a mail, or shall stop a mail with intent to rob or search the same, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall be transported beyond the seas for life.

*Persons stealing Post Letter Bags or Post Letters to be transported for 14 Years.*—Every person who shall steal or unlawfully take away a post letter bag sent by a post-office packet, or who shall steal or unlawfully take a letter out of any

such bag, or who shall unlawfully open any such bag, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall be transported beyond the seas for any term not exceeding 14 years.

*Receivers of Property sent by the Post, and stolen or embezzled, guilty of Felony.*—Every person who shall receive any post letter or post letter bag, or any chattel or money or valuable security, the stealing or taking or embezzling or secreting whereof shall amount to a felony under the Post-office Acts, knowing the same to have been feloniously stolen, taken, embezzled, or secreted, and to have been sent or intended to be sent by the post, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and may be indicted and convicted either as an accessory after the fact or for a substantive felony, and, in the latter case, whether the principal felon shall or shall not have been previously convicted, or shall or shall not be amenable to justice; and every such receiver, howsoever convicted, shall be liable to be transported beyond the seas for life.

*Fraudulently retaining, after Delivery thereof &c.*—Every person who shall fraudulently retain, or shall wilfully secrete or keep or detain, or being required to deliver up by an officer of the post-office, shall neglect or refuse to deliver up a post letter which ought to have been delivered to any other person, or a post letter bag or post letter which shall have been sent, whether the same shall have been found by the person secreting, keeping, or detaining, or neglecting or refusing to deliver up the same, or by any other person, shall in England and Ireland be guilty of a misdemeanor, and in Scotland of a crime and offence, and on conviction shall be liable to be punished by fine and imprisonment.

*Stealing &c. printed Votes or Proceedings in Parliament &c.*—Every person employed in the post-office who shall steal, or shall for any purpose embezzle, secrete, or destroy, or shall wilfully detain or delay in course of conveyance or delivery thereof by the post, any printed votes or proceedings in parliament, or any printed newspaper, or any other printed paper whatever, sent by the post without covers, or in covers open at the sides, shall in England and Ireland be guilty of a misdemeanor, and in Scotland of a crime and offence, and on conviction shall suffer such punishment by fine or imprisonment, or both, as the court shall direct.

*Forging the Handwriting of the Receiver-General in England or Ireland, Felony.*—Every person who shall knowingly and wilfully forge or counterfeit, or cause or procure to be forged or counterfeited, the name or handwriting of the receiver-general for the time being of the general post-office in England or Ireland, or of any person employed by or under him, to any draft, instrument, or writing whatsoever, for or in order to the receiving or obtaining of any money in the hands or custody of the governor and company of the bank of England or Ireland on account of the receiver-general of the post-office, or shall forge or alter, or shall offer, utter, dispose of, or print off, knowing the same to be forged or altered, any draft, warrant; or order of such receiver-general, or of any person employed by or under him, for money or for payment of money, with intent to defraud any person whomsoever, shall be guilty of felony, and on conviction shall be transported beyond the seas for life.

The remaining clauses relate to the punishment of accessories, determine the mode in which the postage duties shall be sued for, define terms &c.

**Irish Post-office.**—The most gross and scandalous abuses were long prevalent in every department of the Irish post-office. The Commissioners of Revenue Inquiry exerted themselves to abate the nuisance; but, as it would appear from the evidence of the Duke of Richmond before the committee of the House of Commons on public salaries, without much effect. His Grace, however, and subsequent postmasters, have laboured with laudable activity and zeal to introduce something like honesty, order, and responsibility into this department.

**UNITED STATES.**—We subjoin an account of the rates of postage in the United States, under Act of Congress of March 3, 1863.

**Rates of Domestic Postage on Letters.**

Standard weight of single rate 4 oz. avoirdupois.	
Postage on single-rate letter, throughout the United States	3 cents.
For each additional 1 oz. or fraction	3 "
Postage on "drop" letters for local delivery, for 1/2 oz.	2 "
For each additional 1/2 oz. or fraction	2 "
Postage on all domestic letters must be prepaid by stamps.	

**Rates of Newspaper Postage (Domestic).**

Postage on papers to subscribers, when prepaid quarterly or yearly:—

Daily (1 time a week)	35 cents per quarter.
" " " "	30 "
Twice weekly	15 "
Semi-weekly	10 "
Weekly	5 "

Weekly newspapers (one copy only) sent by the publisher to actual subscribers within the county where printed and published, free.

Standard weight for a single rate, 4 oz. avoirdupois. For each additional weight of 4 oz. or fraction thereof, an additional rate is charged.

Postage per quarter on newspapers and periodicals issued less frequently than once a week, sent to actual subscribers in any part of the United States:—

Semi-monthly, not over 4 oz.	6 cents per quarter.
over 4 oz. and not over 8 oz.	12 "
over 8 oz. and not over 12 oz.	18 "
Monthly, not over 4 oz.	3 "
over 4 oz. and not over 8 oz.	6 "
over 8 oz. and not over 12 oz.	9 "
Quarterly, not over 4 oz.	1 "
over 4 oz. and not over 8 oz.	2 "
over 8 oz. and not over 12 oz.	3 "

Postage as above must be paid quarterly or yearly in advance, either at the office of mailing or delivery.

**POST ENTRY.** When goods are weighed or measured, and the merchant has got an account thereof at the Custom-house, and finds his entry, already made, too small, he must make a *post* or additional entry for the surplusage, in the same manner as the first was done. As a merchant is always in time, prior to the clearing of the vessel, to make his post, he should take care not to over-enter, to avoid as well the advance, as the trouble of getting back the overplus. However, if this be the case, and an over-entry has been made, and more paid or bonded for customs than the goods really landed amount to, the customs officer must signify the same, upon oath made, and subscribed by the person so over-entered, that neither he, nor any other person, to his knowledge, had any of the said goods over-entered on board the said ship, or anywhere landed the same without payment of custom; which oath must be attested by the collector or deputy, who then computes the duties, and sets down on the back of the certificate, first in words at length, and then in figures, the several sums to be paid. Post entries are now almost wholly confined to cargoes of grain.

**POTASH** (Dan. potaske; Fr. potasse; Ger. potasche; Ital. sale alcali; Span. potasa; Russ. masch). If vegetables be burned, the ashes are levigated, and the solution boiled to dryness in iron vessels, the mass left behind is the *potash* of

commerce—the impure carbonate of potass of chemists.

It is intensely alkaline, solid, and coloured brown by the admixture of a small portion of vegetable inflammable matter, which generally becomes moist. When potash is calcined in a reverberatory furnace, the colouring matter is destroyed, it assumes a spongy texture, and a whitish pearly lustre; whence it is denominated *pearl-ash*. The latter generally contains from 60 to 83 or 84 per cent. of pure carbonate of potass.

The ashes of those vegetables only which grow at a distance from the sea are employed in the manufacture of potash. Herbaceous plants yield the largest portion, and shrubs more than trees. It is principally manufactured in America, Russia, and Poland, the vast forests of which furnish an inexhaustible supply of ashes.

In the year 1865, exclusive of nitrate &c. of potash, 143,779 cwt. of pearl and potash were imported into the United Kingdom. Of these 113,916 cwt. were the produce of British North America; the remainder of the United States and France. The highest price was realised on the colonial produce. The potash imported in 1867 consisted of 178,619 cwt. of muriate, chiefly from Hamburg, 3,042 cwt. of prussiate, 33,214 cwt. of sulphate, and 108 cwt. of bichromate of potash.

Ashes from Canada have always been duty free; but those from Russia and the United States used to pay a duty of 6s. per cwt., which, after being reduced in 1842 to 6d., was finally repealed in 1845.

**POTATOES** (Ger. kartoffel; Dutch, aardappelen; Fr. pommes de terre; Ital. patate, pomi di terra; Span. patatas manchegas; Russ. jabloki semleniye). The roots of the *Solanum tuberosum*, of innumerable varieties, and too well known to require any description.

1. **Historical Notice.**—The potato, which is at present to be met with everywhere in Europe, and forms a principal part of the food of a considerable proportion of its inhabitants, was entirely unknown in this quarter of the world till the latter part of the 16th century. It is a native of America, but whether of both divisions of that continent is doubtful. (Humboldt, *Nouvelle Espagne*, liv. iv. c. 9.) Some authors affirm that it was first introduced into Europe by Sir John Hawkins, in 1545; others, that it was introduced by Sir Francis Drake, in 1573; and others, again, that it was for the first time brought to England from Virginia, by Sir Walter Raleigh, in 1586. But this discrepancy seems to have arisen from confounding the common, or Virginian potato (the *Solanum tuberosum* of Linnæus), with the sweet potato (*Convolvulus battatus*). The latter was introduced into Europe long before the former, and it seems most probable that it was the species brought from New Granada by Hawkins. Sweet potatoes require a warm climate, and do not succeed in this country; they were, however, imported in considerable quantities, during the 16th century, from Spain and the Canaries, and were supposed to have some rather peculiar properties. The kissing comfits of Falstaff, and suchlike confections, were principally made of battatus and eringo roots. (See Collins' elaborate note to *Troilus and Cressida*, act v. scene 2.) On the whole, we are inclined to think that we are really indebted for the potato (as well as for tobacco) to Sir Walter Raleigh, or the colonists planted by him in Virginia. Gerard, an old English botanist, mentions, in his *Herbal*, published in 1597, that he had planted the potato in his garden at London about 1590; and that it succeeded there as well as in its native soil, Virginia, whence he had received it. Potatoes were at

first cultivated by a very few, and were looked upon as a great delinquency. In a manuscript account of the household expenses of Queen Anne, wife of James I., who died in 1618, and which is supposed to have been written in 1613, the purchase of a very small quantity of potatoes is mentioned at the price of 2s. per pound. The Royal Society, in 1663, recommended the extension of their cultivation, as a means of preventing famine. Previously, however, to 1684, they were raised only in the gardens of the nobility and gentry; but in that year they were planted, for the first time, in the open fields in Lancashire, a county in which they have long been very extensively cultivated.

Potatoes, it is commonly thought, were not introduced into Ireland till 1610, when a small quantity was sent by Sir Walter Raleigh to be planted in a garden on his estate in the vicinity of Youghal. Their cultivation extended far more rapidly than in England, and has long furnished from three-fifths to four-fifths of the entire food of the people of Ireland.

Potatoes were not raised in Scotland, except in gardens, till 1728, when they were planted in the open fields by a person of the name of Prentice, a day-labourer at Kilsyth, who died at Edinburgh in 1792.

The extension of the potato cultivation has been particularly rapid during the present century. The quantity that is now raised in Scotland is supposed to be from 10 to 12 times as great as the quantity raised in it at the end of the American war; and though the increase in England has not been nearly so great as in Scotland, it has been greater than during any previous period of equal duration. The increase on the Continent has been similar. Potatoes are now very largely cultivated in France, Prussia, and Austria; there having been devoted to their cultivation in France, 3,087,017 English acres, in 1862; Prussia, 3,418,610 acres, in 1867; and Austria (ex Galicia), 1,308,148 acres, in 1866. They were introduced into India towards the end of last century; and are now successfully cultivated in Bengal, and have been introduced into the Madras provinces, Java, the Philippines, and China. But the common potato does not thrive within the tropics unless it be raised 3,000 or 4,000 feet above the level of the sea, so that it can never come into very general use in these regions. This, however, is not the case with the sweet potato, which has also been introduced into tropical Asia; and with such success, that it already forms a considerable portion of the food of the people of Java and some other countries. So rapid an extension of the taste for, and the cultivation of, an exotic, has no parallel in the history of industry; it has had, and will continue to have, the most powerful influence over the condition of mankind. (For further details with respect to the history of the potato, see Sir F. M. Eden *On the State of the Poor*, vol. i. p. 508; Humboldt, *Essai sur la Nouvelle Espagne*, iii. 460-465, 2nd ed.; Sir Joseph Banks *On the Introduction of the Potato*; Phillips's *History of Cultivated Vegetables*, vol. ii. art. 'Potato.')

2. *Influence of the Cultivation of the Potato on the Number and Condition of the People.*—There is a considerable discrepancy in the statements of the best authors as to the number of individuals that might be supported on an acre of land planted with potatoes, as compared with those that might be supported on an acre sown with wheat; some stating the proportion as high as six to one, and others at only two to one. According to Mr. Arthur Young, 1 lb. of wheat is about equal in

nutritive power to 5 lb. of potatoes. But Mr. Newenham, who has carefully investigated this subject, states that '3 lb. of good mealy potatoes are, undoubtedly, more than equivalent to 1 lb. of bread' (*Newenham On the Population of Ireland*, p. 340); and his estimate is rather above Mr. Wakefield's. Supposing, however, that 1 lb. of wheat is fully equal to four lb. of potatoes, still the difference in favour of the superior quantity of food derived from a given quantity of land planted with the latter is very great. According to Mr. Young, the average produce of potatoes in Ireland may be taken at 82 barrels the Irish acre; which, at 20 stone the barrel, is equal to 22,960 lb.; and this being divided by four, to bring it to the same standard, in point of nutritive power, as wheat, gives 5,740 lb. Mr. Young further estimates the average produce of wheat, by the Irish acre, at 4 quarters; which, supposing the quarter to weigh 480 lb., gives in all 1,920 lb., or about  $\frac{1}{4}$  part of the solid nourishment afforded by an acre of potatoes. (*Tour in Ireland*, Appen. pp. 12, 24 & 4to. ed.) This estimate must, however, be somewhat modified, when applied to Great Britain; the soil of which, while it is better adapted to the growth of wheat, is generally supposed not to be quite so suitable for the potato as that of Ireland. But it notwithstanding admits of demonstration, that even here, 'an acre of potatoes will feed double the number of individuals that can be fed from an acre of wheat.' (*General Report of Scotland*, vol. i. p. 571.)

It is clear, therefore, on the most moderate estimate, that the population of a potato-feeding country may become, other things being about equal, from 2 to 3 times as dense as it would be were the inhabitants fed wholly on corn. But it is exceedingly doubtful whether an increase of population, brought about by the substitution of the potato for wheat, be desirable. Its use as a subordinate or subsidiary species of food is attended with the best effects—producing both an increase of comfort and security; but there are certain circumstances inseparable from it, which would seem to oppose the most formidable obstacles to its advantageous use as a *prime* article of subsistence. The discussion of this subject can hardly be said properly to belong to a work of this sort; but its importance may, perhaps, excuse us for making a few observations with respect to it.

It is admitted on all hands, that the rate of wages is principally determined by the species of food made use of in a country. Now, as potatoes form that species which is produced at the very least expense, it may be fairly presumed, on general grounds, that wages will be reduced to a minimum wherever the labouring classes are mainly dependent on potatoes; and the example of Ireland shows that this conclusion is as consistent with fact as with principle. It is clear, however, that when the crop of potatoes happens to be deficient in a country thus situated, the condition of its inhabitants must be in the last degree unfortunate. During a period of scarcity, men cannot go from a low to a high level; if they would elude its pressure, they must leave the dearer and resort to cheaper species of food. But to those who subsist on potatoes this is not possible; they have already reached the lowest point in the descending scale. Their wages being determined by the price of the least expensive sort of food, they cannot, when it fails, buy that which is dearer; so that it is hardly possible for them to avoid falling a sacrifice to absolute want. The history of Ireland abounds, unfortunately, in examples of this sort. Nothing is more common than to see the price of potatoes in Dublin, Limerick &c. rise, and

of potatoes. But Mr. [unclear] investigated this of good mealy potatoes is equivalent to 1 lb. of [unclear] Population of Ireland, [unclear] is rather above Mr. [unclear] however, that 1 lb. of [unclear] 4 lb. of potatoes, still the superior quantity of [unclear] quantity of land planted [unclear] eat. According to Mr. [unclear] of potatoes in Ireland is the Irish acre; which, equal to 22,960 lb.; and [unclear] r, to bring it to the same [unclear] tritive power, as wheat, [unclear] ng further estimates the [unclear] at, by the Irish acre, at [unclear] the quarter to weigh [unclear] 30 lb., or about 1 part of [unclear] afforded by an acre of po- [unclear] and, Appen. pp. 12, 21 &c. [unclear] must, however, be some- [unclear] applied to Great Britain; [unclear] it is better adapted to the [unclear] generally supposed not to be [unclear] potato as that of Ireland, [unclear] admits of demonstration. [unclear] acre of potatoes will feed [unclear] individuals that can be fed [unclear] (General Report of Soc.

[unclear] on the most moderate [unclear] of a potato-feeding [unclear] other things being about [unclear] as dense as it would be [unclear] wholly on corn. But it [unclear] fulfil whether an increase [unclear] about by the substitution of [unclear] t, be desirable. Its use as a [unclear] species of food is at- [unclear] effects—producing both an [unclear] and security; but there are [unclear] inseparable from it, which [unclear] the most formidable obsta- [unclear] use as a *prime* article of [unclear] discussion of this subject can [unclear] to belong to a work of this [unclear] may, perhaps, excuse us [unclear] observations with respect to it, [unclear] in all hands, that the rate of [unclear] determined by the species of [unclear] a country. Now, as potatoes [unclear] which is produced at the very [unclear] be fairly presumed, on general [unclear] will be reduced to a minimum [unclear] classes are mainly depend- [unclear] and the example of Ireland [unclear] inclusion is as consistent with [unclear] It is clear, however, that [unclear] potatoes happens to be deficient [unclear] situated, the condition of the [unclear] in the last degree unfavour- [unclear] of scarcity, men cannot [unclear] gh level: if they would else- [unclear] must leave the dearer and [unclear] of food. But to those who [unclear] this is not possible; they have [unclear] lowest point in the descending [unclear] being determined by the [unclear] expensive sort of food, they can [unclear] buy that which is dearer; or [unclear] possible for them to avoid falling [unclear] late want. The history of Ire- [unclear] rtunately, in examples of the [unclear] more common than to see the [unclear] in Dublin, Limerick &c. rise, be-

cause of a scarcity, to 5 or 6 times their ordinary price, and the people to be involved in the extreme of suffering; and yet it rarely happens, upon such occasions, that the price of corn is materially affected, or that any less quantity than usual is exported to England.

It may be said, perhaps, that had potatoes not been introduced, wheat, or barley, or oats would have been the lowest species of food; and that, whenever they happened to fail, the population would have been as destitute as if they had been subsisting on potatoes. It must, however, be observed, that the proportion which the price of wheat, or any species of grain, bears to the price of butchers' meat, ten, beer &c., is always decidedly greater than the proportion which the price of potatoes bears to these articles; and it therefore follows, that a people who have adopted wheat, or any species of corn, for the principal part of their food, are much better able to make occasional purchases of butchers' meat &c.; and will, consequently, be more likely to have their habits elevated, so as to consider the consumption of a certain quantity of animal food &c. as indispensable to existence. And hence it appears reasonable to conclude, that a people who chiefly subsist on corn would, in most cases, subsist partially on butchers' meat, and would enjoy a greater or less quantity of other articles; so that it would be possible for them, in a period of scarcity, to make such retrenchments as would enable them to elude the severity of its pressure.

But, though the population in corn-feeding countries were dependent on the cheapest species of grain, not for a part only, but for the whole of their food, their situation would, notwithstanding, be less hazardous than that of a population subsisting wholly on potatoes.

In the first place, owing to the impossibility, as to all practical purposes at least, of preserving potatoes, the surplus produce of a luxuriant crop cannot be stored up or reserved as a stock to meet any subsequent scarcity. The whole crop must necessarily be exhausted in a single year; so that, when the inhabitants have the misfortune to be overtaken by a scarcity, its pressure cannot be alleviated, as is almost uniformly the case in corn-feeding countries, by bringing the reserves of former harvests to market. Every year is thus left to provide subsistence for itself. When, on the one hand, the crop is luxuriant, the surplus is of comparatively little use, and is wasted unprofitably; and when, on the other hand, it is deficient, famine and disease necessarily prevail.

In the second place, the general opinion seems to be, that the variations in the quantities of produce obtained from land planted with potatoes are greater than the variations in the quantities of produce obtained from land on which wheat, or any other species of grain, is raised.

And lastly, owing to the great bulk and weight of potatoes and the difficulty of preserving them on shipboard, the expense of conveying them from one country to another is so very great, that a scarcity can never be materially relieved by importing them from abroad. In consequence, those who chiefly depend on potatoes are practically excluded from participating in the benevolent provision made by nature for equalising the variations in the harvest of particular countries by means of commerce, and are thrown almost wholly on their own resources.

We should, therefore, be warranted in concluding, even though we were not possessed of any direct evidence on the subject, from the circumstance of the potato being a crop that cannot be kept

on hand, from its natural declension, and from the incapacity of importing it when sufficient, or of exporting it when in excess, that the oscillations in its price must be greater than in the price of wheat; and such, in point of fact, is the case. The oscillation in wheat is thought great when its price is doubled; but in a scarce year the potato is not unfrequently six times as dear as in a plentiful one. (*Minutes of Evidence taken before the Agricultural Committee of 1821*, p. 212.) And the comparatively frequent recurrence of scarcities in Ireland, and the destitution and misery in which they involve the population, afford but too convincing proofs of the accuracy of what has now been stated.

It is, therefore, of the utmost consequence to the well-being of every people, and to their protection in years of scarcity, that they should not subsist principally on the potato. In this country, the pressure of a scarcity is evaded by resorting to inferior species of food, such as potatoes, and a lower standard of comfort; but if our people were habitually fed on the potato, this would be impracticable. The chances of famine would thus be vastly increased; while, owing to the low value of the potato as compared with most other things, the labourers would have less chance of preserving or acquiring a taste for animal food, or other necessaries and luxuries; and, consequently, of changing at any future period their actual condition for a better.

It is not easy to form any very accurate estimate of the profit and loss attending the cultivation of potatoes to the farmer, as compared with other crops. This is a point as to which the statements of those best qualified to give an opinion differ very considerably. Mr. Loudon says, 'They require a great deal of manure from the farmer; while, generally speaking, little is returned by them; they are a bulky, unhandy article, troublesome in the lifting and carrying processes, and interfering with the seed season of wheat—the most important one to the farmer. After all, from particular circumstances, they cannot be vended unless when raised in the vicinity of large towns; hence they are, in most respects, an unprofitable article to the agriculturist. To him, the real criterion is the profit which potatoes will return in feeding beasts; and here we apprehend the result will be altogether in favour of turnips and rutabaga, as the most profitable articles for that purpose.'

It seems difficult to reconcile this statement with the rapid progress of the potato cultivation; but those who assent to what has been previously advanced with respect to the mischievous consequences that arise from the mass of the population becoming dependent on the potato as a principal article of food, will not regret though it should turn out to be accurate.

Dr. Colquhoun estimated the entire value of the potatoes annually consumed in Great Britain and Ireland, at the close of the war (ended 1815), at sixteen millions sterling. But it is needless to say that there are no materials by which to form an estimate of this sort with any pretensions to accuracy. The one in question has been suspected, like most of those put forth by the same learned person, of exaggeration: and we incline to think that, had he estimated the value of the yearly produce of potatoes in the empire at twelve millions, he would have been nearer the mark. But on a point of this sort it is not possible to speak with anything like confidence.

In 1867, we imported 1,374,223 cwt. of potatoes, chiefly from France and Holland, valued at

897,144, and exported 719 cwt.; while in the same year, according to the parliamentary returns, there were in the United Kingdom 1,500,024 acres devoted to potatoes, of which the share of Ireland was 1,001,545. In 1808 the latter had 1,034,863 acres devoted to that crop.

**POTTERY.** [**EARTHENWARE**; **PORCELAIN**.]

**POUNCE.** [**SANDABAGU**.]

**POUND.** The name given to a weight used as a standard to determine the gravity and quantity of bodies. [**WEIGHTS AND MEASURES**.]

**POUND.** A money of account = 20s.

**POWDER, GUN.** [**GUNPOWDER**.]

**PRATIQUE.** [**BILLS OF HEALTH**; **QUARANTINE**.]

**PRECIOUS METALS.** A designation frequently applied to gold and silver. We have given, under the articles **GOLD** and **SILVER**, a short account of each metal; and we now propose laying before the reader some details with respect to their supply and consumption.

To enter fully into this interesting and difficult subject would require a long essay, or rather a large volume. Mr. Jacob published, in 1831, an *Historical Inquiry into the Production and Consumption of the Precious Metals*, in which he takes up the subject at the earliest period, and continues it to the above epoch. And, though far from being so learned, complete, or satisfactory as might have been expected, this work contains a good deal of valuable information, and deserves the attention of those who take an interest in such enquiries. But within the last eight or ten years the subject has acquired an interest and importance with which it was not previously invested.

*Supply of the Precious Metals.*—Since the discovery of America by far the greater part of the supplies of gold and silver have been derived from that continent. Previously to the publication of Humboldt's great work, *Essai politique sur la Nouvelle-Espagne*, several estimates, some of them framed by individuals of great intelligence, were in circulation, of the quantities of gold and silver imported from America. They, however, differed widely from each other, and were all framed from comparatively limited sources of information. Humboldt (*Essai sur la Nouvelle-Espagne*, tome iii. p. 412) brought these estimates together as follows:—

## PRECIOUS METALS

Authors	Epochs	Dollars
Ustari	1499-1794	2,358,000,000
Poloziani	1499-1678	1,000,000,000
Montada	1499-1708	1,000,000,000
Paragon	1519-1647	1,300,000,000
Huana	1499-1789	3,104,000,000
Hobson	1499-1775	2,000,000,000
Necker	1703-1777	200,000,000
Corbous	1774-1800	1,000,000,000
The author of <i>Les Recherches sur le Commerce, Anst. 1179.</i>	1499-1775	5,073,000,000

But these have been wholly superseded by the more extensive and laborious investigations of Humboldt himself. This illustrious traveller, besides being acquainted with all that had been written on the subject, and having ready access to official sources of information unknown to the writers already alluded to, was well versed in the theory and practice of mining, and critically examined several of the most celebrated mines. He was, therefore, incomparably better qualified for forming correct conclusions as to the past and present productiveness of the mines than any of those who had hitherto speculated on the subject. His statements have, indeed, been accused of exaggeration; and we incline to think that there are grounds for believing that this charge is, in some measure, well founded, particularly as respects the accounts of the profits made by mining, and of the extent to which the supplies of the precious metals may be increased. But this criticism applies, if at all, in a very inferior degree, to the accounts Humboldt has given of the total produce of the mines, and the exports to Europe. And making every allowance for the imperfection inseparable from such investigations, it is still true that the statements in question, and the enquiries on which they are founded, are among the most valuable contributions that have been made to statistical science.

According to Humboldt (*Essai sur la Nouvelle-Espagne*, iii. 428, 2nd ed.) the annual average supplies of the precious metals derived from America have been as follow:—

	Dollars a Year as an Average
From 1499 to 1500	150,000
1500	1545
1545	1600
1600	1700
1700	1750
1750	1803

The following is Humboldt's estimate of the annual produce of the mines of the New World at the beginning of the present century:—

Political Divisions	Gold		Silver		Value of the Gold and Silver in Dollars
	Marcos of Castile	Kilogs.	Marcos of Castile	Kilogs.	
Viceroyalty of New Spain	7,000	1,600	3,598,200	537,512	13,000,000
Viceroyalty of Peru	3,400	782	611,000	100,478	6,000,000
Captain Generalship of Chili	13,212	3,307	39,700	6,327	2,000,000
Viceroyalty of Buenos Ayres	2,000	506	491,300	110,761	4,800,000
Viceroyalty of New Granada	30,505	7,211	—	—	2,000,000
Brazil	90,000	6,575	—	—	45,000,000
Total	158,917	17,991	3,660,810	755,581	25,500,000

Taking the dollar at 4s. 6d., this would give 9,666,000*l.* as the total annual produce of the American mines. Humboldt further estimated the annual produce of the European mines of Hungary, Saxony &c., and those of Northern Asia, at the same period at about 1,000,000*l.* more, making in round numbers their entire produce nearly 11,000,000*l.*

The quantity of gold produced in America at the beginning of the century was to the quantity of silver as 1 to 46; in Europe the proportions were as 1 to 40. The value of equal quantities of gold and silver was then in the proportion of 15 or 15½ to 1.

From 1800 to 1810 the yield of the American mines continued to increase; and their produce and that of the European and Russian mines were then probably rather above than below 11,000,000*l.* But in the last-mentioned year the contest began which terminated in the dissolution of the connection between Spain and her American colonies. The convulsions and insecurity arising out of this struggle—the proscription of the old Spanish families, to whom the mines principally belonged, who repaired, with the wrecks of their fortunes, some to Cuba, some to Spain, and some to Bordeaux and the south of France—caused the abandonment of several of the mines, and

	Dollars
184	5,358,000,000
185	1,500,000,000
186	9,000,000,000
187	4,350,000,000
188	5,151,000,000
189	8,800,000,000
190	30,000,000,000
191	1,600,000,000
192	5,077,000,000

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Humboldt's estimate of  
the mines of the New World  
the present century:—

Kilogs.	Value of the Gold and Silver in Dollars
537,512	25,000,000
140,175	6,000,000
6,258	3,000,000
110,761	2,000,000
—	450,000
795,581	35,000,000

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extraordinary falling off in the amount of their  
produce. There are no means of estimating the  
precise extent of this decline but according to  
Jacoby who collected and compared all the  
existing information on the subject, the total  
average produce of the American mines, inclusive  
of Brazil, during the 20 years ending with 1829,  
may be estimated at 4,035,838½ a year; being  
less than ¼ their produce at the beginning of the  
century. (Jacoby, ii, 267.)

It has, however, been supposed that Jacoby  
rather exaggerated the falling off. And, at all  
events, the supplies of bullion obtained from  
Mexico and South America began to increase soon  
after the publication of his work (1831).

It appears from the *Retours* sent home by the  
British consuls, that the coinage of gold and  
silver in the Mexican mints amounted in 1847  
to 16,923,948 dol., in 1848 to 19,506,754 dol.;  
and, according to Mr. Secretary of Legation  
Middleton, it amounted, in the first 3 months of  
1867, to 3,916,070 dol. (See his valuable *Re-  
port* of July 10, 1868.) That it is well known  
that considerable quantities of these metals are  
raised and exported from Mexico without being  
brought to the mints to be coined. Taking  
this item into account, we shall not, perhaps,  
be very wide of the mark if we estimate the  
entire produce of the Mexican mines in 1847  
and 1848 at about 19 and 21½ million dollars,  
of which from 17 to 20½ millions were in silver.  
And, notwithstanding the anarchy that has con-  
tinued to prevail in the country, there has on

the average been a considerable increase in the  
interval.

In 1850 the produce of the Peruvian mines  
was estimated at about 6,000,000 dol., and it is  
not supposed to have varied much in the inter-  
vening period.

The produce of the Bolivian mines is usually  
estimated at about ¼ of the produce of those of  
Peru.

In 1857 the value of the gold and silver in coin,  
bars, and ore, exported from Chili, amounted,  
according to the Custom-house returns, to  
4,185,284 dol.; and we believe we shall not be  
far wrong if we estimate the total produce of the  
Chilian mines at 5,000,000 dol.

The elaborate estimates of Birkmyre, Chevalier  
(*Monnaie*, p. 228), and other authorities, in  
regard to the produce of the mines of Brazil and  
other parts of America, differ very widely; and  
there is, in truth, little besides conjecture on  
which to form an estimate. Probably, however,  
it may amount (ex California) to about 4,000,000  
dol. The above results, when brought together,  
give for

	dollars	Gold	dollars
Mexico	25,000,000	—	5,000,000
Peru	6,000,000	—	3,000,000
Bolivia	7,000,000	—	—
			Total

Birkmyre's estimate of the production of the  
precious metals in 1846 and 1850, one of the  
most elaborate and valuable hitherto published,  
appeared in the *Times* of May 19, 1851. We  
subjoin some of its principal portions.

Comparative Table, showing the Annual Produce (approximate Calculation) in Value of Fine Gold and Silver for 1846 and 1850, the first being Two Years before the Discovery of the Rich Deposits of Gold in California; the latter, Two Years after the Discovery.

Countries	1846			1850		
	Gold	Silver	Total	Gold	Silver	Total
California	£	£	£	£	£	£
United States	237,336	1,861	239,230	17,000,000	4,208	17,004,208
Mexico	249,153	3,457,000	3,706,153	382,001	5,385,333	5,767,334
New Granada	350,107	42,909	393,316	282,107	12,300	294,407
Peru	30,741	1,000,585	1,031,326	96,411	1,000,585	1,096,996
Bolivia	60,337	460,191	520,528	60,337	460,191	520,528
Chili	115,585	297,070	412,655	145,585	297,070	442,655
Brazil	320,871	5,003	325,874	393,608	2,227	395,835
Total of North and South America	1,501,550	5,861,619	6,363,179	15,311,989	7,459,824	22,771,813
Russia	3,411,427	187,851	3,599,278	4,175,860	171,817	4,347,677
Spain	—	37,510	37,510	—	35,607	35,607
North Germany	357	138,022	138,379	357	138,022	138,379
Naples	—	198,200	198,200	—	198,000	198,000
India	282,750	282,754	565,504	288,708	286,971	575,679
East India	17,811	7,110	24,921	17,811	7,811	25,622
Japan	2,198	227,498	229,696	2,198	440,310	442,508
Canton Kingdom	—	109,989	109,989	—	160,000	160,000
Africa	203,960	1,050	205,010	203,960	1,056	205,016
Borneo	305,200	1,581	306,781	305,200	1,581	306,781
Java	100,000	517	100,517	100,000	517	100,517
Batavia	78,410	371	78,781	78,410	371	78,781
Siam	65,719	330	66,049	65,719	330	66,049
Annam or Tonquin	30,585	55,460	86,045	30,585	55,460	86,045
Various countries, &c.	50,975	55,000	105,975	50,975	35,000	85,975
Total of Europe, Africa, and Asia	4,545,192	1,254,306	5,799,498	5,512,533	1,528,592	6,041,125
Total of North and South America	1,501,550	5,861,619	6,363,179	15,311,989	7,459,824	22,771,813
Total	6,046,742	6,515,925	12,562,667	18,651,722	8,788,116	27,439,838

\* Exclude of China and Japan, which produce large quantities of gold and silver, the amount of which is quite unknown to Europeans.

The quantities of gold and silver produced at  
the under-mentioned epochs were:—

In 1801 the quantity of pure gold produced in  
America was 46,331 lb.; in Europe and Northern  
Asia (exclusive of China and Japan), 4,916 lb.;  
total produce, 51,247 lb.=56,910 lb. British  
standard gold = 2,612,200.

In 1846 the quantity of pure gold produced in  
America was 25,503 lb.; in Europe, Africa, and  
Asia (exclusive of China and Japan), 89,171 lb.;  
total produce, 114,674 lb.=125,108 lb. British  
standard gold = 5,846,772.

In 1850 the quantity of pure gold produced in

America was 261,731 lb.; in Europe, Africa, and  
Asia (exclusive of China and Japan), 104,219 lb.;  
total produce, 365,950 lb.=399,247 lb. British  
standard gold = 18,654,322.

The above quantities are probably less than  
the actual production. The duties on gold in  
Russia on the produce of the private mines are  
heavy, varying from 12 to 24 per cent.; in  
Austria they amount to 10 per cent., in Brazil to  
5 per cent., and are understood to lend to a great  
deal of smuggling. In other countries, such as  
the United States, where there are no duties, the  
gold and silver stated in the table are only the

quantities brought to the mints to be coined, there being no means of determining the quantity used in jewellery and other arts and manufacture.' The fixed duties on silver in Mexico were (in 1867) above 17½ per cent.

It is, perhaps, unnecessary to observe that all investigations into matters of this sort are liable to be affected by so many sources of error, that even when they are most skillfully and cautiously conducted their results are not always to be depended on. But speaking generally, we are disposed to think that the foregoing estimates are rather within than beyond the mark. And it is worthy of notice that they do not differ much from Humboldt's estimate (43,500,000 dols.) of the produce of the American mines at the beginning of this century.

*Russian Mines.*—Small supplies of the precious metals have for a lengthened period been obtained from Russia. But since 1850, and more especially since 1840, the produce of the Russian mines and washings, but principally the latter, has been

rapidly and largely increased. Thus the produce of gold from the Siberian washings and the mines of the Ural, which amounted (according to the official returns) to 3,875 kilog. in 1826, had increased in 1840 to 8,736 kilog., and in 1847 to 27,362 kilog. Since then, however, the produce has rather fallen off; and during the 3 years ending with 1854 their average yield amounted to only 22,768 kilog. a-year. (Otreschkoff, *De l'Or et de l'Argent* &c. i. 179.) The author was a councillor of state in the service of the Czar. Formerly the value of the silver supplied by Russia greatly exceeded that of the gold; but since 1830 this has not been the case; for while the produce of gold has been so very greatly increased, that of silver has varied but little (from 17,000 to 18,000 kilog. a-year), so that the value of the former is now about twenty times that of the latter. The following table, extracted from the work of M. Otreschkoff, is founded on official returns, and gives a view of the production of the precious metals in Russia down to 1855:—

*Account of the Quantity and Value of the Precious Metals produced in Russia from 1810 to 1855.*

Years	Gold		Silver		Annual Average of Total Produce
	kilog.	francs	kilog.	francs	
1810 to 1825	16,185	51,830,318	189,189	42,067,480	6,658,826
1825 to 1848	231,543	722,445,780	415,262	98,565,008	3,869,918
1848 to 1851	75,547	232,631,380	57,959	11,298,348	8,000,388
1851 to 1855	92,085	307,206,156	68,426	15,215,200	80,603,350
Totals -	415,610	1,586,516,764	761,836	167,814,036	

The Russian authorities have ascribed the falling off in the produce of the mines and washings since 1847 to the exhaustion of the deposits and the unskilfulness of those engaged in the business. But though this be most probably the case to some extent, it is believed that it has been in part also occasioned by the heavy taxes imposed on the gold raised by private parties. These vary in amount, according to the productiveness of the mines and washings, from about 12 to 24 or 25 per cent., and are most oppressive.

While, however, it may be fairly assumed that these heavy duties have tended to lessen the produce of gold, there can be little doubt that their principal effect has been to defeat themselves by tempting the parties concerned to adopt every means for their evasion, which the notorious corruption of the revenue officers renders an easy matter. And in addition to the influence of these circumstances over the private mines, the deprivations and carelessness of the parties employed to work the crown mines tell quite as much on their produce; so that we need not be surprised that it has been doubted whether from a third to a half, or more, of the gold furnished by the Russian mines and washings be not omitted in the official returns. But, taking the deficit at a fourth part only, and supposing the official produce of the washings and mines to amount at present (1869) to about 70,000,000 fr. a-year, the real produce would be equal to 87,500,000 fr., or 700,000,000 sterling. It is said that the Russian Government intend to throw open the crown mines and washings to the public, and at the same time to make a large reduction in the duties on the produce obtained from the private mines. This would be sound policy; and if it be adopted, a considerable increase in the supplies of gold and silver may be anticipated.

*Produce of Gold and Silver in other parts of Europe.*—It might have been supposed that the late extraordinary influx of the precious metals from California and Australia would have given a serious check to their production in Europe: such, however, has not been the case, but on the contrary

it has considerably increased within the last ten or twelve years.

Lead ore always contains a greater or less quantity of silver; and when the value of the latter is sufficient to repay the expense, it is usual to extract it by means of the process of 'refining.' This process has lately been much improved, and is now profitably applied to ores to which it was formerly unsuitable. And as silver in Europe is mostly obtained from lead, this has been a principal source of its late increase.

In 1845 some rich mines of argentiferous lead were discovered in the provinces of Murcia and Granada in Spain, not far from Alicante; the yield of silver from which, and the mines in other parts of the peninsula, is believed to amount to 500,000, or 600,000, a-year. The produce of the Austrian and German gold and silver mines has also increased; those of Austria alone, in 1856, being valued at upwards of 6,100,000 florins, of which Hungary and Transylvania contributed 98 per cent., and small quantities are furnished by Italy, France, Sweden, and other parts of the Continent.

The reader may perhaps be surprised to learn that, in consequence principally of the improved process of refining already referred to, no less than 805,394 oz. of silver, worth 215,400, were obtained from lead in the United Kingdom in 1866. During 1866 we imported 5,495 tons silver ore, mostly from Chili, which were valued at 275,500, and in 1867, 3,393 tons. This, however, is to be reckoned in the produce of Chili rather than of England.

The total production of the precious metals in Europe, exclusive of Russia, may be roughly estimated to have amounted in 1866 to 1,400,000, or 1,500,000.

On the whole, therefore, it may reasonably be concluded that the aggregate production of the precious metals (excluding the produce of the Californian and Australian gold fields) in America, Asiatic Russia, and Europe in 1866, amounted to about 15,000,000, viz. :—

PRECIOUS METALS

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America	410,000,000
Asiatic Russia	3,500,000
Europe	1,500,000
Total	415,000,000

And deducting from this sum the total estimated produce of the same countries in 1809, when the American mines had attained the maximum of their productiveness previously to the revolutionary disturbances (12,500,000*l.*), there is an increase of 2,600,000*l.*

In addition to the supplies of the precious metals already specified, further quantities are supplied by China and other parts of Asia, Japan, the Eastern Archipelago &c., and also by various parts of Africa. There is, however, no authentic information in regard to this produce; and excepting small supplies of gold dust brought from some parts of the African coast, the produce of the countries referred to has but little influence in the markets of the civilised world. M. Otreschek estimates, or rather conjectures, that the produce of gold and silver in Asia (exclusive of Russia), the Eastern Archipelago, Oceania &c. amounted, at an average of the four years ending with 1854, to 114,527,820 fr. (4,581,000*l.*) a-year, and that of Africa to 13,360,672 fr. (500,000*l.*) a-year. (*De l'Or et de l'Argent* &c. i. 287, 293.)

*Supplies of Gold from California and Australia.*

The gold in these regions is found in the débris of the quartz rocks in which it has been embedded, and in the rocks themselves. In the former case it is found in the hollows to which it has been carried down by rains or streams, at different depths, sometimes in grains or *flakes*, and sometimes in lumps or *nuggets* of varying but occasionally very considerable magnitude. Gold may be sought or dug for (hence *diggings*) either by single or associated individuals; but when quartz rock is crushed to obtain gold, expensive machinery is usually employed, and the work is for the most part carried on by companies. The business of the diggings has very much of the character of a lottery, with many blanks and a few large prizes; but in the crushing of quartz the returns are less irregular, and the business partakes more of the character of an ordinary branch of industry.

The Californian deposits were discovered late in May or early in June 1848; and notwithstanding the remoteness of the country, and the fact of its being almost destitute of inhabitants, above 3,000 persons were attracted to the spot by the end of the season, who are said to have realised above 1,000,000*l.* sterling. The news of the discovery and of the unexampled richness of the gold-fields having spread on all sides with electrical rapidity, occasioned an extraordinary influx of immigrants from most parts of the world into California. The supplies of gold attained to an unexampled magnitude; cities rose in the wilderness as if by enchantment; the great bay of San Francisco, which had hitherto been entirely deserted, was crowded with ships and steamers from the most distant countries; and California speedily became one of the States of the Union, and had in 1860 a population of 305,439.

But here, as elsewhere, we have to regret the want of accurate information in regard to the production of gold. It appears, however, from Mr. Consul Booker's Report, that during the years 1866 and 1867 treasure of the value of 8,402,830*l.* and 8,335,250*l.* was shipped from San Francisco. Again, Mr. Booker states that the receipts of gold and silver from the interior of California and the neighbouring State of Nevada amounted to 8,773,000*l.*, and by sea from the northern parts of California, Oregon, and Territories of Washing-

ton and Idaho, to 4,888,100*l.* In 1867 the receipt of gold and silver the produce of California and the adjoining States of Oregon and Nevada, and the Territories of Washington, Idaho, and Montana, amounted to 10,313,500*l.* exclusive of 793,860*l.* worth received from British Columbia and Mexico. The portion received from Nevada, valued at 3,600,000*l.*, consisted mainly of the produce of the silver-bearing lodes of that State. (Mr. Consul Booker's Reports for 1866 and 1867.) And, in addition to these quantities, large amounts, of which no account is taken, are conveyed away by parties returning to Mexico, to the Eastern States, Europe, and China. Of these various estimates have been made; but the prevalent opinion in the best informed quarters seems to be that, when they are included, and allowance is also made for the quantity retained at home, the total yield of gold in California in 1866 and 1867 may be moderately reckoned at 60,000,000 dols., or 12,000,000*l.* at an average.

But vast as it certainly is, this production has been equalled and sometimes surpassed by that of Australia. The deposits in the latter were not discovered till 1851, and they were so very rich, and the influx of immigrants so extraordinary, that the gold fields of Victoria only are estimated to have produced in 1852 no fewer than 4,247,152 oz.; which, at the then price of 70s. per oz., gives a gross amount of 14,866,799*l.* This, however, has been the maximum amount of production hitherto attained. In 1858 the same gold fields furnished only 2,421,461 oz. According to the carefully compiled and valuable returns of Mr. Knill of Melbourne, the yield of gold in Victoria from 1852 to 1858 was as follows, viz. :—

Years	Ascertained Ounces	Unrecorded Ounces	Total Ounces	Price per Ounce	Value
1852	3,153,322	1,098,325	4,251,647	70	11,866,799
1853	2,271,152	816,159	3,087,311	75	11,588,782
1854	1,831,334	361,364	2,192,698	80	8,770,791
1855	2,231,296	729,864	2,961,160	80	11,846,296
1856	2,530,583	1,063,149	3,593,732	80	14,151,102
1857	2,531,117	269,895	2,801,012	80	10,403,168
1858	2,253,117	168,311	2,421,428	80	9,685,840

The following table, from the *Emigration Circular* of 1868, shows the quantity of gold obtained in Victoria from 1859 to June 30, 1866 :—

Years	Per Escort	Exported	Value at 80s. per oz.
1859	66.	oz.	£
1860	2,202,412	2,280,950	9,125,800
1861	2,098,815	2,136,000	8,536,000
1862	1,832,887	1,367,020	7,861,680
1863	1,520,518	1,658,207	6,632,208
1864*	1,120,202	1,606,872	6,407,188
1865	—	1,541,691	6,178,776
1866	—	1,543,801	6,175,201
		1,479,191	5,916,776

\* The escorts from Castlemaine, Sandhurst, and Ballarat were discontinued on March 31, 1864, and since that date the only escorts arriving in Melbourne are those from the Beechworth and Wood's Points Districts; therefore, the returns being incomplete are omitted.

In addition to the gold obtained from Victoria, a supply which in 1852 amounted to 3,600,000*l.* was obtained from the Sydney or New South Wales district. The produce from this source, however, declined for several years. The annual value of the exports from New South Wales averaged in the 4 years ending with 1867, 2,500,000*l.*, while the value of the exports from New Zealand exceeded 2,000,000*l.* in each of 1862 and 1863, the 2 years immediately following the discovery of the Otago mines.

The following is an estimate of the production of gold and silver throughout the world in 1866, extracted from Ross and Browne's Reports to Congress on the Mineral Resources of the United States :—

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*Russia from 1810 to 1855.*

Years	Annual Average of Total Produce
1810	6,500,000
1815	8,000,000
1820	10,000,000
1825	12,000,000
1830	15,000,000
1835	18,000,000
1840	22,000,000
1845	28,000,000
1850	35,000,000
1855	45,000,000

increased within the last ten years, and contains a greater or less amount when the value of it by means of the process is no more profitably applied as formerly unsuitable. And mostly obtained from lead, principal source of its late

mines of argentiferous lead in the provinces of Murcia and far from Alicante; the yield, and the mines in other parts, is believed to amount to a-year. The produce of the gold and silver mines has been of Austria alone, in 1864, upwards of 6,100,000 florins, and Transylvania contributed small quantities are furnished, and other parts of the

perhaps be surprised to learn, principally of the improved silver, worth 215,400*l.*, were in the United Kingdom in 1867, reported 5,495 tons silver ore, which were valued at 275,000*l.* tons. This, however, is to be produce of Chili rather than of

tion of the precious metals in Russia, may be roughly estimated in 1866 to 1,400,000*l.*

Therefore, it may reasonably be aggregate production of the (excluding the produce of the Italian gold fields) in America, Europe in 1866, amounted to viz. :—

	Gold	Silver	Total
	dols.	dols.	dols.
United States	60,000,000	20,000,000	80,000,000
Mexico and South America	5,000,000	35,000,000	40,000,000
Australia	60,000,000	1,000,000	61,000,000
British America	5,000,000	500,000	5,500,000
Siberia	15,000,000	1,500,000	16,500,000
Elsewhere	5,000,000	2,000,000	7,000,000
	150,000,000	60,000,000	210,000,000

We incline to think that the produce of America, Australia, and Siberia is over-estimated in this statement, and would offer the following as a more approximate estimate of the entire produce of the precious metals in different parts of the civilised world in 1868, viz. —

America, excluding California	£10,000,000
Asiatic Russia	5,000,000
Europe	2,000,000
California	12,000,000
Australia	12,000,000
Asia and Africa	1,000,000
Total	£42,000,000

The question in regard to the probable continuation, increase, or diminution of this supply is of the greatest interest. Unfortunately, however, nothing but the vaguest conjectures can be offered with respect to it. Those who think that the supplies of the precious metals are likely to increase may allege that, being very widely diffused, fresh deposits will be successively brought to light; that the processes followed in the diggings, in the crushing of quartz rocks, and in the smelting and refining of the metals, will be further improved; and that the increase of population will make a still greater amount of labour be devoted to the search after these metals. But while we admit that there is a good deal of probability in these statements, still we question whether the result which they point at will be realised. Though gold be very generally distributed, it is extremely doubtful whether there be many places in which the deposits are so rich and so extensive as in California and Australia; and even in these the produce, as already seen, is either stationary or has begun to decline. The myriads of adventurers that are attracted to prolific diggings being all animated by the *auri sacra fames*, and putting forth their entire energies, can hardly fail, in no very lengthened period, to rifle the richest beds. And when this is done—when the excitement inspired by the original discovery is worn off, and the great prizes in the gigantic lottery recur only at distant intervals—then, unless new and equally promising discoveries should be made, a serious check will be given to the gold-seeking mania. The process of quartz-crushing is believed to produce only moderate profits, and is not of a kind to collect crowds of competitors. The few fortunes that have been realised in California and Australia have not been made by the miners, but by the merchants and others who have supplied their real or imaginary wants, and bought their gold-dust and nuggets on advantageous terms. Of those engaged on their own account in the search for gold, very few have retired from the pursuit with anything like a competence. The great majority have hardly realised the wages current in the districts before the deposits were discovered; and the conviction seems to be everywhere gaining ground that more is to be made by cultivating the surface of the earth than by digging in its bowels or crushing its rocks.

*Consumption of the Precious Metals.*—In order to form a reasonable conjecture in regard to the probable influence of this vast supply of the precious metals, it is necessary to enquire into their uses and probable consumption. And this enquiry, we regret to say, is still more difficult, and more

likely to be infected with errors, than the enquiry in regard to their production.

The precious metals are used as coin or currency to facilitate exchanges; as wealth which may be conveniently kept or hoarded; and they are used in the arts in the shape of plate, and in gilding, and so on.

The quantities employed in these functions are very large indeed. They vary, however, in different countries and periods with the circumstances peculiar to each; such, for example, as the greater or less abundance of paper money, and the degree in which the use of coins is lessened by the various devices resorted to for economising currency; the fashion as to plate and furniture; the feeling of security at the time; and a number of other circumstances, all liable to great and sometimes sudden changes.

The gold and silver employed in this country as currency, and in the customary reserves in the hands of the bankers, is supposed to amount to from 70,000,000*l.* to 75,000,000*l.* It has been estimated as high as 90,000,000*l.*; but the best authorities look upon this estimate as greatly beyond the mark. In France, the precious metals employed in the same way probably amount to nearly double the sum now mentioned, or to 130,000,000*l.* or 140,000,000*l.* It has been estimated by Levasseur (p. 106) and others at no less than 160,000,000*l.* But this includes a portion of the coins that have been hoarded, and which can no longer be reckoned in the currency. And we believe that we may safely estimate the entire sum employed as currency in Europe, America (North and South), Australia, the Cape of Good Hope, and Algeria, at from 490,000,000*l.* to 510,000,000*l.*, or 500,000,000*l.* as a medium. It would be inconsistent with the objects of this article, and with the limits within which it must be confined, to engage in a discussion of the numerous and often conflicting statements and details on which this estimate has been founded. Some information with respect to it may be found in Chevalier's valuable treatise *De la Monnaie* (p. 326 &c.), Paris 1850; in Stirling's *Gold Discoveries*, p. 182; in the learned and excellent tract of Tugoborski, *Essai de la Découverte des Gîtes aurifères en Californie et en Australie* &c. p. 65; Levasseur, *De la Question de l'Or*, n. 106; in the work of Otreschkoff, *De l'Or et de l'Argent*; and a host of other publications. The precious metals in circulation in Russia in the early part of 1851 were estimated in the *Petersburg Gazette* (October 12, 1852) at 326,000,000 roubles, equal, at 40*l.* per rouble, to 53,800,000*l.* The greater part (190,000,000 roubles) of this currency consisted of gold. Now, supposing this sum to be employed as above stated, as currency, we have first to enquire into its probable wear and tear and loss, and then into the probable rate of its increase. And taking into account the extraordinary extension of navigation and emigration, and the proportional risk of loss from shipwreck and other casualties, we are disposed to think that the annual wear and tear and loss of coin may be estimated at about 1½ per cent. of the entire mass of the currency; which, taking the latter at 500,000,000*l.*, would amount to 7,500,000*l.* a-year.

It is difficult to form any probable estimate of the rate at which the bullion used as currency may be likely to increase, supposing its value not to fall off. The extremely rapid increase of refinement and population in most parts of the civilised world, and especially in America and Australia, is known to everyone. And it seems pretty certain that some important countries which have hitherto made comparatively little progress, are about to enter on a new career of industry and enterprise.

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In Russia, for example, the measures that are in progress for the construction of railways and the emancipation of the peasantry can hardly fail to awaken the dormant energies of the latter, and give new vigour to their exertions. And the capacities of that country are so very great, that it is not easy to imagine, were its resources at all developed, to what an extent its wealth and population might be increased.

Again, some of the finest, best situated, most extensive, and of old the most populous and flourishing countries in the world, at present groan under the deadly influence of the superannuated but destructive despotism of the Turks. It is difficult, however, to suppose, despite the efforts that may be made to bolster it up, that this miserable fabric of superstition and tyranny should hold together much longer. And were it overthrown, and anything like an efficient government established in its stead, a fruitful and all but boundless field would be laid open to industry and enterprise.

But without insisting on such prospective considerations, and looking only to the advances that are now being made, we do not think that we shall exaggerate if we estimate the increase of currency that is now going on at 2 per cent. on its gross amount (500,000,000*l.*), or at 10,000,000*l.* a-year.

It is impossible, however, supposing this estimate not to be very wide of the mark at present, to conjecture how long the currency will go on increasing in this ratio. It may, as we have seen, be safely taken for granted that the sphere of civilisation and commerce is destined rapidly to extend. But its expansion will no doubt be accompanied with various contrivances for economising the use of metallic money; so that the quantity of it in circulation may not increase for any very lengthened period at the rate above stated. If it did, it would absorb an immense supply of gold. In barbarous countries, and in those which are entering on the career of civilisation, the coins afloat may increase at the rate of 3 or 5 per cent., or more; but in countries which are more advanced, their increase may be nothing, or less perhaps than even 1 per cent.

It is equally difficult to acquire any satisfactory information in regard to the quantity of bullion consumed in the arts. Jacob estimated its amount in Europe and America in 1830 at about 5,900,000*l.* a-year. But it has since been repeatedly shown by various intelligent writers that this estimate was in many respects wide of the mark, and that on the whole it was a good deal underrated. And, supposing the consumption of the precious metals in the arts to have amounted to 6,500,000*l.* or 7,000,000*l.* in 1830, it must now be very much greater. Everywhere, indeed, but more especially in England, America, Germany, and Russia, there has been an extraordinary increase of population and wealth during the last eight-and-thirty years. Plate and plated articles for use and ornamental purposes are now in extensive demand among all but the very lowest orders. Vastly more persons are raising themselves from poverty to competence and affluence than at any former period; and these are universally large buyers of plate and other costly articles. A taste for gilded saloons, magnificent glasses, and the gorgeous furniture of the age of Louis XIV., is at present all but universally diffused, and must have added greatly to the consumption of gold, which has been still further augmented by its increased outlay on the gilding of earthenware and china, harness, books &c. At the first blush of the matter, some of these items may not appear to the careless observer to be of much importance; but those who reflect little on the subject, and who consider the im-

mense and rapidly increasing demand for the articles referred to in this country and Europe generally, and in America and Australia, will be satisfied that the total consumption of the precious metals, and especially of gold, in the way now mentioned, must be quite immense. Estimates indeed have been made of the expenditure upon some of these items, but the data on which they are founded are too vague to entitle them to much attention.

We incline to think that the value of the precious metals in Great Britain in 1869 in the shape of plate, watches, jewels, and trinkets of all descriptions, may be safely estimated at about  $\frac{1}{2}$  to each individual of the entire population, making in the aggregate a sum of about 100,000,000*l.*, to which if we add 12,000,000*l.* for Ireland, the whole will amount to 112,000,000*l.* And vast as this sum may appear, we believe it is inside the mark. Silver spoons and forks, silver tea-services, with trays &c. are now universally met with throughout the middle as well as the upper classes; while most families, of any antiquity or consideration of any kind, possess large quantities of ornamental as well as useful plate. In the Continent and the United States the bullion invested in the way now stated is very great indeed. In Italy and Spain and some other countries the lower classes, especially the women, though not generally so well off as in England, spend more money upon massive rings, chains, brooches, and such like articles, which they regard much as girls in England do their deposits in the savings bank, as a reserve fund or capital.

We are aware that Jacob says, that 'in the present day in this country, the quantity of gold and silver in actual existence, including utensils, ornaments, jewellery, trinkets, and watches, is three or four times as great as the value of those metals which exists in the form of money.' (*Historical Inquiry*, i. 210.) And as the value of the precious metals in Great Britain, in the shape of coin, is certainly not less at present (1869) than 70,000,000*l.* or 75,000,000*l.*, the value of the bullion in plate, jewellery &c. ought, on this hypothesis, to amount to at least 210,000,000*l.* or 280,000,000*l.* Yet there can be no manner of doubt that the lowest of these sums would be far beyond the mark. Tegoborski, indeed (*Gîtes aurifères etc.* p. 66), who is supported by Humboldt (*Essai sur la Nouvelle-Espagne*, iii. p. 465, ed. 1827), estimates the value of the bullion vested in plate, watches, jewellery &c. at only half the amount vested in coin. This estimate, though not perhaps very far wrong if applied to the poorer countries of Europe, would undoubtedly, if applied to Great Britain, be as much under as that of Jacob is above the mark.

But, without pretending to an accuracy which, on such subjects, is unattainable, we run little risk in concluding that the expenditure of bullion in the arts—i.e. in plate, jewellery, gilding &c.—in Europe, America, and Australia, cannot at present (1869) be under, if it do not exceed, 15,000,000*l.* or 16,000,000*l.* a-year. Now of this a portion, estimated at about  $\frac{1}{2}$  or 20 per cent., is supposed to be obtained from the fusion of old plate, the burning of gold and silver lace &c. And hence, if we deduct from the 15,000,000*l.* used in the arts 20 per cent. for the old bullion, we have 12,000,000*l.* for the total quantity of the supplies from the mines annually disposed of in this way; a considerable portion of which, including that used in the gilding of rooms, earthenware, books, harness, buttons &c., cannot be again recovered or applied to any useful purpose.

And however great it may appear to be, this

amount will be largely increased with the increase of population and the spread of refinement in the arts, and still more by anything like a considerable fall in the value of bullion.

Hence it would appear, putting these items together, that the annual consumption of bullion as currency, and in the arts, amounts to about 29,500,000*l.* viz:—

Wear and tear and loss of coin	-	-	£7,500,000
Increase of currency	-	-	10,000,000
Used in the arts	-	-	12,000,000
Total	-	-	£29,500,000

It will be difficult to show that these estimates are beyond the mark; and supposing them to be nearly correct, it follows, deducting the above sum from the previously estimated produce of the mines (40,000,000*l.*—29,500,000*l.*), that we have a surplus of 10,500,000*l.* to defray the sums required for hoarding, for exportation to the East &c. And there certainly seems to be little reason for thinking that a supply of this amount will do much more than meet the demands upon it.

It may be said, perhaps, that we must have exaggerated the consumption of the precious metals, inasmuch as the sum which we suppose is annually consumed considerably exceeds the entire produce of the mines previously to the supplies from California and Australia. But, while we admit the fact to be as stated, we deny the inference which is attempted to be drawn from it. The truth is, that while the discovery of the Californian and Australian deposits has added in so great a degree to the supply of bullion, it has also added very largely to its consumption. It has given an unparalleled stimulus to emigration and commerce. The population of California and Victoria has increased in a ratio hitherto unheard of, or from next to nothing 20 years ago, the former to 379,994 in 1860, and the latter to 653,744 on September 30, 1867. But despite this increase, wages, owing to the general desire to speculate on one's own account, continue to be extravagantly high. In California in 1867 miners readily obtained from 10*s.* to 14*s.* a day, according to their skill and capacity for enduring fatigue; common labourers from 6*s.* to 8*s.* a day, and house servants from 4*l.* to 10*l.* a month. (Mr. Consul Booker's *Report* for 1867.) For a while most articles were proportionally high, so that these extravagant wages were not so advantageous to the parties receiving them as might have been supposed. But there has latterly been a great fall in the price of manufactured goods and colonial produce; while, owing to the progress of agriculture, provisions have also been greatly reduced. Lodgings are still very dear, but not so exorbitant as formerly. In Australia the state of things for a while after the discovery of the gold fields was not very dissimilar; wages, however, though still very high, are a good deal lower than in California; while in other respects there is but little difference between the two. And if, in addition to these unprecedented circumstances, we take into account the unsettled character of the population, with the absorbing pursuit of wealth on the one hand, and the utter recklessness of expenditure on the other, we must be satisfied that the currency of these countries cannot be otherwise than excessive as compared with their population.

Still the powerful influence of the late gold discoveries is not confined to California and Australia. The emigration to these countries, and the new and rapidly increasing markets which they afford, have told effectually here, and indeed in every commercial country. In England the rise of wages cannot be estimated at less than

from 10 to 30 per cent., while in Ireland it has been a good deal more. And though the rise of wages in the latter be in part ascribable to the famine of 1846-47, and in a still greater degree to the emigration to the United States, yet, as this emigration has been powerfully promoted by the efflux of emigrants from the Atlantic States to California, it is clear that the gold of the latter has been at bottom a prominent cause of the improvement in the condition of the Irish peasantry. The same may be said of the emigration from Germany, which has latterly become of first-rate importance. At an average of the seven years ended with 1852, it amounted to 103,591 individuals a year; the numbers in 1851 and 1852 being respectively 120,708 and 155,730, of which by far the greater portion was destined for the United States. (*Report of Emig. Com.* for 1853, p. 104.) The number of emigrants from Bremen alone, in 1866, was 62,254, nine-tenths of whom were destined for the United States (Mr. Vice-Consul Schwoon's *Report* for 1866); and the emigrants from this country to the United States in 1867 numbered 159,275.

The rise of wages consequent on these extraordinary mutations, and the increased exports of produce which they have occasioned, have exercised a powerful influence in the United States as well as in Europe. And there, consequently, as well as here, a greater supply of bullion will be required to serve as currency. Again, while this influence is operating on the one hand, on the other the swarms of *parvenus* who are every day rising to opulence contribute to swell the demand for all sorts of things, but especially for plate and plated goods, jewellery, and such like articles. What is probably of still greater importance, the metallic basis of the currency is everywhere being enlarged; and the conviction is rapidly gaining ground in the United States as well as in Europe, that no paper currency can be safe unless effectual measures be taken to maintain such a supply of the precious metals in the countries in which it circulates as may be necessary to ensure its immediate conversion into coin.

*Burying of Gold and Silver.*—It is singular that, in estimating the consumption of gold and silver, Jacob did not make any allusion to the practice, which has uniformly prevailed in all countries harassed by intestine commotions or exposed to foreign invasion, of burying treasure in the earth. Of the sums so deposited a very considerable proportion has been altogether lost; and this has no doubt been one of the principal means by which the stock of the precious metals has been kept down to its present level. Every one is aware that during the middle ages treasure-trove, or money dug from the ground, formed no inconsiderable part of the revenue of this and most other countries. (Blackstone, *Com. b. l. c.* 8, s. 13.) And though the burying of money has long ceased in Great Britain, such has not been the case among our neighbours. Wakefield tells us that down to 1812 the practice was common in Ireland (*Account of Ireland*, i. p. 593); and though much fallen off in the interval, it continues to this day to be occasionally resorted to in that part of the kingdom. It has always prevailed, sometimes to a less and sometimes to a greater extent, in almost every part of the Continent. (Storch, *Économie politique*, i. p. 222, 1722.) The anarchy and brigandage that accompanied the Revolution of 1789 made the practice to be carried to an extraordinary extent in France; and there, owing to various causes which are too obvious to require being pointed out, it still maintains a considerable footing.

So much was this the case after 1818, that a distinguished authority says, 'En France nous enfonçons notre argent dans nos coffres, ou nous le cachons dans les murs de nos maisons de les sillons de nos champs, selon les vieilles coutumes de l'Orient. Il y a peut-être un milliard (soixant millions sterling) de notre numéraire rendu ainsi stérile.' Dupuynode, *De la Monnaie, du Crédit etc.* i. p. 182, Paris 1853; and one of the best of the late French publications on the important subjects of the burying of treasure be at present as prevalent in France as in many parts of Germany and in Hungary, Russia, Italy, Spain, and European Turkey. The feeling of insecurity that has prevailed in all these countries, especially since 1818, has given a stimulus to this practice which nothing can countervail. Of the many millions that were distributed among the countries round the Black Sea during the Crimean War, the greater portion is believed to be as much withdrawn from circulation as if it had never been dug from the mine. But the burying of treasure in Europe is trifling compared to what it is in the East. There the practice has prevailed from the remotest antiquity down to the present time, and has been and is carried to an enormous extent. Heriier, indeed, and all the most intelligent travellers and enquirers who have visited India, Persia, China, and the East, generally concur in thinking that this burying of the precious metals is a main cause of their continued drain to India &c., where they never seem to become more abundant. But as we have already noticed this part of our subject at considerable length (ante, EAST INDIA COMPANY, *Exportation of the Precious Metals to India &c.*), it is needless to dwell further upon it.

It is impossible, of course, to form any estimate of the sums thus annually placed, as it were, in mortmain. They vary from year to year, and are always greatest when wars or revolutionary disturbances are in progress, or when their occurrence is anticipated, or but little confidence is placed in the permanence of existing institutions. There can, at all events, be no question that the sums which have been disposed of in the way now stated in the different Continental and Oriental countries of late years have been quite enormous, and have far exceeded those absorbed by any of the other channels of expenditure.

*Exportation of Gold and Silver to the East.*—Humboldt estimated that, of the entire produce of the American mines at the beginning of this century, amounting, as already seen, to 43,500,000 dollars, no less than 25,500,000 were sent to Asia, 17,500,000 by the Cape of Good Hope, 4,000,000 by the Levant, and 4,000,000 through the Russian frontier. Probably, however, this estimate was a good deal beyond the mark. 'Humboldt, cela n'est plus douteux, estimait trop haut la valeur de l'or et de l'argent, qui s'écoulaient au commencement de ce siècle d'Europe en Asie, et portaient trop bas la déperdition qu'ils éprouvaient, dans le même temps, par le frottement et leur conversion en objets d'orfèvrerie et de bijouterie.' (Dupuynode, *De la Monnaie etc.* l. p. 185.) There is no longer, we believe, any doubt in regard to the accuracy of the latter part of this statement; and it is pretty generally supposed that the first part is also well founded. But some years ago this immense drain began to diminish, and in 1832 and 1833 it actually set in the opposite direction. Then for a time it fluctuated, sometimes inclining to the one side and sometimes to the other. With the exception, however, of the bullion received in payment of

the 21,000,000 dollars due to us by China, under the treaty of 1812, there was not for some years any very decided movement of bullion from Europe to the East, or from the East to Europe, though, on the whole, the imports into the latter appear to have exceeded the exports; at least, this was certainly the case during the 5 years from 1844-45 to 1848-49, both inclusive. But more recently, or since 1850, the drain for bullion for the East set in with renewed force; and for 7 years down to the crisis of 1866 the average was only 10,000,000. This is evident from the following statements:—

Total Exports of Bullion from Great Britain to the East.

Years	Gold	Silver
	£	£
1859	615,895	16,004,028
1860	1,701,596	8,121,230
1861	796,195	7,091,872
1862	1,019,621	10,710,209
1863	7,571,906	8,260,842
1864	2,058,731	6,308,368
1865	580,262	5,808,260
1866	457,911	2,537,930
1867	241,919	617,415

It is to be borne in mind that although India did not, for several years prior to 1850, derive any considerable supply of bullion from Europe, she drew during that period large supplies from China. This was a consequence of the vast increase of the importations of opium into the latter. With the exception of tea and silk, China has few native products, other than the precious metals, fit for foreign markets. And the exports of the former being for some years not much more than sufficient to pay for the products sent to her from Europe and America, a very considerable part of the cotton and opium she imported from India was paid for in bullion, the increased exports of which were said to have latterly brought her into serious difficulties. But the circumstances are now (1869) entirely changed. The demand for the silks, teas &c. of China, in this and other western countries, has latterly become so immense, and has so far exceeded the value of the produce exported by them to China, that the balance in bullion received by the latter on her trade with them, has enabled her to meet with little or no difficulty the drain for bullion occasioned by the increased imports of opium from India. The following statements set these results in a sufficiently clear point of view:—

Account of the Total Value of the Exports from India to China, and of those from China to India, in each of the 6 Years ending with 1866, showing the Excess of the former over the latter.

Years	Exports from India to China	Exports from China to India	Excess of Indian Exports
	£	£	£
1861	11,489,966	8,590,565	8,899,601
1862	10,467,229	4,398,068	6,071,161
1863	12,127,527	4,567,803	7,559,724
1864	10,535,835	7,919,901	6,175,224
1865	10,071,552	4,275,963	6,595,687
1866	11,739,565	4,845,238	2,885,527

\* Including Japan.

Comparison between the Balance due by China to India, and by the United Kingdom to China.

Years	China to India	United Kingdom to China
	£	£
1861	8,899,601	4,129,398
1862	6,071,161	8,892,759
1863	7,559,724	10,087,525
1864	6,175,224	10,683,971
1865	6,595,687	6,175,001
1866	2,885,527	3,451,028
Total	38,787,187	45,427,282

Account of the Total Value of the Exports from the United Kingdom to India and China, and of the Total Value of Imports from India and China into the United Kingdom, in each of the 7 Years ending with 1867, showing the Balance in favour of the latter.

Years	Exports			Imports			Excess of Imports
	To India	To China	Total	From India	From China	Total	
1861	£ 17,053,555	£ 4,910,416	£ 21,963,971	£ 21,968,759	£ 9,010,415	£ 31,000,174	£ 9,036,203
1862	£ 15,316,136	£ 3,277,356	£ 18,593,492	£ 14,135,261	£ 12,437,695	£ 26,572,956	£ 7,979,464
1863	£ 20,817,409	£ 3,038,285	£ 23,855,694	£ 18,417,200	£ 11,186,110	£ 29,603,310	£ 5,747,616
1864	£ 20,753,804	£ 1,909,059	£ 22,662,863	£ 22,200,000	£ 15,657,000	£ 37,857,000	£ 15,194,137
1865	£ 18,833,191	£ 3,116,062	£ 21,949,253	£ 37,395,159	£ 11,314,063	£ 48,709,222	£ 26,759,969
1866	£ 20,671,519	£ 2,671,633	£ 23,343,152	£ 36,501,997	£ 11,328,681	£ 47,830,678	£ 24,487,526
1867	£ 22,862,595	£ 2,671,101	£ 25,533,696	£ 25,487,580	£ 9,323,776	£ 34,811,356	£ 9,277,660

Account of the Total Value of the Exports from the United Kingdom to China, and of those from China to the United Kingdom, in each of the 7 Years ending with 1867, showing also the Excess of the latter over the former.

Years	Exports from United Kingdom to China	Exports from China to United Kingdom	Excess of Chinese Exports
	£	£	
1861	£ 4,910,416	£ 9,070,145	£ 4,159,729
1862	£ 3,277,356	£ 12,137,099	£ 8,859,743
1863	£ 3,038,285	£ 14,185,310	£ 11,147,025
1864	£ 1,909,059	£ 15,675,030	£ 13,765,971
1865	£ 3,116,062	£ 11,451,063	£ 8,334,901
1866	£ 2,671,633	£ 11,179,561	£ 8,507,928
1867	£ 2,671,101	£ 9,525,776	£ 6,854,675

Account of the Total Value of the Exports from the United Kingdom to India, and of those from India to the United Kingdom, in each of the 7 Years ending with 1867, showing the Excess of the latter.

Years	Exports from United Kingdom to India	Exports from India to United Kingdom	Excess of Indian Exports
	£	£	
1861	£ 17,053,555	£ 21,968,759	£ 4,915,204
1862	£ 15,316,136	£ 18,593,492	£ 3,277,356
1863	£ 20,817,409	£ 23,855,694	£ 3,038,285
1864	£ 20,753,804	£ 22,662,863	£ 1,909,059
1865	£ 18,833,191	£ 21,949,253	£ 3,116,062
1866	£ 20,671,519	£ 23,343,152	£ 2,671,633
1867	£ 22,862,595	£ 25,533,696	£ 2,671,101

It is plain from these statements:—

I. That, taking India and China together, the imports from them into this country have greatly exceeded the exports, leaving a heavy balance to be discharged by shipments of bullion.

II. In regard to China, the imports from which so greatly exceed the exports, except in 1866 and 1867, which, in consequence of the commercial crisis, have been exceptional, it is difficult to form any anticipation of what may take place in future. There can, indeed, be little or no doubt that, great as the imports of silk and tea now are, they will become much greater in future. The real question is, Will the demand for British products in China extend in the same, in a less, or in a greater proportion? And though the question be by no means free from difficulty, we incline to think that the influence of the late treaty, and the greater facilities it affords for the importation of foreign products into China, will increase the amount of the imports. But we have no idea that they will, if ever, at least for many years to come, be equal to the exports; or that the balance between China and England will cease to be largely against the latter.

III. It is equally difficult to cast the horoscope of the future trade between India and China. The importation of opium into the latter is now legalised, and an increase of imports may, in consequence, be expected. But, on the other hand, opium is beginning to be extensively grown in China; and, if its home culture succeed, it is next to certain that the importation from India will be lessened. These, however, are matters which

must be left to time and experience to clear up and decide.

IV. On the whole, however, it appears to be sufficiently plain, in whatever way bullion may be distributed among the Eastern countries, that they will continue, as hitherto, to import large supplies from the Western world. In truth it is much cheaper here than in the East; and, being so, it is advantageous to export it. There is therefore every prospect that the drain of bullion from the West to the East will go on, with occasional oscillations, for the time to come as it has done in times gone by; and that it will continue to absorb a very large proportion of the produce of the mines, perhaps as much as 5 or 6 millions a year. Though a considerable reduction in the amounts of late years might be anticipated, were we to become less indebted to India for supplies of cotton,

It is seen from the previous statements that silver forms by far the larger portion of the bullion exported to the East. This depends on peculiar circumstances; and it is by no means certain, nor indeed very likely, that silver will permanently continue, as heretofore, to be sent to India and China in preference to gold. On the contrary, it seems to be extremely probable, provided there be any material or indeed sensible decline in the value of gold, as compared with silver, that it will begin to be largely exported to these countries. It is extensively used in Hindostan for ornaments, and is preferred by many, both in India and China, to silver, as being more portable and better suited for hoarding. In the event, too, of these great countries becoming, as it is all but certain they will do, richer and more commercial, gold will no doubt be employed, whether legal tender or not, to a less or greater extent, in the settlement of pecuniary transactions. And, on the whole, we should be inclined to anticipate that anything like a considerable fall in the value of gold would make it go on gradually to supersede silver in shipments to the East, and open for it in that quarter an all but boundless market.

In all speculations in regard to the probable future supply of gold, it should be carefully borne in mind that any considerable fall in its value would unavoidably check its production, and, consequently, tend to lessen or prevent its further fall. It is plain, for example, that a decline of 10 per cent. in the value of gold would, *ceteris paribus*, occasion the abandonment of all those mines, diggings, washings &c. which only yield a net profit of that amount. We are aware, that owing to the production of gold, as at present carried on, having more of a gambling character than pertains to most branches of industry, the principle now stated would not operate so speedily as might, perhaps, be anticipated. But of its ultimate operation there can be no question. And it may, therefore, be laid down that any reduction in the value of gold, which is not accompanied by a corresponding improvement in the methods of



selves to the reader, it would be good policy to re-introduce a gold currency. It is contrary to all principle, and indeed to the plainest dictates of common sense, to exclude it by forcible means from a field where it would otherwise be largely used, the more especially as by doing this we create an unnatural demand for silver at the very time when it is supposed to be rising in value as compared with gold.

A further substitution of gold for silver may probably be effected by using gold coins of less value than formerly. In the United Kingdom, for instance, gold might be advantageously coined into 5s. pieces. The French have set us the example by coining gold 5 franc pieces. It would be inconvenient, perhaps, to have gold coins worth less than this; but of this value their employment is beneficial, as well by economising the use of silver, as by their being more convenient and easily carried about.

Supposing that the substitution of gold for silver now referred to were fully effected, and that the production of gold as compared with silver were to go on as it has done since the discovery of the Californian and Australian gold-fields, the value of silver, measured in gold, could hardly fail to rise. This, however, will in great measure depend on the demand for silver for the East continuing at about its late average amount, or on its not falling off, which it would be sure to do were gold again made legal tender. And there are, besides, but slender grounds for thinking that gold and silver will continue for any considerable period to be produced in the same proportions that they have been during the last 20 years. The presumption, indeed, appears to be rather in favour of the future increase of silver than of gold.

We may, perhaps, before proceeding further, notice in this place the following estimate, which the Bank of England laid before the Committee of the House of Commons on Banks in 1857-58:—

Years	Imports from Producing Countries		Exports to the East from Great Britain and the Mediterranean	
	Gold	Silver	Gold	Silver
	£	£	£	£
1851	8,654,000	4,076,000	102,000	1,216,000
1852	15,191,000	4,712,000	992,000	2,650,000
1853	22,455,000	4,355,000	974,000	5,590,000
1854	22,077,000	4,199,000	1,222,000	4,985,000
1855	19,875,000	3,717,000	1,192,000	7,254,000
1856	21,275,000	4,261,000	479,000	14,108,000
1857	21,566,000	4,050,000	529,000	20,146,000
Total	150,876,000	29,870,000	5,120,000	46,676,000

#### Gold.

The total import of gold in seven years to 1866 has been, say	£	121,000,000
The exports of gold bullion and British gold coin to India, China, Australia, the Cape, Brazil, the West Indies, United States &c. may be taken at	-	18,000,000
Which would leave as the increase to the European stock of gold	-	106,000,000

#### Silver.

The exports of silver to India and China have been	£	10,000,000
The imports from the producing countries	412,000,000	
Making the amount of silver added to the European stock	-	4,000,000
And the estimated increase in the European stock of bullion	-	110,000,000

In some respects this estimate might be advantageously modified. But supposing it to be, as it may be presumed it is, nearly accurate, still it is obvious that, to get the total addition made to the stock of European bullion during the 7 years ending with 1866, we must add the bullion produced in Europe during the above period. And the latter being taken at 1,500,000*l.*, a-year, makes an aggregate sum of 10,500,000*l.*, which

added to the above balance of 110,000,000*l.*, makes the total increase amount to 120,500,000*l.*

But, though immense, the demands which this fund has had to sustain have been equally immense. We have already seen that the coinage of gold in France during the 8 years ending with 1857 amounted to no less than 109,987,710*l.*; and during the 7 years ending with 1857, the period referred to in the Bank of England estimate, it amounted to 87,085,201*l.* A portion of this gigantic sum was derived from Dutch, English, and other European coin imported into France, and very considerable portions were exported, partly to the Crimea, and thence to the adjacent Asiatic countries, for supplies for the French forces in that quarter, and partly to the East by way of Egypt, Smyrna &c. Still, however, we feel satisfied that we shall be far within the mark if we assume that France has absorbed 35,000,000*l.* of new gold, during the period in question, in the shape of coin, which is partly employed as currency and partly hoarded. (See, in confirmation of the statement now made, *Levasseur, La Question de l'Or* p. 106.) And if we be nearly right in this assumption, it follows that only 56,550,000*l.*, or 8,080,000*l.*, a-year, remains to supply all Europe,—1st, with new coins (ex France), and to make good the wear and loss of the old coins; 2nd, to supply the sums required for use in the arts; and 3rd, to supply those that are hoarded and carried away in the pockets of emigrants &c. &c. A very considerable addition has been made to the metallic currency of the United Kingdom during the 10 years ending with 1866, viz. 51,865,783*l.* of gold, and 3,714,169*l.* of silver; total, 55,579,952*l.* Owing, however, to our gold coins being exempted from seigniorage, they have no greater value than an equal weight of standard bullion, and are exported indifferently with the latter. Hence the accounts of the sums coined throw, if taken by themselves, little or no light on the increase or diminution of the currency.

The item of coins carried away by emigrants is of much more importance than is generally supposed. Taking the entire number of emigrants from Europe to the United States, Australia, and all other places at 400,000 a-year, it is pretty certain that they do not take with them, at an average, less than 2*l.* to 3*l.* in coin, besides plate, watches, rings &c. Some estimates make the exports of bullion by emigrants much greater than this; but even on this very moderate hypothesis it will amount to 1,000,000*l.*, a-year in coin only.

Hence, as compared with the outgoings, the supply of bullion in Europe during the last seven or eight years, far from being in excess, has been scanty rather than otherwise. And without a diminution of the former, or an increase of the latter, most people amongst us will be little sensible of the influence of Californian and Australian gold.

*Past and probable future influence of the increased supply of bullion on prices and on its value.*—The previous statements seem to be sufficient to show that the present supply of the precious metals is not more than adequate to meet the average existing demand, and that therefore there is no ground for anticipating a fall in their value unless the supply should be increased and the demand diminished.

It is now (1869) 21 years since the increased supplies of gold from California, and 18 since those from Australia, have been poured into the markets of Europe and America; and yet there has not, during that period, been anything like a general rise of prices. On the contrary, the price

of the majority of articles are as low at this moment as they were at the same time in 1850, while several are lower. And of those that have risen in price since the latter epoch, there is not one of which the rise may not be satisfactorily explained by something peculiar to itself, and affecting either its demand or the conditions of its supply, or both. Thus, the rise that has taken place in the rate of wages in Great Britain and in Ireland is ascribable, partly to the greater demand for labour, partly to the extent to which emigration has been carried, and partly to the potato rot and the consequent famine in Ireland, and may be fully accounted for in this way. There is, in truth, nothing whatever, in comparing the prices of to-day with those of 20 years ago, to entitle any one to affirm that the value of gold and silver has undergone any appreciable change in the interval.

That there is but little probability that prices will be raised by a continuance of the present supplies of gold and silver, may be inferred from what took place after the discovery of America in 1492. It appears from the researches of Adam Smith (*Wealth of Nations*, 1 vol. 8vo. p. 88), and other authorities, that the influx of the precious metals had exerted its full effect upon prices previously to or about 1640; and yet this influx was much greater then and subsequently than it had been at any previous period. According to the best information attainable, the average annual importation of the precious metals from America into Europe, from 1492 down to 1810, may be estimated as follows:—

	£
From 1492 to 1590	51,300 a-year
1590 1615	611,000 "
1615 1690	2,389,200 "
1690 1790	3,173,200 "
1790 1810	4,887,050 "
1790 1803	2,667,160 "
1803 1810	3,016,920 "
Annual average of the entire period (1492-1810)	4,105,191l.

In 1640 or 1650, when the bullion of America had produced its full effect on prices in Europe, its annual influx amounted to about 3,000,000*l.* And yet, though its influx was nearly trebled between that epoch and 1803, it is admitted on all hands, that down to the last-mentioned year, there was no general rise of prices. The increased demand of Europe was fully sufficient to take off this great increase of supply without any fall taking place in the value of silver. Indeed, it is contended by some high authorities that, instead of falling, it rose in value during the period referred to. Prices rose in this country subsequently to 1793; but this was entirely owing to the difficulties which the war then commenced threw in the way of importation, the waste of capital and the shock given to industrial undertakings which it occasioned, and the disorders of all sorts incident to national struggles.

There can be no manner of doubt, not merely that the quantity of the precious metals employed in Europe and America is incomparably greater now than in the seventeenth and eighteenth centuries, but that the demand for additional quantities is also incomparably greater. And when it is seen that their value continued stationary from 1650 to 1800, despite the immense additional supplies that were thrown upon the market, there is, it is plain, little ground for wonder that their value, great as it has been, has not affected their value, or for anticipating that it will materially decline in the course of the next half-century.

*A fall in the value of the precious metals would, on the whole, be advantageous.*—Should it turn out that we are mistaken in these conclusions, and that a considerable fall in the value of the precious

metals is about to commence, it is satisfactory to know that there are no really tenable grounds for supposing that such fall will be publicly injurious. It is indeed impossible for any change to take place in the measure of value without its exercising an injurious influence over a greater or less number of individuals. But if the loss it may inflict on A, B, and C, be counterbalanced by the advantages which it confers on X, Y, and Z, its effect in a public point of view may not be perceptible. It is easy to see that, in the case now under consideration, the inconveniences resulting from a fall in the value of gold and silver would be a good deal more than compensated by the advantages of which it would be productive.

1. In the first place, we may observe that the mischievous influence resulting from a fall in the value of the precious metals depends in great measure on the rapidity with which it is brought about. If it were to take effect suddenly, and without giving any distinct warning of its approach, it would be much more injurious than if it took effect slowly and gradually; for, in the former case, it is difficult to take any measures by which to mitigate or avert the impending evil, whereas, in the latter, abundant opportunities are afforded for that being done; and though these were not taken advantage of, a change that is brought about by a slow and all but insensible progress is but little felt, at least when compared with one that takes place suddenly or rapidly. Now it is sufficiently certain, supposing the value of the precious metals to be in the end reduced, that that reduction will be a very slow process; and that anyone likely to be injuriously affected by its occurrence will have ample time to concert measures to secure himself, as far as may be practicable, against its operation. That we are warranted in coming to this conclusion is obvious. When an unprecedented influx of bullion has been going on for twenty years without having had any appreciable influence over its value, it would be contradictory to suppose that it is at all likely to be speedily and seriously affected by a continuance of the influx.

2. But supposing that these anticipations should not be realised, and that the supplies of the precious metals should be largely and rapidly increased, and their value reduced, the results are not of a kind that should be deprecated. 'In every kingdom,' says Hume, 'into which money begins to pour in greater abundance than formerly, everything takes a new face: labour and industry gain life, the merchant becomes more enterprising, the manufacturer more diligent and skilful, and even the farmer follows his plough with greater alacrity and attention. But when gold and silver are diminishing, the workman has not the same employment from the manufacturer and merchant, though he pays the same price for everything in the market; the farmer cannot dispose of his corn and cattle, though he must pay the same rent to the landlord: the poverty, beggary, and sloth that must ensue are easily foreseen.' (*Essay on Money*.)

Hume appears to have supposed that the stimulus he has so well described, which is given by an influx of money to industry, is occasioned by the additional money coming first into the hands of capitalists, and enabling them to extend their businesses and employ more work-people. But though this would have some influence, the philosophical historian seems to have overlooked the mode in which an increase in the quantity, and a fall in the value of money, principally contribute to excite industry and enterprise. Such fall proportionally diminishes the many fixed money

of 110,000,000*l.*, makes to 120,500,000*l.*, the demands which this have been equally immense, at the coining of gold in years ending with 1857 than 109,387,700*l.*; and with 1857, the period of England estimate, it is 11. A portion of this gold from Dutch, English, and transported into France, and was exported, partly to the East by way of Egypt. However, we feel satisfied that in the mark if we assume 35,000,000*l.* of new gold, in the shape of coin, used as currency and partly in confirmation of the statement in *La Question de l'Or*, p. 106, right in this assumption, it 50,000*l.*, or 8,000,000*l.* a-year, Europe,—1st, with new coin make good the wear and loss of 4, to supply the sums required, and 3rd, to supply those that carried away in the pockets of A very considerable addition to the metallic currency of the 10 years ending with 1831 of gold, and 3,714,100*l.* of 179,892*l.* Owing, however, to being exempted from seigniorage, it is worth more than an equal weight of silver, and are exported indifferently to the accounts of the sums taken by themselves, little or increase or diminution of the sums carried away by emigrants of importance than is generally the entire number of emigrants to the United States, Australia, and 400,000 a-year, it is pretty do not take with them, at a 2*l.* to 3*l.* in coin, besides plate, &c. Some estimates make the on by emigrants much greater even on this very moderate account to 1,000,000*l.* a-year in comparison with the outgoings, the in Europe during the last years from being in excess, has been otherwise. And without a so former, or an increase of the le amongst us will be but little influence of Californian and Aus-  
  
able future influence of the in- of bullion on prices and on the tions statements seem to be suffi- that the present supply of the is not more than adequate to meet- sting demand, and that there- and for anticipating a fall in their supply should be increased as- nished.  
69) 21 years since the increase al from California, and 18 into- a, have been poured into the- ope and America; and yet there- that period, been anything like- rices. On the contrary, the price

payments that are borne by the industrious classes. The prices of commodities vary with variations in the value of money; whereas taxes, rents, mortgages, and other pecuniary burdens, continue stationary for longer or shorter periods. The latter are rated or specified in certain amounts of money—those to whom these are due being obliged to receive them in payment, though the value of money should have fallen 5 to 10, or even 50 per cent, since the date of the contract or engagement in which the payments originate; while those by whom they are due are bound to pay them, however much the value of money may have risen. Hence the powerful influence of variations in its value over the different classes of society. When it declines, the debtor portion, or those who have fixed money payments to make, are benefited at the expense of the creditor portion, or those who have such payments to receive; and conversely when it rises. Fundholders, annuitants of all sorts, landowners during the currency of the leases of their estates, mortgagers, the army and navy, civil service &c., suffer according to the diminution in the value of money; for, though their incomes and claims continue nominally the same, their value is really reduced, and they no longer have their former command over necessaries and conveniences. But while the farmer pays the same rent for his farm, and the same taxes to Government, he sells his produce for a price increased proportionally to the reduced value of money. And while merchants, manufacturers, and tradesmen pay the same duties on their goods, the same port and market dues, the same tolls, the same rent for shops and warehouses, the same rate of interest for capital borrowed, and so on, they obtain increased prices for whatever they have to sell. In other words, the condition of those classes is improved at the expense of their landlords and creditors, and of annuitants, and other receivers of incomes which are either temporarily or permanently reduced through the fall in the value of money. The greater the fall, the more advantageous for them; and conversely.

Now, as fixed or stationary payments include the interest of the public debt, as well as the many outgoings of Government which do not readily accommodate themselves to changes in the value of money, with the rents of farms and houses let on lease, or under equivalent agreements, feu-duties, the interest of mortgages, and other stationary loans, the payments to private annuitants and clergymen, the fees of lawyers, physicians &c., it is obvious that, in a country like this, they must amount in the aggregate to a vast sum. No doubt it sometimes, and indeed not unfrequently happens, that individuals belong to both classes, or that they have fixed payments to receive as well as to make, and that therefore neither the gain to the one party, nor the loss to the other, from fluctuations in the value of money, is so great as might be at first supposed. Still, however, there is no room for doubting that the greater proportion by far of fixed payments is made to the classes not engaged in business or in industrial undertakings by those who are; and hence the advantage which any considerable fall in the value of money confers on the latter—that is, on those whose well-being, and that of the public, are commonly supposed to be identical. Such fall, by lightening the burden of taxation and of all fixed charges, increases universally the productiveness of industry and the rate of profit. And it is hardly necessary to add that this increased profit operates as a spur to production, that it quickens all the operations of trade, and occasions an increased demand for labour.

The opposite effects follow when, instead of falling, the currency becomes more valuable. Taxes and fixed charges being then augmented in an equal degree, the profits of those by whom they are principally borne are proportionally reduced, industry is depressed, and the situation of the productive classes changed for the worse. But though there cannot, as it appears to us, be a doubt that a fall in the value of money, however injurious to large classes, is on the whole advantageous, we hope it will not be thence inferred that we are disposed to approve in any degree of an intentional reduction of its value. Money being the standard or measure of value, to interfere with it, whether in the way of increase or diminution, would be an act of extreme injustice. Government is bound to protect, in as far as possible, the rights and interests of all classes of its subjects; and it cannot, without trampling on its most sacred duty, adopt, to benefit one part of them, any measure which might be injurious to another part. But a fall in the value of the precious metals caused by the greater facility of their production, or by the discovery of new sources of supply, is a wholly different matter. It depends in no degree on the theories of philosophers or the decisions of statesmen or legislators, but is the result of circumstances that are beyond human control. And though, like a fall of rain after a long course of dry weather, it may be prejudicial to certain classes, it is beneficial to an incomparably greater number, including all who are actively engaged in industrial pursuits; and is, speaking generally, of great public or national advantage.

On the whole, therefore, we are warranted in concluding—1. That there has been no fall in the value of the precious metals, and more especially in that of gold, during the 20 years ending with 1868; 2. That there do not appear to be any good grounds for anticipating a speedy or considerable fall in the value either of gold or silver; and 3. That supposing a fall in the value of gold were to take place, its advantages would much more than countervail its disadvantageous influence.

#### PREMIUM. [INSURANCE.]

PRICES. By the price of a commodity is meant its value estimated in money, or, simply, the quantity of money for which it will exchange. The price of a commodity rises when it fetches more, and falls when it fetches less money.

1. *Price of freely produced Commodities.*—The exchangeable value of commodities—that is, their power of exchanging for or buying other commodities—depends, at any given period, partly on the comparative facility of their production, and partly on the relation of the supply and demand. If any two or more commodities respectively required the same outlay of capital and labour to bring them to market, and if the supply of each were adjusted exactly according to the effectual demand—that is, were they all in sufficient abundance, and no more, to supply the wants of those able and willing to pay the outlay upon them, and the ordinary rate of profit at the time—they would each fetch the same price, or exchange for the same quantity of any other commodity. But if any single commodity should happen to require less or more capital and labour for its production, while the quantity required to produce the others continued stationary, its value, as compared with them, would, in the first case, fall, and in the second, rise; and, supposing the cost of its production not to vary, its value might be increased by a falling off in the supply, or by an increase of demand, and conversely.

But it is of importance to bear in mind that all

variations of price arising from any disproportion in the supply and demand of such commodities as may be *freely produced in indefinite quantities*, are temporary only; while those that are occasioned by changes in the cost of their production are permanent, at least as much so as the cause in which they originate. A general mourning occasions a transient rise in the price of black cloth; but supposing that the fashion of wearing black were to continue, its price would not permanently vary; for those who previously manufactured blue and brown cloths &c. would henceforth manufacture only black cloth; and the supply being in this way increased to the same extent as the demand, the price would settle at its old level. Hence the importance of distinguishing between a variation of price originating in a change of fashion or other accidental circumstance—such, for example, as a deficient harvest—and a variation occasioned by some change in the cost of production. In the former case, prices will, at no distant period, revert to their old level; in the latter, the variation will be lasting.

When the price of a freely produced commodity rises or falls, such variation may evidently be occasioned either by something affecting its value, or by something affecting the value of money. But when the generality of commodities rise or fall, the fair presumption is that the change is not in them, but in the money with which they are compared. This conclusion does not, however, apply in all cases; and we believe that most part of that fall in the price of commodities, which has taken place since the peace of 1815, and which has been so generally ascribed to a rise in the value of money, occasioned by a decline in the productiveness of the mines, has been caused by the increased productiveness of industry, arising from the abolition of oppressive restraints on commerce, the opening of new and more abundant sources of supply, and the discovery of new means and improved methods of production. [PRECIOUS METALS.]

2. *Price of monopolised Commodities.*—Exclusive, however, of the commodities now alluded to, there is a considerable class whose producers or holders enjoy either an *absolute* or a *partial* monopoly of the supply. When such is the case, prices depend entirely or principally on the proportion between the supply and demand, and are not liable to be influenced, or only in a secondary degree, by changes in the cost of production. Antique statues and gems; the pictures of the great masters; wines of a peculiar flavour, produced in small quantities, in particular situations; and a few other articles, exist under what may be called absolute monopolies;—their supply cannot be increased; and their price must, therefore, depend entirely on the competition of those who may wish to buy them, without being in the slightest degree influenced by the cost of their production.

Monopolies are sometimes established by law; as when the power to supply the market with a particular article is made over to one individual or society of individuals, without any limitation of the price at which it may be sold; which, of course, enables those possessed of the monopoly to exact the highest price for it that the competition of the buyers will afford, though such price may exceed the cost of production in any conceivable degree. Monopolies of this sort used to be common in England, particularly in the reign of Elizabeth; but they were finally abolished by the famous Act of the 21<sup>st</sup> Jas. I. c. 3.—an Act which, by establishing the freedom of competition in all businesses carried on at home, has been

productive of the greatest advantage. [MONOPOLY.]

The corn laws established a partial monopoly of the supply of Great Britain with corn in favour of the agriculturists; but, as competition was carried to as great an extent in agriculture as in any other business, this monopoly did not enable them to obtain a higher price for their produce than was sufficient to pay the expenses of its production, though, owing to the peculiar circumstances under which this country is placed, this price was higher than the price in the surrounding countries. Hence it resulted that the monopoly was injurious to the public, without being of any advantage to those engaged in the business of agriculture. Neither, indeed, could it be truly said to be advantageous to the landlords. [CORN LAWS AND CORN TRADE (*Principles of the Corn Laws*).]

The rights conveyed by patents sometimes establish a valuable monopoly; for they enable the inventors of improved methods of production to maintain, during the continuance of the patent, the price of the article at a level which may be much higher than is required to afford them the ordinary rate of profit. This advantage, however, by stimulating invention, and exciting to new discoveries, of which it is the natural and appropriate reward, instead of being injurious, is beneficial to the public. [PATENTS.]

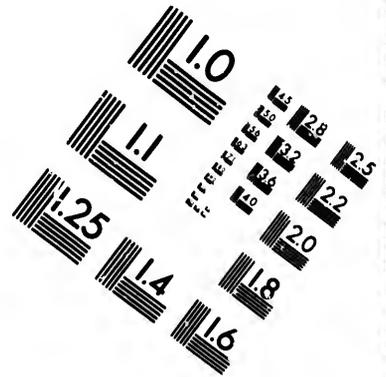
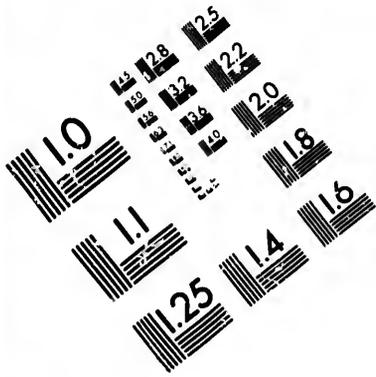
There are also partial monopolies, depending upon situation, connection, fashion &c. These, and other inappreciable circumstances, sometimes occasion a difference of 30 per cent. or more in the price of the same article in shops not very distant from each other.

Generally speaking, the supply of monopolised commodities is less liable to vary than the supply of those which are freely produced; and their prices are commonly more steady. But there are various exceptions to this rule, and of these the corn monopoly is one. The great variations in the harvests of particular countries, and their average equality throughout the world, expose a nation which shuts foreign corn out of its ports to destructive vicissitudes of price, from which it would enjoy a comparative exemption were the ports open. [CORN LAWS AND CORN TRADE, &c.] Sometimes the expiration of a monopoly—a patent, for example—has occasioned a sudden and extraordinary increase of supply, and consequent fall of price; entailing, of course, a serious loss on the holders of large stocks of goods produced under the monopoly.

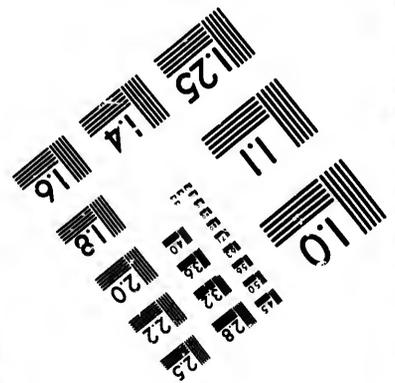
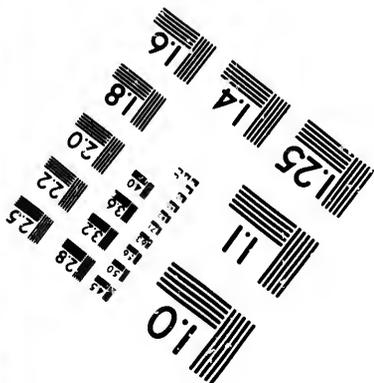
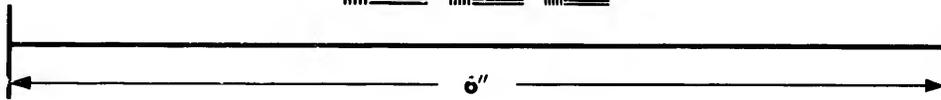
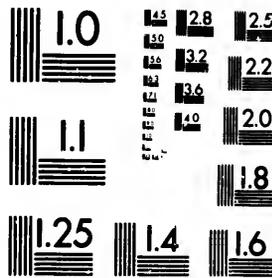
3. *New Sources of Supply.*—The effects on prices produced by the opening of new markets, or new sources of supply, are familiar to every one. The fall that has taken place in the price of pepper, and of most sorts of commodities brought from the East, since the opening of the trade in 1814, is a conspicuous proof of what is now stated.

4. *Influence of War on Prices.*—The effect of war in obstructing the ordinary channels of commercial intercourse, and occasioning extreme fluctuations in the supply and price of commodities, is well known. In this respect, however, the latter part of the war ended 1815 is, perhaps, entitled to a pre-eminence. We had then to deal with an enemy who had extended his sway over most part of the Continent; and who endeavoured, by every means in his power, to shut us out of the Continental markets. Mr. Tooke has given, in his elaborate and valuable work on *High and Low Prices*, a variety of details which strikingly illustrate the effect that the regulations then adopted by the belligerent powers had on prices. 'Among the means,' says Mr. Tooke, 'devised by the ingenuity and enterprise of adventurers to elude





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63.0 100.0

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or overcome the obstacles presented by the decrees of the enemy, one in particular, which was resorted to on an extensive scale, deserves mention, as illustrating in a striking manner the degree in which those obstacles were calculated to increase the cost to the consumer. Several vessels laden with sugar, coffee, tobacco, cotton twist, and other valuable commodities, were despatched from England, at very high rates of freight and insurance, to Salonica, where the goods were landed, and thence conveyed on mules and horses through Servia and Hungary to Vienna, for the purpose of being distributed over Germany, and, possibly, into France. Thus it might happen that the inhabitants of that part of the Continent most contiguous to this country could not receive their supplies from us without an expense of conveyance equivalent to what it would be if they were removed to the distance of a sea voyage twice round the globe, but not subject to fiscal and political regulations. And in consequence of these, and other causes of the same sort, Mr. Tooke mentions that the price of sugar in France, and other parts of the Continent, during the latter years of the war already referred to, was as high as 5s. and 6s. a pound; that coffee rose to 7s., indigo to 18s., and so on.

But the sums charged for freight and insurance were the most extraordinary. Mr. Tooke states that he has known instances in which the license, freight, and other charges on account of a vessel of about 100 tons burden, making a voyage from Calais to London and back, have amounted to the almost incredible sum of 50,000*l.* A ship, of which the whole cost and outfit did not amount to 4,000*l.*, earned during the latter period of this war a gross freight of 80,000*l.* on a voyage from Bordeaux to London and back. The freight of indigo from London to the Continent does not at present exceed 1*d.* a pound; whereas it amounted, at the period referred to, to about 4*s.* 6*d.* (*High and Low Prices*, 2nd ed. p. 212.)

5. *Influence of Taxes on Prices.*—It is unnecessary to dilate on a topic so familiar to every one. When a tax is laid on a commodity, its price necessarily rises in a corresponding proportion: for otherwise the producers would not obtain the ordinary rate of profit, and would, of course, withdraw from the business. The rise in the price of several of the articles in the annexed table is principally to be ascribed to the temporary increase of taxation.

These statements will probably suffice to give our readers a general idea of the principles which determine the value of commodities. To go deeper into the subject would involve us in discussions that belong to political economy, and are among the most intricate in that science. The influence of speculation on prices must not, however, be passed over in a work of this sort.

6. *Influence of Speculation on Prices.*—It very rarely happens that either the actual supply of any species of produce in extensive demand, or the intensity of that demand, can be exactly measured. Every transaction in which an individual buys produce in order to sell it again, is, in fact, a speculation. The buyer anticipates that the demand for the article he has purchased will be such, at some future period, either more or less distant, that he will be able to dispose of it with a profit; and the success of the speculation depends, it is evident, on the skill with which he has estimated the circumstances that must determine the future price of the commodity. It follows, therefore, that in all highly commercial countries, where merchants are possessed of large capitals, and where they are left to be guided in the use of

them by their own discretion and foresight, the prices of commodities will frequently be very much influenced, not merely by the actual occurrence of changes in the accustomed relation of the supply and demand, but by the anticipation of such changes. It is the business of the merchant to acquaint himself with every circumstance affecting the particular description of commodities in which he deals. He endeavours to obtain, by means of an extensive correspondence, the earliest and most authentic information with respect to everything that may affect their supply or demand, or the cost of their production; and if he learned that the supply of an article had failed, or that, owing to changes of fashion, or to the opening of new channels of commerce, the demand for it had been increased, he would most likely be disposed to become a buyer, in anticipation of profiting by the rise of price, which, under the circumstances of the case, could hardly fail of taking place; or, if he were a holder of the article, he would refuse to part with it unless for a higher price than he would previously have accepted. If the intelligence received by the merchant had been of a contrary description—if, for example, he had learned that the article was now produced with greater facility, or that there was a falling off in the demand for it, caused by a change of fashion, or by the shutting up of some of the markets to which it had previously been admitted—he would have acted differently: in this case he would have anticipated a fall of price, and would either have declined purchasing the article, except at a reduced rate, or have endeavoured to get rid of it, supposing him to be a holder, by offering it at a lower price. In consequence of these operations, the prices of commodities, in different places and periods, are brought comparatively near to equality. All abrupt transitions from scarcity to abundance, and from abundance to scarcity, are avoided; an excess in one case is made to balance a deficiency in another, and the supply is distributed with a degree of steadiness and regularity that could hardly have been deemed attainable.

It is obvious, from what has now been stated, that those who indiscriminately condemn all sorts of speculative engagements, have never reflected on the circumstances incident to the prosecution of every undertaking. In truth and reality, they are all speculations. Their undertakers must look forward to periods more or less distant; and their success depends entirely on the sagacity with which they have estimated the probability of certain events occurring, and the influence which they have ascribed to them. Speculation is therefore, really only another name for foresight; and though fortunes have sometimes been made by a lucky hit, the character of a successful speculator is, in the vast majority of instances, due to him only who has skillfully devised the means of effecting the end he had in view, and who has outstripped his competitors in the judgment with which he has looked into futurity, and appreciated the operation of causes producing distant effects. Even in the securest businesses, such as agriculture and manufactures, there is, and must be, a great deal of speculation. An unlooked-for change of season frequently disappoints the apparently reasonable expectations of those who undertake the former; while the equally capricious variations of fashion have to be encountered by those engaged in the latter; and each is, besides, liable to be affected by legislative enactments, by new discoveries in the arts, and by an endless variety of circumstances which is always very difficult, and sometimes quite

impossible, to foresee. On the whole, indeed, the gains of the undertakers are so adjusted, that those who carry them on obtain, at an average, the common and ordinary rate of profit. But the inequality in the gains of individuals is most commonly very great; and while the superior tact, industry, or good fortune of some enables them to realise large fortunes, the want of discernment, the less vigilant attention, or the bad fortune of others frequently reduces them from the situation of capitalists to that of labourers.

The great cotton speculation of 1825 took its rise partly and chiefly from a supposed deficiency in the supply of cotton, partly from an idea that there was a greatly increased demand for raw cotton in this country and the Continent, and partly from a belief that the stocks on hand were unusually low. Now it is obvious that the success of those who embarked in this speculation depended entirely on two circumstances; viz. first, that they were right in the fundamental supposition on which the whole speculation rested, that the supply of cotton was no longer commensurate with the demand; and second, that their competition did not raise the price so high as to diminish the consumption by the manufacturers in too great a degree to enable them to take off the quantity to be actually brought to market. If the merchants had been well founded in their suppositions, and if their competition had not raised the price of cotton too high, the speculation would certainly have been successful. But, instead of being well founded, the hypothesis on which the whole thing rested was perfectly visionary. There was no deficiency in the supply of cotton, but, on the contrary, a great superabundance; and though there had been such a deficiency, the excess to which the price was carried must have checked consumption so much as to occasion a serious decline. The falling off in the imports of cotton from America in 1824 seems to have been the source of the delusion. It was supposed that this falling off was not accidental, but that it was a consequence of the price of cotton having been for a series of years so low as to be inadequate to defray the expenses of its cultivation. The result showed that this calculation was most erroneous. And besides, in entering on the speculation, no attention was paid to Egypt and Italy—countries from which only about 1,100,000 lb. of cotton were obtained in 1824, but from which no less than 23,800,000 lb. were obtained in 1825. This unlooked-for importation was of itself almost enough to overturn the combination of the speculators; and, coupled with the increased importations from America and other countries, actually occasioned a heavy glut of the market.

The risk to which merchants are exposed when they either sell off any commodity at a reduced price in anticipation of a fall, or buy at an advanced price in anticipation of a future rise, is a consequence principally of the extreme difficulty of ascertaining the true state of the fact with respect to the grounds on which an abundant or a deficient supply, or an increasing or decreasing demand, may be expected. Rules can here be of no service; everything depends upon the talent, tact, and knowledge of the party. The questions to be solved are all practical ones, varying in every case from each other; the skill of the merchant being evinced by the mode in which he conducts his business under such circumstances, or by his sagacity in discovering promising events, and appreciating their character and the extent of their influence. Priority, but, here all, accuracy of intelligence, is, in such

cases, of the utmost consequence. Without well-authenticated data to go upon, every step taken may only lead to error. The instances, indeed, in which speculations, apparently contrived with the greatest judgment, have ended in bankruptcy and ruin, from a deficiency in this essential requisite, are so very numerous, that every one must be acquainted with them. Hence the importance of selecting acute and cautious correspondents; and hence, also, the necessity of maturely weighing their reports, and of endeavouring, by the aid of information gleaned from every authentic accessible source, to ascertain how far they may be depended upon.

When a few leading merchants purchase in anticipation of an advance, or sell in anticipation of a fall, the speculation is often pushed beyond all reasonable limits by the operations of those who are influenced by imitation only, and who have never, perhaps, reflected for a moment on the grounds on which a variation of price is anticipated. In speculation, as in most other things, one individual derives confidence from another. Such a one purchases or sells, not because he has any really accurate information as to the state of the demand and supply, but because some one else has done so before him. The original impulse is thus rapidly extended; and even those who are satisfied that a speculation, in anticipation of a rise of prices, is unsafe, and that there will be a recoil, not unfrequently adventure, in the expectation that they will be able to withdraw before the recoil has begun.

It may, we believe, speaking generally, be laid down as a sound practical rule, to avoid having anything to do with a speculation in which many have already engaged. The competition of the speculators seldom fails speedily to render an adventure that might have been originally safe, extremely hazardous. If a commodity happen to be at an unusually reduced price in any particular market, it will rise the moment that different buyers appear in the field; and supposing, on the other hand, that it is fetching an unusually high price, it will fall, perhaps far below the cost of production, as soon as supplies begin to be poured in by different merchants. Whatever, therefore, may be the success of those who originate a speculation, those who enter into it at an advanced period are almost sure to lose. To have been preceded by others ought not, in such matters, to inspire confidence; on the contrary, it ought, unless there be something special in the case, to induce every considerate person to decline interfering with it.

The maintenance of the freedom of intercourse between different countries, and the more general diffusion of sound instruction, seem to be the only means by which those miscalculations, that are often productive of great national as well as private loss, can be either obviated or mitigated. The effects consequent on such improvident speculations being always far more injurious to the parties engaged in them than to any other class, the presumption is that they will diminish, both in frequency and force, according as the true principles of commerce come to be better understood. But, whatever inconvenience may occasionally flow from them, it is abundantly plain, that instead of being lessened, it would be very much increased, were any restraints imposed on the freedom of adventure. When the attention of many individuals is directed to the same line of speculation; when they prosecute it as a business, and are responsible in their own private fortunes for any errors they may commit; they acquire a knowledge of the various circumstances

An Account of the Contract Prices of the following Articles of Provision &c. at the Royal Hospital, Greenwich, for the Years undermentioned. (Partly extracted from 'Familiar Papers', and partly furnished by the Authorities at the Hospital.)

It may be right to observe that, in the infancy of the Institution, the clothes and bedding were contracted for in suits; and it is so stated in the account. It is also necessary to remark, that the blue cloth now used for the pensioners' coats is of a quality very superior to the ancient pattern. In the case of carpenter wages, from 1685 to 1842, the rates were subject to a deduction of 10 per cent.; and in the case of bricklayers, masons, and plumbers' wages, to a deduction of 7½ per cent.

Years	Flour, per cwt.	Bread, per lb. average 14. for 10 <sup>1</sup> / <sub>2</sub> oz. 14. for 14oz.	Flour, per sack	Wheat, per ch.	Oats, per bushel	Peas, per bushel	Barley, per bushel	Salt, per bushel	Malt, per quarter	Hops, per cwt.	Beet, per barrel	Carpenters, per day	Bricklayers, per day	Plumbers, per day	Candles, per doz. lb.	Shoes, per pair	Coats, per children	Hops, each	Stocks, per pair	Hats, each	Complete Suits of Bedding	Suits of Clothes	Coats, each
1789	£ s. d. 1 5 8	14. for 10 <sup>1</sup> / <sub>2</sub> oz. 14. for 14oz.	—	0 4 0	£ s. d. 4 0 0	£ s. d. 4 0 0	£ s. d. 4 0 0	£ s. d. 4 0 0	£ s. d. 1 0 6	£ s. d. 2 5 0	£ s. d. 0 5 9	—	—	—	—	—	—	£ s. d. 1 0 2	£ s. d. 2 8	£ s. d. 2 12 0	£ s. d. 2 12 0	—	
1790	0 16 11	14. for 12oz.	—	0 3 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 4 11	—	—	—	—	—	—	0 10 6	2 3	0 4 0	2 2 6	—	
1791	1 8 0	14. for 9 <sup>1</sup> / <sub>2</sub> oz.	—	0 5 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 21	—	—	—	—	—	—	0 10 6	1 6	0 4 0	2 3 6	—	
1792	1 2 2	14. for 15 <sup>1</sup> / <sub>2</sub> oz.	—	0 3 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 11	—	—	—	—	—	—	0 11 0	1 6	2 0	0 4 6	—	
1793	1 6 6	14. for 13oz.	—	0 5 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 8 1/2	—	—	—	—	—	—	0 10 9	1 6	2 0	0 4 6	—	
1794	1 7 9 1/2	14. for 14 1/2oz.	—	0 5 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 7 1/2	—	—	—	—	—	—	0 11 0	1 8	2 0	0 4 4 1/2	—	
1795	1 11 6	14. for 12oz.	—	0 5 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 7 1/2	—	—	—	—	—	—	0 12 0	1 8	2 0	0 4 4 1/2	—	
1796	1 7 3	14. for 9oz.	—	0 6 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 10	—	—	—	—	—	—	0 11 3	1 8	2 6	0 4 6	—	
1797	1 8 6	14. for 11 1/2oz.	—	0 6 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 10 1/2	—	—	—	—	—	—	0 11 0	1 6	2 6	0 4 6	—	
1798	1 13 5	14. for 9 1/2oz.	—	0 6 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 11	—	—	—	—	—	—	0 10 6	1 4	2 2	0 5 4 1/2	—	
1799	1 12 6	14. for 11 1/2oz.	—	0 6 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 11 1/2	—	—	—	—	—	—	0 12 0	1 6	2 2	0 5 4 1/2	—	
1800	1 17 6 1/2	14. for 10oz.	—	0 6 0	3 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 11 1/2	—	—	—	—	—	—	0 11 0	1 6	2 4	6 3 1/2	—	
1801	1 16 10	—	—	2 3 4	0 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 11 1/2	—	—	—	—	—	—	0 11 0	1 6	2 6	0 5 4 1/2	—	
1802	2 2 0	—	—	3 5 8	0 6 0	4 0 4	0 1 0	1 0 3	1 0 6	2 5 0	0 5 11 1/2	—	—	—	—	—	—	0 15 0	1 6	2 3	0 6 6	—	
1803	3 4 4	—	—	4 16 0	0 11 0	0 6 1 1/2	0 11 0	0 11 0	0 11 0	0 15 9	0 4 1	—	—	—	—	—	—	0 15 0	1 6	2 3	0 6 6	—	
1804	3 0 4	—	—	4 2 3	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 15 0	2 2	3 0	0 8 9	—	
1805	3 1 0	—	—	3 9 6 1/2	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 17 0	2 2	3 0	0 8 9	—	
1806	3 3 0	—	—	3 9 6 1/2	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 17 0	2 2	3 0	0 8 9	—	
1807	3 3 0	—	—	3 9 6 1/2	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 17 0	2 2	3 0	0 8 9	—	
1808	3 3 0	—	—	3 9 6 1/2	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 17 0	2 2	3 0	0 8 9	—	
1809	3 5 0	—	—	4 5 1 1/2	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 17 0	2 2	3 0	0 8 9	—	
1810	3 5 0	—	—	4 5 1 1/2	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 17 0	2 2	3 0	0 8 9	—	
1811	3 14 0	—	—	4 5 1 1/2	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 17 0	2 2	3 0	0 8 9	—	
1812	3 14 0	—	—	4 5 1 1/2	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 17 0	2 2	3 0	0 8 9	—	
1813	3 14 0	—	—	4 5 1 1/2	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 17 0	2 2	3 0	0 8 9	—	
1814	3 14 0	—	—	4 5 1 1/2	0 11 0	0 7 1 1/2	0 11 0	0 11 0	0 11 0	0 16 10 1/2	0 4 5 1/2	—	—	—	—	—	—	0 17 0	2 2	3 0	0 8 9	—	







letter-press, or when the letter-press was merely descriptive of the prints or maps, then they were to be charged with duty by tale, as prints or maps. (*Min. Com. Cas.* September 5, 1829.) But if satisfactory proof was adduced that prints or maps, though imported separately, really formed part of a work, they might be charged with the book duty by weight; but in other cases they were to be charged with duty by tale. (*Treas. Order*, June 2, 1830.)

Pictures, sketches, and drawings, brought from the Continent, and accompanied by the proprietor, were to be admitted to enter free of duty, upon proof, by oath of the proprietor, that the same were wholly executed by him for his amusement, and not intended for sale in this country. (*Treas. Order*, August 5, 1817.) All duties on imported prints have been abolished. The importation of prints and photographs is considerable, amounting in 1867 to 2,847,973, of the value of 62,825*l*.

PRISAGE or BUTLERAGE was a right of taking 2 tuns of wine from every ship importing into England 20 tuns or more; which was changed by Edward I. into a duty of 2*s*. for every tun imported by merchant strangers, and called butlerage, because paid to the king's butler. The term is now fallen into disuse. (Blackstone.)

PRIVATEERS. Ships of war fitted out by private individuals, to annoy and plunder the public enemy. But before commencing their operations, it is indispensable that they obtain *letters of marque and reprisal* from the Government whose subjects they are, authorising them to commit hostilities, and that they conform strictly to the rules laid down for the regulation of their conduct. All private individuals attacking others at sea, unless empowered by letters of marque, are to be considered pirates; and may be treated as such, either by those they attack, or by their own Government.

1. *Policy of Privateering.*—The policy of this system is very questionable. It seems to be a remnant of that species of private war which is exercised by all individuals in early ages, but which gradually disappears as society advances. And though by injuring individuals, it aggravates the suffering inseparable from national struggles, it has little or no tendency to accelerate their termination. Privateers rarely attack ships of war. Their object is merely to plunder and destroy merchantmen. And experience has shown that it is not possible, whatever precautions may be adopted, to prevent them from attacking neutrals and perpetrating all sorts of abuses. The wish to amass plunder is the only principle by which they are actuated; and such being the case, it would be idle to suppose that they should be very scrupulous about abstaining from excesses. A system of this sort, if it be ever useful, can be so only to nations that have little trade, and that may expect to enrich themselves during war by fitting out privateers to plunder the merchant ships of their enemies. In all other cases it seems to be productive only of mischief; though it is, of course, most injurious to those states that have the greatest mercantile navy. Instead, therefore, of encouraging the practice of privateering, a due regard to the rights and interests of humanity has lately suggested to the great Powers the expediency of abolishing it altogether. A few efforts had, indeed, been already made towards this desirable object. Thus it was stipulated in the treaty between Sweden and the United Provinces, in 1675, that neither party should, in any future war, grant letters of marque against the other. In 1767 Russia abstained from licensing privateers; and in the treaty between the United States and

Prussia, in 1785, a stipulation was inserted as to privateers, similar to that in the treaty between Sweden and the United Provinces in 1675. (Martens, *Essai concernant les Armateurs*, 1794.) But it required some such convention and agreement among the great Powers as that which was happily come to at Paris in 1856, to effect its general abolition. [NEUTRALITY.] Inasmuch, however, as the United States have not subscribed the declaration of 1856 against privateering, it is not possible to say what might be the effect were a quarrel to occur, if these continue the practice; and hence the following statements may be allowed to keep their place:—

2. *Appointment of Privateers.*—The captain of a privateer is nominated by the owners, who may dismiss him at pleasure. The commission or letters of marque given to the owners authorise them to attack and seize the ships of the Power or Powers specified therein; but they are not to look upon them as their property, or to appropriate them, or any part of them, to their own use, *if they have been legally condemned*. Besides the stimulus afforded by the hope of booty, Government has been in the habit of allowing them 3*l*. for every man they may capture on board such enemy's ships of war or privateers. (33 Geo. III. c. 66.) A privateer cruising under letters of marque against one state may, on obtaining authentic information of hostilities being commenced by her Government against another, capture its ships with full advantage to herself. The king has in all cases the right to release any prize previously to its condemnation; this being an implied exception in the grant of prizes by the Crown. (*Chitty on Commercial Law*, vol. i. c. 8.)

In some privateering adventures, the crew are engaged on the terms no prize no pay; and in such cases, the produce of whatsoever prizes may be taken goes half to the ship (for the owners, and half to the men, divided among them according to the articles of agreement; but when the men sail for wages, the captures belong entirely to the owners, except a small share, which is commonly stipulated to be given to the crew, over and above their wages, in order to stimulate their enterprise. Both ways of arming are regulated by the articles entered into between the owners and crews.

Privateers are forbidden from doing anything contrary to the law of nations, as to assault an enemy in a port or haven, under the protection of any prince or republic, be he friend, ally, or neutral; for the peace of such place must be preserved inviolable. (Molloy, *de Jure Maritimo*, book i. c. 3.)

When letters of marque are granted, it is usual, in most countries, to exact security that the regulations with respect to the conduct of privateers shall be observed. In Great Britain, a bond must be given, as explained in Art. XV. of the annexed regulations.

If privateers wilfully commit any spoil, depredation, or other injury, on friendly or neutral ships, or on the ships or goods of their fellow subjects, they are to be punished, according to the crime either with death or otherwise; and the vessels are subject to forfeiture.

Whether or not a ship taken be lawful prize, shall be tried in the Admiralty Court; and no ship or cargo, or part of a ship or part of a cargo, is to be sold, or disposed of in any way, till after judgment has been obtained.

If two ships with letters of marque accidentally meet with a prize at sea, though only one attacks and take her, yet the other, being in sight, shall have an equal share of the prize, though he

population was inserted as to that in the treaty between the 13 Provinces in 1675. (*Marles Armateurs*, 1794.) But convention and agreement were as that which was happened in 1856, to effect its general [ART.] Inasmuch, however, as have not subscribed the law against privateering, it is not might be the effect were a these continue the practice; ing statements may be al-  
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**Privateers.**—The captain of a vessel is not to be treated by the owners, who may insure. The commission or licence given to the owners authorise them to seize the ships of the Power or the enemy; but they are not to look upon the property, or to appropriate it to themselves, or to their own use, *fully condemned*. Besides the hope of booty, Government has the habit of allowing them to capture on board such war or privateers. (33 Geo. 2. c. 13.) After cruising under letters of marque of a state may, on obtaining a commission of hostilities being concerned against another, capture all advantage to herself. It is the right to release any prize of condemnation; this being an inalienable grant of prizes by the *Commercial Law*, vol. 1. c. 3.) In prize adventures, the crew are to receive no prize no pay; and in consequence of whatsoever prizes may be taken to the ship (for the owners), divided among them according to agreement; but when the prize is taken, the captures belong entirely to the owners, and a small share, which is commonly given to the crew, over and above, in order to stimulate their ways of arming are regulated and referred into between the owners

is forbidden from doing anything of nations, as to assault any haven, under the protection of the public, be he friend, ally, or neighbour of such place must be prohibited. (Molloy, *de Jure Maritimo*.)

Letters of marque are granted, it is usual to exact security that the recipient to the conduct of privateers. In Great Britain, a bond must be taken in Art. XV. of the annexed

They may not fully commit any spoil, dependent injury, on friendly or neutral ships or goods of their fellow subjects to be punished, according to the death or otherwise; and the property to be forfeited.

A ship taken by lawful privateers is to be brought into the Admiralty Court; and no part of a ship or part of a cargo, or of any way, till after the prize is obtained.

Letters of marque accidentally taken at sea, though only one attack on the other, being in sight, shall be a share of the prize, though be

afforded no assistance in the capture; because his presence may be presumed to have struck terror into the enemy, and made him yield; which perhaps he would not have done, had his conqueror been single: so that all ships that are in sight, though they cannot come up to assist in the engagement, are entitled by the *common law* to a distribution of the spoil. (*Beawes, Lex Mercatoria*, art. 'Privateers'.)

If those to whom letters of marque are granted, should, instead of taking the ship and goods appertaining to that nation against which the said letters are awarded, *wiffully* take or spoil the goods of another nation in amity with us, this would amount to *piracy*; and the persons so offending would, for such fault, forfeit their vessel, and the penalties in which their securities are, according to custom, bound on taking out such letters. But such penalties would not follow unless the capture were made in a piratical manner. For if the circumstances incident to the captured vessel were such as to afford a strong presumption that she really belonged to the country against which the letters were granted, the captors would not be liable to punishment, though they might be to damages. 'It being possible,' says *Beawes*, 'always to determine an affair of this sort at sea, it is allowable to bring a dubious capture into port, in order to more nice and just scrutiny and inspection; otherwise the goods of an enemy would often escape. However, to guard against unlawful seizures, the Government have wisely directed sufficient caution to be given (as before mentioned) for the due observance of the letters according to law, before they permit their issuing; and when there is a breach committed, the penalties are inflicted.' (*Lex Mercatoria*, art. 'Privateers'.)

3. *Regulations for the Government of Privateers &c.*—The following instructions to privateers were issued under an order in council, at the commencement of the last war with France, May 16, 1803:—

Art. 1. *Against what, and where, Letters of Marque may act Hostilely.*—It shall be lawful for the commanders of ships authorised by letters of marque and reprisals for private men-of-war, to set upon by force of arms, and subdue and take, the men-of-war, ships and vessels, goods, wares, and merchandises, belonging to the French republic, or to any persons being subjects to the French republic, or inhabitants within any of the territories of the French republic; but so that no hostility be committed, nor prize attacked, seized, or taken within the harbours of princes or states in amity with us, or in their rivers or roads, within the shot of their cannon, unless by permission of such princes or states, or their commanders or governors in chief of such places.

Art. II. *Captures to be brought into Port.*—The commanders of the ships and vessels so authorised as aforesaid shall bring all ships, vessels, and goods, which they shall seize and take, into such port of *England*, or some other port of our dominions, as shall be most convenient for them, in order to have the same legally adjudged by our High Court of Admiralty of *England*, or before the judge of any other admiralty court, lawfully authorised, within our dominions.

Art. III. *Conduct of the Captors after the Capture is brought into Port.*—After such ships, vessels, and goods shall be taken and brought into any port, the taker, or one of his chief officers, or some other person present at the capture, shall be obliged to bring or send, as soon as possibly may be, 3 or 4 of the principal of the company (whereof the master, supercargo, mate, or boatswain, to

be always 2) of every ship or vessel so brought into port, before the judge of our High Court of Admiralty of *England*, or his surrogate, or before the judge of such other admiralty court as within our dominions, lawfully authorised aforesaid, or such as shall be lawfully commissioned in that behalf; to be sworn and examined upon such interrogatories as shall tend to the discovery of the truth, concerning the interest or property of such ship or ships, vessel or vessels, and of the goods, merchandises, and other effects found therein; and the taker shall be further obliged, at the time he produceth the company to be examined, and before any monition shall be issued, to bring in and deliver into the hands of the judge of the High Court of Admiralty of *England*, his surrogate, or the judge of such other admiralty court within our dominions, lawfully authorised, or others commissioned as aforesaid, all such papers, passes, sea-briefs, charterparties, bills of lading, cockets, letters, and other documents and writings, as shall be delivered up or found on board any ship: the taker, or one of his chief officers, or some other person who shall be present at the capture, and saw the said papers and writings delivered up, or otherwise found on board at the time of the capture, making oath that the said papers and writings are brought and delivered in as they were received and taken, without any fraud, addition, abduction, or embezzlement whatever, or otherwise to account for the same upon oath to the satisfaction of the court.

Art. IV. *Not to break Bulk before Judgment.*—The ships, vessels, goods, wares, merchandises, and effects taken by virtue of letters of marque and reprisals as aforesaid, shall be kept and preserved, and no part of them shall be sold, spoiled, wasted, or diminished, and the bulk thereof shall not be broken, before judgment be given in the High Court of Admiralty of *England*, or some other court of admiralty, lawfully authorised in that behalf; that the ships, goods, or merchandises are lawful prize.

Art. V. *Privateers to assist Ships in Distress.*—If any ship or vessel belonging to us, or our subjects, shall be found in distress by being in sight set upon or taken by the enemy, or by reason of any other accident, the commanders, officers, and company of such merchant ships or vessels as shall have letters of marque and reprisals as aforesaid, shall use their best endeavours to give aid and succour to all such ship and ships, and shall, to the utmost of their power, labour to free the same from the enemy, or any other distress.

Art. VI. *Application to the Admiralty for Letters of Marque.*—The commanders or owners of such ships and vessels, before the taking out letters of marque and reprisals, shall make application in writing, subscribed with their hands, to our high admiral of *Great Britain*, or our commissioners for executing that office for the time being, or the lieutenant or judge of the said High Court of Admiralty, or his surrogate, and shall therein set forth a particular, true, and exact description of the ship or vessel for which such letter of marque and reprisal is requested, specifying the burden of such ship or vessel, and the number and nature of the guns, and what other warlike furniture and ammunition are on board the same, to what place the ship belongs, and the name or names of the principal owner or owners of such ship or vessel, and the number of men intended to be put on board the same, and for what time they are victualled; also the names of the commanders and officers.

Art. VII. *Correspondence with the Admiralty.*—The commanders of ships and vessels having

letters of marque and reprisals as aforesaid shall hold and keep, and are hereby enjoined to hold and keep, a correspondence, by all conveniences and upon all occasions, with our high admiral of Great Britain, or our commissioners for executing that office for the time being, or their secretary, so as from time to time to render or give him or them, not only an account or intelligence of their captures and proceedings by virtue of such commission, but also of whatever else shall seem unto them, or be discovered and declared to them, or found out by them, or by examination of, or conference with, any mariners or passengers of or in the ships or vessels taken, or by any other ways or means whatsoever, touching or concerning the designs of the enemy, or any of their fleets, ships, vessels, or parties, and of the stations, seaports, and places, and of their intents therein; and what ships or vessels of the enemy bound out or home, or where cruising, as they shall hear of; and of what else material in these cases may arrive at their knowledge; to the end such course may be thereon taken, and such orders given, as may be requisite.

**Art. VIII. What Colours a Privateer is to wear.**—No commander of any ship or vessel having a letter of marque and reprisal as aforesaid shall presume, as they will answer it at their peril, to wear any jack, pendant, or other ensign or colours usually borne by our ships; but, beside the colours usually borne by merchants' ships, they shall wear a red jack, with the union jack described in the canton, at the upper corner thereof near the staff.

**Art. IX. Not to ransom any Capture.**—No commander of any ship or vessel having a letter of marque and reprisal as aforesaid, shall ransom, or agree to ransom, or quit or set at liberty, any ship or vessel, or their cargoes, which shall be seized and taken.

**Art. X. To deliver their Prisoners to the proper Commissioners.**—All captains or commanding officers of ships having letters of marque and reprisals shall send an account of, and deliver over, what prisoners shall be taken on board any prizes, to the commissioners appointed, or to be appointed, for the exchange of prisoners of war, or the persons appointed in the seaport towns to take charge of prisoners; and such prisoners shall be subject only to the orders, regulations, and directions of the said commissioners: and no commander or other officer of any ship, having a letter of marque or reprisal as aforesaid, shall presume, upon any pretence whatsoever, to ransom any prisoner.

**Art. XI. Commission forfeited for acting contrary hereto.**—In case the commander of any ship, having a letter of marque and reprisal as aforesaid, shall act contrary to these instructions, or any such further instructions of which he shall have due notice, he shall forfeit his commission to all intents and purposes, and shall, together with his bail, be proceeded against according to law, and be condemned to costs and damages.

**Art. XII. Copies of Journals.**—All commanders of ships and vessels having letters of marque and reprisals shall, by every opportunity, send exact copies of their journals to the Secretary of the Admiralty, and proceed to the condemnation of the prizes as soon as may be, and without delay.

**Art. XIII. To observe all Orders.**—Commanders of ships and vessels having letters of marque and reprisals shall, upon due notice being given to them, observe all such other instructions and orders as we shall think fit to direct from time to time for the better carrying on this service.

**Art. XIV. Violating these Instructions.**—All persons who shall violate these or any other of our instructions shall be severely punished, and also required to make full reparation to persons injured contrary to our instructions, for all damages they shall sustain by any capture, embezzlement, demurrage, or otherwise.

**Art. XV. Bail to be given.**—Before any letter of marque or reprisal for the purpose aforesaid shall issue under seal, bail shall be given with sureties, before the lieutenant and judge of our High Court of Admiralty of England, or his surrogate, in the sum of 3,000*l.* sterling, if the ship carries above 150 men; and if a less number, in the sum of 1,500*l.* sterling; which bail shall be to the effect and in the form following:—

Which day, time, and place, personally appeared

and who submitting themselves to the jurisdiction of the High Court of Admiralty of England, obliged themselves, their heirs, executors, and administrators, unto our Sovereign Lord the King, in the sum of

of lawful money of Great Britain to this effect, that is to say, that whereas

is duly authorised by letters of marque and reprisals, with the ship called the

of the burden of about tons, where-

of he the said goeth master, by force of arms to attack, surprise, seize, and take all ships and vessels, goods, wares, and merchandises, chattels and effects, belonging to the French republic, or to any persons being subjects of the French republic, or inhabiting within any of the territories of the French republic; excepting only within the harbours or roads within shot of the cannon of prizes and states in amity with his Majesty. And whereas he the said

hath a copy of certain instructions, approved of and passed by his Majesty in council, as by the tenor of the said letters of marque and reprisals, and instructions thereto relating, more at large appeareth: if, therefore, nothing be done by the said

or any of his officers, mariners, or company, contrary to the true meaning of the said instructions, and of all other instructions which may be issued in like manner hereafter, and whereof due notice shall be given him; but that such letters of marque and reprisals aforesaid, and the said instructions, shall in all particulars be well and duly observed and performed, as they shall the said ship, master, and company any way concern; and if they shall give full satisfaction for any damage or injury which shall be done by them or any of them to any of his Majesty's subjects, or of foreign states in amity with his Majesty, and also shall duly and truly pay, or cause to be paid, to his Majesty, or his customers or officers appointed to receive the same for his Majesty, the usual customs due to his Majesty, of and for all ships and goods so aforesaid taken and adjudged as prize; and moreover if the said

shall not take any ship or vessel, or any goods or merchandise, belonging to the enemy, or otherwise liable to confiscation, through consent or clandestinely, or by collusion, by virtue, colour, or pretence of his said letters of marque and reprisals, that then this bail shall be void and of none effect; and unless they shall so do they do all hereby severally consent that execution issue forth against them, their heirs, executors, and administrators, goods and chattels wheresoever the same may be found, to the value of the sum of

pounds before mentioned; and in test

PROMISSORY NOTES

most of the truth thereof, they have hereunto subscribed their names.

By his Majesty's command.

(Signed) PELLHAM.

PROMISSORY NOTES. [BANKS AND BANKING; EXCHANGE, BILLS OF.]

PROTECTION. In Commercial Legislation, means the protecting or bolstering up of certain branches of domestic industry by prohibiting the exportation of the produce of such branches from abroad, or loading it when imported with heavy duties. This policy was at one time universally prevalent. But its extremely injurious influence having been demonstrated over and over again, it has been abandoned by all intelligent statesmen. And notwithstanding the powerful interests by which it was supported, it has nearly, if not entirely, disappeared from our legislation; and it will, no doubt, eventually disappear from the legislation of all countries.

In Mercantile Navigation, protection is a privilege granted to certain descriptions of seamen, by which they are secured against impressment. [IMPRESSMENT.]

PROVISIONS. Under this term, taken in its most extensive sense, in reference to man, may be comprised all those articles used as food by the inhabitants of this and other countries; but among British merchants and in parliamentary language it is understood to comprise only fresh and salted butchers' meat, hams and bacon, butter and cheese, eggs, and a few other articles. We shall, however, include with these, in the following statement, an account of the imports of cattle.

Our readers are aware that previously to July 9, 1812, the importation of cattle, sheep, and hogs, and of all sorts of fresh butchers' meat, was prohibited; and that a duty of 12s. per cwt. was im-

PRUSSIAN BLUE

1115

posed on all foreign salt meat when entered for consumption, and of 28s. per cwt. on bacon and hams. But in the Tariff Act of 1812, which came into operation at the above date, the prohibition of importing foreign cattle, sheep, hogs, and fresh meat was repealed, and their entry for home consumption admitted under reasonable duties; the duty on salted meat being, at the same time, reduced from 12s. to 8s., and that on bacon and hams from 28s. to 14s. per cwt. We published at the time a short tract (*Memorandum on the proposed Introduction of Foreign Beef and Cattle*), in which we endeavoured to show, by comparing the prices of cattle in the adjoining countries and in England, that this wise and liberal measure would not have the effects that were anticipated in reducing the price of stock in this country. Experience showed that we were right in this anticipation, the imports of cattle and sheep being comparatively inconsiderable. Sir Robert Peel, profiting by this experience, repealed, in 1846, the duties imposed in 1812 on the importation of cattle, sheep &c. And the result has more than justified the soundness of the principles on which that great minister proceeded in taking this step. The imports of stock have been considerably, but not greatly, increased in the interval. And, far from being injured by his liberal proceedings, the grazing farmers have gained immensely; and it is admitted, on all hands, that cattle and sheep have paid better of late years (except during the cattle plague) than ever they did at any antecedent period. It is, in truth, much easier to import supplies of corn than of beef or mutton; and the probability seems to be that our farmers will in time to come apply themselves rather to the production of the latter than of the former. The taxes on butter, cheese, and eggs were repealed in 1860.

Account of the Numbers and Values of the Cattle, Sheep, Hogs &c. Imported into the United Kingdom in 1867.

Articles	Imported	Value	Chief Sources
Oxen, bulls, cows, and calves	No. 177,918	£ 3,054,510	Holland, Hanse Towns, Schleswig, and France.
Sheep and lambs	" 540,396	945,661	Hamburg, Belgium, and Holland.
Bacon and hams	" cwt. 537,114	1,291,779	United States and Hamburg.
Beef	" 216,767	623,532	United States and Holland.
Pork	" 150,085	551,971	Hamburg, Denmark, United States, France, and Belgium.
Butter	" 1,112,262	5,821,271	Holland, France, and Hamburg.
Cheese	" 905,175	2,552,265	Holland and United States.
Eggs	" No. 397,934,320	989,837	France.
Lard	" cwt. 216,859	621,182	United States, Hamburg, and Italy.
Poultry and game (1866)	value	174,371	Belgium and France.
Total	"	"	"

It is impossible to say in how great a degree these importations may be increased in time to come; but it is most probable that they will be gradually augmented according as foreigners become better acquainted with the qualities suitable for our markets. But we have no idea that they will ever amount to any considerable proportion of our supply. The cheapness of cattle and provisions in foreign markets, of which we used to hear so much, was in great part imaginary; and where it did occur, it depended more on the difficulty of conveying them to other markets, or on their inferiority, than on anything else. The imports of fat cattle, though they were trebled, would not do our graziers the smallest injury; and the importation of lean cattle, far from being injurious, would be highly for their interest. The great existing desideratum in our agriculture at this moment is, in truth, the want of markets whither we might import lean or half-fed stock. The demand in this country for all sorts of butchers' meat is quite immense; and the land suitable to the rearing of cattle is too circumscribed

to afford a sufficient supply. Hence the high price of beef and mutton as compared with corn. [BREAD; FISH; FRUIT; VEGETABLES.]

PRUNES AND PRUNELLOES. A species of dried plums, of which there are many varieties. The finest are imported from France, in the south of which this fruit is very abundant. The best prunes are packed in hampers or baskets made of white osiers, weighing from 6 to 10 lb. each; the second quality in quarters, and the third in puncheons. The duty on prunes, which was previously fixed at the extravagant rate of 27s. 6d. per cwt., was most properly reduced in 1834 to 7s. per cwt., the present rate. This reduced duty produced, in 1867, 6,878l., showing that 19,647 cwt. had been entered for consumption. Previously to the reduction of the duty, the entries seldom exceeded 6,000 cwt.

PRUSSIA. [KÖNIGSBERG; MEMEL; STETTIN; ZOLLVEREIN; &c.]

PRUSSIAN BLUE or PRUSSIAN OF IRON (Ger. Berlinerblau; Fr. bleu de Prusse; Ital. azzurro prussiano; Span. azul de Prusia;

Russ. lasor Hexlinskaja). A beautiful deep blue powder, accidentally discovered at Berlin in 1710. It is of considerable importance in the arts, being extensively used by painters: it is manufactured in this country. Many attempts have been made to render Prussian blue available for the dyeing of broad cloths, but without much success. The difficulty is to diffuse the colour equally over the surface; for, from its extraordinary vivacity and lustre, the slightest inequalities strike and offend the eye. Prussian blue resists the air and sun extremely well; but it cannot be used in the dyeing of cottons, or any sort of stuff that is to be washed with soap, as the alkali contained in the soap readily dissolves and separates the colouring matter. (Bancroft *On Colours*, vol. ii. pp. 60—94.)

Blue is a favourite colour with the Chinese, and in 1810—11 the imports of Prussian blue into Canton from England amounted to 1,899 piculs, or 253,200 lb. But for some years past the Chinese have not imported a single pound weight. The cause of the cessation of the trade deserves to be mentioned. A common Chinese sailor who came to England in an East Indiaman, having frequented a manufactory where the drug was prepared, learned the art of making it; and on his return to China he established a similar work there, with such success that the whole empire is now amply supplied with native Prussian blue. The West has derived many important arts from the East; but we incline to think that this is the first well-authenticated instance of any art having ever been carried from the West to the East, by a native of the latter. But, in all that respects industry, ingenuity, and invention, the Chinese are incomparably superior to every other people to the east of the Indus.

#### PRUSSIAN OR GERMAN COMMERCIAL UNION. [ZOLLVEREIN.]

**PUBLICANS.** Persons authorised by license to retail beer, spirits, or wines. Under the term publicans are comprised inn keepers, hotel keepers, alehouse keepers, keepers of wine vaults &c. An inn differs from an alehouse in this—that the former is a place intended for the lodging as well as the entertainment of guests, whereas the latter is intended for their entertainment only. If, however, ale or beer be commonly sold in an inn, as is almost invariably the case, it also is an alehouse; and if travellers be furnished with beds, lodged, and entertained in an alehouse, it also is an inn. It is not material to the character of an innkeeper that he should have any sign over his door; it is sufficient that he makes it his business to entertain passengers and travellers, providing them with lodgings and other accommodations.

1. *Licensing of Publicans.*—The provisions with respect to the licensing of public houses are embodied in the 9 Geo. IV. c. 61, of which we subjoin an abstract.

*General Meetings.*—There shall be annually holden in county divisions, cities, and towns, a special session of justices, to be called the 'General Annual Licensing Meeting,' for the purpose of granting licenses to persons keeping or about to keep inns, alehouses &c.; such meetings to be held, in Middlesex and Surrey, within the first 10 days of the month of March; and in every other place between August 20 and September 14, both inclusive.

*Notice of General Meeting.*—Within every division, 21 days before the annual licensing meeting, a petty session of justices to be held, a majority of whom shall fix the day and hour for holding the general annual meeting; and shall direct a precept to the high constable, requiring him, within 5 days after the receipt thereof, to

order the petty constables to affix on the door of the church, chapel, or other public place, a notice of such annual meeting, and give or leave at the dwelling-house of each justice acting for the division, and of each person keeping an inn, or who shall have given notice of his intention to apply for a license to keep an inn, a copy of such notice. (Sec. 2.)

The annual meeting may be adjourned, but the adjourned meeting is not to be held on any of the 5 days immediately following the adjournment, and every adjournment to be held in the month of March in Middlesex and Surrey, and in August or September in every other county. (Sec. 3.)

*Sessions for Transfer of Licenses.*—At the annual meeting, justices to appoint not less than 4 nor more than 8 special sessions, to be held as near as possible at equidistant periods, for the purpose of transferring licenses. (Sec. 4.)

Notice of holding any adjourned meetings, or of any special session for the transfer of licenses, to be given in the same manner and to the same parties as mentioned above. (Sec. 5.)

*Justices disqualified.*—No justice who is a common brewer, distiller, maker of malt for sale, or retailer of malt or any excisable liquor, shall act or be present at any annual licensing meeting, or adjournment, or special session for transferring licenses, or take part in the adjudication upon any application for a license, or upon an appeal, nor in the case of licensing any house, of which he is owner, or agent of the owner, or of any house belonging to any common brewer, maker of malt &c. to whom he shall be, either by blood or marriage, the father, son, or brother, or with whom he shall be partner in any other trade; in any of these cases knowingly or wilfully to act, subjects to a penalty of 100*l.* But disqualification does not arise, where a justice, having no beneficial interest in a house licensed or about to be licensed, holds only the legal estate therein as trustee or for a charitable or public use. (Sec. 6.)

When in any liberty, city, or town, 2 qualified justices do not attend, the county justices may act. (Sec. 7.)

The power given to county justices not to extend to the Cinque Ports. (Sec. 8.)

Questions respecting licenses to be determined, and licenses to be signed, by a majority of the justices present. (Sec. 9.)

*Application for a License.*—Persons intending to apply for a license to a house not before licensed to affix a notice on the door of such house, and on the door of the church or chapel of the parish, and, where there shall be no church or chapel, on some other conspicuous place within the parish, on three several Sundays, between January 1 and the last day of February in the counties of Middlesex and Surrey, and elsewhere between June 1 and the last day of July, at some time between the hours of 10 in the forenoon and 4 in the afternoon, and shall serve a copy of such notice upon one of the overseers of the poor, and upon one of the constables or peace-officers of the parish, within the month of February in the counties of Middlesex and Surrey, and elsewhere within the month of July, prior to the annual meeting; such notice to be in a legible hand, or printed and signed by the applicant. The application must state the Christian and surname of the party, with the place of his residence, and his trade or calling during the 6 months previous to the serving of the notice. (Sec. 10.)

*Notice to transfer License.*—Persons desirous of transferring a license, and intending to apply to the next special sessions, must, 5 days previously

serve a notice upon one of the overseers and one of the constables of the parish. Persons hindered, by sickness or other reasonable cause, from attending any licensing meeting, on proof thereof adduced on oath, may thence another person attend for them. (Sec. 12.)

Licenses to be in force, in Middlesex and Surrey, from April 5; elsewhere from October 10, for one whole year. (Sec. 13.)

**Provision for Death or other Contingency.**—If any person licensed shall die, or become incapable, or a bankrupt or insolvent, or if he or his heirs, executors, or assigns, shall remove or neglect to apply for a continuation of his license, the justices at special session may grant a license to the heirs, executors, or assigns of such party, or to any new tenant; or if any man's house should be, or be about to be, pulled down for a public purpose, or rendered, by fire, tempest, or other unforeseen calamity, unfit for the purposes of an inn, license may be granted to the occupier, if he intend to open another house as an inn. Such transferred licenses shall continue only in force to the end of the year; and in case of removal to another house, notice must be given on some Sunday, within 6 weeks before the special session, in the manner and form before described. (Sec. 14.)

**Fees for Licenses.**—The clerk of the justices may lawfully receive from every person to whom a license is granted, for trouble and all expenses, the following sums:—

For constable or officer serving notices	4	d.
For clerk of justices for license	1	0
For receipt to the high constable, and notices to be delivered by the petty constable	5	0
	1	6

Clerks demanding or receiving more than these fees to forfeit 5*l.* (Sec. 15.)

No sheriff's officer, or officer executing the process of any court of justice, qualified to hold or use any license under this Act. (Sec. 16.)

**Excise Licenses.**—No license for the sale of any exciseable liquors, to be consumed on the premises, shall be granted by the excise to any person, unless such person be previously licensed under this Act. (Sec. 17.)

**Penalties.**—Any person without a license selling or exchanging, or for valuable consideration disposing of any exciseable liquor by retail, to be consumed on his premises; or with a license, and so selling on premises other than those specified in his license, shall for every offence, on conviction before one justice, forfeit not exceeding 20*l.* nor less than 5*l.* with costs; but the penalty not to attach in case of death or insolvency, and sale by the heir or assigns, prior to the next special sessions. (Sec. 18.)

Every licensed person shall, if required, sell all liquors by retail (except in quantities less than  $\frac{1}{2}$  pint) by the gallon, quart, pint, or  $\frac{1}{2}$  pint, sized according to the standard; in default thereof to forfeit the illegal measure, and pay not exceeding 40*s.* with costs, to be recovered within 30 days before 1 justice. (Sec. 19.)

In cases of riot, or probability of riot, houses licensed in the neighbourhood may be closed by the order of 2 justices. (Sec. 20.)

Any person convicted of a first offence, before justices, against the tenor of his license, to forfeit not exceeding 5*l.* with costs; guilty of a second offence within 3 years of the first, to forfeit not exceeding 10*l.* with costs; and guilty of a third offence within 3 years, to forfeit not exceeding 50*l.* with costs; or the case in the last instance may be adjourned to the petty sessions, or the annual meeting, or the general quarter sessions; and if the offender is found guilty by a

jury, he may be fined 100*l.*, or adjudged to forfeit his license, or both, and rendered incapable of selling any exciseable liquor in any inn kept by him for 3 years. (Sec. 21.)

Proceedings at the session in certain cases may be directed by the justices to be carried on by the constable, and the expences defrayed out of the county treasury. (Sec. 22.)

Witnesses refusing to attend without lawful excuse may be fined not more than 10*l.* (Sec. 23.)

Penalties against justices may be sued for in any court of Westminster; a moiety to the king and a moiety to the party suing. (Sec. 24.)

Penalties adjudged by justices may be recovered by distress or the party imprisoned, 1, 3, or 6 calendar months. (Sec. 25.)

The next sections relate to the mode of prosecuting actions.

The last section of the Act enacts that the word 'inn' shall include any inn, alehouse, or victualling house, in which is sold by retail any exciseable liquor, to be drunk or consumed on the premises; and the words exciseable liquor are to include all such fermented or spirituous liquors as may now or hereafter be charged with any custom or excise duty. (Sec. 37.)

The Act does not affect the Universities, nor the privileges of the Vintners' Company, except those freemen who have obtained their freedom by redemption; and it does not alter the time of granting licenses in the city of London.

Innkeepers are bound by the tenor of their license to keep order in their houses, to prevent drunkenness and disorderly conduct, and gambling. If they fail in these respects, they forfeit their license, and subject themselves to the penalties mentioned before. Allowing seditious or immoral books to be read in an inn also forfeits the license, and subjects to penalties. (39 Geo. III. c. 79 s. 31.)

So far as Scotland is concerned, this Act has been amended by the 16 & 17 Vict. c. 67, and 25 & 26 Vict. c. 35.

The closing of public houses in England is regulated on Sundays by 18 & 19 Vict. c. 118, and on other days by the Public House Closing Acts of 1864 and 1865.

**2. Duties of Innkeepers.**—Innkeepers are bound by law to receive 3 guests coming to their inns, and they are also bound to protect their property when there. They have no option to reject or refuse a guest, unless their house be already full, or they are able to assign some other reasonable and sufficient cause. Neither can they impose unreasonable terms on such as frequent their houses; if they do, they may be fined, and their inns indicted and suppressed. An innkeeper who has stables attached to his premises may be compelled to receive a horse, although the owner does not reside in his house; but he cannot, under such circumstances, be compelled to receive a trunk or other dead thing. By the annual Mutiny Act, constables, or, in their default, justices of the peace, may quarter soldiers in inns, livery-stables, ale-houses &c., under the conditions and regulations set forth in the statute.

**3. Responsibility of Innkeepers.**—An innkeeper is bound to keep safely whatever things his guests deposit in his inn, or in his custody as innkeeper, and until 1863 he was civilly liable for all losses except those arising from irresistible force, or what is usually termed the act of God and the king's enemies. The law on this subject, however, was altered by the 26 & 27 Vict. c. 41. It provides that the innkeeper shall not be liable beyond 30*l.* for loss or injury to goods or property brought to the inn, except—1st, when the goods or property shall be stolen, lost, or injured, through the wilful

act or neglect of the innkeeper or his servant; and, 2nd, where such goods or property shall have been deposited expressly for safe custody with such innkeeper. 'It has long been holden,' says Sir William Jones, 'that an innkeeper is bound to restitution, if the trunks or parcels of his guests, committed to him either personally or through one of his agents, be damaged at his inn, or stolen out of it by any person whatever (except the servant or companion of the guest); nor shall he discharge himself of this responsibility by a refusal to take care of the goods, because there are suspected persons in the house, for whose conduct he cannot be answerable: it is otherwise, indeed, if he refuse admission to a traveller because he really has no room for him, and the traveller, nevertheless, insist upon entering, and place his baggage in a chamber without the keeper's consent. Add to this, that if he fail to provide honest servants and honest inmates, according to the confidence reposed in him by the public, his negligence in that respect is highly culpable, and he ought to answer civilly for their acts, even if they should rob the guests that sleep in their chambers. Rigorous as this law may seem, and hard as it may actually be in one or two particular instances, it is founded on the great principle of public utility, to which all private considerations ought to yield; for travellers, who must be numerous in a rich and commercial country, are obliged to rely almost implicitly on the good faith of innholders, whose education and morals are usually none of the best, and who might have frequent opportunities of associating with ruffians, or pilferers, while the injured guest could never obtain legal proof of such combinations, or even of their negligence, if no actual fraud had been committed by them. Hence the praetor declared, according to Pomponius, his desire of securing the public from the dishonesty of such men; and by his edict gave an action against them, if the goods of travellers or passengers were lost or hurt by any means except by inevitable accident (*damno fatali*): and Ulpian intimates that even this severity could not restrain them from knavish practices or suspicious neglect.' (*Essay on the Law of Bailments*, 2nd ed. pp. 95, 96.)

Even if an innkeeper bid the guest take the key of his chamber and lock the door, telling him that he cannot undertake the charge of the goods, still, if they be stolen, he is held to be responsible. In all such cases it is not competent to the innkeeper to plead that he took ordinary care, or that the force which occasioned the loss was truly irresistible. A guest is not bound to deliver the goods in special custody to the innkeeper, nor, indeed, to acquaint him that he has any. If he have property with him, or about his person, the innkeeper must be responsible for it to the extent of 30*l*. without communication. But the innkeeper may require that the property of his guest be delivered into his hands, in order that it may be put into a secure place; and if the guest refuse, the innkeeper is not liable for its safety. The guest exonerates the innkeeper from liability when he takes upon himself the exclusive custody of the goods, so as to deprive the innkeeper of having any care over them; thus, if a guest demand and have exclusive possession of a room, for the purpose of a shop or warehouse, he exonerates the landlord from any loss he may sustain in the property which he keeps in that apartment: but it is otherwise if he have not the exclusive possession of the room. The innkeeper cannot oblige the guest to take charge of his own goods; for this, in effect, would be a refusal to admit them into the inn. And it is no excuse for an innkeeper to say that he delivered

the key of the chamber whence the property was stolen to the guest, who left the door open. A case of this sort occurred a few years ago at Brighton. A lady having left the door of her bedroom, of which she had the key, open for a few minutes, 50*l*. were abstracted from her reticule. The innkeeper contended that the plaintiff, by selecting particular apartments, and taking the key, had exonerated him from his liability. The jury found for the plaintiff; and upon a motion for a new trial, Lord Tenterden said, 'By the common law of this country, and also by the civil law, the principle of the liability of innkeepers was founded on two reasons: first, to compel the landlord to take care that no improper company was admitted into his house; and secondly, to prevent collusion. The principle, as stated in the civil law, was this—'Ne quisquam putet graviter hoc in eos constitutum esse; nam est in ipsorum arbitrio nequem recipient; et nisi hoc esset statutum, materia daretur eum furibus, adversus eos quos recipient, coeundi: cum ne nunc quidem absterent hujasmodi frandibus.' It was true that, in the present state of society, it was very difficult to prevent the intrusion of improper company into inns. But still the principle was such as he had stated it to be, and it would be dangerous to relax it; and he did not think that the taking round in this way was sufficient to discharge the landlord. Then, as to the objection that the cases did not extend to money, it was clear that money was as much within the principle as goods, and that no substantial distinction could be made. He was therefore of opinion that the verdict was right.—Rule refused.

A landlord may exempt himself from liability if he can show that the loss was occasioned by the misconduct of the guest; as, if his goods are stolen by his own servant or companion.

It has been decided that a man is a guest at an inn, if he leave his horse at it, though he has not gone into it himself. If a man come to an inn, and make a contract for lodging for a set time, and do not eat or drink there, he is no guest, but a lodger, and, as such, not under the innkeeper's protection; but if he eat and drink, or pay for his diet there, it is otherwise. Any innkeeper or alehouse keeper, knowingly receiving and harbouring any person convicted of an offence against the revenue laws, for which he has been in prison, or for which he has fled, shall forfeit 100*l*. and have no license for the future.

4. *Remedy of an Innkeeper against his Guest.*—An innkeeper may, without any agreement to that effect, detain the person of a guest who has eaten in his house, until payment; and he may do the same by the horses in his stable.

An innkeeper is not entitled to recover for spirits supplied to his guests, of the value of 2*s*. and upwards, unless supplied or contracted for at one time. (23 Geo. II. c. 40.)

By the custom of London and Exeter, if a man commit a horse to an hostler, and the expense of his keep become equivalent to his price, the hostler may appropriate the horse to himself upon the appraisement of four of his neighbours, or may have him sold. But innkeepers in other parts of the country have no power to sell horses detained by them.

A horse committed to an innkeeper cannot be detained as a security for the board of his master.

It is enacted by 11 & 12 Wm. III. c. 15 that innkeepers, alehouse keepers &c. refusing to specify in an account the number of pints or quarts for which demand is made, or selling in unmarked measures, shall have no power to detain any goods or other things belonging to the person

from whom demand is made, but shall be left to their action for recovery of the same.

**PUMICE STONE** (Ger. *binstein*; Fr. *pierreponce*; Ital. *pietra pomice*; Span. *pedra pomez*; Lat. *pumex*). A light, spongy, vitreous stone, found usually in the neighbourhood of volcanoes. It is used for polishing metals and marble, and smoothing the surface of wood and pasteboard. It is said to form a good glaze for pottery. The lighter pumice stones swim on water, their specific gravity not exceeding 9.14. The island of Lipari, in the Mediterranean, is chiefly formed of pumice stone, and may be said to be the magazine whence all Europe is supplied with this useful article.

There are several species of pumice stones; but those only that are light and spongy are exported. In 1867 we imported 525 tons of pumice stone, valued at 2,364*l*.

**PUTCHOCK**. An article of this name is imported in considerable quantities from the north-west coast of India into China, and is regularly quoted in the Canton price currents. It is the root of a plant that grows abundantly in Sindh. When burned, it yields a fine smoke, and a grateful and diffusive smell. The Chinese beat it into a fine powder, which they burn as incense in the temples of their gods. (Hamilton's *New Account of the East Indies*, vol. i. p. 126.)

**QUARANTINE**. A regulation by which all communication with individuals, ships, or goods, arriving from places infected with the plague, or other contagious disease, or supposed to be peculiarly liable to such infection, is interdicted for a certain definite period. The term is derived from the Italian *quaranta*, forty; it being generally supposed that if no infectious disease break out within 40 days, or 6 weeks, no danger need be apprehended from the free admission of the individuals under quarantine. During this period, too, all the goods, clothes &c. that might be supposed capable of retaining the infection, are subjected to a process of purification. This last operation, which is a most important part of the quarantine system, is performed either on board ship, or in establishments denominated *lazarettos*. (See post.)

**Policy of Quarantine**.—The regulations as to quarantine are entirely precautionary; they have their origin in the belief that various diseases, but especially the plague, are contagious; and supposing such to be the case, the propriety of subjecting those coming from an infected or suspected place to a probation is obvious. Indeed, no Government could, until the belief in question be proved to be ill founded, abstain from enforcing precautionary measures, without rendering itself liable to the charge of having culpably neglected one of its most important duties—that of providing, by every means in its power, for the safety of its subjects. Latterly, however, it has been contended that the plague is never imported; that it is always indigenous; originating in some peculiar state of the atmosphere, or in something peculiar in the condition of the people; and that, consequently, quarantine regulations merely impose a heavy burden on commerce, without being of any real utility. But though there does not seem to be any reason for doubting that infectious diseases have originated in the way described, the fact that they have, in innumerable instances, been carried from one place to another, seems to be established beyond all question. Even if the evidence as to the importation of infectious diseases were less decisive than it is, or the opinions of medical men more divided, it would not warrant the repeal of the restraints on the intercourse with suspected ports. This is not a matter in which innovations should be rashly introduced; wherever there is doubt, it is proper to incline to the side of security. In some cases, perhaps, quarantine regulations have been carried to a needless extent; but they have more frequently, we believe, been unwisely relaxed.

**Institution of Quarantine**.—The notion that the plague was imported from the East into Europe

seems to have prevailed in all ages. But it would appear that the Venetians were the first who endeavoured to guard against its introduction from abroad, by obliging ships and individuals from suspected places to perform quarantine. The regulations upon this subject were, it is most probable, issued for the first time in 1481. (Beckmann, *Hist. of Invent.* vol. ii. art. 'Quarantine.') They have since been gradually adopted in every other country. Their introduction into England was comparatively late. Various preventive regulations had been previously enacted; but quarantine was not systematically enforced till after the alarm occasioned by the dreadful plague at Marseilles in 1720. The regulations then adopted were made conformably to the suggestions of the celebrated Dr. Mead, in his famous *Discourse concerning Pestilential Contagion*.

**Lazarettos** or *Pest-houses* are establishments constructed to facilitate the performance of quarantine, and particularly the purification of goods. They have usually a port in which ships from a suspected place may anchor; and, when perfect, are provided with lodgings for the crews and passengers, where the sick may be separated from the healthy; and with warehouses, where the goods may be deposited; all intercourse between the lazaretto and the surrounding country being, of course, interdicted, except by permission of the authorities. The lazarettos at Leghorn, Genoa, and Marseilles are the most complete of any in Europe. The facilities they afford to navigation are very great; for, as ships from suspected places may discharge their cargoes in the lazaretto, they are not detained longer than they would be were there no quarantine regulations. The goods deposited in the lazaretto, being inspected by the proper officers, and purified, are then admitted into the market.

Compared with these, the quarantine establishments in this country are exceedingly defective. There is not, even in the Thames, a lazaretto where a ship from a suspected place may discharge her cargo and reef; so that she is detained, frequently at an enormous expense, during the whole period of quarantine; while, if she have perishable goods on board, they may be very materially injured. It is singular that nothing should hitherto have been done to obviate such grievances. The complaints as to the oppressiveness of quarantine regulations are almost wholly occasioned by the want of proper facilities for its performance. Were these afforded, the burdens it imposes would be rendered comparatively light; and we do not know that many more important services could be rendered to the commerce of the

country than by constructing a proper quarantine establishment on the Thames.

*Bills of Health.*—The period of quarantine varies, as respects ships coming from the same place, according to the nature of their bills of health. These are documents, or certificates, signed by the consul or other competent authority in the place which the ship has left, describing its state of health at the time of her clearing out. A *clean* bill imports that, at the time of her sailing, no infectious disorder was known to exist. A *suspected*, or, as it is more commonly called, a *touchet* bill, imports that rumours were afloat of an infectious disorder, but that it had not actually appeared. A *foul* bill, or the *absence of clean bills*, imports that the place was infected when the vessel sailed. [BILLS OF HEALTH.] The duration of the quarantine is regulated by the nature of these instruments. They seem to have been first issued in the Mediterranean ports in 1665, and are obviously of great importance.

*Quarantine Regulations.*—The existing quarantine regulations are embodied in the Act 6 Geo. IV. c. 78, and the different orders in council issued under its authority. These orders specify what vessels are liable to perform quarantine; the places at which it is to be performed; and the various formalities and regulations to be complied with. The publication in the *Gazette* of any order in council with respect to quarantine is deemed sufficient notice to all concerned; and no excuse of ignorance is admitted for any infringement of the regulations. To obviate, as far as possible, any foundation for such plea, it is ordered that vessels clearing out for any port or place which is to be subjected to quarantine, are to be furnished with an abstract of the quarantine regulations; and are to furnish themselves with quarantine signal flags and lanterns, and with materials and instruments for fumigating and immersing goods. The following are the clauses in the Act as to signals:—

Every commander, master, or other person having the charge of any vessel liable to quarantine, shall, at all times, when such vessel shall meet with any other vessel at sea, or shall be within 2 leagues of the coast of the United Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man, hoist a signal to denote that his vessel is liable to quarantine; which signal shall in the day time, if the vessel shall have a clean bill of health, be a large yellow flag, of 6 breadths of bunting, at the main-topmast-head; and if such vessel shall not have a clean bill of health, then a like yellow flag, with a circular mark or ball, entirely black, in the middle thereof, whose diameter shall be equal to 2 breadths of bunting; and in the night time, the signal shall in both cases be a large signal lantern with a light therein (such as is used on board his Majesty's ships of war), at the same mast-head: and such commander, master, or other person, shall keep such signals hoisted during such time as the said vessel shall continue within sight of such other vessel, or within 2 leagues of the said coast or islands, and while so in sight, or within such distance, until such vessel so liable to quarantine shall have arrived at the port where it is to perform quarantine, and until it shall have been legally discharged from the performance thereof; on failure whereof such commander, master, or other person shall forfeit 100*l.* (Sec. 8.)

Every commander, master, or other person having the charge of any vessel on board whereof the plague or other infectious disease highly dangerous to the health of his Majesty's subjects shall

actually be, shall at all times, when such vessel shall meet with any other vessel at sea, or shall be within 2 leagues of the coast of the United Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man, hoist a signal, to denote that a vessel has the plague or other infectious disease; which signal shall be in the day time a flag of yellow and black, borne quarterly, or 8 breadths of bunting, at the main-topmast-head; and in the night time, the signal shall be 2 large signal lanterns, commonly used on board ships of war, one over the other, at the same mast-head: and such commander, master, or other person shall keep such signal hoisted during such time as the said vessel shall continue within sight of such other vessel, or within 2 leagues of the coasts or islands aforesaid, while so in sight, or within such distance, until such vessel shall have arrived at the port where it is to perform quarantine, and until it shall have been legally discharged from the performance thereof; on failure whereof such commander, master, or other person shall forfeit 100*l.* (Sec. 9.)

If any commander, master, or other person, knowing that the same is not liable to the performance of quarantine, shall hoist such signal, by day or night, such commander or other person shall forfeit 50*l.* (Sec. 10.)

But, instead of printing the Act, and the various orders in council that have grown out of it, it will be sufficient to lay the following abstract of them before the reader. This abstract has been prepared by the Custom-house, and contains a distinct summary of the various rules and regulations to be complied with.

#### ABSTRACT OF QUARANTINE REGULATIONS.

It is in the first place to be observed that all persons are presumed to know, and are bound to take notice, not only of the quarantine regulations established by Act of Parliament (as they are of any other public Act), but likewise of every order in council made for the performance of quarantine, and published in the *London Gazette*; and as it is easily in their power to inform themselves of such regulations, and particular care is taken by this and other means to promulgate such of them as apply to their respective situations, *previously to their being actually put under quarantine*, when they will receive directions for their guidance from the quarantine officers, no plea of ignorance will be admitted as an excuse for any neglect, breach, or violation thereof; but, for the sake of example, and for the security of the public health, the pains, penalties, and punishments of the law will be enforced with the utmost severity.

#### Duty of Commanders and Masters of Vessels.

Upon arrival off the coast of the United Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man,

To deliver to the pilot who shall go on board a written paper, containing a true account of the name of the place at which his ship loaded, and of all the places at which he touched on the homeward voyage. Neglecting or refusing to deliver such papers, or making any false representation or wilful omission therein, subjects him to a penalty of 100*l.*

Upon entering, or attempting to enter any port, and being spoke by any quarantine officers, To give a true answer in writing or otherwise, and upon oath or not upon oath (according as he shall be required), to the preliminary questions put to him by such quarantine officer, for the purpose of ascertaining whether his vessel is or is not liable to quarantine. Neglecting or refusing



place in the United Kingdom or the islands aforesaid.

And every such commander and master is likewise to provide and take on board 1 at least of each of the proper quarantine signal flags and lanterns, and likewise materials and instruments for fumigation and immersion, and to keep the same on board, to be used upon his return to the United Kingdom or the islands aforesaid.

#### *Duty of Pilots.*

Pilots are strictly to observe the following directions:—

To receive an account in writing from every commander or master of any vessel coming from foreign parts, of the places at which his vessel loaded, and at which he touched on his said homeward voyage.

To give notice to such commander or master of any proclamation, or order in council, made after the departure of such vessel from the United Kingdom or the islands aforesaid, and then in force, by which vessels coming from any place mentioned in such account shall be liable to quarantine. Neglecting or omitting to give such notice subjects them to a penalty of 100*l*.

To give a like notice of any proclamation then in force, by which vessels having on board any of the articles mentioned in the master's account shall be liable to quarantine. Neglecting or omitting to give such notice subjects them to a penalty of 100*l*.

To remain on board in the same manner as any of the officers, crew, or passengers, and not to quit the said vessel before or after the arrival, either by going on shore, or by going on board any other vessel or boat with intent to go on shore, until she is regularly discharged from quarantine; and they may be compelled by any persons whatsoever, and by any kind of necessary force, to return on board the same. If they offend herein, they incur a penalty of 300*l*. and 6 months' imprisonment.

Not to bring any such vessel into any port or place other than the port or place appointed for the reception of vessels so liable to quarantine as stated in the Appendix, unless compelled by stress of weather, adverse winds, or accidents of the seas, of which the pilot, as well as the commander or master of the vessel, is to give satisfactory proof upon oath. If they offend herein, they incur a penalty of 200*l*.

To bring the ship to, as soon as it can be done with safety, in obedience to the requisition of the quarantine officer. Failing herein subjects them to a penalty of 100*l*.

#### *Duty of other Persons.*

When any infectious disease actually appears on board any vessel, all persons on board are to obey the direction of the privy council, under a penalty of 100*l*.

Not to quit such vessel, either by going on shore, or by going on board any other vessel or boat with intent to go on shore, until regularly discharged from quarantine; and if they quit the ship, they may be compelled by any persons whatsoever, and by any kind of necessary force, to return on board the same; and are also liable to a penalty of 300*l*. and 6 months' imprisonment.

Whether liable to quarantine, or actually performing quarantine, or having had any intercourse or communication with any such persons so liable to or under quarantine, all persons are to obey all such orders as they shall receive from the quarantine officer, and to repair to the lazaret, vessel, or place appointed for the

performance of quarantine. Wilfully refusing or neglecting to repair forthwith, when required so to do by such officers, or escaping from or out of such lazaret, vessel, or place, may be compelled to repair or return thereto by any kind of necessary force, and are subject to a penalty of 200*l*.

Landing or unshipping, or moving in order to the landing or unshipping, of any goods, packets, packages, baggage, wearing apparel, books, letters, or any other articles whatever, from vessels liable to quarantine, are liable to a penalty of 500*l*.

Clandestinely conveying, or secreting or concealing for the purpose of conveying, any goods, letters, or other articles as aforesaid, from any vessel actually performing quarantine, or from the lazaret or other place where such goods or other articles shall be performing quarantine, are liable to a penalty of 100*l*.

Having quitted or come on shore from any vessel liable to or under quarantine, or having escaped from any lazaret or other place appointed in that behalf, may be seized and apprehended by any constable or other peace officer, or by any other person whatever, and carried before a justice of the peace, who may grant his warrant for conveying such person to the vessel, lazaret, or other place from which he shall have escaped, or for confining him in any place of safe custody (not being a public gaol) until directions can be obtained from the privy council.

Knowingly and wilfully forging or counterfeiting, interlining, erasing, or altering, or procuring to be forged &c., any certificate directed by any order in council touching quarantine, or publishing the same as true, or uttering any such certificate with intent to obtain the effect of a true certificate, knowing its contents to be false, are guilty of felony.

#### *What Vessels are liable to Quarantine.*

All vessels (as well ships of war as all others) with or without clean bills of health, coming—

From or having touched at any place in the Mediterranean, or the West Barbary on the Atlantic Ocean.

From any other place from which his Majesty shall from time to time adjudge it probable (and shall so declare by proclamation or order in council) that the plague, or any other infectious disease or distemper highly dangerous to the health of his Majesty's subjects, may be brought.

*Note.*—They are considered as liable to quarantine from the time of their leaving any of the said places.

All vessels having communication with any of the before-mentioned ships or vessels, or receiving—

Any person whatever from or out of such vessel, whether such person shall have come from any of the said places, or shall have gone on board of such vessel, either in the course of her voyage, or upon her arrival off the coast of the United Kingdom &c.—Or

Any goods, wares, or merchandises, packages, packages, baggage, wearing apparel, goods, letters, or any other articles whatever, from or out of such ship or vessel.

*Note.*—They are liable to quarantine from the time of their receiving any such persons or goods.

All vessels coming from any port or place in Europe without the Straits of Gibraltar, or in the continent of America, and having on board—

Any of the articles enumerated (a list of which articles see in the Appendix);

And not producing a declaration upon oath, made by the owner, proprietor, shipper, or consignee



Or any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at the *Motherbank*, near *Portsmouth*, or *St. Just's Pool*, within the mouth of the harbour of *Falmouth* :—

Jersey	Sark
Guernsey	Alderney

Or either of them, or any part of them, or either of them.

All ships and vessels bound to the following places, to perform quarantine at *Inverkeithing Bay* :—

The eastern coast of Scotland, comprehending the ports of Leith	Anstruther Prestonpans Dundee Perth Montrose Aberdeen The northern ports of Scotland, some	prehending the ports of Inverness Zelland Orkney Caithness Sutherland
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Or any member, creek, or other place belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Holy Loch*, in the *Frith of Clyde* :—

The western coast of Scotland, comprehending the ports of Glasgow Greenock	Irvine Campbell Town Oban Rothesay Fort William	Ayr Port Patrick Stranraer Wigtown
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The south-west ports of Scotland, comprehending the ports of Dumfries and Kirkcudbright, or any member, creek, or other place belonging to or within any or either of the above ports.

#### Preliminary Questions.

1. What is the name of the vessel, and the name of the commander or master?
2. Are you the commander or master? Where does she belong?
3. From whence do you come?
4. To what place are you bound?
5. At what ports have you touched since you left the port of your lading on your homeward voyage?
6. What vessels have you had intercourse or communication with on your passage, and from whence did they come?
7. Did the plague or any other infectious disease or distemper prevail in any degree at the place whence you sailed on your homeward voyage or at any of the places at which you have touched? If at any, say at which, and when. Are any persons on board your ship suffering under any infectious disease? or have any persons died or been ill of a disease of that nature on the homeward passage? and if any, what number? And if any have died or been ill of such disease, were their bedding and clothes destroyed?

[If the vessel shall have sailed from any port in Europe without the Straits, or on the continent of America.]

8. Have you on board any goods enumerated in this list?

[Handing up a list of articles enumerated.]  
If you have, specify the same, and whether they are of the growth, produce, or manufacture of Turkey, or of any place in Africa within the Straits of Gibraltar, or in the West Barbary on the Atlantic Ocean, or of what other place? Have you any declaration to prove of what place they are the growth, produce, or manufacture?

[If the vessel comes from the Mediterranean, or from any other place respecting which there is any order in council in force concerning quarantine.]

9. Have you any, and what, bill of health?

10. What number of officers, mariners, and passengers have you on board?

[And in cases of vessels coming from or having touched at any port or place on the continent of America, or the islands adjacent thereto, or coming from or having touched at any ports in the West Indies, the following questions are to be put, in addition to the aforesaid questions:]

11. In the course of your voyage have any persons on board suffered from sickness of any kind? What was the nature of such sickness? and when did it prevail? How many persons were affected by it? and have any of them died in the course of the voyage?

12. How long after sailing from your port of lading, or having touched at any port on the continent of America or the islands adjacent thereto, or any of the ports in the West Indies, was the first appearance of disease observed?

13. How had the persons attacked been employed before they came on board?

14. Had they been employed in loading or unloading the vessel before they left the port?

15. Had the place which they inhabited, before they sailed, the reputation of being healthy? or was it subject particularly to the fever incident to the country?

16. Had the fever been frequent in the place before the vessel sailed?

17. Did the persons who were ill on board your vessel fall sick nearly about the same time, or within a few days of each other? Or, did the disorder spread successively from one to another, and increase considerably? Or, did it abate gradually, and cease to multiply as the distance from the ports you sailed from or touched at as aforesaid increased?

18. What was the greatest number of persons ill at the most sickly period of your voyage?

19. What was the whole number of persons on board your vessel when you sailed?

20. What is the whole number of persons now ill on board your vessel?

21. Can you state what were the symptoms of illness with which your crew were first attacked; and what was the daily succession and change in them till their death?

22. Whether any and what medicines have been used? and what methods have been adopted to prevent its spreading among the crew?

23. Whether attention has been paid to cleanliness and ventilation on board your vessel?

24. When did you sail from the port or place whence you took on board your outward cargo? and at what place did you touch before you arrived at the port or place where you took in your present cargo?

25. Did you carry any bill of health with you to the port or place where you took in the cargo you have now on board? From what place? Were the said bills of health clean, unclean, or suspected?

#### Quarantine Questions.

1. What is the name of the vessel, and the name of her commander or master?

2. Are you the commander or master?

3. To what port or place does she belong?

4. When did you sail from the port or place whence you took on board your outward cargo? and at what places did you touch before you arrived at the port or place where you took in your present cargo?

5. Did you carry any bill or bills of health with you to the port or place where you took in the cargo you have now on board? From what

places? Were the said bills of health clean, unclean, or suspected?

6. From what port or place does she now come? When did you sail from such port or place? and at what place or places have you touched in the course of the voyage?

7. Have you any bill or bills of health on board? From what place or places? Are the same clean, unclean, or suspected? Produce them.

[If the vessel shall have sailed from any port or place in Europe without the Straits, or on the continent of America.]

8. Of what articles does your cargo consist? Have you on board any goods enumerated in this list?

[Handing up a list of articles enumerated.]

If you have, specify the same, and whether they are of the growth, produce, or manufacture of Turkey, or of any place in Africa, within the Straits of Gibraltar, or in the West Barbary on the Atlantic Ocean, or of what other place. Have you any declaration to prove of what place they are the growth, produce, or manufacture?

9. At what place or places was the cargo or any part thereof taken on board? On what day did you arrive at the place or places where you took in the whole, or any and what part of the cargo? And on what day did you sail from such place or places? And what part of your cargo was taken in at each place, and when?

10. Did the plague or any other infectious disease or distemper prevail in any degree at the places whence you sailed, or at any of the places at which your cargo was taken on board, or at which you touched? If at any, say at which, and when.

11. Did you hear of any report, or are you aware of any suspicion having existed, at the time of your sailing, that the plague or any other infectious disease prevailed at the place whence you sailed, or at any other place in the Mediterranean (or in America or the West Indies, as the case may be)?

12. What number of officers, mariners, passengers, or other persons have you on board? Describe the number of each.

13. At what port did you take on board your passengers?

14. Were they residents at the place, or had they been embarked as passengers on board any other vessel from any other places? and from what places and at what time?

15. Do the said officers, mariners, passengers, and other persons consist of the same individuals as were on board at the port from which you sailed upon your homeward voyage? If any other persons have been taken on board, or if any of your officers, crew, or passengers have quitted your vessel since you sailed from such port, or before your arrival at this place, or if any other alterations in that respect have taken place, specify the same, the causes, and the time or times, of such alterations.

16. What number of persons (if any) have died on board during the voyage outwards and homewards, or at any port at which you have touched? When, and in what part of the voyage, did such persons or persons die? Of what disease or distemper?

17. Have any of your officers, mariners, or other persons of your crew, who sailed with you on your outward voyage, died or left the vessel?

18. In the course of your voyage outwards or homewards, or at any port at which you have touched, have any persons on board suffered from sickness of any kind? What was the nature of such sickness? When did it prevail? How many

persons were affected by it? Are there any convalescents on board? Or, are all persons on board at present in good health?

19. Were any of those who died, or who have been sick in the course of the voyage, or any port at which you have touched, affected, or suspected to have been affected, by any infectious disease or distemper? Were the bedding and clothes of such diseased and sick persons destroyed? If so, when and in what manner were any of the persons immediately employed about the sick afterwards taken ill? If so, of what disease? and in how many days after having been so employed?

20. At what precise time did such deaths happen? In how many days after being indisposed did the sick die? What were the most obvious appearances of the disease?

21. Have you spoken to or otherwise had any communication with any vessels at sea during the voyage? What were the names of such vessels? and to what country, port, or place did they belong? From what ports or places were they coming, or at what ports or places had they touched on their voyage? and to what country, ports, or places were they bound? What was the nature of the communication held? What do you know respecting the state of health on board such vessels?

22. Have there been any letters, parcels, or other articles delivered out of or received into your vessel, from any vessel or boat met with on the voyage, or before or since your arrival at this place? And what were such letters, parcels, or articles? And where were the same delivered or received? and into or out of what vessel or boat?

23. Have you any packages or parcels which you have taken charge of? If so, what are their contents? and when and where did you take them on board?

24. What pilots or other persons from the shores of the United Kingdom, or from the islands of Scilly, Guernsey, Jersey, Alderney, Sark, or Man, have been, or are now, on board your vessel, or have had any communication whatever with the ship's company, or any of the passengers, during the voyage homewards, or before or since your arrival at this place? If any such pilots or other persons have come on board, and have afterwards quitted your vessel, specify the names of such persons, and the time, manner, and circumstances of their so quitting your vessel.

25. Did you leave any British vessels at any of the ports you sailed from? If you did, mention their names and the names of their commanders.

26. Were such vessels loading? were they near their departure? and whither were they bound?

27. Did you meet with any British vessels at any of the places you touched at? If you did, say when, where, and what were the names and destinations of such vessels; and to what ports or places did they belong?

28. Do you know whether any foreign vessels loading at the port from which you sailed were bound beyond the Straits of Gibraltar? And if so, what were they? and whither were they bound?

29. Do you know whether any person whatever employed in loading your vessel, or in bringing any articles into it, or having any communication on board thereof, was taken ill during such employment or communication? or whether, by the absence of such person or persons in the course of such employment, any suspicion was entertained of their having been ill? If so, of what disease?

officers, mariners, and board? ... coming from or having place on the continent of adjacent thereto, or coming at any ports in the West ... questions are to be put, in ... questions:] ... your voyage have any ... from sickness of any ... nature of such sickness? ... How many persons ... and have any of them died ...

sailing from your port of ... at any port on the con- ... the islands adjacent thereto, ... in the West Indies, was the ... disease observed? ... persons attacked been em- ... on board?

employed in loading or ... vessel before they left the ...

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the greatest number of persons ... ily period of your voyage? ... the whole number of persons on ... when you sailed?

the whole number of persons on ... vessel?

ate what were the symptoms of ... in your crew were first attack- ... the daily succession and change ...

any and what medicines have been ... methods have been adopted in ... among the crew?

attention has been paid to disab- ... on board your vessel?

you sail from the port or place ... on board your outward cargo? ... place did you touch before you ...

carry any bill of health with you ... ce where you took in the cargo ... on board? From what place? ... bills of health clean, unclean, or ...

Quarantine Questions.

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port or place where you took in ... cargo? ... carry any bill or bills of health with ... t or place where you took in the ... ve now on board? From what

30. Do you know whether or not your cargo, or any part thereof, had been long in warehouse before its being taken on board? If you do, say how long. Have you any knowledge of its being packed or handled on shore, or conveyed from shore, or stowed on board, by persons affected with the plague or any other infectious disease or distemper?

The Public Health Act (29 & 30 Vict. c. 99 s. 52) enacts that 'Every vessel having on board any person affected with a dangerous or infectious disorder, shall be deemed to be within the provisions of the Act 6 Geo. IV. c. 78, although such vessel has not commenced her voyage or has come from any port or place in the United Kingdom or is bound for some place in the United Kingdom.' On account of the prevalence of yellow fever in the West Indies, several orders in council were issued in 1866 and 1867, but these were revoked by order of February 23, 1869.

The protection of the coasts of the Baltic against the introduction of the plague is entrusted to the Swedish quarantine establishment at Kinsö in the Cattegat. See regulations in Board of Trade notice of January 18, 1865, published in the *London Gazette*. See also Quarantine Regulations &c., treated of under heads of various ports.

For quarantine regulations consequent on the cattle plague, see CATTLE and SHEEP. Further legislation on this branch of the subject is looked for during the session of 1869.

QUASSIA (Ger. quassienholz; Fr. bois de quassie; Span. leño de casia). A beautiful tall tree (*Quassia amara*), growing in North and South America, and the West Indies. The wood is dense, tough, of a pale yellow colour, and insidiously odorous. Taste intensely and purely bitter. (*British Pharmacopœia*, 1867.)

It is pretty extensively employed in the materia medica; and it is said by Dr. Cullen that 'it will do all that any pure and simple bitter can do.' (Rees's *Cyclopædia*, art. 'Quassia.') It has been alleged that it is sometimes used by the brewers of pale and other ales, instead of or along with hops; but the use of it for this purpose is prohibited under severe penalties. [ALE AND BEER.] When imported it is in billets, which, previously to their being infused, are reduced to chips, or rasped by the druggists. Its price in bond varies from 20s. to 30s. per cwt. A prohibitory duty of 8*l.* 17*s.* 6*d.* per cwt. was imposed on quassia down to 1842, when it was reduced by Sir Robert Peel to 10*s.* 6*d.* (10*s.* + 5 per cent.); and after being reduced in 1853 to 1*s.* per cwt., it was abolished in 1860. In 1867 the imports and exports of the article amounted respectively to 1,055 and 715 cwt., valued at 296*l.* and 200*l.*

QUEBEC. The capital of Quebec, formerly Canada East, or Lower Canada, on the north-west bank of the river St. Lawrence, about 340 miles from its mouth, in lat. 46° 49' 1" N., long. 71° 13' W. Population in 1861, 51,109.

Quebec is situated on a ridge, or promontory, formed by the St. Lawrence on the S. and W., and the river St. Charles on the E. The extremity of this headland, called Cape Diamond, is about 345 feet above the level of the water, and on it the citadel is built. The town extends from the citadel, principally in a north-east direction, down to the water; and is, from the difference of elevation, divided into the upper and lower towns. The fortifications, which are very strong, extend across the peninsula; the circuit within them being about 2½ miles. From their situation many of the streets are uneven; they are also, for the most part, narrow; but they are either well-paved or macadamised. The greater number of the

houses are built of stone, with shingle roofs. Some of the public buildings are elegant, and well adapted for their purposes. The harbour, or basin, lies between the town and the island of Orleans. It is safe and commodious; the water is about 28 fathoms deep, with a tide rising from 17 to 18 feet; and at springs from 23 to 25. Quebec was founded by the French in 1608. In 1629 it was taken by the English, but was restored in 1632. It was again taken by the English under General Wolfe, who fell in the engagement, in 1759; and was finally ceded to us by the treaty of Paris in 1763.

The rapid increase of population in, and of emigration to, Upper Canada has occasioned a proportional increase of intercourse between Quebec and Montreal, and the Canadian ports on Lakes Ontario, Erie &c. The first steamboat that plied on the St. Lawrence was launched in 1812; but there are now a great many steamers, some of them of large burden, employed in the conveyance of goods and passengers between Quebec and Montreal, and in the trade between Quebec and Halifax in Nova Scotia. It now possesses, too, the advantages of railroads. And by means of the Rideau and Welland Canals, an uninterrupted line of steam communication is formed between the Atlantic and Amherstburg, one of the remote settlements of Upper Canada, a distance of more than 1,500 miles; which is now extended through Lake Huron to the western extremity of Lake Superior, about 700 miles beyond Amherstburg. Giving to Quebec a command of internal navigation inferior only to that of New Orleans. The navigation at Quebec closes at the end of November or beginning of December, and opens in April. Below Quebec the river is seldom frozen over; but the masses of floating ice, kept in constant agitation by the flux and reflux of the tide, render navigation impracticable. The waters of the St. Lawrence are very pure; and in point of depth and magnitude it is one of the noblest rivers in the world. (Bouchette's *British Dominions in America*, vol. i. p. 272.) Quebec is a free warehousing port.

The trade of Quebec is very extensive. It engrosses, with Montreal, almost the entire trade of the province with the mother country, the West Indies &c. It has a regular intercourse, by means of steamers, with Montreal and other ports higher up the St. Lawrence, and with Halifax and other ports on the Atlantic. Still, it must not be forgotten, that, in so far as the United Kingdom is concerned, the trade with Canada and Quebec is, in some degree, forced and factitious, and has not been a source of profit, but the reverse. In former years it was, in fact, mainly a consequence of the discriminating duties laid in our ports on timber from the North of Europe; and but for this posterous arrangement, the trade between Great Britain and Quebec would have been extremely unimportant. Now, however, some branches of the trade appear to have acquired a solid footing; notwithstanding the reduction of the discriminating duties in favour of Baltic timber, and the subsequent abolition of the timber duties in 1856, the imports from Canada and other parts of British America of red pine, and of pine and spruce planks, especially the latter, have of late very largely increased. Corn, furs, butter, and ashes are the most important articles sent from Canada, excepting timber. A considerable part of the corn and flour exported from Quebec is to the United States. The principal articles of import into Canada consist of cottons, woollens, silk, and other manufactures; goods; glass ware, spirits and wines, iron, and

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Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture Exported from the United Kingdom to Canada in 1865, 1866, and 1867.

Principal Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
Allial, of all sorts - - - - - cwt.	39,256	55,918	64,870	18,999	31,414	38,101
Apparel and haberdashery - - - - -				31,716	55,812	486,606
Beer and ale - - - - -	1,472	1,778	2,383	7,228	9,755	13,548
Boots, printed - - - - -	2,953	3,109	4,177	27,752	31,475	41,913
Cable, cables, and culm - - - - - tons	141,521	151,529	138,474	62,003	76,091	69,241
Copper, wrought and unwrought - - -	2,371	4,074	2,760	10,196	17,180	11,586
Cordage and twine - - - - -	2,637	5,718	3,541	8,439	16,981	13,702
Cotton, entered by the yard - - - - -				46,557	599,501	499,449
at value - - - - -				3,453	61,595	54,511
Drugs and chemical products - - - - -				48,630	40,905	37,825
Earthenware and porcelain - - - - -				39,097	30,720	29,729
Glass manufactures - - - - -				17,230	23,559	27,821
Hardware and cutlery, unenumerated -	16,500	39,268	50,661	78,451	137,091	157,780
Iron, wrought and unwrought - - - - -	45,164	85,387	99,837	324,891	658,103	639,439
Lead and shot - - - - -	348	561	613	6,929	14,529	13,459
Leather, wrought and unwrought - - -				99,985	21,796	49,010
Lunns, entered by the yard - - - - -				84,855	141,511	96,497
at value - - - - -				9,908	20,663	18,666
Machinery and mill work - - - - -				12,482	9,818	14,692
Oil, and - - - - -				6,470	50,008	28,537
Paints, colours (not otherwise described) -				19,114	26,921	36,102
Paper of all sorts - - - - -	7,466	14,973	21,057	25,536	51,145	65,180
Prints and staves - - - - -				7,381	12,742	20,639
Plate, plated ware, jewellery, and watches -				19,761	27,011	29,008
Salt - - - - -	53,811	32,070	29,144	11,337	29,396	18,210
Silk manufactures - - - - -				34,853	50,151	35,275
Soap - - - - -	5,151	11,131	8,311	4,465	11,617	8,541
Stationery, other than paper - - - - -	5,568	2,492		8,531	14,838	22,148
Sugar, refined - - - - -				6,711	6,199	27,301
Tin plates - - - - -				22,010	60,449	58,958
Woolens, entered by the yard - - - - -	8,352,668	10,995,789	9,177,226	540,132	781,902	703,951
at value - - - - -				51,976	54,497	53,722
All other articles - - - - -				41,074	419,119	361,672
Total - - - - -				2,418,077	3,926,307	5,738,585

Account of the Quantities and Values of the Principal and other Articles Imported into the United Kingdom from Canada in 1865, 1866, and 1867.

Principal Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
Albes, pearl and pot - - - - - cwt.	113,915	69,882	57,934	181,636	126,312	104,035
Bacon - - - - -	9,148	3,033	12,328	26,372	8,405	27,541
Beef and pork, salted - - - - -	1,118	6,482	13,421	2,127	14,812	31,183
Butter - - - - -	21,560	38,442	35,215	167,997	163,355	118,601
Cheese - - - - -	10,253	16,868	35,322	29,986	55,353	87,817
Copper ore - - - - -	217	1,738	1,059	2,853	14,048	10,405
Corn - - - - -	306,765	5,039	683,127	138,514	2,883	543,309
Oats - - - - -	57,056	847,077	189,142	22,433	335,538	89,906
Feas - - - - -	280,293	560,379	791,919	113,205	235,109	263,606
Flax - - - - -	304,173	628,578	538,032	97,914	288,576	140,447
Wheat or Indian corn (other kinds) - - - - -		123,124	378,882		61,292	35,802
Wheatmeal and flour - - - - -	177,357			113,149	254,008	121,711
Oatmeal - - - - -	559	51,472	84,069	666	23,672	63,634
Cotton, raw - - - - -	329	2,980	4,878	6,925	24,200	21,962
Flax - - - - -	98	132	12,483	197	388	6,246
Fish - - - - -					2,907	15,483
Fruit-apples, raw - - - - -	3,356	5,679	30,790	2,490	3,433	6,197
Hams - - - - -	1,077	1,300	2,647	2,455	10,147	8,484
Hides, tanned, iswed, curried, or dressed -	276,135	291,677	75,914	2,488	6,008	10,063
Iron and steel, wrought or manufactured -				4,235	769	6,924
Lard - - - - -	354	226	2,721	1,303	769	6,924
Oil-seed cake - - - - -	1,481	2,295	1,242	14,211	24,788	13,529
Skins and furs - - - - -						
Hoas - - - - -	No.	21,669	69,915	12,370	15,298	20,550
Feas - - - - -		2,265	3,385	1,014	2,116	6,444
Marten - - - - -		11,087	13,980	7,212	10,561	14,308
Oter - - - - -		2,251	3,557	2,459	3,623	6,023
Other sorts - - - - -			6,066	13,496	17,150	49,661
Tallow - - - - -			1,159		13,637	5,919
Tobacco, manufactured, and cigars - - -	1,181	62,863	3,453	50	1,765	61
Wood and timber: - - - - -						
Not sawn or split - - - - -	613,105	505,765	491,132	1,876,186	1,736 68	1,536,501
Bills, battens &c. sawn or split - - -	317,636	298,590	243,397	916,912	841 75	659,258
Staves - - - - -	19,225	25,252	20,451	135,124	241 19	183,355
Lathwood - - - - -	14,283	9,581	7,599	10,927	12 60	9,303
Walnut wood - - - - -	1,463	1,667	909	10,027	11 25	6,300
Wood, sheep or lamba' - - - - -	2,800	205,819	117,330	187	14 79	6,963
All other articles - - - - -				30,993	32 70	53,653
Total - - - - -				4,015,372	4,402,922	4,373,299

Value, in Dollars, of Total Exports of Domestic Produce from, and of Total Imports into Canada, in 1864-67.

	1861-65	1865-66	1866-67
Exports - - - - -	dols. 42,481,151	dols. 51,441,541	dols. 48,486,147
Imports - - - - -	44,620,469	33,739,880	39,048,287

hardware, sugar and tea &c. The total value of the exports from the United Kingdom to Canada in 1867 amounted to 4,243,552. When the imports exceed the exports to this country the excess is principally paid for by the Treasury at home, and should be regarded as the means

sent out by England to pay the troops and meet the other heavy expenses she has to incur in the preservation of this great but unprofitable colony.

Reciprocity Treaty with United States.—It must be obvious to anyone who takes up a map of North America, and observes the long continuous frontier of Canada and the United States, and the magnificent lakes, or great inland seas, by which they are in part divided, that the trade between them can hardly fail to be most extensive. And such is the case. Down, indeed, to a comparatively late period, the intercourse between the two countries was subjected to various regulations and duties, contrived for the most part in

Summary Statement of the Business of the Welland, St. Lawrence, Chambly, Burlington, Ottawa and Rideau Canals, St. Ours and St. Ann's Locks, showing the Total Quantity of each description of Property passed through and on the same, and the Amount of Tolls collected, during the Fiscal Year ended June 30, 1867.

Articles	Welland Canal		St. Lawrence Canal		Chambly Canal and St. Ours Lock		Burlington Bay Canal		St. Ann's Lock		Ottawa and Rideau Canals	
	Tons	Tolls	Tons	Tolls	Tons	Tolls	Tons	Tolls	Tons	Tolls	Tons	Tolls
Vessels of all kinds	993,938	21,429	1,122,916	8,811	418,614	4,939	289,718	1,073	150,912	1,127	371,014	2,576
Passengers (No.)	7,173	661	35,126	2,417	7,747	39	9,051	199	20,796	51	2,753	67
Produce of forest	226,225	28,916	518,529	15,827	351,415	23,632	40,510	1,102	318,301	5,116	127,990	9,391
Farm Stock	369	63	1,396	183	211	11	36	5	443	36	11	31
Animal Produce	3,852	735	4,821	926	199	27	2,035	319	776	36	1,721	241
Vegetable food	341,975	61,517	81,200	13,739	5,667	582	40,883	4,998	4,172	156	6,137	241
Agricultural products	12,284	3,956	45,862	7,650	12,912	1,638	15,312	2,626	1,071	53	1,356	174
Manufactures	103,950	23,553	99,797	13,607	8,176	1,038	31,633	3,019	11,332	189	30,933	809
Merchandise	156,686	29,653	51,133	6,390	31,787	3,121	26,175	3,619	7,161	366	13,059	736

a petty and jealous spirit, by which its development was cramped and impeded. But in 1851 the Reciprocity Treaty introduced a better and more liberal system, but this, since its termination by notice from the United States, has not been renewed. It admitted the free transit of several most important articles from the United States into Canada and the other provinces of British North America, and, conversely, and the reciprocal use of their seas, rivers, and canals. This judicious and well-considered measure led to a vast extension of the trade between the United States and what is now called the Dominion of Canada, or British North America, and has been of signal advantage to both. We subjoin a list of the articles which passed freely across the frontier: Grain, flour, and bread stuffs of all kinds; animals of all kinds; fresh, smoked, and salted meats; cotton wool, seeds, and vegetables; undried fruits, dried fruits; fish of all kinds; products of fish and of all other creatures living in the water; poultry; eggs; hides, furs, skins or tails undressed; stone or marble in its crude or unwrought state; slate; butter, cheese, tallow; lard, horns, manures; ores of metals of all kinds; coal; pitch, tar, turpentine; ashes; timber and lumber of all kinds, round, hewed, or sawed, unmanufactured in whole or in part; firewood; plants, shrubs, and trees; pelts, wool; fish-oil; rice, broom corn, and bark; gypsum, ground or unground; hewn or wrought or unwrought burr or grindstones; dye stuffs; flax, hemp, and tow unmanufactured; unmanufactured tobacco; rags.

The following table shows the rapid increase of the trade between Canada and the United States under the Reciprocity Act.

Imports from United States into Canada.

Years	Total
1851	7,929,110 dollars
1852	7,717,061 "
1853	7,901,099 "
1854	17,200,705 "
1855	18,230,331 "
1856	30,883,241 "
1857	16,371,895 "
1856-67	20,272,917 "

Exports from Canada to United States.

Years	Total
1851	4,529,171 dollars
1852	4,593,969 "
1853	5,273,416 "
1854	6,741,329 "
1855	12,482,514 "
1856	17,488,197 "
1857	18,291,854 "
1856-67	25,583,800 "

Quebec is a principal port for the importation of immigrants, 20,863 having been landed there in 1856, and 31,281 in 1857, and the total number landed in Canada in 1867 was 30,757, most of them re-emigrating to the United States. In 1867 there were 15,503 emigrants from this country to our North American colonies, the great majority of whom landed at Quebec.

Value of Exports from and Imports into Quebec.

Years	Exports	Imports
1851-65	dols. 10,671,861	dols. 4,473,297
1865-66	9,079,829	3,669,183
1866-67	8,862,570	5,766,721

Canadian Tariff of Customs, as in Force on October 1, 1868.

Acid, sulphuric, 3c. per lb.  
 Acetic acid, 15 p.c. ad val.  
 Advertising pamphlets, 15 p.c. ad val.  
 Alabaster ornaments, 15 p.c. ad val.  
 Alcohol, on every gallon of the strength of proof of Sykes' hydrometer, and so in proportion for any greater strength and for every less quantity than a gallon, 80c. per gal.  
 Ale, in casks, 10 p.c. and 5c. per gal.  
 in bottles (5 quarts or 10 pints to gallon) 10 p.c. and 7c. per gal.  
 Alives (not elsewhere mentioned) 15 p.c. ad val.  
 Axes, 15 p.c. ad val.  
 Bagatelle boards, 15 p.c. ad val.  
 Bees, in casks, 10 p.c. and 5c. per gal.  
 in bottles (5 quarts or 10 pints to gallon), 10 p.c. and 7c. per gal.  
 Benzole, 15c. per gal.  
 Bibles, Testament, prayer-books and devotional books, 5 p.c. ad val.  
 Billiard tables, 15 p.c. ad val.  
 Bill-heads, &c. 15 p.c. ad val.  
 Bills, printed, lithographed, or copper-plate, 15 p.c. ad val.  
 Bitters containing spirit, vermouth, and other spirituous liquors, of whatever strength, not otherwise specified, on every gallon of the strength of proof of Sykes' hydrometer, and so in proportion for any greater strength, and for every less quantity than a gallon, 80c. per gal.  
 Blacking, 15 p.c. ad val.  
 Bonnets, 15 p.c. ad val.  
 Books, copyright reprints of, 12 1/2 p.c. ad val.  
 which are copyrighted in Canada, 15 p.c. ad val.  
 printed periodicals and pamphlets, not being foreign reprints of  
 Hittell's copyright works, nor blank account books, copy books, nor books to be written or drawn upon, nor school or other books copyrighted in Canada, nor printed sheet music, 5 p.c. ad val.  
 Boots, 15 p.c. ad val.

Bracelets, 15 p.c. ad val.  
 Brads, 15 p.c. ad val.  
 Bread &c. made of hair, 15 p.c. ad val.  
 Brandy (on every gallon of the strength of proof of Sykes' hydrometer, and so in proportion for any greater strength, and for every less quantity than a gallon), 80c. per gal.  
 Britannia metal ware, 15 p.c. ad val.  
 Bronze ornaments, 15 p.c. ad val.  
 Brooms and brushes of all kinds, 15 p.c. ad val.  
 Butter, 4c. per lb.  
 Cabinets ware or furniture, 15 p.c. ad val.  
 Cables, hemp and grass, for ships only, 15 p.c. ad val.  
 Cameos or mosaics, 15 p.c. ad val.  
 Candles and tapers of tallow, wax, or any other material, 15 p.c. ad val.  
 Candy sugar, brown or white, 1c. per lb. and 25 p.c. ad val.  
 Cane juice, 3c. per lb. and 25 p.c. ad val.  
 Caps, 15 p.c. ad val.  
 Carpets, 15 p.c. ad val.  
 Carriages, not elsewhere specified, 15 p.c. ad val.  
 Cassia, ground, 25 p.c. ad val.  
 Cements, hydraulic, ground, and calcined, 15 p.c. ad val.  
 Chandeliers, 15 p.c. ad val.  
 Charts, not elsewhere mentioned, 15 p.c. ad val.  
 Cheese, 3c. per lb.  
 Chicory, or other root or vegetable used as coffee, raw or gun &c. per lb.  
 Chicory, kiln-dried, roasted or ground, 4c. per lb.  
 China ware, 15 p.c. ad val.  
 Chocolate, 15 p.c. ad val.  
 Cider, 15 p.c. ad val.  
 Cigars, value not over 10 dol. per mille, 5 dol. per mille value over 10 dol. and not over 20 dol., 1 dol. per mille value over 20 and not over 40 dol., 5 dol. per mille value over 40 dol., 6 dol. per mille



Canadian Tariff of Customs—continued.

Vinager, 15 p.c. ad val.  
 Watches, 15 p.c. ad val.  
 Weaving apparatus, made by hand or sewing machine, 15 p.c. ad val.  
 Whiskey on every gallon the strength of proof of Hykes' hydrometer, and so in proportion for any greater strength, and for every less quantity than a gallon, 80c. per gal.

Wines of all kinds, including ginger, orange, lemon, gooseberry, strawberry, raspberry, elder and currant wine (3 quarts and 1 pint per gallon to contain a gallon), 10c. per gal. and 30 per cent. ad valorem.  
 Wire, flat, for enameling, covered, 15 p.c. ad val.  
 Woolens, 15 p.c. ad val.  
 Writing desks, 15 p.c. ad val.

Rates of Pilotage for and below the Harbour of Quebec.

From	To	For each foot of draught of water			
		From May 1 to Nov. 10	From Nov. 10 to Nov. 19	From Nov. 19 to March 1	From March 1 to May 1
Be Island, or any other place below the anchorage of the Brandy Pota, off Hare Island	—	18s. 0d.	25s. 0d.	28s. 0d.	30s. 0d.
The anchorage ground at the Brandy Pota, off Hare Island, or any place above the said anchorage ground and below St. Roch's Point	Anchorage or mooring ground in the basin or harbour of Quebec	} of this sum	} of this sum	} of this sum	} of this sum
St. Roch's Point, or any place above this point and below the Point-aux-Pins on Crane Island					
Point-aux-Pins on Crane Island, or any place below St. Patrick's Hole	—	15s. 9d.	20s. 0d.	25s. 0d.	18s. 5d.
The anchorage or mooring ground in the basin or harbour of Quebec	Be Island, or the place where the pilot shall be discharged in the river below Quebec.				

**Table of Prohibitions.**—The following articles are prohibited to be imported under a penalty of 50l. together with the forfeiture of the parcel or package of goods in which the same may be found: books and drawings, paintings or prints of an immoral or indecent character; coin, base or counterfeit.

**Money.**—Previously to 1859 accounts were kept in what was usually called currency, the 1l. sterling being reckoned at 1l. 4s. 4d. But in the course of that year a new description of currency was issued on the decimal plan. The 1l. currency, on which it is raised, contains 101321 grs. standard gold, or 92877 grs. pure gold. The 1l. sterling contains 123274 gr. standard gold, and 113001 gr. pure gold. Hence, 1l. 4s. 4d. : 1l. :: 123274 : 101321, and 1l. 4s. 4d. : 1 : : 113001 : 92877. The pound is divided into 100 centimes; and the new gold coins are for 100 and 50 centimes, with silver coins for 20, 10, and 5 ditto. The value of these coins agrees pretty closely, but not quite, with the values of the corresponding American coins. And it is supposed by some that it would have been better, seeing the intimate connection between the two countries, that the value of the Canadian coins should have been made to coincide exactly with that of the coins of the United States.

List of Banks in Canada, with Statement of authorised and paid-up Capital of each, on August 31, 1868.

Banks	Capital Authorized	Capital paid up
	dols.	dols. cts.
Bank of Montreal	6,000,000	6,000,000 00
Quebec Bank	3,000,000	1,478,550 00
City Bank	1,300,000	1,200,000 00
Core Bank	1,000,000	809,250 00
Bank of British North America	4,865,656	4,865,656 00
Banque de Penne	1,500,000	1,500,000 00
Niagara District Bank	400,000	305,224 83
Molson's Bank	1,000,000	1,000,000 00
Bank of Toronto	2,000,000	800,050 00
Ontario Bank	2,000,000	2,000,000 00
Eastern Townships Bank	400,000	400,000 00
Banque Nationale	1,000,000	1,000,000 00
Niagara Bank	1,000,000	994,610 00
Marchants' Bank	5,000,000	5,113,280 15
Royal Canadian Bank	2,000,000	1,103,550 00
Union Bank of Lower Canada	2,000,000	285,250 98
Mechanics' Bank	1,000,000	275,500 00
Canadian Bank of Commerce	1,000,000	956,185 00
Bank of New Brunswick	600,000	600,000 00
St. Stephen's Bank	200,000	200,000 00
Total	33,266,656	29,681,717 01

**Weights** same as in England.  
**Measures.**—Standard wine gallon, liquid measure of the province. The Canada pint for all

grain &c. except where specially agreed upon to the contrary; and this measure is about 4 larger than the Winchester bushel. The English Winchester bushel, when specially agreed for. The Paris foot, for all measures of lands granted previous to the conquest, and all measures of length, except an agr. ment is made to the contrary. The English foot, for measure of lands granted since the conquest, and wherever specially agreed upon. The standard English yard for measuring all cloths or stuffs sold by the yard or measure of length. The English ell, when specially agreed upon.

MONTREAL is situated on the south side of an island of the same name, in the St. Lawrence, about 180 miles above Quebec, in lat. 45° 31' N. long. 73° 55' W. Population, in 1861, 91,000, being very considerably greater than that of Quebec, or of any other town in British America. The harbour is not large, but it is safe and commodious; the facilities for navigation afforded by the noble river on which it is situated being such, that vessels of 600 tons burden may ascend thus far without difficulty. The North American fur trade principally centres in Montreal, which also enjoys the principal share of the commerce between Canada and the United States. It is increasing faster than Quebec, or than any city in the Dominion of Canada. The imports into Montreal in 1866-7 were valued at 28,132,200 dollars, and the exports at 8,104,622 dollars.

QUEENSLAND. [BRISBANE; COLONIAL QUERCITRON BARK. The bark of a species of oak growing in many parts of New America. It is used in dyeing yellow colours [BARK.]

QUICKSILVER. [MERCURY.]  
 QUILLS (Fr. plumes à écrire; Ger. post federn, kiele; Ital. penna da scrivere; Russ. ovoli; Span. cañones para escribir). The bar and strong feather of the wings of geese, ostriches, swans, turkeys, crows &c. used in writing. They are classified according to the order in which they are fixed in the wing. The first is a primary, now totally unused (at one time millions were annually imported), the second and third are the best and in general use. Crow quills are chiefly used for drawing, and turkey quills for engraving. The goodness of quills is judged partly by the size and thickness of the barrels, in the unmanufactured state by the weight: hence the denomination of quills of 14, 15 &c. 'toths per mille, and

mille consisting of 1,000 quills. The old duty on goose quills of 2s. 6d. per 1,000, after being reduced to 6d. in 1842, was wholly repealed in 1844.

In 1867, 14,619,200 goose, and 45,500 swan, quills were imported, valued at 15,304l., and of these 2,970,000 goose quills were re-exported.

Quills are principally imported from Riga, St. Petersburg, and Hamburg. The best are from Riga; their strength and durability render them preferable to any others from the Baltic ports. Those imported by the Hudson's Bay Company and sold at their sales are for strength superior to all others.

We subjoin an account of the prices of the various descriptions of unmanufactured quills in the London markets in August 1868:—

	£	s.	d.	£	s.	d.
Undressed goose quills, imported from the Baltic and assorted into laths	0	1	6	3	0	0
Swan quills, imported from the Baltic and assorted into laths	0	3	0	1	2	0
Goose quills, mixed, imported by the Hudson's Bay Company and sold at their annual sale	0	8	6	5	0	0
Mixed swan quills, by the same	3	0	0	7	0	0
Irish goose quills, mixed	0	0	6	0	1	0
Turkey quills, mixed	0	4	0	0	7	0
English crow "	"	"	0	7	0	"
English duck "	0	2	6	0	4	0

[PENS.]

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RAGS (Dutch, lompén, wolden; Fr. chiffes, chiffons, drapaux, drilles; Ger. lumpen; Ital. stracci; Russ. trepje; Span. trapos, harapos). Strips or fragments of worn linen, woollen, or cotton cloth. Though commonly held in little estimation, rags are of great importance in the arts, being used for various purposes, but especially in the manufacture of paper, most of which is entirely prepared from them. As the mode in which British rags are collected must be well known to everyone, the following statements apply only to the trade in foreign rags.

**Woollen Rags.**—Woollen rags are imported in considerable quantities from the continent of Europe, and from Sicily. They are chiefly used for manure, especially in the culture of hops; but rags of loose texture, and not too much worn or decayed, are unravelled and mixed up with fresh wool in the making of shoddy; a practice more favourable to the cheapness than to the strength and durability of the fabrics into which this old wool is introduced. Woollen rags are also used for making locks or stuffing for beds &c.; this process is performed chiefly by the aid of the same kind of engines that prepare pulp for paper; these wash the rags thoroughly, at the same time that they grind and tear them out into separate threads and fibres. The chief importation of woollen rags is from Hamburg and Bremen; and there are some got from Rostock, but the quantity is trifling. The price ranges from 3l. 10s. to 4l. per ton for such as are used for manure; and from 14l. 12s. to 26l. for woollen rags.

**Linen Rags** are principally imported from Russia, Hamburg, France, Russia, and Austria. The imports amounted in 1867 to 13,509 tons, worth, at an average, from 21l. to 22l. 4s. per ton, freight included. Exclusive of the very large quantity collected at home, all the rags imported were, until very recently, employed in the manufacture of paper; but the Americans, who have for some years been large exporters from the Mediterranean and Hamburg, occasionally come into the London market, and purchase large quantities. The duty on rags was abolished in 1845.

The imported rags are different in appearance from the English; but, being almost exclusively linen, they are stronger, and bear a price proportioned to the apparent difference in quality: a disproportion has been materially augmented by the introduction of the process of boiling rags in ley, and afterwards bleaching them with chlorine, has rendered foreign rags fit for making fine paper, and indeed, in some respects,

preferable for that purpose, by their affording greater strength of texture combined with equal whiteness of colour.

There is considerable variety in the appearance of rags from different ports; but, in general, those from the north of Europe are darker and stronger than those from the Mediterranean ports. The latter are chiefly the remains of outer garments, and have become whitened by exposure to the sun and air; but since the improvements in bleaching, this does not enhance their value in the British market.

Considerable quantities of rags are imported from Turkey, Egypt, India, Australia, and Japan, generally consisting of cotton and linen mixed. The Japan rags are mostly strong blue cotton prints, very serviceable for paper-making. (Dr. Bristowe's *Reports on Enquiries whether the Rag Trade is of Influence in Spreading Infectious Disease.*)

It is a remarkable circumstance, that though the increase in the manufacture of paper within the last 50 years is more than fourfold, the price of fine rags has fallen from 95s. to 23s. per cwt. in consequence of the extensive use made of esparto (Spanish grass), straw, wood, and other fibrous products in the manufacture of ordinary paper. [PAPER.]

Freight.

Paid from France, about 50s. per ton.  
Trieste and Mediterranean, 50s. per ton.  
Baltic, 50s. per ton.

RAILROAD, TRAM or WAGGON ROAD.

A species of road having tracks or ways formed of iron, stone, or other solid material, on which the wheels of the carriages passing along it run. The object in constructing such roads is, by diminishing the friction, to make a less amount of power adequate either to impel a carriage with a greater velocity, or to urge forward a greater load. For conveying passengers along railways the locomotive engine is now the power universally used.

**Construction of Railroads.**—The friction on a perfectly level railroad, properly constructed, is estimated to amount to from  $\frac{1}{10}$  to  $\frac{1}{4}$  only of the friction on an ordinary level road; so that, supposing the same force to be applied in both cases, it would move a weight from 10 to 7 times as great on the former as on the latter. But if there be a very moderate ascent, such as 1 foot in 50, which in an ordinary road would hardly be perceived, a great increase of power on the railroad is required to overcome the resistance that is thus occasioned. The reason is, that the ordinary load

ginger, orange, lemon, gooseberry,  
1 quart wine (3 quarts and 10 pints)  
etc. per gal. and 25 per cent. of  
1, 15 p.c. ad val.

Quebec.

Foot of draughts of water		
From Nov. 15 to Nov. 15	From Nov. 15 to March 1	From March 1 to May 1
25s. 6d.	28s. 6d.	30s. 6d.
of this sum	of this sum	of this sum
"	"	"
"	"	"
30s. 6d.	33s. 6d.	35s. 6d.

where specially agreed upon and this measure is about 1 chesler bushel. The English when specially agreed for, all measures of lands granted, request, and all measures of request is made to the English foot, for measure of lands request, and wherever specially request, and the standard English yard for lbs. or stiffs sold by the yard length. The English ell, which is 69 in.

situated on the south side of the same name, in the St. Lawrence, above Quebec, in lat. 45° 21' N. Population, in 1861, 91,000, considerably greater than that of other town in British America, not large, but it is safe and facilities for navigation afforded on which it is situated being of 600 tons burden may ascend difficulty. The North American principal centres in Montreal, which principal share of the commerce and the United States. It is than Quebec, or than any city in of Canada. The imports into 186-7 were valued at 28,130,200 exports at 8,104,622 dollars.

BRISBANE; COLONIAL EXPORTS; TAFFIES, COLONIAL BARK. The bark of a species used in many parts of India used in dyeing yellow colors

YER. [MERCURY.]

er. plumes à écrire; Ger. poste Ital. penna da scrivere; Russ. афионы para escribir). The feather of the wings of geese, ostriches, crows &c. used in writing. The according to the order in which in the wing. The first is a pinna used (at one time millions were used), the second and third are for general use. Crow quills are cheap, and turkey quills for engraving, and quills is judged partly by the smoothness of the barrels, in the quantity by the weight; hence the denominated of 14, 15 &c. tobs per mille, and

on a level railroad is about seven times as great as on a common turnpike road; so that when the force of gravity is brought into operation by an ascending plane, its opposing power, being proportioned to the load, is 7 times as great as on a common road. Hence the vast importance of having railroads either level or as nearly so as possible.

It is also of great importance that railroads should be straight and level, or, at least, free from any abrupt curves or acclivities. Carriages being kept on the road by flanges on the wheels, it is obvious that where the curves are quick, the friction on the sides of the rails, and consequent retardation, must be very great. In the Manchester and Liverpool Railroad, the curves form segments of a circle which, if extended, would embrace a circumference of 15 miles.

Iron railroads, the kind now generally used, are of two descriptions. The flat rail, or tram road, consists of cast-iron plates about 3 feet long, 4 inches broad, and  $\frac{1}{2}$  inch or 1 inch thick, with a flange, or turned up edge, on the inside, to guide the wheels of the carriage. The plates rest at each end on sleepers of stone or wood, sunk into the earth, and they are joined to each other so as to form a continuous horizontal pathway. They are, of course, double; and the distance between the opposite rails is from 3 to 4 $\frac{1}{2}$  feet, according to the breadth of the carriage or waggon to be employed. The edge rail, which is found to be superior to the tram rail, is made either of wrought or cast iron: if the latter be used, the rails are about 3 feet long, 3 or 4 inches broad, and from 1 to 2 inches thick, being joined at the ends by cast metal sockets attached to the sleepers. The upper edge of the rail is generally made with a convex surface, to which the wheel of the carriage is attached by a groove made somewhat wider. When wrought iron is used, which is in many respects preferable, the bars are made of a smaller size, of a wedge shape, and from 12 to 18 feet long; but they are supported by sleepers at the distance of every 3 feet. In the Liverpool Railroad the bars are 15 feet long, and weigh 55 lb. per lineal yard. The waggons in common use run upon 4 wheels of from 2 to 3 feet in diameter. Railroads are usually made double, one for going and one for returning; and when single they are made with sidings, where the carriages may pass each other. (See the able and original *Essays on Railroads*, by Charles Maclaren, Esq., in the *Scotsman* for 1824; see also Mr. Booth's pamphlet *On the Liverpool and Manchester Railroad*; the articles on Railways in the *Encyc. Britannica*, the *Penny Cyclopaedia*; Brande and Cox's *Dictionary of Science*; &c.)

*Speed of Carriages on Railroads &c.*—The effect of railroads in diminishing friction is familiar to every one; and they have long been used in various places of this and other countries, particularly in the vicinity of mines, for facilitating the transport of heavy loads. But it is only since the application of locomotive engines as a moving power that they began powerfully to attract the public attention, and that their value has been fully appreciated. These engines were first brought into use on the Darlington and Stockton Railroad, opened on December 27, 1825; but it was not till the opening of the railway between Manchester and Liverpool that the vast importance of this novel means of intercourse was fully perceived. This splendid work, though now far surpassed in magnitude by other railroads, cost nearly a million sterling. It has the advantage of being nearly level; for, with the exception of a short distance at Rainhill, where it

is inclined at the rate of 1 foot in 96, there is no greater inclination than in the ratio of 1 foot in 880. The length of the railway is about 31 miles, and it was usual, from its opening, to perform this journey in handsome carriages attached to the locomotive engines, in  $1\frac{1}{2}$  hour, or less. So far, indeed, as respects the facility of passing from the one to the other, this railway has brought Manchester and Liverpool as near to each other as the western part of London is to the eastern part.

The opening of this railway having more than verified the most sanguine anticipations as to the success of such undertakings, and gone far, in fact, to strike time and space out of the calculations of the traveller, gave an unprecedented stimulus to similar undertakings in all parts of the country; and, in no long period, there were hardly any two considerable places in Great Britain, how distant soever, which it was not proposed to connect by railways. An immense number of companies were formed, and a very large amount of capital subscribed, for carrying on these undertakings; and though, as was to be anticipated, not a few of them appear to have been commenced without due consideration, and hold out very indifferent prospects to the subscribers, there can be no doubt that the country has profited very greatly by the extraordinary facilities of intercourse which have been afforded by the railway system, which is now in action in all parts of the civilised world.

Among the greater lines of railway now (1865) existing in this country, may be specified that from London to Manchester, Liverpool, and Glasgow; which, taking it as it at present stands, is one of the greatest public works ever executed in any country, and is a striking result of the wealth, science, and civilisation of modern times. The Great Western Railway from London to Bath, Bristol, and Exeter is also a magnificent work, and is in some respects superior to any other in the kingdom. Among the other leading railways may be specified the Direct or Great Northern line from London to Edinburgh; the lines from London to Southampton, Brighton, and Dover; the line from Chester to Holyhead, with the tubular bridge over the Menai Straits; the Great Eastern and the railways from Edinburgh to Glasgow and Ayr, and from Edinburgh to Aberdeen and Inverness.

The whole of these, except the Great Western, are on what is called the narrow gauge, having the rails 4 feet 8 $\frac{1}{2}$  inches asunder. The Great Western now (1865) uses this as well as the broad gauge of 7 feet.

*Railway Legislation.*—But, notwithstanding the vast advantages which the opening of so many new and improved lines of communication has conferred on the country, we cannot help thinking that these advantages might have been made much greater, and that, in the instance of railway legislation, the public interests have been overlooked to a degree that is not very excusable. It is, we admit, no easy matter to decide how the interference of Government should be carried in matters of this sort; but, at all events, it is much is obvious, that when Parliament is called upon to pass an Act authorising private parties to execute a railway or other public work, it is bound to provide, in as far as practicable, that the public interests shall not be prejudiced by the Act, and that it should be framed so that it should not, either when passed or at any future period, stand in the way of the public advantage. We believe, however, that a little consideration will serve to satisfy most persons that this has

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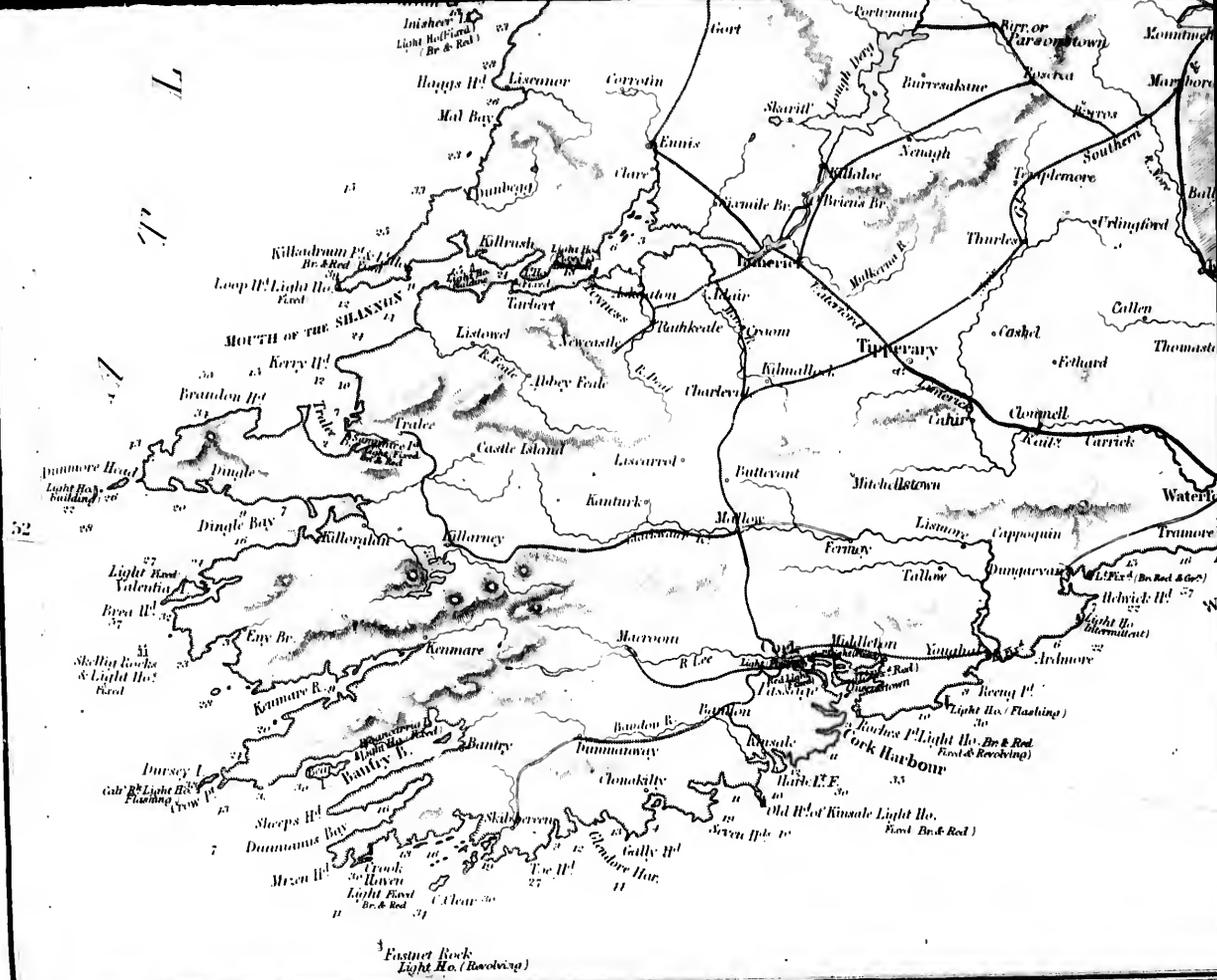
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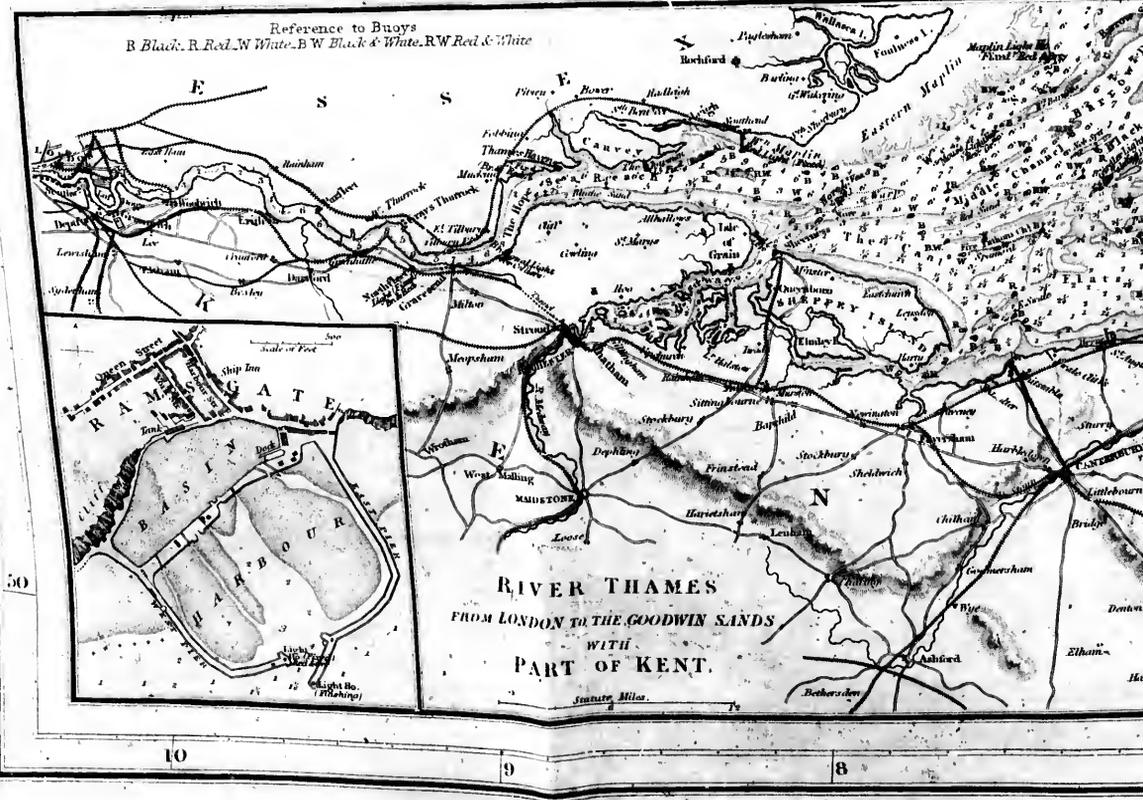






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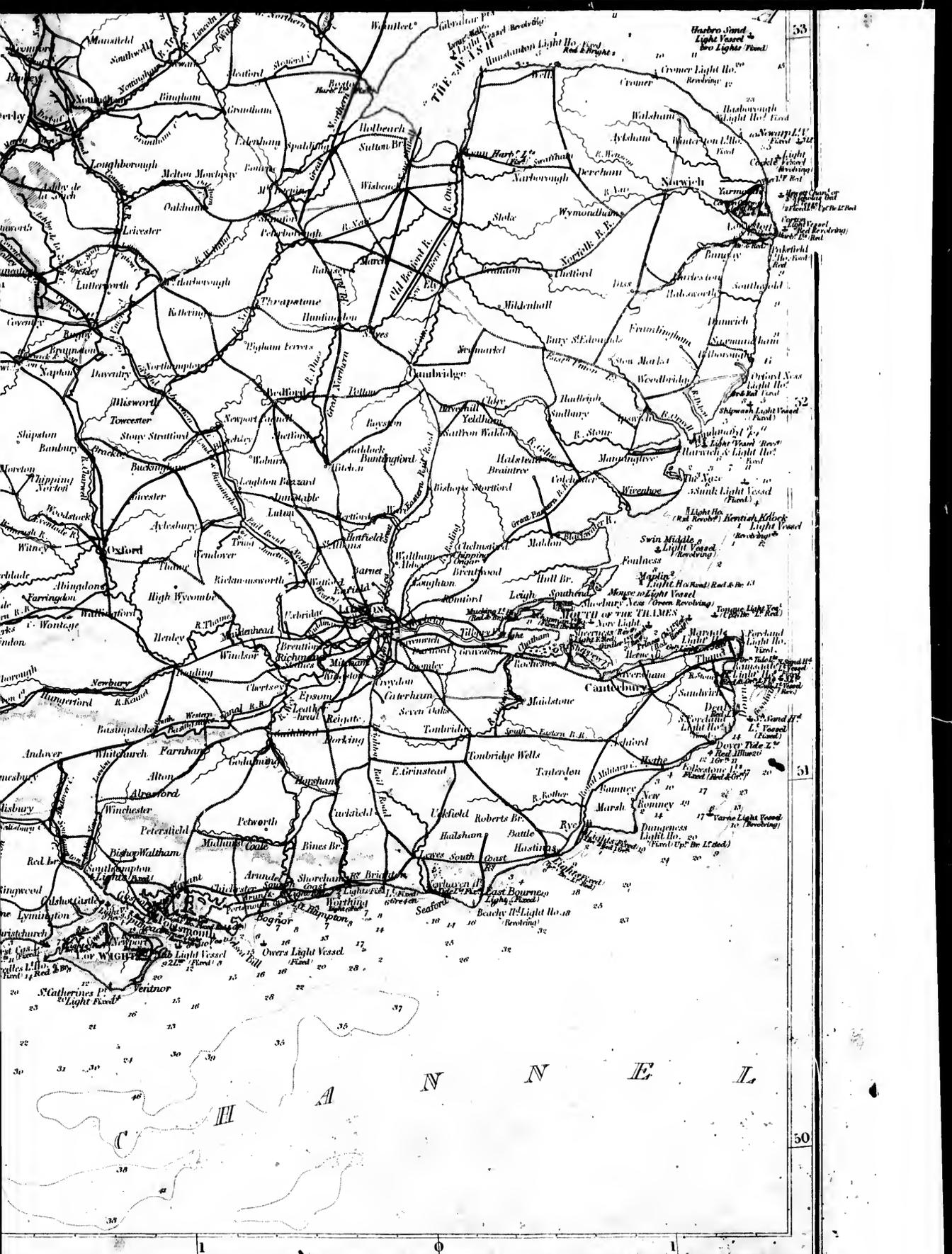
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portant principle has, in the case of railways, and indeed of most descriptions of public works, been, in this country, all but wholly neglected.

The practice is for a railway Act to authorise the company in whose favour it is granted to appropriate a certain line of road, and to charge certain specified rates of toll on the passengers and goods to be conveyed by such road, not for 15, 20, or even 50 years, but *in all time to come*. Now, as it appears to us, this is a singularly injudicious arrangement on the part of the public. There is, between any two or more places that may be named, a certain railway line that is preferable to any other which can be pointed out. The probability is that this line will in all cases be the first to be selected; and the Act that gives it up to a company confers on the latter a virtual and substantial monopoly. The rates of charge imposed by the Act are calculated to remunerate the projectors, supposing everything to remain on its present footing; but the probability is that manufactures and population, in the places communicating by most lines of railway, will continue to increase in time to come as they have done in time past; and it is all but certain that great improvements will be effected in the construction of roads and engines. Whatever, therefore, may be the chances of success at the outset, the fair presumption is that most great lines of road will in the end be exceedingly productive. But, if we continue to abide by the present system, the public will be effectually excluded from all participation in these prospective advantages; and a few private associations will be able to make enormous profits by monopolising improvements, and keeping up the expense of transit at an exorbitantly high level. It is idle to trust to competition to remedy a grievance of this sort. There may only be one practicable line of railway between two places; and if so, no other can, of course, come into competition with it. But though this were not the case, a company in possession of the best line might, if an opposition were threatened, reduce its rates till the opposition was defeated, and then raise them to the old level. Supposing, however, that a second road is made, its managers would most likely come to an understanding with the first, so that the tolls, instead of being reduced by the instrumentality of the new road, may be raised; and were it otherwise, the question is, was the second road really necessary? Could not the first road have sufficed for the whole traffic to be carried on by both lines? If this be the case, it is clear the second road has been merely resorted to as a device for reducing the tolls charged on the first; as a means, in fact, for doing that, by an outlay of some hundreds of thousands, or, it may be, millions of pounds, which might have been quite as effectually done by limiting the duration of the Act authorising the first road, or by inserting a clause in it providing for the periodical revision of the tolls.

We are clear, indeed, that no Act authorising a private association to construct a railway or canal, to lay down gas pipes, to convey water into a town, or for any such purpose, should ever be passed without reserving to Parliament power periodically to revise the tolls granted under it. Such revision would secure to the public a participation in future improvements, not in the contemplation of the parties when the project was entered upon; and it would do this without in any degree clogging the spirit of enterprise. Undertakings of this sort are not engaged in because there is a vague expectation, or even a considerable probability,

of their yielding 20 or 30 per cent. profit some 30 or 40 years hence, but because it is believed that they will immediately, or in the course of a few years, yield a reasonable profit; that is, a return of 8, 10, or 12 per cent. The chances of realising more than this at the distance of 20 or 25 years are rarely taken into account, and are worth very little indeed. This, however, is all that would be taken away by the revision in question; and while a reservation of this sort would not stand in the way of any legitimate enterprise, the history of several of our existing companies shows that it may come to be of essential service to the public. Had this principle been formerly acted upon in the formation of companies for the execution of public works, the charges on some of the principal lines of canal might, long since, have been reduced to less than half their present amount. The water brought into the city of London by the New River Company might have been sold for less than one-fourth part what it now costs; and so in a vast number of cases.

It has been objected to the proposal now made, that the reserving to the public of power to revise the charges on railways, and other public works, would be of no use, inasmuch as the parties would contrive so to swell their charges as to make their revenue appear not more than a fair return on their outlay. And such, most probably, would be the case, were the statements of the parties to be taken without examination. But who ever proposed that this should be done? If charges are to be revised, Government must be authorised to appoint parties to enquire carefully into the management of all concerns with which it is proposed to interfere: and it would be the duty of such parties to proscribe every useless expense, and to ascertain how the railway could be carried on, supposing it were wrought under a system of open competition, and at the least expense, and to frame their report accordingly.

And this principle, we are glad to say, was sanctioned in 1844 by the 7 & 8 Vict. c. 85, which gives to Government the option of purchasing, on certain conditions, at the expiration of 21 years from their construction, all railways formed subsequently to the passing of the Act. This statute also provides for the publication of railway accounts, for the running of cheap trains &c.

*Regulations for the Prevention of Accidents.*—Considering the immense extent of railways in this country, and the vast number of passengers conveyed by them, the fewness of accidents is most remarkable. Indeed their greater security appears to be nowise inferior to their greater speed. Still, however, this is a matter in which as little as possible should be left to accident or individual discretion; and considering the number of persons frequently conveyed by a single train, and the tremendous consequences that might ensue from a collision or other chance, all that it is possible to do should be done with a view to secure the safety of travellers by railways. And, should an accident occur, either through the neglect of regulations for their guidance or from not complying with their provisions, the offending parties should be subjected to penalties of a severe and stringent description. A Government which neglects enforcing precautions of this sort neglects one of its most important functions, and allows the lives of those whom it is bound to protect to be endangered or sacrificed by the cupidity, ignorance, or carelessness of the managers and servants (how incompetent soever they may be) of every railway association in the kingdom.

*Railway Mania of 1845.*—The summer and autumn of 1845 and the earlier portion of 1846 witnessed the rise and development of a most gigantic railway speculation or mania. Various circumstances conspired to bring this about. The advantages which railways conferred on the country generally, and especially on the districts through which they passed, recommended them to the public patronage and support. Most branches of industry were also, in 1845, in a more than ordinarily prosperous condition; and large dividends (whether really derived from profits is questionable) being paid by some of the principal lines, their stock rapidly rose to a high price. These circumstances inflamed the cupidity of the public, who began to imagine that speculation in railway shares afforded the shortest and easiest means of acquiring wealth. Hence an extraordinary stimulus was given to all sorts of projects, which were multiplied with an almost inconceivable rapidity. Of these a few were well devised and judicious, and were patronised by gentlemen of wealth, respectability, and experience. But the great majority were of a totally opposite description, being got up by parties anxious only to profit by the credulity of the public, and founded on plans which could not be executed, or which, if executed, would be ruinous. And yet such was the disposition of the public to take *omne ignotum pro magifico*, that shares in these swindling devices—for such was their real character—were greedily bought up at high premiums, which, of course, went into the pockets of the members of Parliament, attorneys, and engineers, by whom the traps had been set and the hooks baited. It is difficult, indeed, to imagine any more disgraceful exhibition of fraud and quackery on the one part, and of folly and voracity on the other, than was displayed during the autumn of 1845 and the spring of 1846 by the manufacturers and buyers of railway shares. Some 700 or 800 new projects, requiring, it was stated, a capital of about as many hundred millions, were spawned during this gambling saturnalia; and of these it would be a high estimate to say there were 100 which held out any legitimate prospect of remunerating their projectors. The great majority of the others were never, indeed, intended to do more than to transfer the money of the unwary dupes who bought shares into the pockets of the crafty directors by whom they were issued; and thus far some of them answered the views of their projectors. Luckily, however, this was not the case with others; not a few of

those who dug the pit-falls having themselves fallen into them.

But despite the number of schemes that were abandoned, it is nevertheless true that in 1845 and 1846 no fewer than 347 Acts were carried through Parliament, authorising the construction of 7,654 miles of railway, at an estimated cost of 190,344,087*l.* sterling.

Under any circumstances, such gigantic, and generally ill-advised, undertakings must have involved the parties in vast loss. In this case the depressing influence of the heavy railway calls on the money market, having been increased by the failure of the potato crop of 1846, occasioned the greatest difficulty in obtaining pecuniary accommodation, and led to the crisis of 1847. In consequence many of the projects for which Acts had been obtained sunk into oblivion, while others have been very imperfectly carried out. An extraordinary fall has also taken place in the value of the stock even of the best lines. And this is not to be wondered at. The vast expenses which many companies have incurred in overcoming the opposition to their undertakings, and in the construction of their lines, occasioned an outlay which, if it were to be met at all, could only be met by enforcing the severest economy in the management of the lines. This, however, even when there is a desire to enforce it, is carried out with difficulty. And in the case of railways, the interests of the engineers and others concerned in their management are usually opposed to those of the companies; so that it would be idle to expect that the affairs of the latter should generally exhibit any considerable portion of the care, vigilance, and economy manifested in private undertakings.

The recklessness, too, with which the directors of the great or leading railways have engaged in subsidiary undertakings, or in the construction or purchase of branch lines many of which have been attended with heavy losses, has had a powerful influence in depressing the value of their property. For a while, too, all railway companies suffered more or less from the discredit and suspicion which, however undeservedly, have attached to railway boards. It was found that some leading directors, in whose sagacity and honesty the public reposed all but unlimited confidence had been, in fact, nothing but gigantic swindlers; their sole object (in which it is to be hoped they have been disappointed) having been to enrich themselves by defrauding and robbing their constituents and the public. And these disclosures

*Traffic on Railways.—Comparative Statement of the Traffic on the chief Railways in the United Kingdom in the 15 Years ending 1867.*

Years	Length of Lines open at the end of each Year	Total Capital Paid up (Shares, Loans &c.) at the end of each Year	Number of Passengers Conveyed (including Season Ticket Holders)		Total of Traffic Receipts		Total of Working Expenses	Net Receipts
			Total	Per mile	Total	Per mile		
			No.	£	£	£		
1853	7,680	273,324,514	102,286,660	13,318	18,033,879	2,316	Cannot be given precisely to 1851.	
1854	8,054	286,068,794	111,906,707	13,807	20,215,724	2,510	9,906,205	
1855	8,240	297,384,109	118,335,135	14,233	21,807,939	2,597	10,299,709	
1856	8,707	307,595,986	129,247,592	14,835	23,165,491	2,660	10,837,456	
1857	9,094	315,157,456	139,008,868	15,285	24,474,610	2,659	11,240,239	
1858	9,542	325,375,207	149,831,699	15,827	25,356,749	2,616	11,668,325	
1859	10,004	334,369,928	149,807,148	14,980	25,743,502	2,661	12,089,321	
1860	10,473	348,130,127	163,483,572	15,669	27,766,628	2,773	13,187,368	
1861	10,969	364,327,538	175,773,218	15,998	29,565,555	2,828	13,685,337	
1862	11,551	385,218,438	180,385,727	15,625	29,128,558	2,732	14,308,409	
1863	12,322	401,215,902	204,699,466	16,612	31,136,337	2,828	15,027,434	
1864	12,780	425,718,615	229,348,664	17,953	33,911,517	2,851	16,030,308	
1865	13,289	455,478,143	251,938,962	18,960	36,751,654	2,891	17,149,073	
1866	13,854	481,872,184*	274,403,895	19,774	38,164,554	2,754	18,111,673	
1867	14,217	502,262,887	297,688,115	20,584	39,479,999	2,771	18,814,024	

\* Several companies made no return for 1865 to the Board of Trade, but according to their last returns their total capital paid up on shares amounted to 1,036,459*l.*, which is not included in these figures.

Note.—The total capital includes subscriptions by some of the railway companies to other undertakings.  
† Exclusive of 26,553*l.*, the total traffic receipts of the Great and Vauhall, which company made no return of working expenditure for 1865, and of 111,903*l.*, the aggregate traffic receipts of two companies which made no return to the Board of Trade of their working expenditure for 1865, owing to their lines being worked by contract.

Account, showing the Extent in Miles of each of the chief Railways in the United Kingdom open on December 31, 1866, and the Extent of the Traffic and Receipts on each in that Year.

Name of Railway Company	Length of Dec. 31, 1866	Number of Passengers	Number of Trains run			Number of Miles travelled by Trains	Receipts		
			Passenger Trains	Goods Trains	Total		From Passengers	From Goods	Total
<b>ENGLAND.</b>									
British and Eastern	156	1,133,470	49,244	7,185	56,429	1,401,913	255,395	198,102	263,497
Great Eastern	135	919,260	11,393	15,749	27,142	696,817	51,815	51,008	102,823
Great Northern	438	7,379,151	93,761	41,082	134,843	8,621,777	810,557	1,170,532	2,001,089
Great Western	3,292	19,596,172	203,417	106,636	310,053	13,907,501	1,917,069	1,650,403	3,567,472
London and Yorkshira	431	93,496,670	974,010	167,653	1,141,663	439,663	8,122,256	1,414,196	2,308,968
London and North-Western	153	23,530,341	438,990	370,033	809,023	21,729,967	2,816,509	3,537,617	6,354,127
London and South-Western	608	11,479,180	917,401	51,509	968,910	5,411,518	1,090,063	435,779	1,525,842
London, Brighton, and South Coast	296	16,741,845	274,461	46,294	320,755	4,470,817	881,865	329,692	1,218,607
London, Chatham, and Dover	153	10,969,561	94,555	1,715	101,670	3,009,837	397,196	95,817	493,013
Manchester, Sheffield, and Lincolnshire	246	5,197,170	77,617	67,888	145,505	1,731,920	292,145	659,155	951,300
Midland	380	19,909,758	197,766	19,632	217,398	12,173,459	1,924,859	2,619,693	4,544,552
North Eastern	1218	13,630,020	227,110	325,259	552,369	15,778,355	1,079,338	4,639,011	5,718,349
North Staffordshire	450	2,548,530	48,511	13,376	61,887	1,400,755	107,571	225,613	333,184
South Devon	151	1,955,022	81,611	11,848	93,459	301,292	185,811	79,706	265,517
South Eastern	308	17,124,150	177,169	20,052	197,221	5,610,796	953,276	320,964	1,274,240
<b>SCOTLAND.</b>									
Caledonian	673	9,187,803	115,512	136,411	251,923	6,675,509	538,376	1,116,341	1,754,717
Glasgow and South-Western	254	2,907,928	40,283	7,305	47,588	2,354,722	189,010	381,765	670,775
Great North of Scotland	399	1,736,216	31,217	10,382	41,600	886,737	87,342	81,997	179,339
Highland	112	916,461	11,848	35,802	47,650	108,219	81,674	180,313	261,987
North British	785	6,196,291	158,117	181,839	339,956	6,148,949	561,185	813,517	1,374,702
<b>IRELAND.</b>									
Belmont and Northern Counties	151	1,280,324	18,016	2,461	20,477	572,558	71,411	59,773	131,184
Great Southern and Western	457	1,414,424	19,477	8,669	28,146	1,915,532	295,484	200,016	495,500
Irish North-Western	105	471,489	11,718	3,861	15,579	724,527	51,508	50,018	101,526
London and Great Western of Ireland	141	1,522,522	14,069	5,877	20,106	1,427,921	142,216	121,868	264,084
Midland Great Western of Ireland	181	1,217,156	13,997	5,654	19,651	618,628	84,014	69,423	153,437
Ulster	191	671,925	13,718	2,695	16,413	513,515	55,922	64,556	120,478

also showed that, if the boards of directors associated with the parties now referred to did not actively assist them in their fraudulent schemes, they, at all events, opposed no effectual obstacle to their development. Hence the just discredit that has attached to most railway companies. Some of them put forward detailed statements of their affairs; but these, how accurate soever, obtained very little confidence. This ignorance was alike prejudicial to the public interests, and to those of all really well managed companies, and was at once an incentive to and a

cloak for all sorts of nefarious practices. This state of things is now, however, considerably improved. But a vast deal still remains to be done before the constitution of railway companies and the management of railways be placed on a satisfactory footing.

At present (March 1869) the shares of by far the greater number of railways are at a heavy discount; and at an average, the dividends derived from them are not supposed to amount to 3 per cent.

Account, showing the Number and Description of Persons Killed and Injured on all the Railways open for Public Traffic in the United Kingdom during the Years 1866 and 1867.

Description of Persons	1866		1867	
	Killed	Injured	Killed	Injured
Passengers killed or injured from causes beyond their own control	15	510	19	689
Passengers killed or injured owing to their own misconduct or want of caution	16	7	17	8
Total number of passengers killed or injured	31	517	36	697
Servants of companies or of contractors killed or injured from causes beyond their own control	17	70	15	62
Servants of companies or of contractors killed or injured owing to their own misconduct or want of caution	83	11	90	28
Other persons crossing at level-crossings	90	3	10	2
Travellers	57	5	51	5
Suicides	5	..	6	0
Miscellaneous	..	..	1	1
Total	216	651	409	795
Total number of passengers conveyed	271,033,825		287,807,903	

The number of miles of railway open in the United Kingdom on December 31, 1867, amounted to 9,116; the number open on December 31, 1866, was 13,851; and on December 31, 1867, 14,217.

The total capital (in shares and loans) raised and paid up to December 31, 1867, amounted to 502,262,287.

A duty is paid to Government, by railway companies, of 5 per cent. on all sums received by them for the conveyance of passengers at fares above 1d. per mile; the receipts derived from passengers by cheap trains, or from fares not exceeding 1d. per mile, being exempted from the duty. In the year ended March 31, 1868, the railway tax produced 485,136l. This, however, is insufficient to indemnify the companies for

the expenses of conveying the mails; the charge for this service having amounted, in 1867, to no less than 559,575l. When the Post-office and a railway company differ as to the sum to be paid to the latter for conveying the mail, the matter is referred to arbitration.

Continental Railways.—The railway system has made great progress on the Continent and in the United States. Paris, Rouen, and Havre have long been united by railway. Lines have also been constructed from Paris to Orleans, Tours and Bordeaux, and from Paris to Lyons,

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chief Railways in the United

Receipts per mile	Total of Working Expenses	Net Receipts
2.58	11,800,215	11,800,215
2.519	9,806,205	11,800,215
2.597	10,499,709	12,399,924
2.650	10,837,456	12,399,924
2.659	11,810,239	12,399,924
2.618	11,668,225	12,399,924
2.575	(Not ascertained)	
2.601	13,187,268	14,212,284
2.618	13,841,537	14,212,284
2.582	14,908,409	14,212,284
2.548	15,047,254	14,212,284
2.651	16,000,208	14,212,284
2.691	17,159,071	14,212,284
2.754	18,411,673	14,212,284
2.771	19,418,052	14,212,284

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and thence to Marseilles. This last has been of peculiar importance to this country, from its influence in facilitating the correspondence with the East. A large amount of English capital has been invested in the European railways, and many of them have been constructed by English engineers.

Belgium, as everybody knows, has numerous railways; and they have been extended in Germany, Italy, Russia, Norway and Sweden, and even Spain, to a degree that one could hardly have anticipated. At present, some very extensive railways are being constructed in Russia.

The railways open in India extended to 3,452 miles in 1866, and most of our colonies have adopted them, more or less.

The railways of the United States are exceedingly numerous, and some of them are of great length. But, speaking generally, they are not so substantially executed, and have not been nearly so expensive, as those of this country. Many of them consist only of a single pair of rails, with double pairs at certain intervals to admit of the trains passing.

The following statement, which we have compiled from the most authentic sources accessible, shows the length of railroad constructed and in operation at the end of 1866 in each country into which they have been introduced, and their relation to the extent and population of the countries respectively. We believe it to be as nearly accurate as it is possible to make such a summary.

Countries	Miles of Railroad	Area in square miles		Population	
		Absolute	To Mile of Railroad	Absolute	To Mile of Railroad
<b>NORTH AMERICA.</b>					
Canada	2,148.5	337,522	168	3,091,440	1,439
New Brunswick	198.4	27,704	140	295,084	1,489
Nova Scotia	98.8	18,746	902	309,741	3,071
United States	36,896.3	3,001,092	81	36,896,300	1,000
Mexico	78.3	772,672	9,666	2,259,080	108,480
<b>WEST INDIES.</b>					
Cuba	398.5	47,978	119	1,449,284	3,639
Jamaica	13.8	6,250	453	441,261	128
<b>SOUTH AMERICA.</b>					
Venezuela	38.0	426,700	13,331	1,565,000	46,806
New Granada	47.5	521,900	10,987	3,721,475	69,894
British Guiana	39.9	96,500	1,408	155,925	3,943
Brazil	433.3	2,973,400	68,599	10,045,000	23,008
Paraguay	46.2	86,200	1,866	1,337,131	28,935
Peru	53.3	498,700	9,018	5,500,000	45,000
Chili	336.7	219,000	748	1,714,319	3,091
Argentine Republic	231.0	1,126,200	4,976	1,459,355	6,319
<b>EUROPE.</b>					
Great Britain and Ireland	13,286.0	122,550	9	29,070,536	2,149
France	8,982.5	213,299	21	37,472,132	4,172
Spain	3,116.8	289,589	61	16,531,267	5,144
Portugal	438.3	83,250	81	3,987,861	9,296
Switzerland	884.2	15,270	18	2,510,194	3,167
Italy	3,213.2	107,740	34	24,469,828	7,533
Austria	3,830.9	240,289	62	32,613,002	8,509
South Germany (elsewhere)	2,840.1	44,340	17	8,385,460	3,355
Prussia	5,791.8	135,840	23	25,577,989	4,068
North Germany (elsewhere)	1,029.5	24,677	33	6,670,594	5,198
Belgium	1,292.1	11,410	7	4,910,570	3,099
Holland	700.7	15,600	19	3,735,682	5,336
Denmark	225.1	11,740	69	1,629,023	7,261
Sweden	1,023.4	179,099	166	4,111,441	3,451
Norway	43.5	123,428	2,833	1,701,478	3,911
Russia	2,773.8	1,263,300	364	6,568,181	23,724
Turkey in Europe	170.6	403,380	1,189	15,700,000	91,713
<b>ASIA.</b>					
Turkey in Asia	146.9	668,000	4,608	16,000,000	111,266
British India	3,379.1	1,465,200	43	180,500,000	35,118
Java	101.4	51,500	608	13,217,000	13,711
Ceylon	36.9	24,660	616	2,312,098	63,470
<b>AFRICA.</b>					
Egypt	281.2	659,000	2,315	7,465,000	26,650
Algeria	27.7	83,500	303	3,040,000	108,500
Cape Colony	84.5	101,350	159	267,100	4,140
Natal	20	11,400	7,500	156,200	76,100
<b>AUSTRALASIA.</b>					
Victoria	331.5	86,910	222	574,331	1,770
New South Wales	146.5	323,437	2,430	378,935	2,613
South Australia	73.5	283,528	5,215	140,416	1,860
Queensland	41.2	678,000	15,308	1,200,000	14,148
New Zealand (Canterbury)	16.5	106,259	6,140	175,357	10,667

The following is a repetition of the above table, so far as length of railroad is concerned; but as relates to area and population, substituting the total of each grand division for those of the countries named above.

Divisions	Miles of Railroad	Area in square miles		Population	
		Absolute	To Mile of Railroad	Absolute	To Mile of Railroad
North America	39,114.1	7,600,000	192.8	52,000,000	1,309.3
West Indies	410.3	100,000	213.7	3,500,000	8,529.3
South America	1,011.9	7,100,000	6,114.4	22,500,000	21,991.1
<b>Total America</b>	<b>40,536.3</b>	<b>14,800,000</b>	<b>367.2</b>	<b>78,000,000</b>	<b>13,829.7</b>
Europe	30,117.5	5,600,000	71.9	225,000,000	3,688.5
Asia	3,660.3	17,400,000	4,753.7	780,000,000	213,973.3
Africa	373.4	11,700,000	31,166.7	200,000,000	532,767.1
Australasia	605.7	5,200,000	5,263.7	1,600,000	2,335.3
<b>Total of world</b>	<b>98,727</b>	<b>50,700,000</b>	<b>530.2</b>	<b>1,314,600,000</b>	<b>13,803.1</b>

RAILROAD, TRAM OR WAGGON ROAD

Account of the Capital, Amount per Share, Sums paid up, of the Principal Railways of the United Kingdom in 1866, and the Selling Price per Share in 1868.

Name of Railway Company	Total Authorized Capital by Shares and Loans	Share	Amount Paid	Average Selling Price, August 1868	Average Dividend on Ordinary Capital
<b>ENGLAND AND WALES.</b>					
Bristol and Exeter	4,891,500	100	100	4	4 1/2
Cambridge	4,345,900	100	100	25	..
Great Eastern	29,000,000	100	100	37 1/2	..
Great Northern	24,000,000	100	100	100	..
Great Western	46,510,000	100	100	48 1/2	..
Lancashire and Yorkshire	35,569,511	100	100	129 1/2	6 1/2
London and North-Western	35,015,000	100	100	116	6 1/2
London and South-Western	17,856,107	100	100	60	4 1/2
London, Brighton, and South Coast	18,357,500	100	100	59 1/2	4
London and Southampton	16,487,669	100	100	42	4 1/2
London, Chatham, and Dover	1,070,000	100	100	100	..
Manchester, Sheffield, and Lincolnshire	35,000,000	100	100	100 1/2	6 1/2
Midland	45,674,580	100	100	102 1/2	4
North-Eastern	7,087,000	100	100	58	4 1/2
North Staffordshire	3,351,388	100	100	46	4 1/2
South-Eastern	18,929,975	100	100	70	4 1/2
<b>SCOTLAND.</b>					
Caledonian	31,799,372	100	100	75 1/2	6 1-10
Glasgow and South-Western	7,375,100	100	100	90	6 1/2
Great South of Scotland	3,068,000	100	100	100	..
Highland	3,020,000	..	..	..	..
North British	31,669,519	100	100	55	..
<b>IRELAND.</b>					
Belfast and Northern Counties	1,235,835	50	50	..	4 1/2
Great Southern and Western	6,340,000	100	100	97 1/2	4 1/2
Irish North-Western	1,000,000	50	50	..	..
Irish South-Western and Inland	3,452,400	100	100	61 1/2	..
Ulster and Great Western of Ireland	1,510,000	50	50	..	..
Dublin	1,309,100	50	50	10	..
Waterford and Limerick	1,309,100	50	50	..	..

United States are exceeded... generally, they are not so... and have not been nearly... of this country. Many... single pair of rails, with... intervals to admit of the

ment, which we have... authentic sources accessible... railroad constructed and in... of 1866 in each country into... been introduced, and their... and population of the coun... We believe it to be as nearly... ble to make such a summary.

Population	
Absolute	To Mile of Railroad
3,091,440	1,159
29,098	1,489
308,741	3,371
36,898,360	1,000
8,259,000	105,180
1,449,966	3,639
441,261	194
1,565,000	48,906
2,107,473	69,901
35,096	5,843
10,045,000	251,108
4,500,000	108,995
8,000,000	15,800
1,714,519	5,091
1,499,555	6,517
99,070,936	9,180
37,478,732	4,172
18,031,467	5,144
5,997,861	9,496
2,610,484	3,161
84,869,638	7,655
39,273,002	8,209
8,523,460	5,355
43,371,039	4,668
5,670,594	5,198
4,940,370	3,536
3,735,082	2,959
1,608,095	3,451
4,111,441	4,001
1,701,478	5,011
65,865,181	25,794
15,700,000	91,715
18,000,000	111,966
180,000,000	55,118
15,217,000	13,731
4,314,098	65,470
7,485,000	26,650
5,000,000	108,500
267,100	78,100
156,800	..
574,331	1,732
378,355	2,615
140,416	1,860
59,719	1,419
175,357	10,617

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Population	
Absolute	To Mile of Railroad
55,000,000	1,509 1/2
7,500,000	8,599 1/2
25,500,000	21,991 1/2
70,000,000	4,410
285,000,000	215,997 1/2
780,000,000	533,769 1/2
1,000,000,000	2,634 1/2
1,500,000,000	15,935 1/2

RAISINS (Fr. raisins secs, on passés; Rus. raisin; Ital. uvo passse; Port. passas; Russ. issun; Span. pasas). The dried fruit of the vine. They are produced from various species of vines; deriving their names partly from the place where they grow, as Smyrnas, Valencins &c.; and partly from the species of grape used, as muscatels, blooms, sultanas &c. Their quality appears, however, to depend more on the method of their cure than on anything else. The finest raisins are cured in two methods: either by cutting the stalk of the bunches half through, when the grapes are nearly ripe, and leaving them suspended on the vine till the watery part be evaporated, and the sun dries and candies them; or by gathering the grapes when they are fully ripe, and dipping them in a ley made of the ashes of the burnt tendrils; after which they are exposed to the sun to dry. Those cured in the first way are most esteemed, and are denominated raisins of the sun. The inferior sorts are very often dried in ovens, (Thomson's *Dispensatory*; Brande and Cox's *Dictionary*.)

Raisins are imported in casks, barrels, boxes, and jars. The finest come in jars and 1/2 boxes weighing about 25 lb. Some of the inferior sorts are brought to us in mats.

Malaga raisins are in the highest estimation. The muscatels from Malaga fetch fully a third more than any other description of raisins; and the Smyrnas black is the cheapest variety. The price depends much on the season, and the period of the year. [MALAGA.]

The duty on raisins, which formerly amounted to 20s. per cwt. on the inferior sorts, and to 42s. 6d. on the finest, was reduced in 1834 to 15s. per cwt. in all classes. We took occasion in a former edition of this work to remark on this measure as follows: 'This reduction has occasioned a very considerable increase of consumption; but the truth is that the duty is still quite exorbitant, being no less than 100 per cent. ad valorem (and sometimes more) on the price of most descriptions. Raisins are a luxury that can at present be enjoyed only by the richer classes. But were the duty reduced as it should be to 10s. per cwt., we are well assured that they would be very largely consumed by the middle and even lower classes. Nothing

but the magnitude of the duties prevents them from becoming of very considerable importance as an article of food; and it is really quite monstrous that the public should be debared from the use of a desirable article on the pretence of its being necessary, in order to keep up the revenue, that it should be loaded with an oppressive duty. We admit the importance of keeping up the revenue; but so far from exorbitant duties having such an effect, they contribute more than anything else to its reduction. They invariably limit the consumption of the articles on which they are laid to the richest classes, or cause them to be clandestinely supplied, or force recourse to other articles; reducing the revenue as well as the consumption far below the level to which it would attain were the duties moderate. But it is needless to reason speculatively on such a point. Have we not seen the revenue derived from spirits increased by reducing the duty from 5s. 6d. per gallon to 2s. 6d.? and the revenue derived from coffee quadrupled by reducing the duty from 1s. 7d. per lb. to 6d.? And, as most qualities of raisins are but little less overtaxed, have we not every reason to expect that a like effect would be produced by an adequate reduction of the duties by which they are burdened?'

This view of the matter was taken by Mr. Gladstone, who, in 1853, reduced the duty on raisins from 15s. 9d. (15s. + 5 per cent.) to 10s. per cwt.; and in 1860 to 7s., the present rate.

Exclusive of raisins, a considerable quantity of undried grapes is annually imported from Spain and Portugal in jars packed in sawdust. The duty on these grapes, which produced, in 1857, 78l., is 2d. per bushel.

Since 1862 the imports of raisins have been as follows, viz.:—1862, 278,710 cwt.; 1863, 421,796 cwt.; 1864, 327,051 cwt.; 1865, 368,106 cwt.; 1866, 359,216 cwt.; 1867, 392,222 cwt.

Of the imports in 1867, no fewer than 290,163 cwt. were brought from Spain, 93,949 cwt. from Turkey. Computed value of the imports 563,709l., varying from 1l. 2s. 4d. to 1l. 8s. 10d. per cwt. Entries for consumption 312,543 cwt.

RANGOON. A commercial port and town of British Burmah, about 25 miles from the sea, on the left bank of the eastern branch of the river Irrawaddy, in lat. 16° 46' N., long. 96° 17' E.

The town and suburbs extend lengthwise about 1 mile along the bank of the river, running about  $\frac{1}{4}$  of a mile inland; but the houses are very unequally scattered over this area. The town, with the rest of Pegu, was taken by the British from the Burman empire in 1852. It appears, from a census taken a short time previously to the commencement of the war in 1824, that the population was 18,000; it is now (1863) estimated at 25,000.

Rangoon is the chief port of foreign trade in British Burmah. This province, constituted in 1862, extends from  $20^{\circ} 50'$  N. to  $10^{\circ} 50'$  S. lat., containing an area of about 90,000 square miles, with a population of 2,330,453. The situation of Rangoon is extremely convenient for commercial purposes. Though distant from the sea, it is easy of access, and commands the navigation of the Irrawaddy, which extends to Ava, a distance of nearly 500 miles. Rangoon is accessible to ships of even 1,200 tons burden; and the navigation, while somewhat intricate, being safe and practicable with the assistance of the ordinary native pilots. A lighthouse has been erected on Algwada reef, near the centre of the river.

The town has many advantages for ship building. At neaps the tide rises and falls about 18 feet, and at springs from 25 to 30 feet. The principal teak forests are, at the same time, at a comparatively short distance, and there is a water conveyance for the timber nearly the whole way. Ship-building has, in fact, been carried on at Rangoon since 1786, and in the 38 years which preceded our capture of it, there had been built 111 square-rigged vessels of European construction, the total burden of which amounted to above 35,000 tons. Several of these were of from 800 to 1,000 tons. Under the direction of European masters, the Burmese were found to make dexterous and laborious artisans, in this respect greatly surpassing the natives of our other Indian provinces.

There are two considerable markets, where the ordinary necessities of life, according to Burmese usage, are cheap and abundant: these are rice, excellent fish, and poultry.

**Money.**—Before its annexation to British India the currency here, as in the Birman empire generally, consisted, for small payments, of lead; for larger ones, of gold and silver, but chiefly of the latter. There were no coins. At every payment the metal had to be weighed, and very generally assayed—a rude and very inconvenient state of things. The weights used in the weighing of money were the same as those used on ordinary occasions; the kyat or tical, and the paiktha or vis, being by far the most frequent. Silver might be considered as the standard. Gold was generally held to be about 17 times more valuable than silver. The weighing and assaying of the metals used as currency gave employment to a class of persons as brokers, money changers, and assayers. Every new assay cost the owner, if the metal were silver,  $2\frac{1}{2}$  per cent.,  $1\frac{1}{2}$  per cent. being the established commission of the assayers, while 1 per cent. was lost, or supposed to be lost, in the operation. If repeated 40 times, it follows that the original amount was wholly absorbed—a fact which shows the enormous waste of metal arising out of this rude substitute for coin.

Now that Rangoon forms part of the new province of British Burmah, its silver and copper coinage is that fixed by the Act No. XIII. of 1862, viz. the Government rupee and its fractional parts, and the double pice, pice,  $\frac{1}{2}$  pice, and pio or  $\frac{1}{4}$  pice. [CALCUTTA.]

**Weights.**—The weights in use at Rangoon, besides the British Indian [CALCUTTA], are as follow:

9 Small Ruds (red beans)	= 1 Large Rud.
4 Large ds.	= 1 Hal.
2 Hal.	= 1 Mu.
2 Mu.	= 1 Marh.
4 Marh.	= 1 Kyat, or 1 Tical.
100 Kyats	= 1 Paiktha, or 1 Vis = 3.65 lbs avo.

Measures of capacity are as follow:—

2 Lamytes	= 1 Lamd.	2 Pils	= 1 Sarr.
2 Lams	= 1 Nade.	2 Sarrs	= 1 Sarr.
4 Nades	= 1 Pyl.	4 Sarrs	= 1 Tam.

This last measure is what is usually called by us 'a basket,' and ought to weigh 16 vis of clean rice, or 5 $\frac{1}{2}$  lb. avoirdupois: it has commonly been reckoned at  $\frac{1}{2}$  a cwt. All grains, pulses, certain fruits, nutron, salt, and lime are bought and sold by measure, other commodities by weight.

The Customs Tariff is that of 1861, given in detail under CALCUTTA.

**Commerce.**—A considerable intercourse is carried on between the Burmese and Chinese dominions by an annual caravan, of which the merchants are all Chinese. The imports from China consist of manufactured articles, the chief export from Burmah being cotton wool. The trade seaward is carried on with the ports of Chittagong, Dacca, and Calcutta in Bengal; Madras, and Masulipatam on the Coromandel coast; the Nicobar Islands, in the Bay of Bengal; Penang, in the Straits of Malacca; and occasionally with the Persian and Arabian Gulfs. The largest trade is with Calcutta, owing to the great consumption of teak timber in the latter, and the facility with which she supplies the demand of the Burmese for Indian and British cotton goods. The articles exported from Rangoon are the following: Teak wood, terra japonica, or catechu, stick lac, bees' wax, raw cotton, orpiment, commonly called in India burral, gold, silver, rubies, sapphires, elephants' teeth and horses, or rather the small, hard teeth of the country, which are much esteemed. The most valuable articles are the opium, which is chiefly at Madras. By far the most important Burmese commodities is teak timber; the quantity of this wood annually exported is said to be equal to 7,500 full-sized trees, which, for the most part, consist of what Indian ship-builders call *shishu*, which are planks hewn out of the log with the adze at an immense waste. The teak forests of Pegu are by far the most abundant in India. The teak is nowhere to be found in the low alluvial lands to which the tide reaches, but abounds in the high lands beyond its influence. It seems to be very generally disseminated throughout the Burmese dominions. In the territory ceded to the British in Martaban, there are some fine forests, the timber of which is cut down for exportation, and where saw-mills have recently been established by some European settlers. The most accessible and extensive forests of teak in the Burmese dominions are in the province of Sarawadi, about 150 miles to the north of Rangoon, with which there is a water communication. The principal imports into Burmah are cotton piece goods from India and Britain, British woollens, iron, steel, quicksilver, copper, cordage, boxes, sulphur, gunpowder, saltpetre, fire-arms, coarse porcelain, English glass ware, opium, tobacco, cocoa and areca nuts, sugar, and spirits. Of these, by far the most important is cotton piece goods. The Burmese have few cotton manufactures of their own, and appear, from very early times, to have been furnished with the principal part of their supply from the Coromandel coast. To these were afterwards added the cheaper fabrics of Bengal: and both are now, in a great measure, superseded by British manufactures, the use of which has spread very rapidly since the opening of the trade in 1814, and especially since the capture of Rangoon in 1852. In 1826-7 the exports and imports of the

Table, showing the Value in Rupees of the Exports and Imports of British Burmah by Sea for the Year 1866-7, compared with 1865-6.

	Exports			
	Home Ports	Foreign Ports	British Burmah Ports	Grand Total
	rupees	rupees	rupees	rupees
Merchandise	{ 1865-6 02,98,856	2,81,67,058	51,58,235	4,09,13,929
	{ 1866-7 69,14,192	1,25,97,111	58,68,914	2,51,30,617
Increase	.. .. .	.. .. .	.. .. .	.. .. .
Decrease	.. .. .	.. .. .	.. .. .	.. .. .
Treasure	{ 1865-6 25,12,561	60,404	38,52,971	84,29,939
	{ 1866-7 89,07,492	3,84,989	17,41,611	96,30,571
Increase	.. .. .	.. .. .	.. .. .	.. .. .
Decrease	.. .. .	.. .. .	.. .. .	.. .. .
	43,94,160	3,24,585	21,11,350	47,04,635
	.. .. .	.. .. .	.. .. .	.. .. .
Imports				
	Home Ports	Foreign Ports	British Burmah Ports	Grand Total
	rupees	rupees	rupees	rupees
Merchandise	{ 1865-6 1,99,92,350	21,89,877	56,67,340	3,81,19,117
	{ 1866-7 1,49,14,821	79,17,374	40,74,653	2,39,44,848
Increase	.. .. .	.. .. .	.. .. .	.. .. .
Decrease	.. .. .	.. .. .	.. .. .	.. .. .
Treasure	{ 1865-6 10,19,409	2,89,503	50,55,109	8,96,599
	{ 1866-7 1,36,32,967	13,68,890	50,55,109	1,60,44,939
Increase	.. .. .	.. .. .	.. .. .	.. .. .
Decrease	.. .. .	.. .. .	.. .. .	.. .. .
	62,39,292	6,05,165	11,79,951	83,90,518
	20,56,065	7,65,115	18,83,151	99,84,611

Trade with Burmah Proper, or Native Burmah (by the Rivers Irrawaddy and Sittang), which passes through the Frontier Custom-houses of Thayetmyo and Tonnyoo, 1865-6 and 1866-7.

Customs	Exports		Imports		Total
	rupees	rupees	rupees	rupees	
Thayetmyo	{ 1865-6 75,00,134	61,94,121	61,94,121	1,37,51,555	
	{ 1866-7 61,73,319	47,01,379	47,01,379	1,11,74,698	
Increase	.. .. .	.. .. .	.. .. .	.. .. .	
Decrease	.. .. .	.. .. .	.. .. .	.. .. .	
Tonnyoo	{ 1865-6 10,87,115	13,92,742	13,92,742	25,79,857	
	{ 1866-7 2,83,536	10,60,912	10,60,912	18,44,498	
Increase	.. .. .	.. .. .	.. .. .	.. .. .	
Decrease	.. .. .	.. .. .	.. .. .	.. .. .	
	7,83,374	9,34,172	9,34,172	17,15,541	
	181	1,28,810	1,28,810	1,28,810	

port of Rangoon were estimated each at the rate of 200,000.

The exports from British Burmah in 1865-6 and 1866-7 by sea, included the following articles, the values of which are given in pounds sterling.

Articles	1865-6	1866-7
Rice	2,437,455	1,861,996
Timber	899,272	426,427
Cotton, raw	172,112	98,757
Pepper	16,507	0,379
Opium	47,263	36,932

Values of the Principal Imports of Cotton and Silk Piece Goods, during the Years 1865-6 and 1866-7, in Pounds Sterling.

Articles	1865-6	1866-7
Piece goods, cotton	588,059	467,617
.. .. . silk	885,980	138,670
.. .. . woolen	149,261	116,411
Cotton twist and yarn	231,484	288,441
Raw silk	67,249	67,509

From the above it will be seen that there has been a considerable falling off in the trade through Thayetmyo; even if allowance be made for the month of April, the total decrease in the value of import and export trade through Thayetmyo would be about 92,000. The rebellion was the chief cause of this falling off, and the depression in trade has continued ever since.

It is a curious fact that the late Mr. John Crawford, who supplied us with materials which he gathered on the spot, for the account of Rangoon in previous editions of this work, does not even allude to rice as an article of export. But, such has been the change in the interval, that it is now the principal article shipped from the town, and while in the earlier part of this century the exports of rice were little or nothing, they amounted to 58,563 tons in 1866, and the value of

the exports of rice from British Burmah (chiefly from Rangoon), in the year 1865-6, was 2,437,433. [MAULMAIN; RICE.]

**RAPE.** A biennial plant of the turnip kind (*Brassica napus*, Linn.), but with a woody fusiform root scarcely fit to be eaten. It is indigenous, flowers in May, and ripens its seed in July. It is cultivated in many parts of England, particularly in Lincoln and Cambridge; partly on account of its seed, which is crushed for oil, and partly for its leaves as food for sheep. The culture of rape for seed has been much objected to by some, on account of its supposed great exhaustion of the land; but Mr. Loudon says that, where the soil and preparation are suitable, the after-culture properly attended to, and the straw well off, instead of being burnt, as is the common practice converted to the purposes of feeding and littering cattle, it may, in many instances, be the most proper and advantageous crop that can be employed by the farmer. The produce, when the plant succeeds well, and the season is favourable for securing the seed, amounts to from 40 to 50 bushels an acre. The seed is sold by the last of 10 quarters; and is crushed in mills constructed for that purpose. (London's Encyc. of Agriculture.)

In 1867 we imported 620,782 qrs. rape-seed, of the estimated value of 1,597,289. The imports from India were 429,134 qrs., being much more than half the supply. The residuo was principally supplied by Denmark, Russia, and Wallachia. The exports during the same year amounted to 222,842 qrs.

The duties on rape-seed and rape-seed oil were repealed in 1845.

**RAPE CAKE** is the adhering masses of the husks of rape-seed, after the oil has been expressed. They are reduced to powder by a malt-mill or other machine; and are used either as a top-dressing

for crops of different kinds, or are drilled along with turnip seed. 5,057 tons were imported in 1867.

**RATTANS** or **CANES**. The long slender shoots of a prickly bush (*Calamus rotang*, Linn.), one of the most useful plants of the Malay peninsula and the Eastern islands. They are exported to Bengal, to Europe, and above all to China, where they are consumed in immense quantities. For cane work they should be chosen long, of a bright pale yellow colour, well glazed, and of a small size, not brittle, or subject to break. They are purchased by the bundle, which ought to contain 100 rattans, having their ends bent together, and tied in the middle. In China they are sold by the picul, which contains from 9 to 12 bundles. Such as are black or dark coloured, snap short, or from which the glazing flies off on their being bent, should be rejected. When stowed as damage, they are generally allowed to pass free of freight. (Milburn's *Orient. Com.*; &c.)

In 1867 we imported 15,262,295 canes, whereof 7,294,251 were from British India, Singapore, and the Straits Settlements. The exports are inconsiderable.

'The rattan,' says Mr. Crawford, 'is the spon-taneous product of all the forests of the Archipelago; but exists in great perfection in those of the islands of Borneo, Sumatra, and of the Malayan peninsula. The finest are produced in the country of the *Bataks* of Sumatra. The wood-cutter who is inclined to deal in this article proceeds into the forest without any other instrument than his *parang* or cleaver, and cuts as much as he is able to carry away. The mode of performing the operation is this: he makes a notch in the tree at the root of which the rattan is growing, and cutting the latter, strips off a small portion of the outer bark, and inserts the part that is peeled into the notch. The rattan now being pulled through, as long as it continues of an equal size, is by this operation neatly and readily freed from its *epidermis*. When the wood-cutter has obtained by this means from 300 to 400 rattans—being as many as an individual can conveniently carry in their moist and undried state—he sits down, and ties them up in bundles of 100, each rattan being doubled before being thus tied up. After drying, they are fit for the market without further preparation. From this account of the small labour expended in bringing them to market, they can be sold at a very cheap rate. The Chinese junks obtain them in Borneo at the low rate of 5 Spanish dollars per 100 bundles, or 5 cents for each 100 rattans, or 27 for 1*d.* The natives always vend them by tale; but the European residents and the Chinese sell them by weight, counting by piculs, according to their quantity, and the relative state of supply and demand, the European merchants dispose of them at from 1½ to 2½ dollars the picul. In China the price is usually about 3½ dollars per picul, or 75 per cent. above the average prime cost. In Bengal they are sold by tale, each bundle of about 100 rattans bringing about 20½*d.*' (*Indian Archipelago*, vol. iii. p. 423.)

**REAL**. In the Spanish monetary system, a real is of two sorts; viz, a *real of plate*, and a *real vellon*. The former is a silver coin, varying in value from about 6½*d.* to 5*d.* [Coins.] A real vellon is a money of account, worth about 2½*d.*

**REAM**. A quantity of paper. The ream of writing paper consists of 20 quires, each of 24 sheets; but the ream of printing paper, or, as it is sometimes called, the *printer's ream*, extends to 2½ quires, or 516 sheets. Two reams of paper make a *bundle*.

**RECEIPT**. An acknowledgment in writing of having received a sum of money, or other valuable consideration. It is a voucher either of an obligation or debt discharged, or of one incurred.

In 1795 duties were imposed on all notes, memorandums, or writings, given in acknowledgment of the receipt of money in payment of debt. And parties writing receipts on unstamped paper, or giving receipts for smaller sums than those actually received, were subjected to penalties. These duties have undergone various mutations. They usually varied according to the amount received; but they were not fair ad valorem duties, the sums charged on receipts for small amounts being proportionally much greater than those charged on receipts for larger amounts. Thus, while a receipt for 10*l.* was charged with a duty of 3*d.*, a receipt for 1,000*l.* was charged with a duty of 10*s.*, whereas had the fair ad valorem principle been properly carried out, it should have been charged with a duty of 2*s.*

In 1852 the receipt duty produced 180,491*l.*, including 143,467*l.* for England, 16,103*l.* for Scotland, and 20,921*l.* for Ireland.

A good deal of dissatisfaction having been long prevalent with the receipt duty, and being also very extensively evaded, it was changed in 1853 to a duty of 1*d.* on all receipts for sums of 2*l.* and upwards. A new duty of 1*d.* was at the same time, and by the same Act, 16 & 17 Viet. c. 59, imposed on all drafts or orders payable to order on demand. Such duty did not, however, apply to drafts or orders payable at sight, or to checks or drafts payable to bearer, drawn within 15 miles of the bank at which they were to be paid, but by 21 Viet. c. 20 the duty was extended to all checks. In the year ending March 31, 1856, these duties produced 418,619*l.* nett, being 300,000*l.* for Great Britain, and 28,000*l.* for Ireland. The nett revenue of the United Kingdom from receipt, draft, and other 1*d.* inland revenue stamps, in the year ended March 31, 1868, was 562,547*l.*

By the 16 & 17 Viet. c. 59 the following shall be deemed drafts or orders for the payment of money within the intent and meaning of this Act, and of any Act or Acts relating to the same duties on bills of exchange, drafts, or orders, and shall be chargeable accordingly with the stamp duties imposed by this Act, or any such Act or Acts; viz. :—

'All documents or writings usually termed letters of credit, or whereby any person to whom any such document or writing is or is intended to be delivered or sent shall be entitled, or be intended to be entitled, to have credit with, or in account with, or to draw upon any other person, or to receive from such other person any sum of money therein mentioned.'

The Act also grants the following exemptions from the duty on receipts, viz. : 'Receipts given for money deposited in any bank, or in the hands of any banker, to be accounted for, whether with interest or not: provided the same be not expressed to be received of or by the hands of any other than the person to whom the same is to be accounted for: provided always that this exemption shall not extend to receipts or acknowledgments for sums paid or deposited for or in respect of calls upon any scrip or shares of or in any joint-stock or other company, or proposed or intended company, which said last-mentioned receipts or acknowledgments, by whomsoever given, shall be liable to the duty by this Act charged on receipts.'

*Stamps denoting the Duty of 1*d.* on Receipts and Drafts may be impressed or affixed.—The duties*

of 1*l.* by this Act granted on receipts and on drafts or orders for the payment of money respectively may be denoted either by a stamp impressed upon the paper whereon any such instrument is written, or by an adhesive stamp affixed thereto, and the Commissioners of Inland Revenue shall provide stamps of both descriptions for the purposes of denoting the said duties. (16 & 17 Vict. c. 59 s. 3.)

*Where adhesive Stamps are used to denote the Duties on Receipts &c.*—In any case where an adhesive stamp shall be used for the purpose aforesaid on any receipt or upon any draft or order respectively chargeable with the duty of 1*l.* by this Act, the person by whom such receipt shall be given or such draft or order signed or made shall, before the instrument shall be delivered out of his hands, custody, or power, cancel or obliterate the stamp so used, by writing thereon his name or the initial letters of his name so and in such a manner as to show clearly and distinctly that such stamp has been made use of, and so that the same may not be again used; and if any person who shall write or give any such receipt or discharge or make or sign any such draft or order with any adhesive stamp thereon, shall not bona fide in manner aforesaid effectually cancel or obliterate such stamp, he shall forfeit the sum of 10*l.* (Sec. 3.)

*Penalty for committing Frauds in the Use of Stamps.*—If any person shall fraudulently get off or remove, or cause or procure to be gotten off or removed, from any paper whereon any receipt or any draft or order shall be written, any adhesive stamp, or if any person shall affix or use any such stamp which shall have been gotten off or removed from any paper whereon any receipt or any draft or order shall have been written, to or for any receipt, draft, or order, or any paper whereon any such receipt, draft, or order, shall be or be intended to be written; or if any person shall do or practise or be concerned in any fraudulent act, contrivance, or device whatever, not specially provided for by this or some other Act of Parliament, with intent or design to defraud her Majesty of any duty by this Act granted upon receipts or upon drafts or orders, every person so offending in any of the said several cases shall forfeit the sum of 20*l.* (Sec. 5.)

**REGISTRY.** In Commercial Navigation, the registration or enrolment of ships at the Custom-house, so as to entitle them to be classed among, and to enjoy the privileges of, British-built ships.

The registry of ships appears to have been first introduced into this country by the Navigation Act (12 Ch. II. c. 18, anno 1660). Several provisions were made with respect to it by the 7 & 8 Wm. III. c. 22; and the whole was reduced into a system by the 27 Geo. III. c. 19, but this has since been materially altered. To be admitted to registry, and consequently to enjoy the privileges and advantages that exclusively belong to a British ship, all that is now required is, that such ship be bona fide the property of one or more of her Majesty's subjects in the United Kingdom or some of its dependencies.

The great, and, perhaps, the only original object of the registration of ships was to facilitate the exclusion of foreign ships from those departments in which they were prohibited from engaging by the navigation laws, by affording a ready means of distinguishing such as were really British. It has also been considered advantageous to individuals, by preventing the fraudulent assignment of property in ships. Lord Tenterden, however, has observed in reference to this supposed advantage, that 'the instances in which fair

and honest transactions are rendered unavailable through a negligent want of compliance with the forms directed by these and other statutes requiring a public register of conveyances, make the expediency of all such regulations, considered with reference to private benefit only, a matter of question and controversy.' (*Law of Shipping*, part i. c. 2.) But these results are ascribable rather to the mode of registration than to the registry itself. The latter appears to be necessary to give certainty of title; a national and distinctive character to shipping; and for the establishment of a uniform system of admeasurement, the charges on shipping being almost always dependent on the registered tonnage.

The existing regulations as to the registry of ships are embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104 (modified by the 18 & 19 Vict. c. 91, 25 & 26 Vict. c. 63, and 31 & 32 Vict. c. 129), as follows, viz.:

*Registrars of British Ships.*—The following persons are required to register British ships, and shall be deemed registrars for the purposes of this Act, viz.:

1. At any port or other place in the United Kingdom or Isle of Man approved by the commissioners of customs for the registry of ships, the collector, comptroller, or other principal officer of customs for the time being.

2. In the islands of Guernsey and Jersey, the principal officers of her Majesty's customs, together with the governor, lieutenant-governor, or other person administering the government of such islands respectively.

3. In Malta, Gibraltar, and Heligoland, the governor, lieutenant-governor, or other person administering the government of such places respectively.

4. At any port or place so approved, as aforesaid, within the limits of the charter but not under the government of the East India Company, and at which no custom-house is established, the collector of duties, together with the governor, lieutenant-governor, or other person administering the government.

5. At the ports of Calcutta, Madras, and Bombay, the master attendants, and at any other port or place so approved as aforesaid within the limits of the charter and under the government of the East India Company, the collector of duties, or any other person of six years' standing in the civil service of the said company who is appointed by any of the governments of the said company to act for this purpose.

6. At every other port or place so approved as aforesaid within her Majesty's dominions abroad, the collector, comptroller, or other principal officer of customs or of navigation laws, or if there is no such officer resident at such port or place, the governor, lieutenant-governor, or other person administering the government of the possessor in which such port or place is situate. (Sec. 30.)

*Substitution of Governor abroad for Commissioners of Customs &c.*—The governor, lieutenant-governor, or other person administering the government in any British possession where any ship is registered under the authority of this Act shall, with regard to the performance of any act or thing relating to the registry of a ship or of any interest therein, be considered in all respects as occupying the place of the commissioners of customs; and any British consular officer shall, in any place where there is no justice of the peace, be authorised to take any declaration hereby required or permitted to be made in the presence of a justice of the peace. (Sec. 31.) The governor

or officer administering the government in any British possession is authorised by 31 & 32 Vict. c. 129 to grant 6 months terminable certificates of registry to vessels under 60 tons and to appoint surveyors of crew spaces. (Secs. 1, 2, & 3.)

**Registrar to keep Register Books.**—Every registrar shall keep a book, to be called 'the register book,' and enter therein the particulars herein-after required to be registered. (17 & 18 Vict. c. 104 s. 32.)

**Port of Registry of Ship.**—The port or place at which any British ship is registered for the time being shall be considered her port of registry, or the port to which she belongs. (Sec. 33.)

**Name of Ship.**—The following rules shall be observed with respect to the names of British registered ships (that is to say):

1. Before registry the name of each ship, and of the port to which she belongs, shall be painted on a conspicuous part of her stern, on a dark ground, in white or yellow letters of a length not less than 4 inches.

2. No change shall be made in the name of any registered ship.

3. No concealment, absence, or avoidable obliteration of the above names shall be permitted, except for the purpose of escaping capture by an enemy.

4. The ship shall not be described, by or with the knowledge of the owner or master, by any name other than the one by which she is registered.

And for every breach of the above rules, or any of them, the owner and master shall each incur a penalty not exceeding 100*l.* (Sec. 34.)

**Application for Registry, by whom to be made.**—Every application for the registry of a ship shall in the case of individuals be made by the person in the case of individuals as owner, or by some requiring to be registered as owner, or by some one or more of such persons if more than one, or by his or their duly authorised agent, and in the case of bodies corporate by their duly authorised agent; the authority of such agent, if appointed by individuals, to be testified by some writing under the hands of the appointors, and if appointed by a body corporate, by some instrument under the common seal of such body corporate. (Sec. 35.)

**Survey of Ship.**—Before registry, the ship shall be surveyed by a person duly appointed under this Act; and such surveyor shall grant a certificate specifying her tonnage, build, and such other particulars descriptive of the identity of the ship as may from time to time be required by the Board of Trade; and such certificate shall be delivered to the registrar before registry. (Sec. 36.)

**Rules as to Entries in Register Book.**—The following rules shall be observed with respect to entries in the register book (that is to say):

1. The property in a ship shall be divided into 61 shares.

2. Subject to the provisions with respect to joint owners or owners by transmission herein-after contained, not more than 32 individuals shall be entitled to be registered at the same time as owners of any one ship; but this rule shall not affect the beneficial title of any number of persons or of any company represented by or claiming under or through any registered owner or joint owner.

3. No person shall be entitled to be registered as owner of any fractional part of a share in a ship; but any number of persons not exceeding 5 may be registered as joint owners of a ship, or of a share or shares therein.

4. Joint owners shall be considered as constituting one person only as regards the foregoing rule relating to the number of persons entitled to be registered as owners, and shall not be entitled to

dispose in severalty of any interest in any ship or in any share or shares therein in respect of which they are registered.

5. A body corporate may be registered as owner by its corporate name. (Sec. 37.)

**Declaration of Ownership by individual Owner.**

—No person shall be entitled to be registered as owner of a ship or any share therein until he has made and subscribed a declaration in the form marked B. in the schedule annexed to this Act, referring to the ship as described in the certificate of the surveyor, and containing the following particulars (that is to say):

1. A statement of his qualification to be an owner of a share in a British ship.

2. A statement of the time when and the place where such ship was built, or (if the ship is foreign-built, and the time and place of building not known) a statement that she is foreign-built, and that he does not know the time or place of her building; and in addition thereto, in the case of a foreign ship, a statement of her foreign name, or (in the case of a ship condemned) a statement of the time, place, and court at and by which she was condemned.

3. A statement of the name of the master.

4. A statement of the number of shares in such ship of which he is entitled to be registered as owner.

5. A denial that, to the best of his knowledge and belief, any unqualified person or body of persons is entitled as owner to any legal or beneficial interest in such ship or any share therein.

The above declaration of ownership shall be made and subscribed in the presence of the registrar if the declarant reside within 5 miles of the custom-house of the port of registry, but if beyond that distance, in the presence of any registrar or of any justice of the peace. (Sec. 38.)

**Declaration of Ownership by Body Corporate.**—No body corporate shall be entitled to be registered as owner of a ship or of any share therein until the secretary or other duly appointed public officer of such body corporate has made and subscribed in the presence of the registrar of the port of registry a declaration in the form marked C. in the schedule annexed to this Act referring to the ship as described in the certificate of the surveyor, and containing the following particulars:—

1. A statement of such circumstances of the constitution and business of such body corporate as prove it to be qualified to own a British ship.

2. A statement of the time when and the place where such ship was built, or (if the ship is foreign-built, and the time and place of building unknown) a statement that she is foreign-built, and that he does not know the time or place of her building; and in addition thereto, in the case of a foreign ship, a statement of her foreign name, or (in the case of a ship condemned) a statement of the time, place, and court at and by which she was condemned.

3. A statement of the name of the master.

4. A statement of the number of shares in such ship of which such body corporate is owner.

5. A denial that, to the best of his knowledge and belief, any unqualified person or body of persons is entitled as owner to any legal or beneficial interest in such ship or any share therein. (Sec. 39.)

**Evidence to be produced on Registry.**—Upon the first registry of a ship there shall, in addition to the declaration of ownership, be produced the following evidence; viz.:—

1. In the case of a British-built ship, a

certificate (which the builder is hereby required to grant under his hand) containing a true account of the proper denomination and of the tonnage of such ship, as estimated by him, and of the time when and of the place where such ship was built, together with the name of the party (if any) on whose account he has built the same, and, if any sale or sales have taken place, the bill or bills of sale under which the ship or share therein has become vested in the party requiring to be registered as owner.

2. In the case of a foreign-built ship, the same evidence as in the case of a British-built ship, unless the person requiring to be registered as owner, or, in the case of a body corporate, the duly-appointed officer, declares that the time or place of her building is unknown, or that the builder's certificate cannot be procured, in which case there shall be required only the bill or bills of sale under which the ship or share therein became vested in the party requiring to be registered as owner thereof.

3. In the case of a ship condemned by any competent court, an official copy of the condemnation of such ship. (Sec. 40.)

**Penalty on Builder for false Certificate.**—If any builder wilfully makes a false statement in any certificate hereby required to be granted by him, he shall for every such offence incur a penalty not exceeding 100*l.* (Sec. 41.)

**Particulars of Entry in Register Book.**—As soon as the foregoing requisites to the due registry of a ship have been complied with, the registrar shall enter in the register book the following particulars relating to such ship; viz. :—

1. The name of the ship, and of the port to which she belongs.

2. The details as to her tonnage, build, and description comprised in the certificate hereinbefore directed to be given by the surveyor.

3. The several particulars as to her origin stated in the declaration or declarations of ownership.

4. The names and descriptions of her registered owner or owners, and if there is more than one such owner, the proportions in which they are interested in such ship. (Sec. 42.)

**No Notice taken of Trusts.**—No notice of any trust, express, implied, or constructive, shall be entered in the register book, or receivable by the registrar; and, subject to any rights and powers appearing by the register book to be vested in any other party, the registered owner of any ship or share therein shall have power absolutely to dispose in manner hereinafter mentioned of such ship or share, and to give effectual receipts for any money paid or advanced by way of consideration. (Sec. 43.) See also sec. 3 of 25 & 26 Viet. c. 63.

**Certificate of Registry to be granted.**—Upon the completion of the registry of any ship, the registrar shall grant a certificate of registry in the form marked D. in the schedule to the Act (annexed to this article), comprising the following particulars, viz. :—

1. The name of the ship and of the port to which she belongs.

2. The details as to her tonnage, build, and description comprised in the certificate hereinbefore directed to be given by the surveyor.

3. The name of her master.

4. The several particulars as to her origin stated in the declaration or declarations of ownership.

5. The names and descriptions of her registered owner or owners, and if there is more than one such owner, the proportions in which they are

respectively interested, indorsed upon such certificate. (17 & 18 Viet. c. 104 s. 44.)

**Change of Owners to be indorsed on Certificate of Registry.**—Whenever any change takes place in the registered ownership of any ship, then, if such change occurs at a time when the ship is at her port of registry, the master shall forthwith deliver the certificate of registry to the registrar, and he shall indorse thereon a memorandum of such change; but if such change occurs during the absence of the ship from her port of registry, then upon her first return to such port the master shall deliver the certificate of registry to the registrar, and he shall indorse thereon a like memorandum of the change; or if she previously arrives at any port where there is a British registrar, such registrar shall, upon being advised by the registrar of her port of registry of the change having taken place, indorse a like memorandum thereof on the certificate of registry, and may for that purpose require the certificate to be delivered to him, so that the ship be not thereby detained; and any master who fails to deliver to the registrar the certificates of registry a hereinbefore required shall incur a penalty not exceeding 100*l.* (Sec. 45.)

**Change of Master to be indorsed on Certificate of Registry.**—Whenever the master of any British registered ship is changed, the following persons, viz. if such change is made in consequence of the sentence of any naval court, the presiding officer of such court, but if the change takes place from any other cause, the registrar, or if there is no registrar, the British consular officer resident at the port where such change takes place, shall indorse on the certificate of registry a memorandum of such change, and subscribe his name to such indorsement, and forthwith report the change of master to the Commissioner of Customs in London; and the officers of customs at any port situate within her Majesty's dominions may refuse to admit any person to do any act at such port as master of any British ship, unless his name is inserted in or indorsed upon the certificate of registry of such ship as the last appointed master thereof. (Sec. 46.)

**Power to grant new Certificate.**—The registrar may, with the sanction of the Commissioner of Customs, upon the delivery up to him of the former certificate of registry, grant a new certificate in the place of the one so delivered up. (Sec. 47.)

**Provision in case of Loss of Certificate.**—In the event of the certificate of registry of any ship being mislaid, lost, or destroyed, if such event occurs at any port in the United Kingdom, or the ship being registered in the United Kingdom, or at any port in any British possession, the ship being registered in the same British possession, then the registrar of the report of registry shall grant a new certificate of registry in lieu of and as a substitute for her original certificate of registry; but if such event occurs elsewhere, the master, or some other person having knowledge of the circumstances, shall make a declaration before the registrar of any port having a British registrar at which such ship is at the time or first arrives after such mislaying, loss, or destruction; and such declaration shall state the facts of the case, and the names and descriptions of the registered owners of such ship, to the best of the declarant's knowledge and belief; and the registrar shall thereupon grant a provisional certificate as near to the form appointed by this Act as circumstances permit, and shall insert therein a statement of the circumstances under which such provisional certificate is granted. (Sec. 48.)

*Provisional Certificate to be delivered up.*—Every such provisional certificate shall, within 10 days after the first subsequent arrival of the ship at her port of discharge in the United Kingdom, if registered therein, or if registered elsewhere, at her port of discharge in the British possession within which her port of registry is situate, be delivered up to the registrar thereof, who shall thereupon grant a new one, as near to the form appointed by this Act as circumstances permit; and if the master neglects to deliver up such certificate within such time he shall incur a penalty not exceeding 50*l.* (Sec. 49.)

*Custody of Certificate.*—The certificate of registry shall be used only for the lawful navigation of the ship, and shall not be subject to detention by reason of any title, lien, charge, or interest whatsoever which any owner, mortgagee, or other person may have or claim to have on or in the ship described in such certificate: and if any person whatever, whether interested or not in the ship, refuses on request to deliver up such certificate when in his possession or under his control to the person for the time being entitled to the custody thereof for the purposes of such lawful navigation as aforesaid, or to any registrar, officer of the customs, or other person legally entitled to require such delivery, it shall be lawful for any justice, by warrant under his hand and seal, or for any court capable of taking cognisance of such matter, to cause the person so refusing to appear before him and to be examined touching such refusal; and unless it is proved to the satisfaction of such justice or court that there was reasonable cause for such refusal, the offender shall incur a penalty not exceeding 100*l.*; but if it is made to appear to such justice or court that the certificate is lost, the party complained of shall be discharged, and such justice or court shall thereupon certify that the certificate of registry is lost. (Sec. 50.)

*Mode of proceeding if detainer Party abscond.*—If the person charged with such detainer or refusal is proved to have absconded, so that the warrant of the justice or process of the court cannot be served upon him, or if he persists in his refusal to deliver the certificate, such justice or court shall certify the fact, and the same proceedings may then be taken as in the case of a certificate of registry mislaid, lost, or destroyed, or as near thereto as circumstances permit. (Sec. 51.)

*Penalty for using improper Certificate.*—If the master or owner of any ship uses or attempts to use for the navigation of such ship a certificate of registry not legally granted in respect of such ship, he shall be guilty of a misdemeanor, and it shall be lawful for any commissioned officer on full pay in the military or naval service of her Majesty, or any British officer of customs, or any British consular officer, to seize and detain such ship, and to bring her for adjudication before the High Court of Admiralty in England or Ireland or any court having admiralty jurisdiction in her Majesty's dominions; and if such court is of opinion that such use or attempt at use has taken place, it shall pronounce such ship, with her tackle, apparel, and furniture, to be forfeited to her Majesty, and may award such portion of the proceeds arising from the sale of such ship as it may think just to the officer so bringing in the same for adjudication. (Sec. 52.)

*Certificate of Ship lost or ceasing to be British to be delivered up.*—If any registered ship is either actively or constructively lost, taken by the enemy, burnt, or broken up, or if by reason of a transfer to any persons not qualified to be owners of British ships, or of any other matter or thing, any such

ship as aforesaid ceases to be a British ship, every person who at the time of the occurrence of any of the aforesaid events owns such ship or any share therein shall, immediately upon obtaining knowledge of any such occurrence, if no notice thereof has already been given to the registrar at the port of registry of such ship, give such notice to him, and he shall make an entry thereof in his register book; and, except in cases where the certificate of registry is lost or destroyed, the master of every ship so circumstanced as aforesaid shall immediately, if such event occurs in port, but if the same occurs elsewhere, then within 10 days after his arrival in port, deliver the certificate of registry of such ship to the registrar, or, if there be no registrar, to the British consular officer at such port, and such registrar, if he is not himself the registrar of her port of registry, or such British consular officer, shall forthwith forward the certificate so delivered to him to the registrar of the port of registry of the ship; and every owner and master who, without reasonable cause, makes default in obeying the provisions of this section shall for each offence incur a penalty not exceeding 100*l.* (Sec. 53.)

*Provisional Certificate for Ship becoming vested in British Owners at Foreign Port.*—If any ship becomes the property of persons qualified to be owners of British ships at any foreign port, the British consular officer resident at such port may grant the master of such ship, upon his application, a provisional certificate, stating—

The name of the ship;  
The time and place of her purchase, and the names of her purchasers;  
The name of her master;

The best particulars as to her tonnage, build, and description that he is able to obtain:

And he shall forward a copy of such certificate, at the first convenient opportunity, to the Commissioners of Customs in London: the certificate so granted shall possess the same force as a certificate of registry until the expiration of 6 months, or until such earlier time as the ship arrives at some port where there is a British registrar; but upon the expiration of such period, or upon arrival at such port, shall be void to all intents. (Sec. 54.)

#### *Transfers and Transmissions.*

*Transfer of Ships or Shares therein.*—A registered ship or any share therein, when disposed of to persons qualified to be owners of British ships, shall be transferred by bill of sale; and such bill of sale shall contain such description of the ship as is contained in the certificate of the surveyor, or such other description as may be sufficient to identify the ship to the satisfaction of the registrar, and shall be according to the form marked E. subjoined to this Act, or as near thereto as circumstances permit, and shall be executed by the transferee in the presence of and be attested by one or more witnesses. (Sec. 55.)

*Declaration to be made by Transferee.*—No individual shall be entitled to be registered as transferee of a ship or any share therein until he has made a declaration stating his qualification to be registered as owner of a share in a British ship, and containing a denial similar to the denial before required to be contained in a declaration of ownership by an original owner; and no body corporate shall be entitled to be registered as transferee of a ship or any share therein until the secretary or other duly appointed public officer of such body corporate has made a declaration, stating the name of such body corporate, and such circumstances of its constitution and business as may prove it to be qualified to own a British ship, and



*Entry of transmitted Mortgage.*—The registrar, upon the receipt of such declaration and the production of such evidence as aforesaid, shall enter the name of the person or persons entitled under such transmission in the register book as mortgagee or mortgagees of the ship or share in respect of which such transmission has taken place. (Sec. 75.)

*Certificates of Mortgage and Sale.*

*Powers of Mortgage and Sale conferred by Certificate.*—Any registered owner, if desirous of disposing by way of mortgage or sale of the ship or share in respect of which he is registered at any place out of the country or possession in which the port of registry of such ship is situate, may apply to the registrar, who shall thereupon enable him to do so by granting such certificates as are after mentioned, to be called respectively certificates of mortgage or certificates of sale, according as they purport to give a power to mortgage or a power to sell. (Sec. 76.)

*Requisites for Certificates of Mortgage and Sale.*—Previously to any certificate of mortgage or sale being granted, the applicant shall state to the registrar, to be by him entered in the register book, the following particulars; viz. :—

1. The names of the persons by whom the power mentioned in such certificate is to be exercised, and in the case of a mortgage, the maximum amount of charge to be created, if it is intended to fix any such maximum, and in the case of a sale, the minimum price at which a sale is to be made, if it is intended to fix any such minimum.

2. The specific place or places where such power is to be exercised, or if no place be specified, then that it may be exercised anywhere, subject to the provisions hereinafter contained.

3. The limit of time within which such power may be exercised. (Sec. 77.)

*Restrictions on Certificates of Mortgage and Sale.*—No certificate of mortgage or sale shall be granted so as to authorise any mortgage or sale to be made—

At any place within the United Kingdom, if the port of registry of the ship be situate in the United Kingdom; or at any place within the same British possession if the port of registry is situate within a British possession; or

By any person not named in the certificate. (Sec. 78.)

*Forms of Certificates of Mortgage and Sale.*—Certificates of mortgage and sale shall contain a statement of the several particulars hereinbefore directed to be entered in the register book, and in addition thereto an enumeration of any registered mortgages or certificates of mortgage or sale affecting the ships or shares in respect of which such certificates are given. (Sec. 79.)

*Rules as to Certificates of Mortgage.*—The following rules shall be observed as to certificates of mortgage, viz. :—

1. The power shall be exercised in conformity with the directions contained in the certificate.

2. A record of every mortgage made thereunder shall be indorsed thereon by a registrar or British consular officer.

3. No mortgage *bonâ fide* made thereunder shall be impeached by reason of the person by whom the power was given dying before the making of such mortgage.

4. Whenever the certificate contains a specification of the place or places at which, and a limit of time not exceeding twelve months within which, the power is to be exercised, no mortgage *bonâ fide* made to a mortgagee without notice shall

be impeached by reason of the bankruptcy or insolvency of the person by whom the power was given.

5. Every mortgage which is so registered as aforesaid on the certificate shall have priority over all mortgages of the same ship or share created subsequently to the date of the entry of the certificate in the register book; and if there be more mortgages than one so indorsed, the respective mortgagees claiming thereunder shall, notwithstanding any express, implied, or constructive notice, be entitled one before the other according to the date at which a record of each instrument is indorsed on the certificate, and not according to the date of the instrument creating the mortgage.

6. Subject to the foregoing rules, every mortgage whose mortgage is registered on the certificate shall have the same rights and powers and be subject to the same liabilities as he would have had and been subject to if his mortgage had been registered in the register book instead of on the certificate.

7. The discharge of any mortgage so registered on the certificate may be indorsed thereon by any registrar or British consular officer, upon the production of such evidence as is hereby required to be produced to the registrar on the entry of the discharge of a mortgage in the register book; and upon such indorsement being made, the estate, if any, which passed to the mortgagee shall vest in the same person or persons in whom the same would, having regard to intervening acts and circumstances, if any, have vested if no such mortgage had been made.

8. Upon the delivery of any certificate of mortgage to the registrar by whom it was granted, he shall, after recording in the register book in such manner as to preserve its priority any unsatisfied mortgage registered thereon, cancel such certificate, and enter the fact of such cancellation in the register book; and every certificate so cancelled shall be void to all intents. (Sec. 80.)

*Rules as to Certificates of Sale.*—The following rules shall be observed as to certificates of sale, viz. :—

1. No such certificate shall be granted except for the sale of an entire ship.

2. The power shall be exercised in conformity with the directions contained in the certificate.

3. No sale *bonâ fide* made to a purchaser for valuable consideration shall be impeached by reason of the person by whom the power was given dying before the making of such sale.

4. Whenever the certificate contains a specification of the place or places at which, and a limit of time not exceeding twelve months within which, the power is to be exercised, no sale *bonâ fide* made to a purchaser for valuable consideration without notice shall be impeached by reason of the bankruptcy or insolvency of the person by whom the power was given.

5. Any transfer made to a person qualified to be the owner of British ships shall be by bill of sale in the form hereinbefore mentioned, or as near thereto as circumstances permit.

6. If the ship is sold to a party qualified to hold British ships, the ship shall be registered anew; but notice of all mortgages enumerated on the certificate of sale shall be entered in the register book.

7. Previously to such registry anew there shall be produced to the registrar required to make the same the bill of sale by which the ship is transferred, the certificate of sale, and the certificate of registry of such ship.

8. Such last-mentioned registrar shall retain the

certificates of sale and registry; and after having indorsed on both of such instruments an entry of the fact of a sale having taken place, shall forward the said certificates to the registrar of the port appearing on such certificates to be the former port of registry of the ship, and such last-mentioned registrar shall thereupon make a memorandum of the sale in his register book, and the registry of the ship in such book shall be considered as closed, except as far as relates to any unsatisfied mortgages or existing certificates of mortgage entered therein.

9. On such registry anew, the description of the ship contained in her original certificate of registry may be transferred to the new register book without her being re-surveyed, and the declaration to be made by the purchaser shall be the same as would be required to be made by an ordinary transferee.

10. If the ship is sold to a party not qualified to be the owner of a British ship, the bill of sale by which the ship is transferred, the certificate of sale, and the certificate of registry shall be produced to some registrar or consular officer, who shall retain the certificates of sale and registry, and, having indorsed thereon the fact of such ship having been sold to persons not qualified to be owners of British ships, shall forward such certificates to the registrar of the port appearing on the certificate of registry to be the port of registry of such ship; and such last-mentioned registrar shall thereupon make a memorandum of the sale in his register book, and the registry of the ship in such book shall be considered as closed, except so far as relates to any unsatisfied mortgages or existing certificates of mortgage entered therein.

11. If, upon a sale being made to an unqualified person, default is made in the production of such certificates as are mentioned in the last rule, such unqualified person shall be considered by the law as having acquired no title to or interest in the ship; and further, the party upon whose application such certificate was granted, and the persons exercising the power, shall each incur a penalty not exceeding 100l.

12. If no sale is made in conformity with the certificate of sale, such certificate shall be delivered to the registrar by whom the same was granted; and such registrar shall thereupon cancel it, and enter the fact of such cancellation in the register book; and every certificate so cancelled shall be void to all intents. (Sec. 81.)

*Power of Commissioners of Customs in case of Loss of Certificate of Mortgage or Sale.*—Upon proof at any time to the satisfaction of the Commissioners of Customs that any certificate of mortgage or sale is lost or so obliterated as to be useless, and that the powers thereby given have never been exercised, or if they have been exercised, then, upon proof of the several matters and things that have been done thereunder, it shall be lawful for the registrar, with the sanction of the said commissioners, as circumstances may require, either to issue a new certificate, or to direct such entries to be made in the register book, or such other matter or thing to be done, as might have been made or done if no such loss or obliteration had taken place. (Sec. 82.)

*Revocation of Certificates of Mortgage and Sale.*—The registered owner for the time being of any ship or share therein in respect of which a certificate of mortgage or sale has been granted, specifying the place or places where the power thereby given is to be exercised, may, by an instrument under his hand, authorise the registrar by whom such certificate was granted to give notice to the registrar or consular officer, registrars

or consular officers, at such place or places, that such certificate is revoked; and notice shall be given accordingly; and all registrars or consular officers receiving such notices shall record the same, and shall exhibit the same to all persons who may apply to them for the purpose of effecting or obtaining a mortgage or transfer under the said certificate of mortgage or sale: and after such notice has been so recorded, the said certificate shall, so far as concerns any mortgage or sale to be thereafter made at such place, be deemed to be revoked and of no effect; and every registrar or consular officer recording any such notice shall thereupon state to the registrar by whom the certificate was granted whether any previous exercise of the power to which such certificate refers has taken place. (Sec. 83.)

*Registry anew, and Transfer of Registry.*

*Alteration in Ship to be registered.*—Whenever any registered ship is so altered as not to correspond with the particulars relating to her tonnage or description contained in the register book, then, if such alteration is made at a port where there is a registrar, the registrar of such port, but if made elsewhere, the registrar of the first port having a registrar at which the ship arrives after her alteration, shall, on application made to him, and on the receipt of a certificate from the proper surveyor specifying the nature of such alteration, either retain the old certificate of registry and grant a new certificate of registry containing a description of the ship as altered, or indorse on the existing certificate a memorandum of such alteration, and subscribe his name to such indorsement; and the registrar to whom such application as aforesaid is made, if he is the registrar of the port of registry of the ship, shall himself enter in his register book the particulars of the alteration so made, and the fact of such new certificate having been granted or indorsement having been made on the existing certificate; but if he is not such last-mentioned registrar, he shall forthwith report such particulars and facts as aforesaid, accompanied by the old certificate of registry in cases where a new one has been granted, to the registrar of the port of registry of the ship, who shall retain such old certificate (if any), and enter such particulars and facts in his register book accordingly. (Sec. 84.)

*On Alteration, Registry anew may be required.*—When the registrar to whom application is made in respect of any such alteration as aforesaid is the registrar of the port of registry, he may, if he think fit, instead of registering such alteration, require such ship to be registered anew in manner hereinbefore directed on the first registry of a ship; and if he is not such registrar as lastly hereinbefore mentioned, he may nevertheless require such ship to be registered anew; but he shall, in such last-mentioned case, grant a provisional certificate or make a provisional indorsement of the alteration made in manner hereinbefore directed in cases where no registry anew is required, taking care to add to such certificate or indorsement a statement that the same is made provisionally, and to insert in his report to the registrar of the port of registry of the ship a like statement. (Sec. 85.)

*Grant of Provisional Certificate in respect of Alteration.*—Every such provisional certificate, or certificate provisionally indorsed, shall, within 10 days after the first subsequent arrival of the ship at her port of discharge in the United Kingdom if registered in the United Kingdom, or, if registered elsewhere, at her port of discharge in the British possession within which her port of registry is situate, be delivered up to the registrar thereof, who shall thereupon cause such ship to be regis-

tered anew in the same manner in all respects as hereinbefore required on the first registry of any ship. (Sec. 86.)

*Consequence of Omission to Register anew.*—On failure of such registry anew of any ship or registry of alteration of any ship so altered as aforesaid, such ship shall be deemed not duly registered, and shall no longer be recognised as a British ship. (Sec. 87.)

*On Change of Owners, Registry anew may be granted.*—If upon any change of ownership in any ship the owner or owners desire to have such ship registered anew, although such registry anew is not required by this Act, it shall be lawful for the registrar of the port at which such ship is already registered, on the delivery up to him of the existing certificate of registry, and on the other requisites to registry, or such of them as the registrar thinks material, being duly complied with, to make such registry anew, and grant a certificate thereof. (Sec. 88.)

*Registry may be transferred from Port to Port.*—The registry of any ship may be transferred from one port to another upon the application of all parties appearing on the register to be interested in such ship, whether as owners or mortgagees; such application to be expressed by a declaration in writing made and subscribed, if the party so required to make and subscribe the same resides at or within 5 miles of the custom-house of the port from which such ship is to be transferred, in the presence of the registrar of such port, but if beyond that distance, in the presence of any registrar or of any justice of the peace. (Sec. 89.)

*Manner of Transfer of Registry.*—Upon such application being made as is hereinbefore mentioned, and upon the delivery to him of the certificate of registry, the registrar of the port at which such ship is already registered shall transmit to the registrar of the port at which such ship is intended to be registered notice of such application having been made to him, together with a true copy of all particulars relating to such ship, and the names of all the parties appearing by his book to be interested as owners or mortgagees in such ship; and such last-mentioned registrar shall, upon the receipt of such notice, enter all such particulars and names in his book of registry, and grant a fresh certificate of registry, and thenceforth such ship shall be considered as registered at and belonging to such last-mentioned port, and the name of such last-mentioned port shall be substituted on the stern of such ship in lieu of the name of the port previously appearing thereon. (Sec. 90.)

*Transfer of Registry not to affect Rights of Owners.*—The transfer of the registry of any ship in manner aforesaid shall not in any way affect the rights of the several persons interested either as owners or mortgagees in such ship, but such rights shall in all respects be maintained and continue in the same manner as if no such transfer had been effected. (Sec. 91.)

#### *Registry, Miscellaneous.*

*Inspection of Register Books.*—Every person may, upon payment of a fee to be fixed by the Commissioners of Customs, not exceeding 1s., have access to the register book for the purpose of inspection at any reasonable time during the hours of official attendance of the registrar. (Sec. 92.)

*Indemnity to Registrar.*—No registrar shall be liable to damages or otherwise for any loss accruing to any person by reason of any act done or default made by him in his character of

registrar, unless the same has happened through his neglect or wilful act. (Sec. 93.)

*Return to be made by Registrars to Commissioners of Customs.*—Every registrar in the United Kingdom shall at the expiration of every month, and every other registrar shall without delay, or at such stated times as may be fixed by the Commissioners of Customs, transmit to the Custom-house in London a full return in such form as they may direct of all registries, transfers, transmissions, mortgages, and other dealings with ships which have been registered by or communicated to them in their character of registrars, and the names of the persons who have been concerned in the same, and such other particulars as may be directed by the said Commissioners. (Sec. 94.)

Clause 95 directs the mode in which registration fees are to be applied; and clauses 96 to 99 inclusive give power to Commissioners of Customs, registrars &c. to act in certain specified circumstances.

*Liabilities of Owners.*—Whenever any person is beneficially interested, otherwise than by way of mortgage, in any ship or share therein registered in the name of some other person as owner, the person so interested shall, as well as the registered owner, be subject to all pecuniary penalties imposed by this or by any other Act on owners of ships or shares therein, so nevertheless that proceedings may be taken for the enforcement of any such pecuniary penalties against both or either of the aforesaid parties, with or without joining the other of them. (Sec. 100.)

#### *Forgery.*

*Punishment for Forgery.*—Any person who forges, assists in forging, or procures to be forged, fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any register book, certificate of surveyor, certificate of registry, declaration of ownership, bill of sale, instrument of mortgage, certificate of mortgage or sale, or any entry or indorsement required by this Act to be made in or on any of the above documents, shall for every such offence be deemed to be guilty of felony. (Sec. 101.)

#### *National Character.*

*National Character of Ship to be declared before Clearance.*—No officer of customs shall grant a clearance or transire for any ship until the master of such ship has declared to such officer the name of the nation to which he claims that she belongs, and such officer shall thereupon inscribe such name on the clearance or transire; and if any ship attempts to proceed to sea without such clearance or transire, any such officer may detain her until such declaration is made. (Sec. 102.)

*Penalties.*—The offences hereinafter mentioned shall be punishable as follows: (that is to say)

1. If any person uses the British flag and assumes the British national character on board any ship owned in whole or in part by any persons not entitled by law to own British ships, for the purpose of making such ship appear to be a British ship, such ship shall be forfeited to Her Majesty, unless such assumption has been made for the purpose of escaping capture by an enemy or by a foreign ship of war in exercise of some belligerent right; and in any proceeding for enforcing any such forfeiture, the burden of proving a title to use the British flag and assume the British national character shall lie upon the person using and assuming the same.

2. If the master or owner of any British ship

Certificate of Registry (ante, s. 44).

No. _____		Date of Registry.	
Name of Ship		British or Foreign built	Port of Registry
		Haw propelled	
		By Steam or Sails, and if by Steam, whether by Paddle or Screw.	
Number of Decks -		Built -	Carvel or Clinker.
Number of Masts -		Gallery -	Description of
Rigging -	Nature of, and whether standing or running topsprit.	Head -	Kind of.
Stern -	Rounds, square, or other description.	Framework -	Wood or other Material.
Measurements.			
Length from the Forepart of Stern under the bowsprit to the Aftside of the Head of the sternpost		Feet	Tenths
Main Breadth to Outside of Plank			
Depth in Hold from Tonnage Deck to Ceiling at Midships			
Tonnage.			
Tonnage under Tonnage Deck		No. of Tons	
Close in Spaces above the Tonnage Deck, if any, viz.:-			
Space of Spaces between Decks			
Poop			
Roundhouse			
Other inclosed Spaces, if any, naming them			
Total			
* Additional Particulars for Steamers.			
Deduction for Space required for Propelling Power (say whether 37-100ths or 32-100ths, or as measured)		Tons	
Length of Engine Room (if measured)		Feet	Tenths
Engines -		Number of Engines	
Combined Power (estimated Horse-power)		No. of Horse-power	
Register Tonnage (after making deduction for space for propelling power in steamers).*			

\* Omit this part if she has no Steam Power.

I, the undersigned A.B., registrar of the port of \_\_\_\_\_, hereby certify that, -  
 1. The ship, the description of which is prefixed to this my certificate, has been duly surveyed, and that the above description is true.  
 2. The said ship is the master of the said ship.  
 3. The said ship was built at \_\_\_\_\_ (naming the country and place) on the \_\_\_\_\_ day of \_\_\_\_\_ (naming the day of the month) \_\_\_\_\_ (naming the year) (is foreign-built, and the time when and the place where she was built are not known, or if she was condemned by the court of \_\_\_\_\_, on the \_\_\_\_\_ day of \_\_\_\_\_, at \_\_\_\_\_, and her foreign name is \_\_\_\_\_).  
 4. The several persons and bodies corporate whose names are hereunder written [or endorsed] are owners of the above ship, in the proportions set opposite their respective names.  
 (Signed) \_\_\_\_\_ Registrar.

Names of the several Owners above [or within] mentioned	Number of sixty-fourth Shares held by each Owner
(Name) _____	Thirty-two.
_____	Sixteen.
_____	Eight.
_____	Eight.
	(Signed) _____ Registrar.

Dated at \_\_\_\_\_ the \_\_\_\_\_ day of \_\_\_\_\_ 18\_\_\_\_

Notice.—A certificate of registry granted under the Merchant Shipping Act, 1854, is not a document of title. It does not necessarily contain notice of all changes of ownership; and in no case does it contain an official record of any mortgages affecting the ship.

does or permits to be done any matter or thing, or carries or permits to be carried any papers or documents, with intent to conceal the British character of such ship from any person entitled by British law to enquire into the same, or to assume a foreign character, or with intent to deceive any such person as lastly hereinbefore mentioned, such ship shall be forfeited to her Majesty; and the master, if he commits or is privy to the commission of the offence, shall be guilty of a misdemeanor.

3. If any unqualified person, except in the case of such transmitted interests as are hereinbefore mentioned, acquires as owner any interest, either legal or beneficial, in a ship using a British flag and assuming the British character, such interest shall be forfeited to her Majesty.

4. If any person, on behalf of himself or any other person or body of persons, wilfully makes a false declaration touching the qualification of himself or such other person or body of persons to own British ships or any shares therein, the warrant shall be guilty of a misdemeanor; and

the ship or share in respect of which such declaration is made, if the same has not been forfeited under the foregoing provision, shall, to the extent of the interest therein of the person making the declaration, and unless it is shown that he had no authority to make the same, of the parties on behalf of whom such declaration is made, be forfeited to her Majesty.

And in order that the above provisions as to forfeitures may be carried into effect, it shall be lawful for any commissioned officer on full pay in the military or naval service of her Majesty, or any British officer of customs, or any British consular officer, to seize and detain any ship which has, either wholly or as to any share therein, become subject to forfeiture as aforesaid, and to bring her for adjudication before the High Court of Admiralty in England or Ireland, or any court having admiralty jurisdiction in her Majesty's dominions; and such court may thereupon make such order in the case as it may think fit, and may award to the officer bringing in the same for adjudication such portion of the

has happened through (Sec. 93.)  
 by Registrars to Com-  
 Every registrar in the  
 at the expiration of every  
 r registrar shall without  
 times as may be fixed by  
 Customs, transmit to the  
 on a full return in such  
 direct of all registries,  
 s, mortgages, and other  
 which have been registered  
 them in their character of  
 names of the persons who  
 in the same, and such other  
 be directed by the said  
 94.)  
 the mode in which registra-  
 plied; and clauses 96 to 99  
 to Commissioners of Cust-  
 to act in certain specified

rs.—Whenever any person is  
 d, otherwise than by way of  
 p or share therein registered  
 e other person as owner, the  
 e shall, as well as the regis-  
 trect to all pecuniary penalties  
 y any other Act on owners of  
 rein, so nevertheless that pro-  
 en, for the enforcement of  
 ry penalties against both or  
 said parties, with or without  
 of them. (Sec. 100.)

Forgery.  
 Forgery.—Any person who  
 orging, or procures to be forged,  
 s, assists in fraudulently alter-  
 to be fraudulently altered, any  
 tificate of surveyor, certificate of  
 tion of ownership, bill of sale,  
 ortgage, certificate of mortgage  
 ntry or indorsement required by  
 ade in or on any of the above  
 l for every such offence be  
 lity of felony. (Sec. 101.)

National Character.  
 Character of Ship to be declared  
 e.—No officer of customs shall  
 ee or transire for any ship until  
 such ship has declared to such  
 of the nation to which he claims  
 s, and such officer shall thereupon  
 ame on the clearance or transire;  
 ship attempts to proceed to sea  
 clearance or transire, any such  
 tain her until such declaration is  
 02.)

The offences hereinbefore mentioned  
 shall be as follows: (that is to say) if  
 person uses the British flag and  
 British national character on board  
 ed in whole or in part by any  
 titled by law to own British ships,  
 e of making such ship appear to be  
 y, such ship shall be forfeited to her  
 s such assumption has been made  
 e of escaping capture by an enemy  
 ship of war in exercise of some  
 ight; and in any proceeding for  
 y such forfeiture, the burden of  
 e to use the British flag and assume  
 tional character shall lie upon the  
 and assuming the same.  
 master or owner of any British ship

proceeds of the sale of any forfeited ship or share as it may think right. (Sec. 103.)

*Officer not liable for any Seizure made on reasonable Grounds.*—No such officer as aforesaid shall be responsible, either civilly or criminally, to any person whomsoever, in respect of the seizure or detention of any ship that has been seized or detained by him in pursuance of the provisions herein contained, notwithstanding that such ship is not brought in for adjudication, or, if so brought in, is declared not to be liable to forfeiture, if it be shown, to the satisfaction of the judge or court before whom any trial relating to such ship or such seizure or detention is held, that there were reasonable grounds for such seizure or detention; but if no such grounds are shown, such judge or court may award payment of costs and damages to any party aggrieved, and make such other order in the premises as it think just. (Sec. 104.)

*Penalty for carrying improper Colours.*—If any colours usually worn by her Majesty's ships, or any colours resembling those of her Majesty, or any distinctive national colours, except the red ensign usually worn by merchant ships, or except the union jack with a white border, or if the pendant usually carried by her Majesty's ships, or any pendant in anywise resembling such pendant, are or is hoisted on board any ship or boat belonging to any subject of her Majesty without warrant for so doing from her Majesty or from the Admiralty, the master of such ship or boat, or the owner thereof, if on board the same, and every other person hoisting or joining or assisting in hoisting the same, shall for every such offence incur a penalty not exceeding 500*l.*; and it shall be lawful for any officer on full pay in the military or naval service of her Majesty, or any British officer of the customs, or any British consular officer, to board any such ship or boat, and to take away any such jack, colours, or pendant; and such jack, colours, or pendant shall be forfeited to her Majesty. (Sec. 105.)

*Effect of Declaration that a Ship shall not be recognised as a British Ship.*—Whenever it is

declared by this Act that a ship belonging to any person or body corporate, qualified according to this Act to be owners of British ships, shall not be recognised as a British ship, such ship shall not be entitled to any benefits, privileges, advantages, or protection usually enjoyed by British ships, and shall not be entitled to use the British flag or assume the British national character; but, so far as regards the payment of dues, the liability to pains and penalties, and the punishment of offences committed on board such ship or by any person belonging to her, such ship shall be dealt with in the same manner in all respects as if she were a recognised British ship. (Sec. 106.)

*REPORT.* In Commercial Navigation, a paper delivered by the masters of all ships arriving from parts beyond seas to the custom-house, containing an account of the cargo on board, &c. (16 & 17 Vict. c. 107 ss. 50-54; ante, IMPORTATION AND EXPORTATION.)

*REPRISALS.* Where the people of one nation have unlawfully seized and detained property belonging to another state, the subjects of the latter are authorised, by the law of nations, to indemnify themselves by seizing the property of the subjects of the state aggressing. This is termed making reprisals; and commissions to this effect are issued from the Admiralty. [PATENTERS.]

*RESPONDENTIA.* [LOTTOBY AND RESPONDENTIA.]

*REVENUE AND EXPENDITURE.* Though not properly belonging to a work of this sort, we believe we shall do an acceptable service to our readers by laying before them a Table of the Revenue and Expenditure of the United Kingdom.

Subjoined is an account of the gross public income of the United Kingdom of Great Britain and Ireland, in the year ended the 31st day of March 1868, and of the actual issues within the same period, exclusive of sums applied to the redemption of funded or paying off unfunded debt, and of the advances and repayments for local works, &c.

Table No. I.

Income			Expenditure		
	£	s. d.		£	s. d.
Customs - - - - -	22,624,000	0 0	Interest and management of the permanent debt - - -	22,868,923	16 7
Excise - - - - -	20,162,490	0 0	Terminable annuities - - -	3,127,270	0 2
Stamps - - - - -	9,541,900	0 0	Interest of exchequer bonds - - -	87,250	0 0
Taxes (land and assessed) - - -	3,529,000	0 0	Interest of exchequer bills - - -	165,918	15 0
Property tax - - - - -	6,177,000	0 0	Interest of Bank advances for deficiency - - - - -	2,527	10 0
Post office - - - - -	4,620,480	0 0			
Crown lands (nett) - - - - -	315,000	0 0			56,721,520 11 1
Miscellaneous: - - - - -					
Military and naval extra receipts and proceeds of old stores sold - - - - -	866,590	3 1	<b>CHARGES ON CONSOLIDATED FUNDS</b>		
Amount received from the revenues of India on account of the effective and non-effective charges of British troops serving in that country - - - - -	950,500	0 0	Civil list - - - - -	405,721	5 0
Allowance out of profits of issue, received from the Bank of England, per Act 24 Vict. c. 3 - - - - -	138,573	0 0	Annuities and pensions - - - - -	286,879	1 10
Other miscellaneous receipts - - - - -	730,560	1 0	Salaries and allowances - - - - -	1,341,9	8 4
			Diplomatic salaries and pensions - - - - -	174,053	1 4
			Courts of justice - - - - -	672,259	13 8
			Miscellaneous charges - - - - -	211,345	13 7
					1,692,498 3 1
			<b>SUPPLY SERVICES:</b>		
			Army - - - - -	15,418,551	17 1
			Navy - - - - -	11,166,949	0 9
			Abyssinian expedition - - - - -	2,000,000	0 0
			Miscellaneous civil services - - - - -	8,491,541	11 7
			Salaries, supernum. &c. of customs and inland revenue - - - - -	2,421,172	0 2
			Do. of post office - - - - -	2,102,051	9 2
			Packet service - - - - -	208,517	13 8
					42,770,523 11 1
Total revenue - - - - -	2,586,218	4 1	Total ordinary expenditure - - - - -		
Excess of total expenditure over income in the year ended March 31, 1868 - - - - -	69,600,218	4 1	Expenses of fortifications provided for by money raised per Act 24 & 29 Vict. c. 61 - - - - -		
Grand total - - - - -	71,766,211	17 7	Total expenditure - - - - -	71,766,211	17 7

Table No. II. is an account of the balances of the public money remaining in the exchequer on the 31st day of March, 1867; the amount of money raised by additions to the funded or unfunded debt, and the amount applied towards the redemption of funded or paying off unfunded debt

in the year ended the 31st day of March, 1868; the total amount of advances and repayments on account of local works &c., in the same period; and the balances in the exchequer on the 31st day of March, 1868.

Table No. II.

Income						Expenditure							
	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
Balances in the exchequer on March 31, 1867							Issued to the commissioners for the reduction of the National Debt, to be applied to the redemption of the public debt	1,790,404	9	4			
At the Bank of England	2,923,691	13	0				Deduct—amount applied in repayment of back advances for deficiency	901,638	9	4	888,766	0	0
At the Bank of Ireland	1,489,439	16	10	7,891,131	10	0	Exchequer bonds paid off, viz.:						
Money raised in the year ended March 31, 1868							Series K, dated November 9, 1861	700,000	0	0			
Fund-deductions							Series M, dated March 27, 1866	1,000,000	0	0	1,700,000	0	0
By the creation of terminable annuities, per Act 32 & 33 Vict. c. 61 (to provide for the expense of constructing certain fortifications), to expire on April 5, 1883, as follows:							Exchequer bills paid off in money				45,700	0	0
Annually commencing April 6, 1867	80,000	0	0				Advances for purchase of bullion, and for local works &c.				1,429,890	9	2
July 15, 1867	6,000	0	0				Advances for New Courts of Justice				317,000	0	0
Annually commencing October 11, 1867							Advances for Greenwich Hospital				215,415	8	7
Sept. 26, 1867	11,781	150,000	0	0			Excess of total expenditure over income in the year ended March 31, 1868				2,166,023	13	6
Oct. 31, "	5,914	50,000	0	0			Balances in the exchequer on March 31, 1868:						
Nov. 11, "	7,212	100,000	0	0			At the Bank of England	3,793,917	19	3			
Jan. 16, 1868	7,751	100,000	0	0	480,000	0	At the Bank of Ireland	1,057,927	13	11	4,791,815	13	9
Unfunded debt:							Total				11,537,660	17	5
Exchequer bonds (series N.), per Act 30 Vict. c. 32, dated December 12, 1867, and payable December 12, 1869	700,000	0	0										
Exchequer bonds (series O.), per Act 30 Vict. c. 31, dated March 27, 1868, and payable March 27, 1870	1,000,000	0	0	1,700,000	0	0							
Repayments on account of advances for the purchase of bullion, and for local works &c.				1,575,063	18	10							
Repayment on account of advances for New Courts of Justice				375,000	0	0							
Repayments on account of advances for Greenwich Hospital				115,115	8	7							
Total				11,537,660	17	5							

\* Including 50,000*l.* of the money raised for fortifications.

† No balance remaining of the money raised for fortifications.

A more comprehensive and instructive table than that marked No. I. was framed according to the suggestion, and printed for several years upon the motion, of Mr. Pusey; and there are not very many Members who can refer to so useful a memorial of their Parliamentary career. This was continued by Mr. W. Williams, but dropped on his death. Annexed is a

Statement, showing the Estimated or Actual Revenue and Expenditure of several Foreign Countries at different recent Periods. (Extracted from Reports of Secretaries of Legations on Finance.)

Countries	Years	Revenue	Expenditure
Austria - estimated	1867	40,729,700	43,289,600
Denmark - actual	1866-7	2,923,201	2,814,693
France - "	1867	88,698,592	96,561,784
Germany - "	1866	9,923,107	9,925,611
Russia - estimated	1867	59,915,113	59,180,022
Spain - "	1868-9	25,846,717	26,561,267
Turkey - "	1868-9	11,589,855	13,325,225
United States - actual	1867-8	67,101,931	61,773,772
Nepal - estimated	1868-9	59,600,000	47,700,000
Mexico - "	1867	5,494,283	6,017,708
Peru - "	1867	2,689,983	3,105,421

RHUBARB (Dutch, rabarber; Fr. rhubarbe; Ital. rabarbaro, reobarbaro; Span. ruibarbo; Russ. hewen; Arab. rawend; Chin. ta-hwang). The root of a plant, a native of China and Tartary. Three varieties of rhubarb are known in the shops; viz. Russian, Turkey, and East Indian or Chinese rhubarb. The first two resemble each other in every respect. They are, in fact, the same article, being both derived from Tartary. The portion designed for the Petersburg market being selected and sorted at Kiachta, acquires the name of Russian rhubarb; while the portion that is sent from Tartary to Smyrna and other places in Turkey is called Turkey rhubarb. The best pieces only are sent to Petersburg; and according to the contract with the Government, on whose account it is bought, all that is rejected must be burnt; and that which is approved undergoes a second cleaning before being finally packed up for

Petersburg. The best pieces of Russian and Turkey rhubarb are roundish, and perforated with a large hole, of a reddish or yellow colour on the outside, and when cut or broken exhibit a mottled texture, and alternate streaks of red and grey. Its odour is peculiar. It is finely gritty under the teeth, and its taste bitter, faintly astringent, and aromatic. It should not be porous, but rather compact and heavy. East Indian or Chinese rhubarb is in oblong flat pieces, seldom perforated; has a stronger odour and is more nauseous to the taste than the other; it is heavier, more compact, breaks smoother, and affords a powder of a redder shade. (Thomson's Dispensatory; Ainslie's Mat. India; British Pharmacopœia, 1867; &c.)

In 1867 the imports of rhubarb amounted to 227,663 lb. valued at 61,906*l.*, chiefly from France, and the exports to 211,221 lb. It was formerly charged with a duty, which, after being reduced in 1842, was repealed in 1845.

RICE (Fr. riz; Ital. riso; Arab. aruz; Hin. chaw). One of the most valuable of the cereal grasses, the *Oryza sativa* of botanists. It is raised in immense quantities in India and China, and most Eastern countries; in the West Indies, Central America, and the United States; and in some of the southern countries of Europe. It, in fact, occupies the same place in most intertropical regions as wheat in the warmer parts of Europe, and oats and rye in those more to the north. Forming, as it does, the principal part of the food of the most civilised and populous Eastern nations, it is more extensively consumed than any other species of grain. It is light and wholesome, but it is said to contain less of the nutritive principle than wheat. When rough, or in its natural state in the husk, it is called *paddy*. There is an immense variety in the qualities of rice. That which is principally exported from Bengal has received the name of *cargo rice*. It is of a coarse reddish cast, but is sweet and large-grained, and is preferred by the natives to every other sort. It is not kiln-dried, but is parboiled in earthen pots or caldrons, partly to destroy the vegetative prin-

ship belonging to any qualified according to British ships, shall not be ship, such ship shall not be privileges, advantages, to be used by British ships, or the British flag or of national character; but, so of dues, the liability and the punishment of ward such ship or by any such ship shall be dealt in all respects as if she ship. (See 106.)

mercial Navigation, a papers of all ships arriving to the custom-house, on the cargo on board, &c. a. 50-54; ante, 1400-1401.)

to the people of one nation and detained property state, the subjects of the by the law of nations, to by seizing the property of state aggressing. This is sales; and commissions to from the Admiralty. [P-

EXPENDITURE. Though ing to a work of this sort, do an acceptable service to ing before them a Table Expenditure of the United

account of the gross public Kingdom of Great Britain year ended the 31st day of the actual issues within the re- of sums applied to the re- or paying off unfunded debt, es and repayments for local

Expenditure	£	s.	d.	£	s.	d.
	22,868,925	16	7			
	31,147,270	0	2			
	87,250	0	0			
	165,518	15	0			
	2,587	10	0	26,771,250	11	1
	405,721	5	0			
	286,539	1	10			
	1,574,419	8	0			
	174,053	1	4			
	672,559	13	8			
	211,205	15	7	1,833,691	11	1
	15,418,581	17	1			
	11,168,949	0	9			
	29,093,000	0	0			
	8,491,241	11	7			
	2,181,138	0	4			
	2,302,051	9	2			
	808,517	13	8	49,750,535	19	1
				71,326,411	11	1
provided for by money				530,000	0	0
St. c. 61				71,756,411	11	1

ted the 31st day of March, 1868; t of advances and repayments on works &c., in the same period; s in the exchequer on the 31st day

ciple, so that it may keep better, and partly to facilitate the process of husking. Patna rice is more esteemed in Europe than any other sort of rice imported from the East. It is small-grained, rather long and wiry, and remarkably white. But the rice raised on the low marshy grounds of South Carolina is unquestionably very superior to any brought from any part of India. It may, perhaps, be worth mentioning, that rice, like wheat, oats, and barley, is not indigenous to America. It was first raised in South Carolina from seeds brought from Madagascar near the end of the 17th century. Its culture increased so rapidly that in 1721 no fewer than 18,000 tierces, or barrels, were exported. (Pitkin's *American Statistics*, 1835, p. 100.) According to the returns under the census of 1840, the total annual produce of rice in the United States was estimated at 80,841,422 lb., whereas under the census of 1850 it was estimated at 215,312,710 lb., or above 96,000 tons, of which 159,930,613 lb. were raised in South Carolina. However, this crop seems to have been diminished by the Civil War, and the value of the exports of rice from the United States amounted, in 1865, to 63,430 dois.

The produce of lands naturally or artificially irrigated is, as far as rice is concerned, from 5 to 10 times greater than that of dry land having no command of water; and hence the vast importance of irrigation in all countries where this grain is cultivated. But it is worthy of remark, that, owing to the not unfrequent occurrence of severe droughts, there is a greater variation in the crops of rice than in those of many other species of grain. Those who, like the Hindoos, depend almost entirely on it for subsistence, are consequently placed in a very precarious situation. There can be no doubt that famines are at once more frequent and severe in Hindostan than in any other country, Ireland excepted.

The exports of rice from India have greatly increased since 1861.

Table, showing the Value of Exports of Rice from India in the 10 Years ending with 1866.

	£	1862	£
1857	2,501,182	1862	3,355,075
1858	3,149,172	1863	3,378,196
1859	2,435,145	1864	3,975,565
1860	2,276,206	1865	3,275,537
1861	2,962,197	1866	4,909,562

For a considerable number of years our supplies of cleaned rice were principally derived from Bengal; but now we get much the larger proportion from Pegu. We subjoin—

An Account of the Imports of Rice into the United Kingdom in 1867, specifying the Quantities brought from each Country.

	cwt.
Hremen	26,759
Holland	25,033
United States	9,583
Brazil	11,767
British Possessions in South Africa	21,186
India &c.	2,621,922
Cochin China	37,724
Mauritius	15,129
Other parts	19,329
Total	2,778,754

During the same year 44,943 qrs. of rough rice were imported, of which  $\frac{2}{3}$  came from India. We make these imports from being in possession of a method of detaching the husk, which throws out the grain clean and unbroken. Carolina rice sells in London at from 35s. 8d. per cwt. when Bengal rice sells at from 14s. 7d. per do.

The duty on foreign rice was formerly quite excessive, having amounted, previously to 1842, to 15s. per cwt., while that charged on rice from a British possession was only 1s. In 1842 Sir Robert Peel reduced the former to 6s. 3d. and the

latter to 6s. 3d.; and in 1846 he further reduced the duty on foreign rice to 1s., and that on colonial do. to 6d. per cwt. In 1853 Mr. Gladstone equalised the duties at 4d. per cwt. A like course was followed with the duty on rough rice, which in 1842 amounted to 20s. per qr. on that from a foreign country, and to only 1d. per do. on that from a colony. Sir Robert Peel reduced the former in 1842 to 7s. 4d., and in 1846 to 1s.: it was afterwards fixed at 9d. per qr. without reference to its origin. The duties on both were abolished in 1860.

In consequence of the reduction and eventual abolition of the duties, the consumption of rice has been greatly increased; formerly it rarely exceeded (except in 1847, when it was largely imported into Ireland) 550,000 cwt., whereas it amounted, at an average of 1866 and 1867, to 2,523,210 cwt. a-year, exclusive of 44,263 qrs. of rice in the husk.

RIGA. A city of European Russia, the capital of Livonia, on the Dvina, about 9 miles from the sea, lat. 56° 57' N., long. 21° 6' 5" E. Population in 1863, excluding garrison, 77,468.

Harbour.—A lighthouse has been erected on Fort Comet, on the western side of the mouth of the river. It has 2 lights: the first, elevated about 104 feet (English) above the level of the sea, may be seen under favourable circumstances at the distance of 4 leagues; and the second, lighted in 1863, may be seen at the distance of 5 miles. The bar at the mouth of the river has usually from 12 to 13 feet water; and vessels drawing more than this frequently load and unload part of their cargoes by means of lighters at Bolderaa, a small town on the west side of the river, near its mouth. There is a fairway beacou without the bar, in 5 fathoms water; and within the channel is buoyed with black and white buoys: the black being left on the right or starboard side when entering, and the white on the larboard. Vessels bound for Riga take pilots at Bolderaa, who carry them to their anchorage. No ballast is allowed to be discharged except at Poderague. Regulations as to clearing &c. similar to those at Petersburg. (Coulter *Sur les Phares*, 2nd ed.; *Regulations of Russian Authorities*; *Admiralty List*, 1869.)

Trade.—Owing to its advantageous situation near the mouth of a great navigable river, the trade of Riga is very extensive; being, of the Russian towns on the Baltic, in this respect second only to Petersburg. The trade is chiefly carried on by foreign merchants, particularly by the English. The principal exports are flax and hemp, linseed and hemp-seed, timber, corn, tobacco, hides, wool, tallow &c.; the imports are salt, sugar, coffee, and groceries of all sorts, herrings, indigo, dye-woods, cotton and cotton twist, silks, hardware, iron, coals, wines &c.

The mast trade is extensive. The burghers of Riga send persons who are called mast brokers into the provinces to mark the trees, which are purchased standing. They grow mostly in the districts which border on the Dnieper, are sent up that river to a landing-place, transported 30 versts to the Duna, when, being formed into rafts of from 50 to 200 pieces, they descend the stream to Riga. The tree which produces the largest masts is the Scotch fir. Those pieces which are from 18 to 25 inches in diameter are called masts; under those dimensions, spars; or, in English, Norway masts, because Norway exports no trees more than 18 inches in diameter. Great skill is required in distinguishing those masts that are sound from those which are in the least internally decayed. They are usually from 70 to 80 feet in length.

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The best kind of flax shipped from Riga is  
grown in White Russia, and is called *Druna*  
*rakitzer*; its colour is very white, and the threads  
long, fine, and loose, but it has sometimes black  
spots; the next quality, coming from the pro-  
vince of Troekie in Lithuania, is called *Lithu-  
anian rakitzer*, and is very little inferior to *Druna*,  
but its colour is a little brown; of this kind the  
best sort is *Thesenhausen*. The best kind of  
Courland flax shipped from Riga is *Marieburg*;  
that grown in Livonia is inferior. There are two  
kinds of linseed: that of the last crop, which is  
used for sowing; and that of former years, for  
crushing. To prevent deception, the year of its  
growth is stamped on the barrel by sworn inspec-  
tors (*brachers*). Hemp-seed is mostly shipped for  
Holland. Riga wheat is inferior to that of Danzig.  
Two descriptions are shipped—one the growth of  
Russia, the other of Courland; the last is the  
best, being larger-bodied and of a brighter colour  
than the Russian; still, however, it makes but  
indifferent flour. Oats are of a good quality, and  
are largely exported; peas are also occasionally  
exported.

In shipping masts, the rest of the cargo gene-  
rally consists of deals and waincot logs: the  
latter are much exported to England, and are very  
superior.

Money.—For the moneys of Riga, see *PETEN-  
BURG*.

*Weights and Measures*.—The commercial pound  
is divided into 2 marcs, or 32 loths; and also into  
halves, quarters &c. It contains 6,452 English  
grains. Hence 100 lb. of Riga = 92.17 lb. avoird-  
upois = 41.8 kilog. = 86.32 lb. of Hamburg =  
846 lb. of Amsterdam. The lispond = 20 lb.;  
the shippound = 20 lisponds.

The loof is the measure for grain: 48 loofs =  
1 last of wheat, barley, or linseed; 45 loofs =  
1 last of rye; and 60 loofs = 1 last of oats, malt,

and beans. According to Kelly, the loof = 1.9375  
Winchester bushel; and consequently the last  
of wheat = 11.625 quarters. *Nelkenbrecher* does  
not value the last quite so high as Kelly.

The fuder, the measure for liquids, is divided  
into 4 ahms, 24 ankers, 120 quarts, or 720 stoofs.  
The anker = 10 English wine gallons.

The foot of Riga = 10.79 English inches. The  
ell = 2 feet; the clafter = 6 feet.

The number of British vessels of all classes  
arriving at this port during the years from 1861  
to 1867 inclusive was as follows:—

Years	Vessels	Tonnage	Crews
1861	350	65,607	2,851
1862	361	70,132	3,013
1863	303	74,845	3,111
1864	583	113,990	4,780
1865	495	105,278	4,340
1866	473	106,615	4,215
1867	431	101,782	—

The number of vessels of all nations arriving  
at this port during the years from 1861 to 1867  
inclusive has been as follows:—

Years	Vessels	Tonnage
1861	1,870	285,990
1862	1,761	290,592
1863	1,711	285,385
1864	1,950	338,348
1865	2,508	432,808
1866	2,387	429,575
1867	2,069	375,792

*Value of Export Trade of Riga 1861-67.*

Year	Value	Year	Value
1861	31,303,300 silv. roub.	1865	31,466,250
1862	35,907,410	1866	38,477,890
1863	42,457,965	1867	47,249,700
1864	25,395,000		

The total import trade of Riga during the year  
1867 shows a marked increase as compared with  
1866, the figures being respectively 7,673,600  
silver roubles in 1866, and 12,958,800 silver roubles  
in 1867.

*Account of the Quantity of the Principal Articles Exported from Riga in 1865, distinguishing those sent to different Countries.*

Countries	Flax	Hemp	Crushing and Nowing Seed	Hempseed	To-bacco	Corn and Grain	Masts and Bow sprits	Planks and Deals	Timber	Logs, Vats and Pipe Staves
	tons	tons	imp. grs.	imp. grs.	tons	qrs.	pieces	pieces	pieces	pieces
Great Britain	40,290	12,966	43,684	3,199	..	49,112	462	433,043	58,331	37,551
France	8,196	2,278	14,803	41,515	..	..	352	162,166	15,618	117,739
Belgium	5,919	316	16,665	20,253	..	..	64	114,702	45,497	28,807
Spain and Portugal	758	587	..	..	..	..	187	6,534	399	184,628
Sweden and Norway	748	3,250	11,244	280	21	1,666	..	..	..	..
Denmark	616	1,058	4,423	261	266	..	..	2,292	380	13,765
Holland	581	1,352	37,495	6,461	..	32,172	245	282,542	75,022	20,028
Hanse Towns	35	1,040	270	121	8	403	..	334,985	2,292	1,400
Brevo	136	1,233	4,396	200	40	227	881	35,139	162	610
Total	56,160	24,060	131,790	72,100	335	163,700	2,182	1,487,660	197,631	403,258

The quality of timber denominated 'crown fir  
timber' has lately become very scarce, so that  
the greater part of the Riga exports consists of the  
second quality, or what is called 'Verschiffungs  
brack timber'. There is no essential difference in  
the quality of crown timber and timber of the  
second quality, except that the latter is knottier  
than the former.

By decision of the Council of the Empire, of  
April 10 (22), 1867:—

I. Seven descriptions of taxes borne by the  
commerce and navigation of Riga were abolished.

II. On account of the tax for the benefit of the  
city of Riga, only  $\frac{1}{2}$  per cent. to be levied from Janu-  
ary 1, 1868, on all goods imported and exported, the  
town taking upon itself to keep up the mercantile  
courts and police of Riga; to increase the police  
and fire brigade as may be necessary.

III. The commerce and navigation of Riga  
will continue to pay the following taxes:—

1. *For the Benefit of the Crown.*—(1) A last-  
age duty of 5 copecks per last on all vessels

measuring 10 lasts and upwards; (2) A tax of 90  
copecks for the stamped paper used for ship's  
pass, and 15 copecks on the declaration of the  
captain; (3) A tax of  $\frac{1}{2}$  per cent. on the value  
of merchandise descending the Duna by river  
carriage.

2. *Taxes levied to be administered by the Ex-  
change Committee.*—(1) The second  $\frac{1}{2}$  per cent. on  
the value of imports and exports, on the condition  
that the ministers of the interior and finance shall  
watch that the amount received shall be especially  
applied to the payment of the interest, and to exting-  
uish the loans raised by the body of merchants  
for the construction of the Winter Harbour, the  
building and furnishing of the Exchange, or for  
other expences directly beneficial to commerce  
and navigation; (2) The third and fourth taxes  
of  $\frac{1}{2}$  per cent., as well as that of  $\frac{1}{4}$  per cent. on  
the value of imports and exports, under the con-  
dition that the local authorities shall report to  
the minister of the interior relative to the possi-  
bility of suppressing these three taxes, so soon

RIO DE JANEIRO

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as the loans to the payment of which they are to be applied shall have been disposed of, or shall to propose their reduction, should the keeping the harbour in a satisfactory condition render a permanent tax necessary; (3) The tax of 1 copeck per last on all outgoing vessels for the benefit of the Marine Hospital and the construction of the Hospize.

3. With the Character of a Voluntary Contribution, the tax for the benefit of the seamen's widew and orphan fund, and of the Riga Seamen Society; the amount of this tax is left to be decided by the shipowners of Riga, without placing of shipowners of other ports under the obligation of subscribing to it.

4. The temporary tax of 15 copecks per last on all merchants' vessels quitting the port, applied to deepening the navigable canal of the river, is changed into a tax of 10 copecks per last, which shall be levied equally on all merchants' vessels entering and quitting the port, on the condition, however, that the produce of this tax shall be exclusively applied to deepening the bed of the river and to no other purpose.

5. To replace the taxes which have been suppressed, and especially the tax of 5 copecks per last, the quay, shore, and bridge duties, as well as the tax called Bewilligungsgelder, there is provisionally established, for the benefit of the city of Riga, a single tax of 23 copecks per last, to be levied on each vessel which shall have actually made use of the town preparations for the use of ships, the town engaging on its part, (1) To establish and keep in good order, and free from danger, the bridges and quays necessary for vessels, without cost; (2) To furnish masters of vessels, without charge, the beams and planks necessary for constructing the stages for loading and discharging; (3) To exempt from all bridge payments, and other similar charges, all merchandise carried to and from vessels.

For Customs Tariff of 1869, see PETERSBURG. RIO DE JANEIRO. The capital of Brazil, on the Atlantic, in lat. 22° 54' 7" S., long. 43° 9' W. Population, in 1867, 420,000, of which 100,000 are slaves. The harbour of Rio is one of the finest in the world, both as respects capaciousness and security for all sorts of vessels. In coming from the N.E. it is usual to make the Cape Frio, about 4 leagues nearly E. of the entrance to the harbour is marked by a remarkable hill in the form of a sugarloaf, 900 feet high, close to its west side; while on the east, or opposite side of the bay, at the distance of about 1½ mile, is the fort of Santa Cruz. But the accompanying engraving, taken from a chart published by order of the Brazilian authorities, gives a much better

idea of this noble harbour than could be obtained from any description.

Entrance to the Harbour.—Vessels bound for Rio, coming from the N., should, after rounding Cape Frio, steer due W., keeping about 3 leagues from the coast, until they come within 5 or 6 miles of the Ilha Rasa, or Flat Island, lying almost due S. from the mouth of the harbour, at the distance of about 3 leagues. A lighthouse, the lantern of which is said to be elevated nearly 300 feet above the level of the sea, was erected on this island in 1828. The light is a revolving one, finishing its revolution in 2½ minutes, and exhibiting alternately a white and red light. There is also a lighthouse in the fort of Santa Cruz, the light of which is fixed, and elevated about 50 feet above the level of the sea. (Coulter *Sur les Phares*, 3rd ed.; *Admiralty List*, 1869.) Having got within 5 or 6 miles of the Ilha Rasa, ships may enter by day or night, the dotted line in the engraving marking the fairway into the harbour. There are no pilots to be met with; and as there are no hidden dangers of any kind, their services are not wanted. On entering, vessels must pass within hail of Fort Santa Cruz, to be ready to answer any questions that may be put to them. They then proceed to Fort Vilganhon, below or opposite to which they must bring to, or come to anchor, allowing no boats to come alongside but those of the Government, until they have received *per tique*, when they will be permitted to proceed to the usual place of anchorage for the merchant shipping.

The sea breeze generally sets in about 11 A.M. and last still about sunset. It is strong enough to enable ships to overcome the ebb. The water at full and change at 2 in the afternoon.

Trade.—The trade of Rio is extensive and has increased rapidly of late years. It is now the greatest mart for the export of coffee. In 1866 shipments of this important article, which in 1867 amounted to 396,785 bags, have increased with such unexampled rapidity, that in 1867, the amount was 424,531,680 lb., valued at £1,000,000 or 2,653,323 bags (taking the bag at 100 lb. or 180,523 tons; being more than all the export of coffee from all the other ports in the world. It was formerly an important article of export from Rio, but latterly it has decreased, having amounted to only 8,980,960 lb. in 1867, whereas in 1862 it amounted to 13,960 cases, 13 cwt. each. It is other great articles of export from Rio are hides, tobacco, rum, tapioca, and other articles. The export of gold, diamonds, and other articles, though very considerable, is mostly classical. Diamonds are principally exported from Bahia. We subjoin—

An Account of the Vessels cleared out, and of the Quantities of the Principal Articles of Produce Exported from Rio during each of the following Years, ending with 1867.

Years	Cleared Outwards		Coffee bags (154 lb.)	Sugar cases (15 cwt.)	Hides no.	Horns no.	Tanned half Hides no.	Rice bags	Rum pipes	Rose-wood doz.	Ipecacuanha lb.	Tobacco 50 lb. cts.
	ves.	tons										
1815	54	174,520	1,208,062	14,359	215,689	508,608	18,399	27,271	4,725	2,182	17,721	1,207
1816	668	199,858	1,511,006	8,112	394,496	315,192	17,291	15,915	5,664	1,856	12,788	1845
1817	658	198,508	1,641,560	6,111	268,494	417,907	6,162	20,921	5,985	809	35,941	1,207
1818	716	215,363	1,710,707	5,948	316,848	285,547	11,739	9,808	2,994	1,521	16,798	2,182
1819	656	212,576	1,455,980	5,972	302,220	285,685	17,672	25,354	5,010	2,540	11,626	2,182
1820	618	228,640	1,519,591	15,259	186,616	288,591	12,881	8,734	3,682	5,067	17,722	2,182
1821	775	258,640	1,519,591	15,259	186,616	288,591	12,881	8,734	3,682	5,067	17,722	2,182
1822	711	239,865	1,906,536	15,360	171,970	260,149	14,881	8,992	1,988	2,123	61,987	2,182
1823	614	249,515	1,639,215	8,526	87,694	229,964	4,089	19,198	1,510	2,894	57,784	2,182
1824	636	219,470	1,986,059	6,129	8,300	196,468	16,212	6,621	1,048	2,712	14,853	2,182
1825	739	269,089	2,409,518	8,300	105,271	128,691	7,838	16,870	2,610	1,616	67,174	2,182
1826	..	..	2,756,639	6,168	4,456,000	116,800	..	..	5,865	..	..	..

**Anchorage Dues.**—1. From and after July 1, 1852, the anchorage duty upon vessels trading between foreign ports and the ports of Brazil were reduced to 300 reis the ton; and the sum of duty previously levied upon coasting was abolished.





2. That part of the provisions of April 26, July 20, and November 15, 1844, which has not been altered by decree continues in force.

**Money, Weights, and Measures.**—Payments are made in paper money, which has been over-issued, and is excessively depreciated. But the average rate of exchange may be assumed at about 2s. 3d. sterling per milreis. A new copper coinage was introduced in 1868.

**Weights and Measures.**

The Libra	= 1.012 lb. avoiz.
Arroba	= 32.76 "
Quintal	= 139.54 "
Alquilete (of Rio)	= 1 Imp. bush.
" or Cantar	= 1.82 Imp. gal.
Oitava	= 53.33 grains

**Statement of the Value of the Principal and Other Articles (including Bullion and Specie) Exported from Brazil in each of the Years 1861-2, 1862-3, and 1863-4.**

Articles	1861-2	1862-3	1863-4
Spirit	858,271	819,251	650,271
Cotton, raw	7,786,121	16,817,804	88,335,609
Sugar, white	7,399,630	6,009,865	4,602,756
brown	13,356,169	15,371,163	15,942,627
Hair, human and horse	345,011	218,932	431,911
Cocoa	58,716,993	56,574,935	54,130,684
Hides, salted	1,412,059	1,578,537	1,308,742
dry	5,852,751	4,831,589	5,226,071
Diamonds	2,835,770	2,412,845	2,781,618
Tobacco	4,211,948	4,116,175	4,128,724
India-rubber	4,878,619	6,029,010	5,512,635
Jacarana (plant)	2,438,159	3,275,913	5,695,375
Paraguay tea	1,401,576	1,514,781	1,510,108
Gold in dust and bar	2,421,399	777,625	114,036
Other articles	1,307,297	3,170,131	3,189,269
Total	130,719,917	122,479,996	129,470,639
	13,380,993	13,778,999	14,565,353

The following is the estimated quantity and value of exports from Rio de Janeiro during the year 1867. (Taken from the Report of Mr. Pakenham, Secretary of the British Legation.)

	Quantity	Value
Coffee	421,551,680	8,776,590
Sugar	8,980,960	106,652
Cotton	9,240,000	350,000
Wool	40,000	40,000
Salted hides	4,200,000	57,540
dry hides	350,000	8,250
Waxes	11,294	25,000
Waxes	116,860	1,519
Tobacco	61,615	151,845
Diamonds	5,704	37,000
Total		9,559,287

The exports from Pernambuco, Pará, Bahia, Santos, and Rio Grande do Sul during the same period amount to about 7,000,000.

**Exports of Sugar.**—Though the exports of sugar from Rio have decreased, that is not the case with the exports from Bahia and other parts of the empire. In proof of this, we beg to submit the following account of the sugar exported from Brazil in the undermentioned years, ending on the 31st

	lb.	1851-	lb.	1852-
1852	211,318,572	1851-	238,729,728	1852-
1853	141,162,491	1853-	314,803,008	1854-
1854	165,711,089	1854-	256,510,018	1855-
1855	181,855,385	1855-	254,765,504	1856-
1856	239,241,474	1856-	236,220,928	1857-
1857	327,509,928	1857-	312,320,388	1858-
1858	227,162,432	1858-	318,725,115	1859-
1859	216,241,984	1859-	255,625,610	1860-
1860	272,100,768	1860-	237,018,669	1861-
1861	255,724,752	1861-	281,960,265	1862-
1862	317,051,720	1862-		1863-

Brazilians are great eaters of sugar, and it is wasted in the interior. Hence the magnitude of the exports is not influenced merely by the state of the crops, but also by the prices in the United States. When they are high a larger proportion of the produce is exported.

The Bank of Brazil has its head-quarters in Rio, and it has power to issue notes; and all disputed property belonging to dead or absent parties is

entrusted to its keeping. It charges 2 per cent. for its trouble.

The principal article of import consists of cotton goods, the value of which amounts to about a third part of the total value of the imports. Next to cottons are woollen, linen, and silk manufactures, wines, jewellery, and ironmongery; flour, meat, fish, butter, and other articles of provision; spirits, salt, earthenware, paper, and a host of other articles.

The exports have increased materially within the last few years; notwithstanding labour has become scarcer and dearer, in consequence of the greatly increased difficulties thrown in the way of the importation of slaves. The exports of cotton were, for a lengthened period, nearly stationary. They are now, however, pretty extensive, and supplied us in 1866 with 611,808 cwt. Hides are a very important article of export.

**Value of Imports (including Bullion and Specie) into Brazil from various Countries, in each of the Years 1863-4, 1864-5, and 1865-6.**

Countries	1863-4	1864-5	1865-6
Great Britain and British Possessions	64,835,109	63,538,014	73,751,751
France and French Possessions	23,110,415	30,616,087	29,450,110
Hanse Towns	5,453,869	4,911,309	5,769,412
Portugal and Portuguese Possessions	6,316,415	6,289,430	7,114,844
Spain and Spanish Possessions	2,250,074	2,187,816	2,180,035
Belgium	1,805,501	2,318,566	1,092,774
Sweden and Norway	409,998	401,696	127,241
Italy	778,404	780,526	426,359
United States	6,259,184	6,325,336	6,995,722
Chile	146,682	375,409	175,008
Peru	24,979	250	250
Rio de la Plata	9,062,371	11,700,303	15,672,405
Russia	1,432,432	1,432	13,390
Austria	776,543	1,012,781	1,181,135
Denmark	132,420	30,512	32,914
Holland and Dutch Possessions	116,092	70,250	89,000
China	—	—	1,090
Ports of the Empire not specified	986,597	746,518	836,724
Africa	270,615	25,465	2,483,671
Fisheries	209,624	217,478	169,146
	9,806	249	—
Total	123,045,275	131,594,157	138,095,965
	13,842,661	14,801,342	15,535,795

**Value of Principal and other Articles (including Bullion and Specie) Imported into Brazil, in 1863-4, 1864-5, and 1865-6.**

Articles	1863-4	1864-5	1865-6
Oils	1,150,425	1,417,551	391,305
Cod, and other fish	1,389,335	1,104,039	1,166,836
Spirits	1,721,050	1,392,105	1,658,661
Hosiery	1,382,883	1,699,082	1,590,001
Waxes	7,174,500	7,441,509	9,624,550
Coals (stone)	1,935,092	5,699,217	4,042,726
Hats	1,481,962	1,881,256	2,264,518
Hides and leather	959,314	926,533	744,376
Drugs	1,734,670	1,488,920	1,510,178
Wheat, flour	4,058,085	5,625,564	5,837,393
Cutlery and hardware	4,942,692	6,608,401	5,842,227
Iron, raw	686,906	1,285,268	1,367,067
Glass and glassware	1,859,135	1,850,041	1,505,508
Machinery	831,604	869,528	1,237,296
Butter	2,105,211	1,978,689	2,304,629
Cotton manufactures	36,917,914	35,371,455	30,505,082
Woolen	4,435,187	5,711,692	5,870,222
Linen	3,191,028	3,965,555	4,647,266
Silk	2,481,897	2,436,863	3,575,100
Mixed	3,221,508	3,644,181	4,333,129
Wool	20,071,937	24,876,465	22,669,071
Gold and silver work	1,587,187	3,515,311	1,375,911
Silver in bars	765,238	875,821	799,583
Paper	1,216,950	1,384,815	1,016,513
Gunpowder	395,911	660,511	460,610
Apparel	1,550,979	1,641,607	1,047,218
Salt	1,332,321	935,790	1,049,375
Wine	5,925,661	5,626,534	6,943,999
Other articles	18,875,017	17,395,865	15,877,496
Total	123,045,275	131,600,164	138,095,965
	14,151,535	14,805,032	15,535,795

**Port Regulations.**—The captain of every ship entering Rio, or any other port of Brazil, is ordered by a law enacted in 1836—

1. To go directly with his vessel from the entrance of the harbour to the anchorage ground in Franquia; and if, on account of the tide, contrary wind, or any other just cause, he should be

compelled to come to anchor, and shall remain anchored for 12 hours after said hindrances are removed (except in case of being quarantined), he shall pay a fine of 100,000 reis, and shall be compelled, by the fort, or by a Government vessel of war, whichever may be nearest, to proceed immediately to the Franquia anchoring ground.

2. He shall not suffer any kind of vessel to board him, nor any person to come on board or leave his vessel, before he has been visited from the custom-house, excepting only the pilot, health officer, the head officer at the entrance, when there is one, and in the case of shipwreck, or for the saving of lives.

3. Even after the custom-house visit on arrival, and until the vessel is discharged, he shall allow no person to come on board without a written permission from the inspector of the customs; and this permission shall be given in the following cases, viz. —

(a) To allow the buyers of goods to go on board to examine the cargo they wish to purchase, when sufficient specimens cannot be seen on shore.

(b) To workmen or labourers necessary to put the cargo in order, taking care to have them examined when they go on board and return. In case of the infraction of the above regulations, a fine shall be imposed on him from 100,000 to 200,000 reis for every vessel he allows to board him, and of 500,000 for each person who shall enter or leave his vessel without license, unless he be a passenger or belonging to the crew; and every other person who goes on board or leaves the vessel shall pay 100,000 reis fine, and be kept in custody until payment is made. The one-third part of these fines shall be divided amongst the watchmen or military who shall have taken up the offender.

4. He shall deliver to the *guarda-mor* (chief customs officer), when he makes his visit on arrival, his passport and cargo-book.

5. He shall deliver to the commander of the guard boat without the port, if he be there, or at the Franquia, if he be there, the manifest as described below.

6. He shall enter at the custom-house, within 24 hours after the *guarda-mor* has been on board, not counting the days on which the custom-house is shut, and present himself to the inspector, and swear, or affirm, that he has not on board of his vessel any merchandise other than what is described in the manifest he has delivered, and that he has no further declaration to make; and if he do not enter within the 24 hours, he shall pay 100,000 reis for each day's delay additional.

7. If he shall detain his vessel at either of the anchorages more than 24 hours, when he shall be directed by the *guarda-mor*, or his representative, to remove thence, he shall pay 100,000 reis for every day he delays.

8. He shall discharge no part of his cargo but by an order in writing from the inspector; and if he land any without such order, he shall pay 100,000 reis for each package so landed.

9. He shall give notice to the officer attending the discharge of the vessel, as soon as his cargo is discharged, that he has nothing remaining on board. If he omit to do this on the same day, so that the vessel may be immediately examined, he shall be fined 100,000 reis.

10. The master of every vessel going with a cargo to any part of the empire, must have two manifests of the cargo, exact copies of each other, exhibiting the name, class, and tonnage of the vessel; the name of the captain, whose signature must follow the date; the name of the port where the articles stated in the manifest were taken on

board; the name of the port or ports for which the vessel is destined; the marks or counter marks and numbers of the packages, and their description, as bales, cases, pipes, half-pipes, barrels, &c.; a declaration of the quantity and quality of merchandise of each package, or several similes of the same mark, and also of what is board in bulk; the names of the consignees, in order; all to be written in length, except numbers of the packages.

11. When the vessel has taken in her cargo more than one port, there must be two manifests from each port.

12. At the end of the manifest, the captain shall declare the number of passengers, whether in cabin or steerage, and the baggage for the use of each, and in addition any declaration necessary for his security; and in good faith he shall declare whether he has any package to add to the manifest, or whether any are deficient, with the cause of it, as no after declaration will relieve him of his responsibility, for he will not be exempted from the vague declarations frequently made, which do not account for deficiencies or differences.

13. The captain of any vessel bound to Brazil when he has completed his cargo in the port, or ports from which he is to sail, and made the manifests, as required in the 9th article, shall present his documents to the Brazilian consul residing in the port, who shall examine them, and if agreeable to these regulations, certify them.

14. In those ports where there is no Brazilian consul or substitute, the manifests shall be certified by two Brazilian resident merchants; or, if there be none, by two merchants of the place; in either case, the signature to be authenticated by legal authority.

15. Should any greater quantity of goods be found on board than are stated in the manifest, or the declaration of the captain, the overplus shall be seized and divided amongst those who seize them, after paying the duties, and the captain shall pay a fine of half the value of the goods.

16. If there are any goods missing of those stated in the manifest or declaration of the captain, they shall be reputed to be concealed or smuggled, and he shall pay the value thereof to those who have discovered the deficiency, and half the value to the national treasury. These condemnations shall take place on the simple fact of there being an overplus or deficiency of goods, without further proof being required.

17. For each difference in the quality or marks of the passage, the captain shall pay 2,000 reis, although in every other respect the goods discharged may agree with the manifest.

18. The captain whose manifests are not conformable to these regulations, shall be fined from 100,000 reis to one *conto de reis*, at the will of the collector, according to the degree of culpability that shall appear, and he cannot discharge until the fine is paid.

19. In case the captain brings no manifests, he may still be allowed to discharge, by paying 5 per cent. on the value of the cargo, in addition to the usual duties.

*Franquia.*—Vessels proceeding to Brazil, when it is wished to dispose of their cargoes at different ports, must clear out for 'Brazil and other ports,' or for 'Pernambuco, Bahia, Rio de Janeiro and other ports.' They are then entitled to the privilege of *Franquia*, and may land a part of their cargoes at one port, paying duties on the goods so landed, and proceed with the remainder to other ports. But if they clear out at one port only, they are compelled to make a complete entry, and discharge the whole of the cargo



Account of the Quantities and Values of the Principal Articles of British Produce Exported from the United Kingdom to Brazil during each of the 3 Years ending with 1867.

Principal Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
Alkali, soda	cwt. 20,742	31,627	43,138	£ 10,225	21,725	24,569
Apparel and haberdashery	value 70,545	1,919	612	111,471	116,538	134,475
Arms and ammunition: fire-arms (small)	no. 1,411,711	1,265,223	3,586,901	16,172	8,014	1,367
Arms and ammunition: gunpowder	lb. 16,669	19,468	19,101	45,844	40,104	109,800
Beer and ale	cwt. 21,307	231,886	216,279	95,065	106,152	87,212
Butter	tons 22,283	15,308	12,552	115,735	107,667	81,609
Coals, cinders, and culm	tons 12,212	170,591,105	118,210,194	60,610	59,053	132,372
Copper, wrought and unwrought	value 114,815,221	..	..	2,530,568	4,052,087	2,888,011
Cottons, entered by the yard	..	..	..	115,471	161,581	148,322
at value	..	..	..	87,544	80,552	96,377
Earthenware and porcelain	..	..	..	21,998	20,732	33,015
Glass manufactures	cwt. 88,501	47,907	45,807	258,477	185,520	164,481
Hardware and cutlery, unenumerated	tons 20,796	15,935	..	210,215	201,161	228,572
Iron, wrought and unwrought	value 1,477	1,983	2,015	672	21,819	15,719
Jute manufactures	..	..	..	33,818	44,753	45,701
Lead and shot	tons 12,110,586	16,067,552	14,189,555	161,310	105,758	52,492
Leather, wrought and unwrought	value 111,319	131,650	..	394,619	485,795	418,000
Linen, entered by the yard	..	..	..	..	4,351	1,099
at value	..	..	..	19,137	22,779	16,501
Machinery: steam engines	..	..	..	53,146	26,277	11,612
all other sorts	..	..	..	1,225	2,139	1,112
Musical instruments	..	..	..	16,083	21,696	24,089
Oil, seed	..	..	..	10,004	12,879	14,112
Painters' colours	..	..	..	4,671	6,772	8,428
Plate, plated ware, jewellery, and watches	..	..	..	9,708	21,208	7,901
Silk manufactures	..	..	..	16,185	21,339	20,000
Tin plates	..	..	..	15,536	19,989	15,207
Umbrellas and parasols	..	..	..	435,911	605,985	47,260
Woolens, entered by the yard	..	..	..	25,470	30,011	26,725
at value	..	..	..	29,468	419,068	37,211
All other articles	..	..	..	5,634,920	7,221,731	5,202,222
Total	..	..	..	..	..	..

to 7,221,731, but in 1867 to only 5,634,557.

There can, however, be little doubt that they will continue progressively to augment with the increase of population and the diffusion of civilisation.

The commercial policy of Brazil is, on the whole, decidedly liberal. The duties on imports and exports have been mostly moderate, and have not been imposed more for the sake of revenue than for protection. She has made a large reduction in the tonnage duties on the foreign shipping frequenting her ports, has repealed a duty of 15 per cent. imposed in some provinces on the exportation of hides, and has evinced a desire to adopt generally a free commercial system. The repeal of the discriminating duty formerly imposed in this country on slave-grown sugar, and the equalisation of the duties on foreign and colonial sugar and coffee, while it was advantageous to ourselves, has been a great boon to Brazil, and has considerably extended her trade with the United Kingdom.

The trade of Brazil was formerly much injured by the wretched state of her currency and her finances; and though the former remains in a very unsatisfactory condition, it has latterly been, good deal improved, while her finances have been, down to the Paraguayan war, comparatively flourishing.

**Financial Condition of Brazil.**—The finances as well as the trade of the empire have been for some years past in an improving condition, and contrast most favourably with those of other South American states. For several years previous to the commencement of the long and un- satisfactory war in which she and her allies were engaged with Paraguay, there was an almost continuous increase in the revenue. In 1837 it amounted to 1,495,282*l.*, while the amount for 1868-9 is estimated at about 5,300,000*l.* This has resulted, not from any increase of taxation, but from the growing civilisation of the country, and the progressive development of its resources under a free commercial system.

It is, also, highly creditable to the Brazilian Government that they have regularly paid the interest due on the public debt of the empire, and made besides, effectual provision for its redemption. But the entire debt of the empire, which

amounted to about 12,000,000*l.* sterling in 1838, was in 1867 estimated at 47,595,318*l.*

**ROADS.** Pathways formed through the empire, with more or less art and care, for facilitating the transit of individuals, carriages, &c. between different places. They are of every variety of form—from rude, narrow, rugged, and unimproved paths, carried over mountains, interrupted by every petty rivulet, and almost impracticable to any but foot passengers, to smooth, broad, and level ways, formed of solid materials, winding round or cut through mountains, and carried over swamps and rivers at an immense expense, and admitting of the easy passage of carriages of all sorts of goods.

The laying out of improved roads, and their construction, forms an important part of what is denominated the science of civil engineering. We shall satisfy ourselves with laying before the reader the following statements as to their importance in a commercial point of view.

**Importance and Utility of improved Roads.**—Next to the introduction of money, and weights and measures, the formation of good roads and bridges gives the greatest facility to commerce, and contributes more powerfully, perhaps, than anything else to the progress of improvement. They have been denominated national veins and arteries; and the latter are not more indispensable to the existence of individuals, than improvements in communications are to a healthy state of a nation's economy. It were vain to attempt to present in detail the various advantages derived from the easy means of communication that exist in Great Britain. There is not a single district that is indebted to others for a large part of its supplies even of some of the bulkiest commodities. Besides the coals, metals, minerals, timber, &c. conveyed from one part of the empire to another by sea, immense quantities are conveyed from place to place in the interior, by roads, and every improvement effected in the means of conveyance has obviously the same effect on the cost of commodities that have to be conveyed, as an improvement in the methods which they are raised or manufactured.

Produce Exported from  
 with 1867.

Declared Real Value		
1865	1866	1867
10,425	21,725	21,569
111,471	116,538	134,175
16,173	5,912	1,962
47,814	40,101	102,800
99,063	106,152	87,012
115,735	107,467	81,219
131,768	153,601	137,372
60,610	59,033	56,317
2,590,508	4,055,087	5,288,091
115,471	161,581	178,712
87,344	80,532	36,257
31,998	30,732	59,011
255,877	185,540	16,848
210,215	201,161	228,776
6,792	21,219	15,714
55,818	41,753	45,710
161,310	105,758	51,610
399,619	485,583	418,014
4,012	4,257	1,000
19,137	22,179	16,605
55,588	56,977	41,514
1,222	3,159	1,111
18,983	21,656	24,390
10,084	12,879	14,610
4,671	6,777	6,421
9,709	21,528	7,601
15,123	21,539	20,211
15,836	19,989	18,265
45,911	69,989	45,264
23,470	30,011	24,711
291,268	419,068	372,111
5,654,940	7,321,733	5,648,107

about 12,000,000 sterling in 1858, estimated at 47,595,318l.

pathways formed through the country, or less art and care, for facilitating individuals, carriages, &c. between cities. They are of every variety of width, narrow, rugged, and unimproved, and almost impracticable in some places, and over mountains, interrupted by rivulets, and almost impracticable for passengers, to smooth, broad, and formed of solid materials, raised through mountains, and carried over rivers at an immense expense, and the easy passage of carriages and goods.

ing out of improved roads, and the forms an important part of what the science of civil engineering. It is quite foreign to our purpose to give any details as to the formation of roads, or satisfy ourselves with laying before the following statements as to their general commercial point of view.

**Benefit and Utility of improved Roads.**—The introduction of money, and weight, the formation of good roads, and the greatest facility to commerce, contributes more powerfully, perhaps, than any other cause, to the progress of improvement, and the latter are not more indispensable to individuals, than the assistance of a healthy state of the population are to a country.

It were vain to attempt to point out the various advantages derived from the various modes of communication that exist in the world. There is not a single district that is not benefited by a large part of its supply of the most valuable commodities, and some of the bulkiest commodities, such as coals, metals, minerals, timber, &c. are transported from one part of the empire to another in immense quantities, and conveyed to the interior, by roads and canals. The improvement effected in the mode of conveying commodities has obviously the same effect as an improvement in the mode of manufacturing them are and manufactured.

Wherever the means of internal communication are deficient in a country, the inhabitants must unavoidably disperse themselves over the surface. Cities were originally founded by individuals congregating more, perhaps, for the sake of mutual defence and protection, than for any other cause. But in countries where good government is established, and property is secure, men resort to cities only from a sense of the advantages they afford. The scale on which business is conducted in them presents facilities that cannot be elsewhere afforded for making a fortune; and the extent to which the sub-division of employments is carried opens a field for the exercise of all sorts of talent, at the same time that it improves and perfects all sorts of arts, whether subservient to industries or scientific pursuits or to those of pleasure and dissipation. It is this that attracts the aspiring, the industrious, the gay, and the prodigal, to cities—that fills them with the best and the worst part of the species. The competition that takes place in a great town, the excitement that is constantly kept up, the collision of so many minds brought into immediate contact, and all endeavouring to outstrip each other in their respective departments, develops all the resources of the human mind, and renders a great city a perpetually radiating focus of intelligence and invention. There are, however, considerable clogs upon the continued increase of cities. The food and fuel made use of by the inhabitants, and the raw products on which their industry is to be exerted, must all come from the country; and according as the size of a city increases, the distances from which its supplies have to be brought become so much the greater, that ultimately the cost of their conveyance may be so great as to balance or exceed the peculiar advantages resulting from a residence in town. Hence the impossibility of a large or even a considerable city existing anywhere without possessing extensive means of communication either with the surrounding country, or with other countries; and hence, too, the explanation of the apparently singular fact, of almost all large cities having been founded on or near the sea, or a navigable river. In London being an inland town, 50 miles from the shore, it is abundantly certain that it could not have attained to one-third part of its present size; but the facilities afforded, by its admirable situation on the Thames, for the transportation of all sorts of produce from abroad, as well as from other parts of England, will enable her, should her commerce continue to prosper, to add to her colossal magnitude for centuries to come.

But all towns cannot be founded on the sea, or the banks of navigable rivers; and the number of those in inland situations must, in all cases, depend on their means of communicating with the surrounding country. Without our improved roads, the great inland manufacturing towns with which England is studded, such as Manchester, Leeds, Birmingham, Sheffield, Bolton, Preston &c., could not exist. They enable inhabitants to obtain the rude products of the earth and the mines almost as cheap as if they were in country villages. There is thus nothing, either to nothing, to detract from the advantage which the inventive and enterprising artisan may expect to realise from resorting to the great hives of industry. And, owing to the gigantic scale on which all sorts of industry are conducted in them, the scope afforded for the employment of the most powerful machines, and the appropriation of particular sets of work to every separate process, however minute,

manufacturing industry is carried to a degree of perfection that almost exceeds belief.

The influence which the growth of a large town exercises upon agriculture is great and striking. 'In the neighbourhood,' says Paley, 'of trading towns, and in those districts which carry on a communication with the markets of trading towns, the husbandmen are busy and skilful, the peasantry laborious; the land is managed to the best advantage, and double the quantity of corn or herbage (articles which are ultimately converted into human provision) raised from it, of what the same soil yields in remoter and more neglected parts of the country. Wherever a thriving manufactory finds means to establish itself, a new vegetation springs up around it. I believe it is true, that agriculture never arrives at any considerable, much less at its highest, degree of perfection, when it is not connected with trade; that is, when the demand for the produce is not increased by the consumption of trading cities.' (*Moral Philosophy*, book vi. c. 11.)

But the fact of their being mainly conducive to the growth of cities, is not the only advantage which improved roads confer upon agriculture. Without their aid it would be impossible to carry to distant places sufficient supplies of such bulky and heavy articles as lime, manure, shells, and other manures necessary to give luxuriance to the crops of rich soils, and to render those that are poor productive. Not only, too, would inferior roads lessen the market for farm produce, and consequently the quantity raised, but a larger proportional number of horses or other cattle would be required to convey the diminished produce to market. It is plain, therefore, that good roads are both directly and indirectly a prime source of agricultural improvement; directly, by increasing the quantity and reducing the cost of manure, and by increasing the quantity and reducing the cost of conveying farm produce to market; and indirectly, by providing for the growth and indefinite extension of cities and towns, that is, of the markets for agricultural produce.

Increased speed of conveyance is one of the principal advantages that have resulted from the formation of good roads, the invention of steam packets &c. Suppose that it takes 2 days to travel by an uneven, ill-made road between any 2 places; and that, by improving the road, the journey may be accomplished in 1 day; the effect is the same as if the distance were reduced one half; and there is not only a great saving of time to travellers, but also a great saving of cost from the more speedy conveyance of commodities. This latter is a point of much more importance than is commonly supposed. It is not possible to form any correct estimate of the value of the products that are constantly in the act of being carried from place to place in Great Britain and Ireland. It is certain, however, that it is very great; and every additional facility of conveyance, by bringing such products more rapidly to their destination, and enabling them to be sooner applied to the purposes for which they are intended, renders large quantities of capital available for industrious purposes, that would otherwise be locked up.

**Mode of defraying Costs of Roads.**—Roads of one sort or other must, of course, exist in every country emerged from barbarism—but in England, the statute of the 28th of Philip and Mary, which is still in force, is the first legislative enactment in which a regular provision was made for the repair of the roads. The preamble to this statute declares, that the roads were tedious and noisome to travel on, and dangerous to passengers

and carriages: and therefore it enacts, that in every parish 2 surveyors of the highways shall be annually chosen, and the inhabitants of all parishes obliged, according to their respective ability, to provide labourers, carriages, tools &c. for four days each year, to work upon the roads, under the direction of the surveyors. This system, though in many respects exceedingly defective, was at the time justly considered a great improvement, and answered pretty well till the reign of Charles II, when, owing to the increase of carriages, particularly about London, it became necessary to adopt more efficient measures for the formation and repair of roads; and the plan of imposing tolls upon those who made use of them began then to be adopted. But this system was not carried into full effect, and placed upon a solid footing, till about 1767, when it was extended to the great roads to all parts of the country; the contributions of labour under the Act of Philip and Mary being then appropriated entirely to the cross or country roads. A money payment is now, however, very frequently made, in the case of the latter, instead of a contribution in labour.

When the plan for extending turnpike roads from the metropolis to distant parts of the country was in agitation, the counties in the neighbourhood of London petitioned Parliament against it, alleging that the remoter counties would be able, from the comparative cheapness of labour in them, to sell their produce in London at a lower rate than they could do; and that their rents would be reduced, and cultivation ruined, by the measure. Luckily this interested opposition proved ineffectual; and instead of being injurious to the counties adjoining the metropolis, the improvement of the roads has been quite as beneficial to them as to those at a distance, inasmuch as, by providing for the indefinite extension of the city, it has rendered it a far better market for their peculiar productions, than it would have been had its growth been checked; which must have been the case long ago, had the improvements in question not been made.

The plan of making and repairing roads by contributions of labour is not peculiar to England, but was at one period general all over Europe. By an Act of the Scotch Parliament, passed in 1669, all persons engaged in husbandry were obliged to labour six days each year, before or after harvest, upon the public roads: the farmers and landlords being, at the same time, obliged to furnish horses, carts &c. according to the extent of land occupied by them. The inconveniences of such a system are many and obvious. Those who get no pay for their work, and who perform it against their will, waste their time and industry; and there is, besides, a great loss incurred by the interruption of the regular pursuits of the labourer. A sense of these disadvantages led, in the early part of the reign of George III., to a commutation of the labour contribution for a money tax on land, rated according to its valuation in the cess books. This measure has been productive of the best effects. Previously to its taking place, the roads, even in the best-cultivated districts of Scotland, were in the worst possible state, whereas they are now about the very best in Europe.

A similar system has been followed on the Continent. When Turgot entered on his administration, he sent a circular letter to the road surveyors and engineers of the different provinces of France, desiring them to transmit estimates, framed on the most liberal scale, of the sums of money for which the usual repairs might be made on the old roads, and the ordinary extent of new ones constructed. The average of the estimates showed that a money

contribution of about 10,000,000 livres a-year would suffice for these objects; whereas Turgot showed, that the execution of these repairs and constructions, by contributions of forced labour, or *corvées*, cost not less than 40,000,000 livres. (Art. 'Taxation,' *Ency. Brit.*)

There is still, however, a great deal of labour performed on the cross and country roads of England under the system established by the Act of Philip and Mary. Its continuance is most probably to be ascribed to the want of any ready means for its commutation.

It is the duty of Government to furnish assistance towards the formation of roads and bridges, in parts of the country where they are necessary, and where the funds required for their formation cannot otherwise be obtained. But it is in such cases extremely desirable, in order to prevent Government from being deceived by interested representations, that those more immediately concerned in the undertaking should be bound to contribute a considerable portion of its expense. This has been done in the case of the Highland roads. Down to a very recent period, large tracts in the Highlands were quite inaccessible, and were, consequently, in a great measure shut out from all improvement; while the rugged nature of the country and the poverty of the inhabitants rendered any attempt to construct improved roads, an undertaking beyond their means. Under these circumstances, Government came forward and engaged to advance half the expense of making roads and bridges in certain districts, on condition that the landlords and others interested should advance the other half, and that the work should be executed under the direction of parliamentary commissioners and engineers. This arrangement has been highly beneficial. Through its means above 600 miles of excellent roads have been constructed; and, in consequence of the easy means of communication they afford, a spirit of improvement has been excited even in the wildest and least-frequented districts.

Adam Smith seems to have inclined to the opinion, that the roads of a country would be better attended to, and more economically managed, were they placed under the control of Government, than when they are left to be planned and superintended by private individuals. But this opinion does not seem to rest on any good foundation. It is, perhaps, true that a few of the great roads between the principal towns of a country might be better laid out by government surveyors, than by surveyors appointed by the gentlemen of the different counties through which they pass. But these great roads bear but a very small proportion to the total extent of cross and other roads with which every country either is, or should be, intersected; and, besides, it is abundantly certain, that when the formation of the great roads is left, as in Great Britain, to the care of those who, either by themselves or their tenants, have to defray the greater part of the expense of their construction and repair, they will be managed, if not with greater skill, at least with far more economy, than if they were entrusted to the agents of Government. M. Dupin has set this matter in the clearest point of view, in his remarks on the administration of the roads in France and England. In the former they are entirely under the control of Government; and the consequence is, that while there is a useless expenditure upon a few great roads, the cross roads are almost entirely neglected, and the facilities of internal intercourse are incomparably inferior to ours.

Sir Henry Parnell, who published the best treatise on road-making in the English language,

while he approves of the system of local trusts, proposes that measures should be taken for increasing the responsibility of the trustees, and that every trust should be obliged to submit its accounts to the inspection of some public board. We have no doubt that this plan would be in several respects advantageous. Perhaps, however, the object in view, in obliging trustees to submit their accounts to a public board, might be attained by the creation of local tribunals for their inspection. We should be extremely jealous of any plan, how advantageous soever in other respects, that might lead to the employment of government surveyors generally in the laying out of roads, or to any

material abridgment of the powers of the private trusts.

*Length of Roads, Cost &c.*—The total length of the different paved streets and turnpike roads in England and Wales amounts to about 20,000 miles. The expenditure by the trustees, on account of these roads, in 1866, amounted to 1,071,773*l.*; the revenue for the same year being 1,053,094*l.*; of the total expenditure, 112,078*l.* went to defray interest of debt. The length of the various cross roads and other highways, exclusive of turnpikes, is estimated at about 95,000 miles. In 1866, the expenditure on turnpike roads in Scotland was 204,907*l.*, and the revenue 213,280*l.*

*Statement extracted from the 17th General Report on the Turnpike Trusts of England and North Wales, showing the Comparative Condition of the Trusts in England and North Wales in the Year 1837, when the Highest Amount of Revenue from Tolls was received, and in 1849, 1861, and 1866 respectively.*

Years		1837	1849	1861	1866
<b>RECEIPTS.</b>		<b>£</b>	<b>£</b>	<b>£</b>	<b>£</b>
Tolls	-	1,509,985	1,097,482	1,038,980	945,158
Parish aid	-	44,562	27,711	30,610	51,214
Money borrowed	-	153,014	1,609	19,475	2,205
Other receipts	-	30,147	41,125	27,084	37,591
Total receipts	-	1,699,428	1,177,981	1,116,149	1,016,291
<b>EXPENDITURE.</b>					
Repairs	-	638,910	619,300	676,831	580,866
Improvements	-	202,799	41,900	86,960	31,212
Salaries	-	95,681	87,434	79,652	74,962
Law charges	-	52,153	36,325	20,945	25,138
Interest of debt	-	291,796	225,100	190,023	106,571
Bonded debt paid off	-	121,261	120,297	135,216	179,191
Other payments	-	61,691	49,581	59,784	54,874
Total expenditure	-	1,719,237	1,189,935	1,149,409	1,053,117
Bonded debt	-	7,011,080	6,382,617	7,332,805	5,556,575
Unpaid interest	-	1,019,368	1,387,010	710,919	383,104

*Tolls.*—In fixing the rate of tolls, great care should be taken to keep them as low as possible. When they are either too much multiplied, or too high, they have a very pernicious influence. They then operate as a most oppressive and unequal tax on commerce; and obstruct that intercourse they are intended to promote. The same remark is applicable to all sorts of dock and harbour dues, lighthouse dues &c. When confined within due bounds, they cannot justly be objected to; for nothing can be fairer than that those who benefit by such increased facilities and security in the prosecution of their business should pay for them. But whenever they exceed the proper limits, they tempt the navigator to resort to ports where the charges are lower, and to direct his course through more insecure but less costly channels.

*Improvement of Roads.*—It is not easy for those accustomed to travel along the smooth and level roads by which every part of this country is now intersected, to form any accurate idea of the difficulties the traveller had to encounter a century ago. Roads were then hardly formed; and, in summer, not infrequently consisted of the bottoms of ruts. Down to the middle of last century, most part of the goods conveyed from place to place in Scotland, at least where the distances were not very great, were carried, not by carts or wagons, but on horseback. Oatmeal, coals, turf, and even straw and hay, were conveyed in this way. At that period, and for a long time previously, single-horse traffickers (cadgers) regularly plied between different places, supplying the inhabitants with such articles as were then most in demand, as salt, fish, poultry, eggs, earthenware &c.: these were usually conveyed in sacks or baskets, suspended one on each side the horse. But in carrying goods between distant places, it was necessary to employ a cart, as all that a horse could carry on his back was not sufficient to defray the cost of a long journey. The time the carriers (of such was the name given to those who used carts)

usually required to perform their journeys seems now almost incredible. The common carrier from Selkirk to Edinburgh, *thirty-eight* miles distant, required a *fortnight* for his journey between the two places, going and returning. The road originally was among the most perilous in the whole country; a considerable extent of it lay in the bottom of that district called Gala-water, from the name of the principal stream, the channel of the water being, when not flooded, the track chosen as the most level, and easiest to travel in.

Even between the largest cities, the means of travelling were but little superior. In 1678, an agreement was made to run a coach between Edinburgh and Glasgow, a distance of 44 miles, which was to be drawn by six horses, and to perform the journey from Glasgow to Edinburgh and back again in six days. Even so late as the middle of last century, it took 1½ day for the stage coach to travel from Edinburgh to Glasgow—a journey which is now accomplished in 4½ or 5 hours.

So late as 1763, there was but one stage coach from Edinburgh to London, and it set out only once a month, taking from 12 to 14 days to perform the journey. Before the opening of the railways, by which they have been in a great measure superseded, there were, exclusive of steam packets, smacks &c., 3 or 4 coaches which set out each day from Edinburgh for London, and conversely, performing the journey in from 45 to 48 hours. (Robertson's *Rural Recol.* pp. 33—44.)

The effects of this extraordinary improvement in the means of travelling, especially since the introduction of railways, have been as striking on the manners as on the industry of all classes. The remark of Smith, that 'man is the least transportable species of luggage,' is no longer true as applied to Great Britain. During spring, the metropolis is crowded with visitors of all ranks and orders from the remotest provinces; and during summer and autumn vast numbers of the citizens are

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spread over the country. Hence it is, that manners, as well as prices, are reduced nearly to the same standard. A respectable family in Penzance or Inverness live very much in the same way as a respectable family in London. Peculiarities of all sorts have disappeared; everything is, as it were, brought to a level; the fashions and opinions of the metropolis are immediately diffused over every part of the country, while those which originate in the latter powerfully influence the former.

ROPE consists of hemp, hair &c. spun into thick yarn, of which several strings are twisted together by means of a wheel. When made very small, it is called a cord; and when very thick, a cable. All the different kinds of this manufacture, from a fishing-line, or whip-cord, to the cable of a first-rate ship of war, go by the general name of cordage. [CABLE.]

ROSES (OIL, ESSENCE, or ATTAR OF). An oil obtained by distilling the leaves of damask roses. It is limpid, of a light orange colour, and has an extremely grateful and powerful perfume. This, which is the most expensive article of Oriental luxury, used to be principally made at Tunis and Ghazipore in India. But though it be still very extensively produced at these places, and more especially at the latter, what may be called the foreign demand for the oil is now almost wholly supplied by the districts of Eski Zara and Hassanlik in Bulgaria. There the culture of roses is carried on upon a very large scale. Inasmuch, however, as it is said to require about 300,000 roses to yield an ounce of oil, the quantity produced does not exceed 4,500 lb. in a good and 3,000 lb. in an ordinary year. The genuine article fetches an enormous price; and is in consequence very generally, or rather, we should say, uniformly adulterated. When the adulteration is effected by means of the oil of geraniums and other fine volatile oils, the fraud is not easily detected except by connoisseurs, unless the foreign matter be in excess. Sometimes it is alleged that attar of roses has been sold as genuine when above 80 per cent. of other oils was mixed up with it. That which is hawked about the streets of Constantinople and Smyrna is seldom anything better than olive oil scented with roses. Some of the more expert dealers in the article will tell within 2 per cent. the foreign oil in any parcel given them to examine. The value of the exports of this curious product from Turkey has been estimated at from 400,000 to 500,000 dollars a-year. (Blanqui, *Voyage en Bulgarie*, p. 230; Hunt's *Commercial Magazine*.)

ROSEWOOD (Ger. rosenholz; Fr. bois de rose, de Rhode; Ital. legno di rosa; Span. leño de rosa; Port. pau de rosa) is produced in Brazil; the Canary Islands; in Siam, whence it is pretty largely exported by the Chinese; and in other places. It is in the highest esteem as a fancy wood. The width of the log imported into this country averages about 22 inches, so that it must be the produce of a large tree. Rosewood has a slightly bitterish, somewhat pungent, balsamic taste, and fragrant smell, whence its name. It should be chosen sound, heavy, of the deepest colour, in the largest pieces that can be procured, and of the most irregular knotty grain. The small, light-coloured and large shivered pieces should be rejected. The more distinct the darker parts are from the purple red, which forms the ground, the more is the wood esteemed. It is usually cut into veneers of nine to an inch. (Milburn's *Orient. Com.*; &c.)

Rosewood, which is one of the dearest as well as most beautiful of the fancy woods, is principally

used in veneering. Its consumption has increased from about 277 tons in 1822, to 558 in 1867. This increase is principally owing to the abolition of the duties. These, after being reduced in 1826 from 10*l.* to 6*l.* per ton, and in 1842 to 1*l.*, were repealed in 1846. But 1*s.* per ton having been imposed on its import in 1860, this tax was abolished in 1866. The price varies from 9*l.* 17*s.* 6*d.* to 10*l.* 12*s.* 6*d.* per ton.

ROSIN. This substance is obtained from different species of fir; as the *Pinus abies*, *sylvestris*, *larix*, *balsamea*. It is well known that a resinous juice exudes from the *Pinus sylvestris*, or common Scotch fir, which hardens into tears. The same exudation appears in the *Pinus abies*, or spruce fir. These tears constitute the substance called *thus*, or frankincense. When a portion of the bark is stripped off these trees, a liquid juice flows out, which gradually hardens. The juice has obtained different names, according to the plant from which it comes. The *Pinus sylvestris* yields common turpentine; the *larix*, Venice turpentine [TURPENTINE]; the *balsamea*, balsam of Canada [BALSAM] &c. All these juices, which are commonly distinguished by the name of turpentine, are considered as composed of two ingredients; namely, oil of turpentine, and rosin. When the turpentine is distilled, the oil comes over, and the rosin remains behind. When the distillation is continued to dryness, the residuum is known by the name of common rosin or *colophonium*; but when water is mixed with it while yet fluid, and incorporated by violent agitation, the mass is called *yellow rosin*. During winter, the wounds made in the fir trees become incrustated with a white brittle substance, called *barras* or *galipot*, consisting of rosin united to a small portion of oil. The yellow rosin, made by melting and agitating this substance in water, is preferred for most purposes, because it is more ductile, owing, probably, to its still containing some oil. The uses of rosin are numerous and well known. (Thomson's *Chemistry*.)

In 1867 we imported, chiefly from the United States and France, 696,117 cwt. of rosin valued at 371,770*l.*; the average prices being from 10*l.* to 11*s.* per cwt.

ROSTOCK. Long one of the Hanse towns and now the principal commercial city of the Grand Duchy of Mecklenburg-Schwerin, on the Warnow, about 9 miles above where it falls into the Baltic, lat. 54° N., long. 12° 12' E. Population, in 1864, 26,396. A large fair for merchandise is annually held at Whitsuntide; and there are wool fairs at other seasons of the year.

The outport of Rostock is at Warnemünde, at the mouth of the Warnow. The depth of water at the latter varies from 10½ to 12 feet; but at the end of the west pier it varies from 12 to 14 feet. In the river from Warnemünde up to Rostock there is usually from 8 to 9 feet; so that vessel drawing more than this must be lightened to get up the latter. Rostock has a good harbour and commodious quays.

*Money*.—Rostock and all Mecklenburg reckoned by six-dollars new, two-thirds of 48 schillings. The six-dollar contains 199·1 grains pure silver, and is worth nearly 2*s.* 4*d.* (2*s.* 3*8d.*) sterling.

*Weights*.—The commercial weights are the same as those of HAMBURG. There are, however, other weights, introduced in 1757, which are 5 per cent. heavier than the above. They are principally used in the trade with Russia.

*Measures*.—The Rostock foot = 11·38 Eng. inches. The ell = 2 feet. The last contains 56 scheffels; the last used in the measuring of oats = 14½ imp. quarters = 42 hectolitres; the last

used in the measuring of other grain = 14 imp. quarters or 37.3 hectolitres. (Kelly's *Cambiat.*) We antjoin an account of the quantities and

values of the principal articles imported from Meeklenburg Schwerin into the United Kingdom during each of the 4 years ending with 1867.

Principal and other Articles	Quantities				Computed Real Value			
	1864	1865	1866	1867	1864	1865	1866	1867
Bones of animals and fish (except whalena)	tons	95	95	196	£ 410	£ 392	£ 387	£ 387
Corn wheat	cwt.	660,791	617,685	733,371	331,936	337,413	459,810	590,370
Barley	"	1,760	4,610	4,689	550	830	1,933	"
Other kinds of corn and grain	cwt.	4,465	5,450	2,183	89,833	1,714	959	13,156
Oil-seed cake	tons	516	321	961	4,993	2,199	1,810	1,480
Seeds, rape	qrs.	"	"	9,455	"	"	6,521	"
All other articles	value	"	"	"	4,428	2,775	961	2,687
Total					310,198	315,109	463,666	508,510

The value of the total direct exports from this country to Meeklenburg, though increasing, is much less considerable, having been in 1867 90,858*l.*

**Imports.**—The principal articles of import are refined sugar, coffee, and other colonial products; cottons, woollens; with iron and hardware, coal, earthenware, salt, horses &c. from England; hemp, flax, tallow, oil, sail-cloth &c. from Russia; alum, deals, timber, lime, tar &c. from Sweden; herrings and fish oil from Norway; wine, brandy, molasses, drugs &c. from France; with rice, rum, groceries &c. from Copenhagen and Hamburg. The total value of the imports by sea may be estimated at about 300,000*l.*

**Exports.**—These consist chiefly of very good red wheat, with smaller quantities of barley, peas, rapeseed, and oats; wool, rags of a superior quality, oil cake, rape oil, bones &c. At an average the value of the exports may be estimated at 600,000*l.*

**Shipping.**—The port of Rostock had, in January 1868, 390 ships, 376 of which measured 43,775 lasts or 149,320 tons. These trade with most European nations, the United States, and Brazil. At the beginning of the same year Wismar had 57 ships, of which 53 measured 6,502 lasts or 12,506 tons.

**Port Charges.**—These on a vessel of 100 tons burden are as follow, viz. :—

	Privileged		Not Privileged	
	rix dol.	sch.	rix-dol.	sch.
Inward with cargo	10	2	10	2
Outward ditto	25	4	2	6
Inward in ballast	12	6	12	6
Outward ditto	12	6	21	10
Ditto without either	17	32	25	42

**Duties.**—Previous to the annexation of Meeklenburg to the Prussian Customs Union, these were extremely moderate. On most imported articles they amounted to only 3 per cent. ad valorem. An export duty of about 5*d.* per quarter was charged on corn, and of about 4*s.* 8*d.* per bushel on wine. Wool was not subject to any duty on export. Goods imported in vessels not privileged paid 50 per cent. additional on the above duties; that is, they paid 4½ ins. end of 3 per cent. ad valorem. For existing duties see ZOLLVEREIN.

**Wisnar**, the second sea-port town of Meeklenburg, at the confluence of the river Stor with the sea, in lat. 53° 53' 5" N., long. 11° 27' 7" E. Population 13,133 in 1864. The harbour of Wisnar is commodious and safe, being nearly landlocked by the islands of Poel and Walfisch. Close to the town there is from 8 to 8½ feet water; in the inner roads there is from 12 to 13 feet; and in the outer from 13 to 20 feet. The port charges on a native or privileged vessel of 100 tons amount to about 30 rix-dollars. The articles of import and export are the same at Wisnar as at Ros-

tock; but owing to the proximity of Lubeck, from which Wismar is not more than 27 miles distant, her foreign trade is comparatively limited.

**General Remarks on the Trade of the Duchies.**—Meeklenburg is essentially an agricultural, wool-growing, grazing, and breeding country. In some places it is sandy and barren; but it is for the most part fertile, and the crops and pastures are both luxuriant. Having few manufactures, her imports necessarily consist principally, as already stated, of manufactured goods, and her exports of raw produce. Owing to the circumstance of the south-western part of the province being bounded by the Elbe, and approaching to within 30 miles of Hamburg, most of the manufactured goods, as well as a large proportion of the colonial products used by the population (560,123 in 1867), are imported by way of Hamburg. Hence, in Meeklenburg, as in Prussia, the direct foreign trade carried on by the sea frontier forms but a limited part of the entire trade of the country. It is impossible, however, to form any precise estimate of what the latter may amount to. Probably there was no European country so little fettered by customs regulations as Meeklenburg, down to its incorporation in the Zollverein. The duties on articles imported by sea amounted only, as already stated, to about 3 per cent. ad valorem; and those entering by the land frontier were subject merely to a trifling charge, on account of toll, of which we have not seen any account. It is impossible, indeed, that any commercial system could be bottomed on more liberal principles; and this enlightened policy, and her situation near the mouth of the Elbe, and on the western frontier of the Prussian League or Zollverein, gave to Meeklenburg far greater importance, as a commercial state, than was indicated by the amount of her population, or her internal consumption.

**ROTTERDAM**, on the north bank of the Maese, in lat. 51° 55' 19" N., long. 4° 29' 14" E. Population, December 31, 1863, 112,728. Rotterdam is the second commercial city of Holland. It is more advantageously situated than Amsterdam; being nearer the sea, and the canals which intersect it are so deep as to admit of the largest vessels coming up to the quays and warehouses of the merchants. Its commerce, during the last 25 years, has increased more rapidly than that of any town in Holland. The exports and imports are similar to those of Amsterdam. The white Zealand wheat shipped here is of a peculiarly fine quality; and it is the best market for madder and geneva. Our imports of madder from Holland in 1867 amounted to 20,244 cwt., most part of which came from Rotterdam. [Madder.] Geneva is sold by the aam; but it used, for the convenience of smuggling to England, to be divided into ankers and ½ ankers. The legitimate imports of

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geneva from Holland in 1867 amounted to 237,505 gallons. Rotterdam has a regular and frequent intercourse, by means of steamers, with London, Liverpool, Hull, Leith, Havre, Hamburg &c.

N.B.—The channel from the sea to Rotterdam is exhibited in the chart of the Dutch coast in the map of Europe in this work.

The works to improve the sea entrance for Rotterdam, carried out on Government account, were started in 1853. They are estimated to cost 6,300,000 flor. since 1853, 2,700,000 flor. have been spent. The works are to be finished this year (1869).

*Monies, Weights, and Measures.*—See the article AMSTERDAM, for an account of the current monies, weights, and measures of Holland.

Two different commercial lbs. were formerly used at Rotterdam: one was the Amsterdam weight, 100 lb. of which = 108.93 lb. avoirdupois; the other, used by retailers, was 5 per cent. lighter, 100 lb. of it being = 103.48 lb. avoirdupois.

The Rotterdam last of corn = 10.642 Winchester bushels.

The nam = 40 English wine gallons very nearly. A hogshead of flax-seed contains from  $\frac{7}{8}$  to 8 Winchester bushels. Rock salt is sold per great hundred of 404 maaten, containing from 21 to 22 tons. Coals per load =  $\frac{1}{2}$  a chaldron of Newcastle.

The liquid measures were divided in the same manner as at Amsterdam, but were larger; thus, 100 stoops of Rotterdam were = 67  $\frac{1}{2}$  English wine gallons. Brandies were sold per 30 vtiels; whale oil per 90 stoops; vegetable oils per 300 stoops.

The ell is the same as at Amsterdam. 100 feet of Rotterdam = 109  $\frac{1}{2}$  feet of Amsterdam, or 102 English feet.

We borrow from Sir R. F. Turing's *Consular Report* of April 29, 1868, the following account of the imports and stock of the principal articles of commerce at Rotterdam during the years 1865, 1866, and 1867.

Articles	Imported during			Stocks on December 31		
	1865	1866	1867	1865	1866	1867
Hides, East India cow and buffalo	150,550	106,600	108,300	16,262	18,650	8,383
East India "	16,115	12,000	14,000	15,555	10,000	6,411
Cotton, North America	6,410	25,610	28,010	—	499	—
West India &c.	65,600	101,100	89,680	2,028	2,430	1,150
Coffee, East India	411,000	351,310	407,600	96,800	8,300	65,000
West India "	28,000	—	7,900	6,300	2,600	2,500
Pepper	11,507	11,776	19,400	5,005	1,536	3,100
Petroleum	15,000	45,300	107,800	—	—	8,000
Rice, East India	106,000	315,000	395,000	2,200	8,500	36,100
Sulphure, Chili	11,127	36,003	16,661	5,177	10,005	13,418
Sugar, Havannah	—	3,208	—	—	—	404
Brazil "	—	1,485	—	—	—	—
Java "	215,450	194,488	169,302	32,159	21,871	1,327
Sundries	12,415	19,137	6,353	5,067	1,154	2,74
" "	—	375	—	—	—	—
of all descriptions combined	47,700	41,800	57,000	7,100	5,100	1,000
Tobacco, American	2,965	7,025	6,790	2,064	2,051	953
Sundries	6,581	6,156	4,118	1,977	2,006	900
Java "	56,600	56,363	25,653	960	7,791	18,418
Tea, of all descriptions	22,550	18,800	29,400	7,650	2,100	1,800
Tea, Banca	102,881	91,123	60,121	28,905	25,253	19,572

#### Taxes and Allowances.

Articles	Taxes	Drafts		Allowances	
		per cent.	per cent.	per cent.	per cent.
Coffee:					
Surinam	6 per cent.	1	1		
St. Domingo	10 lb. per bale	1	1		
Houillon	21 lb. "	1	1		
Mo-ha	14 lb. per bale of	1	3		
Java	270 lb.				
Sugar:					
Jamaica	18 per cent.				
Surinam	20 "	1	1		
East India, in bags	10 "				
Have chests below 450 lb.	80 lb. per chest	1	1		
" "	13 per cent.	1	1		
Martinique	18 per cent.	1	1		
St. Domingo	—	1	1		
Cotton	6 "	2	1		
Hides, Buenos Ayres	2 lb. per hide	2	1		
Tobacco, Virginia	3 per cent.	2	3		
Logwood	3 "	1	1		
Pimento	real tare	1	1		
Indigo	3 per cent.	0	2		
Pepper	5 lb. per bale	1	0		
Whale oil	1 per cent.	0	1		
Madders	real tare	0	1		

With the exception of the shipping interest, the trade of Rotterdam, and of Holland generally, is now, on the average of years, in a comparatively flourishing state. The judicious management of the Netherlands Bank, the only establishment in the country authorised to issue notes, and the prudent conduct of the merchants, caused her to be comparatively little affected by the crises of 1857 and 1866, though she suffered in 1866 and 1867 by the stagnation consequent on the war in Germany and the commercial crisis. The depressed state of the shipping interest in particular is a consequence partly of the extremely injudicious encouragement given by Government to the trading company, but far more to that mania for

ship-building which prevailed for some years in Holland, as it did here and in the United States; hence there is everywhere a glut of shipping; and it is idle to seek, in want of reciprocity, or anything else than this, a reason for the low rate of freight, and the inadequate demand for shipping, so universal during the last two or three years. On January 1, 1867, the total Netherlands mercantile marine comprised 2,178 ships of 270,042 tons (*Report* of Mr. Secretary of Legation Ward, of February 15, 1867). It may be worth while to mention that the iron steamers built here and at Amsterdam are said to be quite equal to the best of those built on the Clyde and the Thames. For a detailed account of the trade of the United Kingdom with Holland down to 1865, see AMSTERDAM.

By way of supplement we add a statement of the value of our imports from and total exports to Holland in 1866 and 1867:—

	Imports	Exports
1866	£11,768,915	£14,877,755
1867	10,522,328	15,918,891

In the first ten months of 1868, Holland imported from Java 84,261,000 pounds of raw sugar, 52,213,000 pounds of coffee, 12,103,000 pounds of rice, and 1,586,000 pounds of tobacco, showing a decrease in her supplies from that colony in all these items, except sugar and rice.

RUBY. A precious stone, very highly esteemed; but under this name a variety of minerals have not unfrequently been sold, which differ essentially in their characters.

The *Oriental Ruby* is, in fact, a red variety of the sapphire. When perfect, its colour is a cochineal red, presenting a richness of hue the most

wine gallons very nearly, and contains from 7½ to 8 oz of salt is sold per great cask containing from 21 to 22 cwt a chaldron of New-

were divided in the same manner, but were larger; thus, the 1867 were=67½ English wine gallons sold per 30 vortels; and vegetable oils per 300

at Amsterdam. 100 feet of net of Amsterdam, or 102

R. F. Turing's *Cyclopaedia* 18, the following account of the principal articles of commerce during the years 1865,

Stocks on December 31		
1865	1866	1867
65	18,650	8,383
662	10,080	4,411
595	499	629
098	2,150	1,150
400	8,300	6,000
803	2,800	2,500
1017	1,356	3,100
500	8,300	9,100
200	4,900	8,000
177	10,005	15,415
251	491	404
159	21,871	16,707
067	1,154	3,791
02	28	..
080	5,100	3,100
008	2,251	923
077	2,906	904
968	7,791	18,718
650	2,100	18,000
5905	25,245	19,279

prevailed for some years in the United States, everywhere a glut of shipping; and, in want of reciprocity, or this, a reason for the low rate inadequate demand for shipping the last two or three years, 1, 1867, the total Netherlands comprised 2,178 ships of 270,012 tons. Secretary of Legation Ward, U.S. It may be worth while to know steamers built here and sent to be quite equal to the best of the Clyde and the Thames. The decline of the trade of the United Kingdom down to 1865, see

ment we add a statement of exports from and total exports and 1867:—

Imports	Exports
£11,768,913	£14,725,133
10,822,328	11,018,251

months of 1868, Holland imported 4,261,000 pounds of raw sugar, coffee, 12,103,000 pounds of rice, and tobacco, showing a decrease from that colony in all these articles and rice.

is stone, very highly esteemed; and a variety of minerals have been sold, which differ essentially

by is, in fact, a red variety of iron perfect, its colour is a cochineal richness of hue the most

exquisite and unrivalled; it is, however, in general, more or less pale. The blue variety, or sapphire, is frequently met with; but the most valuable is that particular shade called by the jewellers the pigeon's blood, which is a pure deep rich red, without any admixture of blue or yellow. A ruby of 4 carats is worth from 4000. to 4500. It is harder than any other mineral, except the diamond. Easily frangible. Specific gravity from 3.916 to 4.283. Infusible before the blowpipe. Oriental rubies of 10 carats are extremely rare and valuable. One of 22 grains has been sold for 1500. Rubies in lots, Indian cut, or small sizes, and of different qualities, are at all times to be had, and sell at from 15s. to 65s. a carat; but a perfect stone of a carat, or 6 grains, may be deemed rare, and falls little short of the value of the diamond; nay, in some cases, rubies of 2, 3, or 4 carats, if very fine, are much scarcer, and even more valuable, than diamonds of equal weight. The finest ruby in England, or perhaps in Europe, was in the collection of the late Mr. Hope, the author of 'Amastalus.'

There are two other stones resembling the ruby, called the *Spinel* and *Baltis* rubies, but Mr. Emanuel states that they are stones of an entirely different nature and form of crystallisation. He adds that the terms ruby and carbuncle were in ancient times applied indiscriminately to all red stones. Its colour is a fine full carmine or rose red, but it never presents that rich mellow tinge attending the Oriental ruby. It is also inferior to the latter in hardness and specific gravity. Stones of 3 carats and upwards are rare and valuable.

The so-called *Baltis Ruby* is a pale variety of the *Spinel*. It varies in colour from light red to yellowish red. Though not so rare as the *Spinel*, it is by no means common. It is much admired for its agreeable tinge of colour; and, when pure and perfect, fetches a high price, though considerably less than the other varieties.

Rubies are not found in any considerable quantity except in Ava, and the very finest are Burmese. Hence, one of the titles of the King of Barmah is Lord of the Rubies. [SAPPHIRE.] (*Mace On Diamonds*, 2nd ed., pp. 90, 101; *Emanuel On Precious Stones*, pp. 104-7; Thomson's *Chemistry*.)

RUM. A well known and highly esteemed spirituous liquor imported from the West Indies, of which it forms one of the staple products. It is obtained by means of fermentation and distillation, from molasses, the refuse of the cane juice, and portions of the cane, after the sugar has been extracted. The flavour and taste peculiar to rum are derived from the essential oils carried over in distillation. When the distillation has been carefully performed, the spirit contains so large a quantity of the grosser and less volatile part of the oil as to be unfit for use till it has attained a considerable age. When it is well rectified, it mellows much sooner. Rum of a brownish transparent colour, smooth oily taste, strong body and consistence, good age, and well kept, is the best. That which is clear and limpid, and has a hot pungent taste, is either too new, or mixed with other spirits. Jamaica rum is the first in point of quality; the Leeward Island rum, as it is called, being always inferior to it, in flavour, strength, and value. The price of the latter is usually 20 per cent. below that of the former. We import almost all our rum in puncheons, containing from 81 to 90 gallons each. It is customary, in some of the West India islands, to put sliced pine-apples in puncheons of rum; this gives the spirit the

flavour of the fruit; and hence the designation, *pine-apple rum*.

Rum is also produced in and imported from the Mauritius and the East Indies. But that of the latter is more nearly allied to arrack than to genuine rum.

Rum is said to be much adulterated by the retail dealers in England, sometimes with corn spirit; but if done with molasses spirit, the tastes of both are so nearly allied, that the cheat is not easily discovered.

*Consumption of, and Duties upon, Rum &c.*—The following tables show the quantities of rum consumed in the United Kingdom at different periods since 1824, the rates of duty charged upon it, and the produce of the duties.

*Account, stated in Imperial Proof Gallons, of the Rum annually entered for Home Consumption in the United Kingdom, from 1824 to 1842 and 1850 to 1867 both inclusive, with the Rates of Duty payable thereon, and the Produce of the Duties.*

Years	Retained for Consumption	Rate of Duty per Gal.	Nett Produce of the Duties	
	United Kingdom	United Kingdom	£	d.
1824	gal. 9,531,616	12 7½	1,606,924	15 7
1825	2,085,687	..	1,381,622	18 5
1826	4,305,516	8 6	1,878,878	8 0
1827	5,288,606	..	1,596,576	8 11
1828	5,277,633	..	1,733,153	17 9
1829	5,257,866	..	1,431,192	15 1
1830	5,656,938	9 0	1,600,331	9 11
1831	5,621,597	..	1,649,881	9 5
1832	5,515,965	..	1,880,360	3 9
1833	5,494,193	9 0	1,570,797	0 0
1834	5,616,417	9 0	1,505,139	16 7
1835	5,416,966	9 0	1,837,693	19 9
1836	5,321,719	9 0	1,496,153	14 1
1837	5,181,255	9 0	1,432,099	0 0
1838	5,135,851	9 0	1,111,068	0 0
1839	4,850,263	9 0	1,475,627	0 0
1840	5,312,960	{ To May 3 } 9 0	1,155,615	0 0
		{ From do. } 9 0		
1841	4,277,070	9 0	1,065,087	0 0
1842	4,997,717	9 0	978,959	0 0
		Great Britain		
1856	3,121,078	Ireland	1,389,113	0 0
		U. Kingdom	1,378,241	0 0
1858	5,327,405	April 19	Nett	
1859	5,375,680	8 2	1,396,087	0 0
			1,459,796	0 0
1860	5,739,171	{ March 6 } July 17 } 10 2	1,694,173	0 0
1861	5,452,575		1,731,214	0 0
1862	5,390,556		1,687,420	0 0
1863	5,419,800		1,738,022	0 0
1864	5,750,516	10 2	1,929,290	0 0
1865	5,608,825		1,879,852	0 0
1866	4,128,415		4,007,803	0 0
1867	4,316,958		2,191,966	0 0

Though rum has not been so much over-taxed as brandy, geneva, and wine, still it is pretty obvious that, even in its case, taxation was carried beyond its proper limits. During the 3 years ending with 1802, when the duty in Great Britain was about 9s. per gallon, and in Ireland 6s. 8½d., the consumption of the United Kingdom amounted to 3,150,000 gallons a-year; while, notwithstanding the great increase of population, during the 3 years ending with 1823, when the duty in Great Britain was 13s. 11½d. per gallon, and in Ireland 12s. 8½d., the annual consumption amounted to only 2,307,000 gallons. The reduction of the duty in 1826 to 8s. 6d. increased the consumption from about 2,500,000 to about 3,500,000 gallons.

The falling off in the consumption in 1839 and the immediately subsequent years was not owing to the trifling addition of 4d. per gallon then made to the duty, but to the scarcity and high price of rum itself.

From 1800 down to 1813, the duties on rum in Ireland were much lower than in Britain, and the

consumption in the former appears then to have been much greater than afterwards, when the duties were raised in Ireland to the same level as here. But though there can be no manner of doubt that the increase of duty in Ireland tended to reduce its consumption, we have no idea that it did so to anything like the extent which appears on the face of the account. The truth is, that while the duty was lower in Ireland than in Britain, rum was extensively smuggled from the former into the latter; and this smuggling having ceased when the duties were equalised, the apparent, though not the real, consumption of rum in Ireland, was proportionally diminished.

In 1847 Government was induced, in compliance with the representations of the West Indians, to assimilate the duties on colonial rum to the duties on home-made spirits, which varied in the different divisions of the United Kingdom. But the facility with which clandestine distillation may be carried on in Scotland and Ireland was

the only excuse (and its validity was very doubtful) for the duty on spirits having been less than in England. No such pretence can be put forward for varying the duties on rum; and it would be in all respects quite as reasonable to reduce the duties on the brandy, tea, and sugar used in Scotland and Ireland below the English level as the duty on rum. The scheme, in fact, was neither more nor less than a clumsy, unhand device to compensate the West Indians without appearing to do so, for some small portion of the injustice of which they have been the victims. We are glad, therefore, to have to add that from April 21, 1855, the duty on rum in Scotland was raised to the level of that in England, or 8s. 2d. per gallon; and in 1858 (from April 1) the duty on rum in Ireland was, also, raised to the same level; so that, both in respect of home and of colonial and foreign spirits, the duties are now (1869), though increased in the interval, the same in all parts of the United Kingdom. W subjoin—

An Account of the Quantities of Rum Imported into the United Kingdom, Exported as Merchandise delivered from Ships' Stores, and for the use of the Navy or Army, with the Quantities retained for Home Consumption, the Rates of Duty chargeable thereon, and Nett Amount of Duty received, in each Year from 1813 to 1867, both inclusive.

Years	Quantities imported into the United Kingdom	Quantities exported as Merchandise	Quantities shipped as Stores	Quantities delivered for the use of the Navy or Army	Quantities retained for Consumption in the United Kingdom	Rates of Duty, per Gallon, on the Quantities entered for Consumption				Foreign Produce	Net Amount of Duty received
						Of British West Indies, Mauritius, or those British Possessions in the East Indies into which the Importation of Foreign Sugar is prohibited	From May 26	From April 21	From May 8 to 16		
1843	proof gals. 5,729,754	proof gals. 1,079,230	proof gals. 211,099	proof gals. 309,811	proof gals. 4,103,715	-	-	-	-	£ s. d.	£ s. d.
1844	5,129,010	741,211	265,777	359,921	4,198,592	-	-	-	-	9 4	541,295
1845	4,868,798	778,951	255,707	436,947	4,468,153	-	-	-	-	8 10	432,252
1846	5,855,161	795,901	228,076	407,562	4,683,701	-	-	-	-	8 7	432,252
1847	6,618,907	974,614	216,232	366,796	5,328,985	{ In England	-	-	-	8 10	432,252
						{ Scotland	-	-	-	4 5	132,240
						{ Ireland	-	-	-	4 5	132,240
1848	6,538,951	1,263,290	207,267	287,517	2,986,979	{ In England	-	-	-	8 10	432,252
						{ Scotland	-	-	-	4 0	132,240
						{ Ireland	-	-	-	3 0	132,240
1849	5,506,827	1,618,485	205,629	311,666	3,409,862	-	-	-	-	-	1,327,515
1850	4,191,683	1,187,085	187,571	361,825	2,902,001	-	-	-	-	-	1,327,515
1851	4,745,244	1,516,537	181,377	70,701	2,880,425	-	-	-	-	-	1,327,515
1852	5,490,221	1,199,997	205,216	191,651	2,899,684	-	-	-	-	-	1,327,515
1853	4,206,218	2,022,786	215,079	185,650	3,236,157	From April 21	{ In England	-	-	8 2	1,327,515
						{ Scotland	-	-	-	8 2	1,327,515
1854	8,625,907	5,103,333	208,609	936,607	3,226,591	{ In England	-	-	-	8 2	1,327,515
						{ Scotland—	-	-	-	6 0	1,327,515
						{ Ireland—	-	-	-	4 4	1,327,515
						{ Ireland—	-	-	-	4 4	1,327,515
1855	8,714,337	3,909,001	216,156	1,101,923	3,225,575	From April 21	{ In England	-	-	8 2	1,327,515
						{ Scotland	-	-	-	8 2	1,327,515
						{ Ireland	-	-	-	6 4	1,327,515
1856	7,169,005	3,916,415	215,881	255,502	3,423,107	-	-	-	-	-	1,327,515
1857	6,515,683	3,454,320	203,461	21,202	3,206,537	-	-	-	-	-	1,327,515
1858	7,511,219	2,257,504	175,178	21,306	3,427,939	From April 19, United Kingdom	-	-	-	8 2	1,327,515
1859	7,078,586	1,926,594	168,810	531,486	3,575,600	From March 8, 1860, "	-	-	-	8 3	1,327,515
1860	7,919,673	2,148,892	100,671	315,369	3,729,471	From July 17, 1860, "	-	-	-	10 2	1,327,515
1861	8,114,822	2,537,609	159,518	217,025	3,452,575	-	-	-	-	-	1,327,515
1862	7,765,999	2,899,100	161,067	270,220	3,420,356	-	-	-	-	-	1,327,515
1863	7,494,738	2,445,721	167,067	255,615	3,119,800	-	-	-	-	-	1,327,515
1864	5,499,872	2,122,013	155,902	297,159	3,730,316	-	-	-	-	-	1,327,515
1865	6,898,999	2,102,048	149,823	292,530	3,698,855	-	-	-	-	-	1,327,515
1866	7,685,180	1,976,408	155,218	270,859	4,128,415	-	-	-	-	-	1,327,515
1867	6,845,502	2,468,478	161,210	316,222	4,216,058	-	-	-	-	-	1,327,515

Account, showing the Quantities of Rum Imported into the United Kingdom in 1867, the Countries whence they came, the Entries for Consumption, with the assumed Prices at which their Values were estimated, and their Values.

Countries whence Imported	Imports	Entries for Consumption	Rates of Value- tion of Imports	Total Value of Imports
Cuba	proof gals. 728,828	proof gals. 41,015	1 9	63,470
Dutch Guiana	36,239	13,969	1 8	3,003
Mauritius	269,374	45,716	7	20,659
Porto Rico	27,144	2,105	1 9	5,576
Straits Settlements	89,807	57,309	1 7	7,593
British West India Islands	2,742,121	1,688,839	2 5	251,535
British Guiana	2,846,475	2,078,830	1 9	255,072
Other Parts	72,024	10,252	1 7	5,658
Mixed in Bond	-	377,963	-	-
Total	6,845,503	4,316,058	-	692,366

The following were the prices of rum in bond in London, in Sept. 1868:—

Rum in bond (duty 10s. 2d. per gal.)	£ s. d.
Domestics, very fine	10 0 0
30 to 36 per ct. o. p.	9 5 0
21 28	8 10 0
Demerara proof	8 10 0
Leeward Islands, proof	7 10 0
East India, proof	7 10 0
Foreign, 6 to 10 per ct. o. p.	7 10 0
pr. 4 under	7 10 0

Rum may not be imported unless in ships of 20 tons burden at least, and in casks or other vessels capable of containing liquids, each of such casks or other vessels being of the size or content of 20 gallons at the least, and duly reported, or in glass bottles or stone bottles not exceeding the size of three-pint bottles, and being really part of the cargo of the importing ship; and duly reported. (16 & 17 Vict. c. 107 s. 14.)

Before any rum shall be entered as being the



## S

**SABLE** (Ger. zobel; Fr. zibeline; Ital. zibellino; Russ. sohol). An animal of the weasel tribe, found in the northern parts of Asiatic Russia and America, hunted for the sake of its fur. Its colour is generally of a deep glossy brown, and sometimes of a fine glossy black, which is most esteemed. Sable skins have sometimes, though very rarely, been found yellow, and white. The finer sorts of the fur of sables are very scarce and dear; 5,159 skins, valued at 6,495*l.*, were imported into the United Kingdom in 1867, chiefly from Hamburg and Holland. [FUR TRADE.]

**SADDLES** (Fr. selles; Ger. sättei; Ital. selle; Russ. sädla; Span. sillas). Seats adapted to the horse's back, for the convenience of the rider. Those made in England are reckoned the best. Sherborne and Lynn used to be remarkable for this manufacture; but it is now principally carried on in London.

In 1867 we exported saddlery and harness (chiefly to Australia, India, and South America), valued at 219,802*l.*

**SAFFLOWER** or **BASTARD SAFFRON** (Ger. saflor, saflor; Dutch, saffloer, basterd safran; Fr. safran bâtard; Ital. zaffrone; Span. alazor, azafran bastardo; Russ. polerroi, prostoi schafra). The flower of an annual plant (*Carthamus tinctorius*, Linn.) growing in India, Egypt, America, and some of the warmer parts of Europe. It is not easily distinguished from saffron by the eye, but it has nothing of its smell or taste.

The flowers which are sometimes sold under the name of *saffranon* are the only parts employed in dyeing. They yield two sorts of colouring matter: one soluble in water, and producing a yellow of but little beauty; the other is *resinous*, and best dissolved by the fixed alkalis: it is the last which alone renders safflower valuable in dyeing; as it affords a red colour exceeding in delicacy and beauty, as it does in costliness, and which can be obtained even from cochineal, though much inferior to the latter in durability. The colour of safflower will not bear the action of soap, nor even that of the sun and air for a long time; and being very costly, it is principally employed for imitating upon silk the fine scarlet (*ponceau* of the French) and rose colours dyed with cochineal upon woollen cloth.

The fine rose colour of safflower, extracted by crystallised soda, precipitated by citric acid, then slowly dried, and ground with the purest tale, produces the beautiful *rouge* known by the name of *rouge végétale*.

Safflower should be chosen in flakes of a bright pink colour, and of a small somewhat resembling tobacco. That which is in powder, dark coloured, or oily, ought to be rejected. (Hasselquist's *Voyages*, Eng. ed. p. 352; Bancroft's *Permanent Colours*, vol. i. pp. 286-289; Milburn's *Orient. Com.*)

In 1867, 9,319 cwt. of safflower, valued at 54,469*l.*, were imported into the United Kingdom, and 6,956 cwt. exported. The duty of 1*s.* per cwt. formerly charged on its importation was repealed in 1845.

**SAFFRON** (Ger. safran; Dutch, saffraan; Ital. zafferano; Span. azafran; Fr. safran; Russ. schafra). A sort of cake, prepared from the

stigmas, with a proportion of the style, of a perennial bulbous plant (*Crocus sativus*, Linn.) cultivated to a small extent in Cambridgeshire.

It is also imported from France, Spain, and Italy; but the English, as being fresher, more genuine, and better cured, is always preferred. When good, saffron has a sweetish, powerful aromatic odour; a warm, pungent, bitterish taste; and a rich, deep orange yellow colour. It should be chosen fresh, in close, tough, compact cakes, moderately moist, and possessing in an obvious degree all the above-mentioned qualities. The being of a whitish-yellow or blackish colour indicates that it is bad, or too old. Saffron is used in medicine, and in the arts; but in this country the consumption seems to be diminishing. It is employed to colour butter and cheese, and also by painters and dyers. (*British Pharmacopæia*, 1867; Thomson's *Dispensatory*; London's *Encyc. of Agriculture*.)

In 1867 we imported 9,401 lb. of saffron, valued at 47,963*l.*, and exported 5,290 lb.

**SAGAFENUM** (Arab. sugbenij). A concrete gum resin, the produce of an unknown Persian plant. It is imported from Alexandria, Smyrna &c. It has an odour of garlic, and a hot, acid, bitterish taste. It is in agglutinated drops or masses, of an olive or brownish-yellow colour, slightly translucent, and breaking with a horny fracture. It softens and is tenacious between the fingers, melts at a low heat, and burns with a crackling noise and white flame, giving out abundance of smoke, and leaving behind a light spongy charcoal. It is used only in medicine. (Thomson's *Dispensatory*.)

**SAGO** (Malay, sagu; Jav. sago). A species of meal, the produce of a palm (*Metroxylon sagu*) indigenous to and abundant in such of the Eastern islands as produce spices, where it supplies a principal part of the farinaceous food of the inhabitants.

The tree, when at maturity, is about 30 feet high, and from 18 to 22 inches in diameter. Before the formation of the fruit, the stem consists of an external wall about 2 inches thick, the whole interior being filled up with a sort of spongy medullary matter. When the tree attains to maturity, and the fruit is formed, the stem is quite hollow. Being cut down at a proper period, the medullary part is extracted from the trunk, and reduced to a powder like sawdust. The filaments are next separated by washing. The meal is then laid to dry; and being made into cakes and baked, is eaten by the islanders. For exportation, the finest sago meal is mixed with water, and the paste rubbed into small grains of the size and form of coriander seeds. This is the species principally brought to England, for which market it should be chosen of a reddish hue and readily dissolving in hot water into a fine jelly. A process has been invented by the Chinese for refining sago, so as to give it a fine pearly lustre; and the sago so cured is in the highest estimation in all the European markets. It is a light, wholesome, nutritious food. It is sent from the islands where it is grown to Singapore, where it is granulated and bleached by the Chinese. The export trade to Europe and India is now principally

confined to that settlement. The sago palm seems to thrive on the northern coast of Sarawak. (Ainslie's *Mat. Indica*; Crawford's *East. Archip.* vol. ii. pp. 383-393, vol. iii. p. 348; Bell's *Review of the Commerce of Bengal*; *Parl. Returns*; *Consular Reports of 1864*; &c.)

Account of the Quantities of Sago Imported into and Re-exported from the United Kingdom during each Year from 1845 to 1867.

Years	Total Imports	Re-exports from United Kingdom	Quantities retained for Consumption
	cwt.	cwt.	cwt.
1845	45,213	1,778	45,998
1846	38,595	631	45,988
1847	55,165	2,705	41,129
1848	67,601	5,412	67,296
1849	83,711	5,317	72,979
1850	89,881	3,862	81,624
1851	95,565	6,006	80,918
1852	85,258	5,168	95,110
1853	91,705	2,225	81,108
1854	108,789	8,575	124,110
1855	92,800	4,512	108,499
1856	137,068	4,580	139,096
1857	159,016	10,706	154,066
1858	174,545	7,959	188,805
1859	168,805	16,272	151,810
1860	179,825	15,154	161,627
1861	159,162	7,516	172,721
1862	181,582	8,517	157,779
1863	146,081	10,016	160,334
1864	145,801	11,537	129,138
1865	118,582	7,107	157,524
1866	164,993	7,276	139,710
1867	165,122	18,472	189,407

Previously to March 10, 1845, the duty was 1s. per cwt., plus 5 per cent.; since that date to 1853 it was 6d. per cwt., and since that time 1d. per cwt.

It is seen from this table that the consumption of sago has much increased since 1845; and the increase will appear still greater if we go a little further back; for, at an average of 1820 and 1821, the consumption amounted to only about 1,800 cwt. a-year. This extraordinary increase is in part to be ascribed to the effectual reduction of the heavy duties with which sago was formerly burdened; but more, perhaps, to its being found to be a desirable article of food. It is said to be employed to some extent in the adulteration of sugar. The price of common sago varies from 8s. to 15s., while pearl sago fetches from 16s. to 16s. 10d. per cwt.; but the price is liable to great fluctuation.

**SAILS.** Coarse linen or canvas sheets attached to the masts and yards of ships, the blades of windmills &c., to intercept the wind and occasion their movement.

Sails when formerly imported, were charged with an ad valorem duty of 10 per cent. But this duty was repealed in 1853, and their importation is now free. The duty on cordage was then, also, repealed.

**SALEP.** A species of powder prepared from the dried roots of a plant of the orchis kind (*Orechis mascula*, Linn.). That which is imported from India is in white oval pieces, hard, clear, and pellucid, without smell, and tasting like tragacanth. As an article of diet, it is said to be light, bland, and nutritious. The plant thrives in England, but it is not cultivated to any extent; and very little is exported. (Ainslie's *Mat. Indica*; Milburn's *orient. Com.*)

**SALMON** (Ger. salm; Fr. saumon; Ital. salmone, sormone; Span. salmon; Russ. limga). This excellent fish is too well known to require any description. It is found only in northern seas, being unknown in the Mediterranean and other warm regions. In this country it is an article of much value and importance. It is said to be exceedingly abundant in Japan and Kamchatka.

Salmon fisheries, Marshall observes, 'are copious and constant sources of human food; they are next to agriculture. They have, indeed, one

advantage over every other internal produce—their increase does not lessen other articles of human subsistence. The salmon does not pry on the produce of the soil, nor does it owe its size and nutritive qualities to the destruction of its compatriot tribes. It leaves its native river at an early state of growth; and going, even naturalists know not where, returns of ample size, and rich in human nourishment; exposing itself in the narrowest streams, as if nature intended it as a special boon to man. In every stage of savageness and civilisation, the salmon must have been considered as a valuable benefaction to this country.'

Such salmon as are taken in estuaries or rivers are, of course, the property of those to whom the estuaries or rivers belong, the fisheries in them frequently letting for very large sums; but of late very considerable quantities of salmon have been taken in bays and in the open sea, where the fishing is free to any one who chooses to engage in it. The London market, where the consumption is immense, has been, since 1790, principally supplied from the Scotch rivers. The Tweed fishery is the first in point of magnitude of any in the kingdom; the take is sometimes quite astonishing, several hundreds having been frequently taken by a single sweep of the net. Salmon are despatched in steamers or fast sailing vessels from the Spey, the Tay, the Tweed, and other Scotch rivers, for London, packed in ice, by which means they are preserved quite fresh. When the season is at its height, and the catch greater than can be taken off fresh, it is salted, pickled, or dried for winter consumption at home, and for foreign markets. Formerly, such part of the Scotch salmon as was not consumed at home, was pickled and kitted after being boiled, and was in this state sent up to London under the name of Newcastle salmon; but the present method of disposing of the fish has so raised its value, as to have nearly deprived all but the richer inhabitants in the environs of the fishery of the use of salmon. Within the memory of many, now living, salted salmon formed a material article of household economy in all the farm-houses in the vale of the Tweed; in-somuch that in-door servants used to stipulate that they should not be obliged to take more than two weekly meals of salmon. Its ordinary price was then 2s. per stone of 19 lb.; but it is now never below 12s., often 36s., and sometimes 42s. per stone. This rise in the price of the fish has produced a corresponding rise in the value of the salmon fisheries, some of which are very valuable. There are considerable fisheries in some of the Irish and English rivers; but inferior to those of Scotland. (*General Report of Scotland*, vol. iii. p. 327.) The Scotch salmon fisheries seem to have attained their maximum value towards the end of the last war, when the fisheries in the Tweed were let for from 15,000l. to 18,000l. a-year; and those of the Tay, Dee, Spey &c. were proportionally valuable. But the value of the Scotch salmon fisheries has, speaking generally, declined greatly of late years; in consequence, partly and principally, of a diminished supply of fish in the rivers, but in some degree, also, from the greater facility of the communication between London and Liverpool, and the consequent importation of Irish salmon into the London markets.

*Decrease of the Supply of Salmon, Pouching &c.*—The decrease of salmon in the English and Scotch rivers, particularly of late years, is a fact as to which there can be no manner of doubt. (*Report of Committee of House of Commons on Scotch Salmon Fishery in 1843.*) Much unsatisfactory discussion took place as to its causes, which were,

Statement of the Quantities of Salmon received in London (boxes of say 1 cwt. each) from 1863 to 1868, the Sources whence derived, and its Price per lb.

Years	Scotch	Irish	Dutch	Norwegian	Welsh	Total	Gross per lb.
1863	21,279	6,183	1,927	180	663	31,550	4 1/2
1864	22,603	8,314	1,901	837	732	35,740	4 1/2
1865	19,009	6,358	1,479	1,069	808	29,683	4 1/2
1866	21,725	9,326	1,772	1,632	1,563	36,018	4 1/2
1867	23,006	5,411	975	1,296	2,405	33,091	4 1/2
1868	28,220	3,487	807	407	1,725	34,646	4 1/2
Total	138,642	41,609	7,162	5,121	7,976	201,125	4 1/2
Total arrivals of salmon in London from 1831 to 1862, both years inclusive	653,786	114,912	11,101	2,829	5,119	785,810	4 1/2
Grand Total	792,428	156,521	18,266	8,250	11,125	986,238	4 1/2
Annual average for 35 years	22,641	4,475	530	236	318	28,198	4 1/2

probably, of a very diversified character. A good deal has been ascribed to the increase of water machinery on the banks of the different rivers; but we hardly think that this could have much influence, except, perhaps, in the case of the smaller class of rivers. *Weirs*, or salmon traps, have also been much objected to; though, as we have been assured, with still less reason. On the whole, we are inclined to think that the falling off in the supply of this valuable fish is principally to be ascribed to the temptation to over-fish the rivers, caused by the high price of salmon; to the prevalence of poaching; and more than all, to the too limited duration of the *close time*. In 1828, after a great deal of discussion and enquiry, an Act was passed (9 Geo. IV. c. 39), which has done a good deal to remedy these defects—in so far, at least, as respects the Scotch fisheries. The rivers were shut up from September 14 to February 1; and every person catching or attempting to catch fish during that period forfeited not less than 1*l.* and not more than 10*l.* for every offence, besides the fish, if he caught any, and such boats, nets, or other implements, as he might have made use of. Pecuniary penalties were also inflicted upon poachers and trespassers, and provision made for the watching of the rivers. This Act had a very good effect; though it is believed that it would be better were the *close time* extended from September 1 to the middle of February.

After public attention had long been turned to the question, inspectors of English salmon fisheries were appointed under the Act 24 & 25 Vict. c. 109, and they have already done much to put down poaching and other practices destructive of the fish.

The close season in England and Wales, so far as net fishing was concerned, was fixed by that Act from September 1 to February 1 following.

Similar Acts were passed for Scotland, viz. 25 & 26 Vict. c. 97; 26 & 27 Vict. c. 50; 27 and 28 Vict. c. 118, and 28 & 29 Vict. c. 119, the Act of 31 & 32 Vict. c. 123 being the latest.

By the 26 & 27 Vict. c. 10 the exportation of salmon caught in close time is prohibited.

In Mr. Buckland's *Report* of March 14, 1868, it would appear that 3,790 men were then employed in the salmon fisheries of England and Wales; and in the previous year 254 prosecutions had been instituted for breaches of the laws for protection of the fish.

In Mr. Walpole's *Report* of March 14, 1868, the average wholesale prices obtained for salmon by one of the dealers in Billingsgate in the following months of 1867 were:—

February	2 3/4	per lb.
March	2 1/4	"
April	2 0/4	"
May	1 8/4	"
June	1 5/4	"
July	0 11/4	"
August	1 1/4	"

Previously to 1812 the importation of foreign salmon was prohibited; but among the important and beneficial changes effected by the Tariff Act of that year, the repeal of this prohibition, and the admission of foreign salmon to our markets on payment of a duty of 10*s.* 6*d.* (including the 5 per cent.) per cwt., was one of the foremost. The importation has not, however, been nearly so great as was anticipated.

In 1852 the imports of salmon of foreign taking amounted to only 326 cwt. The imports during the same year of salmon of British taking were 2,298 cwt. In 1853 the duty on the former was repealed; and salmon, however taken, may now, like any other fish, be imported duty free. Foreign salmon is principally brought from Holland, Norway, and Denmark. These supplies have increased very much, for we find that in 1867 we imported 138,604 cwt. of fresh fish not of British taking, and valued at 156,460*l.*, a considerable portion of which was salmon.

**SALONICA.** A large city and seaport of European Turkey, at the north-east extremity of the gulf of the same name, lat. 40° 38' 47" N., long. 22° 57' 13" E. Population estimated at 70,000 in 1860. (*Abmanuch de Gotha*.)

This city, originally called Therna and afterwards Thessalonica, is celebrated both in sacred and profane history. It was visited by St. Paul, who has addressed two of his epistles to the Thessalonians. In the days of its prosperity it had an amphitheatre, an extensive hippodrome, numerous temples and triumphal arches, the ruins of which sufficiently attest its ancient splendor. (Clarke's *Travels*, vii. 411—478, 8vo. ed.)

Being the principal emporium of Macedonia, Salonica has always had a considerable trade; and to this circumstance may be ascribed its continued and comparatively prosperous existence notwithstanding the many vicissitudes it has undergone.

There is no port at Salonica, but there is excellent anchorage in the roads opposite to the town. The access to them is by no means difficult, and pilots are seldom employed. The exports principally consist of wheat, of which large quantities are sometimes shipped (the price per quarter, free on board, being 35*s.* in 1866), barley, wheat, Indian corn, raw cotton, wool, raw silk, tobacco, olives, and olive oil &c. The imports are sugar, coffee, dyewoods, indigo, muslins, calicoes, cotton twist, iron, coal, lead, tin, watches &c.

The following is a statement of the average price (free on board) of grain and of some articles of raw produce, at the port of Salonica, during 1866:—

Wheat	per quarter	35 0
Barley	"	27 0
Olive	"	10 0
Cotton	"	10 0
Wool	"	10 0
Silk	"	4 0



of their containing villages inhabited by colonies of miners who never saw the light, are altogether without foundation. These mines have been wrought for more than 600 years. (Coxe's *Travels in the North of Europe*, vol. i. 149, 8vo. ed.; Mr. Secretary Middleton's *Report on the Salt-producing Districts of Mexico* of December 31, 1867.)

The salt mines in the neighbourhood of Northwich in Cheshire are very extensive. They have been wrought since 1670; and the quantity of salt obtained from them is greater, probably, than is obtained from any other salt mines in the world. In its solid form, when dug from the mine, Cheshire salt is not sufficiently pure for use. To purify it, it is dissolved in sea water, from which it is afterwards separated by evaporation and crystallisation. The greater part of this salt is exported. There were sent from Cheshire down the river Weaver, in the year ended March 31, 1868, 918,438 tons, being considerably above the average quantity, while Worcestershire produced 225,250 tons. (Hunt's *Mineral Statistics*, 1867.)

Salt springs are met with in several countries. Those in Cheshire and Worcestershire furnish a large proportion of the salt made use of in Great Britain. The brine, being pumped up from very deep wells, is evaporated in wrought-iron pans from 20 to 30 feet square and 10 or 12 inches deep, placed over a furnace.

Most of the salt used in Scotland, previous to the repeal of the duty, was obtained by the evaporation of sea water nearly in the way now mentioned; but most part of the Scotch salt

works have since been relinquished. 15,707 tons of Irish salt were exported from Belfast in 1867.

In warm countries salt is obtained by the evaporation of sea-water by the heat of the sun; and the crystals of salt made in this way are more perfect, and purer, from the greater slowness of the process. French salt is manufactured in this mode, and it has always been in considerable demand in this and other countries; but the principal imports of foreign salt into Great Britain at present are from Portugal. In 1867 the total import was 16,149 tons, valued at 16,149*l*.

*Consumption of Salt.*—The consumption of salt in this country is immense. No clear estimate of the consumption in those provinces of France which had purchased an exemption from the *gabelle* (*pays francs redimés*) at about 1*l*. 1*s*. (Eng.) for each individual. (*Administration des Finances*, tome ii, p. 12.) From all that we have been able to learn on the subject, we believe that the consumption of the people of this country may be estimated a little higher, or at 2*l*. for the difference in our food and habits, as compared with the French, fully accounting for the increased allowance. On this supposition, taking the population at 30,000,000, the consumption will amount to 66,000,000 *lb*. upwards of 234,600 tons.

Exclusive of this immense home consumption, we annually export very large quantities, the export in 1867 having been 721,343 tons, of the value of 415,044*l*.

*Account of the Quantities and Value of the Salt Exported from the United Kingdom during each of the 4 Years ending with 1867.*

Countries	1861		1862		1866		1867	
	Quantity	Declared Value						
Russia - - - - -	72,201	37,911	56,240	28,381	46,225	28,157	72,297	46,197
Norway - - - - -	9,297	4,152	12,405	6,318	11,092	5,592	—	—
Denmark - - - - -	11,619	6,151	9,200	5,021	13,933	7,257	—	—
Schleswig-Holstein - - - - -	2,111	1,386	3,081	1,935	—	—	—	—
Prussia - - - - -	46,655	21,960	53,110	25,271	40,710	21,161	19,665	20,677
Holland - - - - -	25,256	8,496	21,215	6,221	21,639	7,719	25,635	8,251
Belgium - - - - -	23,581	7,890	26,412	7,534	24,211	7,595	27,668	3,401
Western Africa (foreign) - - - - -	21,055	10,797	17,402	9,871	15,210	9,681	15,025	16,697
United States: North Atlantic Ports - - - - -	76,403	32,002	68,273	27,210	82,506	57,287	201,014	62,211
South Atlantic Ports - - - - -	9,475	5,191	71,497	22,099	78,161	43,919	6,616	2,415
Pacific Ports - - - - -	330	226	270	91	590	612	2,271	1,751
British India: Bengal and Pegu - - - - -	—	—	—	—	—	—	210,000	13,211
British Possessions in South Africa - - - - -	2,780	2,358	1,117	1,117	—	—	—	—
India, Singapore, and Ceylon - - - - -	183,138	81,032	112,807	58,548	132,512	79,231	—	—
Australia - - - - -	20,617	17,567	18,357	16,015	20,008	19,285	18,608	18,470
British North America - - - - -	68,908	21,697	82,611	27,087	82,105	51,203	85,010	11,399
Other countries - - - - -	23,571	15,504	18,817	12,086	27,869	21,613	55,281	5,920
Total - - - - -	396,510	276,739	579,030	275,631	601,140	368,456	721,343	11,421

The cheapness of this important necessary of life is not less remarkable than its diffusion. Its present cost may be estimated, at a medium, at from 12*s*. to 14*s*. per ton.

*Duties on Salt.*—In ancient Rome, salt was subjected to a duty (*vectigal salinarum*; see Burman, *Dissertatio de Vectigalibus Pop. Rom. c. 6*); and it has been heavily taxed in most modern States. The *gabelle*, or code of salt laws, formerly established in France, was most oppressive. From 4,000 to 5,000 persons are calculated to have been sent annually to prison and the galleys for offences connected with these laws, the severity of which had no inconsiderable share in bringing about the Revolution. (Young's *Travels in France*, vol. i. p. 598.) In this country, duties upon salt were imposed in the reign of William III. In 1798 they amounted to 8*s*. per bushel; but were subsequently increased to 15*s*. per bushel, or about *thirty times* the cost of the salt. So exorbitant a duty was productive of the worst effects, and occasioned, by its magnitude, and the regulations for allowing salt, duty

free, to the fisheries, a vast deal of smuggling. The opinion of the public and of the House of Commons having been strongly pronounced against the tax, it was finally repealed in 1824.

That the repeal of so exorbitant a duty has been productive of great advantage, no one can doubt; but seeing that a large revenue must be raised, we question whether Government acted wisely in totally relinquishing the tax. Had the duty been reduced to 2*s*. or 2*s*. 6*d*. per bushel, and no duty-free salt allowed for the fisheries, but a drawback given on the fish exported, a revenue of 1,000,000*l*. a year might have been derived from this source with but little injury. It was not the nature of the salt tax, but the absurd extent to which it had been carried, that rendered it justly odious. When at the highest, it produced about 1,500,000*l*. a year.

SALTPETRE or NITRATE OF POTASH (Ger. salpeter; Fr. nitre, salpêtre; Ital. nitro, salnitro; Span. nitro, salitre; Russ. senitra; Lat. nitrum; Arab. ubikr; Hin. shorah). A salt well known in commerce, and of very great im-

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having been 721,345 tons, of the

the United Kingdom during c.

1866		1867	
Quantity	Decline of Value	Quantity	Decline of Value
(tons)	£	(tons)	£
16,225	28,157	72,897	46,311
1,092	8,802	—	—
15,233	7,557	—	—
—	—	19,016	20,075
10,710	23,161	22,603	8,608
21,539	7,719	22,068	4,400
24,241	7,981	15,055	16,097
13,210	52,287	90,111	67,211
82,526	35,419	9,300	7,418
73,161	612	4,071	1,500
—	—	219,688	15,811
—	—	—	—
32,542	79,231	18,900	8,608
20,008	19,585	85,016	11,810
82,406	51,203	55,911	11,810
27,859	21,645	—	—
601,140	268,459	724,243	11,810

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Fr. nitre, salpêtre; Ital. nitro,  
nitro, salitre; Russ. sentra; Lat.  
nubik; Hin. shorah). A salt  
commerce, and of very great im-

portance. It may be regarded both as a natural  
and an artificial production; being found on the  
surface of the soil in many parts of India, Egypt,  
Italy &c.; but in these and other places all that  
is known in commerce is obtained by an artificial  
process, or by lixiviating earth that has been  
formed into nitre beds. The saltpetre consumed  
in England is brought from Bengal in an impure  
state, but crystallised, in bags, each containing  
100 lb. Saltpetre forms the principal ingredient  
in the manufacture of gunpowder, and is used in  
various arts. It is also of great utility in the  
commerce of India, from its furnishing a large  
amount of dead weight for the shipping engaged  
in it. Saltpetre possesses considerable antiseptic  
power. That which is of the best quality and  
well refined is in long transparent crystals; its  
taste is sharp, bitterish, and cooling; it flames  
much when thrown upon burning coals; is very  
brittle; specific gravity 1.933. It is not altered  
by exposure to the air.

Beckmann contends, in a long and elaborate  
dissertation (*Hist. of Invent.* vol. iv. pp. 525—586,  
Eng. ed.), that the ancients were unacquainted  
with saltpetre, and that their *nitrum* was really an  
alkaline salt. But as saltpetre is produced natu-  
rally in considerable quantities in Egypt, it is  
difficult to suppose that they could be entirely  
ignorant of it; though it would appear that they  
confounded it with other things. It has been  
known in the East from a very early period.  
Beckmann concurs in opinion with those who  
believe that gunpowder was invented in India,  
and brought by the Saracens from Africa to the  
Europeans, who improved its manufacture, and  
made it available for warlike purposes. (Vol. iv.  
p. 571.)

The consumption of saltpetre during periods of  
war is very great. Its price is consequently  
liable to extreme fluctuation. In remarking on  
the varieties in the price of saltpetre, Mr. Tooke  
observes, 'It reached its greatest height in 1795,  
viz. 170s. per cwt.; in 1796 it fell at one time to  
55s. and rose again to 96s. It seems to have  
been affected considerably by the scale of hos-  
tilities on the Continent. But in consequence of  
the discoveries in chemistry, by which the French  
were enabled to dispense with a foreign supply,  
and by the increased importation from India to  
this country, by which we were enabled to supply  
the rest of the Continent at a reduced cost, the  
price declined permanently after 1798—9, when it  
had reached 145s.; and never after was so high  
as 100s., except during the short interval of  
speculation in export, during the peace of 1814,  
and again upon the breaking out of the war  
terminated by the battle of Waterloo.' The  
price of rough saltpetre in the London market  
varied, in 1867, from 12s. 9d. to 18s. 8d. per cwt.

During 1867 we imported 214,604 cwt. saltpetre,  
of which 199,105 were from India. The exports  
from the United Kingdom during the same year  
amounted to 81,758 cwt.

Exclusive of saltpetre, we import considerable  
quantities of nitre, or nitrate of soda, consisting of  
nitric acid and soda, whereas saltpetre consists of  
nitric acid and potash. Like saltpetre, it is found  
native in various countries, but especially in the  
deserts of Tarapaca, in Chili, and Atacama, along  
the coast of Southern Peru. The deserts in ques-  
tion consist of a vast sandy plain, extending be-  
tween the shore and the foot of the Andes for  
between 400 and 500 miles. This plain is more  
than 3,000 feet above the level of the sea; no rain  
falls upon it; and except along the banks of a  
few streams by which it is intersected, it is quite  
barren. In most parts, however, it abounds with

nitrate of soda, which sometimes appears on the  
surface, but is more commonly covered with a  
stratum of clay and sand, with which the salt is  
frequently mixed. The principal mines are  
within about 24 miles of the Peruvian port of  
Iquique, in 21° 50' S. lat. and 71° 42' W. long.  
After being dug up, the salt is pulverised,  
dissolved in boiling water, and allowed to  
crystallise in shallow wooden troughs. Its price,  
free on board, including an export duty of  
about 4 per cent., varies from 2½ or 3 dols.  
the quintal of 100 lb. Having a tendency to  
attract moisture, it is not so suitable as saltpetre  
for the manufacture of gunpowder; but it is  
extremely serviceable in various departments of  
the arts, and is particularly valuable in a com-  
mercial point of view, from its affording a return  
cargo for ships which might otherwise have had  
to come home in ballast.

During 1867 the imports and exports of nitre  
(cubic nitrate of soda or cubic saltpetre) amounted  
respectively to 1,217,752 cwt., valued at 667,356*l.*,  
and 21,902 cwt. The price during the same year  
was about 11s. per cwt. The duty formerly  
charged on saltpetre and nitre was suppressed in  
1845. (*Watt's Dictionary of Chemistry*.)

SALVAGE, as the term is now understood,  
is an allowance or compensation made to those by  
whose exertions ships or goods have been saved  
from the dangers of the seas, fire, pirates, or  
enemies.

The propriety and justice of making such an  
allowance must be obvious to everyone. It was  
allowed by the laws of Rhodes, Oleron, and  
Wisby; and in this respect they have been  
followed by all modern maritime states. At  
common law, the party who has saved the goods  
of another from loss or any imminent peril has a  
*lien* upon them, and may retain them in his pos-  
session till payment of a reasonable salvage.

*Salvage upon Losses by Perils of the Sea.*—  
In fixing the rate of salvage, regard is usually  
had, not only to the labour and peril incurred by  
the salvors, but also to the situation in which  
they may happen to stand in respect of the  
property saved, to the promptitude and alacrity  
manifested by them, and to the value of the ship  
and cargo, as well as the degree of danger from  
which they were rescued. In some cases as much  
as a *half* of the property saved has been allowed  
as salvage; and in others not more than a *tenth*  
part.

The crew of a ship are not entitled to salvage,  
or any unusual remuneration for the extraordinary  
efforts they may have made in saving her; it  
being their duty, as well as interest, to contribute  
their utmost upon such occasion, the whole of  
their possible services being pledged to the  
master and owners. Neither are passengers en-  
titled to claim anything for the *ordinary assistance*  
they may be able to afford to a vessel in distress.  
But a passenger is not bound to remain on board  
a ship in the hour of danger, provided he can  
leave her; and if he perform any *extraordinary*  
*services*, he is entitled to a proportional recom-  
pense.

All cases with respect to proceedings for salvage  
may be brought either in the first instance, or by  
appeal, before the Court of Admiralty, provided,  
in the last case, the sum in dispute exceeds 50*l.*  
But the delays and expenses attending the pro-  
ceedings of this court are such, that they have  
occasionally much dissatisfaction among commer-  
cial men. To obviate them, efforts which had  
been previously made were renewed and extended  
in 1836 by the 9 & 10 Vict. c. 98. This statute  
authorised salvage claims, for sums under 200*l.*,



principal secretaries of state, or in *Ireland* for the Lord Lieutenant or other chief governor or governors, to appoint out of the justices for any borough or county a rota of justices by whom jurisdiction in salvage cases shall be exercised:

1. When no such rota is appointed, it shall be lawful for the salvors, by writing addressed to the justice's clerk, to name one justice, and for the owner of the property saved in like manner to name the other;
2. If either party fails to name a justice within a reasonable time, the case may be tried by two or more justices at petty sessions;
3. It shall be competent for any stipendiary magistrate, and also in *England* for any county court judge, in *Scotland* for the sheriff or sheriff substitute of any county, and in *Ireland* for the recorder of any borough in which there is a recorder, or for the chairman of quarter sessions in any county, to exercise the same jurisdiction in salvage cases as is given to two justices;
4. It shall be lawful for one of her Majesty's principal secretaries of state to determine a scale of costs to be awarded in salvage cases by any such justices or court as aforesaid;
5. All the provisions of the principal Act relating to summary proceedings in salvage cases, and to the prevention of unnecessary appeals in such cases, shall, except so far as the same are altered by this Act, extend and apply to all such proceedings, whether under the principal Act or this Act, or both of such Acts.

*Manner in which Justices may decide Disputes.*

—Whenever, in pursuance of this Act, any dispute as to salvage is referred to the arbitration of two justices, they may either themselves determine the same, with the power to call to their assistance any person conversant with maritime affairs as assessor, or they may, if a difference of opinion arise between them, or without such difference, if they think fit, appoint some person conversant with maritime affairs as umpire to decide the point in dispute; and such justices or their umpire shall make an award as to the amount of salvage payable, within the following times, that is to say, the said justices within 48 hours after such dispute has been referred to them, and the said umpire within 48 hours after his appointment, with power nevertheless for such justices or umpire by writing under their or his hands or hand to extend the time within which they and he are hereby respectively directed to make their or his award. (17 & 18 Vict. c. 104 s. 461.)

*Costs of Arbitration.*—There shall be paid to every assessor and umpire who may be so appointed as aforesaid, in respect of his services, such sum, not exceeding 5*l.*, as the Board of Trade may from time to time direct; and all the costs of such arbitration, including any such payments as aforesaid, shall be paid by the parties to the dispute, in such manner and in such proportions as the said justices or umpire may direct by their or his award. (Sec. 462.)

Clause 463 authorises justices or their umpire to call for documents, and administer oaths.

*Receiver may appoint a Valuer in Salvage Cases.*—Whenever any salvage question arises, the receiver of wreck for the district may, upon application from either of the parties, appoint a valuer to value the property in respect of which a salvage claim is made, and shall, when the claim has been returned to him, give a copy of the valuation to both parties; and any copy of

such valuation, purporting to be signed by the valuer, and to be attested by the receiver, shall be received in evidence in any subsequent proceeding; and there shall be paid in respect of such valuation, by the party applying for the same, such fee as the Board of Trade may direct.

*Appeal to Courts of Admiralty.*—If any person is aggrieved by the award made by such justices or umpire, he may in *England* appeal to the High Court of Admiralty of *England*, in *Ireland* to the High Court of Admiralty of *Ireland*, and in *Scotland* to the Court of Session; but no such appeal shall be allowed unless the sum in dispute exceed 50*l.*, nor unless within 10 days after the date of the award the appellant gives notice to the justices of his intention to appeal, nor unless the appellant proceeds to take out a motion, or to take such other proceeding as according to the practice of the court of appeal is necessary for the institution of an appeal, within 20 days from the date of the award. (17 & 18 Vict. c. 104 s. 464.)

*Extending 17 & 18 Vict. c. 104, as to Claims for Salvage of Life.*—All the provisions of 'the Merchant Shipping Act 1851,' in regard to salvage of life from any ship or boat within the limits of the United Kingdom, shall be extended to the salvage of life from any *British* ship or boat, wheresoever the services may have been rendered, and from any foreign ship or boat, where the services have been rendered either wholly or in part in *British* waters.

*Jurisdiction of Court of Session in Salvage Cases.*—The words 'Court of Session' in the 468th section of the principal Act shall be deemed to mean and include either division of the Court of Session or the lord ordinary officiating on the bills during vacation.

Clause 465 of 17 & 18 Vict. c. 104 directs the justices to transmit copy of proceedings and certificate of value to court of appeal.

*Payment of Salvage, to whom made in case of Dispute.*—Whenever the aggregate amount of salvage payable for salvage services rendered in the United Kingdom has been finally ascertained either by agreement or by the award of such justices or their umpire, but a dispute arises as to the appointment thereof amongst several claimants, then, if the amount does not exceed 200*l.*, it shall be lawful for the party liable to pay the amount to apply to the receiver of the district for liberty to pay the amount to him; and he shall, if he think fit, receive the same accordingly, and grant a certificate under his hand, stating the fact of such payment and the services for which it is made; and such certificate shall be a full discharge and indemnity to the person or persons to whom it is given, and to their ship, boats, cargo, apparel, and effects, against the claims of all persons whomsoever in respect of the services therein mentioned; but if the amount exceeds 200*l.*, it shall be apportioned in manner after mentioned. (Sec. 466.)

*Apportionment of Salvage.*—Upon the receipt of any such amount as aforesaid, the receiver shall with all convenient speed proceed to distribute the same among the several persons entitled thereto, upon such evidence and in such shares and proportions as he thinks fit, with power to retain any moneys that may appear to him to be payable to any absent parties; but any distribution made in pursuance of this section shall be final and conclusive against the rights of all persons claiming to be entitled to any portion of the moneys so distributed. (Sec. 467.)

*Manner of enforcing Payment of Salvage.*—Whenever any salvage is due to any person

under this Act, the receiver shall act as follows:—

1. If the same is due in respect of services rendered in assisting any ship or boat, or in saving the lives of persons belonging to the same, or the cargo or apparel thereof,

He shall detain such ship or boat and the cargo and apparel belonging thereto until payment is made, or process has been issued by some competent court for the detention of such ship, boat, cargo, or apparel.

2. If the same is due in respect of the saving of any wreck, and such wreck is not sold as unclaimed in pursuance of the provisions herein-after contained,

He shall detain such wreck until payment is made, or process has been issued in manner aforesaid.

But it shall be lawful for the receiver, if at any time previously to the issue of such process security is given to his satisfaction for the amount of salvage due, to release from his custody any ship, boat, cargo, apparel, or wreck detained by him; and in cases where the claim for salvage exceeds 200*l.* it shall be lawful in England for the High Court of Admiralty of England, in Ireland for the High Court of Admiralty of Ireland, and in Scotland for the Court of Session, to determine any question that may arise concerning the amount of the security to be given or the sufficiency of the sureties; and in all cases where bond or other security is given to the receiver for an amount exceeding 200*l.*, it shall be lawful for the salvor or for the owner of the property salvaged, or their respective agents, to institute proceedings in such last-mentioned courts for the purpose of having the questions arising between them adjudicated upon, and the said courts may enforce payment of the said bond or other security, in the same manner as if bail had been given in the said courts. (Sec. 468.)

**Power of Receiver to sell Property salvaged.**—Whenever any ship, boat, cargo, apparel, or wreck is detained by any receiver for non-payment of any sums so due as aforesaid, and the parties liable to pay the same are aware of such detention, then, in the following cases; viz:—

1. In cases where the amount is not disputed, and payment thereof is not made within 20 days after the same has become due:

2. In cases where the amount is disputed, but no appeal lies from the first tribunal to which the dispute is referred, and payment thereof is not made within 20 days after the decision of such first tribunal:

3. In cases where the amount is disputed, and an appeal lies from the decision of the first tribunal to some other tribunal, and payment thereof is not made within such 20 days as last aforesaid, or such motion as hereinbefore mentioned is not taken out within such 20 days, or such other proceedings as are according to the practice of such other tribunal necessary for the prosecution of an appeal are not instituted within such 20 days,

The receiver may forthwith sell such ship, boat, cargo, apparel, or wreck, or a sufficient part thereof, and out of the proceeds of the sale, after payment of all expenses thereof, defray all sums of money due in respect of expenses, fees, and salvage, paying the surplus, if any, to the owners of the property sold, or other the parties entitled to receive the same. (Sec. 469.)

**Subject to Payment of Expenses &c., Owner entitled to Wreck.**—Subject to the payment of such expenses, fees, and salvage as aforesaid, the owner of any wreck who establishes his claim

thereto to the satisfaction of the receiver within 1 year from the date at which such wreck has come into the possession of the receiver, shall be entitled to have the same delivered up to him. (17 & 18 Vict. c. 104 s. 470.)

**Delivery of Wreck by Receiver not to prejudice Title.**—Upon delivery of wreck or of the proceeds of wreck by any receiver to any person in pursuance of the provisions of the eighth part of the principal Act, such receiver shall be discharged from all liability in respect thereof, but such delivery shall not be deemed to prejudice or affect any question concerning the right or title to the said wreck which may be raised by third parties, nor shall any such delivery prejudice or affect any question concerning the title to the soil on which the wreck may have been found.

None of the previously mentioned clauses have any force within the Cinque Ports; but the Lord Warden is directed by stat. 1 & 2 Geo. IV. c. 76 to appoint three or more substantial persons in each of these towns, who are authorised to decide upon all claims for services of any sort or description rendered to any vessel, or for saving or preserving, within the jurisdiction, any goods or merchandise wrecked, stranded, or cast away, or bringing anchors or cables ashore &c. No commissioner can act for any other place than that in which, or within a mile of which, he is resident. Either party may, within 8 days of the award, declare his intention of bringing the matter before some competent Court of Admiralty; selecting, as he may judge best, the Admiralty of England, or that of the Cinque Ports. The provisions in this statute have been enlarged by Lord Tenterden for the cheap and easy means they afford for settling such questions.

**Salvage by Ships of War.**—A good deal of discussion has taken place in regard to the claims preferred by ships of war for salvage. In periods of war, when British merchantmen that have been captured by enemy's ships are re-captured by British ships of war, the latter are allowed a salvage of one-eighth part of the re-captured ship and cargoes. (Stat. 43 Geo. III. c. 160.) The same statute allows a salvage of one-sixth part of their value on ships re-captured by privateers. We subjoin the clause of the Act:—

"If any ship or vessel taken as prize, or any goods therein, shall appear, in the Court of Admiralty, to have belonged to any of his Majesty's subjects, which were before taken by any of his Majesty's enemies, and at any time afterwards retaken by any of his Majesty's ships or any privateer, or other ship or vessel under his Majesty's protection, such ships, vessels, and goods shall, in all cases (save as hereafter excepted), be adjudged to be restored, and shall be accordingly restored, to such former owner or owners, he or they paying for salvage, if retaken by any of his Majesty's ships, one-eighth part of the true value thereof, to the flag officers, captains &c., to be divided as the same Act directs; and if retaken by any privateer, or other ship or vessel, one-sixth part of the true value of such ships and goods, to be paid to the owners, officers, and seamen of such privateer or other vessel, without any deduction; and if retaken by the joint operation of one or more of his Majesty's ships, and one or more private ships of war, the judge of the Court of Admiralty, or other court having cognisance thereof, shall order such salvage, and in such proportions, to be paid to the captors by the owners, as he shall, under the circumstances of the case, deem fit and reasonable; but if such recaptured ship or vessel shall appear to have

of the receiver within 1 which such wreck has come of the receiver, shall be same delivered up to him, 470.)

**Receiver not to prejudice** of wreck or of the proceeds to any person in pursuance of the eighth part of the receiver shall be discharged respect thereof, but such deemed to prejudice or affecting the right or title to the y be raised by third parties, livery prejudice or affect any the title to the soil on which been found.

ously mentioned clauses have Cinque Ports; but the Lord by stat. 1 & 2 Geo. IV. c. 76 ore substantial persons in each are authorised to decide upon es of any sort or description esel, or for saving or pre-er- isedition, any goods or mer- stranded, or cast away, or e cables ashore &c. No com- for any other place than that in a mile of which he is party may, within 8 days of his intention of bringing the e competent Court of Admir- he may judge best, the land, or that of the Cinque ions in this statute have been Tenterden for the chap and afford for settling such ques-

**Ships of War.**—A good deal of en place in regard to the claims of war for salvage. In periods British merchantmen that have enemy's ships are re-captured by war, the latter are allowed a fifth part of the re-captured ships at 43 Geo. III. c. 100. The vs a salvage of one-sixth part of ships re-captured by privateers, cause of the Act:—

er vessel taken as prize, or any hull appear, in the Court of have belonged to any of his- s, which were before taken by ty's enemies, and at any time n by any of his Majesty's ships, or other ship or vessel under is- tion, such ships, vessels, and ll cases (save as hereafter ex- gered, to such former owner or ey paying for salvage, if retaken ty's ships, one-eighth part of er-of, to the flag officers, captains l as the same Act directs; and if rivateer, or other ship or vessel, the true value of such ships and id to the owners, officers, and rivateer or other vessel, without and if retaken by the joint, or more of his Majesty's ships, rivatee ships of war, the judge, Admiralty, or other court having of, shall order such salvage, and ns, to be paid to the captors by he shall, under the circumstances n fit and reasonable; but if such or vessel shall appear to have

been set forth by the enemy as a ship or vessel of war, the said ship or vessel shall not be restored to the former owners, but shall in all cases, whether retaken by any of his Majesty's ships or any privateer, be adjudged lawful prize for the benefit of the captors.

Now, it is contended that if salvage from perils of the sea be allowed to Queen's ships, it should not in any case exceed this amount. But it is argued by others, that salvage to Queen's ships, even to this extent, is objectionable; that they are employed by the public for their security and protection; and that when they are assisting in saving lives or property from shipwreck or other casualty, they are merely doing their duty, and are not entitled to any peculiar gratuity or reward. And on general principles we are inclined to think that this is the correct view of the matter; and that it is the bounden duty of Queen's ships to render gratuitously every assistance in their power to merchantmen in distress.

This, however, is a practical rather than a theoretical question. And the zeal of sailors in the discharge of a perilous duty may, perhaps, be sharpened by their being aware that by its successful performance they will entitle themselves, not merely to the public thanks, but to a considerable pecuniary reward. But it could not surely be meant that officers and men belonging to the royal navy were to be allowed equal claims for salvage as private parties, or that they were to be enriched at the expense of those whose property they had done their duty in helping to save. And yet cases have occurred which it is very difficult to explain on any other principle than this. It is not, therefore, surprising that the claims for salvage put forward by Queen's ships should, of late years, have been much canvassed and objected to. We subjoin the regulations which the Merchant Shipping Act of 1851 has laid down in regard to the making up and prosecution of such claims. But though it has amended some of the abuses complained of, it will not suffice for their eradication. Nothing would be so effectual for this purpose as to limit the *maximum* claim for salvage put forward by Queen's ships to one-eighth part of the value of the property saved, as in cases of re-capture. It is difficult to see what greater merit can attach to saving property from shipwreck than to recovering it from an enemy.

**Salvage by her Majesty's Ships.**—In cases where salvage services are rendered by any ship belonging to her Majesty or by the commander or crew thereof, no claim shall be made or allowed for any loss, damage, or risk thereby caused to such ship, or to the stores, tackle, or furniture thereof, or for the use of any stores or other articles belonging to her Majesty supplied in order to effect such services, or for any other expense or loss sustained by her Majesty by reason of such services. (Sec. 481.)

**Claims for Salvage by her Majesty's Officers not to be determined without Consent of Admiralty.**—No claim on account of any salvage services rendered to any ship or cargo or to any appurtenances of any ship by the commander or crew or part of the crew of any of her Majesty's ships shall be finally adjudicated upon unless the consent of the Admiralty has first been obtained, such consent to be signified by writing under the hand of the secretary to the Admiralty; and if any person who has originated proceedings in respect of any such claim fails to prove such consent to the satisfaction of the court, his suit shall stand dismissed, and he shall pay all the costs of such proceedings; provided that any

document purporting to give such consent and to be signed by the secretary to the Admiralty shall be *prima facie* evidence of such consent having been given. (Sec. 485.)

**Steps to be taken when Salvage Services have been rendered &c.**—Whenever services for which salvage is claimed are rendered to any ship or cargo, or to any part of them, or to any appurtenances of any ship, at any place out of the United Kingdom and the four seas adjoining thereto, by the commander or crew or part of the crew of any of her Majesty's ships, the property alleged to be salvaged shall, if the salvor is justified by the circumstances of the case in detaining it at all, be taken to some port where there is either a consular officer or a vice-admiralty court; and within 24 hours after arriving at such port, the said salvor and the master or other person in charge of the property alleged to be salvaged shall deliver to the consular officer or vice-admiralty judge there, a statement verified on oath, specifying, so far as they respectively can, and so far as the particulars required apply to the case,

1. The place, condition, and circumstances in which the said ship, cargo, or property was at the time when the services were rendered for which salvage is claimed,

2. The nature and duration of the services rendered.

And the salvor shall add to his statement,

3. The proportion of the value of said ship, cargo, and property, and the freight which he claims for salvage, of the values at which he estimates the said ship, freight, cargo, and property respectively, and the several amounts that he claims for salvage in respect of the same.

4. Any other circumstances he thinks relevant to the said claim.

And the said master or other person in charge of the said ship, cargo, or property, shall add to his statement,

3. A copy of the certificate of registry of the said ship, and of the indorsements thereon, stating any change which (to his knowledge or belief) has occurred in the particulars contained in such certificate; and stating also, to the best of his knowledge and belief, the state of the title to the ship for the time being, and of the incumbrances and certificates of mortgage or sale, if any, affecting the same, and the names and places of business of the owners and incumbrancers.

4. The name and place of business or residence of the freighter (if any) of the said ship, and the freight to be paid for the voyage she is then on.

5. A general account of the quantity and nature of the cargo at the time the salvage services were rendered.

6. The name and place of business or residence of the owner of such cargo and of the consignee thereof.

7. The value at which the said master estimates the said ship, cargo, and property, and the freight respectively, or, if he thinks fit, in lieu of such estimated value of the cargo, a copy of the ship's manifest.

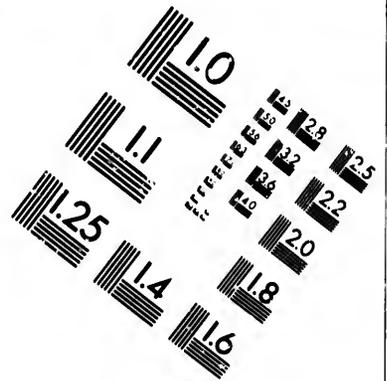
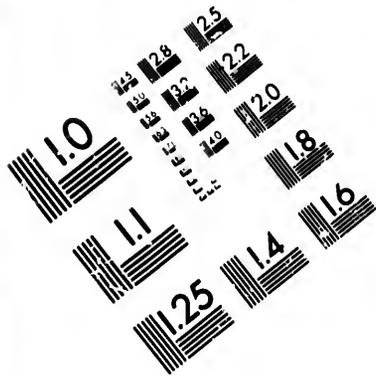
8. The amounts which the master thinks should be paid as salvage for the services rendered.

9. An accurate list of the property saved, in cases where the ship is not saved.

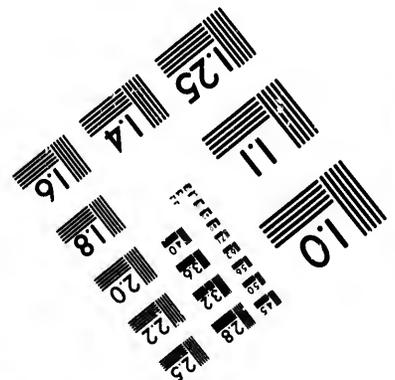
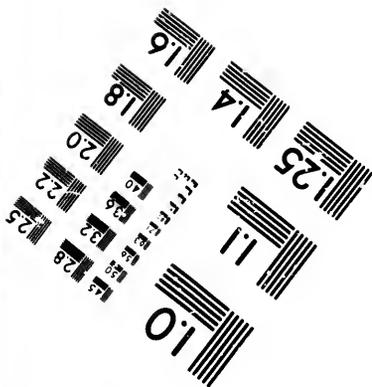
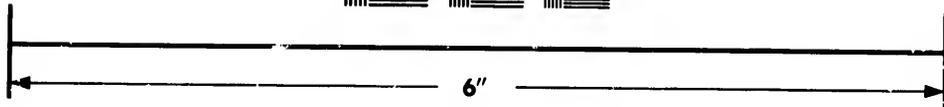
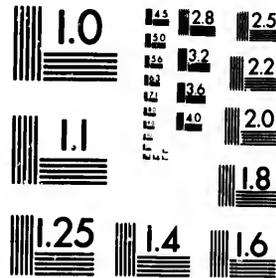
10. An account of the proceeds of the sale of the said ship, cargo, or property in cases where the same or any of them are sold at such port as aforesaid.

11. The number, capacities, and condition of the crew of the said ship at the time the said services were rendered.





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12. Any other circumstances he thinks relevant to the matters in question.

13. A statement of his willingness to execute a bond, in the form in the table marked W. in the schedule to this Act, in such amount as the said consular officer or vice-admiralty judge may fix. (Sec. 486.)

*Consular Officer or Judge to fix Amount for which a Bond is to be given.*—The said consular officer or judge, as the case may be, shall, within 4 days after receiving the aforesaid statements, fix the amount to be inserted in the said bond at such sum as he thinks sufficient to answer the demand for the salvage services rendered; but such sum shall not exceed one-half of the value which in his estimation the said ship, freight, and cargo, or any parts thereof in respect of which salvage is claimed, are worth; and the said officer or judge may, if either of the aforesaid statements is not delivered to him within the time hereby required, proceed ex-parte, but he shall in no case under this Act require the cargo to be unladen; and the said consular officer may, in any proceeding under this Act relating to salvage, take affidavits and receive affirmations. (Sec. 487.)

*On Master executing Bond, the Right of Detention to cease.*—The said consular officer or judge shall send notice of the sum which he has fixed as aforesaid to the said salvor and the said master; and upon such master executing a bond in form as aforesaid, with the said sum inserted therein, in the presence of the said officer or judge (who shall attest the same), and delivering the same to the said salvor, the right of the said salvor to detain or retain possession of the said ship, cargo, or property, or any of them, in respect of the said salvage claim, shall cease. (Sec. 488.)

*Provision for additional Security in Case of Ships owned by Persons out of her Majesty's Dominions.*—If the ship, cargo, or property in respect of which the claim for salvage is made is not owned by persons domiciled in her Majesty's dominions, the right of the salvor to detain or retain possession thereof shall not cease unless the master procures, in addition to the said bond, such security for the due performance of its conditions as the said officer or judge considers sufficient for the purpose, and places the same in the possession or custody of the said officer or judge, or, if the salvor so desires, in the possession or custody of the said officer or judge jointly with any other person whom he appoints for the purpose. (Sec. 489.)

*Documents to be sent to England.*—The said consular officer or judge shall at the earliest opportunity transmit the said statements and documents so sent to him, and a notice of the sum he has fixed as aforesaid, to the High Court of Admiralty of England, or if the said salvor and the said master or other person in charge as aforesaid agree that the said bond shall be adjudicated upon by any vice-admiralty court, to such court. (Sec. 490.)

*Whom the Bond shall bind.*—The said bond shall bind the respective owners of the said ship, freight, and cargo, and their respective heirs, executors, and administrators, for the salvage adjudged to be payable in respect of the said ship, freight, and cargo. (Sec. 491.)

Clause 492 specifies the court in which such bonds are to be adjudicated on.

Clause 493 gives power to the High Court of Admiralty to enforce bonds.

*Saving Clause.*—Any salvor of any ship, cargo, or property who elects not to proceed under this Act shall have no power to detain the said ship, cargo, or property, but may proceed otherwise for the enforcement of his salvage claim as if this Act

had not been passed; and nothing in this Act contained shall abridge or affect the rights of salvors, except in the cases by it provided for. (Sec. 494.)

*Documents free from Duty.*—All bonds, statements, agreements, and other documents made or executed in pursuance of the eighth part of this Act [WRECK AND SALVAGE], shall, if so made or executed out of the United Kingdom, be exempt from stamp duty. (Sec. 495.)

*Punishment for Forgery and false Representations.*—Every person who, in any proceeding under the provisions contained in this Act relating to salvage by her Majesty's ships, forges, assists in forging, or procures to be forged, or fraudulently altered, any document, and every person who in any such proceeding puts off or makes use of any such forged or altered document, knowing the same to be so forged or altered, or who gives or makes, or assists in giving or making, or procures to be given or made, any false evidence or representation, knowing the same to be false, shall be punishable with imprisonment, with or without hard labour, for any period not exceeding 2 years, or, if summarily prosecuted and convicted, by imprisonment, with or without hard labour, for any period not exceeding 6 months. (Sec. 496.)

*Voluntary Agreement may be made which shall have the same Effect as the Bond above mentioned.*

—Whenever services for which salvage is claimed are rendered either by the commander or crew or part of the crew of any of her Majesty's ships or of any other ship, and the salvor voluntarily agrees to abandon his lien upon the ship, cargo, and property alleged to be salvaged, upon the master or other person in charge thereof entering into a written agreement attested by two witnesses to abide the decision of the said High Court of Admiralty or of any vice-admiralty court, and thereby giving security in that behalf to such amount as may be agreed on by the parties to the said agreement, such agreement shall bind the said ship and the said cargo and the freight payable therefor respectively, and the respective owners of the said ship, freight, and cargo for the time being, and their respective heirs, executors, and administrators, for the salvage which may be adjudged to be payable in respect of the said ship, cargo, and freight respectively to the extent of the security so given as aforesaid, and may be adjudicated upon and enforced in the same manner as the bonds previously provided for in the case of detention for salvage services rendered by her Majesty's ships; and upon such agreement being made, the salvor and the master or other person in charge as aforesaid shall respectively make such statements as before required to be made by them in case of a bond being given, except that such statements need not be made upon oath; and the salvor shall, as soon as practicable, transmit the said agreement and the said statements to the court in which the said agreement is to be adjudicated upon. (Sec. 497.)

*Powers for Courts to apportion Salvage.*—Whenever the aggregate amount of salvage payable in respect of salvage services rendered in the United Kingdom has been finally ascertained, and exceeds 200*l.*, and whenever the aggregate amount of salvage payable in respect of salvage services rendered elsewhere has been finally ascertained, whatever such amount may be, then if any delay or dispute arises as to the apportionment thereof, any court having admiralty jurisdiction may cause the same to be apportioned amongst the persons entitled thereto in such manner as it thinks just; and may for that purpose, if it think fit, appoint any person to carry such apportionment into effect.

sed; and nothing in this Act shall be construed to affect the rights of the cases by it provided for.

**from Duty.**—All bonds, statements, and other documents made or issued in pursuance of the eighth part of this Act (SALVAGE), shall, if so made or issued in the United Kingdom, be exempt from duty. (Sec. 495.)

**Forgery and false Representations.**—Who, in any proceeding under this Act in this Act relating to salvage services, forges, assists in forging, or fraudulently altered, or causes to be altered, every person who in any such proceeding, or makes use of any such document, knowing the same to be false, or who gives or makes, or causes to be made, or procures to be given, any evidence or representation, to be false, shall be punishable with imprisonment, with or without hard labour, for a term not exceeding 2 years, or, if summoned and convicted, by imprisonment with hard labour, for any period not exceeding 6 months. (Sec. 496.)

**Agreement may be made which shall not affect as the Bond above mentioned.**—Where, in any case in which salvage is claimed or to be claimed by the commander or crew or any of her Majesty's ships or of any vessel, the salvor voluntarily agrees upon the ship, cargo, and proceeds to be salvaged, upon the master or other person in charge thereof entering into a written agreement, attested by two witnesses to the satisfaction of the said High Court of Admiralty or any other court of law, and the security in that behalf to be given by the parties to the agreement shall bind the said ship, cargo, and the freight payable thereon, and the respective owners of the ship, cargo, and the time being, and the heirs, executors, and administrators, which may be adjudged to be the property of the said ship, cargo, and proceeds to the extent of the security so given, and may be adjudged in the same manner as the bonds so given in the case of detention rendered by her Majesty's ships, and the agreement being made, the salvor or other person in charge as above mentioned may make such statements as may be made by them in case of a seizure, except that such statements shall be made upon oath; and the salvor shall, in addition to the said agreement, transmit to the court in which the case is to be adjudicated upon.

**Provision as to apportionment of Salvage.**—Where the amount of salvage payable for salvage services rendered in any case has been finally ascertained, and whenever the aggregate amount of salvage in respect of salvage services rendered in any case has been finally ascertained, the amount may be, then if any delay as to the apportionment thereof, the Admiralty jurisdiction may cause to be apportioned amongst the persons in such manner as it thinks just; and if it think fit, appoint such apportionment into effect.

and may compel any person in whose hands or under whose control such amount may be, to distribute the same, or to bring the same into court, to be there dealt with as the court may direct, and may for the purposes aforesaid issue such writs, orders, or other processes as it thinks fit. (17 & 18 Vict. c. 104 s. 498.)

The agent for her Majesty's ship or his sub-agent is authorised to take steps and proceedings on the part of the officers and crew in case of salvage services rendered to any ship or cargo, or otherwise, within the meaning of the enactments for the time being in force relating to merchant shipping. (27 & 28 Vict. c. 24 s. 12.)

#### Distribution of Salvage, Bounty, Prize, and other Money.

**Taxation and Payment of Costs of Officers and Crew, Agents &c.**—Where, in any of the several cases aforesaid, any money is distributable among the officers and crew of any of her Majesty's ships of war, the costs, charges, and expenses of the officers and crew and of the ship's agent, and all other (if any) costs, charges, or expenses properly chargeable against that money, shall be paid thereout before distribution thereof, all such costs, charges, and expenses being first taxed and allowed by the proper officer of the court having jurisdiction in the case, and if there is no such court, then by the Registrar of the High Court of Admiralty.

**Salvage, Bounty, Prize, and other Money to be distributed according to Order in Council &c.**—In the several cases aforesaid, money distributable among the officers and crew of any of her Majesty's ships of war, so far as full provision respecting the distribution thereof is not made by or under any Act of Parliament other than this Act, shall be distributed under the direction of the Lords of the Admiralty in the shares in that behalf specified in any royal proclamation or order in council.

#### Prize Salvage.

**Salvage to Re-captors of British Ship or Goods from Enemy.**—Where any ship or goods belonging to any of her Majesty's subjects, after being taken as prize by the enemy, is or are retaken from the enemy by any of her Majesty's ships of war, the same shall be restored by decree of a prize court to the owner, on his paying as prize salvage one-eighth part of the value of the prize to be decreed and ascertained by the court, or such sum, not exceeding one-eighth part of the estimated value of the prize, as may be agreed on between the owner and the re-captors, and approved by order of the court; provided that where the re-capture is made under circumstances of special difficulty or danger, the prize court may, if it think fit, award to the re-captors as prize salvage a larger part than one-eighth part, but not exceeding in any case one-fourth part, of the value of the prize.

Provided also, that where a ship after being so taken is set forth or used by any of her Majesty's enemies as a ship of war, this provision for restitution shall not apply, and the ship shall be adjudicated on as in other cases of prize.

**Permission to re-captured Ship to proceed on Voyage.**—Where a ship belonging to any of her Majesty's subjects, after being taken as prize by the enemy, is retaken from the enemy by any of her Majesty's ships of war, she may, with the consent of the re-captors, prosecute her voyage, and it shall not be necessary for the re-captors to proceed to adjudication till her return to a port of the United Kingdom.

The master or owner, or his agent, may, with

the consent of the re-captors, unload and dispose of the goods on board the ship before adjudication.

In case the ship does not within six months return to a port of the United Kingdom, the re-captors may nevertheless institute proceedings against the ship or goods in the High Court of Admiralty, and the court may thereupon award prize salvage as aforesaid to the re-captors, and may enforce payment thereof, either by warrant of arrest against the ship or goods, or by motion and attachment against the owner.

In the case of neutral ships captured by an enemy and retaken by British men-of-war or privateers, the Courts of Admiralty have a discretionary power of allowing such salvage, and in such proportions, as, under the circumstances of each particular case, may appear just; but there is no positive law or binding regulation to which parties may appeal, for ascertaining the rate of such salvage. 'The maritime law of England,' says Lord Stowell, 'having adopted a most liberal rule of restitution on salvage, with respect to the re-captured property of its own subjects, gives the benefit of that rule to its allies, till it appears that they act towards British property on a less liberal principle; in such case it adopts their rule, and treats them according to their own measure of justice.' (Rob. Adm. Rep. 54.)

Salvage is one of those charges which are usually provided against by insurance: When, however, the salvage is very high, and the object of the voyage so far defeated, the insured is, by the laws of this and all other maritime nations, allowed to abandon, and to call upon the insurer as for a total loss. [ABANDONMENT.]

For further information with respect to salvage, see Abbott *On the Law of Shipping*, part iii. c. 10, and Maule and Pollock on *Do.*, c. 10.

**SAMPLE.** A small quantity of a commodity exhibited at public or private sales, as a specimen. Sugars, spirits, wine, coffee, and, indeed, most species of merchandise, are sold by sample. If an article be not, at an average, equal to the sample by which it is sold, the buyer may cancel the contract, and return the article to the seller.

Subjoined is a list of most articles that may be warehoused, and of the quantities that may be taken out as samples. (*Customs Min.*, Oct. 11, 1827.)

Arrowroot	-	-	3 lb. per package.
Coffee	-	-	2 oz. per bag.
Currants	-	-	1 lb. per package.
Raisins	-	-	4 lb. each mark.
Sago	-	-	2 lb. per pile.
Spirits	-	-	3 gills from each cask.
Sugar, foreign	-	-	1 oz. per box not exceeding 5 cwt.
	-	-	18 oz. per box or chest exceeding 5 cwt.
	-	-	14 lb. per hoghead.
	-	-	14 lb. per tierce.
Ditto, British plantation	-	-	1 lb. per chest.
	-	-	12 oz. per barrel.
	-	-	3 lb. molasses per hind. or cask.
Teapots	-	-	1 oz. per package.
Tees	-	-	3 oz. of each description and quality.

But in London samples are allowed according to the scale following, viz:—

From 10 chests or	20 small catty boxes	-	1b. 0z.
20 "	40 "	-	0 6
40 "	80 "	-	0 12
80 "	160 "	-	1 2
160 "	320 "	-	1 8
320 and upwards, or 10 and upwards		-	2 0

But other regulations exist, founded on the requirements of the trade.

Wine - 3 gills per each cask.  
Vermicelli - 1 lb. per package.  
Note.—Samples of spirits and of wine are of 3 gills each; but additional samples are allowed duty free, as the goods are required for home consumption, removal under bond, or exportation.

**SANDAL WOOD.** The wood of a tree (*Santalum album*, Linn.) having somewhat of the appearance of a large myrtle. It is of a deep yellow colour, and yields an agreeable perfume. The tree, when cut down, is usually about 9 inches in diameter at the root, but sometimes considerably more. After

being felled, it is barked, cut into billets, and buried in a dry place for about a couple of months, during which time the white nuts eat off the outer wood, without touching the heart, which is the sandal. It is then taken up and sorted, according to the size of the billets. The deeper the colour, and the nearer the root, the higher is the perfume. Reject such pieces as are of a pale colour, small, decayed, or have white wood about them; and take especial care that it be not mixed with wood resembling sandal, but without its perfume (Milburn's *Orient. Com.*)

Sandal wood is extensively employed by the Hindoos as a perfume, in their funeral ceremonies. But the Chinese are its principal consumers. They manufacture it into fans, and small articles of furniture, and use it, when ground into powder, as a cosmetic. During the year ended Dec. 31, 1848, there were imported by British vessels into Canton 20,732 piculs of sandal wood, valued at 207,400 dollars (see ante, *CANTON*); and the imports in some years are more than twice this amount. The average importation into Calcutta is about 200 tons a-year. It grows principally in Malabar, in the mountainous country at a little distance from the low sea coast; in Timor; and in the Feeje Islands in the South Sea. Calcutta is principally supplied from Malabar, while China derives the larger portion of her supplies from Timor and the other islands. It is seldom brought to Europe, except by individuals for their own use, or as presents for their friends. (Bell's *External Com. of Bengal*, pp. 49 and 85; Crawford's *Indian Archipelago*, vol. iii. p. 121 &c.)

There is also a red sandal wood which is used for dyeing, of which we imported 1,191 tons in 1867, valued at 5,870*l.*

**SANDARACH.** A resinous substance, commonly met with in loose granules a little larger than a pea, of a whitish yellow colour, brittle, inflammable, of a resinous smell, and acrid aromatic taste. It exudes, it is said, in warm climates, from cracks and incisions in the common juniper bush. It is used as a varnish, dissolved in spirits of wine, and the powder is used under the name of pounce, to give writing paper a surface after crasure. (Ainslie's *Mat. India*; Brande and Cox's *Dictionary of Science*.)

**SANDWICH ISLANDS.** This remote but interesting group is situated in the midst of the Pacific Ocean, between 18° 50' and 22° 20' N. lat., and 155° and 160° W. long. It comprises 8 inhabited and 4 uninhabited islands; Owhyhee, where Captain Cook was killed, being the most considerable. They are of volcanic formation, and mountainous, some of the peaks rising in Owhyhee to between 13,000 and 14,000 feet in height. By census of 1861 the total population was 69,800, of whom 67,084 were natives. It is a curious fact that the native population has been rapidly decreasing for some years past. The islanders are honourably distinguished among the Polynesian nations by the advances they have made in civilisation, and particularly by their progress in manufactures, navigation, and commerce. Christianity was introduced by the American missionaries in 1820, and is now the religion of the state; schools have been established, churches have been built, and the forms of religion are pretty well observed. European usages have become fashionable; and the costume of the better classes, women as well as men, closely resembles that of the Americans. The chief products of the islands are sugar, wool, cotton, coffee, oranges &c.

The principal port is Honolulu or Honorou, on the south side of the island of Wouho, in lat.

21° 30' N., long. 158° W. Population estimated at 14,000 in 1863, Americans, and other foreigners. The harbour, to which the place owes all its importance, has a narrow entrance, but it is easy access at all times of the tide to vessels not drawing more than 18 or 19 feet water. The Hawaiian Government completed in 1866 the erection of the most excellent wharf suitable for steamers. The bar at its mouth, on which there is a depth of 21 feet, being narrow and composed of soft coral, it might easily be made accessible even for line-of-battle ships. Coal could be had here in 1866 at from 4*l.*s. to 5*l.*s. per ton.

The Sandwich Islands have been visited for a considerable number of years past by the whaling ships and traders in the Pacific. Since the settlement of Oregon and California, and the discovery of the gold fields in the latter, they have acquired great additional importance, from their peculiar aptitude to serve as a station for the ships and steamers engaged in the trade between these countries, Australia, and China. In consequence, the town of Honolulu has increased so that the ground around the harbour is entirely occupied with houses and warehouses. The produce of the islands has also risen rapidly in value from its being in great demand for the provisioning of ships; and in the view of increasing its supply and of making up for the deficiency of the native population, it has been proposed to introduce Chinese labourers into the islands. The frequency of desertion among their crews has been the principal obstacle in the way of ships touching at Honolulu; but this, no doubt, will only be a temporary evil, and will end with the cessation of the peculiar circumstances to which it owes its origin. A considerable number of ships belong to the port, owned partly by natives, but principally by foreigners.

From the *Report* for 1866 of the British Consul-General resident at Honolulu, it would appear that the trade with the United States is steadily increasing, and that both the exports and imports for 1866 were greater than those of 1865, the exports of cotton, in particular, having doubled.

The actual expense of producing sugar on an old plantation, free from encumbrance, probably does not exceed 3 cents (equal to 1*½*d.) per lb. for all grades manufactured.

According to a table published in the 'Commercial Advertiser' of Honolulu, 33 sugar plantations are in operation or getting ready, 30 of which report 10,266 acres planted with cane, and the monthly expenses 49,917 dollars, equalling in English money about 9,861*l.*

The capital invested, including two estates not reported in the above, is over 2,000,000 dollars, or in English money 400,000*l.* (Mr. Consul-General Wodehouse's *Report*.)

A newspaper in the English language is published in the town, in which we have noticed advertisements of ladies' shoes from Paris, eau de Cologne, ices &c. The sovereignty of these islands was ceded, in February 1843, to the British; but the cession was declined by the admiral commanding in chief in the Pacific, King Kamehameha V. at present (1869) reigns over them. (*Geographical Dictionary*, art. 'Polynesia'; Simpson's *Sandwich Islands*; *Consular Report*.)

**SAN FRANCISCO.** A city and seaport of the United States, in California, on the south promontory, dividing the great bay of San Francisco from the Pacific, inside the bay, and a short way to the south of its entrance. The latter, now called the Golden Gate, little more

W. Population estimated at Americans, and other foreigners, which the place owes all its inflow entrance, but it is easy of the tide to vessels not drawing 19 feet water. The Hawaiian, erected in 1866 the erection of a pier suitable for steamers. The one in which there is a depth of 21 and composed of soft coral. It is accessible even for line-of-steamers could be had here in 1866 per ton.

Islands have been visited for a number of years past by the whaling vessels of the Pacific. Since the settlement of California, and the discovery of the latter, they have acquired importance, from their peculiar position as a station for the ships and in the trade between these countries and China. In consequence, the number has increased so that the ground now is entirely occupied with houses. The produce of the whaling is rapidly in value from its demand for the provisioning of the view of increasing its supply for the deficiency of the natives has been proposed to introduce into the islands. The frequency of their crews has been the in the way of ships touching this, no doubt, will only be a and will end with the cessant circumstances to which it is. A considerable number of ships, owned partly by natives, but by emigrants.

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an increase of producing sugar on an old ground encumbrance, probably decreasing (equal to 1 1/4 d.) per lb. for all the year.

Table published in the 'Compendium' of Honolulu, 33 sugar plantations or getting ready, 30 of 6 acres planted with cane, and worth 49,917 dollars, equalling in value 9,861.

Estimated, including two estates not valued, is over 2,000,000 dollars, or 400,000 l. (Mr. Consul-General's report.)

The English language is published, in which we have noticed 'ladies' shoes from Paris can be seen. The sovereignty of these islands, in February 1843, to the session was declined by the King in chief in the Pacific. V. at present (1869) reigns 'Geographical Dictionary, art. 'Polynesian Sandwich Islands; Consul's report.'

San Francisco. A city and seaport of California, on the south side of the great bay of San Francisco, inside the bay, and at the south of its entrance. The Golden Gate, little more

than a mile in width, has, on its south side, an old Spanish fort, with a light, in lat. 37° 48' 31" N., long. 122° 27' 38" W. There are also lights on Bonita and Alcatraz Island. Having passed the fort, the course to the town is nearly E. from 3 to 4 m., and then S. and W. about as much more. The city is at the bottom of a bay, skirted by extensive flats, some of which have been formed into docks. Its growth has been quite extraordinary. Early in 1848 it consisted only of a few rude cabins; whereas it has now an exchange, a theatre, a custom-house, sundry churches and other public buildings, with great numbers of private houses, many of wood, but many, also, of adobe (sun-dried) and burnt bricks, and a vast number of tents and booths. And while such is the metamorphosis on shore, her waters, formerly quite deserted, are crowded with ships and steamers from all parts of the world. Over 100 steamers are employed in the inland waters of the State, 87 of which, measuring 20,460 tons, are registered in San Francisco; and the customs receipts in 1867 amounted to 7,412,881 gold dollars: the total internal revenue for the same year being 3,899,626 dollars currency. San Francisco is indebted, as everyone knows, for this all but miraculous transformation, to the discovery of gold deposits in the beds of the tributaries of the San Joaquin and Sacramento rivers, which fall into her bay, and in the quartz of the contiguous mountains. Such, however, are the advantages of her situation and the fertility of the adjacent country, that the exhaustion of the gold deposits, though it might check for a while, would not permanently affect the growth of the city, or the extent of her trade.

To obviate the shallowness of the water close to the town, a wharf 2,300 feet in length has been projected into the bay, and to it all sorts of vessels are safely moored; and besides docks, every effort is being made to provide the accommodation necessary for the rapidly increasing trade of the town. San Francisco stands on a sandy level; and during the rainy season, when it is most crowded, the streets were at first mere puddles, into which carriages sunk to the axles; while, in the dry season, the annoyance from dust was all but intolerable. These inconveniences have to a great extent been obviated by flooring the streets, or covering them with stout planks—a process which has been carried to a great extent, and has had the most complete success. The city has suffered much from fires, by which, indeed, it has been repeatedly laid waste. These, however, have been speedily repaired; and in a few weeks no traces are seen of the most destructive conflagrations. As houses of brick or stone are substituted for those of wood and for tents, fires will doubtless become less frequent and less destructive.

The population of San Francisco is the most motley that can be imagined; for, though Americans predominate, a large admixture is to be seen of adventurers from all parts of the world. Gambling is very prevalent, and is, perhaps, carried on to a greater extent here, during the rainy season, than in any other place either of the New or the Old World. But this is the natural result of the circumstances under which the population has been brought together; and the passion will, no doubt, abate as the circumstances in which it originated change or lose their influence. Lynch law has been here reduced to a system, and carried to a greater extent than anywhere else. Yet, despite the gross abuses to which it unavoidably leads, it is the general opinion that it could not have been dispensed with.

A sense of its necessity has led, not only to its being adopted, but to its being generally approved. And the fewness of the crimes, considering the many desperate characters in the place and the temptations in their way, is ascribed to the promptitude and severity of the punishment with which they are mostly followed.

Nowhere in the world was there so great a disparity between the sexes as in San Francisco; there being at one time from 3 to 5 men for 1 woman. But this disparity has greatly lessened, as will be seen from the annexed table, and with it some of the worst features in the condition of the population.

The population of the city differs widely at different periods, the wet and dry seasons. The following statement, extracted from the local Directory, is given in Mr. Consul Booker's Report of March 1868:—

White males over 21 years of age	-	-	45,000
White females over 18 years of age	-	-	27,000
White males and females under legal age	-	-	40,000
Chinese males and females	-	-	3,500
Coloured males and females	-	-	2,500
Floating population	-	-	15,000
Total	-	-	131,100

Though by far the largest and most important town in the State, it is not its capital. That distinction has been conferred on San José, because of its more central situation.

The newspaper press is as active and flourishing in San Francisco as in the other great cities of the Union. The *Alta California*, in particular, and some of the other papers, display considerable ability.

The bay of San Francisco, though, as already stated, it has a narrow entrance, expands within into one of the noblest basins that is anywhere to be met with, having a coast line of about 275 miles. The town has become the seat of a very extensive trade, and will continue, most likely, to be the grand emporium of the vast territory belonging to the United States on the Pacific. The trade with China, Australia, the Eastern Archipelago, and the Polynesian Islands, is even now very extensive, and several ships have been fitted out for the whale-fishery. In 1867 was established regular steam communication with Hong-Kong in six days. At present, the principal trade of the city is with Panama on the one hand, and Oregon on the other; bringing immigrants and all sorts of manufactured goods from the former, and corn and other raw produce from the latter, the steam passage to the former being from ten to fifteen days. But she has also an extensive trade with Chili, the Eastern portion of the United States, and with Europe by Cape Horn as well as by Panama. The importation of many sorts of products has been completely overdone, and occasionally some varieties of manufactured goods have been bought in San Francisco as cheap as in Liverpool or Havre. This, however, is a species of miscalculation incident to the opening of all new markets, and will speedily correct itself. Gold bullion, with small but increasing quantities of quicksilver, and hides, have hitherto been the all but exclusive articles of export.

Exports of Gold.—It is extremely difficult, if it be not impossible, to form any very accurate estimate of the exports of gold from California. But it appears that the following amounts have been manifested and shipped in steamers and sailing vessels, viz.:—

From April 1, 1849, to December 31, 1850	dols.	34,370,255
In 1851	-	34,493,631
In 1852	-	45,801,322
In 1853 (first 6 months)	-	28,999,535
Making a total of -	-	113,665,764

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Again in the 5 years 1863-67 the exports were:—

1863	-	-	£ 9,228,790
1864	-	-	11,111,150
1865	-	-	9,174,630
1866	-	-	8,802,830
1867	-	-	8,535,250

The value of the receipts from all points, at this port, of the precious metals was as follows, viz.:—

1863	-	-	£ 9,631,000
1864	-	-	10,702,600
1865	-	-	10,575,570
1866	-	-	11,095,751

SAPAN WOOD

But to this have to be added the large sums, of which no account is taken, carried by miners and others leaving San Francisco for other parts of the United States, Mexico, Chili, China, and elsewhere. This has been variously estimated; but it is believed that in taking it at 15 per cent. we shall be considerably within the mark: on this hypothesis the total exports in 1867 will have been 9,585,538. It has been estimated by well-informed persons that the total shipments in the course of 1868 would not be less than from 70 to 80 million dollars.

Account of the Value and Destination of Exports from San Francisco, other than Treasure, in the 5 Years ending with 1867.

	1863	1864	1865	1866	1867
	£	£	£	£	£
Eastern Ports of the Union	818,150	1,055,750	1,234,080	1,118,875	1,352,075
Great Britain	335,565	191,170	235,150	291,850	1,965,750
Australian Colonies	97,540	125,950	119,250	553,290	14,600
China	219,250	271,870	216,750	308,810	955,070
Japan	8,800	9,900	24,710	297,590	162,090
Sandwich Islands	71,175	151,900	149,500	178,980	133,070
British Columbia	219,560	302,150	231,100	212,670	195,800
Mexico	365,500	415,125	416,500	310,650	596,575
South America	56,510	52,225	105,500	76,225	154,100
Other countries	23,650	79,775	115,950	117,700	155,925
Total	2,409,560	2,611,265	2,910,760	3,460,830	4,093,150

The Value of the Imports from Great Britain into San Francisco in 1866 and 1867.

	1866	1867
	£	£
Malt liquors	47,505	58,401
Cotton goods	534,539	562,102
Linen goods	561,967	599,212
Banquet goods	25,978	38,809
Woolen goods	585,758	391,781
Hardware	155,708	162,599
Wines and liquors	20,256	45,104
Coal	28,166	37,787
Sundries	1,747,146	1,812,148
Total	5,200,021	5,704,911

The chief imports in 1867 other than these from the United Kingdom were: sugar 332,891 cwt.; tea 2,027,332 lb.; coffee 90,012 cwt.; rice 141,415 cwt.

The most noticeable features in the exports from San Francisco are the great increase in the value of shipments to England, and the extension of trade with Japan: the former is caused by the large shipments of wheat and flour, and the latter by the new steam communication. The value of the principal articles of Californian produce exported in 1867 was as follows:—

Flour	£615,475	Hides	£25,806
Wheat	1,890,510	Quicksilver	186,249
Barley	15,750	Ores	100,500
Clay	2,900	Tallow	6,000
Wool	225,100	Wine	27,100

Passengers.—Arrivals at San Francisco by sea in 1867, 35,683. Passengers leaving San Francisco by sea, 20,419. Excess of arrivals by sea 15,264.

Port Charges.—Pilotage (half to be paid if no pilot be employed): vessels under 500 tons, 6 dollars per foot draught; vessels over 500 tons, 7 dollars per foot; harbour dues, 4 cents (2d.) per ton. Wharf tolls: vehicles drawn by one horse, 25 cents each; by two, 50 cents; by four, 1 dollar. All goods landed on the wharf and taken therefrom in lighters, or taken direct from the ship in lighters, pay 12½ cents per ton. The port wardens charge 15 dollars for each survey, but the total charge on each vessel must not exceed 75 dollars; for all separate certificates of survey required by the consignees of cargo, a charge of 2.50 dollars is made, and for each order of sale 10 dollars. The coasts of California, Oregon, and Washington boast 17 fixed lights and 3 revolving lights, and two more were in 1868 in course of erection.

Account, showing the Number of Vessels that arrived at San Francisco in 1867, their Nationality, their Tonnage, and the Value of their Cargoes.

Nationality	Vessels	Tonnage	Value of Cargoes
United States	225	270,656	7,144,000
United Kingdom	117	71,071	967,500
France	15	5,291	45,500
Russia	1	1,851	5,000
Belgium	1	285	4,000
Hamburg	10	4,516	57,500
Italy	1	2,617	45,000
Prussia	10	5,557	47,000
Bremen	7	3,710	37,000
Spain	1	337	6,500
Austria	1	177	4,000
Norway and Sweden	2	707	7,000
Holland	2	1,189	23,000
Mexico	4	269	1,500
Columbia	3	1,032	16,000
Sandwich Islands	17	6,225	28,000
(Georgian Islands)	3	408	2,000
San Salvador	3	2,418	5,000
Guatemala	1	572	1,000
Total	450	557,621	8,812,500

Dockage.

Vessels from 100 tons to 150 tons per register	dols.
100	10
200	14
300	17
400	20
500	22
600	24
700	26
800	28
1,000	31
1,250	34
1,500	37
1,750	40
2,000	43

Rate of Interest on Money.—By an Act passed March 13, 1850, the rate of interest on money was fixed at 10 per cent. where there was no special contract, but parties may agree in writing for the payment of any rate of interest whatever on money due, or to become due on any contract. Any judgment rendered on such contract shall conform thereto, and shall bear the interest agreed upon.

We are much indebted in the compilation of this article to the Reports of Mr. Consul Booker. SAPAN WOOD is obtained from a species of the same tree that yields the Brazil wood (Cesalpinia Sapan, Linn.). It is a middle-sized forest tree, indigenous to Siam, Pegu, the Philip-

to be added the large sums, of taken, carried by miners and francisco for other parts of the (ico, Chili, China, and elsewhere variously estimated; but taking it at 15 per cent. we find within the mark: on this exports in 1867 will have been estimated by well-informed shipments in the course of less than from 70 to 80

co, other than Treasure, in the

	1866	1867
	£	£
	1,118,875	1,500,975
	521,830	1,663,750
	553,990	18,600
	203,810	265,000
	267,750	162,000
	178,980	133,000
	212,670	295,800
	310,650	298,575
	76,225	131,000
	117,700	155,725
	5,160,830	4,935,150

the Number of Vessels that Francisco in 1867, their Tonnage, and the Value of their

	Vessels	Tonnage	Value of Cargoes
	223	270,666	1,000,000
	117	71,051	250,000
	13	5,991	42,000
	5	1,851	7,500
	1	283	1,000
	11	4,516	50,000
	6	2,617	40,000
	10	5,537	47,000
	1	3,710	35,000
	1	337	6,000
	1	177	5,000
	2	707	7,000
	2	1,189	22,000
	4	869	15,000
	4	1,032	14,000
	17	6,223	38,000
	3	408	2,000
	7	2,418	8,000
	7	579	1,200
	430	557,621	3,012,500

Dockage.

to 150 tons per register	per cent.
200	10
250	14
300	15
400	17
500	19
600	21
700	22
800	23
1,000	25
1,200	27
1,500	31
1,750	35
2,000	39
2,500	45
3,000	51
3,500	57
4,000	63

Money.—By an Act passed the rate of interest on money was fixed, where there was no special stipulations may agree in writing; for any rate of interest whatever on become due on any contract, whether on such contract shall and shall bear the interest agreed

indented in the compilation of Reports of Mr. Consul Hooker. It is obtained from a species that yields the Brazil wood (Linn.). It is a middle-sized tree to Siam, Pego, the Philip-

pine Islands &c. It has been employed for dyeing in the greater part of Asia for many centuries. It found its way into Europe some time before the discovery of America; and the imports are now very considerable. Its colouring matter differs little from that of Brazil wood, but the best sapan wood does not yield more than half the quantity that may be obtained from an equal weight of Brazil wood, and the colour is not quite so bright. (Hancock *On Colours*, vol. ii. p. 329.) In 1867 the imports of sapan wood amounted to 1,180 tons, valued at 14,843*l*.

SAPPHIRE (Ger. saphir; Dutch, saffiersteen; Fr. saphire; Ital. zaffiro; Span. zafiro, zafir; Russ. iachant; Lat. sapphirus). A precious stone, in very high estimation. It is identically the same stone as the ruby. It differs in name from the latter on account of its colour, which varies from white to the deepest blue or black. (Emanuel *On Diamonds* &c.) It occurs in blunt-edged pieces, in roundish pebbles, and crystallised. Varies from transparent to translucent. Refracts double. After diamond, it is the hardest substance in nature. Brittle; specific gravity 4 to 4.2.

It is found principally in Ceylon, and also in Bohemia, Saxony, France &c.; but the red sapphire, or Oriental ruby, is not found in any considerable quantity anywhere except in Ava. Next to diamond, sapphire is the most valuable of the gems. The white and pale blue varieties, by exposure to heat, become snow white, and, when cut, exhibit so high a degree of lustre, that they are used in place of diamonds. The most highly prized varieties are the crimson and carmine red; these are the Oriental ruby of the jeweller; the next is sapphire; and last, the yellow or Oriental topaz. The asteris, or star-stone, is a very beautiful variety, in which the colour is generally of a reddish violet, and the form of a rhomboid, with truncated apices, which exhibit an opalescent lustre. Professor Jameson says, in his *Mineralogy*, that some peculiarly beautiful sapphires are found in the Caplan mountains, in Pegu. But we are not aware that there are any such mountains in any part of the world; and, in point of fact, there are no mountains in Pegu, nor have any precious stones been ever found in it. [Ruvy.]

The Russian treasury possesses some sapphires of enormous size.

Mr. Crawford gives the following details with respect to the sapphire and ruby mines of Ava: 'The precious stones ascertained to exist in the Burmese territory are chiefly those of the sapphire family and the spinelle ruby. They are found at two places, not very distant from each other, called Mogant and Kyatpéan, about five days' journey from the capital, in an E.S.E. direction. From what I could learn, the gems are not obtained by any regular mining operations, but by digging and washing the gravel in the beds of rivulets or small brooks. All the varieties of the sapphire, as well as the spinelle, are found together, and along with them large quantities of corundum. The varieties ascertained to exist are the Oriental sapphire; the Oriental ruby, or red stone; the opalescent ruby, or cat's eye ruby; the star ruby; the green; the yellow and the white sapphires; and the Oriental amethyst. The common sapphire is by far the most frequent, but, in comparison with the ruby, is very little prized by the Burmese, in which they agree with other nations. I brought home with me several of great size, the largest weighing no less than 3,630 grains, or above 907 carats. The spinelle ruby (zebu-gaong) is not un-frequent in Ava, but is not much valued by the natives. I brought with me to England a perfect specimen, both as to colour and freedom

from flaws, weighing 22 carats. The sapphire and ruby mines are considered the property of the king; at least he lays claim to all stones that exceed in value a viss of silver, or 100 ticals. The miners, it appears, endeavour to evade this law by breaking the large stones into fragments. In the royal treasury there are, notwithstanding, many fine stones of both descriptions. The year before our visit, the king received from the mines a ruby weighing 121 grains; and the year preceding that, 8 good ones, but of smaller size. No stranger is permitted to visit the mines; even the Chinese and Mohammedans residing at Ava are carefully excluded. (*Journal of an Embassy to the Court of Ava*, p. 442.)

SARCOCOLLA. A subviscid, sweetish, and somewhat nauseous gum resin. It is brought from Arabia and Persia in small grains of a pale yellow colour; the whitest, as being the freshest, is preferred. It is but seldom imported. (Millburn's *Orient. Com.*)

SARDINES or SARDINIAs (Ger. sardellen; Fr. sardines; Ital. sardelle; Span. sardinas). A species of fish of the herring tribe, but smaller. They are taken in considerable quantities on our coasts, and are exceedingly plentiful on the coasts of Algarve in Portugal, Andalusia and Grauda in Spain, and along the shores of Italy. The small sardines, caught on the coast of Provence, in France, are esteemed the best. From 1,000 to 1,200 fishing smacks are engaged in catching these fish on the coast of Brittany, from June to the middle of October. The French frequently cure them in red brine; and when thus prepared, designate them *anchovies*, or *anchoriol sardines*. These are packed in vessels previously employed for holding wine, and exported to the Levant. When perfectly fresh, sardines are accounted excellent fish; but if kept for any time, they entirely lose their flavour and become quite insipid.

SARDONYX. A precious stone, of reddish-brown colour, consisting of alternate layers of chalcedony and carnelian. Its name is derived from the union of the sard and the onyx. (Emanuel *On Diamonds* &c.)

The ancients selected this substance to engrave upon, no doubt, from its possessing two peculiar and necessary qualities, viz. hardness and tenacity, by which it is capable of receiving the finest touch or stroke of the tool without chipping, and showing the art of the engraver to the highest perfection. (Mawe *On Diamonds*, 2nd ed. p. 121.)

They are much used for signet rings, and for cups, vases, knife handles, beads &c. (Emanuel *On Diamonds* &c.)

SARSAPARILLA (Ger. sasaparille; Fr. sarsapareille; Ital. salsapariglia; Span. zarzaparrilla). The root of the *Smilax Sarsaparilla*, a plant growing in Central and South America, and the West Indies, Ceylon &c. It is imported in bales. It is known in the London market by the names of Lisbon, Honduras, and Vera Cruz, but it is also brought from Jamaica. The Lisbon root, which is the produce of Brazil, has a reddish or dark brown cuticle, is internally farinaceous, and more free from fibre than the other kinds: the Honduras has a dirty brown, and sometimes whitish, cuticle; it is more fibrous, and has more ligneous matter, than the Lisbon and Vera Cruz. It has long slender roots, covered with a wrinkled brown cuticle, and has a small woody heart. The Jamaica differs from the others, in having a deep red cuticle of a close texture; and the red colour partially diffused through the ligneous part. The root is scentless, and has a mucilaginous, very slightly bitter taste: the bark is the only useful part of the plant; the ligneous part being taste-

less, inert, woolly fibre. (*British Pharmacopœia Thomson's Dispensatory*.) A duty of 6*l.* per lb. on its importation, after being reduced in 1842 to 1*l.*, was repealed in 1845. The imports and exports in 1867 were respectively 315,643 lb., valued at 14,927*l.* and 210,765 lb.

**SASSAFRAS** (Ger. and Fr. *sassafras*; Ital. *sassafrasso*; Span. *salsufras*). A species of laurel (*Laurus Sassafras*, Linn.), a native of the southern parts of North America, Cochín-China, and several of the Indian Islands. Sassafras wood, root, and bark have a fragrant odour, and a sweetish aromatic taste. The wood is of a brownish-white colour; and the bark ferruginous within, spongy, and divisible into layers. Their sensible qualities and virtues depend on an essential oil, which may be obtained separate by distilling the chips or the bark with water. It is very fragrant, hot, and penetrating to the taste, of a pale yellow colour, and heavier than water. It is used only in the materia medica. (*Thomson's Dispensatory*.) Imports and exports in 1866, respectively, 823 and 74 cwt.

**SAUNDERS (RED)**, (Arab. *sundal-ahmer*; Hin. *nakut-chundum*). The wood of a lofty tree (*Pterocarpus santalinus*), indigenous to various parts of India, Ceylon, Timor &c. The wood is brought to Europe in billets, which are very heavy, and sink in water. It is extremely hard, of a fine grain, and a bright garnet red colour, which brightens on exposure to the air. It is employed to dye lasting reddish-brown colours on wool. It yields its colouring matter to ether and alcohol, but not to water. (*Thomson's Dispensatory*; Bancroft *On Colours*, vol. ii. p. 236.) The quantity imported is inconsiderable.

**SAVINGS BANKS.** [BANKS.]

**SCAMMONY** (Ger. *skammonium*; Fr. *scammonée*; Ital. *scammonia*; Span. *escamonea*). A gum resin, the produce of a species of convolvulus, or creeper plant, which grows abundantly in Syria. When an incision is made into the living roots, they yield a milky juice, which being kept, grows hard, and is the scammony of the shops. It is imported from Aleppo in what are called drums, weighing from 75 to 125 lb. each; and from Smyrna in cakes like wax, packed in chests. The former is light and friable, and is considered the best; that from Smyrna is more compact and ponderous, less friable, and fuller of impurities. It has a peculiar heavy odour, not unlike that of old cheese; and a bitterish, slightly acrid taste. The colour is blackish when dry, changing to dirty white, or lathering when the surface is rubbed with a wet finger. Its specific gravity is 1.235. It is very liable to be adulterated; and when of a dark colour, heavy, and splintery, it ought to be rejected. It is used only in medicine. (*British Pharmacopœia*, 1867; *Thomson's Dispensatory*.) The duty on scammony, after being reduced in 1832 and 1843, was abolished in 1845. Imports, in 1867, 53,421 lb., valued at 80,901*l.*; and exports 816 lb.

**SCULPTURES.** Figures cut in stone, metal, or other solid substance, representing or describing some real or imaginary object. The art of the sculptor, or statuery, was carried to the highest pitch of excellence in ancient Greece. Fortunately, several of the works of the Grecian sculptors have been preserved, and serve at once to stimulate and direct the genius of modern artists.

*Models* are casts or representations of sculptures.

The Act 54 Geo. III. c. 56 vests the property of sculptures, models, copies, and casts in the proprietor for 14 years; provided he cause his name,

with the date, to be put on them before they are published; with the same term in addition, if he should be living at the end of the first period. In actions for piracy, double costs to be given. The Act was amended and extended by 13 & 14 Vict. c. 104, which provided also for the Registration of Sculpture Models &c.

**SEAL** (Lat. *sigillum*). A stone, piece of metal, or other solid substance, generally round or elliptical, on which is engraved the arms, crest, name, device &c. of some state, prince, public body, or private individual. It is employed as a stamp to make an impression on sealing-wax, thereby authenticating public acts, deeds &c., or to close letters or packets. Seals were very early invented, and much learning has been employed in tracing their history, and explaining the figures upon them. (See particularly the work of Hopkinson, *De Sigillorum Præso et Novo Jure*, 4to. 1612.) They are now very generally used.

The best are usually formed of precious stones, on which the crest or arms, or the initials of the person's name, are engraved, set in gold. But immense numbers are formed of stained glass, and set in gilt copper. They are manufactured at London, Birmingham &c., and are extensively exported.

**SEAL FISHERY.** The seal (Lat. *phoca*; Fr. *veau marin*), an amphibious animal, of which there are many varieties, is found in vast numbers in the seas round Spitzbergen, and on the coasts of Labrador and Newfoundland. As it frequents the British shores, it is well known, and has been repeatedly described. Seals are principally hunted for their oil and skins. When taken in the spring of the year, at which time they are fattest, a full-grown seal will yield from 8 to 12 gallons of oil, and a small one from 4 to 5 gallons. The oil, if extracted before putrefaction has commenced, is beautifully transparent, free from smell, and not unpleasant in its taste. The skin, when tanned, is extensively employed in the making of shoes; and when dressed with the hair on, serves for the covering of trunks &c. For an account of the imports of seal-skins see *SKINS*.

To the Esquimaux the seal is of as much importance as bread to a European. Its flesh forms their most usual food; the fat is partly dressed for eating, and partly consumed in their lamps; the liver, when fried, is esteemed, even among sailors, as an agreeable dish. The skin, which the Esquimaux dress by processes peculiar to themselves, is made waterproof. With the hair off, it is used as coverings, instead of planks, for their boats, and as outer garments for themselves; shielded with which, they can invert themselves and canoes in the water, without getting their bodies wet. It serves also for coverings for their tents, and for various other purposes. The jackets and trousers made of seal-skin by the Esquimaux are in great request among the whale fishers for preserving them from oil and wet. (*Scoresby's Arctic Regions*, vol. I. p. 510.)

Seals in fine weather prefer the ice to the water, and vast herds of them are frequently found lying on the field ice; the places where they are met with being thence called 'seal meadows.' The seal hunters endeavour to surprise them while sleeping, and to intercept their retreat to the water. They attack them with muskets and bludgeons, but principally the latter, they being easily despatched by a blow on the nose.

The seal fishery has long been prosecuted to a considerable extent in the northern seas by ships from the Elbe and the Weser; but very few ships have been sent out from England for sealing only.

put on them before they are made term in addition, if there is no end of the first period. The public costs to be given. The Act extended by 13 & 11 Viet. c. 1 also for the Registration of

(3). A stone, piece of metal, &c., generally round or ellip- soidal, engraved the arms, crest, name, date, price, public body, or other mark. It is employed as a stamp to be put on sealing-wax, thereby sealing acts, deeds &c., or to close seals were very early invented, and have been employed in tracing and explaining the figures upon medals, particularly the work of Hopkinson, *see et Novo Jure*, 4to. 1612, which is generally used.

They are formed of precious stones, or of arms, or the initials of the engraver, set in gold. They are formed of stained glass, and are used in the same manner. They are manufactured at Amsterdam &c., and are extensively

used. The seal (Lat. *phoca*; Fr. *amphibolus* animal, of which the species, is found in vast numbers in Spitzbergen, and on the coasts of Newfoundland. As it frequents the ice it is well known, and has been much used. Seals are principally hunted in the spring. When taken in the spring, they are fatter, a full-grown seal from 8 to 12 gallons of oil, and from 4 to 5 gallons. The oil, if well refined, has become common. It is pure, free from smell, and not rancid. The skin, when tanned, is used in the making of shoes; and the hair on, serves for the same uses &c. For an account of the seal, see *Skins*.

The seal is of as much value to a European. Its flesh is a usual food; the fat is partly used, and partly consumed in their country, when fried, is esteemed, even as an agreeable dish. The skin, when dressed by processes peculiar to the natives, made waterproof. With the hair coverings, instead of planks, for the outer garments for themselves, with which they can navigate in the water, without being wet. It serves also for the tents, and for various other uses, and trousers made of Esquimaux are in great request for preserving them from the effects of the *Arctic Regions*, &c.

They prefer the ice to the water, and are frequently found on the ice; the places where they are then called 'seal meadows.' They endeavour to surprise them, and to intercept their retreat, to attack them with muskets and principally the latter, they being by a blow on the nose.

They have long been prosecuted to a great extent in the northern seas by ships from the Weser; but very few ships have been sent from England for sealing only,

though occasionally some of the whale ships have taken large quantities of seals. Latterly, however, the seal fishery has been prosecuted on a large scale, and with extraordinary success, by vessels of from 60 to 120 tons each, having crews of from 16 to 30 men, fitted out from the ports of Newfoundland, Nova Scotia &c. The business is attended with a good deal of risk, and instances frequently occur of the vessels being crushed to pieces by the collision of the fields of ice. We borrow the following details from Mr. Bliss's tract on the *Trade, Statistics &c. of Canada and our North American Possessions*.

There is another department of the colonial fishery which has originated within no distant period, and is now of great extent and importance. The large fields of ice which, in the months of March and April, drift southward from the Polar seas, are accompanied by many herds of seals; these are found sleeping in what are called the seal meadows of the ice, and are there attacked and slaughtered in vast numbers. For this purpose the fishers of Newfoundland, from which island these voyages are principally made, without waiting till the return of spring shall have opened their harbours, saw channels through the ice for their vessels, and set sail in quest of those drifting fields, through the openings of which they work a passage, attended with great difficulties and dangers, till they encounter their prey on the seal meadows. This bold and hazardous enterprise seems well compensated by its success. The number of seals thus taken is almost incredible, and is greatly on the increase (p. 70). There were captured by the Newfoundland fishermen, in 1838, 375,361 seals; in 1839, 437,501. Large quantities are also taken by the Nova Scotia and Labrador fishermen.

See also McGregor's *British America*, 2nd edit. vol. i. p. 197 &c. There is a good account of the seal in Laing's *Voyage to Spitzbergen*. For the price of seal oil, see *Oil*.

SEALING WAX (Ger. *siegelack*; Fr. *cire d'Espagne*, *cire à cacheter*; Ital. *cera lacca*, *cera di Spagna*; Span. *lacre*; Russ. *surgutsch*). The wax used for sealing letters, legal instruments &c. It is a composition of gum lac, melted and incorporated with resin, and afterwards coloured with some pigment, as vermilion, verditer, ivory black &c. [*Lac*.]

SEAMEN. The individuals engaged in navigating ships, barges &c. upon the high seas. Those employed for this purpose upon rivers, lakes, or canals, are denominated watermen.

Formerly a *British seaman* was a natural born subject of her Majesty; or was naturalised by Act of Parliament; or made a denizen by letters of denization; or had become a British subject by the conquest or cession of some newly acquired territory; or (being a foreigner) had served on board her Majesty's ships of war, in time of war, for the space of 2 or 3 years. But these distinctions were entirely done away in 1855. It is no longer necessary that British ships should be either wholly or in part manned by British subjects. In this respect the greatest possible license has been given to our shipowners, who are at full liberty to employ all descriptions of hands, whether native or foreign, in navigating their ships. Hence the term 'seamen' now includes all persons (except masters, pilots, and apprentices duly indentured and registered), without regard to their origin, 'employed or engaged in any capacity on board of any ship.' (17 & 18 Viet. c. 104, *Introd.*)

Various regulations have been enacted with respect to the hiring of seamen, their conduct

while on board, and the payment of their wages. These regulations differ in different countries; but in all, they have been intended to obviate the disputes that might otherwise arise between masters and seamen in regard to the terms of the contract between them, to secure due obedience to the orders of the former, and to interest the latter in the completion of the voyage.

The more important particulars in the law of England in regard to seamen are embodied in the 17 & 18 Viet. c. 101, and will be found in the following article, with some occasional remarks and notices of alterations in the law effected by subsequent statutes, the Merchant Shipping Act and Amendment, 25 & 26 Viet. c. 63 &c. In the first place it is necessary to enquire by whom they may be hired.

1. *Who may hire Seamen.*—Seamen have long been subjected to imposition from the fraudulent practices of persons offering to find them employment, by falsely representing themselves as agents for, or as having an interest in certain ships, and engaging or pretending to engage seamen to serve therein. In the view of obviating such practices in future, it is laid down in the Merchant Shipping Act, the 17 & 18 Viet. c. 101, that the Board of Trade may grant licenses to such individuals as it thinks fit, empowering them to engage or supply seamen or apprentices to merchant ships. But, with the exception, 1st, of the parties so licensed; 2nd, of the owner, master, or mate, or persons in the *bonâ fide* and constant employment of the owner of a ship requiring men or apprentices; and 3rd, of a regularly appointed shipping master, all other parties are prohibited, under a penalty of 20*l.*, from engaging or supplying seamen. The following are the clauses having reference to this subject.

*Board of Trade may license Persons to procure Seamen.*—The Board of Trade may grant to such persons as it thinks fit licenses to engage or supply seamen or apprentices for merchant ships in the United Kingdom, to continue for such periods, to be upon such terms, and to be revocable upon such conditions, as such Board thinks proper. (17 & 18 Viet. c. 101 s. 146.)

*Penalties for supplying Seamen without License &c.*—The following offences shall be punishable as herein mentioned; viz.:

(1) If any person not licensed as aforesaid, other than the owner or master or a mate of the ship, or some person who is *bonâ fide* the servant and in the constant employ of the owner, or a shipping master duly appointed as aforesaid, engages or supplies any seaman or apprentice to be entered on board any ship in the United Kingdom, he shall, for each seaman or apprentice so engaged or supplied, incur a penalty not exceeding 20*l.*:

(2) If any person employ any unlicensed person, other than persons excepted as above, for the purpose of engaging or supplying any seaman or apprentice to be entered on board any ship in the United Kingdom, he shall, for each seaman or apprentice so engaged or supplied, incur a penalty not exceeding 20*l.*, and if licensed, shall in addition forfeit his license:

(3) If any person knowingly receives or accepts to be entered on board any ship any seaman or apprentice who has been engaged or supplied contrary to the provisions of this Act, he shall, for every seaman or apprentice so engaged or supplied, incur a penalty not exceeding 20*l.* (Sec. 147.)

*Penalty for receiving Remuneration from Seamen.*—If any person demands or receives, either directly or indirectly, from any seaman or apprentice, or from any person seeking employment as a seaman or apprentice, or from any person on his

behalf, any remuneration whatever, other than the fees hereby authorised for providing him with employment, he shall, for every such offence, incur a penalty not exceeding 5*l.* (Sec. 148.)

2. *Conditions under which Seamen are to be engaged.*—In 1835 an Act was passed (5 & 6 Wm. IV. c. 19) of much importance to seamen, and to persons connected with navigation. It laid down the various forms and regulations to be observed in hiring, paying, and discharging seamen; established an office for their registry; and prescribed the mode in which lists of crews were to be transmitted to the registrar. It also regulated the conditions under which seamen might, in certain cases, be left in foreign parts, with a variety of other particulars; at the same time that it repealed sundry statutes, the provisions of which had become obsolete.

Further modifications were made in this system in 1844, by the 7 & 8 Vict. c. 112, and again by the Mercantile Marine Act of 1850, 13 & 14 Vict. c. 93. The existing law regulating the conditions in the agreements to be made with seamen, is embodied in the Merchant Shipping Act, 17 & 18 Vict. c. 104, and the Merchant Shipping Amendment Act, 25 & 26 Vict. c. 63 and 30 & 31 Vict. c. 124, and is as follows, viz.:—

*Agreements to be made with Seamen.*—The master of every ship, except ships of less than 80 tons registered tonnage, exclusively employed in trading between different ports on the coasts of the United Kingdom, shall enter into an agreement with every seaman whom he carries to sea from any port in the United Kingdom as one of his crew in the manner aftermentioned; and every such agreement shall be in a form sanctioned by the Board of Trade, and shall be dated at the time of the first signature thereof, and shall be signed by the master before any seamen signs the same, and shall contain the following particulars as terms thereof, viz.:—

(1) The nature, and, as far as practicable, the duration of the intended voyage or engagement:

(2) The number and description of the crew, specifying how many are engaged as sailors:

(3) The time at which each seaman is to be on board, or begin to work:

(4) The capacity in which each seaman is to serve:

(5) The amount of wages which each seaman is to receive:

(6) A scale of the provisions which are to be furnished to each seaman:

(7) Any regulations as to conduct on board, and as to fines, short allowance of provisions, or other lawful punishments for misconduct, which have been sanctioned by the Board of Trade, as regulations proper to be adopted, and which the parties agree to adopt:

And every such agreement shall be so framed as to admit of stipulations, to be adopted at the will of the master and seaman in each case, as to advance and allotment of wages, and may contain any other stipulations which are not contrary to law; provided that if the master of any ship belonging to any British possession has an agreement with his crew made in due form according to the law of the possession to which such ship belongs or in which her crew were engaged, and engages single seamen in the United Kingdom, such seamen may sign the agreement so made, and it shall not be necessary for them to sign an agreement in the form sanctioned by the Board of Trade. (Sec. 149.)

*Agreements for Foreign-going Ships to be made before and attested by a Shipping Master.*—In the case of all foreign-going ships, in whatever part

of her Majesty's dominions the same are registered the following rules shall be observed with respect to agreements, viz.:—

(1) Every agreement made in the United Kingdom (except in the cases of agreements with substitutes hereinafter provided for) shall be signed by each seaman in the presence of a shipping master:

(2) Such shipping master shall cause the agreement to be read over and explained to each seaman, or otherwise ascertain that each seaman understands the same before he signs it, and shall attest each signature:

(3) When the crew is first engaged the agreement shall be signed in duplicate, and one part shall be retained by the shipping master, and the other part shall contain a special place or form for the descriptions and signatures of substitute or persons engaged subsequently to the first departure of the ship, and shall be delivered to the master:

(4) In the case of substitutes engaged in the place of seamen who have duly signed the agreement, and whose services are lost within 24 hours of the ship's putting to sea, by death, desertion, or other unforeseen cause, the engagement shall, when practicable, be made before some shipping master duly appointed in the manner hereinafter specified; and whenever such last-mentioned engagement cannot be so made, the master shall, before the ship puts to sea, if practicable, and if not, as soon afterwards as possible, cause the agreement to be read over and explained to the seamen; and the seamen shall thereupon sign the same in the presence of a witness, who shall attest their signatures. (Sec. 150.)

*Foreign-going Ships making short Voyages may have running Agreements.*—In the case of foreign-going ships making voyages averaging less than 6 months' duration, running agreements with the crew may be made to extend over two or more voyages, so that no such agreement shall extend beyond the next following 30th of June, or 31st day of December, or the first arrival of the ship at her port of destination in the United Kingdom after such date, or the discharge of cargo consequent upon such arrival; and every person entering into such agreement, whether engaged upon the first commencement thereof or otherwise, shall enter into and sign the same in the manner hereby required for other foreign-going ships; and every person engaged thereunder, if discharged in the United Kingdom, shall be discharged in the manner hereby required for the discharge of seamen belonging to other foreign-going ships. (Sec. 151.)

*Engagement and Discharge of Seamen in the meantime.*—The master of every foreign-going ship for which such a running agreement as aforesaid is made shall, upon every return to any port in the United Kingdom before the final termination of the agreement, discharge or engage before the shipping master at such port any seaman whom he is required by law so to discharge or engage, and shall upon every such return indorse on the agreement a statement (as the case may be) either that no such discharges or engagements have been made, or are intended to be made, before the ship again leaves port, or that all such discharges or engagements have been duly made as heretofore required, and shall deliver the agreement so indorsed to the shipping master; and any master who wilfully makes a false statement in such indorsement shall incur a penalty not exceeding 20*l.*; and the shipping master shall also sign an indorsement on the agreement, to the effect that the provisions of this Act relating to such agreement have been complied with, and shall re-

deliver the agreement so indorsed to the master. (Sec. 152.)

*Duplicates of running Agreements.*—In cases in which such running agreements are made, the duplicate agreement retained by the shipping master upon the first engagement of the crew shall either be transmitted to the registrar-general of seamen immediately, or be kept by the shipping master until the expiration of the agreement, as the Board of Trade directs. (Sec. 153.)

*Fees to be paid on such running Agreements.*—For the purpose of determining the fees to be paid upon the engagement and discharge of seamen belonging to foreign-going ships which have running agreements as aforesaid, the crew shall be considered to be engaged when the agreement is first signed, and to be discharged when the agreement finally terminates, and all intermediate engagement and discharges shall be considered to be engagements and discharges of single seamen. (Sec. 154.)

*In Home Trade Ships Agreement to be entered into before a Shipping Master &c.*—In the case of home trade ships, crews or single seamen may, if the master thinks fit, be engaged before a shipping master in the manner hereinbefore directed with respect to foreign-going ships; and in every case in which the engagement is not so made, the master shall, before the ships put to sea, if practicable, and if not, as soon afterwards as possible, cause the agreement to be read over and explained to each seaman, and the seaman shall thereupon sign the same in the presence of a witness, who shall attest his signature. (Sec. 155.)

*Special Agreements for Home Trade Ships belonging to same Owners.*—In cases where several home trade ships belong to the same owner, the agreement with the seamen may, notwithstanding anything herein contained, be made by the owner instead of by the master, and the seamen may be engaged to serve in any two or more of such ships, provided that the names of the ships and the nature of the service are specified in the agreement; but with the foregoing exception, all provisions herein contained which relate to ordinary agreements for home trade ships shall be applicable to agreements made in pursuance of this section. (Sec. 156.)

*Penalty for Shipping Seamen without Agreement duly executed.*—If in any case a master carries any seaman to sea without entering into an agreement with him in the form and manner, and at the place and time hereby in such case required, the master in the case of a foreign-going ship, and the master or owner in the case of a home trade ship, shall for each such offence incur a penalty not exceeding 5*l.* (Sec. 157.)

*Changes in Crew to be reported.*—The master of every foreign-going ship of which the crew has been engaged before a shipping master, shall before finally leaving the United Kingdom sign and send to the nearest shipping master a full and accurate statement, in a form sanctioned by the Board of Trade, of every change which takes place in his crew before finally leaving the United Kingdom, and in default shall for each offence incur a penalty not exceeding 5*l.*; and such statement shall be admissible in evidence, subject to all just exceptions. (Sec. 158.)

*Seamen engaged in the Colonies to be shipped before some Shipping Master &c.*—Every master of a ship who, if such ship is registered in the United Kingdom, engages any seaman in any British possession, or if such ship belongs to any British possession, engages any seaman in any British possession other than that to which the ship belongs, shall, if there is at the place where such

seaman is engaged any official shipping master or other officer duly appointed for the purpose of shipping seamen, engage such seaman before such shipping master, and if there is no such shipping master or officer, then before some officer of customs; and the same rules, qualifications, and penalties as are hereinbefore specified with respect to the engagement of seamen before shipping masters in the United Kingdom, shall apply to such engagements in a British possession; and upon every such engagement such shipping master or officer as aforesaid shall indorse upon the agreement an attestation to the effect that the same has been signed in his presence, and otherwise made as hereby required; and if in any case such attestation is not made, the burden of proving that the seaman was duly engaged as hereby required shall lie upon the master. (Sec. 159.)

*Seamen engaged in Foreign Ports to be shipped with the Sanction and in the Presence of the Consul.*—Every master of a British ship who engages any seaman at any place out of her Majesty's dominions in which there is a British consular officer shall, before carrying such seaman to sea, procure the sanction of such officer, and shall engage such seaman before such officer; and the same rules as are hereinbefore contained with respect to the engagement of seamen before shipping masters in the United Kingdom, shall apply to such engagements made before consular officers; and upon every such engagement the consular officer shall indorse upon the agreement his sanction thereof, and an attestation to the effect that the same has been signed in his presence, and otherwise made as hereby required; and every master who engages any seaman in any place in which there is a consular officer, otherwise than as hereinbefore required, shall incur a penalty not exceeding 20*l.*; and if in any case the indorsement and attestation hereby required is not made upon the agreement, the burden of proving the engagement to have been made as hereinbefore required shall lie upon the master. (Sec. 160.)

*Rules as to Production of Agreements and Certificates.*—The following rules shall be observed with respect to the production of agreements and certificates of competency or service for foreign-going ships, viz.:

(1) The master of every foreign-going ship shall, on signing the agreement with his crew, produce to the shipping master before whom the same is signed the certificates of competency or service which the said master and his first and second mate or only mate, as the case may be, are required to possess; and upon such production being duly made, and the agreement being duly executed as hereby required, the shipping master shall sign and give to the master a certificate to that effect.

(2) In the case of running agreements for foreign-going ships, the shipping master shall, before the second and every subsequent voyage made after the first commencement of the agreement, sign, and give to the master, on his complying with the provisions herein contained with respect to such agreements, and producing to the shipping master the certificate of competency or service of any first, second, or only mate then first engaged by him, a certificate to that effect.

(3) The master of every foreign-going ship shall, before proceeding to sea, produce the certificate so to be given to him by the shipping master as aforesaid, to the collector or comptroller of customs; and no officer of customs shall clear any such ship outwards without such production; and if any such ship attempts to go to sea without a clearance, any such officer may detain her until such certificate as aforesaid is produced.

(4) The master of every foreign going ship shall, within 48 hours after the ship's arrival at her final port of destination in the United Kingdom, or upon the discharge of the crew, whichever first happens, deliver such agreement to a shipping master at the place; and such shipping master shall thereupon give to the master a certificate of such delivery; and no officer of customs shall clear any foreign going ship inwards without the production of such certificate.

And if the master of any foreign-going ship fails to deliver the agreement to a shipping master at the time and in the manner hereby directed, he shall for every default incur a penalty not exceeding 5*l.* (Sec. 161.)

*Rules as to Production of Agreements and Certificates for Home Trade Ships.*—The following rules shall be observed with respect to the production of agreements and certificates of competency or service for home trade ships, viz.:—

(1) In the case of home trade ships of more than 80 tons burden, no agreement shall extend beyond the next following 30th of June or 31st of December, or the first arrival of the ship at her final destination in the United Kingdom after such date, or the discharge of cargo consequent upon such arrival.

(2) The master or owner of every such ship shall, within 21 days after the 30th of June and the 31st of December in every year, transmit or deliver to some shipping master in the United Kingdom every agreement made within 6 calendar months next preceding such days respectively, and shall also, in the case of home trade passenger ships, produce to the shipping master the certificates of competency or service which the said master and his first or only mate, as the case may be, are hereby required to possess.

(3) The shipping master shall thereupon give to the master or owner a certificate of such delivery and production; and no officer of customs shall grant a clearance or transire for any ship as last aforesaid without the production of such certificate; and if any such ship attempts to ply or go to sea without such clearance or transire any such officer may detain her until the said certificate is produced.

And if the agreement for any home trade ship is not delivered or transmitted by the master or owner to a shipping master at the time and in the manner hereby directed, such master or owner shall for every default incur a penalty not exceeding 5*l.* (Sec. 162.)

*Alterations to be void unless attested to have been made with the Consent of all Parties.*—Every erasure, interlineation, or alteration in any such agreement with seamen as is required by the third part of this Act (except additions so made as hereinbefore directed for shipping substitutes or persons engaged subsequently to the first departure of the ship) shall be wholly inoperative, unless proved to have been made with the consent of all the persons interested in such erasure, interlineation, or alteration by the written attestation (if made in her Majesty's dominions) of some shipping master, justice, officer of customs, or other public functionary or (if made out of her Majesty's dominions) of a British consular officer, or, where there is no such officer, of two respectable British merchants. (Sec. 163.)

*Penalty for falsifying Agreement.*—Every person who fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, or makes, or assists in making, or procures to be made, any false entry in, or delivers, assists in delivering, or procures to be delivered, a false copy of any

agreement, shall for each such offence be deemed guilty of a misdemeanour. (Sec. 164.)

*Seamen not to be bound to produce Agreement.*—Any seaman may bring forward evidence to prove the contents of any agreement or otherwise to support his case, without producing or giving notice to produce the agreement, or any copy thereof. (Sec. 165.)

*Copy of Agreement to be made accessible to Crew.*—The master shall at the commencement of every voyage or engagement cause a legible copy of the agreement, (omitting the signatures) to be placed or posted up in such part of the ship as shall be accessible to the crew, and in default shall for each offence incur a penalty not exceeding 5*l.* (Sec. 166.)

*Seamen discharged before Voyage to have Compensation.*—Any seaman who has signed an agreement, and is afterwards discharged before the commencement of the voyage, or before one month's wages are earned, without fault on his part justifying such discharge and without his consent, shall be entitled to receive from the master or owner, in addition to any wages he may have earned, due compensation for the damage thereby caused to him, not exceeding one month's wages, and may, on adducing such evidence as the court hearing the case deems satisfactory of his having been so improperly discharged as aforesaid, recover such compensation as if it were wages duly earned. (Sec. 167.)

The statute does not render a verbal agreement for wages absolutely void; but it imposes a penalty on the master if a written agreement be not made. And no written agreement contrary to the Act, by which a seaman should renounce any just right, such as his claim to wages in the case of the loss of the ship, to salvage &c., would be valid. When a written agreement is made conformably to the Act, it becomes the only evidence of the contract between the parties; and a seaman cannot recover anything agreed to be given in reward for his services, which is not specified in the articles.

A seaman who has engaged to serve on board a ship, is bound to exert himself to the utmost in the service of such ship; and, therefore, a promise made by the master of a ship in distress, to pay an extra sum to a seaman, as an inducement to extraordinary exertion on his part, is wholly void.

*3. Conduct of Seamen.*—It is essential to the business of navigation that the most prompt and ready obedience should be paid to the lawful commands of the master. To this effect it is contained in the articles of agreement previously referred to, that 'the crew engage to conduct themselves in an orderly, faithful, honest, careful, and sober manner; and to be at all times diligent in their respective duties and stations, and to be obedient to the lawful commands of the master in everything relating to the said ship, and the materials, stores, and cargo thereof, whether on board such ship, in boats, or on shore.'

In case of disobedience or disorderly conduct on the part of the seamen, the master may correct them in a reasonable manner. Such authority is absolutely necessary for the safety of the ship and of those on board. It, however, behoves the master to employ it with great deliberation, and not to pervert the powers with which he is intrusted for the good of the whole, to cruel or vindictive purposes. Masters abusing their authority must answer at law for the consequences; and, except under very grave and urgent circumstances, the infliction of chastisement without previous enquiry should be carefully avoided. But in cases of

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ent on the master to act at once with all the  
energy and decision of which he is capable. In  
such unfortunate cases his resistance becomes an  
act of self defence, and is to be considered in all  
its consequences in that point of view. The Ordi-  
nances of Oleron and Wisby declare that a mari-  
ner who strikes the master shall either pay a fine  
or lose his right hand, a singular as well as  
barbarous alternative, unknown in modern juris-  
prudence.

But although the master may by force restrain  
the commission of crimes, he has no judicial au-  
thority over or right to punish the criminal, but  
is bound to secure his person and bring him be-  
fore a proper tribunal. And all justices of the  
peace are empowered to receive informations  
touching any murder, piracy, felony, or rob-  
bery upon the sea, and to commit the offenders  
for trial.

*Offences of Seamen and Apprentices and their  
Punishment.*—Whenever any seaman who has  
been lawfully engaged or any apprentice to the  
sea-service commits any of the following offences  
he shall be liable to be punished summarily as  
follows, viz.:—

(1) For desertion he shall be liable to imprison-  
ment for any period not exceeding 12 weeks, with  
or without hard labour, and also to forfeit all or  
any part of the clothes and effects he leaves on  
board, and all or any part of the wages or emolu-  
ments which he has then earned, and also, if  
such desertion takes place abroad, at the discre-  
tion of the court, to forfeit all or any part of  
the wages or emoluments he may earn in any other  
ship in which he may be employed until his next  
return to the United Kingdom, and to satisfy  
any excess of wages paid by the master or  
owner of the ship from which he deserts to any  
substitute engaged in his place at a higher rate of  
wages than the rate stipulated to be paid to him.

(2) For neglecting or refusing, without reason-  
able cause, to join his ship, or to proceed to sea in  
his ship, or for absence without leave at any time  
within 24 hours of the ship's sailing from any  
port either at the commencement or during the  
progress of any voyage, or for absence at any  
time without leave and without sufficient reason  
from his ship or from his duty not amounting to  
desertion or not treated as such by the master, he  
shall be liable to imprisonment for any period not  
exceeding 10 weeks, with or without hard labour,  
and also, at the discretion of the court, to forfeit  
out of his wages a sum not exceeding the amount  
of 2 days' pay, and in addition, for every 24 hours  
of absence, either a sum not exceeding 6 days'  
pay, or any expenses which have been properly  
incurred in hiring a substitute.

(3) For quitting the ship without leave after  
her arrival at her port of delivery and before she  
is placed in security, he shall be liable to forfeit  
out of his wages a sum not exceeding 1 month's  
pay.

(4) For wilful disobedience to any lawful com-  
mand he shall be liable to imprisonment for any  
period not exceeding 4 weeks, with or without  
hard labour, and also, at the discretion of the  
court, to forfeit out of his wages a sum not ex-  
ceeding 2 days' pay.

(5) For continued wilful disobedience to lawful  
commands, or continued wilful neglect of duty,  
he shall be liable to imprisonment for any period  
not exceeding 12 weeks, with or without hard  
labour, and also, at the discretion of the court, to  
forfeit, for every 24 hours' continuance of such  
disobedience or neglect, either a sum not exceeding

6 days' pay or any expenses which have been pro-  
perly incurred in hiring a substitute.

(6) For assaulting any master or mate he shall  
be liable to imprisonment for any period not ex-  
ceeding 12 weeks, with or without hard labour.

(7) For combining with any other or others of  
the crew to disobey lawful commands, or to neglect  
duty, or to impede the navigation of the ship or  
the progress of the voyage, he shall be liable to  
imprisonment for any period not exceeding 12  
weeks, with or without hard labour.

(8) For wilfully damaging the ship, or em-  
bezzling or wilfully damaging any of her stores  
or cargo, he shall be liable to forfeit out of his  
wages a sum equal in amount to the loss thereby  
sustained, and also, at the discretion of the court,  
to imprisonment for any period not exceeding 12  
weeks, with or without hard labour.

(9) For any act of smuggling of which he is  
convicted, and whereby loss or damage is occa-  
sioned to the master or owner, he shall be liable  
to pay to such master or owner such a sum as is  
sufficient to reimburse the master or owner for  
such loss or damage; and the whole or a propor-  
tionate part of his wages may be retained in satis-  
faction or on account of such liability without  
prejudice to any further remedy. (Sec. 213.)

*Entry of Offences to be made in Official Log.*—  
Upon the commission of any of the offences enu-  
merated in the last preceding section an entry  
thereof shall be made in the official log book  
[LOG, OFFICIAL,] and shall be signed by the  
master and also by the mate or one of the crew;  
and the offender, if still in the ship, shall, before  
the next arrival of the ship at any port, or if she  
is at the time in port, before her departure, either  
be furnished with a copy of such entry or have  
the same read over distinctly and audibly to him,  
and may thereupon make such reply thereto as he  
thinks fit; and a statement that a copy of the  
said entry has been so furnished, or that the same  
has been so read over as aforesaid, and the reply  
(if any) made by the offender, shall likewise be  
entered and signed in manner aforesaid; and in  
any subsequent legal proceedings the entries here-  
inbefore required shall, if practicable, be produced  
or proved, and in default of such production or  
proof the court hearing the case may, at its dis-  
cretion, refuse to receive evidence of the offence.  
(Sec. 214.)

*Seamen &c. whom Masters of Ships are com-  
pelled to convey, to be subject to Penalties for  
Breach of Discipline.*—Every seafaring person  
whom the master of any ship is, under the autho-  
rity of this Act or of any other Act of Parliament,  
compelled to take on board and convey, and every  
person who goes to sea in any ship without the  
consent of the master or owner or other person  
entitled to give such consent, shall, so long as he  
remains in such ship, be subject to the same laws  
and regulations for preserving discipline, and to  
the same penalties and punishments for offences  
constituting or tending to a breach of disci-  
pline, to which he would be subject if he were a  
member of the crew and had signed the agreement.  
(Sec. 215.)

*Master or Owner may apprehend Deserters,  
without Warrant.*—Whenever, either at the com-  
mencement or during the progress of any voyage,  
any seaman or apprentice neglects or refuses to  
join or deserts from or refuses to proceed to sea  
in any ship in which he is duly engaged to serve,  
or is found otherwise absenting himself therefrom  
without leave, the master or any mate, or the  
owner, ship's husband, or consignee, may, in any  
place in her Majesty's dominions, with or without  
the assistance of the local police officers or con-

stable, who are hereby directed to give the same, if required, and also at any place out of her Majesty's dominions, if and so far as the laws in force at such place will permit, apprehend him without first procuring a warrant; and may thereupon in any case, and shall in case he so requires and it is practicable, convey him before some court capable of taking cognisance of the matter, to be dealt with according to law; and may, for the purpose of conveying him before such court, detain him in custody for a period not exceeding 24 hours, or such shorter time as may be necessary, or may, if he does not so require, or if there is no such court at or near the place, at once convey him on board; and if any such apprehension appears to the court before which the case is brought to have been made on improper or on insufficient grounds, the master, mate, owner, ship's husband, or consignee who makes the same or causes the same to be made, shall incur a penalty not exceeding 20*l.*; but such penalty, if inflicted, shall be a bar to any action for false imprisonment in respect of such apprehension. (Sec. 246.)

*Deserters may be sent on board in lieu of being imprisoned.*—Whenever any seaman or apprentice is brought before any court on the ground of his having neglected or refused to join or to proceed to sea in any ship in which he is engaged to serve, or of having deserted or otherwise absented himself therefrom without leave, such court may, if the master or the owner or his agent so requires, instead of committing the offender to prison, cause him to be conveyed on board for the purpose of proceeding on the voyage, or deliver him to the master or any mate of the ship, or the owner or his agent, to be by them so conveyed, and may in such case order any costs and expenses properly incurred by or on behalf of the master or owner by reason of the offence to be paid by the offender, and, if necessary, to be deducted from any wages which he has then earned, or which, by virtue of his then existing engagement, he may afterwards earn. (Sec. 247.)

*Seamen imprisoned for Desertion or Breach of Discipline may be sent on board before Termination of Sentence.*—If any seaman or apprentice is imprisoned on the ground of his having neglected or refused to join or to proceed to sea in any ship in which he is engaged to serve, or of having deserted or otherwise absented himself therefrom without leave, or of his having committed any other breach of discipline, and if during such imprisonment and before his engagement is at an end his services are required on board his ship, any justice may, at the request of the master or of the owner or his agent, cause such seaman or apprentice to be conveyed on board his said ship for the purpose of proceeding on the voyage, or to be delivered to the master or any mate of the ship or to the owner or his agent, to be by them so conveyed, notwithstanding that the termination of the period for which he was sentenced to imprisonment has not arrived. (Sec. 248.)

*Entries and Certificates of Desertion abroad to be copied, sent home, and admitted in Evidence.*—In all cases of desertion from any ship in any place abroad the master shall produce the entry of such desertion in the official log book to the person or persons hereby required to indorse on the agreement a certificate of such desertion; and such person or persons shall thereupon make and certify a copy of such entry and also a copy of the said certificate of desertion; and if such person is a public functionary he shall, and in other cases the said master shall, forthwith transmit such copies to the registrar-general of seamen in

England; and the said registrar shall, if required, cause the same to be produced in any legal proceeding; and such copies, if purporting to be made and certified as aforesaid, and certified to have come from the custody of the said registrar, shall in any legal proceeding relating to such desertion be received as evidence of the entries therein appearing. (Sec. 249.)

*Facilities for proving Desertion, so far as concerns Forfeiture of Wages.*—Whenever a question arises whether the wages of any seaman or apprentice are forfeited for desertion, it shall be sufficient for the party insisting on the forfeiture to show that such seaman or apprentice was duly engaged in or that he belonged to the ship from which he is alleged to have deserted, and that he quitted such ship before the completion of the voyage or engagement, or if such voyage was terminated in the United Kingdom and the ship has not returned, that he is absent from her, and that an entry of the desertion has been duly made in the official log book; and thereupon the desertion shall, so far as relates to any forfeiture of wages or emoluments under the provisions hereinbefore contained, be deemed to be proved, unless the seaman or apprentice can produce a proper certificate of discharge, or can otherwise show to the satisfaction of the court that he had sufficient reason for leaving his ship. (Sec. 250.)

*Costs of procuring Imprisonment may to the extent of 3*l.* be deducted from Wages.*—Whenever in any proceeding relating to seamen's wages it is shown that any seaman or apprentice has in the course of the voyage been convicted of an offence by any competent tribunal and rightfully punished therefor by imprisonment or otherwise, the court hearing the case may direct a part of the wages due to such seaman, not exceeding 3*l.*, to be applied in reimbursing any costs properly incurred by the master in procuring such conviction and punishment. (Sec. 251.)

*Amount of Forfeiture how to be ascertained when Seamen contract for the Voyage.*—Whenever any seaman contracts for wages by the voyage or by the run or by the ship, and not by the month or other stated period of time, the amount of forfeiture to be incurred under this Act shall be taken to be an amount bearing the same proportion to the whole wages or share as a calendar month or other period (as the case may be) bears to the whole time spent in the voyage; and if the whole time spent in the voyage does not exceed the period for which the pay is to be forfeited, the forfeiture shall extend to the whole wages or share. (Sec. 252.)

*Application of Forfeitures.*—All clothes, effects, wages, and emoluments which under the provisions hereinbefore contained are forfeited for desertion shall be applied in the first instance in or towards the reimbursement of the expenses occasioned by such desertion to the master or owner of the ship from which the desertion has taken place; and may, if earned subsequently to the desertion, be recovered by such master, or by the owner or his agent, in the same manner as the deserter might have recovered the same if they had not been forfeited; and in any legal proceeding relating to such wages the court may order the same to be made accordingly; and, subject to such reimbursement, the same shall be paid into the receipt of her Majesty's exchequer in such manner as the Treasury may direct, and shall be carried to and form part of the consolidated fund of the United Kingdom; and in all other cases of forfeiture of wages under the provisions hereinbefore contained the forfeiture shall, in the absence of any specific directions to the contrary, be

for the benefit of the master or owner by whom the wages are payable. (Sec. 253.)

*Questions of Forfeitures may be decided in Suits for Wages.*—Any question concerning the forfeiture of or deductions from the wages of any seaman or apprentice may be determined in any proceeding lawfully instituted with respect to such wages, notwithstanding that the offence in respect of which such question arises, though heretofore made punishable by imprisonment as well as forfeiture, has not been made the subject of any criminal proceeding. (Sec. 254.)

*Penalty for false Statements as to last Ship or Voyage.*—If any seaman on or before being engaged willfully and fraudulently makes a false statement of the name of his last ship or last alleged ship, or willfully and fraudulently makes a false statement of his own name, he shall incur a penalty not exceeding 5*l.*: and such penalty may be deducted from any wages he may earn by virtue of such engagement as aforesaid, and shall, subject to reimbursement of the loss and expenses (if any) occasioned by any previous desertion, be paid and applied in the same manner as other penalties payable under this Act. (Sec. 255.)

*Fines to be deducted from Wages, and paid to Shipping Master.*—Whenever any seaman commits an act of misconduct for which his agreement imposes a fine, and which it is intended to punish by enforcing such fine, an entry thereof shall be made in the official log book, and a copy of such entry shall be furnished or the same shall be read over to the offender, and an entry of such reading over, and of the reply (if any) made by the offender, shall be made, in the manner and subject to the conditions hereinbefore specified with respect to the offences against discipline specified in and punishable under this Act; and such fine shall be deducted and paid over as follows: viz. if the offender is discharged in the United Kingdom and the offence and such entries in respect thereof as aforesaid are proved, in the case of a foreign-going ship to the satisfaction of the shipping master before whom the offender is discharged, and in the case of a home trade ship to the satisfaction of the shipping master at or nearest to the place at which the crew is discharged, the master or owner shall deduct such fine from the wages of the offender, and pay the same over to such shipping master; and if before the final discharge of the crew in the United Kingdom any such offender as aforesaid enters into any of her Majesty's ships, or is discharged abroad, and the offence and such entries as aforesaid are proved to the satisfaction of the officer in command of the ship into which he so enters, or of the consular officer, officer of customs, or other person by whose sanction he is so discharged, the fine shall thereupon be deducted, and the entry of such deduction shall then be made in the official log book (if any) and signed by such officer or other person; and on the return of the ship to the United Kingdom, the master or owner shall pay over such fine, in the case of foreign-going ships, to the shipping master before whom the crew is discharged, and in the case of home trade ships to the shipping master at or nearest to the place at which the crew is discharged; and if any master or owner neglects or refuses to pay over any such fine in manner aforesaid, he shall for each such offence incur a penalty not exceeding 3 times the amount of the fine retained by him; provided that no act of misconduct for which any such fine as aforesaid has been inflicted and paid shall be otherwise punished under the provisions of this Act. (See

*Penalty for entering to desert, and harbouring Deserters.*—Every person who by any means whatever persuades or attempts to persuade any seaman or apprentice to neglect or refuse to join or to proceed to sea in, or to desert from his ship, or otherwise to absent himself from his duty, shall for each such offence, in respect of each such seaman or apprentice, incur a penalty not exceeding 10*l.*; and every person who willfully harbours or secretes any seaman or apprentice who has deserted from his ship, or who has willfully neglected or refused to join or has deserted from his ship, knowing or having reason to believe such seaman or apprentice to have so done, shall, for every such seaman or apprentice so harboured or secreted, incur a penalty not exceeding 20*l.* (Sec. 257.)

*Penalty for obtaining Passage surreptitiously.*—Any person who secretes himself and goes to sea in any ship without the consent of either the owner, consignee, or master, or of a mate, or of any person in charge of such ship, or of any other person entitled to give such consent, shall incur a penalty not exceeding 20*l.*, or be liable to imprisonment with or without hard labour for any period not exceeding 4 weeks. (Sec. 258.)

*On Change of Masters, Documents hereby required to be handed over to Successor.*—If during the progress of a voyage the master is superseded or for any other reason quits the ship and is succeeded in the command by some other person, he shall deliver to his successor the various documents relating to the navigation of the ship and to the crew thereof which are in his custody, and shall in default incur a penalty not exceeding 100*l.*; and such successor shall immediately on assuming the command of the ship enter in the official log a list of the documents so delivered to him. (Sec. 259.)

Desertion has long been, and continues to be, very prevalent, and is, in truth, by far the greatest drawback on the shipping interest. Mr. Lindsay, whose knowledge of the subject is alike extensive and minute, remarks upon it as follows:—Desertion is now so great an evil, and so detrimental to the best interests of our maritime commerce, that vigorous measures should be adopted to suppress it. It is a crime which is rarely committed alone, and is too frequently the first step towards others of a much worse nature. Even the seamen almost invariably repent of it when too late. They feel that they have broken faith, lost that self-respect which is essential to the maintenance of order, drown their feelings in intoxication, and thus become demoralised and worthless. The country loses in various ways. In our trade with Australia particularly, by paying materially enhanced rates of freight and passage, for the desertion of the crew was the only fear which the ship-owners at one time had of sending their vessels to that colony. The moral standard of a class of men, alike valuable during periods of peace and war, is materially lowered, and we have to maintain, from our parish resources, the pauperised wives and children of deserters.

This subject was much considered by Government when framing the Merchant Marine Act, and various clauses were introduced into that statute having reference to it. The one which comes most to the point is the 71st clause (ante, sec. 216), which enacts, "that whenever a seaman or apprentice neglects or refuses to join, or absents himself without leave, or deserts from any ship in which he is engaged to serve, the master or mate, or the owner, ship's husband, or consignee, may, for the purpose of carrying him before a justice,

id registrar shall, if required, be produced in any legal proceedings, if purporting to be as aforesaid, and certified to the custody of the said registrar, proceeding relating to such as evidence of the entries (Sec. 249.)

*On Desertion, so far as concerning Wages.*—Whenever a question arises as to the wages of any seaman or apprentice for desertion, it shall be sufficient to insist on the forfeiture of wages, and the seaman or apprentice was duly engaged to have deserted, and that he had deserted, and that he had deserted before the completion of the voyage, or if such voyage was terminated in the United Kingdom and the ship was not at the time he is absent from her, and the desertion has been duly entered in the official log book; and thereupon the wages of such seaman or apprentice as far as relates to any forfeitures under the provisions hereinbefore mentioned, shall be deemed to be proved, and the seaman or apprentice can produce a certificate of discharge, or can otherwise produce the certificate of the court that he had deserted, or that he had deserted before leaving his ship. (Sec. 250.)

*On Imprisonment may be decreed in Suits for Wages.*—Whenever a question arises as to the wages of any seaman or apprentice who has been convicted of any offence by a competent tribunal and rightfully punished by imprisonment or otherwise, the court may direct a part of the wages of such seaman, not exceeding 2*l.*, to be paid to him, and may reimburse any costs properly incurred by the master in procuring such commitment. (Sec. 251.)

*On Forfeiture how to be ascertained in Suits for Wages.*—Whenever a question arises as to the wages of any seaman or apprentice who has been convicted of any offence by a competent tribunal and rightfully punished by imprisonment or otherwise, the court may direct a part of the wages of such seaman, not exceeding 2*l.*, to be paid to him, and may reimburse any costs properly incurred by the master in procuring such commitment. (Sec. 251.)

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apprehend or require any police officer or constable to apprehend him without first procuring a warrant." Masters may, also, without warrant, seize deserters and carry them either before a magistrate or on board their ships. But when seamen desert, they generally get out of the way of seizure till the vessels which they have deserted have left the port. They know full well that the extent of their punishment, even if they be taken, cannot exceed 3 months in what to them are comfortable quarters, and that very likely, judging by precedent, it may not exceed 1 month—a trifling penalty for so serious an offence. Besides imprisonment, the deserter is also liable to forfeit such clothes or effects as he may have on board, and such wages or emoluments as he may have earned. If the desertion take place abroad, he forfeits whatever wages and emoluments he may earn in any other ship in which he may return to the United Kingdom, and he further becomes liable to satisfy any excess of wages paid by the master or owners of the ship from which he deserts to any substitute engaged in his place. Such is the full extent of the punishment. We should, however, have less to say against its insufficiency, were the means of convicting offenders less complex. While they remain in their present state, seamen will continue, as hitherto, to desert when it suits their purposes. No more convincing proof need be given of the inefficiency of the laws bearing upon desertion, than the fact that one firm only, Messrs. Pollock, Gilmour, and Co., of Glasgow, engaged in the North American timber trade, have had, during 1 year, upwards of 400 seamen deserters abroad from their ships; that the consequent loss entailed on the firm exceeded 3,000*l.*, merely in the higher wages they were compelled to pay to seamen to supply the place of the deserters; and that they only succeeded in arresting 11 out of the 400 deserters.' (*On Our Navigation Laws and Mercantile Marine*, 2nd ed. p. 85 &c.)

This is a very striking statement. But in truth and reality, desertion is an evil with which it is very difficult, if not impossible, to deal. It may be palliated; but more need hardly be expected; and we incline to think that the clauses previously quoted go quite as far as it is advisable to go in attempting its suppression by penal enactments. When seamen arrive in a port where their services are in great request, and wages double, perhaps, what they are serving for, how can it be supposed that they should be generally proof against such overpowering temptations? But as commerce becomes more extended, the difference of wages in different seaports will decline; and the more they approach to equality, the less temptation will there be to desert. Mr. Lindsay suggests as one mode of dealing with this difficult subject, that all seamen returning to this country previously to the arrival of the ships in which they had sailed, who cannot produce certificates of their discharge, or otherwise account satisfactorily for their return, should be held to be guilty of desertion and punished accordingly.

A regulation of this sort would, probably, be some check on desertion, though we doubt whether it would amount to much. But we believe that nothing short of that equalisation of wages to which we have referred would do so much to lessen its frequency and to make it more an object of public reprobation, as an improvement in the character of the masters. The drunkenness and brutality that have been so often manifested by the latter, though happily on the decrease, create a presumption that seamen guilty of desertion have been driven to it by ill-usage, and indisposes

the public to increase the penalties on the offence. And hence it may, perhaps, be questioned whether anything will be more likely to render it, as it ought to be, a serious matter in the public estimation, than the measures that have been taken, and with good effect, to raise the qualifications of the masters, and to make their conduct more in accordance with their position.

It is admitted, indeed, by all legislators and jurists that gross misconduct, or systematic and extreme ill-treatment on the part of the master, will justify the seamen in resisting his authority or deserting the ship. The duties and obligations of master and men are reciprocal: the latter are bound to give due obedience and respect to all the reasonable commands of the master, and even to those that may appear to be unreasonable; but they are not bound to obey orders that would obviously compromise their own security or that of the ship. 'Desertion,' said Lord Kenyon, 'is a forfeiture of wages; but if the captain conduct himself in such a way as puts the sailor into that situation that he cannot without damage to his personal safety continue in his service, (human nature speaks the language,) a servant is justified in providing for that safety.' The necessity of securing on all ordinary occasions the most prompt compliance with the orders of the master is, however, so very urgent, that no proceeding on the part of the latter, unless it be of the most unwarrantable description, will justify the seamen in deserting or resisting his commands. Disobedience to the latter is uniformly presumed to be an offence of the gravest kind; and nothing but the most overwhelming necessity will vindicate the seamen by whom it may be committed. 'The court,' to use the words of Lord Stowell, 'will be particularly attentive to preserve that subordination and discipline on board ship which is so indispensably necessary for the preservation of the whole service, and of every person concerned in it. A peremptory or harsh tone or an overcharged manner, in the exercise of authority, will never be held by this court to justify resistance. It will not be sufficient that there has been a want of that personal attention and civility which usually takes place on other occasions, and might be wished generally to attend the exercise of authority. The nature of the service requires that those persons that engage in it should accommodate themselves to the circumstances attending it, and those circumstances are not unfrequently urgent, and create strong sensations which naturally find their way in strong expressions and violent demeanour. The persons subject to this species of authority are not to be captious, or to take exception to a neglect of formal or ceremonious observances.' (*Dodson's Admiralty Reports*, ii. 261.)

If the cargo be embezzled or injured by the fraud or negligence of the seamen, so that the merchant has a right to claim satisfaction from the master and owners, they may, by the custom of merchants, deduct the value thereof from the wages of the seamen by whose misconduct the injury has taken place. And a clause to this effect is inserted in the form of agreement issued by the Board of Trade, as follows: 'It is hereby agreed that any embezzlement, or wilful or negligent destruction of any part of the ship's cargo or stores, shall be made good to the owner out of the wages of the person guilty of the same.' Seamen are, therefore, responsible for themselves only. Nor can any innocent party be called upon to contribute a portion of his wages to make good the loss occasioned by the misconduct of others.

The offences of running away with the ship, or



themselves to the best of their ability to save the ship and cargo. But a condition of this sort having led to much difficulty and abuse, it has been laid down in the 17 & 18 Vict. c. 104 s. 183, that the right of seamen to their wages shall not depend on the fact of freight being earned; and that in cases of wreck, and loss of the ship, they shall be entitled to their wages, unless proof be brought to show that they did not exert themselves to the utmost to save the ship and cargo. At present, therefore, it may be concluded, that nothing save their own misconduct can defeat the claim of seamen to the full payment of the wages stipulated in their agreements.

A seaman impressed from a merchant ship into the royal service, is entitled to receive the portion of his wages due to him at the time of impressment, provided the merchant ship arrive in safety at the port of her discharge.

The following clauses in the Mercantile Shipping Act relate to the allotment, payment, remittance &c. of seamen's wages.

*Regulations as to Allotment Notes.*—All stipulations for the allotment of any part of the wages of a seaman during his absence which are made at the commencement of the voyage shall be inserted in the agreement, and shall state the amounts and times of the payments to be made; and all *Allotment Notes* shall be in forms sanctioned by the Board of Trade. (Sec. 168.)

*Allotment Notes may be sued on summarily.*—The wife, or the father or mother, or the grandfather or grandmother, or any child or grandchild, or any brother or sister of any seaman in whose favour an allotment note of part of the wages of such seaman is made, may, unless the seaman is shown in manner aftermentioned to have forfeited or ceased to be entitled to the wages out of which the allotment is to be paid, and subject, as to the wife, to the provision after contained, sue for and recover the sums allotted by the note when and as the same are made payable, with costs, from the owner or any agent who has authorised the drawing of note, either in the County Court or in the summary manner in which seamen are enabled to sue for and recover wages not exceeding 50*l.*; and in any such proceeding it shall be sufficient for the claimant to prove that he or she is the person mentioned in the note, and that the note was given by the owner or by the master or some other authorised agent; and the seaman shall be presumed to be duly earning his wages, unless the contrary is shown to the satisfaction of the court, either by the official statement of the change in the crew caused by his absence made and signed by the master, as by this Act is required, or by a duly certified copy of some entry in the official log book to the effect that he has left the ship, or by a credible letter from the master of the ship to the same effect, or by such other evidence, of whatever description, as the court in its absolute discretion considers sufficient to show satisfactorily that the seaman has ceased to be entitled to the wages out of which the allotment is to be paid: provided that the wife of any seaman who deserts her children, or so misconducts herself as to be undeserving of support from her husband, shall thereupon forfeit all right to further payments of any allotment of his wages which has been made in her favour. (Sec. 169.)

*Discharge from Foreign-going Ships to be made before Shipping Master.*—In the case of all British foreign-going ships, in whatever part of her Majesty's dominions the same are registered, all seamen discharged in the United Kingdom shall be discharged and receive their wages in the presence of a shipping master duly appointed

under this Act, except in cases where some competent court otherwise directs; and any master or owner of any such ship who discharges any seaman belonging thereto, or, except as aforesaid, pays his wages within the United Kingdom in any other manner, shall incur a penalty not exceeding 10*l.*; and in the case of home trade ships seamen may, if the owner or master so desires, be discharged and receive their wages in like manner. (Sec. 170.)

*Master to deliver Account of Wages.*—Every master shall, not less than 24 hours before paying off or discharging any seaman, deliver to him, or, if he is to be discharged before a shipping master, to such shipping master, a full and true account in a form sanctioned by the Board of Trade of his wages and of all deductions to be made therefrom, on any account whatever, and in default shall for each offence incur a penalty not exceeding 5*l.*; and no deduction from the wages of any seaman (except in respect of any matter happening after such delivery) shall be allowed unless it is included in the account so delivered; and the master shall during the voyage enter the various matters in respect of which such deductions are made, with the amounts of the respective deductions, as they occur, in a book to be kept for that purpose, and shall, if required, produce such book at the time of the payment of wages, and also upon the hearing before any competent authority of any complaint or question relating to such payments. (Sec. 171.)

*On Discharge, Masters to give Seamen Certificates of Discharge &c.*—Upon the discharge of any seaman, or upon payment of his wages, the master shall sign and give him a certificate of his discharge, in a form sanctioned by the Board of Trade, specifying the period of his service and the time and place of his discharge; and if any master fail to sign and give to any such seaman such certificate of discharge he shall for each such offence incur a penalty not exceeding 10*l.*; and the master shall also, upon the discharge of every certificated mate whose certificate of competency or service has been delivered to and retained by him, return such certificate, and shall in default incur a penalty not exceeding 20*l.* (Sec. 172.)

*Shipping Master may decide Questions which Parties refer to him.*—Every shipping master shall hear and decide any question whatever between a master or owner and any of his crew which both parties agree in writing to submit to him; and every award so made by him shall be binding on both parties, and shall, in any legal proceeding, which may be taken in the matter before any court of justice, be deemed to be conclusive as to the rights of the parties; and no such submission or award shall require a stamp; and any document purporting to be such submission or award shall be prima facie evidence thereof. (Sec. 173.)

*Masters and others to produce Ship's Papers to Shipping Masters, and give Evidence.*—In any proceeding relating to the wages, claims, or discharge of any seaman carried on before any shipping master under the provisions of this Act, such shipping master may call upon the owner or his agent, or upon the master or any mate or other member of the crew, to produce any log books, papers, or other documents in their respective possession or power relating to any matter in question in such proceeding, and may call before him and examine any of such persons being then at or near the place on any such matter; and every owner, agent, master, mate, or other member of the crew, who, when called upon by the shipping master, does not produce any such paper or document as aforesaid, if in his possession or power, or does

not appear and give evidence, shall, unless he shows some reasonable excuse for such default, for each such offence incur a penalty not exceeding 5*l.* (Sec. 174.)

*Settlement of Wages.*—The following rules shall be observed with respect to the settlement of wages (that is to say):—

(1) Upon the completion before any shipping master of any discharge and settlement, the master or owner and each seaman shall respectively in the presence of the shipping master, sign in a form sanctioned by the Board of Trade a mutual release of all claims in respect of the past voyage or engagement, and the shipping master shall also sign and attest it, and shall retain and transmit it as herein directed:

(2) Such release so signed and attested shall operate as a mutual discharge and settlement of all demands between the parties thereto in respect of the past voyage or engagement:

(3) A copy of such release certified under the hand of such shipping master to be a true copy shall be given by him to any party thereto requiring the same; and such copy shall be receivable in evidence upon any future question touching such claims as aforesaid, and shall have all the effect of the original of which it purports to be a copy:

(4) In cases in which discharge and settlement before a shipping master are hereby required, no payment, receipt, settlement, or discharge otherwise made shall operate or be admitted as evidence of the release or satisfaction of any claim:

(5) Upon any payment being made by a master before a shipping master, the shipping master shall, if required, sign and give to such master a statement of the whole amount so paid; and such statement shall as between the master and his employer be received as evidence that he has made the payments therein mentioned. (Sec. 175.)

*Master to make Reports of Character.*—Upon every discharge effected before a shipping master the master shall make and sign, in a form sanctioned by the Board of Trade, a report of the conduct, character, and qualifications of the persons discharged, or may state in a column to be left for that purpose in the said form, that he declines to give any opinion upon such particulars, or upon any of them; and the shipping master shall transmit the same to the registrar-general of seamen, or to such other person as the Board of Trade directs, to be recorded, and shall, if desired so to do by any seaman, give to him or indorse on his certificate of discharge a copy of so much of such report as concerns him: and every person who makes, assists in making, or procures to be made any false certificate or report of the service, qualifications, conduct, or character of any seaman, knowing the same to be false, or who forges, assists in forging, or procures to be forged, or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any such certificate or report, or who fraudulently makes use of any certificate or report, or of any copy of any certificate or report, which is forged or altered or does not belong to him, shall for each such offence be deemed guilty of a misdemeanor. (Sec. 176.)

#### *Remittance of Wages and Savings Banks for Seamen.*

*Facilities may be given for remitting Seamen's Wages.*—Facilities shall, if the Board of Trade so directs, be given for remitting the wages and other moneys of seamen and apprentices to their

relatives or other persons by means of money orders issued by shipping masters; and the Board of Trade may make regulations concerning such orders, and the persons by or to whom, and the mode and time in and at which the same are to be paid, and may from time to time repeal or alter any such regulations; and all such regulations, so long as they are in force, shall be binding upon all persons interested or claiming to be interested in such orders, as well as upon the officers employed in issuing or paying the same; and no legal proceeding shall be instituted against the Board of Trade, or against any shipping master or other public officer employed about such orders, on account of any such regulations, or on account of any act done or left undone in pursuance thereof, or on account of any refusal, neglect, or omission to pay any such money order, unless such refusal, neglect, or omission arise from fraud or wilful misbehaviour on the part of the person against whom proceedings are instituted. (Sec. 177.)

*Power to Pay when Order is lost.*—The Board of Trade may, in any case in which it thinks fit so to do, cause the amount of any such money order as aforesaid to be paid to the person to whom or in whose favour the same may have been granted, or to his personal representatives, legatees, or next of kin, notwithstanding that such order may not be in his or their possession; and in all such cases from and after such payment the Board of Trade and every shipping master or other officer of the Board of Trade shall be freed from all liability in respect of such order. (Sec. 178.)

*Penalty for issuing Money.*—Every shipping master or other public officer who grants or issues any money order with a fraudulent intent shall in England or Ireland be deemed guilty of felony, and in Scotland of a high crime and offence, and shall be liable to be kept in penal servitude for a term not exceeding 4 years. (Sec. 179.)

*Savings Banks for Seamen may be established.*—The Commissioners for the reduction of the National Debt, or the comptroller-general acting under them, may on the application and recommendation of the Board of Trade, establish savings banks at such ports and places within the United Kingdom, either in the shipping offices established in such ports or elsewhere, as may appear to be expedient, and may appoint treasurers to receive from or on account of seamen, or the wives and families of seamen, desirous to become depositors in such savings banks, deposits to an amount not exceeding 150*l.* in the whole in respect of any one account, under such regulations as may be prescribed by the said commissioners or comptroller-general; and such regulations shall be binding on all such treasurers and depositors; and the said commissioners may remove such treasurers, and appoint others in their place; and all the provisions of the Acts now in force relating to savings banks, except so far as relates to the annual amount of deposit, shall apply to all savings banks which may be established under the authority of this Act, and to such treasurers and depositors as aforesaid. (Sec. 180.)

By the 19 & 20 Vict. c. 41 the immediate management of the savings banks for seamen is placed in the Board of Trade, which has power to establish central and branch savings banks and to make regulations for their conduct.

In March 1865, the Board of Trade issued instructions to our consuls at certain ports, to enable seamen, when paid abroad, to remit their wages home by money orders.

*Legal Right to Wages.*

*Right to Wages and Provisions, when to begin.*—A seaman's right to wages and provisions shall be taken to commence either at the time at which he commences work or at the time specified in the agreement for his commencement of work or presence on board, whichever first happens. (Sec. 181.)

*Seamen not to give up certain Rights.*—No seaman shall by any agreement forfeit his lien upon the ship, or be deprived of any remedy for the recovery of his wages to which he would otherwise have been entitled; and every stipulation in any agreement inconsistent with any provision of this Act, and every stipulation by which any seaman consents to abandon his right to wages in the case of the loss of the ship, or to abandon any right which he may have or obtain in the nature of salvage, shall be wholly inoperative. (Sec. 182.)

*Wages not to be dependent on the earning of Freight.*—No right to wages shall be dependent on the earning of freight; and every seaman and apprentice who would be entitled to demand and recover any wages if the ship in which he has served had earned freight, shall, subject to all other rules of law and conditions applicable to the case, be entitled to claim and recover the same, notwithstanding that freight has not been earned; but in all cases of wreck or loss of the ship, proof that he has not exerted himself to the utmost to save the ship, cargo, and stores shall bar his claim. (Sec. 183.)

*In case of Death, Wages to be paid.*—If any seaman or apprentice to whom wages are due under the last preceding enactment dies before the same are paid, they shall be paid and applied in the manner after specified with regard to the wages of seamen who die during a voyage. (Sec. 184.)

*Rights to Wages in case of Termination of Service by Wreck or Illness.*—In cases where the service of any seaman terminates before the period contemplated in the agreement by reason of the wreck or loss of the ship, and also in cases where such service terminates before such period as aforesaid by reason of his being left on shore at any place abroad under a certificate of his unfitness or inability to proceed on the voyage granted as after mentioned, such seaman shall be entitled to wages for the time of service prior to such termination as aforesaid, but not for any further period. (Sec. 185.)

*Wages not to accrue during Refusal to Work or Imprisonment.*—No seaman or apprentice shall be entitled to wages for any period during which he unlawfully refuses or neglects to work when required, whether before or after the time fixed by the agreement for his beginning work, nor unless the court hearing the case otherwise directs, for any period during which he is lawfully imprisoned for any offence committed by him. (Sec. 186.)

*Period within which Wages are to be paid.*—The master or owner of every ship shall pay to every seaman his wages within the respective periods following (that is to say); in the case of a home trade ship, within 2 days after the termination of the agreement or at the time when such seaman is discharged, whichever first happens; and in the case of all other ships (except ships employed in the southern whale fishery or on other voyages for which seamen by the terms of their agreement are wholly compensated by shares in the profits of the adventure), within 3 days after the cargo has been delivered, or within 5 days after the seaman's discharge, whichever first happens; and in all cases the seaman shall at

the time of his discharge be entitled to be paid on account a sum equal to one-fourth part of the balance due to him; and every master or owner who neglects or refuses to make payment in manner aforesaid, without sufficient cause, shall pay to the seaman a sum not exceeding the amount of 2 days' pay for each of the days, not exceeding 10 days, during which payment is delayed beyond the respective periods aforesaid, and such sum shall be recoverable as wages. (Sec. 187.)

*Mode of Recovering Wages.*

*Seamen may sue for Wages in a summary manner.*—Any seaman or apprentice, or any person duly authorised on his behalf, may sue in a summary manner before any two justices of the peace acting in or near to the place at which the service has terminated, or at which the seaman or apprentice has been discharged, or at which any person upon whom the claim is made is or resides, or in Scotland either before any such justices or before the sheriff of the county within which any such place is situated, for any amount of wages due to such seaman or apprentice not exceeding 50*l.* over and above the costs of any proceeding for the recovery thereof, so soon as the same becomes payable; and every order made by such justices or sheriff in the matter shall be final. (Sec. 188.)

*Restrictions on Suits for Wages in Superior Courts.*—No suit or proceeding for the recovery of wages under the sum of 50*l.* shall be instituted by or on behalf of any seaman or apprentice in any Court of Admiralty or Vice-Admiralty, or in the Court of Session in Scotland, or in any superior Court of Record in her Majesty's dominions, unless the owner of the ship is adjudged bankrupt or declared insolvent, or unless the ship is under arrest or is sold by the authority of any such court as aforesaid, or unless any justices acting under the authority of this Act refer the case to be adjudged by such court, or unless neither the owner nor master is or resides within 20 miles of the place where the seaman or apprentice is discharged or put ashore. (Sec. 189.) By 24 Vict. c. 10 s. 10 the High Court of Admiralty is declared to have jurisdiction over any claim for wages, provided always that if the plaintiff do not recover 50*l.* he shall not be entitled to costs, unless the judge shall certify that the case was a fit one to be tried in the said court.

*No Seaman to sue for Wages abroad, except in Cases of Discharge or of Danger to Life.*—No seaman who is engaged for a voyage or engagement which is to terminate in the United Kingdom, shall be entitled to sue in any court abroad for wages, unless he is discharged with such sanction as herein required and with the written consent of the master, or prove such ill-usage on the part of the master or by his authority as to warrant reasonable apprehension of danger to the life of such seaman if he were to remain on board; but if any seaman on his return to the United Kingdom proves that the master or owner has been guilty of any conduct or default which but for this enactment would have entitled the seaman to sue for wages before the termination of the voyage or engagement, he shall be entitled to recover in addition to his wages such compensation not exceeding 20*l.* as the court hearing the case thinks reasonable. (17 & 18 Vict. s. 190.)

*Master to have same Remedies for Wages as Seamen.*—Every master of a ship shall, so far as the case permits, have the same rights, liens, and remedies for the recovery of his wages which by this Act or by any law or custom any seaman, not being a master, has for the recovery of his wages; and if in any proceeding in any Court of Admiralty



all money, wages, and effects of any seaman or apprentice dying during a voyage shall be recoverable in the same courts, and by the same modes of proceeding by which seamen are hereby enabled to recover wages due to them. (Sec. 196.)

*Officers of Customs and Consuls to take charge of Effects left by Seamen abroad.*—If any such seaman or apprentice as last aforesaid die abroad, at any place either in or out of her Majesty's dominions, leaving any money or effects not on board his ship, the chief officer of customs or the British consular officer at or nearest to the place, as the case may be, shall claim and take charge of such money and effects; and such officer shall, if he think fit, sell all or any of such effects, or any effects of any deceased seaman or apprentice delivered to him under the provisions before contained; and every such officer shall, quarterly, or at such other times as the Board of Trade directs, remit to her Majesty's paymaster general all moneys belonging to or arising from the sale of the effects of, or paid as the wages of, any deceased seaman or apprentice, which have come to his hands under the provisions hereinbefore contained, and shall render such accounts in respect thereof as the Board of Trade requires. (Sec. 197.)

*Wages and Effects of Deceased Seamen.*—The 197th section of the principal Act shall extend to seamen or apprentices who within the 6 months immediately preceding their death have belonged to a British ship; and such section shall be construed as if there were inserted in the first line thereof after the words 'such seaman or apprentice as last aforesaid,' the words 'or if any seaman or apprentice who has within the 6 months immediately preceding his death belonged to a British ship,' (25 & 26 Vict. c. 63 s. 20.)

*Wages and Effects of Seamen dying at home to be paid in certain Cases to Board of Trade.*—Whenever any seaman or apprentice dies in the United Kingdom, and is at the time of his death entitled to claim from the master or owner of any ship in which he has served any unpaid wages or effects, such master or owner shall pay and deliver or account for the same to the shipping master at the port where the seaman or apprentice was discharged or was to have been discharged, or to the Board of Trade, or as it directs. (17 & 18 Vict. c. 104 s. 198.)

*Recovery of Wages &c. of Seamen lost with their Ship.*—The wages of seamen or apprentices who are lost with the ship to which they belong shall be dealt with as follows (that is to say):—

(1) The Board of Trade may recover the same from the owner of the ship in the same manner in which seamen's wages are recoverable:

(2) In any proceedings for the recovery of such wages, if it is shown by some official return produced out of the custody of the registrar-general of seamen or by other evidence that the ship has 12 months or upwards before the institution of the proceeding left a port of departure, and if it is not shown that she has been heard of within 12 months after such departure, she shall be deemed to have been lost with all hands on board, either immediately after the time she was last heard of or at such later time as the court hearing the case may think probable:

(3) The production out of the custody of the registrar-general of seamen or of the Board of Trade of any duplicate agreement or list of the crew made out at the time of the last departure of the ship from the United Kingdom, or of a certificate purporting to be a certificate from a consular or other public officer at any port abroad, stating that certain seamen or apprentices were shipped in the ship from the said port, shall, in

the absence of proof to the contrary, be sufficient proof that the seamen or apprentices therein named were on board at the time of the loss:

(4) The Board of Trade shall deal with such wages in the manner in which they deal with the wages of other deceased seamen and apprentices under the principal Act. (25 & 26 Vict. c. 63 s. 21.)

*If less than 50l., Wages and Property of deceased Seamen may be paid over without Probate or Administration to Persons entitled.*—If the money and effects of any deceased seaman or apprentice paid, delivered, or remitted to the Board of Trade or its agents, including the moneys received for any part of the said effects which have been sold either before delivery to the Board of Trade or by its direction, do not exceed in value the sum of 50l., then, subject to the provisions after contained, and to all such deductions for expenses incurred in respect of the seaman or apprentice or of his said money and effects as the said board thinks proper to allow, the said board may, if it think fit, pay and deliver the said money and effects either to any claimants who can prove themselves to the satisfaction of the said board either to be his widow or children, or to be entitled to the effects of the deceased under his will (if any) or under the statutes for the distribution of the effects of intestates, or under any other statute, or at common law, or to be entitled to procure probate or take out letters of administration or confirmation, although no probate or letters of administration or confirmation have been taken out, and shall be thereby discharged from all further liability in respect of the money and effects so paid and delivered, or may, if it thinks fit, require probate or letters of administration or confirmation to be taken out, and thereupon pay and deliver the said money and effects to the legal personal representatives of the deceased; and all claimants to whom such money or effects are so paid or delivered shall apply the same in due course of administration, and if such money and effects exceed in value the sum of 50l., then, subject to the provisions hereinafter contained and to deduction for expenses, the Board of Trade shall pay and deliver the same to the legal personal representatives of the deceased. (17 & 18 Vict. c. 104 s. 199.)

*Mode of Payment under Wills made by Seamen.*—In cases where the deceased seaman or apprentice has left a will, the Board of Trade shall have the following powers; viz. :—

(1) It may in its discretion refuse to pay or deliver any such wages or effects as aforesaid to any person claiming to be entitled thereto under a will made on board ship, unless such will is in writing, and is signed or acknowledged by the testator in the presence of the master or first or only mate of the ship, and is attested by such master or mate.

(2) It may in its discretion refuse to pay or deliver any such wages or effects as aforesaid to any person not being related to the testator by blood or marriage who claims to be entitled thereto under a will made elsewhere than on board ship, unless such will is in writing, and is signed or acknowledged by the testator in the presence of two witnesses, one of whom is some shipping master appointed under this Act, or some minister or officiating minister or curate of the place in which the same is made, or, in a place where there are no such persons, some justice of the peace, or some British consular officer, or some officer of customs, and is attested by such witnesses.

Whenever any claim made under a will is rejected by the Board of Trade on account of the

the contrary, be sufficient for or apprentices therein at the time of the loss:

made shall deal with such in which they deal with deceased seamen and apprentices Act. (25 & 26 Vict., c. 63)

es and Property of deceased or without Probate or Ad-entitled.—If the money and seaman or apprentice paid, o the Board of Trade or its oneys received for any part h have been sold either

Board of Trade or by us d in value the sum of 500, provisions after contained, and s for expenses incurred in or apprentice or of his said the said board thinks propa d may, if it think fit, pay money and effects either to n prove themselves to the id board either to be his to be entitled to the effects, r his will (if any) or under distribution of the effects of ny other statute, or as com- mitted to procure probate or ministration or confirmation, r letters of administration or en taken out, and shall be from all further liability y and effects so paid and t thinks fit, require probate ration or confirmation to be on pay and deliver the said e legal personal representa- ; and all claimants to whom re so paid or delivered shall e course of administration, d effects exceed in value the ject to the provisions herei- deduction for expenses, the pay and deliver the same to representatives of the decesat. s. 199.)

nder Wills made by Seamen. deceased seaman or appren- e Board of Trade shall have ; viz. :—

discretion refuse to pay or ges or effects as aforesaid to be entitled thereto under l ship, unless such will is in ed or acknowledged by the ce of the master or first or ip, and is attested by such

discretion refuse to pay or ges or effects as aforesaid to related to the testator by who claims to be entitled ade elsewhere than on board is in writing, and is signed the testator in the presence of of whom is some shipping ler this Act, or some minister r or curate of the place in made, or, in a place where persons, some justice of the sh consular officer, or some nd is attested by such wit-

aim made under a will is d of Trade on account of the

said will not being made and attested as herein- before required, the wages and effects of the de- ceased shall be dealt with as if no will had been made. (Sec. 200.)

Clause 201 directs the procedure to be followed in dealing with the claims of the creditors of deceased seamen.

Clause 202 lays down the mode of dealing with unclaimed wages of deceased seamen.

**Punishment for Forgery and false Representations to obtain Wages and Property of deceased Seamen.**—Every person who, for the purpose of obtaining, either for himself or for another, any money or effects of any deceased seaman or apprentice, forges, assists in forging, or procures to be forged, or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any document purporting to show or assist in showing a right to such wages or effects, and every person who for the purpose aforesaid makes use of any such forged or altered document as aforesaid, or who for the purpose aforesaid gives or makes or procures to be given or made, or assists in giving or making or procuring to be given or made, any false evidence or representation, knowing the same to be false, shall be punishable with penal servitude for a term not exceeding 4 years, or with imprisonment with or without hard labour for any period not exceeding 2 years, or if summarily prosecuted and convicted, by imprisonment, with or without hard labour, for any period not exceeding 6 months. (Sec. 203.)

Clause 204 enacts that the effects of seamen discharged from navy are to be disposed of by accountant-general of navy.

5. **Leaving Seamen abroad [MASTER].**—The desertion of their ships by seamen, when abroad, is an offence which, as we have seen, has been much and justly complained of. But the seamen may themselves be deserted; that is, they may be left when on shore with leave or for some necessary purpose, or they may be forced on shore by the master, and then left by him. These being offences of a very grave character, there can be no doubt that they should be visited with some suitable punishment. It is, also, highly expedient that such seamen as have the misfortune to be shipwrecked or left abroad, should be conveyed back to their mother country by the first opportunity. And hence all maritime codes concur in imposing penalties on masters, when abroad, forcing seamen on shore, or leaving them, without just cause; and they, also, make provision for the return home of such shipwrecked or deserted seamen. The following clauses of the Merchant Shipping Act have these objects in view:—

**On Discharge of Seamen abroad, by Sale of Ship or otherwise, Seamen to be sent home at Expense of Owner.**—Whenever any British ship is transferred or disposed of at any place out of her Majesty's dominions, and any seaman or apprentice belonging thereto does not in the presence of some British consular officer, or, if there is no such consular officer there, in the presence of one or more respectable British merchants residing at the place, and not interested in the said ship, signify his consent in writing to complete the voyage if continued, and whenever the service of any seaman or apprentice belonging to any British ship terminates at any place out of her Majesty's dominions, the master shall give to each such seaman or apprentice a certificate of discharge in the form sanctioned by the Board of Trade, and in the case of any certificated mate whose certificate he has retained shall return such certificate to him, and shall also, besides paying the wages to which such seaman or apprentice is entitled, either pro-

vide him with adequate employment on board some other British ship bound to the port in her Majesty's dominions at which he was originally shipped, or to such other port in the United Kingdom as is agreed upon by him, or furnish the means of sending him back to such port, or provide him with a passage home, or deposit with such consular officer or such merchant or merchants as aforesaid such a sum of money as is by such officer or merchants deemed sufficient to defray the expenses of his subsistence and passage home; and such consular officer or merchants shall indorse upon the agreement of the ship which the seaman or apprentice is leaving the particulars of such payment, provision, or deposit; and if the master refuses or neglects to comply with the requirements of this section, such expenses as last aforesaid, if defrayed by such consular officer or by any other person, shall, unless such seaman or apprentice has been guilty of barratry, be a charge upon the ship to which such seaman or apprentice belonged and upon the owner for the time being thereof, and may be covered against such owner, with costs, at the suit of the consular officer or other person defraying such expenses, or, in case the same has been allowed to the consular officer out of the public moneys, as a debt due to her Majesty either by ordinary process of law, or in the manner in which seamen are hereby enabled to recover wages; and such expenses, if defrayed by the seaman or apprentice, shall be recoverable as wages due to him. (Sec. 205.)

**Forcing Seamen on Shore a Misdemeanor.**—If the master or any other person belonging to any British ship wrongfully forces on shore and leaves behind, or otherwise wilfully and wrongfully leaves behind, in any place, on shore or at sea, in or out of her Majesty's dominions, any seaman or apprentice belonging to such ship before the completion of the voyage for which such person was engaged or the return of the ship to the United Kingdom, he shall for each such offence be deemed guilty of a misdemeanor. (Sec. 206.)

**No Seamen to be discharged or left abroad without Certificate of some Functionary.**—If the master of any British ship does any of the following things, viz. :—

(1) Discharges any seaman or apprentice in any place situate in any British possession abroad (except the possession in which he was shipped), without previously obtaining the sanction in writing indorsed on the agreement of some public shipping master or other officer duly appointed by the local government in that behalf, or (in the absence of any such functionary) of the chief officer of customs resident at or near the place where the discharge takes place:

(2) Discharges any seaman or apprentice at any place out of her Majesty's dominions without previously obtaining the sanction so indorsed as aforesaid of the British consular officer there, or (in his absence) of two respectable merchants resident there:

(3) Leaves behind any seaman or apprentice at any place situate in any British possession abroad on any ground whatever, without previously obtaining a certificate in writing so indorsed as aforesaid from such officer or person as aforesaid, stating the fact and the cause thereof, whether such cause be unfitness or inability to proceed to sea, or desertion or disappearance:

(4) Leaves behind any seaman or apprentice at any place out of her Majesty's dominions, on shore or at sea, on any ground whatever, without previously obtaining the certificate indorsed in manner and to the effect last aforesaid of the British consular officer there, or (in his absence)

of two respectable merchants, if there is any such at or near the place where the ship then is: He shall for each such default be deemed guilty of a misdemeanor; and the said functionaries shall and the said merchants may examine into the grounds of such proposed discharge or into the allegation of such unfitness, inability, desertion, or disappearance as aforesaid, in a summary way, and may for that purpose, if they think fit, administer oaths, and may either grant or refuse such sanction or certificate as appears to them to be just. (Sec. 207.)

*Proof of such Certificate to be upon the Master.*—Upon the trial of any information, indictment, or other proceeding against any person for discharging or leaving behind any seaman or apprentice, contrary to the provisions of this Act, it shall be upon such person either to produce the sanction or certificate hereby required, or to prove that he had obtained the same previously to having discharged or left behind such seaman or apprentice, or that it was impracticable for him to obtain such sanction or certificate. (Sec. 208.)

*Wages to be paid when Seamen are left behind on Ground of Inability.*—Every master of any British ship who leaves any seaman or apprentice on shore at any place abroad in or out of her Majesty's dominions, under a certificate of his unfitness or inability to proceed on the voyage, shall deliver to one of the functionaries aforesaid or (in the absence of such functionaries) to the merchants by whom such certificate is signed, or, if there be but one respectable merchant resident at such place, to him, a full and true account of the wages due to such seaman or apprentice, such account when delivered to a consular officer to be in duplicate, and shall pay the same either in money or by a bill drawn upon the owner; and in the case of every bill so drawn, such functionary, merchants, or merchant as aforesaid, shall by indorsement certify thereon that the same is drawn for money due on account of a seaman's wages, and shall also indorse the amount for which such bill is drawn with such further particulars in respect of the case as the Board of Trade requires, upon the agreement of the ship; and every such master as aforesaid who refuses or neglects to deliver a full account of such wages, and pay the amount thereof in money or by bill, as hereinbefore required, shall for every such offence or default be liable, in addition to the payment of the wages, to a penalty not exceeding 10*l.*; and every such master who delivers a false account of such wages shall for every such offence, in addition to the payment of the wages, incur a penalty not exceeding 20*l.* (25 & 26 Vict. c. 63 s. 209.)

*Payment of Wages to Seamen abroad under Section 209 of Principal Act.*—The payment of seamen's wages required by the 209th section of the principal Act shall, whenever it is practicable so to do, be made in money and not by bill; and in cases where payment is made by bill drawn by the master, the owner of the ship shall be liable to pay the amount for which the same is drawn to the holder or indorsee thereof; and it shall not be necessary in any proceeding against the owner upon such bill to prove that the master had authority to draw the same; and any bill purporting to be drawn in pursuance of the said section, and to be indorsed as therein required, if produced out of the custody of the Board of Trade or of the registrar-general of seamen, or of any superintendent of any mercantile marine office, shall be received in evidence; and any indorsement on any such bill purporting to be made in pursuance of the said section, and to be signed by one of the functionaries therein mentioned, shall also be re-

ceived in evidence, and shall be deemed to be prima facie evidence of the facts stated in such indorsement.

Clause 210 of 17 & 18 Vict. c. 104 directs that such wages are to be treated as money due to the seamen, subject to payment of expense of their subsistence and passage home.

*Distressed Seamen found Abroad may be relieved and sent Home at the Public Expense.*—The governors, consular officers, and other officers of her Majesty in foreign countries shall, and in places where there are no such governors or officers any two resident British merchants may, provide for the subsistence of all seamen or apprentices, being subjects of her Majesty, who have been shipwrecked, discharged, or left behind at any place abroad, whether from any ship employed in the merchant service or from any of her Majesty's ships, or who have been engaged by any person acting either as principal or agent to serve in any ship belonging to any foreign power or to the subject of any foreign state, and who are in distress in any place abroad, until such time as they are able to provide them with a passage home, and for that purpose shall cause such seamen or apprentices to be put on board some ship belonging to any subject of her Majesty bound to any port of the United Kingdom, or to the British possession to which they belong (as the case requires), which is in want of men to make up its complement, and in default of any such ship shall provide them with a passage home as soon as possible in some ship belonging to a subject of her Majesty bound as aforesaid, and shall indorse on the agreement of any ship on board of which any seaman or apprentice is so taken or sent the name of every person so sent on board thereof, with such particulars concerning the case as the Board of Trade requires, and shall be allowed for the subsistence of any such seaman or apprentice such sum per diem as the Board of Trade from time to time appoints; and the amount due in respect of such allowance shall be paid out of any moneys applicable to the relief of distressed British seamen, and granted by Parliament for the purpose, on the production of the bill of the disbursements, with the proper vouchers. (17 & 18 Vict. c. 104 s. 211.) The 22nd section of 18 & 19 Vict. c. 91 provides for the return of distressed lascars to India.

*Masters of British Ships compelled to take them.*—The master of every British ship so bound as aforesaid shall receive and afford a passage and subsistence to all seamen or apprentices whom he is required to take on board his ship under the provisions before contained, not exceeding one for every 50 tons burden, and shall during the passage provide every such seaman or apprentice with a proper berth or sleeping-place effectually protected against sea and weather; and on the production of a certificate signed by any governor, consular officer, or merchants by whose directions any such seaman or apprentice was received on board, specifying the number and names of such seamen or apprentices, and the time when each of them respectively was received on board, and on a declaration made by such person before a justice, and verified by the registrar-general of seamen, stating the number of days during which each seaman or apprentice received subsistence and was provided for as aforesaid on board his ship, and stating also the number of men and boys forming the complement of his crew, and the number of seamen and apprentices employed on board his ship during such time, and every variation (if any) of such number, such person shall be entitled to be paid out of the said moneys applicable to the relief

of distressed British seamen, in respect of the subsistence and passage of every seaman or apprentice so conveyed, subsisted, and provided for by him exceeding the number (if any) wanted to make up the complement of his crew, such sum per diem as the Board of Trade from time to time appoints; and if any person having charge of any such ship fails or refuses to receive on board his ship, or to give a passage home, or subsistence to, or to provide for any such seaman or apprentice as aforesaid, contrary to the provisions of this Act, he shall incur a penalty not exceeding 100*l.* for each seaman or apprentice with respect to whom he makes such default or refusal. (17 & 18 Vict. c. 104 s. 212.)

*Relief of Distressed Seamen to be regulated by Board of Trade.*—Whereas under the 211th and 212th sections of the principal Act, and the 16th section of 'The Merchant Shipping Act Amendment Act 1855,' provision is made for relieving and sending home seamen found in distress abroad; and whereas doubts are entertained whether power exists under the said sections of making regulations and imposing conditions which are necessary for the prevention of desertion and misconduct and the undue expenditure of public money: He it enacted, and it is hereby declared, that the claims of seamen to be relieved or sent home in pursuance of the said sections or any of them shall be subject to such regulations and dependent on such conditions as the Board of Trade may from time to time make or impose; and no seaman shall have any right to demand to be relieved or sent home except in the cases and to the extent provided for by such regulations and conditions.

#### *Volunteering into the Navy.*

*Seamen allowed to leave their Ships to enter the Navy.*—Any seaman may leave his ship for the purpose of forthwith entering into the naval service of her Majesty, and such leaving his ship shall not be deemed a desertion therefrom, and shall not render him liable to any punishment or forfeiture whatever; and all stipulations introduced into any agreement whereby any seaman is declared to incur any forfeiture or be exposed to any loss in case he enters into her Majesty's naval service shall be void, and every master or owner who causes any such stipulation to be so introduced shall incur a penalty not exceeding 20*l.* (Sec. 214.)

Clause 215 directs that the clothes of seamen entering the navy are to be delivered at once, and that wages are to be given to the Queen's officer on account of the seamen.

Clauses 217, 218, 219, and 220 relate to the proceedings to be taken by owners who claim extra expenses for having substitutes to replace the seamen who have entered the navy.

It may be asked, Is the power granted by these clauses any longer necessary? And is it not likely to lead to great abuses? Numerous instances might be mentioned where its exercise entirely destroyed that discipline so essential to the good management of merchant ships, and placed the ship herself in peril by the reduction of the crew. No provision is made for the place where the ship may be at the time, or the danger involved by being under-manned, or the difficulty—nay, it might be the impossibility—of obtaining other seamen to fill the places of those who had, under the provisions of this Act, violated the terms of their agreement, and entered her Majesty's service.

We are aware that the Admiralty instructions are to the effect that the captains of our ships of

war are to be cautious how they exercise the power of withdrawing seamen from merchant vessels at distant stations; but we have no hesitation in stating that, however much that power may have been requisite in times past, the necessity for its exercise no longer exists, and if not entirely abolished, it should be confined to periods of war. No such power can be necessary for the welfare of the state during a time of peace.

*6. Provisions, Health, and Accommodation on Board.*—These important objects are now provided for as follows, viz.:—

*Survey of Provisions and Water on Complaint made.*—Any three or more of the crew of any British ship may complain to any officer in command of any of her Majesty's ships, or any British consular officer, or any shipping master, or any chief officer of customs, that the provisions or water for the use of the crew are at any time of bad quality, unfit for use, or deficient in quantity; and such officer may thereupon examine the said provisions or water, or cause them to be examined; and if on examination such provisions or water are found to be of bad quality and unfit for use, or to be deficient in quantity, the person making such examination shall signify the same in writing to the master of the ship; and if such master does not thereupon provide other proper provisions or water in lieu of any so signified to be of a bad quality and unfit for use, or does not procure the requisite quantity of any so signified to be insufficient in quantity, or uses any provisions or water which have been so signified as aforesaid to be of a bad quality and unfit for use, he shall in every such case incur a penalty not exceeding 20*l.*; and upon every such examination as aforesaid the officers making or directing the same shall enter a statement of the result of the examination in the official log, and shall send a report thereof to the Board of Trade, and such report, if produced out of the custody of such Board or its officers, shall be received in evidence in any legal proceeding. (Sec. 221.)

*Forfeiture for Frivolous Complaint.*—If the officer to whom any such complaint as last aforesaid is made certifies in such statement as aforesaid that there was no reasonable ground for such complaint, each of the parties so complaining shall be liable to forfeit to the owner out of his wages a sum not exceeding one week's wages. (Sec. 222.)

*Allowance for short or bad Provisions.*—In the following cases, viz.:—

(1) If during a voyage the allowance of any of the provisions which any seaman has by his agreement stipulated for is reduced (except in accordance with any regulations for reduction by way of punishment contained in the agreement, and also except for any time during which such seaman wilfully and without sufficient cause refuses or neglects to perform his duty, or is lawfully under confinement for misconduct, either on board or on shore):

(2) If it is shown that any of such provisions are or have during the voyage been bad in quality and unfit for use:

The seaman shall receive by way of compensation for such reduction or bad quality, according to the time of its continuance, the following sums, to be paid to him in addition to and to be recoverable as wages; that is to say:—

(1) If his allowance is reduced by any quantity not exceeding one-third of the quantity specified in the agreement, a sum not exceeding 4*l.* per day.

(2) If his allowance is reduced by more than one-third of such quantity, 8*l.* per day.





registered tonnage, under the provisions herein-after contained, unless there is or are in the ship one or more properly constructed privy or privies for the use of the crew; such privy or privies to be of such number and of such construction as may be approved by the surveyor herein-after mentioned.

(4) Every such place shall, whenever the ship is registered or re-registered, be inspected by one of the surveyors appointed by the Board of Trade under Part IV. of the principal Act, who shall, if satisfied that the same is in all respects such as is required by this Act, give to the collector of customs a certificate to that effect, and thereupon such place shall be deducted from the registered tonnage.

(5) No such deduction from tonnage as aforesaid shall be authorised unless there is permanently cut in a beam, and cut in or painted on or over the doorway or hatchway of every such place, the number of men which it is constructed to accommodate, with the words, 'certified to accommodate seamen.'

(6) Every such place shall be kept free from stores or goods of any kind, not being the personal property of the crew in use during the voyage.

(7) Upon any complaint concerning any such place as aforesaid, one of the surveyors appointed by the Board of Trade may inspect such place, and if he finds that any of the provisions of this Act with respect to the same are not complied with he shall report the same to the Collector of Customs at the port where the ship is registered, and thereupon the registered tonnage shall be altered, and the deduction aforesaid in respect of space disallowed, unless and until it shall be certified by such surveyor, or by some other surveyor appointed by the Board of Trade, that the provisions of the Act in respect of such place are fully complied with.

(8) If in any such place in any ship is not kept free from goods and stores as aforesaid, the master shall be deemed to be in fault, and shall for every such failure to comply with the provisions of this section forfeit and pay to each seaman lodged in such place the sum of one shilling a day for each day after complaint made to him by any two or more of such seamen during which any goods or stores, not being the personal property of the crew, are stored or kept therein.

(9) If in any other respect the provisions of this section are not observed with respect to any such place in any ship the owner shall be deemed to be in fault, and shall for every failure to comply with the provisions of this section incur a penalty not exceeding 20*l.* (80 & 31 Vict. c. 124 s. 9.)

#### *Power of making Complaint.*

*Seamen to be allowed to go ashore to make Complaint to a Justice.*—If any seaman or apprentice whilst on board any ship states to the master that he desires to make complaint to a justice of the peace, or consular officer, or naval officer in command of any of her Majesty's ships, against the master or any of the crew, the said master shall, if the ship is then at a place where there is a justice or any such officer as aforesaid, so soon as the service of the ship will permit, and if the ship is not then at such a place so soon after her first arrival at such a place as the service of the ship will permit, allow such seaman or apprentice to go ashore or send him ashore in proper custody, so that he may be enabled to make such complaint, and shall, in default, incur a penalty not exceeding 10*l.* (17 & 18 Vict. c. 104 s. 282.)

#### *Protection of Seamen from Imposition.*

*Sale of and Charge upon Wages to be invalid.*—No wages due or accruing to any seaman or apprentice shall be subject to attachment or arrestment from any court; and every payment of wages to a seaman or apprentice shall be valid in law, notwithstanding any previous sale or assignment of such wages, or of any attachment, incumbrance, or arrestment thereon; and no assignment or sale of such wages or of salvage made prior to the accruing thereof shall bind the party making the same; and no power of attorney or authority for the receipt of any such wages or salvage shall be irrevocable. (Sec. 233.)

*No Debt exceeding 5*s.* recoverable till End of Voyage.*—No debt exceeding in amount 5*s.* incurred by any seaman after he has engaged to serve shall be recoverable until the service agreed for is concluded. (Sec. 234.)

*Penalty for Overcharges by Lodging-house Keepers.*—If any person demands or receives from any seaman or apprentice to the sea service, payment in respect of his board or lodging in the house of such person for a longer period than such seaman or apprentice has actually resided or boarded therein, he shall incur a penalty not exceeding 10*l.* (Sec. 235.)

*Penalty for detaining Seamen's Effects.*—If any person receives or takes into his possession or under his control, any moneys, documents, or effects of any seaman or apprentice to the sea service, and does not return the same or pay the value thereof, when required by such seaman or apprentice, subject to such deduction as may be justly due to him from such seaman or apprentice in respect of board or lodging, or otherwise, or demands there-with, he shall incur a penalty not exceeding 10*l.*; and any two justices may, besides inflicting such penalty, by summary order, direct the amount of value of such moneys, documents, or effects, subject to such deduction as aforesaid, to be forthwith paid to such seaman or apprentice. (Sec. 236.)

*Persons not to go on board before the final Arrival of Ships without Permission.*—Every person who, not being in her Majesty's service, and not being duly authorised by law for the purpose, goes on board any ship about to arrive at the place of her destination, before her actual arrival in dock or at the place of her discharge, without the permission of the master, shall for every such offence incur a penalty not exceeding 20*l.*; and the master or person in charge of such ship may take any such person so going on board as aforesaid into custody, and deliver him up forthwith to any constable or peace officer, to be by him taken before a justice or justices or the sheriff of the county in Scotland, and to be dealt with according to the provisions of this Act. (Sec. 237.)

*Penalty for Solicitations by Lodging-house Keepers.*—If, within 24 hours after the arrival of any ship at any port in the United Kingdom, any person then being on board such ship solicits any seaman to become a lodger at the house of any person letting lodgings for hire, or takes out of such ship any effects of any seaman except under his personal direction and with the permission of the master, he shall for every such offence incur a penalty not exceeding 5*l.* (Sec. 238.)

For the next four clauses, see MASTER.  
7. *Crimes Committed on the High Seas and Abroad.*—Clause 267 directs that all offences committed by seamen at sea or in foreign parts shall be within Admiralty jurisdiction; and by the subsequent Acts already cited these crimes are now punishable in the colonies and India.

*Conveyance of Offenders and Witnesses to United Kingdom &c.*—The following rules shall

*Seamen from Imposition.*

upon Wages to be invalid.—Referring to attachment or arrest, and every payment of wages and sentence shall be valid in law, previous sale or assignment, any attachment, incumbrance, and no assignment or sale of salvage made prior to the time shall bind the party making the same, or of attorney or authority for such wages or salvage shall be void. (Sec. 233.)

§ 58. recoverable till End of voyage.—If any seaman after he has engaged to serve until the service agreed for is discharged, the wages shall be recoverable till the end of the voyage. (Sec. 234.)

*Penalties by Lodging-house Keepers.*—If any seaman or apprentice is taken on board or receives from any person to the sea service, payment for board or lodging in the house of any person for a longer period than such seaman or apprentice actually resided or boarded, the person shall be liable to a penalty not exceeding 10*l*. (Sec. 235.)

*Seaman's Effects.*—If any seaman or apprentice takes into his possession or under his control any money, documents, or effects of any person or apprentice to the sea service, and some or pay the value thereof, such seaman or apprentice, or any other person, shall be liable to a penalty not exceeding 10*l*. If any seaman or apprentice, besides inflicting such a penalty, directs the amount of any money, documents, or effects, taken into his possession as aforesaid, to be forthwith paid to any person or apprentice. (Sec. 236.)

*Seaman on board before the final Arrived Permission.*—Every person who is taken on board her Majesty's service, and not previously authorised by law for the purpose, shall be liable to a penalty not exceeding 10*l*. If any seaman or apprentice is taken on board or receives from any person to the sea service, payment for board or lodging in the house of any person for a longer period than such seaman or apprentice actually resided or boarded, the person shall be liable to a penalty not exceeding 10*l*. (Sec. 237.)

*Penalties by Lodging-house Keepers.*—If any seaman or apprentice is taken on board or receives from any person to the sea service, payment for board or lodging in the house of any person for a longer period than such seaman or apprentice actually resided or boarded, the person shall be liable to a penalty not exceeding 10*l*. (Sec. 238.)

*Penalties by Lodging-house Keepers.*—If any seaman or apprentice is taken on board or receives from any person to the sea service, payment for board or lodging in the house of any person for a longer period than such seaman or apprentice actually resided or boarded, the person shall be liable to a penalty not exceeding 10*l*. (Sec. 239.)

*Offenders and Witnesses to Offences.*—The following rules shall

be observed with respect to offences committed on the high seas or abroad, viz. :—

(1) Whenever any complaint is made to any British consular officer of any offence on the high seas having been committed by any master, seaman, or apprentice belonging to any British ship, such consular officer may enquire into the case upon oath, and may, if the case so requires, take any steps in his power for the purpose of placing the offender under necessary restraint, and of sending him as soon as practicable in safe custody to the United Kingdom, or to any British possession in which there is a court capable of taking cognisance of the offence, in any ship belonging to her Majesty, or to any of her subjects, to be there proceeded against according to law.

(2) For the purpose aforesaid such consular officer may order the master of any ship belonging to any subject of her Majesty, bound to the United Kingdom, or to such British possession as aforesaid, to receive and afford a passage and subsistence during the voyage to any such offender as aforesaid, and to the witnesses, so that such master be not required to receive more than one offender for every 100 tons of his ship's registered tonnage, or more than one witness for every 50 tons of such tonnage; and such consular officer shall indorse upon the agreement of the ship such particulars with respect to any offenders or witnesses sent in her as the Board of Trade requires.

(3) Every such master shall, on his ship's arrival in the United Kingdom, or in such British possession as aforesaid, give every offender so committed to his charge into the custody of some police officer or constable, who shall take the offender before a justice of the peace or other magistrate by law empowered to deal with the matter, and such justice or magistrate shall deal with the matter as in cases of offences committed upon the high seas.

And any such master as aforesaid who, when required by any British consular officer to receive and afford a passage and subsistence to any offender or witness, does not receive him and afford such passage and subsistence to him, or who does not deliver any offender committed to his charge into the custody of some police officer or constable as hereinbefore directed, shall for each such offence incur a penalty not exceeding 50*l*, and the expense of imprisoning any such offender and of conveying him and the witnesses to the United Kingdom or to such British possession as aforesaid in any manner other than in the ship to which they respectively belong, shall be part of the costs of the prosecution, or be paid as costs incurred on account of seafaring subjects of her Majesty left in distress in foreign parts. (Sec. 238.)

*Enquiry into Cause of Death on board.*—Whenever any case of death happens on board any foreign-going ship, the shipping master shall on the arrival of such ship at the port where the crew is discharged enquire into the cause of such death, and shall make on the list of the crew delivered to him as herein required an indorsement to the effect either that the statement of the cause of death therein contained is in his opinion true or otherwise, as the result of the enquiry requires; and every such shipping master shall for the purpose of such enquiry have the power hereby given to inspectors appointed by the Board of Trade under the first part of this Act; and if in the course of such enquiry it appears to him that any such death as aforesaid has been caused by violence or other improper means, he

shall either report the matter to the Board of Trade, or, if the emergency of the case so requires, shall take immediate steps for bringing the offender or offenders to justice. (Sec. 239.)

*Depositions to be received in Evidence when Witness cannot be produced.*—Whenever in the course of any legal proceedings instituted in any part of her Majesty's dominions before any judge or magistrate, or before any person authorised by law or by consent of parties to receive evidence, the testimony of any witness is required in relation to the subject-matter of such proceeding, then upon due proof, if such proceeding is instituted in the United Kingdom, that such witness cannot be found in that kingdom, or if in any British possession, that he cannot be found in the same possession, any deposition that such witness may have previously made on oath in relation to the same subject-matter before any justice or magistrate in her Majesty's dominions, or any British consular officer elsewhere, shall be admissible in evidence, subject to the following restrictions, viz. :—

(1) If such deposition was made in the United Kingdom, it shall not be admissible in any proceeding instituted in the United Kingdom.

(2) If such deposition was made in any British possession, it shall not be admissible in any proceeding instituted in the same British possession.

(3) If the proceeding is criminal, it shall not be admissible unless it was made in the presence of the person accused.

Every deposition so made as aforesaid shall be authenticated by the signature of the judge, magistrate, or consular officer, before whom the same is made; and such judge, magistrate, or consular officer shall, when the same is taken in a criminal matter, certify if the fact is so, and that the accused was present at the taking thereof, but it shall not be necessary in any case to prove the signature or official character of the person appearing to have signed any such deposition; and in any criminal proceeding such certificate as aforesaid shall, unless the contrary is proved, be sufficient evidence of the accused having been present in manner thereby certified; but nothing herein contained shall affect any case in which depositions taken in any proceedings are rendered admissible in evidence by any Act of Parliament, or by any act or ordinance of the legislature of any colony, so far as regards such colony, or to interfere with the power of any colonial legislature to make such depositions admissible in evidence, or to interfere with the practice of any court in which depositions not authenticated as hereinbefore mentioned are admissible. (Sec. 270.)

8. *Registration of and Returns respecting Seamen.* [LOG, OFFICIAL.]—*Establishment of Register Office.*—There shall be in the port of London an office, to be called the 'General Register and Record Office of Seamen,' and the Board of Trade shall have control over the same, and may appoint and from time to time remove a registrar-general, and such assistants, clerks, and servants as may be necessary, and may from time to time, with the consent of the Treasury, regulate their salaries and allowances; and such salaries and allowances, and all other necessary expenses, shall be paid by the Treasury out of any moneys, to be granted by Parliament for that purpose; and the Board of Trade may direct the business of the register office at any of the outports to be transacted at the shipping office, or, with the consent of the Commissioners of Customs, at the custom-house of the port, and may appoint the shipping master, or, with such consent as aforesaid, some officer of customs, to conduct the same; and such business shall thereupon be

conducted accordingly, but shall in all cases be subject to the immediate control of the Board of Trade. (Sec. 271.)

*Register of Seamen to be kept.*—The said registrar-general of seamen shall, by means of the agreements, lists, and other papers to be transmitted to him as herein directed, or by such other means as are in his power, keep a register of all persons who serve in ships subject to the provisions of this Act. (Sec. 272.)

*Lists to be made for all Ships, containing certain Particulars.*—Every master of every foreign-going ship of which the crew is discharged in the United Kingdom, in whatever part of her Majesty's dominions the same is registered, and of every home trade ship, shall make out and sign a list in a form sanctioned by the Board of Trade, containing the following particulars, viz. :—

(1) The number and date of the ship's register and her registered tonnage.

(2) The length and general nature of the voyage or employment.

(3) The Christian names, surnames, ages, and places of birth of all the crew, including the master and apprentices; their qualities on board, their last ships or other employments, and the dates and places of their joining the ship.

(4) The names of any members of the crew who have died or otherwise ceased to belong to the ship, with the times, places, causes, and circumstances thereof.

(5) The names of any members of the crew who have been maimed or hurt, with the times, places, causes and circumstances thereof.

(6) The wages due to any of the crew who have died, at the times of their respective deaths.

(7) The clothes and other effects belonging to any of the crew who have died, with a statement of the manner in which they have been dealt with, and the money for which any of them have been sold.

(8) The name, age, and sex of every person, not being one of the crew, who dies on board, with the date and the cause thereof.

(9) Every birth which happens on board, with the date thereof, with the sex of the infant, and the names of the parents.

(10) Every marriage which takes place on board, with the date thereof, and the names and ages of the parties.

*Lists for foreign-going Ships to be delivered to Shipping Master.*—In the case of foreign-going ships, the master shall, within 48 hours after the ship's arrival at her final port of destination in the United Kingdom, or upon the discharge of the crew, whichever first happens, deliver to the shipping master before whom the crew is discharged such list as is herein required, and if he fail so to do shall for every default incur a penalty not exceeding 5*l.*; and such shipping master shall thereupon give to the master a certificate of such delivery; and no officer of customs shall clear inwards any foreign-going ship, without the production of such certificate, and any such officer may detain any such ship until the same is produced. (Sec. 274.)

*Lists to be delivered by home trade Ships half-yearly.*—The master or owner of every home trade ship shall, within 21 days after June 30 and December 31, in every year, transmit or deliver to some shipping master in the United Kingdom, such list as hereinbefore required for the preceding half-year, and shall in default incur a penalty not exceeding 5*l.*; and such shipping master shall give to the master or owner a certificate of such transmission or delivery; and no officer of customs shall grant a clearance or

transire for any home trade ship without the production of such certificate, and any such officer may detain any such ship until the same is produced. (Sec. 275.)

*Lists to be sent Home in case of Transfer of Ship and in case of Loss.*—If any ship cease, by reason of transfer of ownership or change of employment, to fall within the definition of a foreign-going or of a home trade ship, the master or owner thereof shall, if such ship is then in the United Kingdom, within 1 month, and if she is elsewhere, within 6 months, deliver or transmit to the shipping master at the port to which the ship has belonged such list as before mentioned, duly made out to the time at which she ceased to be a foreign-going or home trade ship, and in default shall for each offence incur a penalty not exceeding 10*l.*; and if any ship is lost or abandoned, the master or owner thereof shall, if practicable, and as soon as possible, deliver or transmit to the shipping master at the port to which the ship belonged such list as hereinbefore mentioned, duly made out to the time of such loss or abandonment, and in default shall for each offence incur a penalty not exceeding 10*l.* (Sec. 276.)

*Shipping Masters and other Officers to transmit Documents to Registrar.*—All shipping masters and officers of customs shall take charge of all documents which are delivered or transmitted to or retained by them in pursuance of this Act, and shall keep them for such time (if any) as may be necessary for the purpose of settling any business arising at the place where such documents come into their hands, or for any other proper purpose, and shall, if required, produce them for any of such purposes, and shall then transmit them to the registrar-general of seamen, to be by him recorded and preserved; and the said registrar shall, on payment of a moderate fee to be fixed by the Board of Trade, or without payment of any fee if the Board of Trade so direct, allow any person to inspect the same; and in cases in which the production of the original of any such document in any court of justice or elsewhere is essential, shall produce the same, and in other cases shall make and deliver to any person requiring it a certified copy of any such document or of any part thereof; and every copy purporting to be so made and certified shall be received in evidence, and shall have all the effect of the original of which it purports to be a copy. (Sec. 277.)

*Officers of Customs to make Returns.*—The collector or comptroller of customs at every port in the United Kingdom, shall on or before February 1 and August 1 in every year transmit to the registrar-general of seamen a list of all ships registered in such port, and also of all ships whose registers have been transferred or cancelled in such port since the last preceding return. (Sec. 278.)

*Agreements, Indentures, and Assignments, on Arrival at a Foreign Port, to be deposited with the Consul; at a Colony, with the Officers of Customs.*—The following rules shall be observed with respect to the delivery of documents to British consular officers (that is to say):—

(1) Whenever any ship, in whatever part of her Majesty's dominions the same is registered (except ships whose business for the time being is to carry passengers), arrives at any foreign port where there is a British consular officer, or at any port in any British possession abroad, and remains thereat for 48 hours, the master shall, within 48 hours of the ship's arrival, deliver to such consular officer, or to the chief officer of customs (as the case may be), the agreement with the crew, and also all indentures and assignments of apprenticeships, or, in the case of a ship belonging to a

British possession, such of the said documents as such ship is provided with.

(2) Such officer shall keep such documents during the ship's stay in such port, and, in cases where any indorsements upon the agreement are hereby required, shall duly make the same, and shall return the said documents to the master a reasonable time before his departure, with a certificate indorsed on the agreement, stating when the same were respectively delivered and returned.

(3) If it appears that the required forms have been neglected, or that the existing laws have been transgressed, such officer shall make an indorsement to that effect on the agreement, and forthwith transmit a copy of such indorsement, with the fullest information he can collect regarding such neglect or transgression, to the registrar-general of seamen.

And if any master fails to deliver any such document as aforesaid he shall, for every such default, incur a penalty not exceeding 20*l.*; and in any prosecution for such penalty it shall lie upon the master either to produce the certificate of the consular officer or officer of customs hereinbefore required, or to prove that he duly obtained the same, or that it was impracticable for him so to do. (Sec. 279.)

**9. Regulations in regard to taking Apprentices on board Ship.**—We have already noticed, under the article APPRENTICE, the important fact that it is no longer necessary that any ship, whether she be above or below 80 tons burden, should take on board any apprentice or apprentices. But though no longer compulsory, they may be, and continue to be, taken. The following clauses of the Merchant Shipping Act relate to the binding of such apprentices, more especially of those which are appreciated by guardians or overseers of the poor.

**Shipping Masters to assist in binding Apprentices.**—All shipping masters appointed under this Act, shall, if applied to for the purpose, give to any board of guardians, overseers, or other persons desirous of apprenticing boys to the sea service, and to masters and owners of ships requiring apprentices, such assistance as is in their power for facilitating the making of such apprenticeships, and may receive from persons availing themselves of such assistance such fees as may be determined by the Board of Trade, with the concurrence, so far as relates to pauper apprentices in England, of the poor law board in England, and so far as relates to pauper apprentices in Ireland, of the poor law commissioners in Ireland. (Sec. 141.)

**Indenture of Apprentices to Sea Service by Guardians &c. to be witnessed by 2 Justices.**—In the case of every boy bound apprentice to the sea service by any guardians or overseers of the poor, or other persons having the authority of guardians of the poor, the indentures shall be executed by the boy and the person to whom he is bound in the presence of and shall be attested by 2 justices of the peace, who shall ascertain that the boy has consented to be bound, and has attained the age of 12 years, and is of sufficient health and strength, and that the master to whom the boy is to be bound is a proper person for the purpose. (Sec. 142.)

**Indentures of Apprenticeship to be exempt from Stamp Duty.**—All indentures of apprenticeship to the sea service shall be exempt from stamp duty; and all such indentures shall be in duplicate; and every person to whom any boy whatever is bound as an apprentice to the sea service in the United Kingdom, shall within 7 days after the execution of the indentures take or transmit the same to the registrar-general of seamen or to some shipping

master; and the said registrar or shipping master shall retain and record one copy, and shall indorse on the other that the same has been recorded, and shall re-deliver the same to the master of the apprentice; and whenever any such indenture is assigned or cancelled, and whenever any such apprentice dies or deserts, the master of the apprentice shall, within 7 days after such assignment, cancellation, death, or desertion, if the same happens within the United Kingdom, or if the same happens elsewhere so soon afterwards as circumstances permit, notify the same either to the said registrar of seamen, or to some shipping master, to be recorded; and every person who fails to comply with the provisions of this section shall incur a penalty not exceeding 10*l.* (Sec. 143.)

**Rules to govern Apprenticeship of Paupers in Britain and Ireland.**—Subject to the provisions before contained, all apprenticeships to the sea service made by any guardians or overseers of the poor, or persons having the authority of guardians of the poor, shall, if made in Great Britain, be made in the same manner and be subject to the same laws and regulations as other apprenticeships made by the same persons, and if made in Ireland shall be subject to the following rules; viz.:

(1) In every union the guardians of the poor, or other persons duly appointed to carry into execution the Acts for the relief of the destitute poor and having the authority of guardians of the poor, may put out and bind as an apprentice to the sea service any boy who or whose parent or parents is or are receiving relief in such union, and who has attained the age of 12 years, and is of sufficient health and strength, and who consents to be so bound.

(2) If the cost of relieving any such boy is chargeable to an electoral division of a union, then (except in cases in which paid officers act in place of guardians) he shall not be bound unless the consent in writing of the guardians of such electoral division or of a majority of the guardians (if more than one) be first obtained, such consent to be, when possible, indorsed upon the indentures.

(3) The expense incurred in the binding and outfit of an apprentice shall be charged to the union or electoral division (as the case may be) to which the boy or his parent or parents is or are chargeable at the time of his being apprenticed.

(4) All indentures made in any union may be sued upon by the guardians of the union or persons having the authority of guardians therein for the time being, by their name of office, and actions brought by them upon such indentures shall not abate by reason of death or change in the persons holding the office; but no such action shall be commenced without the consent of the Irish poor law commissioners.

(5) The amount of the costs incurred in any such action and not recovered from the defendant therein, may be charged upon the union or electoral division (as the case may be) to which the boy or his parent or parents was or were chargeable at the time of his being apprenticed. (Sec. 144.)

**Apprentices and their Indentures to be brought before Shipping Master before Voyage.**—The master of every foreign-going ship shall, before carrying any apprentice to sea from any place in the United Kingdom, cause such apprentice to appear before the shipping master before whom the crew is engaged, and shall produce to him the indenture by which such apprentice is bound and the assignment or assignments thereof (if any); and the name of such apprentice, with the date of the

to trade ship without the pro-  
leats, and any such officer may  
until the same is produced.

**Time in case of Transfer of Ship.**

—If any ship cease, by reason  
of change of employ-  
ment, the definition of a foreign-  
trade ship, the master or owner  
of such ship is then in the United  
Kingdom, and if she is elsewhere,  
the master or owner shall deliver or transmit to the ship-  
port to which the ship has be-  
fore mentioned, duly made  
before mentioned, duly made  
which she ceased to be a foreign-  
trade ship, and in default shall for  
a penalty not exceeding 10*l.*; or  
for loss or abandonment, the master  
of such ship, if practicable, and as soon  
as possible, transmit to the ship-  
port to which the ship belonged such list  
of names as are mentioned, duly made out to the  
said port, and in default  
shall incur a penalty not exceeding

**Officers and other Officers to transmit**

**to Registrar.**—All shipping masters  
of ships of 20 tons shall take charge of all  
documents delivered or transmitted to  
them in pursuance of this Act, and  
at such time (if any) as may be  
required for the purpose of settling any business  
concerning where such documents come  
for or for any other proper purpose,  
and shall produce them for any of  
the purposes mentioned, and shall  
transmit them to the registrar of  
seamen, to be by him re-  
ceived; and the said registrar shall,  
for a moderate fee to be fixed by the  
Board of Trade, or without payment of any fee if  
so directed, allow any person to  
inspect the same; and in cases in which the  
presence of any such document in  
such office or elsewhere is essential, shall  
be, and in other cases shall make  
such person requiring it a certified  
copy of the document or of any part thereof;  
and every person purporting to be so made  
and received in evidence, and shall  
be of the original of which it pur-  
ports to be a copy. (Sec. 277.)

**Documents to make Returns.**—The  
officer of customs at every port in  
England, shall on or before February  
1st in every year transmit to the  
registrar a list of all ships  
of 20 tons or more, and also of all ships whose  
names have been transferred or cancelled in such  
list in the preceding return. (Sec. 278.)

**Indentures, and Assignments, on Foreign Ports, to be deposited with the**  
**Officers of Customs.**—The following  
provisions shall be observed with respect  
to documents to British consular  
officers (to say):—  
In any ship, in whatever part of her  
voyage she is registered (ex-  
cept in the case of the time being is  
not a British ship), arrives at any foreign port  
of call, or at any British consular office, or at any  
other place in British possession abroad, and remains  
there for more than 24 hours, the master shall, within 48  
hours of the arrival, deliver to such consular  
officer, or chief officer of customs (as the  
case may be), a copy of the agreement with the crew, and  
of the assignments of apprentices  
and assignments of apprentices  
in the case of a ship belonging to a

indenture and of the assignment or assignments thereof (if any), and the name of the port or ports at which the same have been registered, shall be entered on the agreement; and for any default in obeying the provisions of this section the master shall for each offence incur a penalty not exceeding 5*l.* (Sec. 145.)

*Seamen (Corporation for Relief of).*—During the reign of George II. an establishment attached to Greenwich Hospital was erected by the 20 Geo. II. c. 38 'for the relief and support of disabled seamen, and the widows and children of such as shall be killed, slain, or drowned in the merchant ship, or other private ship or vessel, belonging to any of his Majesty's subjects in England (except apprentices under the age of 18, persons employed in boats upon the coast in taking fish which are brought fresh on shore, or in boats within rivers, or upon boats on the coasts, and pilots—except persons employed in the service of the East India Company, and who were not entitled to the benefit of this institution, being provided for by a fund established by the Company), paid 6*d.* per month, which was deducted out of his wages by the master, and paid over to the persons appointed under the authority of the Act at the port to which the ship belonged, before she was allowed to clear inwards. For the management and distribution of this fund, a corporation was created, composed chiefly of eminent merchants, with power to purchase lands and erect an hospital, and to provide for seamen rendered incapable of service by sickness, wounds, or other accidental misfortunes, and decrepit and worn out by age, either by receiving them into the hospital, or by pensions: and also to relieve the widows and children of seamen killed or drowned in the merchant service, provided the children are not of the age of 14 years; or if of that age and upwards are incapable of getting a livelihood by reason of lameness, blindness, or other infirmity, and are proper objects of charity; and to make reasonable allowances to those who shall lose an eye or a limb, or be otherwise hurt or maimed, in fighting, defending, or working their ships, or doing any other duty in their service, in proportion to their hurt; so far forth as the income and revenues of the charity will extend for these purposes. But no person is to be provided for as a worn-out seaman who has not been employed in the merchant service five years and paid the contribution. And in providing for this class a preference is given to such as have served longest and contributed most.

In order to ascertain the times of service and payment of the contribution, the master was obliged to keep a muster-roll of the persons employed in the ship, and had before her departure to deliver a duplicate to the collector or receiver of duties for the seamen's hospital at the port; and, during the voyage, to enter the time and place of discharge, quitting, and desertion, and of receiving other persons on board, and of any hurt, damage, death, or drowning; of which he had also to deliver a duplicate at his return, under the penalty of 20*l.*, to the truth whereof he might be examined upon oath by the collector. And in case any person employed on board any ship or vessel should, in doing his duty on shore or on board, break an arm or a leg, or be otherwise hurt or maimed, he was to be properly relieved until sufficiently recovered to be sent to the place to which the ship belonged.

But, notwithstanding the praiseworthy principle on which this establishment was founded, it was not found to be productive of the benefits, in

a practical point of view, that had been anticipated. Perhaps this was to be in part explained by the circumstance of its being attached to Greenwich Hospital, which is peculiarly intended as a retreat for the worn-out and disabled seamen belonging to the Royal Navy. But, however this may be, it appears from accounts laid before Parliament, that in 1829, when the merchant seamen paid an annual contribution of 26,137*l.* to the hospital, there was not one of them within its walls, except such as had also served on board line-of-battle ships. The system was, in consequence, much complained of by the seamen and others interested in the merchant service; and it is obvious that these complaints were not unfounded, and that the seamen reaped no advantage from the institution at all equivalent to the sacrifice they made for its support.

To obviate this state of things, a new system was introduced in 1835, when it was ordered, by the Act 4 & 5 Wm. IV. c. 34, that the contribution of 6*d.* per month by seamen in the merchant service to Greenwich Hospital should cease from January 1, 1835; and that 20,000*l.* a-year should be advanced from the consolidated fund to the Hospital to make good the deficiency caused by the cessation of such contribution.

*New Establishment for Support of Merchant Seamen &c.*—And to provide still more effectually for the relief and support of maimed and disabled merchant seamen, and of the widows &c. of those killed or drowned in the merchant service, the Act 4 & 5 Wm. IV. c. 52 was passed. This Act repealed the 20 Geo. II. c. 38, except in so far as it related to the establishment of the corporation of the president and governors for the relief of maimed &c. merchant seamen, and of the widows and children of seamen killed or drowned in the merchant service; and it also repealed as much of the Act 37 Geo. III. c. 73 as related to the wages of seamen-dying while employed in ships trading to the West Indies. And having thus cleared the way, it proceeded to introduce a new system, which was further extended and perfected by the 6 & 7 Wm. IV. c. 15, and the 7 & 8 Vict. c. 112. Under this system, all masters of British ships, whether owners or not, and all British seamen employed in navigating the same, were obliged to contribute certain sums out of their wages to the support of the Merchant Seamen's Fund. In the case of seamen this contribution, which, in the first instance, was only 6*d.* per month, was subsequently raised to 2*s.* per month. And in addition to these contributions, the wages and other effects of deceased seamen were, in the event of their not being claimed by their relations, paid over to the fund.

In a former edition we stated that the contribution to this fund amounted, in 1842, in London and the ports under the management of the society, to 16,936*l.*; and that a large additional sum was also collected at the outports. And we pointed out the abuses connected with its management, and especially that the expenses of collecting seemed to be quite enormous, amounting to from 8 to 10, and sometimes even 15 per cent. and upwards, of the sums received.

These abuses were not rectified; and in consequence partly of their operation, and partly of too large a proportion of the available funds of the society having been distributed among the widows and children of the seamen, the system became very unpopular among the latter. And Government, being aware of the reasonableness of this feeling, passed an Act in 1851, for winding up the fund.

Another institution for the benefit of merchant

seamen is the *Seamen's Hospital Society*, established in 1821, and incorporated by the 3 & 4 Wm. IV. c. 9. It is supported by voluntary contributions, and by a payment from the Treasury equal to the sums annually paid into the exchequer on account of fines or penalties inflicted under the Mercantile Shipping Act of 1854 &c.

Provisions for affording aid to merchant seamen when abroad and in distress are embodied in the Acts 17 & 18 Vict. c. 104 ss. 211, 212, 18 & 19 Vict. c. 91, s. 16, and 25 & 26 Vict. c. 63 s. 22.

**SEAWORTHY.** A term applied to a ship, indicating that she is in every respect fit for her voyage. It is provided in all charterparties, that the vessel chartered shall be 'tight, staunch, and strong, well apparelled, furnished with an adequate number of men and mariners, tackle, provisions &c.' If the ship be insufficient at any of these particulars, the owners, though ignorant of the circumstance, will be liable for whatever damage may, in consequence, be done to the goods of the merchant, and if an insurance have been effected upon her, it will be void.

Whether the condition of seaworthiness be in the charterparty or not, it is always implied. 'In every contract,' said Lord Ellenborough, 'between a person holding himself forth as the owner of a lighter or vessel ready to carry goods for hire, and the person putting goods on board, or employing his vessel or lighter for that purpose, it is a term of the contract on the part of the lighterman or carrier implied by law, that his vessel is tight, and fit for the purpose for which he offers and holds it forth to the public; it is the immediate foundation and substratum of the contract that it is so: the law presumes a promise to that effect on the part of the carrier, without any actual proof; and every reason of sound policy and public convenience requires that it should be so.'

Not only must the ship and furniture be sufficient for the voyage, but she must also be furnished with a sufficient number of persons of competent skill and ability to navigate her. And for sailing down rivers, out of harbours, or through roads &c., where either by usage or the laws of the country a pilot is required, a pilot must be taken on board. But no owner or master of a ship shall be answerable for any loss or damage by reason of no pilot being on board, unless it shall be proved that the want of a pilot shall have arisen from any refusal to take a pilot on board; or from the negligence of the master in not heaving to, for the purpose of taking on board any pilot who shall be ready and offer to take charge of the ship. (48 Geo. III. c. 164.)

A ship is not seaworthy unless she be provided with all the documents or papers necessary for the manifestation of the ship and cargo. Neither is she seaworthy; if, during war, she be not supplied with the sails required to facilitate her escape from an enemy. 'It is not sufficient to defeat the liability of the owner, that he did not know that the ship was not seaworthy, for he ought to have known that she was so at the time he chartered her. The sufficiency of the ship is the foundation of the contract between the parties, and a ship not capable of conveying the goods in a proper state is a failure of the condition precedent to the whole contract. The seaworthiness of the ship is not a question of fraud or good intention, but it is a positive stipulation that the ship shall be so; and, therefore, although the owner may himself have been deceived by the shipbuilder, repairer &c., if the vessel be, in fact, unseaworthy, have an insufficient bottom or unsound timbers, it is a breach of a preliminary condition, and is fatal, as such,

to the contract.' (Holt's *Law of Shipping*, 2nd ed. p. 383.)

It is only necessary, to guarantee the owners from loss, that the ship should be seaworthy at the time of her departure. She may cease to be so in a few hours, and yet they may not be liable. The question to be decided in such cases always is, whether the ship's disability arose from any defect existing in her before her departure, or from a cause which occasioned it afterwards. But if a ship, within a day or two of her departure, become leaky or foundered at sea, or be obliged to put back, without any visible or adequate cause to produce such an effect—such as the starting of a plank or other accident to which the best ships are liable, and which no human prudence can prevent—the fair presumption is that she was not seaworthy when she sailed; and it will be incumbent on the owners to show that she was seaworthy at that time. They are liable for damage occasioned by every injury arising from any original defect in the ship, or from bad stowage; but they are not liable for any injury arising from the act of God, the king's enemies, or the perils of the sea.

It is further to be observed, that how perfect soever a ship may be, yet, if, from the nature of her construction, or any other cause, she be incapable of performing the proposed voyage, with the proposed cargo on board, she is not seaworthy. She must be, in all respects, fit for the trade in which she is meant to be employed. And it is a wholesome rule, that the owners should be held to a pretty strict proof of this.

It has been already observed, that any defect in a point of seaworthiness invalidates an insurance. There is not only an express but an implied warranty in every policy, that the ship shall be 'tight, staunch, and strong' &c.; and the reason of this is plain. The insurer undertakes to indemnify the insured against the extraordinary and unforeseen perils of the sea; and it would be absurd to suppose that any man would insure against those perils, but in confidence that the ship is in a condition to encounter the ordinary perils to which every ship must be exposed in the usual course of the proposed voyage.

By the old law of France it was directed that every merchant ship, before her departure from the place of her outfit, should be surveyed by certain sea officers appointed for that purpose, and reported to be seaworthy; 'en bon état de navigation;' and that previous to her return, before she took her homeward cargo on board, she should be again surveyed. Valin has shown (Tit. *Écrit*, art. 12) that very little confidence could be placed in these surveys, which, he tells us, were only made upon the external parts, for the ship was not unshathed; and, therefore, her internal and hidden defects could not be disclosed. This practice seems now to be abandoned by the French; at least there is no allusion to it in the *Code de Commerce*. It is, one would think, much better to leave the question as to the seaworthiness of the ship to be ascertained, as in England, after a loss has happened, by an investigation of the true cause of such loss, than to permit so important a question to be decided upon the report of officers without any motive to enquire carefully into her actual condition. A ship may, to all appearance, be perfectly capable of performing a voyage; and it is only after a loss has happened that her latent defects can be discovered, and her true state at the time of her departure rendered manifest. Indeed, the survey made by the French was not deemed a conclusive proof that the ship was, at her departure, really seaworthy:

it merely raised a *presumption* that such was the case; but it was still open to the freighter or the insurer to show the contrary.

For further information upon this point, the reader is referred to the able and excellent work of Chief Justice Abbott (Lord Tenterden) on the *Law of Shipping*, part iii. c. 3; Holt *On Shipping*, part iii. c. 3; and of Mr. Serjeant Marshall *On Insurance*, book i. c. 5. [SUITS; STEAM VESSELS.]

**SEEDS.** In Commerce, the grains of several species of graminæ. Those of most importance are clover seed, flax or linseed, hemp seed, rape seed, tares, mustard seed &c.; for which, see the respective articles. But it may be useful to subjoin the following

*Account of the Imports and Exports of the Principal Seeds in 1867.*

	Imports	Exports
Bears, kidney or French bushels	27,181	410
Canary - - - cwt.	36,905	3,351
Caraway - - - "	15,311	1,377
Clover - - - "	150,868	5,286
Cotton - - - tons	93,513	413
Flaxseed and linseed - cwt.	1,095,360	30,407
Garden, unenumerated - lb.	207,321	8,717
Grass - - - cwt.	61,342	37,000
Hemp - - - qr.	15,015	120
Lentils - - - bushels	208,119	120
Rillet - - - "	31,351	120
Mustard - - - cwt.	21,690	5,288
Poppy - - - qr.	59,678	21,127
Rape - - - "	60,779	229,842
Tares - - - "	10,872	3,169
Trefoil - - - cwt.	9,613	57
Not particularly described, commonly used for pressing oil therefrom - qr.	43,853	5,278

The total value of the seeds imported in 1867 was 6,918,433.

#### SEGARS or CIGARS. [TOBACCO.]

**SENNA** (Fr. *séné*; Ger. *sennablätter*; Ital. *senna*; Span. *sen*; Lat. *cassia senna*; Arab. *sunā*). The plant (*cassia senna*) which yields the leaves known in commerce and the *materia medica* by the name of *senna*, is an annual, growing wild in the interior of Africa, and is more especially a native of Upper Egypt. The leaves are collected by the Arabs frequenting the deserts to the east and west of the Nile, and sold by them in baskets at 3s. or 4s. per 100 lb. to Egyptian traders. It is packed and sent to Cairo, where it brings from 10s. to 15s. per 100 lb. Here or at Alexandria, it is repacked in bales and sent to Europe. A great deal of *senna* grown in Southern India is imported from Calcutta and Bombay. (*British Pharmacopœia*, 1867; Thomson's *Dispensatory*.) *Senna* is very extensively used in medicine. It is mixed with other leaves, some of which are nearly equally good, while others are very inferior. In 1867, the imports and exports of *senna* amounted respectively to 704,305 and 445,051 lb. An import duty of 1s. 3d. per lb., after being reduced in 1832 to 6d., and in 1842 to 1d., was wholly repealed in 1845.

**SHAGREEN** (Ger. *shagrin*; Ital. *zigrino*; Russ. *schagrim schagren*). A kind of grained leather, used for various purposes in the arts. It is extensively manufactured at Astrakhan in Russia. (Tooke's *Russia*, vol. iii. p. 403.)

**SIAMMY or CHAMOIS LEATHER** (Ger. *siamischleder*; Fr. *chamois*; Ital. *camosc*; Russ. *samschantli*, *koshi*). A kind of leather dressed in oil, or tanned, and much esteemed for its softness, pliancy, and capability of bearing soap without hurt. The real *siammy* is prepared from the skin of the *chamois* goat. But leather prepared from the skins of the common goat, kid, and sheep, is frequently substituted in its stead.

**SHANGHAE or SHANGHAI.** A city and province of China, and province Kiang-su, on the Wusong river, 40 miles by water from the sea, and 11 miles E.S.E. Nankin; lat. 31° 15' N., lon. 121° 26' E. Population estimated in 1861 at from 370,000 to 400,000. It stands in a level and well cultivated plain, producing good crops of cotton-wool, and wheat. Immediately outside the walls which it is enclosed are several populous suburbs. Streets narrow and filthy. Foundling hospitals, tea-gardens, and vast ice-houses are the objects most worthy of notice in the city. It has a mint with manufactures of silk, vegetable oils and oil-cake (of which vast quantities are annually sent into the interior), iron ware, glass, paper, iron ware &c.

This is the most northerly of the five Chinese ports which were opened to foreigners by the Treaty of 1842, and it is also the most important. The river, which may be navigated by ships of 450 or 500 tons for a considerable distance above the town, crosses the Grand Canal, so that Shanghai is an entrepôt for all the vast and fertile countries traversed by the canal, and by the great rivers, including the Yang-tse-Kiang and the Hoang-Ho, with which it is connected. Hence the present importance of the emporium, and hence, also, the indefinite extension to which its foreign trade may probably attain. Its inland and coasting trades are both very extensive. It is said to be annually visited by from 5,000 to 6,000 canal and river boats, some from very great distances, and by 1,500 or 1,600 coasting junks. The province of Kiang-su, in which Shanghai is situated, produces great quantities of silk; and besides supplying most part of the northern provinces of the empire, the shipments of silk to the foreigner are much greater from this than any other port. It is, also, well situated for the trade in green and black teas; and in their export, as well as in that of silk, it has shot far ahead of Canton and the other emporiums. Among the other exports are oil and oil-cake, cotton, drugs, porcelain, copper and copper-ware, nankeens, gold thread, alum, fans, hams, dried fish &c. Of the imports opium is by far the greatest. The value of the British cottons imported during 1867 amounted to 3,495,255*l.*, and that of the woollens to 2,365,742*l.* But despite these and other articles, the excess of the value of the exports was so very great, that immense quantities of silver were imported. The following table shows the progress of the import and export trade of China and the great comparative importance of Shanghai.

#### I.—Value of the Imports, Exclusive of Treasure, into Chinese Ports in the Years 1863 and 1864.

Years	Canton	Amoy	Foochowfoo	Ningpo	Shanghai	Hankin	Total
1863	2,281,354	2,046,053	2,616,637	3,388,601	29,709,575	3,308,772	43,400,992
1864	2,421,482	2,351,913	2,378,044	3,421,538	21,610,757	3,620,738	35,803,572

#### II.—Value of Exports from the same Ports, 1863-64.

Years	Canton	Amoy	Foochowfoo	Ningpo	Shanghai	Hankin	Total
1863	3,869,039	994,129	4,321,203	1,454,569	12,427,153	4,217,508	27,283,599
1864	3,414,863	917,194	4,374,685	2,083,433	13,289,589	4,481,975	28,561,544

# SHANGHAE

**CHAMOIS LEATHER** (Ger. r. chamois; Ital. camoscio; koshi). A kind of leather tanned, and much esteemed for its strength, and capability of bearing heat. The real shammy is prepared from the skins of the common goat, but is frequently substituted in its

place by SHANGHAI. A city and river province Kiang-su, on the Woosung River, 100 miles from the sea, and 100 miles inland; lat. 31° 15' N., long. 121° 45' E., population estimated in 1864 at from 1,000,000 to 1,500,000. It stands in a level and well-watered plain, producing good crops of cotton, rice, &c.

Immediately outside the wall are several populous suburbs, and filthy. Foundling hospitals, and vast ice-houses are the objects of notice in the city. It has a mint, and produces silk, vegetable oils and oil-vast quantities are annually sent to the coast (iron ware, glass, paper, ivory

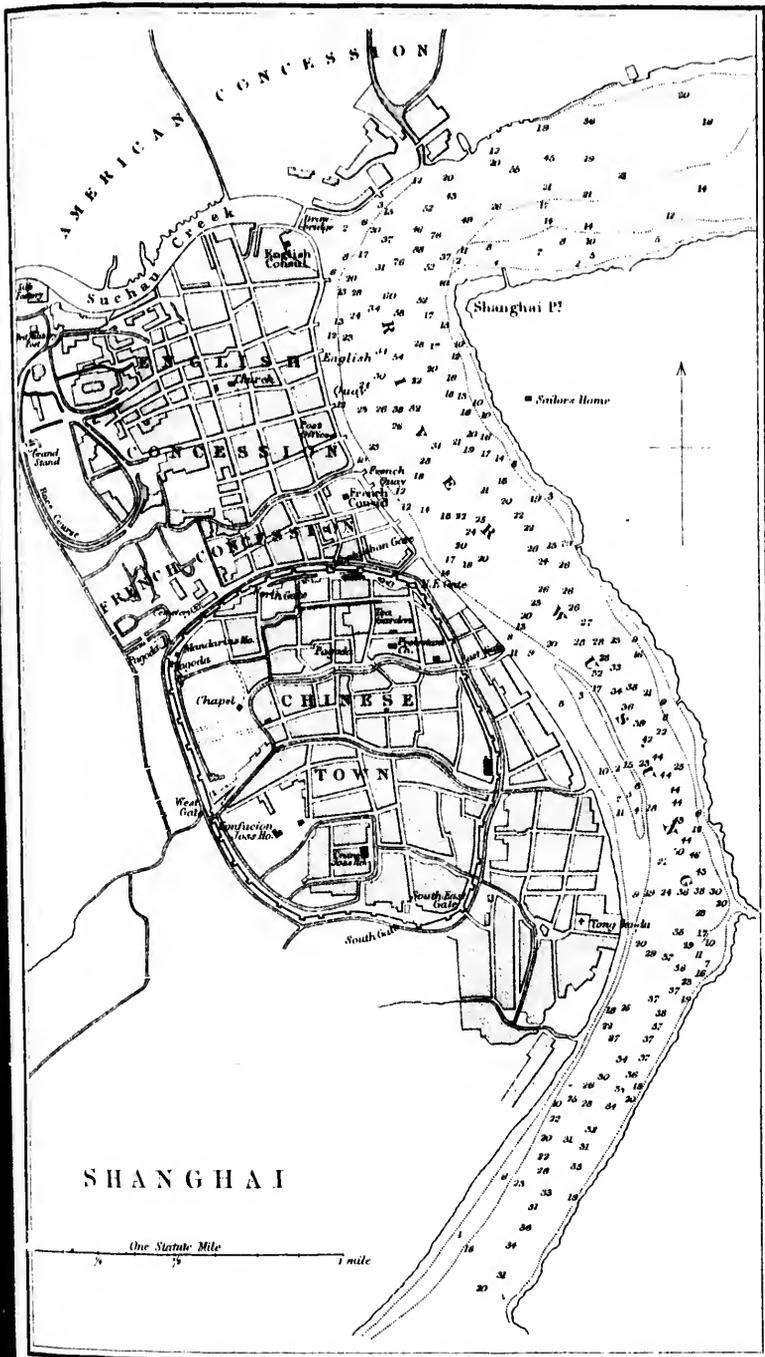
the most northerly of the five Chinese ports were opened to foreigners by the Treaty of Nanking, and it is also the most important. The river may be navigated by ships of 1,000 tons for a considerable distance above the city, and by the Grand Canal, so that Shanghai is a great entrepôt for all the vast and fertile provinces of the Yang-tse-Kiang and the Yangtze, through which it is connected. Hence the importance of the emporium, and the indefinite extension to which its trade may probably attain. Its inland trade is both very extensive. It is annually visited by from 5,000 to 10,000 river boats, some from very great distances, and by 1,500 or 1,600 coasting junks from the provinces of Kiang-su, in which Shanghai is the principal port. It receives great quantities of silk; and the most part of the northern provinces, and the shipments of silk to the coast are much greater from this than from any other port. It is also well situated for the trade in opium and black teas; and in their exportation it has shot far ahead of Canton and the other emporiums. Other exports are oil and oil-cake, porcelain, copper and copper-ware, silk thread, alum, fans, hams, dried fish, &c. The imports of opium is by far the most valuable of the British cottons imported, amounting to 3,495,255*l.*, and that of opium to 2,365,742*l.* But despite these and the excess of the value of the exports, the trade is very great, that immense quantities of goods are imported. The following tables show the progress of the import and export trade, and the great comparative importance of Shanghai.

### Ports in the Years 1863 and 1864.

Shanghai	Hankin	Total
£ 29,700,375	£ 3,308,772	£ 43,310,214
21,610,757	3,620,738	25,231,475

### Ports, 1863-64.

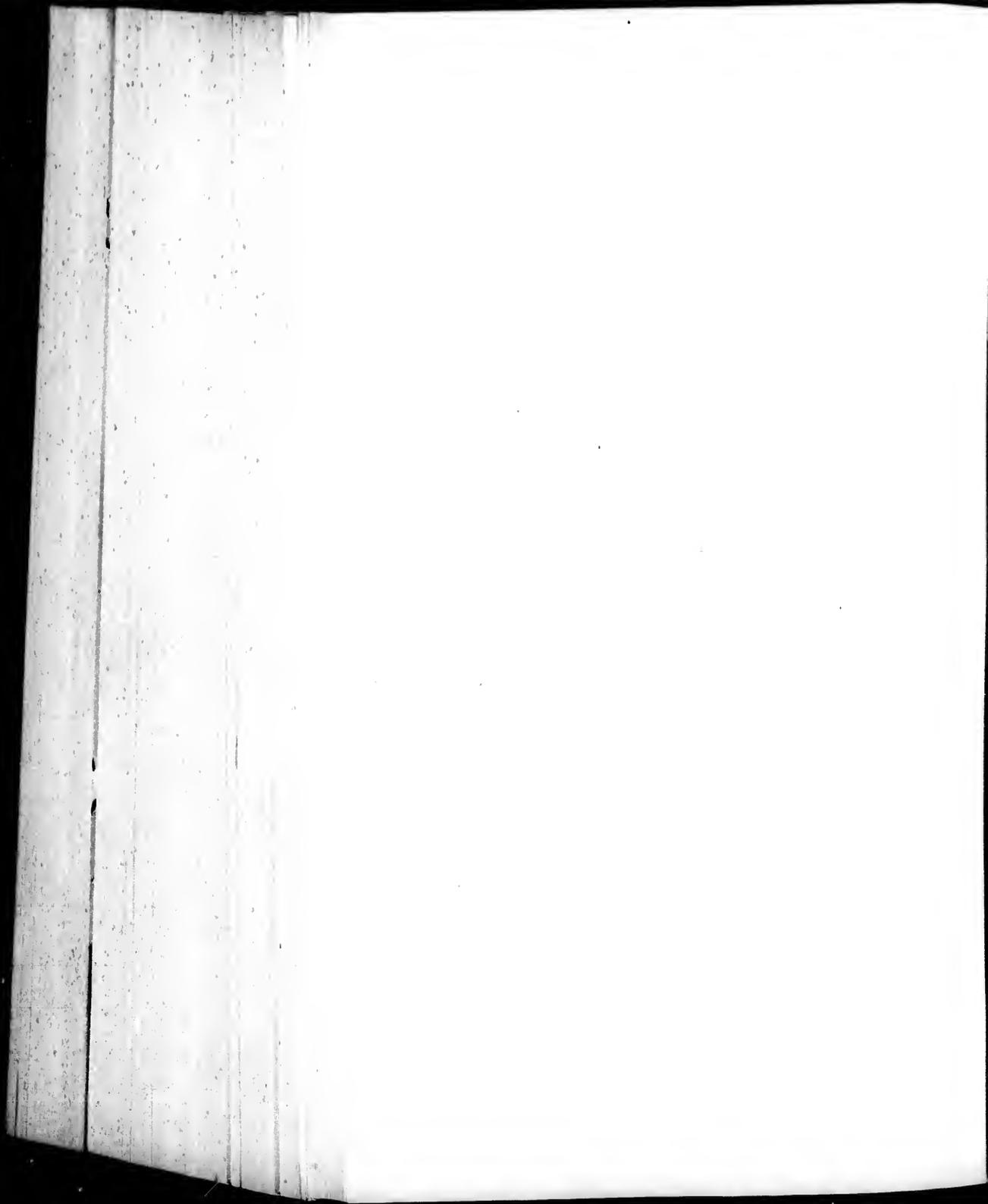
Shanghai	Hankin	Total
£ 12,227,155	£ 4,217,308	£ 16,444,463
13,282,589	4,484,475	17,767,064



## SHANGHAI

One Statute Mile  
1 mile

E. Welles Lithog.



III.—Account of the Tea Exported from 7 Chinese Ports, 1863-4.

Years	Canton		Amoy		Foochowfoo		Ningpo		Shanghai		Hankin		Kin-kiang		Total	
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1863	69,086,834	70,069,100	21,477,311	4,846,251	5,331,285	40,481,625	25,478,810	169,094,205								
1864	81,684,583	61,967,900	13,919,924	7,862,581	7,133,169	35,330,925	17,859,375	157,685,731								

Note.—The exports of tea at the separate ports include shipments from port to port.

IV.—Table, contrasting Exports of Tea from Shanghai and the Yung-tze Ports to Great Britain and the United States for the Years 1865, 1866, and 1867.

	Great Britain			United States		
	1865	1866	1867	1865	1866	1867
	lb.	lb.	lb.	lb.	lb.	lb.
Black	47,169,000	46,242,000	45,069,103	327,800	27,000	32,227
Green	11,990,500	10,535,900	11,697,999	13,120,000	13,769,203	15,946,349
Total	59,159,500	56,777,900	56,767,102	15,447,800	15,796,203	15,978,576

V.—Account of the Number and Tonnage of British and Foreign Vessels Entered and Cleared at the Port of Shanghai in each Year from 1861 to 1865, and in 1867.

Years	ENTERED							
	British		American		Other Countries		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
1861	810	229,494	359	95,854	537	93,907	1,806	419,659
1862	1,532	390,139	806	226,058	560	107,915	2,998	724,138
1863	1,790	530,921	891	272,428	790	160,960	3,471	964,309
1864	1,478	451,583	573	277,377	617	131,687	2,668	860,647
1865	1,118	497,922	519	285,710	358	86,900	2,095	869,532
1867	981	481,937	381	221,082	380	92,518	1,742	801,537

Years	CLEARED							
	British		American		Other Countries		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
1861	782	229,775	311	92,305	621	86,115	1,714	408,195
1862	1,531	389,280	805	225,056	560	107,915	2,996	723,251
1863	1,810	534,716	884	287,041	835	155,153	3,529	976,910
1864	1,407	496,197	498	287,065	653	146,000	2,658	929,882
1865	1,160	527,669	511	291,298	380	91,003	2,051	909,970
1867	994	480,680	378	221,413	362	91,588	1,734	806,661

VI.—Account of the Number and Tonnage of Vessels of each Nation, with Cargoes and in Ballast, Entered and Cleared at the Port of Shanghai in the Year 1867.

Nationality of Vessels	ENTERED						CLEARED					
	With Cargoes		In Ballast		Total		With Cargoes		In Ballast		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
British shipping	844	168,111	31	7,835	875	175,946	751	152,929	115	58,407	866	181,336
Ningpo boats under British flag	15	7,250	21	1,741	106	8,991	100	8,266	5	958	105	9,224
American shipping	344	917,229	16	5,318	360	922,547	333	910,460	21	8,878	354	919,338
Ningpo boats under American flag	17	1,255	7	290	24	1,545	11	800	10	775	21	1,575
Shipping of other countries	150	77,029	12	4,188	162	81,817	171	71,254	29	11,813	200	83,067
Ningpo boats under various flags	164	10,580	14	791	178	10,376	175	11,079	7	440	182	11,519
Total	1,644	2,81,431	101	20,083	1,745	3,01,514	1,547	2,73,384	187	81,271	1,734	3,06,661

VII.—Table of Exports of Silk from Shany. in 1867.

To England	bales	28,358
France	do	6,880
Hongkong	do	881
Hong Kong	do	291
Total	do	36,610

VIII.—Imports of Opium into Shanghai in 1866 and 1867, and Value of the Imports in 1867.

	1866	1867	Value 1867
Malwa, imported	48,079	30,019	4,850,000
Bengal	11,090	10,430	2,850,000
Peruan	157	—	18,240

The highest price of Malwa was in February, 1867 - 600 taels  
 lowest " " November - 488 " "  
 highest price of Patna was in March - 320 " "  
 lowest " " June - 440 " "  
 The Peruan is generally sold at 100 taels below Malwa.

The inhabitants of Shanghai are much more hospitable and better disposed towards foreigners than those of Canton; and strangers may travel for miles into the interior all round the city with perfect security. Some very fine brick houses

have been built by the British and other foreign merchants in the suburbs.

We are indebted for some of the foregoing particulars to Consul Winchester's Report of March 31, 1868. [CANTON; HONG KONG &c.]

SHARKS' FINS form a regular article of trade to China; and are collected for this purpose in every country from the eastern shore of Africa to New Guinea. In the Canton price currents they are as regularly quoted as tea or opium; and the price of late years has been, according to quality, from 15 to 18 dollars per picul, equal to from 50s. to 60s. per cwt. In 1867, the value of the British imports of these fins into Shanghai from Hong Kong was 9,864 taels, or 3,288*l*. The shark fishery is now carried on to a considerable extent along the north and north-west coasts of Iceland, but chiefly for the sake of their oil.

SHAWLS (Ger. shawle; Fr. chals, châles; Ital. scialli; Span. chales). Articles of fine wool, silk, or wool and silk, manufactured after the fashion of a large handkerchief, used in female dress. The finest shawls are imported from India,

where they are highly esteemed, and cost from 50 to 300 guineas. But the British shawls manufactured at Norwich, Paisley, and particularly Edinburgh, have recently been very much improved; and though still inferior in point of quality to the finest specimens brought from the East, they look well, and are much cheaper. The native shawl manufacture is of very considerable value and importance.

**Cashmere Shawls.**—The shawl manufacture is believed to have originated in the valley of Cashmere, the ancient Caspira, in the north-west of India, between the 34th and 35<sup>th</sup> degrees of north latitude, and the 73rd and 76<sup>th</sup> degrees of east longitude. Though not so flourishing as it once was, the manufacture is still prosecuted in this province to a very considerable extent. The shawls are the very best that are made, possessing unequalled fineness, delicacy, and warmth. They are formed of the inner hair of a variety of the common goat (*Cypra hircus*), reared on the cold dry table land of Tibet, from 11,000 to 16,000 feet above the level of the sea. The goat thrives sufficiently well in many other countries; but in the sultry plains of Hindostan it has hardly more hair than a greyhound; and though in higher latitudes the hair is more abundant, it is for the most part shaggy and coarse. It is only in the intensely cold and dry climate of Tibet that it yields the peculiarly soft woolly hair that constitutes the material of the Indian shawl. We do not, therefore, suppose that the efforts to naturalise the shawl-goat in France will turn out well. On the contrary, we believe the chances of success would be about equal were an attempt made to breed beavers in a hot country, without water, or camels in a moist country, free from heat and drought.

The inner or fine wool is covered over and protected by a quantity of long shaggy hair, which is, of course, carefully separated from it before it is manufactured.

The genuine shawl wool has been imported into this country; and the finest Edinburgh and Paisley shawls have been produced from it. But it must be admitted that shawls have nowhere been made that can come, as respects quality, into successful competition with those of Cashmere. The manufacture has been established at Delhi and Lahore for some years; but notwithstanding it is carried on by native Cashmerians, and though the material carried on be quite the same, the fabrics are said to want the fineness of those made in Cashmere, and to have a degenerated, coarse appearance. It is difficult to account for this superiority. It has been ascribed to some peculiar quality of the water in the valley of Cashmere; but it is most probably owing to a variety of circumstances, which, though each may appear of little importance, collectively give a character to the manufacture.

The following details as to the manufacture of Cashmere shawls have been extracted from an English paper published at Delhi:—

The great mart for the wool of which shawls are made, is at Kilghet, which is said to be a dependency of Ladak, and situated 20 days' journey from the northern boundaries of Cashmere. There are two kinds of it: that which can be readily dyed is white; the other sort is of an ashy colour, which being with difficulty changed, or, at least, improved by art, is generally woven of its natural hue. About 2 lb. of either are obtained from a single goat once a-year. After the down has been carefully separated from the hairs, it is repeatedly washed with rice starch. This process is reckoned important; and it is to the

quality of the water of their valley that the Cashmerians attribute the peculiar and inimitable fineness of the fabrics produced there. At Kilghet the best raw wool is sold for about 1 rupee per pound. By the preparation and washing referred to, it loses  $\frac{1}{3}$ , and the remainder being spun, 3 rupees weight of the thread is considered worth 1 rupee.

Shawls are made of various forms, size, and borders, which are wrought separately, with the view of adapting them to the different markets. Those sent to Turkey used to be of the softest and most delicate texture. Carpets and counterpanes are fabricated of the hair or coarser part of the wool. From a variety of causes, among others the destruction of the Janisaries, who dressed much in shawls, the loss of royalty in Cabul, and the ruined finances of Lucknow, it is certain that the demand for this elegant commodity has greatly declined of late years. Under the Mogul emperors, Cashmere found work for 30,000 shawl looms. In the time of the Afghan kings, the number decreased to 18,000. There are now not more than 6,000 employed. I should attribute little of this diminution to the sale of English imitations among the Asiatic nations. When these counterfeits first appeared, the pretty patterns and brilliancy of the colours took the fancy of some, but their great inferiority in the softness and warmth which marks the genuine shawl, soon caused the new article to be neglected.

The average value of shawls exported from Cashmere amounts annually to 1,800,000 rupees. Runjeet Singh took  $\frac{1}{3}$  in kind as part of the gross revenue of the province, which was about 25 lacs a-year. He is said to have sold  $\frac{2}{3}$  of what he thus received, and to have kept the remainder for his own court. Of those disposed of by him and left for sale in the valley, 7 lacs worth went to Bombay and Western India; 3 to Hindostan, chiefly Oude;  $\frac{1}{2}$  lac each to Calcutta, Cabul, Herat, and Balk, whence some were carried to neighbouring countries.

A curious calculation of the successive exactions, from Cashmere to Bombay inclusive, which magnify the price of shawls, is herewith subjoined.

Actual cost for materials and labour in making a pair of reel shawls:—

Four Furrakabad seers of wool	fl. rs.
Cleaning, washing, and spinning	12 8
Dyeing	50 0
Wages to weavers	11 0
	24 6
<b>Total</b>	337 14
Duties on the same:—	
On sale and importation to Cashmere	5 11
On the thread	8 4
While the fabric is in the loom	125 0
Fees to chowdries, brokers, assessors &c.	35 0
<b>Total amount of duties in Cashmere</b>	174 15
Duties from Cashmere to Amritsir	12 6
From Amritsir to Bombay	3 4
At Bombay	20 0
<b>Total from Amritsir to Bombay</b>	36 10
Total from Kilghet to Bombay, 171 18 and 85 12 $\frac{1}{2}$	272 20 $\frac{1}{2}$
Freight cost	337 14
Proportion of carriage	0 12
Insurance	21 0
<b>Total cost</b>	630 56 $\frac{1}{2}$

A pair of such shawls might sell for 500 rupees at Amritsir, and in Bombay for 900. The amount of the imposts; and the sums levied by each Government, will appear more in relief if stated as they affect a camel load in its progress. It consists of 14 $\frac{1}{2}$  cutcha maunds, and contains, at an average, 2,000 shawls of different kinds, valued, on reaching Bombay, at 28,500 Furrakabad rupees.

The Government of Lahore exacts Rd. rs. 1,564 6; Patialah, 61; Bikencer, 43; Joudpore

121 4; Bhowninggur, 20; total 1,809; Bombay, 10 per cent. ad valorem, 2,850.  
By treaty, the ruler of Cashmere is bound to send to her Majesty every year 5 shawls, as an acknowledgment of the Royal supremacy.  
The value of the Cashmere shawls exported from British India by sea in the 5 years ending with 1866, was as follows:—

1862	459,441	1863	254,197
1863	265,537	1866	290,115
1864	275,591		

In the account of the exports of British manufactures, those of handkerchiefs and shawls are mixed, but in 1867 we exported 80,778 dozens of these articles, valued at 144,324/.

**SHEA BUTTER or VEGETABLE TALLOW.**  
The produce of the nut of the *Bassia Parkii*, belonging to the natural order *Sapotaceae* of botanists; a scrubby growing tree, indigenous to the interior of West Africa as the oil palm is to the sea coast. It is found in great abundance, covering immense tracts, both of hill and plain.

The *Bassia Parkii* is covered in the season with dense heads of whitish flowers, which have a fragrance similar to that of the hawthorn. The fruit, which ripens in May or June, is said to resemble an over-ripe pear, is exceedingly sweet, and is eaten by the natives. The nuts or kernels have the shape, and the exact colour, of the horse-chestnut, but are a little larger. After being freed from their shells, which is effected by thrashing or bruising after they have been for some time exposed to the action of a slow heat, the kernels are coarsely crushed, then boiled; a fatty matter is thereupon thrown to the surface, which is skimmed off, and put into earthen pots. It soon hardens into a solid mass, when it has the colour and consistence of animal tallow. It is then fit for use, and possesses the valuable quality of not getting rancid by keeping.

The small quantities of Shea butter at first imported into this country commanded a price of 5/ per ton above that of palm oil; but the larger parcels which have since been received have not brought so much. It is, however, said to be quite as valuable as palm oil, and possesses this superiority that, for the purposes to which it is applied, it does not, like the oil, require to undergo the expensive process of bleaching.

It may be used for any of the purposes to which palm oil is applied, and might be procured to any extent, were there cheap means of transport from the interior of Western Africa to the coast. (*Private Information.*) We imported in 1867,

only 707 cwt. of vegetable tallow, valued at 1,553/.

**SHEEP** (Ger. schafe; Fr. brebis, bêtes à laine, moutons; Ital. pecore; Span. pcoras, ovelas; Russ. owzli; Lat. oves). Of the domestic animals belonging to Great Britain, sheep, with the exception of horses, and perhaps cattle, are by far the most important. They can be reared in situations and upon soils where other animals would not live. They afford a large supply of food, and one of the principal materials of clothing. Wool has long been a staple commodity of this country, and its manufacture employs an immense number of people. 'The dressed skin,' says Mr. Pennant, 'forms different parts of our apparel; and is used for covers of books. The entrails, properly prepared and twisted, serve for strings for various musical instruments. The bones, calcined (like other bones in general), form materials for tests for the redner. The milk is thicker than that of cows, and consequently yields a greater quantity of butter and cheese; and in some places is so rich, that it will not produce the cheese without a mixture of water to make it part from the whey. The dung is a remarkably rich manure; inasmuch that the folding of sheep is become too useful a branch of husbandry for the farmer to neglect. To conclude; whether we consider the advantages that result from this animal to individuals in particular, or to these kingdoms in general, we may, with Columella, consider this, in one sense, as the first of the domestic quadrupeds.' (*Pennant's British Zoology.*) *Postmajores quadrupeds ovilli pecoris secunda ratio est; que prima sit ad magnitudinem utilitatis referas. Nam id precipue contra frigidis violentiam protegit, corporibusque nostris liberaliora prebet velamina; et . . . manus juvenum et numerosis dapibus exornat.* (*De Re Rustica*, lib. vii. cap. 2.) The importation of sheep was prohibited until 1842, when they were admitted on payment of duties (sheep 3s. a head, lambs 2s.), which were repealed in 1846. [**CATTLE.**] 539,726 sheep and lambs were imported into the United Kingdom in 1867.

In consequence of the prevalence of sheep pox on the continent of Europe, an order in council of August 20, 1868 was issued, publishing quarantine and other regulations in regard to the sheep to be imported thence into this country.

The number of sheep in Great Britain, as returned on June 25, 1868, was 30,711,396; adding to this 4,822,411 for Ireland, and 73,972 for the Isle of Man and Channel Islands, we have a grand total for the United Kingdom of 35,607,812.

of their valley that the Cashmere shawls produced there. At Kilgiltie they are sold for about 1 rupee per yard, and washing referred the remainder being spun, 3 thread is considered worth 1

of various forms, size, and wrought separately, with the hem to the different markets, key used to be of the softest texture. Carpets and counterpane of the hair or coarser part of a variety of causes, among them the loss of the Janissaries, who in the time of the Afghan war decreased to 18,000. There were more than 6,000 employed. I should think this diminution to the sale of shawls among the Asiatic nations, which first appeared, the preference of the colours took the place of their great inferiority in the north which marks the genuine shawl, the new article to be neglected, value of shawls exported from Cashmere annually to 1,800,000 rupees, of which 1/3 in kind as part of the gross revenue, which was about 25 lacs were sold for what he thought his loss to have kept the remainder for his disposal of by him and left 7 lacs worth went to the valley, 3 to Hindostan, 1 lacs each to Calcutta, Cuddalore, whence some were carried to the interior.

Calculation of the successive exports of Cashmere to Bombay inclusive, the price of shawls, is herewith

Materials and labour in making shawls:—	Rs.	P.
Wool	11	8
Spinning	20	9
	24	6
	55	11

To Cashmere	3 11
To London	8 1
To Bombay	125 0
Agents, assessors &c.	35 0
Total	171 12
To Amritsar	12 6
To Bombay	20 9
	29 11
Amritsar to Bombay	85 13
Bombay, 171 12 and 85 13	257 11
	0 12
	21 0
	278 9

shawls might sell for 500 rupees in Bombay for 900. The amount and the sums levied by each appear more in relief if stated camel load in its progress. It catches mounds, and contains at least 100 shawls of different kinds, being Bombay, at 28,500 Furraka-

ment of Lahore exacts Rs. 18, 61; Bikener, 43; Joudpore

Names of Breeds	Head	Colour of Face and Legs	Wool	Wet. of fleece	Wethers per qr.	Age killed
1. Teeswater	No horns	White face and legs	Long wool	16	18	years
2. Lincoln	No horns	White face and legs	Long wool	10	25	2
3. Dishley, or New Leicester	No horns	White face and legs	Long wool (fine)	8	22	2
4. Cotswold	No horns	White face and legs	Long wool (fine)	9	24	2
5. Romney Marsh	No horns	White face and legs	Long wool (fine)	8	22	2
6. Dartmoor, or Dartington	No horns	White face and legs	Long wool (fine)	9	25	2
7. Essex	Horned	White face and legs	Long wool (coarse)	6	16	2 1/2
8. Black Face, or Heath	Horned	Black face and legs	Long wool (coarse)	5	15	3
9. Hereford, Ryeland	No horns	White face and legs	Short wool (fine)	2 1/2	13	5 1/2
10. Morf, Shropshire	Horned	White face and legs	Short wool (fine)	2 1/2	12	5 1/2
11. Dorset	Horned	White face and legs	Short wool (fine)	2 1/2	18	2
12. Wilt	Horned	White and speckled	Short wool (mid.)	5	20	5
13. Berks	No horns	Black and white	Long wool	7	18	2 1/2
14. South Down	No horns	Speckled and white	Short wool	2 1/2	18	2
15. Norfolk	Horned	Black and white	Short wool	2	18	5 1/2
16. Herts	Horned	Speckled and white	Short wool	2	10	4 1/2
17. Dorset	No horns	White face and legs	Short wool	3	15	4 1/2
18. Dun-faced	No horns	Dun face and legs	Short wool	1 1/2	7	4 1/2
19. Shetland	No horns	Various coloured ditto	Fine cottony	1 1/2	8	4 1/2
20. Spanish	No horns	Various coloured ditto	Short wool (imper.)	5 1/2	18	2 1/2
21. Datto, cross	Rains horned	White	Short wool (fine)	2	16	2

The above table exhibits a compendious view of the more prominent characteristics of the principal breeds of sheep in Great Britain.

For further details as to the number of sheep, the quantity and quality of wool &c., see **WOOL, SHERRY, [WINE.]**



our limits permitted, to enter  
y respect to the shipping of  
y to the Revolution. Thos  
the subject, will find most  
ices of contemporary writers  
erson, in his *Chronological*  
*ree*. The mercantile navy of  
e considerable in the reign  
 gradually increased under her  
 and Charles I. At the be-  
 shipping cleared outwards  
 tons; but such was the increas  
 the reigns of Charles II. and  
 to the Revolution, the British  
 ards amounted to 190,533 tons,  
 l by the treaty of Yswick, in  
 progress. But commerce and  
 eadly advanced, with the ex-  
 t periods during the war of 1730  
 to the present day.  
 authentic account of the magni-  
 ercial navy of England, and  
 , from returns to circular letters  
 ioners of Customs, issued in  
 ear. From these it appears that  
 e the period in question, to all  
 land and Wales, 3,281 vessels,  
 er estimated to make (number)  
 of 27,196 men and 5,600 guns  
 longed to

II.—An Account of the Total Number of Vessels Engaged in the Foreign and Colonial Trade of the United Kingdom, with the Amount of their Tonnage and the Number of Men and Hogs employed in Navigating the same, that Entered Inwards from all Parts of the World, in the several Years from 1814 to 1842, both inclusive, distinguishing British from Foreign.

Years	British and Irish Vessels			Foreign Vessels		
	Vessels	Tons	Men	Vessels	Tons	Men
1814	8,073	1,099,218	83,293	5,286	599,487	37,375
1815	7,569	1,023,108	80,211	5,211	641,960	41,000
1816	11,065	1,666,060	100,395	5,172	417,611	27,633
1817	15,003	2,148,517	125,028	4,981	930,312	59,738
1818	15,498	2,180,169	129,105	5,291	738,828	47,898
1819	15,498	2,367,539	131,697	6,085	829,602	47,455
1820	15,577	2,188,900	122,921	5,406	690,979	37,509
1821	15,577	2,188,900	122,921	5,406	749,068	41,966
1822	15,577	2,188,900	122,921	5,406	833,053	49,997
1823	15,577	2,188,900	122,921	5,406	866,989	47,137
1824	15,577	2,188,900	122,921	5,406	908,989	55,923
1825	15,577	2,188,900	122,921	5,406	1,015,940	66,778
1826	16,119	2,785,387	154,199	6,079	1,201,096	66,801
1827	17,633	3,101,650	170,559	6,246	1,351,563	79,580
1828	17,633	3,101,650	170,559	6,246	1,400,791	84,895
1829	18,285	3,561,211	178,000	6,247	1,490,165	73,611
1830	18,285	3,561,211	178,000	6,247	1,615,293	69,959

III.—An Account of the Number of Vessels and of their Tonnage, Built and Registered in, and belonging to, the different Ports of the British Empire, from 1825 to 1857, both inclusive, and also in 1867, specifying the Number of their Crews, and distinguishing between those of the British Islands and Possessions in Europe and those of the Colonies.

Years	Vessels built and registered					Vessels and their Crews belonging to the British Empire					
	United Kingdom and Possessions in Europe		Colonies		Total	United Kingdom and Possessions in Europe		Colonies		Total	Crews
	ships	tons	ships	tons	ships	tons	ships	tons	ships	tons	
1825	12,635	1,214,929	536	80,895	1,369	301,924	30,191	3,579,807	5,779	211,875	81,265
1826	759	97,471	367	38,719	1,126	136,190	16,417	3,591,599	16,417	357,000	13,913
1827	798	97,471	431	59,476	1,229	146,947	16,689	3,271,301	4,696	263,276	16,000
1828	806	102,710	925	55,817	1,731	158,527	19,375	3,515,755	5,080	103,745	27,100
1829	815	141,772	815	63,500	1,630	205,272	23,508	3,301,803	5,111	128,571	17,283
1830	1,095	80,656	411	60,604	1,506	136,260	30,388	3,119,429	5,172	44,907	25,940
1831	1,095	133,922	410	71,308	1,505	205,228	29,530	3,535,291	5,591	457,407	36,037
1832	1,117	161,459	610	79,817	1,727	241,276	30,166	3,705,982	6,508	513,276	38,262
1833	1,278	186,903	703	109,025	1,981	295,928	31,670	3,570,635	6,075	492,798	37,155
1834	1,424	249,601	771	45,588	2,195	305,189	32,651	3,705,982	6,508	513,276	38,262
1835	1,496	168,260	606	39,857	2,102	208,117	31,106	3,515,998	5,779	277,091	30,498
1836	1,517	133,275	598	75,662	2,115	208,937	29,034	3,011,460	5,861	478,430	30,191
1837	776	85,275	491	55,901	1,267	141,176	28,809	3,007,381	7,085	580,806	30,985
1838	781	98,826	516	39,857	1,297	138,683	26,673	3,016,166	6,000	592,839	31,399
1839	890	144,019	636	90,626	1,526	234,645	21,384	3,183,100	7,428	500,891	31,817
1840	841	127,499	515	115,558	1,356	243,056	34,771	3,109,786	7,238	617,367	39,499
1841	981	149,991	515	115,558	1,496	265,549	30,573	3,109,786	6,448	614,808	38,998
1842	878	145,040	655	101,988	1,533	247,028	28,638	3,400,809	8,054	651,551	35,672
1843	711	121,669	691	195,801	1,402	317,470	29,902	3,185,938	8,188	656,157	31,060
1844	711	137,580	711	137,580	1,422	375,160	31,106	3,185,938	8,188	656,157	31,060
1845	719	128,673	616	142,576	1,335	271,249	26,013	3,066,544	8,001	669,741	31,241
1846	712	170,414	677	438,880	1,389	609,294	26,000	3,759,878	8,310	665,111	31,402
1847	800	169,268	728	175,250	1,528	344,518	26,808	3,469,008	8,701	731,612	35,300
1848	800	169,268	728	175,250	1,528	344,518	26,808	3,469,008	8,701	731,612	35,300
1849	815	136,275	714	164,966	1,529	300,241	26,809	3,419,551	9,101	794,520	35,600
1850	1,182	131,976	691	175,699	1,873	307,675	26,809	3,419,551	9,101	794,520	35,600
1851	1,201	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1852	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1853	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1854	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1855	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1856	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1857	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1858	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1859	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1860	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1861	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1862	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1863	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1864	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1865	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1866	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014
1867	1,185	132,922	721	177,004	2,022	315,926	27,007	3,536,740	9,017	960,414	37,014

other ports had 100 vessels; and  
mistake in the returns as to the  
at to Newcastle and Ipswich. Of  
s, 80 were at the time laid up,  
for the small number of men in  
eperson's *Annals of Commerce*,

XII.—The falling off in the number of ships after 1825 is apparent only. The numbers returned in the previous years were those that appeared on the registers. But a ship when once placed on them, remained till evidence was produced of her having been sold to foreigners, lost, or otherwise destroyed: so that a good many ships were at all times on the register, which, in fact, did not exist. The Registry Act passed in 1826 obliged all owners of ships to register them anew; when, of course, the names of those that had ceased to exist disappeared from the books.

IV.—Account of the Total Tonnage of British and Foreign Vessels, from 1840 to 1867, both inclusive, distinguishing between each, Entered and Cleared, whether with Cargoes or in Ballast, at Ports in the United Kingdom.

Years	Entered			Cleared			Total		
	British	Foreign	Total	British	Foreign	Total	British	Foreign	Total
	tons								
1840	5,197,591	1,469,291	6,666,882	3,329,884	1,488,888	4,818,772	6,460,185	2,019,182	8,479,367
1841	5,391,411	1,491,157	6,882,568	3,499,576	1,506,692	5,006,268	6,796,171	2,028,000	8,824,171
1842	5,391,411	1,491,157	6,882,568	3,499,576	1,506,692	5,006,268	6,667,995	2,045,179	8,713,174
1843	5,515,916	1,301,280	6,817,196	3,635,835	1,381,435	5,017,270	7,191,179	2,165,503	9,356,682
1844	5,416,183	1,381,183	6,797,366	3,635,835	1,418,392	5,054,227	7,191,179	2,165,503	9,356,682
1845	4,310,639	1,733,079	6,043,718	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1846	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1847	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1848	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1849	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1850	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1851	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1852	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1853	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1854	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1855	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1856	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1857	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,693,115
1858	4,087,553	1,306,998	5,394,551	2,285,431	1,796,156	4,081,587	5,161,900	2,531,215	7,69

V.—Colonial Shipping.—A Return of the Number and Tonnage of Sailing and Steam Vessels Presented at each of the various Ports of the Colonies of the United Kingdom, on December 31, 1867, distinguishing between those under and above Fifty Tons Register, and between Sailing and Steam Vessels.

Countries	Sailing Vessels				Steam Vessels			
	Of and under 50 Tons		Above 50 Tons		Of and under 50 Tons		Above 50 Tons	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
<b>EUROPE</b>								
Malta	58	1,030	102	30,753	1	31	2	333
Gibraltar	30	821	35	8,822	5	51	2	131
<b>AFRICA</b>								
Serra Leone	28	610	7	853	1	38	1	151
Ruturua	18	410	12	1,494	..	..	..	..
Cape of Good Hope	15	471	47	11,913	1	53	1	183
Mauritius	72	2,263	57	12,896	..	..	1	89
<b>ASIA</b>								
Bombay	4	102	142	37,532	1	38	15	2,311
Calcutta	..	..	126	31,131	2	45	32	5,862
Cochin	..	..	31	7,097	..	..	..	..
Coringa	..	..	5	1,256	..	..	..	..
Madras	..	..	3	830	..	..	..	..
Penang	11	577	54	12,201	..	..	..	..
Singapore	63	2,168	107	27,792	1	52	5	809
Ceylon	194	6,318	118	12,414	..	..	..	..
Moulmein	..	..	4	9,692	..	..	1	515
Hong Kong	1	28	69	22,848	1	41	16	5,807
<b>AUSTRALIA</b>								
Sydney	203	5,401	318	59,898	23	519	58	12,202
Melbourne	143	3,853	315	61,713	13	360	16	1,676
Hobart Town	85	2,298	65	12,398	2	75	6	1,019
Launceston	38	885	13	2,592	2	64	..	..
Adelaide	17	984	57	11,571	8	213	19	2,731
Fremantle	32	664	5	1,068	2	35	..	..
New Zealand	212	6,404	92	15,467	15	491	27	5,616
<b>AMERICA</b>								
<b>British Northern Colonies:</b>								
Newfoundland	1,051	31,598	497	49,695	5	101	6	1,115
Canada	381	12,532	568	101,041	50	1,265	89	17,082
New Brunswick	359	8,940	618	206,357	14	263	17	3,863
Nova Scotia and Cape Breton	1,657	45,127	1,698	533,490	4	143	10	1,806
Prince Edward Island	108	3,476	175	34,571	..	..	3	818
<b>British West Indies:</b>								
Antigua	59	831	7	633	..	..	..	..
Barbadoes	14	455	41	7,295	..	..	1	664
Dominica	6	142	2	380	..	..	..	..
Grenada	26	431	..	..	..	..	..	..
Jamaica	86	2,152	41	5,485	..	..	1	393
Montserrat	..	..	3	171	..	..	..	..
Nevis	2	39	..	..	..	..	..	..
St. Christopher	14	254	..	1,176	..	..	..	..
St. Lucia	8	252	1	250	..	..	..	..
St. Vincent	23	468	2	275	..	..	..	..
Tobago	..	..	1	57	..	..	..	..
Tortola	17	196	5	761	..	..	..	..
Trinidad	55	891	8	1,014	..	..	1	251
Bahamas	352	6,655	233	36,923	..	..	11	3,638
Bermuda	9	279	46	8,611	..	..	..	..
Demerara	45	1,202	26	3,737	2	75	3	518
Barbice	17	300	2	1,335	..	..	..	..
Rustan	16	207	1	183	..	..	..	..
Belize	31	717	7	614	..	..	..	..

VI.—A Return of the Number and Tonnage of Sailing Vessels Registered at each of the Ports of Great Britain and Ireland, including the Isle of Man and the Channel Islands, distinguishing those under and those above 50 Tons Register, on December 31, 1867. Also, a similar Return of Steam Vessels and their Tonnage.

Ports	Sailing Vessels				Steam Vessels			
	Of and under 50 tons		Above 50 Tons		Of and under 50 Tons		Above 50 Tons	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
<b>ENGLAND</b>								
Aberystwith	86	2,984	291	37,521	..	..	5	471
Arundel	34	955	42	6,845	..	..	..	..
Barnstaple	61	2,043	31	2,866	1	35	..	..
Beaumaris	133	4,406	168	14,921	..	..	..	..
Berwick	15	421	16	1,657	1	11	..	..
Bideford	66	1,854	56	9,104	..	..	..	..
Boston	83	2,894	57	4,527	1	15	1	91
Bridgwater	72	2,803	57	10,046	3	53	2	311
Brighthelm	..	..	2	1,830	..	..	..	..
Bristol	163	4,712	156	52,301	20	563	27	3,702
Brixham	14	509	69	9,954	..	..	..	..
Casernaron	170	5,619	81	38,299	3	54	2	295
Cardiff	30	827	55	17,960	33	606	5	723
Cardigan	89	2,387	61	6,454	..	..	..	..
Cardiff	8	268	15	1,983	1	37	5	1,175
Chepstow	35	911	10	798	..	..	..	..
Chester	50	1,804	74	5,586	2	59	8	2,247
Colchester	227	4,589	96	19,954	5	175	2	289
Cowes	146	3,878	63	7,124	..	..	..	..
Dartmouth	111	3,976	148	19,322	6	165	1	130
Deal	4	97	8	989	..	..	..	..
Dover	30	804	23	2,111	..	..	2	154
Exeter	31	837	83	12,829	1	15	..	..
Falmouth	41	1,379	85	14,043	7	214	..	..
Faversham	201	6,619	196	29,853	2	82	..	..
Fleetwood	40	1,406	37	8,093	1	17	5	1,518
Folkestone	6	84	35	5,645	..	..	..	..
Fowey	37	1,282	141	14,744	..	..	..	..
Gainsborough	11	442	2	114	6	145	3	607
Glooucester	266	7,252	68	7,839	6	143	..	..
Isle	196	8,149	229	22,025	7	189	12	2,510
Grimby	174	5,660	98	6,638	6	109	11	1,156



VII.—An Account of the Number of Vessels, with the Amount of their Tonnage, and the Number of Men and Boys usually employed in Navigating the same, that belonged to the several Ports of the British Empire on December 31, 1864, 1865, and 1866, respectively.

Ports	1864			1865			1866		
	vessels	tons	men	vessels	tons	men	vessels	tons	men
England	22,113	4,373,452	195,894	22,238	4,653,811	199,736	22,441	4,601,994	206,591
Scotland	3,437	725,317	35,636	3,433	769,075	33,488	3,489	781,850	36,737
Ireland	2,197	445,609	15,911	2,199	216,087	18,887	2,309	245,166	15,411
Isles of Guernsey, Jersey, and Alderney	805	81,622	5,747	919	95,436	5,358	899	87,357	5,528
British Possessions	12,235	1,475,761	90,431	12,477	1,562,295	94,569	11,911	1,518,647	90,272
Total	40,867	7,105,261	311,499	41,264	7,324,604	359,023	40,912	7,297,081	316,279

VIII.—An Account of the Shipping employed in the Trade of the United Kingdom, exhibiting the Number and Tonnage of Vessels that Entered inwards and Cleared outwards (including their repeated Voyages), separating British from Foreign Vessels, and distinguishing the Trade with each Country, in 1867.

Countries	Inwards				Outwards			
	British		Foreign		British		Foreign	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
Russia	361	239,454	15	17,227	315	291,865	23	25,251
Sweden	1,309	411,255	2,236	591,611	1,150	265,600	1,579	312,903
Norway	182	101,206	36	17,271	137	80,016	30	11,718
Denmark	398	79,881	2,656	511,115	255	51,444	1,476	301,511
Prussia	150	68,163	5	506	149	68,552	3	251
Germany	291	37,680	2,761	513,049	217	30,225	3,620	500,890
Holland	81	32,187	60	21,385	148	61,653	60	22,272
Belgium	35	5,596	1,313	115,123	238	76,458	5	2,611
Channel Islands	291	137,696	53	18,615	295	110,582	5,561	366,717
France	622	78,763	1,572	272,034	704	92,034	1,246	214,378
Spain	1,422	60,616	419	34,895	1,231	56,645	735	175,267
Portugal	1,175	257,404	2,181	299,877	1,088	198,799	2,300	275,796
Italy	1,561	569,492	142	39,905	1,402	491,155	111	35,510
Greece	1,922	216,655	1,069	215,530	1,693	163,176	435	37,211
Turkey	476	426,472	701	119,876	494	337,721	697	94,655
Walachia and Moldavia	950	188,726	772	158,635	690	85,361	52	8,418
Syria	421	84,838	..	..	431	85,577	..	..
Africa	1,386	167,294	19	1,281	962	69,374	12	791
Asia	5,996	1,501,536	419	106,742	5,685	1,434,695	319	91,434
America	5,049	615,562	5,159	568,791	4,797	601,184	4,411	529,217
British Northern Colonies	176	75,201	25	15,756	189	77,096	3	1,850
British West Indies	745	112,827	133	19,185	671	86,536	59	8,318
Foreign West Indies	146	57,119	165	75,542	151	80,016	15	7,500
United States	824	198,272	216	66,669	1,110	235,331	62	125,777
Central and Southern States	38	21,611	..	..	109	60,993	..	..
Falkland Islands	15	5,040	..	297	230	42,256	18	4,183
Whale Fisheries	200	141,517	6	4,431	174	128,774	12	6,972
Total	319	57,557	181	45,496	569	145,365	900	220,262
Malta	5	4,449	..	..	32	24,216	..	..
Ionian Islands	7	5,513	..	..	15	68,486	92	32,343
Greece	19	2,658	2	1	35	6,884	29	9,719
Turkey	49	25,078	1	804	90	10,495	..	..
Walachia and Moldavia	67	20,637	5	1,190	71	28,979	45	11,158
Syria	67	70,078	2	1,996	99	90,259	4	5,959
Africa	214	68,250	140	44,505	251	70,264	352	107,418
Asia	11	5,423	..	..	15	6,983	..	..
America	54	11,614	27	5,927	23	4,192	18	3,379
British Northern Colonies	..	..	..	..	117	27	..	..
British West Indies	281	292,807	1	1,100	232	291,588	1	..
Foreign West Indies	571	184,871	112	45,429	1,060	368,418	491	152,626
United States	15	21,568	..	..	27	27,280	..	..
Central and Southern States	1,141	997,000	57	29,469	1,800	1,558,177	372	162,246
Falkland Islands	71	78,355	..	..	70	74,753	..	..
Whale Fisheries	1,480	851,814	965	112,298	1,010	585,422	78	33,488
Total	718	226,548	71	21,027	661	181,999	51	18,308
Other British Possessions	22	37,515	1	116	31	51,655	1	2,000
Total for United Kingdom	282	102,254	297	92,525	455	174,174	513	167,243
United States	591	61,574	8	9,960	356	580,603	88	15,481
Central and Southern States	600	395,118	54	418,221	627	492,710	305	428,590
Falkland Islands	85	75,104	..	..	100	78,723	9	2,000
Whale Fisheries	991	428,891	353	106,125	1,063	413,849	520	167,893
Total	3	1,079	..	..	4	1,153	..	..
Total for United Kingdom and British Possessions	18	6,312	..	..	11	4,858	..	..
Total	10	2,671	..	..	18	4,857	1	43
Total	54,427	11,197,865	24,511	5,140,954	35,502	11,172,205	24,817	5,415,999

IX.—A Return of the Number and Tonnage of New Vessels built in the United Kingdom, and of each of the British Possessions respectively (distinguishing Timber from Iron, and Steam from Sailing Vessels), and Registered as British Ships, in the Year 1867.

Countries	Sailing Vessels				Steam Vessels			
	Timber		Iron		Timber		Iron	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
England	606	71,008	9	36,685	4	1,507	180	45,181
Scotland	121	21,235	61	40,473	7	1,712	98	36,636
Ireland	16	1,010	1	163	..	..	10	9,400
Total for United Kingdom	743	97,153	71	77,321	11	3,219	288	91,217
Channel Islands	26	4,855	..	..	..	..	2	45
Other British Possessions	752	136,552	5	257	18	1,758	5	907
Total for United Kingdom and British Possessions	1,521	238,560	76	77,575	29	5,007	293	92,919

X.—Account of the Number of Vessels, with the Amount of their Tonnage, that were built and registered in the several Ports of the British Empire in 1865, 1866, and 1867, respectively.

Ports	1865		1866		1867	
	Vessels	Tons	Vessels	Tons	Vessels	Tons
England	1,011	299,465	996	222,207	849	136,437
Scotland	269	106,561	295	110,886	299	102,486
Ireland	55	9,578	24	8,096	27	10,275
Isles of Guernsey, Jersey, and Man	39	5,155	38	6,432	28	5,640
British plantations	980	215,555	894	166,622	773	138,288
Total	2,393	630,514	2,255	512,235	1,675	413,800

*Ship-building.*—Sunderland, London, Glasgow, Newcastle, Liverpool, Hull, Yarmouth &c. are the principal building ports. The business has increased with extraordinary rapidity at Sunderland; so much so that while only 60 ships, of the burden of 7,560 tons, were built in that port in 1820, no fewer than 152 ships, of the burden of 68,479 tons, were built in it in 1853, and 158, of 50,068 tons, in 1867. Ships built in London, Liverpool, Bristol, and other western ports, are, however, in higher estimation than those built in the Tyne and the Wear, at least for those branches of trade where the best ships are required. We subjoin

An Account of the Ships and their Tonnage annually built in Sunderland in various Years since 1848.

Years	Ships	Tons	Average Tons
1848	112	37,878	266 1/2
1849	155	44,353	286
1850	158	51,373	325 1/2
1851	146	51,825	355
1852	142	56,645	398 1/2
1853	152	68,479	451 1/2
1854	151	66,999	443 1/2
1855	151	61,159	405
1856	151	63,019	409 1/2
1857	143	54,880	383 1/2
1858	110	42,003	381 1/2
1867	158	50,068	362 1/2

the more extensive employment of steam ships in the coasting and overseas trades, the same amount of tonnage performs a much greater amount of work. The mere substitution of steam for sailing ships, though there had been no increase of tonnage, would have been really equivalent to a large addition to the latter. Inasmuch, however, as both the proportion of steam ships to the total tonnage and the amount of the latter have greatly increased, we need not be surprised at the existing depression.

But there is no ground for thinking that the latter will be permanent. The continued increase of our trade will afford employment to a still increased amount of shipping; and the check given to building in the mean time will powerfully assist in bringing about the desired equilibrium between the demand and supply.

Ever since we repealed our navigation laws in 1849 our course as a whole has been onwards, and with a rapidity of which we could have had no conception previous to that time.

In 1841, when these laws were in full force, the number of vessels registered as belonging to the United Kingdom was 23,461, with a tonnage of 2,935,399; the number of men then employed was 172,341. In 1851, when the navigation laws were abolished, the number of vessels fell to 18,184, but their tonnage had increased to 3,386,395, while they were worked by the reduced number of 141,937 men; but from the customs returns lately published we learn that in 1867, 40,942 vessels were registered in the British empire, requiring 346,606 men, representing a total of 7,277,098 tons. Of this large number of vessels 27,918 belonged to the United Kingdom, 855 to the Channel Islands, and 12,165 to British plantations. A total of 32,756,112 tons of shipping entered inwards and cleared outwards during the year. Of this amount 11,197,685 tons British and 5,140,952 tons foreign entered inwards; and 11,172,205 British and 5,245,090 foreign cleared outwards.

Some very important changes have since 1850 been made, and are yet in progress, in the construction of ships. They are now built of a much larger size than formerly, of finer models, and with a power of sailing of which no just idea could previously have been formed. But in regard to size, as in most other things, we appear at one time to have run from one extreme into another; and from being too small, our ships, and those of the Americans, became too large and unwieldy. And, speaking generally, they are now being built of a less, though still large, and more convenient size than was customary a few years ago.

Even the *Great Republic*, built in New York about 15 years ago, though not one quarter the size of our *Great Eastern*, was found to be much too large for the ordinary purposes of commerce, and the sailing vessels of the United States of America seldom now exceed 1,200 tons register. But while we have been moving onwards with astonishing rapidity, the merchant navy of that country, which at one time bade fair to exceed our own, is now very little more than half of what it

their Tonnage, and the Number that belonged to the several Ports, respectively.

	1866	1867
vessels	4,661,094	890,201
tons	781,650	56,371
men	845,168	15,811
1869	87,357	5,58
1870	1,518,617	96,75
1871	7,297,981	316,75

United Kingdom, exhibiting the trade and outward (including their distinguishing the Trade with

Outwards

Vessels	British		Foreign	
	Tons	Vessels	Tons	Vessels
15	221,865	27	55,51	
16	265,600	1,239	312,83	
17	80,016	30	11,19	
18	51,448	1,478	301,11	
19	68,433	41	7,31	
20	30,425	2,621	5,008,9	
21	61,653	60	10,72	
22	75,759	5,594	5,007,37	
23	110,582	57	7,41	
24	92,938	1,595	31,75	
25	565,188	713	17,58	
26	198,799	2,430	27,79	
27	491,153	111	25,10	
28	165,176	630	30,41	
29	357,731	597	94,33	
30	85,361	52	8,13	
31	95,377	..	..	
32	69,371	12	7,5	
33	1,431,695	319	91,81	
34	600,184	4,314	562,17	
35	77,096	37	6,9	
36	88,556	519	..	
37	60,915	110	..	
38	235,339	610	13,77	
39	60,995	..	..	
40	42,500	..	..	
41	138,273	10	6,97	
42	143,365	900	290,63	
43	24,216	..	..	
44	52,165	92	32,31	
45	5,018	..	..	
46	6,884	..	..	
47	10,813	..	..	
48	28,979	..	..	
49	90,259	..	..	
50	179,901	352	107,41	
51	8,888	..	..	
52	4,192	..	..	
53	7,217	..	..	
54	29,198	..	..	
55	360,418	491	152,49	
56	27,530	..	..	
57	1,558,177	572	216,96	
58	..	..	..	
59	..	..	..	
60	..	..	..	
61	..	..	..	
62	..	..	..	
63	..	..	..	
64	..	..	..	
65	..	..	..	
66	..	..	..	
67	..	..	..	
68	..	..	..	
69	..	..	..	
70	..	..	..	
71	..	..	..	
72	..	..	..	
73	..	..	..	
74	..	..	..	
75	..	..	..	
76	..	..	..	
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78	..	..	..	
79	..	..	..	
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99	..	..	..	
100	..	..	..	

it in the United Kingdom, and at Timber from Iron, and Steam the Year 1867.

Steam Vessels

Vessels	Timber		Iron	
	Tons	Vessels	Tons	Vessels
44	1,507	180	46,48	
7	1,742	98	36,36	
..	..	10	9,00	
..	3,219	228	91,34	
..	..	2	45	
18	1,758	5	90	
69	5,007	255	99,09	

Within the last 20 years the building of iron vessels has been immensely extended on the Tyne, the Wear, and the Clyde; and although the latter still maintains the lead, the former places have made extraordinary strides since 1853. In 1853-4, when we became involved in the Russian war, a very great impetus was given to the construction of iron screw steamers, which has been fully maintained; and although the shipping interest since then has passed through more than one period of much depression, there has been no retrogression in the numbers annually launched of that particular description of vessels.

*State of the Shipping Interest in 1869.*—When the 1859 edition of this work was published the shipping interest was very depressed, as it is at present. The cessation of the Russian war, by putting an end to the extraordinary demand for ships for the conveyance of troops, was followed by an immediate fall of freights. And though the fall was in part, it was not wholly, counteracted by the demand for ships to convey troops to India to quell the revolt of the Bengal native army. Concurrently, too, with these circumstances, the revision, which at that time took place in the trade with Australia disengaged a considerable number of ships, while the vast additions made by the Americans, Norwegians, Danes, Swedes, Dutch &c. to their commercial marine contributed still more, by increasing competition beyond the demand, to lower the rate of freight.

But independent of these transitory circumstances, we apprehend that the grand cause of the depression of the shipping interest in this country especially, is to be found in the too great increase of shipping. The truth is, that ship-building is periodically completely overdone. It should be borne in mind that in consequence of

was in 1860. This remarkable decline, though in the first instance caused by the lamentable civil war which broke out in that year, is in a very great measure to be attributed to the high tariffs which have recently been imposed upon almost every article required for ship-building purposes; and unless the United States revert to a policy of free trade, they can never again hope to rival this country in its maritime commerce.

Iron ships are also, as previously stated, and exhibited in Table IX., very extensively constructed; and ships are now frequently fitted out with screws and steam engines to be used only as a subsidiary power in calms, and against contrary winds.

Most sorts of short passage traffic are now carried on by steamers; and it is probable that in the end they will engross the greater part of the coasting trade of most countries and of the trade between foreign countries adjacent to each other. But it is believed by many good judges, that the improved class of sailing ships have little to fear from the competition of steamers in all the more distant branches of trade. This, however, would appear to be very doubtful.

*Statements of Shipowners.*—It will not excite the reader's surprise to be told that a great many crude projects have been put forward in the view of removing the distress to which shipowners have been periodically subjected. But it must be left to time and to the efforts of the parties concerned to set it to rights. It would be much worse than useless to attempt to improve their situation by engaging in retaliatory proceedings against Spain and those countries that lay discriminating duties on articles conveyed to them in foreign ships. Such proceedings would seriously injure ourselves without having any favourable influence over the foreigner. Certainly he will not abandon the protective system because we complain of its operation, though that might very probably tempt him to extend it still further. But there can be little doubt that he will eventually renounce it, when he sees that our commerce and shipping, despite the temporary checks to which all departments of industry are necessarily liable, have vastly increased under a free and liberal system.

Besides their reasonings in favour of coercive measures, it has been the habit of shipowners to put forth statements intended to show that shippers only profit by a fall in the rate of freight, and that its reduction redounds in no degree to the advantage of the consumers. Suppose, to illustrate this extraordinary statement, that the freight of the barrel of flour from New York to Liverpool generally amounts to 8s. or 10s., but that it falls, from some cause or other, to 1s. the shipowners contend that the exporter will pocket the whole of the difference (9s. or 7s.) between the high and the low rate of freight, and that the British public will in no wise profit by the fall. And such would be the case for the moment; but it is not possible that the exporter should continue to enjoy an advantage of this sort for any length of time: for the fall of freight, by adding so much (9s. or 7s. per barrel) to the profits of the shippers of flour, would give such a stimulus to its exportation, and create so much competition in the trade, that its price would forthwith fall in England. And there can be no manner of doubt that it would continue to fall till the New York shippers realised only the same profits that are realised by the shippers of other articles either foreign or coastwise; that is, till the price of flour has been reduced 7s. or 9s. per barrel, or freight has risen to that amount, or till the equalisation has been brought about partly in the one way and partly in the other. To

suppose it should be otherwise is to suppose what is evidently contradictory and absurd. The price of articles not consumed on the spot where they are produced is made up of the cost of their production and carriage; and any reduction of the latter which is not momentary only, has precisely the same influence over the price of an article as if the expense of producing it were diminished to the same extent. One really feels ashamed to have to state what is so very obvious. It is not creditable to the shipowners that they put forth statements so palpably absurd as that now referred to. They can hardly fail, one should think, to be themselves aware of their fallacy; and they count too much upon the ignorance of others if they suppose that they will not be appreciated at their exact value.

Since the last edition of this work was published, it has afforded us no ordinary pleasure to note that our shipowners, instead of clamouring for a restoration of protection, have in most instances, and with great success, set to work to adapt their vessels to this altered position, and are now producing a class of vessels vastly superior to any we hitherto possessed, and with which we need not fear to compete with the vessels of all other nations.

France too has followed our example in free navigation; and in seeking to effect this change no one was more zealous than Mr. W. S. Lindsay, formerly M.P. for Sunderland, and himself an extensive shipowner. See his Letter to the Emperor of the French, printed as a Parliamentary Paper.

## II. CLASSIFICATION OF SHIPS.

To insure a ship on right principles, or in such a way that the premium shall be the fair equivalent of the risk, is no easy matter. The risk depends partly on the condition of the ship and the capacity of the master and crew; partly on the nature of the cargo she has to take on board; and partly on the voyage she has to perform. The last two circumstances disclose themselves, and their influence may be appreciated, at least with sufficient accuracy for practical purposes, without any difficulty; but it is far otherwise with the condition of the ship, and the capacity of the master and crew. It is essential to the adjusting of an insurance on fair terms, that these should be known; and it is, at the same time, exceedingly difficult to acquire any accurate information with respect to them.

It is plain that there is but one mode in which anything satisfactory can be learned with respect to the condition of ships, and that is by their inspection and examination by persons of competent information as to such matters. To acquire a just character as first, a ship should be repeatedly surveyed while she is being built; and to know her condition at any subsequent period, some of the planks should be taken off, and her hull and rigging subjected to a thorough examination. This is the only method to be followed if we wish to arrive at results that may be safely depended on. The age of a ship should not be overlooked in estimating her condition; but it is a criterion that, taken by itself, is worth scarcely anything. There is the greatest possible difference in the materials of which different ships are built, and in the way in which they are built, and in the wear and tear to which they are exposed. Some are so very bad, that they are almost unseaworthy on their first voyage; others, with difficulty, last for 3, 4, or 7 years; and others, again, run for 10, 15, and even 20 years, and upwards, with but little repair. It may be presumed that the con-

dition of ships built of similar materials, on the same plan, and employed in the same departments of trade, will depend materially on their ages, but a thousand circumstances conspire to defeat this presumption; and it would be ludicrous to suppose that it should apply at all in the case of ships constructed of different materials, and engaged in different lines.

But, notwithstanding the criterion of age is thus really worthless as a rule by which to judge of a ship's condition, it is almost the only one that was referred to in this country down to a late period. From about the year 1760, or perhaps earlier, down to 1834, ships were arranged, by the underwriters at Lloyd's, in classes marked by the letters A, E, I, and O, and the figures 1, 2, and 3; the former referring to the hull of the ship, and the latter to the rigging. A ship marked A 1 was in the highest class; that is, her hull and rigging were both declared to be in the best condition; ships marked E 1 were in the next class; those marked I 1 were in the lowest available class, or the class formed of such as were fit only for carrying coals, or other goods not liable to sea damage along the coast; ships marked O were unseaworthy. But to get into the highest class, no examination of the ship, or none worthy of the name, was required. Unless some very flagrant defect was obvious in their construction, all ships were entitled, when new, to be marked in the highest class; and they were entitled, whatever might be their real condition, to stand in it for a certain number of years, varying from 6 to 12, according to the port in which they happened to be built. It is not easy to imagine anything more absurd than such a classification; but the whole extent of the injury arising from it is not immediately obvious. The great majority of merchants and underwriters have not, and could not be expected to have, any personal knowledge of different ships, and have nothing to trust to but the classified accounts. Suppose, now, that two ships were built at the same time in London or any other port; that one was constructed of the best materials, and in the best way, while the other was constructed of the worst materials, and in the most defective manner: these two ships were placed side by side in the class A 1; the underwriters, seeing them there, were ready, without further enquiry, to insure them at the same premium, and the merchants were, for the same reason, quite as willing to employ the one as the other. A bounty was thus given on the construction of what have been called *shop-built* ships, or ships of an inferior class. For a half, or, at most, two-thirds, of what would be required to construct a good and really sufficient ship, a shipowner got an inferior vessel of an equal burden sent to sea; and, owing to the matchless absurdity of the system of classification, the inferior was placed in the same rank with the superior ship; enjoyed all the advantages such distinction could give; and was, in the public estimation, deemed quite as good and as deserving of employment as the other. This has been a more copious source of shipwreck than all the currents, rocks, and fogs that infest our seas; but it was not the only one. At the end of a certain number of years, depending (as already stated) on the port where the ship was built, both the vessels referred to above were degraded to the class E; and yet it might happen that the superior ship was, when so degraded, better entitled to continue in the class A than the inferior ship was ever to be in it. But even this does not exhaust the whole absurdity of this preposterous scheme; for, supposing that the superior ship had been so thoroughly repaired as

to be as good as the day she came off the stocks, and that the inferior ship had got no repair at all, still they were both placed, side by side, in the class E. All the annals of all the maritime nations of the world, from the Phœnicians downwards, furnish no example of a more perverse, contradictory, and absurd regulation. That it should have existed amongst us for the greater part of a century strikingly exemplifies the power of habit to procure toleration for the most destructive practices and errors.

It may be said, perhaps, that whatever system of classification is adopted, there must be great numbers of inferior vessels; for, though we did not, foreigners would build them; and, being consequently able to sail them cheaper, would drive us totally out of all trades in which they could come fairly into competition with us. This is true; but provided they be not engaged in the conveyance of passengers, who ever thought of proscribing inferior ships, or of dictating to the shipowner what sort of ships he should build, or to the merchant what sort he should employ? We do not object to inferior ships, but we do object to the same character being given to them that is given to superior ships. This is practising a gross fraud upon the public, and gives an unfair and unjust advantage to the owners of inferior vessels. The interests of navigation and of humanity imperatively require that ships should be correctly classified; that those that are not seaworthy should not be classed with those that are, but that the real state of each should be distinctly set forth in the register, and be made known to everyone. If this be done, the merchant and the underwriter may be safely left to deal with them as they think fit.

In consequence of the laudable exertions of Mr. Marshall and other gentlemen, the attention of the principal merchants, shipowners, and underwriters &c. of the metropolis was some years ago directed to this subject; and in 1824 a committee, consisting of representatives from these different bodies, was appointed to enquire into and report on it. The committee collected a great deal of valuable evidence, and laid an able Report before a general meeting of merchants, shipowners &c. on June 1, 1826. We subjoin an extract from this Report, which more than bears out all that we have stated:—

“From the absence of all control on the original construction of ships while building, and the impossibility of ascertaining, by any inspection after completion, their real quality, it appears to be indisputably proved, by an almost uniform concurrence of testimony, that the first character, or A 1, is indiscriminately extended to ships differing widely in strength, durability of materials, and all those qualities on which character ought to be dependent; that many ships to which the first class is assigned are decidedly inferior to others which are placed, from lapse of time alone, in a lower class; that many become totally unfit for the conveyance of dry cargoes, long before the expiration of the period during which they are entitled, according to the present system, to remain on the first letter, in which they are notwithstanding continued; that instances are on record of first-class ships which have been unfit from their origin for the conveyance of dry cargoes; and some are declared to have been hardly fit, when new, to proceed to sea with safety. One case is even adduced, in which, from ill construction and insufficiency of fastening in a new ship, her insecurity was predicted, and she actually foundered on her first voyage; and yet this identical vessel was ranked, according to the indiscriminate system pursued, in the first class.

Such, as respects new ships, appear by the evidence to be the practical results of a system which, assuming to designate by marks their intrinsic quality, provides no means of actually ascertaining that quality; but offers, in effect, a premium for the building of inferior and insufficient ships, by the inducement it holds forth to fraudulent construction and by the quality of character it indiscriminately extends to the best and the worst ships built at the same port.

Nor, your committee regret to have to report, is the evidence of the errors, inconsistencies, and evils arising from the existing system, as applied to old ships, by any means less conclusive. By the refusal to restore character, in consequence of repairs, however extensive, the inducement to maintain ships in an efficient state is removed; whilst, from the absence of all regular provision for stated or periodical examination, their efficiency or inefficiency is rendered dependent upon the var, of views, the caprices, or the interest of the proprietors. Hence, though the second character, or B, is declared by the rules of the system to be the designation of ships which, having lost the first character from age, are kept in perfect repair, and appear, on survey, to have no defects, and to be completely calculated to carry dry cargoes with safety, the whole body of evidence distinctly proves that character to be, in very numerous instances, assigned to ships which, from original defect or want of requisite repairs, are utterly unfit and unsafe for dry cargoes; while others, which, from sound constitution or efficient reparation, are pronounced in the evidence to be superior to many new ships, are indiscriminately classed with the actually worthless and unseaworthy. Hence, too, the employment of ships, after they have passed the period prescribed by a fallacious standard of classification, becomes uncertain, precarious, and difficult; the shipowner is injured; the shipper and underwriter misled; the building of superior ships, capable of long service, is discouraged, and direct inducement is held out to the construction of those of an inferior description; the general character of our mercantile marine is degraded; and it is to be feared that, could the system be traced to its ultimate results, it would be found to be productive of a lamentable loss of property and life.

It may have seemed surprising that, despite the continued complaints of the lowness of freights, and the want of employment for shipping, so many new ships should be annually built. But this was, to a considerable extent at least, occasioned by the system of classification now described. Instead of building a really good and durable ship, the principal object used to be to construct one that should, at furthest, be, as the phrase is, *run off her legs* in about 10 years or thereby; inasmuch as, whatever might be a ship's condition, she was then degraded from class A 1, and it was hardly possible, in most departments of trade, to find a merchant to employ, on anything like reasonable terms, a ship to which these symbols of imaginary excellence were not attached. Hence, the shipowner, instead of repairing his 10-years old ship, sold her for what she would fetch, and built a new one. But the person who purchased the ship degraded to E 1, forced her, though at an enormous reduction, into business; so that there were two bad or inferior ships in the field; whereas, under a reasonable system of classification, there would most likely have been only one good ship. The injury that this practice did to the shipping interest is too obvious to require to be pointed out. It has been infinitely more hostile to it than all those reciprocity treaties, and that

foreign competition, about which there has been so much unfounded clamour. 'If the system of classification were founded on the principle of *intrinsic merit*, if the real efficiency of the ship formed the basis on which character was given the consequence, in numerous instances, would be that, instead of supplying the place of those ships that at present lapse from age only into the second class with new ones, the owners would effectually repair the existing ships; so that there would speedily be not only a material improvement in the construction of ships, but a material increase in the amount of tonnage, and a corresponding increase in the rate of freight.' (Marshall's *Statistics*, p. 19.)

The conclusive Report and exposition referred to above did not produce the consequences that might have been anticipated. Government, for reasons known only to itself, but which appear to have been of a very questionable description, seems to have concluded that this was not a subject with which it should interfere; and it was laid aside for some years more. But the still increasing amount of shipwreck, and the loss of life and property consequent thereon, again roused the public attention to the subject; and at length the principal merchants, shipowners, and underwriters succeeded in setting on foot machinery by which a classified account of shipping has been obtained, founded on more correct principles. The public owe much to the individuals who imposed on themselves this difficult and important task. Notwithstanding the obstacles with which they had to contend, they have done a great deal to improve the character of our mercantile marine, and to lessen the disasters incident to a seafaring life.

**2. New System of Classification.**—This new classification is conducted under the direction and superintendence of a committee of merchants, shipowners, and underwriters, established in 1831. Many objections were frequently made to the manner in which this committee was chosen; and in the last edition we expressed an opinion that its composition might be improved, and that consequently it might be made to enjoy a larger share of the public confidence; but important changes have since then been made in the management of its affairs. It establishes rules for classifying ships, and appoints, controls, and dismisses the surveyors by whom they are inspected and examined. It is plain, therefore, that the power which it exercises over shipping is very considerable, and that it is of the greatest importance that it should be placed on sound principles, and exercised with the greatest discretion. A classified register is annually published, which should become more and more complete; and the expenses attending the institution are defrayed, partly by the fees charged on making an entry in the register, partly by the profits on the sale of the register or book, and partly from voluntary sources. But, as the subject is of much importance to everyone interested in commerce and navigation, we think we shall do an acceptable service to our readers by laying before them the statement prefixed by the society to their register. It fully explains their objects, the principles on which they proceed, and the means they profess to adopt for carrying their views into effect.

*Classification of Ships: Rules and Regulations for, in 1868.*

After announcing the formation of the society, the official statement goes on to say, that—

8. The superintendence of the affairs of the society is to be under the direction of a committee

about which there has been clamour. If the system of founded on the principle of the real efficiency of the ship which character was given, numerous instances, would be lying the place of those ships from ago only into the second the owners would effectually ships; so that there would y a material improvement in ships, but a material increase tonnage, and a corresponding of freight." (Marshall's *Sta-*

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of merchants, shipowners, and underwriters: twenty-four elected in London, and eleven at the principal outports. The chairman for managing the affairs of Lloyd's, and the chairman of the General Shipowners' Society, London; also the chairman and deputy-chairman of the Liverpool committee, and the chairman of the Liverpool classification committees for the time being, to be, ex officio, members of the committee.

9. Six of the members elected in London, namely, two of each of the constituent parts of the committee, to go out annually by rotation, but to be eligible to be re-elected. The vacancies so arising to be filled up by the election of two underwriters and one merchant by the committee for managing the affairs of Lloyd's, and two ship-owners and one merchant by the committee of the General Shipowners' Society.

10. The members elected at the outports to retire at the end of every four years, but to be eligible for re-election.

11. The committee to appoint from their own body, annually, a chairman and deputy-chairman, and also a chairman for a sub-committee of classification.

12. The committee to appoint a sub-committee of classification, to be so regulated that each member of the general committee may, in rotation, take his turn of duty therein throughout the year.

13. The secretary, clerks, and servants of the society, and the surveyors, to be appointed by and be under the direction of the general committee.

14. Special meetings to be convened by order of the chairman, or deputy-chairman, or on the requisition of any three members.

15. All elections and appointments to be made by ballot.

16. No member of the committee to be permitted to be present on the decision of the classification of any ship of which he is the owner, or wherein he is directly or indirectly interested.

17. The committee to be empowered to make such by-laws for their own government and proceedings as they may deem requisite, not being inconsistent with the original rules and regulations under which the society was established; but no new rule or by-law to be introduced, nor any rule or by-law altered, without special notice being given for that purpose at the meeting of the committee next preceding that at which such motion is intended to be made; such notice to be inserted in the summons convening the meeting. No new rule, or alteration in any existing rule, materially affecting the classification of ships, to take effect until the expiration of six months from the time it shall have been determined upon.

18. All reports of survey to be made in writing by the surveyors according to the forms prescribed, and submitted for the consideration of the general committee, or of the sub-committees of classification; but the character assigned by the latter to be subject to confirmation by the general committee.

19. The reports of the surveyors, and all documents and proceedings relating to the classification of ships, to be carefully preserved, and parties proving themselves to be interested therein to have access to the same under the direction of the chairman or deputy-chairman.

Copies of the original reports (if the ships be already classed, but not otherwise), so far as relates to the dimensions, scantlings, fastenings, and materials, in cases where the correctness of the reports in these particulars is certified by the builders, are granted on application.

20. Foreign ships and ships built in the British possessions abroad where there is not a surveyor (see also sec. 51), to be surveyed on their arrival at a port in the United Kingdom; but a due regard is to be had to the circumstance of their having been exempted from the supervision while building to which all British ships are subjected, and the character to be assigned to them is to be regulated according to their intrinsic quality, and from the best information the committee can obtain.

21. In every case in which the character assigned to a ship may be proposed, a survey, to be reduced, notice is to be given in writing to the owner, master, or agent, with an intimation that if the reduction be objected to, the committee will be ready to direct a special survey, on the owner, master, or agent agreeing to pay the expenses attending the same, provided on the said survey there shall appear sufficient ground for the proposed reduction.

22. When the surveyors consider repairs to be requisite, they are respectfully to communicate the same in writing to the owner, master, or agent; and if such repairs be not entered upon within a reasonable time, a corresponding report is to be made to the committee for their decision thereon.

23. Parties considering the repairs suggested by the surveyor to be unnecessary or unreasonable may appeal to the committee, who will direct a special survey to be held; but should the opinion of the surveyor be confirmed by the committee, then the expense of such special survey is to be paid by the party appealing.

24. The surveyors to the society not to be permitted (without the especial sanction of the committee) to receive any fee, gratuity, or reward whatsoever for their own use or benefit, for any service performed by them in their capacity of surveyors to this society, on pain of immediate dismissal.

25. The surveyors will be directed to attend on special surveys of ships while building or under damage or repair, when required by merchants, shipowners, or underwriters; the charge for which is to be regulated according to the nature and extent of the service performed. In all cases the application for the assistance of the surveyors must be made in writing addressed to the secretary.

26. The funds to be under the authority and control of the committee, and a statement of the receipts and expenditure to be annually printed for the information of the subscribers.

27. The following fees to be charged to the owners of ships prior to their vessels being classed and registered in the book:—

*For Entering and Classing Ships, and for Entering and Classing Ships surveyed for Continuation, or the Character A in red, or required for Restoration.*

For each ship under 100 tons	£1	0	0
of 100 tons and under 200 "	2	0	0
200 "	3	0	0
300 "	4	0	0
400 " and upwards	5	0	0

*For Registering Repairs.*

For each ship under 500 tons	£0	10	0
of 500 tons and under 500 "	1	0	0
500 "	1	0	0
1,000 " and upwards	3	0	0

*For Re-classing Ships (except when repaired) the Characters of which have been expunged, or Change of Owners.*

For each ship under 200 tons	£0	10	0
of " and above	1	0	0

*Special Surveys.*

28. For ships built under the special superintendence of the surveyors (to entitle them to the distinctive mark  $\otimes$ ), 1s. per ton.

For surveys for damage, or for other surveys, held at the request of the owners, and for the survey of ships for restoration, continuation, or the character A in red, a charge (in addition to the fee for entry) will be made, according to the nature and extent of the service performed.

In cases where the caulking of ships is superintended and tested by the surveyor, a special charge will be made, according to the tonnage of the ship. All repairs which may be required on the surveys above referred to must be performed under the superintendence of the society's surveyors.

29. Certificates of character, of the form No. 7, signed by the chairman of the general committee, or by the chairman of the sub-committee of classification, and countersigned by the secretary, will be granted on application, the charge for which will be as follows:—

For ships under 200 tons	-	-	£3	2	6
of 200, and above	-	-	0	3	0
Copies of original reports, as per sec. 19	-	-	1	1	0

31. *Characters.*—The characters to be assigned to ships to be, as nearly as possible, a correct indication of their real and intrinsic qualities—(ships which are not built in accordance with the principles of the society's rules will be marked in the register book thus '[*Expt. B. S.*]' denoting that they are built experimentally, and are classed subject to being surveyed biennially)—and to be in all cases fixed (not by the surveyors, but by the committee, after due consideration of the reports of the surveyors and such other documents as may be submitted to them, and will be distinguished as follows:—

*Ships A* to consist of new ships, or ships continued, or restored. (Secs. 31, 54, 55, 57.)

*Ships A in red* to consist of ships which have passed the period assigned on the original survey, or continuance, or restoration; and also of ships not having had an original character, and which are found on survey of superior description, fit for the conveyance of dry and perishable goods *to and from all parts of the world.* (Sec. 60.)

*Ships B* to consist of ships which are found on survey fit for the safe conveyance of dry and perishable goods on *shorter voyages.* (Sec. 61.)

*Ships E* will comprise ships which shall be found on survey fit for the conveyance of cargoes not in their nature subject to sea damage on *any voyage.* (Sec. 64.)

*Ships I* to consist of ships fit to carry cargoes, not liable to sea damage on *shorter voyages.* (Sec. 66.)

32. In flush-decked vessels having either one, two, or three decks (not being spar or awning decked), the tonnage under the upper deck, *without abatement of the tonnage of the space for the crew, or for the propelling power of steam vessels,* is to regulate all the scantlings of the hull, and also the equipment of the vessel.

In vessels having a *raised quarter deck,* or a poop, or top-gallant fore-castle, or deck houses, or awning deck, or spar deck, the total tonnage below the tonnage deck is to regulate the scantlings of the hull; but the register tonnage, as cut on the main beam of sailing vessels and of stearn vessels, *with the addition of the tonnage of the space required for propelling power,* is to regulate the equipment, and also, in iron or composite vessels, the size of the main piece of rudder and windlass, and the keel and keelsons and their number, and the

scantling of the stringer plates on the upper and lower deck beams, and the requirements as to double riveting.

But in vessels where the tonnage of the erections above the tonnage deck is less than that required for crew space, *then the difference* between the tonnage of these erections and the tonnage of the space allowed for crew is to be *added* to the register tonnage, cut on the main beam, for the tonnage that is to regulate the equipment and the size of the main piece of rudder and windlass, and the keel and keelsons and their number, the scantling of the stringer plates on the upper and lower deck beams, and the requirements for double riveting.

*Rules for Classification.*

33. *Ships A* will consist of new ships and those which have not passed a prescribed age, provided they are kept in a state of complete repair and efficiency. The character A will not, however, be granted to any vessel unless satisfactory evidence of the date and build and place where built is produced.

34. The number of years to be assigned for this character to be determined with reference to the original construction and quality of the vessels, the materials employed, and the mode of building; and their continuance for the time so assigned to depend upon its being shown by occasional surveys (annually, if practicable) that their efficiency is duly maintained.

The characters of ships classed A will be struck out of the register book unless they be submitted to the following intermediate survey, within periods not exceeding *four years* in the case of vessels *classed ei. 4 years and under,* either originally, or on restoration, or on continuation, and within periods not exceeding *half that assigned* in vessels classed for longer terms.

This regulation is applicable also to ships classed A in red.

The survey will be noted in the register book thus—'H. T.' (half-time), with the date of the survey affixed.

*Half-time or intermediate survey.*—The ship to be placed on blocks in dry dock, or on ways, so that the keel and bottom may be seen and properly examined (unless she has been thus surveyed by the society's officers within the previous twelve months); the hold to be cleared, and proper stages made both inside and outside; the limbers and all air courses to be cleared; and if the ship has not already got the air courses, described in rule, sec. 37, they are now to be made; the outside planking to be scraped bright where the surveyors may consider it to be necessary from any apparent defect; bolts of lower deck (if of iron) in number not less than six on each side, and treenails in number not less than twelve on each side, to be driven out at various parts of the ship. The attention of the surveyors is to be then particularly directed to the state of the upper or main deck and comings, the upper and lower deck bolts, *whether of iron or copper,* and the outside planks through which they pass, and to all other parts of the ship, so far as they can be examined; the windlass to be unhung and wood lining stripped; the condition of the caulking is also to be ascertained. The cables to be removed from the lockers and ranged, and, with the anchors and general equipment, examined so as to be satisfactorily reported upon.

35. New ships are to be surveyed while building, by the surveyors to this society, in the following three stages of their progress, or they will be liable to lose one year of the period to which they

might otherwise be entitled. (Sec. 53.) Ships intended to be built under *special survey*, must be placed under the surveyor's inspection from their commencement, so that all parts of the timbers, deadwood, keel, stem &c. may be examined.

*First*.—When the frame is completed, timbers dubbed fair inside and outside ready to receive planking, and before any planking is wrought.

*Second*.—When the beams are put in, but before the decks are laid, and with at least two strakes of the plank of the ceiling between the lower deck and the bilge unwrought, to admit of an examination of the inner surface of the plank of the bottom.

*Third*.—When completed, and before the plank be painted or pyed.

All ships for which a higher character than 10 years' A may be claimed, must be surveyed by an exclusive officer of the society, twice at least while building; namely, at the first and at the second stages of their progress as above prescribed. Due notice must be given by the builder or owner of their being ready for this additional survey.

36. A full statement, agreeably to Form No. 4, of the dimensions, scantlings &c. of all new ships, verified by the builder, is to be transmitted by the surveyor, and to be kept as a record in the office of the society.

#### Rules to be observed in building Ships.

37. The whole of the timber is to be of good quality and properly seasoned, of the descriptions shown in Table A, as applicable to the several terms of years for which ships may respectively be appointed to remain on the character A. The workmanship to be well executed, and equally so for all grades. Defects in workmanship or quality of timber will involve a reduction of class, to be determined by the committee in each case.

In ships claiming to stand 12 years from their timber materials, the stem, sternpost, beams, transoms, apron, knightheads, and keelsons are to be entirely free from sap and from all defects. The rest of the frame to be well squared and free from sap; each set of timbers to be frame-bolted together throughout their entire length; the butts of the timbers to be close, and not to be less than  $\frac{1}{4}$  of the entire moulding at that place; and in cases where the heads and heels of the timbers which come together are square, a dowel (to be of the diameter from  $\frac{1}{4}$  to  $\frac{1}{2}$  of the moulding of the timber) must be introduced into the ends of such timbers in order to connect them.

All ships building for classification to be well cross chocked with a proper butt at each end of the choek, each arm not to be less in length than one and a half the moulding of the timbers they connect; in all cases the choeks are to be of a description of wood equal to the best material required by the rules for the timbers which they unite, excepting the floorhead choeks, which may be of the materials allowed by the rules for first foothooks. Where the timbers are scarped, the scarfs to be of proper length and with a butt at each end.

In all ships an air course must be left all fore and aft, below each set of clamps, or between the clamps and spirketting of each tier of beams, and in the hold, at each end of the ship, between the keelson and hold beam clamp, to have in addition 1 or 2 tiers of air courses for  $\frac{1}{2}$  of the entire length of the ship.

In the construction of top-gallant forecastles and poops, the timbers must be of the same materials as are required by the society's Table A for the top-timbers of the frames of ships according to the several terms of years appointed for such

ships to remain on the character A, all the said timbers to extend to the plank-sheer. All the outside planking of top-gallant forecastles, and the sheerstrakes, plank-sheers, and spirketting of top-gallant forecastles and poops, must be of the materials required by Table A for the topsides of the said ship; and the shelf and clamps of poops and top-gallant forecastles may be of the same quality as those allowed in Table A for the shelf and clamp of the upper deck. All the beams of top-gallant forecastles, and the mast beams, breast beams, and transom beams of poops, to be of the materials required by Table A for the beams of the said ships; the remainder of the beams and the water-way of the poops, and the remainder of the planking of poops and top-gallant forecastles, may be of cedar, mahogany, Baltic, or American red pine, pitch pine, larch, hackmatack, tamarac, or cowdie, and rock-elm for such remainder of beams only, and yellow pine or American white spruce in ships below the seven years' grade. This rule does not apply to raised quarter-decks, the materials of which are required to be of the same quality as those named in Table A for the main body of the ship.

38. The scantlings of the timbers, keelson and keel, thickness of planking &c. are not to be less than those shown in the society's Table B.

In the inside and outside planking, waterways, plank-sheers, and flat of deck of raised quarter-decks, a reduction of  $\frac{1}{8}$  from the thickness required by the society's Table B for such parts in the range of the upper deck in ships with two decks will be allowed.

In the inside and outside planking, waterways, plank-sheers, and flat of deck of full poops and top-gallant forecastles, a reduction of  $\frac{1}{4}$  from the thickness required by the Table B for such planks in the range of the upper deck in ships with two decks will be allowed; and in the siding and moulding of the top timbers and beams of full poops and top-gallant forecastles, a reduction of  $\frac{1}{2}$  will be allowed. Parties desirous of making any alteration in the construction of poops, with a view to diminishing the weight (but preserving the requisite strength), may submit their plans for the committee's consideration and approval. The united lengths of poop and forecastle are not to exceed  $\frac{2}{3}$  of the entire length of the upper deck. (Sec. 41.)

In vessels having three decks or tiers of beams, where the space under the upper deck is to be used only for the accommodation of crew and passengers, or to enclose the engine openings of steam vessels, the scantlings are to be regulated as per section 32. The total depth of hold in spar-decked ships must not exceed  $\frac{13}{16}$  nor be less than  $\frac{10}{16}$  of the ship's extreme breadth.

In the construction of spar decks, the timbers must be of the same materials as are required by Table A for the top timbers of the frames of ships according to the several terms of years appointed for such ships to remain on the character A. If all the said timbers extend to the plank-sheer, their siding and moulding may be reduced  $\frac{1}{4}$  at their heads; but if only the *alternate* timbers run up to the top height, then a reduction of  $\frac{1}{2}$  only will be allowed in their moulding at their heads, and in that case there must be a perfect covering board worked all round the ship at the middle deck; and in all cases the middle deck must be a perfect deck laid and caulked. All the outside planking, and the sheerstrakes, plank-sheers, and spirketting must be of the materials required by Table A for the topsides of the said ship; and the shelf and clamp may be of

the same quality as those allowed in Table A for the shelf and clamp of the middle deck. All the beams before the foremast, and the mast beams, hatch beams, and transom beam, must be of the materials required by Table A for the beams of the said ships; and the remainder of the beams and the water-way of spar deck, and the remainder of the planking, may be of red cedar, mahogany, Baltic, or American red pine, pitch pine, larch, hackmatack, tamarac, or cowlie; and in ships below the 7 years' grade, the same may be of yellow pine, American white spruce, or white cedar.

In spar decks there may be a diminution of  $\frac{1}{4}$  from the dimensions, fastenings, and bolts prescribed in the tables for the upper deck of ships with two decks (except in the siding of the spar deck beams); but if the outside planking be of 12 years' wood, then a reduction of  $\frac{1}{2}$  may be made in the thickness from that prescribed in Table B for the main sheerstrakes of such vessels.

Deckhouses or other erections are allowed on spar decks, but only to the extent of  $\frac{1}{10}$  of the total superficial area of the spar deck, and are not to exceed 7 feet in height. They are not to be placed nearer to either of the ends than  $\frac{1}{5}$  of the entire length of the vessel.

Vessels to which this rule applies, as regards an entire spar deck, will be noted in the register book thus—'Spar decked.'

39. The intermediate dimensions for the scantling of timbers between the floor heads and the gunwale to be regulated in proportion to the distance from the two points. Should the timber and space be increased, the siding of the timbers to be increased in proportion. Whenever ships are built with double floors, thick strakes (Table B) must be worked inside, to extend from the lower part of the short floor-head cheeks to the upper part of the long floor-head cheeks, and be well bolted through and clenched, with one bolt at the head of each long and short arm of floors, and at the heel of each first and second foothook which come upon them, from the foremast extending a distance aft equal to three-fifths of the length of the ship; in such cases, the lumber strakes need not be through bolted.

*Ships of Great Length in proportion to their Breadth or Depth.*—All ships, the length of which (measured from the fore part of the stem to the after part of the stern-post on the range of upper deck) shall exceed 5 times their extreme breadth, or 8 times and under 9 times their depth, shall have diagonal iron plates closely inserted outside the frame. Parties objecting to fit the iron plates on frames as prescribed above, are at liberty to submit, through the resident surveyor, for the committee's consideration and approval, such compensation as will, in their opinion, render the introduction of the iron plates unnecessary. The said plates to extend from the upper side of upper tier of beams to the lower part of cheeks at first foothook heads amidship and to the same perpendicular height forward and aft, measured from the lower part of the keel. When ships are constructed with long and short armed floors, the said plates are to extend to half-way between long floor heads and first foothook heads; the sizes of the plates not to be less than as follows, viz.:—

In ships of 100 tons and under 200 tons	-	-	3	by 7	in.
200	"	400	"	4	"
400	"	700	"	4	"
700	"	1,000	"	5	"
1,000	"	1,500	"	5	"
1,500	"	2,000	"	6	"
2,000 and above	"		"	6	"

and to be fastened with bolts, one at each end alter-

nate timber, not less in diameter than the size given for *through butt bolts* in the society's Table D. The plates to be well protected by propping, likewise the timbers to be coated in the scores which are to receive the said plates.

The number of plates to be in proportion of no less than one pair to every 12 feet of the ship's entire length taken as above, but not to be more than 8 feet asunder measured on a square; the said plates are to be placed diagonally, at an angle of not less than 45 degrees, their lower end pointing to the after end of the keel in the fore body, and to the fore end of the keel in the fore body, four pairs crossing each other amidships.

All such ships to have shelves and waterways to each tier of beams, each equal in contents to the transverse sectional area of the beams of their respective decks at their ends; each of the said shelves and waterways to be bolted through the outside planking at every timber, with bolts of the sizes given in Table D; likewise the shifts of inside and outside planking not to be less than 6 feet, unless there be a strake wrought between them, and then a distance of 5 feet will be allowed.

In ships the length of which shall exceed six times their extreme breadth, or nine times and under ten times their depth, the number of plates must be not less than one pair to every 10 feet of the ship's entire length taken as above, but not to be more than 6 feet asunder measured on a square, and to be placed diagonally as above described. In cases where the length of the ship exceeds ten times the depth, the builders or owners are to submit, through the resident surveyor, for the committee's approval, their plans for giving the vessel the necessary strength longitudinally. And in addition to the requirements for ships of five times their breadth in length, such ships must be fitted with a rider keelson, or a pair of sister keelsons, at the option of the owner, the transverse sectional area of such rider keelson or sister keelsons each to be equal to  $\frac{2}{3}$  of that required in Table B for main keelsons. If a rider keelson be adopted, it is to be fastened with a through bolt (of the size required in Table D for keelson bolts) in every frame; or if the owner prefers it, every intermediate bolt may be short, passing only through the main and rider keelsons. In all cases in which a rider keelson is fitted, it must be fastened as prescribed above, irrespective of the relative dimensions of the ship. If sister keelsons be fitted, they must be fastened with through bolts, in number not less than one in every alternate timber, and of the size required in Table D for *scarphs of keels* &c.

40. The sizes of the deck and hold beams have been regulated so as to be determined by the length of the beams amidships, as shown in Table C. The beams will be required to be of the size of the midship beam, except those at the after end of the ship, which may be reduced in proportion to their length. If beams of spruce or yellow pine are used, the siding at such beams shall be  $\frac{1}{4}$  larger than is prescribed by the above Table, or be increased each way, siding and moulding, equal in area to that amount.

In cases where iron beams are fitted in wood ships, the beams of each deck are to be  $\frac{1}{2}$  of an inch thicker than is required by the rules for ships built of iron, in consideration of the greater space between; and the depth of lower deck or hold beams is to be increased one inch. The spaces between beams of the several decks not to exceed the spaces at present allowed for wood ships, as per rule, sec. 41. Each tier of beams must have stringer plates riveted on their

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the timbers to be coated in the  
to receive the said plates.

plates to be in proportion of six  
to every 12 feet of the ship's  
as above, but not to be more  
measured on a square; the  
to be placed diagonally, at an  
15 degrees, their lower end  
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fore end of the keel in the fore  
crossing each other amidships,  
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length of which shall exceed six  
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their depth, the number of plates  
than one pair to every 10 feet of  
length taken as above, but not  
6 feet asunder measured on a  
to be placed diagonally as above  
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exceeds the depth, the builders or  
submit, through the resident sur-  
committee's approval, their plans  
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ends, and tie-plates fore and aft, on each side of  
the hatchways, in accordance with the rules for  
iron ships, sec. 15, and to be of the dimensions  
required in Table G, or of strength equal thereto.  
Parties are to submit, through the resident sur-  
veyor, their plans for attaching iron beams to the  
ship's sides, for the committee's approval.

11. The beams of all decks to be in number and  
size as hereinafter specified, and be securely  
fastened to the sides either with lodging-knees of  
iron or wood, or with a shelf-piece and water-  
way, or with a shelf-piece and knees, or with  
some other security equal thereto; and, in addi-  
tion, all ships of 150 tons and above to have  
vertical knees to the deck beams; and those of  
200 tons and above to have vertical knees to the  
hold beams, in number as shown in Table E.  
When the transverse sectional area of the shelf-  
pieces and waterways are each equal in contents  
to the transverse sectional area of the beams of  
their respective decks at their ends as given in  
Table C, and the beams are either doweled or  
doweled to their shelf-pieces and waterways,  
and the shelves and waterways are properly  
shoved, scarphed, and through bolted, having also  
a hanging knee to the lower side of every beam  
end, their lodging-knees may be dispensed with,  
except in the mast-rooms. In ships of 500 tons  
and under, where lodging-knees properly bolted  
are applied, the ordinary plank-clumps may be  
used, but the through bolting of them at alternate  
timbers, as per Table H, cannot be dispensed with.  
The vessels of 13 feet, and under 15 feet hold,  
the spacing of the hold beams not to exceed 8 feet  
apart, and the deck beams 4 feet; in vessels of 15  
feet and under 18 feet hold, the spacing not to  
exceed 8 feet and 4 feet apart alternately, or in  
that proportion; the deck beams to be placed one  
over every hold beam, and one in all double  
spaces; in vessels of 18 feet hold and above, the  
spacing of the beams not to exceed 4 feet 6  
inches; the deck beams to be one over every hold  
beam. The depth in all such cases to be deter-  
mined by taking the measure from the top of the  
limber-strake (the thickness of which, for mea-  
surement, to be taken as prescribed in Table B)  
to the top of the upper deck beams. Ships  
having a depth of hold, measured from the  
limber strake to the under side of the lower deck  
beam, above 13 feet but not exceeding 15 feet,  
must be secured with iron riders of the sizes, and  
be fastened, as shown in Table F, and in number  
not less than one on every fourth floor, on each  
side, from fore side of fore-mast to aft side of  
mizen-mast, to extend from the lower deck beams  
downwards, so as to receive not less than two  
bolts in a substantial part of the floors; or by  
orlop beams, sufficient in number and properly  
secured. All ships having two decks (viz. upper  
and lower deck), and exceeding 24 feet in depth  
from the top of the limber-strake to the top of  
the upper deck beams, or having three decks (viz.  
upper, middle, and lower deck), and exceeding 24  
feet in depth from the under side of the middle  
deck, to have orlop beams, the number to be in no  
case less than one-half the number of lower deck  
beams in the space between the foremast and the  
mizen-mast, except in the case of flush-deck  
ships, when a depth of 25 feet will be allowed,  
provided in either case the lower hold does not  
exceed 15 feet, measured as above from the limber-  
strakes to the under side of the lower deck beam.  
Should a house be constructed on a flush-deck  
ship for lodging crew or for store-room, the same  
not to extend aft beyond 10 feet from the mizen-  
mast. The application of this rule to British  
North American built ships and fir ships will not

exempt them from the full operation of the rule,  
sec. 62. All dimensions, fastenings, and bolts of  
the middle deck in vessels having three decks  
(viz. upper, middle, and lower deck) to be the  
same as those described in the Tables for the  
upper deck of ships having only two decks; and  
a reduction of  $\frac{1}{8}$  from the dimensions, fast-  
enings, and bolts prescribed in the Tables, for  
the upper deck of vessels having only two (viz.  
upper and lower deck), will be allowed in the  
third or upper deck, by some called a spar deck.  
The middle deck to be a perfect deck laid and  
caulked. The united lengths of poop and fore-  
castle not to exceed  $\frac{1}{2}$  of the entire length of  
the upper deck (see, 38). All timbers of the  
frame including poop and fore-castle to extend  
to the extreme height. Every ship exceed-  
ing 150 tons to have at least one crutch for the  
security of the keels of the after-timber of the  
frame; one pair of pointers in addition to a knee  
at each end of the wing transom to connect the  
stern frame with the after-body of the ship; and  
a transom over the keels of the stern timbers  
properly kneced. The heels of the cant timbers  
forward and aft to be stepped into the deadwood  
and bolted through.

12. Shifts of timber in ships of 200 tons and  
upwards, to be not less than  $\frac{1}{2}$  of the main breadth;  
and in ships under 200 tons, to be not less than  
 $\frac{1}{3}$  of the main breadth.

Plank.—13. The outside planking to be of good  
quality, of the description prescribed in Table A,  
to be clear of sap and free from all defects.

14. The inside planking to be of the description  
shown in Table A, and free from all foxy, druxy,  
or decayed knots. With regard to the ceiling  
plank, and the efficiency of its fastening, it will  
be required that the planking shall be properly  
shifted and fastened, so that there shall be at least  
either treennils or through bolts, or short bolts,  
in each plank of the ceiling in every timber.

15. No butts to be nearer than 5 feet to each  
other (see, 39), unless there be a strake wrought  
between them, and then a distance of 4 feet will  
be allowed; and no butts to be on the same  
timber, unless there be three strakes between,  
as more particularly shown in the diagram an-  
nexed (see Plate), but vessels under 20 tons will  
be exempted from the full operation of this rule;  
and in ships of larger tonnage a literal compliance  
with it will be dispensed with in cases wherein it  
may be satisfactorily proved that the departure  
from the rule is only partial, being confined to the  
ends of the ship, or the planking of the topside,  
and does not injuriously affect the ship's general  
strength; but such relaxation will not be sanc-  
tioned unless an accurate description of the shift-  
ing of the plank be transmitted by the surveyors,  
to enable the committee to form a proper judgment  
of the case.

The thickness of the plank, according to the  
tonnage of the ship, is not in any instance to be  
less than is prescribed in Table H.

The breadth of the wales in every case is to be  
regulated as under, viz. —

When the extreme length of the ship, measured  
from the fore-part of the stem to the after-part of  
the stern-post on the range of upper deck, is six  
times her depth of hold (and under), the wales  
are to be in breadth 3 inches to every foot of the  
depth of hold.

When the extreme length of the ship is eight  
times her depth of hold, the wales are to be in  
breadth  $3\frac{1}{2}$  inches to every foot of the depth of  
hold.

When the extreme length of the ship is ten  
times her depth of hold (and above), the wales are

to be in breadth 1 inch to every foot of the depth of hold.

And other intermediate dimensions in these proportions.

**Fastenings.**—46. Treenails to be of good quality, and of a description equal to the best material through which they pass; if, however, in ships built in the British North American colonies, or of treenails be used of materials not inferior to those comprised in line No. 2 in Table A, including locust and all Australian and tropical hard woods of durable quality, and beech in the bottom not higher than floor heads, a notation of '*Hard Wood Treenails*' will be inserted against the ship's name in the register book. The treenails are to be straight and circular, being either engine turned, compressed, or planed, not grain-cut or knotty, and must be free from sap and tightly driven, and in all cases the treenails are to be efficiently caulked or wedged outside. In all cases in which planks above 11 inches in width shall be used, they must be double fastened; and those above 8 inches in width must be treenailed double and single, except bolts intervene; and if less than that width, then to be treenailed single. Not less than 4 of the treenails are to be driven through the inside planking, clamps &c. Every butt in each outside plank to be fastened with two bolts, one of which may be in the adjoining timber, and one to be through and clenched. Where thick garboard strakes are used, they must be bolted horizontally through the keel and each other. The bilges to be secured with bolts so placed that from the foremast, extending a distance aft equal to  $\frac{1}{2}$  of the length of the keel, there shall, in ships under 300 tons, be at least one bolt through and clenched in each first foot-hook; and that in ships of 300 tons and upwards there shall be at least 2 bolts through and clenched for each set of timbers in one or other of the thick bilge strakes. All the bolts of the knees, breast-hooks, crutches, riders, transoms, pointers, and keelsons, shelf pieces, waterways, heels of timber against fore and after deadwood, and of all other material fastenings, are to be driven through and clenched on rings of the same metal as the bolts. The up and down bolts in the knees to beams are not required to be through the deck, but, whether clenched upon the beams, or upon the deck, they must be clenched on rings of the same metal as the bolts. The 2 bolts, the nearest to the crowns of the pintles and braces of the rudder, are also to be through and clenched, those through the braces to be in the main piece of stern post. The timber-strakes to be bolted down to the floors, and one bolt in every floor, on each side, to be through and clenched. Watercourses are to be properly formed at underside of all floors and foothooks at the timbers on each side of middle line, so as to allow water to reach the pumps freely. When the heels of the first foothooks meet at the middle line on the keel under the keelson (either with full moulding or with butted cheeks) the through bolting of the timber-strakes may be dispensed with.

An additional year will be allowed to all ships of the A character, if fastened externally with treenails, and with copper or yellow metal bolts and dunnage, to the exclusion of iron, from the lower part of keel up to the height of  $\frac{1}{2}$  of the depth of hold, below the upper side of the upper deck, in one, or two, or three-decked ships (not being spar-decked ships), and below upper side of the main or tonnage-deck in spar-decked ships, above which all fastenings of every description outside, and the whole of the inside fastenings must be properly galvanised, except the frame

bolts, and the bolts in iron straps on timber otherwise admitted of iron.

And two years will be added to the A character, if, in lieu of treenails above the floor heads, the whole of the planking is fastened with bolts of copper, or yellow metal, to the above named height, and above such height with properly galvanised iron bolts. All inside fastenings hitherto admitted of iron, including all frame bolts, and bolts in iron straps on timbers, or between the thicknesses of outside planking, must also be properly galvanised.

In all cases of ships claiming extra time on the A character, the chain and preventer bolts are to be of properly galvanised iron, but the bolts in heels of timber abutting against deadwood, forward and aft, must be of copper or yellow metal.

In all such cases of substitution, the bolts must be in number the same as is already prescribed above for treenails; the proportion of through bolts must be at least two-thirds (whenever metal fastenings are used in lieu of treenails, this proportion must be observed); and all the through bolts must be of malleable metal, and clenched on rings (of the same metal) inside. The sizes of the copper or mixed metal bolts must be as under, viz. :—

Tons	Through bolts	Through bolts	Through bolts
Up to 150 tons and under 200 tons	5 in.	4 in.	3 in.
200 ..	5 1/2 in.	4 1/2 in.	3 1/2 in.
300 ..	6 in.	5 in.	4 in.
400 ..	6 1/2 in.	5 1/2 in.	4 1/2 in.
500 ..	7 in.	6 in.	5 in.
600 ..	7 1/2 in.	6 1/2 in.	5 1/2 in.
700 ..	8 in.	7 in.	6 in.
800 ..	8 1/2 in.	7 1/2 in.	6 1/2 in.
900 and above	9 in.	8 in.	7 in.

and the lengths of the short bolts not less than as follows, viz. :—

When used in plank of 2 1/2 in. to 7 in. long	When used in plank of 7 in. to 10 in. long
3/4	1
1	1 1/4
1 1/4	1 3/4
1 3/4	2
2	2 1/4
2 1/4	2 3/4
2 3/4	3
3	3 1/4
3 1/4	3 1/2
3 1/2	3 3/4
3 3/4	4
4	4 1/4
4 1/4	4 1/2
4 1/2	4 3/4
4 3/4	5
5	5 1/4
5 1/4	5 1/2
5 1/2	5 3/4
5 3/4	6
6	6 1/4
6 1/4	6 1/2
6 1/2	6 3/4
6 3/4	7
7	7 1/4
7 1/4	7 1/2
7 1/2	7 3/4
7 3/4	8
8	8 1/4
8 1/4	8 1/2
8 1/2	8 3/4
8 3/4	9
9	9 1/4
9 1/4	9 1/2
9 1/2	9 3/4
9 3/4	10
10	10 1/4
10 1/4	10 1/2
10 1/2	10 3/4
10 3/4	11
11	11 1/4
11 1/4	11 1/2
11 1/2	11 3/4
11 3/4	12
12	12 1/4
12 1/4	12 1/2
12 1/2	12 3/4
12 3/4	13
13	13 1/4
13 1/4	13 1/2
13 1/2	13 3/4
13 3/4	14
14	14 1/4
14 1/4	14 1/2
14 1/2	14 3/4
14 3/4	15
15	15 1/4
15 1/4	15 1/2
15 1/2	15 3/4
15 3/4	16
16	16 1/4
16 1/4	16 1/2
16 1/2	16 3/4
16 3/4	17
17	17 1/4
17 1/4	17 1/2
17 1/2	17 3/4
17 3/4	18
18	18 1/4
18 1/4	18 1/2
18 1/2	18 3/4
18 3/4	19
19	19 1/4
19 1/4	19 1/2
19 1/2	19 3/4
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20	20 1/4
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23	23 1/4
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24 1/4	24 1/2
24 1/2	24 3/4
24 3/4	25
25	25 1/4
25 1/4	25 1/2
25 1/2	25 3/4
25 3/4	26
26	26 1/4
26 1/4	26 1/2
26 1/2	26 3/4
26 3/4	27
27	27 1/4
27 1/4	27 1/2
27 1/2	27 3/4
27 3/4	28
28	28 1/4
28 1/4	28 1/2
28 1/2	28 3/4
28 3/4	29
29	29 1/4
29 1/4	29 1/2
29 1/2	29 3/4
29 3/4	30

and so on in proportion for other thicknesses. The sizes of the bolts required in the several parts must not be less than is shown in Table B.

47. In every case where the butt and bilge bolts are not through and clenched, one year will be deducted from the period which would otherwise be assigned in the classification of the vessel.

48. The scantlings and dimensions for all sized vessels to be proportionately regulated, agreeably to the society's Table B.

49. Ships surveyed while building, in which all the materials required for a 12 years' ship shall have been used, and most of the other requisites for that grade fulfilled, but which, from partial deficiencies, may not appear to be in all respects entitled to the full period, although superior to the description of a 10 years' ship, may be marked in the book thus, 11 A; thereby denoting that they are to remain on that grade 11 years, provided they be kept in a state of efficient repair.

50. Ships surveyed while building, in which every alternate set of timbers are frame-bolted together throughout their entire lengths, and the scantling and shifts of the timbers, the thickness and shifts of the planks, and size of fastenings may be the same as are required by the rules, and the description of materials prescribed in Table A shall also have been used, but in which the frame is not so well squared as is required for 12 years' ships, but which shall be in other respects equal thereto, shall be marked 10 A; thereby denoting that they are to remain on that grade for 10 years, provided they be kept in a state of efficient repair.

51. In all other cases, ships surveyed while

is in iron straps on timber of iron.

It be added to the A character ships above the floor heads, the ring is fastened with bolts of metal, to the above named height with properly gal.

All inside fastenings including all frame bolts, and on timbers, or between inside planking, must also be

ships claiming extra time on their main and preventer bolts are to be of iron, but the bolts are to be put against deadwood, for the use of copper or yellow metal, of substitution, the bolts must be the same as already prescribed; the proportion of through bolts, at least two thirds (whenever used in lieu of treenails, this observed); and all the through bolts of metal, and clenched on metal bolts must be as under,

Under 200 tons	5 in.
250 "	5 1/2 in.
300 "	6 in.
400 "	6 1/2 in.
500 "	7 in.
600 "	7 1/2 in.
700 "	8 in.
800 "	8 1/2 in.
900 "	9 in.
1000 "	9 1/2 in.

If the short bolts not less than 25

in plank of 2 1/2 in. to 7 in. long

portion for 1 other thickness of the bolts required in the st not be less than is shown in

case where the butt and bilge bolts and clenched, one year will be period which would otherwise classification of the vessel, dimensions and dimensions for all steel proportionately regulated, agreeably Table B.

exceed while building, in which all repaired for a 12 years' ship shall and most of the other requisites fulfilled, but which, from partial not appear to be in all respects 11 periods, although superior to the 10 years' ship, may be marked in A; thereby denoting that they are that grade 11 years, provided a state of efficient repair.

surveyed while building, in which set of timbers are frame-bolted out their entire lengths, and the lifts of the timbers, the thickness of planks, and size of fastenings as are required by the rules, and of materials prescribed in Table A can be used, but in which the frame repaired as is required for 12 years' shall be in other respects equal marked 10 A; thereby denoting to remain on that grade for 10 they be kept in a state of efficient

er cases, ships surveyed while

building, and constructed of the materials of good quality, shown in the society's Table A, will be allowed the several terms of years respectively appointed, provided they be kept in a state of efficient repair. All ships, not built under survey, whether in the United Kingdom or abroad, for which a character may be claimed, must be placed in dry dock or laid on blocks in order that their bottoms may be seen and properly examined; they will also be required to have their timbers completely exposed for examination, by a plank or listing, as the surveyor (who must be an exclusive officer of the society) may direct, being taken out, either inside or outside, all fore and aft, and both sides, equal to one octave strike, at the first forehook heads, and another between decks, and a few treenails must likewise be driven out, so that the surveyors, from actual inspection, may be satisfied whether or not they are of the quality and make prescribed by the rules; and the same being thus ascertained, shall be reported to the committee, and a character assigned. If the ship be 100 tons and upwards, the survey must be made by two surveyors, and their report signed accordingly.

32. Ships built under a substantial and efficient plan, kept in good repair, which shall project at each end beyond the length, and on each side beyond the breadth, a quantity equal to half the breadth of the vessel, shall have 1 year added to the period prescribed, provided they shall have been surveyed whilst building, and shall have occupied a period of not less than 12 months in their construction, and in which no plank, except as follows, shall have been worked until the expiration of at least 3 months after the frame was completed, viz.: not more than 3 strikes of bilge planks, and 2 strikes of outside plank in the way of each tier of beams, also the clamps inside, so that the beams may be put in their places. In ships not exceeding 400 tons, a relaxation of the period herein required may be allowed (but not exceeding 4 months) provided application be made to the committee, who will appoint a special surveyor, and who will require a report of the date when the timber was felled, its condition after being sided and moulded, and stacked for seasoning, and also when in frame.

33. Ships built in the United Kingdom; or in Quebec; or St. John, New Brunswick; or Miramichi, and northern parts of New Brunswick, or in Prince Edward Island, or built in Nova Scotia after 1861; and not surveyed while building by the surveyors to this society, and all ships, the owners or builders of which may have refused or declined to permit them to be surveyed at the several periods prescribed by the rules, will have 1 year deducted from the period which would otherwise have been assigned, in consequence of their not having been submitted to survey during their construction. In no case, however, will a higher grade than 10 A be assigned to ships built in the United Kingdom which shall not have been surveyed while building.

Continuation of Ships A.—51. If, on the termination of the period of original designation, or if at any subsequent period, not exceeding 4 of the number of years assigned originally, or on restoration, an owner should wish to have his ship remain, or be replaced on the letter A (sec. 50), he is to send a written notice thereof to the secretary, and the committee shall then direct a special survey, as follows, to be held by not less than two competent persons to be appointed by the committee, one of them to be a surveyor, the exclusive officer of the society:—

Survey.—No. 1.—The ship to be either placed

in dry dock or laid on blocks, so that the keel may be examined, and be scraped or dubbed bright from the light water-mark upwards, including the plank-sheers and waterways, so as to expose the surface of the plank to view. If the ship has been sheathed with wood over felt, fastened with copper or mixed metal nails, within a period of 5 years, and the plank from the light water-mark upwards shall, when so sheathed, have been brightened, and the condition of the bolts, planking, treenails, and caulking ascertained, and favorably reported upon by the surveyors; and provided that the sheeting which covers the binding bolts and raft ports, and a strike of sheathing all fore and aft on each side under the wales be removed, and listings of sheathing cut out at head ends; and the planking, fastenings, and caulking so exposed shall prove to be in good condition; then, on application to the committee, the stripping from the light water-mark upwards may be dispensed with; but whenever the sheathing is removed, the outside planking is to be scraped or dubbed bright, and examined as prescribed by the above rule.

If the ship has been sheathed with metal within a period of 2 years, and it shall appear to the surveyors that stripping from the light water-mark upwards may be dispensed with, the ensow will receive due consideration on application to the committee. A listing, 4 inches wide, to be cut out of ceiling at each end of the hold on both sides, the entire length of the ship, between the keelson and air course under hold beam clamp bolts, if of iron, in number not less in any case than 6 on each side, in each range of deck fastenings, to be driven out in ships of 500 tons and under, and increased in number in proportion to the size of the ship, and one treenail to be driven out in every alternate frame or fourth timber between the upper edge of the wales and plank-sheers, and one in every alternate frame or fourth timber between the upper edge of the wales and the light water-mark, and at such other parts at the bottom as the surveyors may direct, so as to enable a judgment to be formed as to the general state of the treenails, timbers, and of the planking in the treenail holes. The hold to be cleared, and proper stages to be made both inside and outside. All air courses and the timbers to be cleared for the examination of the timbers. The windlass to be unhung, and the wood linings stripped. The attention of the surveyors shall then be particularly directed to the state of the upper or main deck and coverings, the upper and lower deck bolts, whether of iron or copper, and the outside planks through which they pass, the plank-sheers, waterways, and beams, so far as they can be examined; the hawse timbers, knight-heads, breasthooks, and transoms; the floors and keelsons; the keel, rudder, and windlass; the planking outside and inside, and the treenails; and the frame and inner surface of the outside planking, where they can be seen; and the sheer and general form of the ship; the condition of the oakum and caulking also to be ascertained, and the ship to be efficiently repaired with suitable materials, as hereinafter stated. Anchors, cables, and general equipments to be attended to as prescribed in secs. 71 to 76.

In British North American built ships and fir ships where the middle line bolts are of iron, their condition is to be ascertained; and if this be not practicable, additional bolts of sufficient size must be driven through the keelson, floors, and keel, in each alternate frame, also through the stem, apron, sternpost, and deadwood.

The surveyors shall transmit to the committee a detailed report, accompanied by such observa-

tions as may occur to them, from inspection of the ship, or from information of the repairs she may have received. If, from the report of such special survey, the ship shall appear to be in a sound and efficient state, the committee shall continue such ship on the letter A for such further period as they may think fit, not exceeding, however,  $\frac{1}{2}$  of the number of years which had been originally assigned, subject to the usual annual survey. Ships classed A for 4 years, will be allowed a continuation for 2 years, provided that, in addition to the above requisitions, the owners shall have removed a strake in the topsides, fore and aft, on both sides; this, however, will not exempt ships built in the British North American colonies from the operation of the rule. (See, 63.)

Ships so continued shall be distinguished in the register book by the number of years for which the character is extended, being inserted separately under the number assigned on the original character, thereby denoting that the ship has been found on survey in such good and efficient order as to entitle her to be continued for \_\_\_\_\_ years. The period assigned for continuation will, upon all occasions, commence from the time the ship may have gone off the letter A, without regard to the date when the survey for this purpose may have been held. (For periodical surveys, see sec. 24.)

*Survey.—No. 2.*—But should a shipowner at the period for continuation as above described be willing to subject his ship to the following survey, the committee will continue such ship for a longer time, viz. not exceeding  $\frac{3}{4}$  beyond the term originally assigned, provided application be first made to the committee for such survey.

And for the purpose of holding such survey, the ship must be placed in dry dock or laid on blocks upon ways, so that the keel may be examined; all sheathing to be entirely stripped off the bottom and elsewhere; all the outside planking from light water-mark upwards, including the planksheers and waterways, to be scraped or dubbed bright; all the air courses and the timbers to be cleared; the timbers of the frame to be further exposed to view by the removal of planking equal to one strake fore and aft, on each side above the wales; a short plank in each buttock; a strake of planking to be removed, or listing of sufficient breadth, not less than 4 inches, all fore and aft, on each side, at the discretion of the surveyor, in the ceiling above the floor heads (or if the shipowner should prefer it, a strake of planking outside at the same height), and a reasonable number of treenails, in addition to those above named, so as to ascertain the state of the lower timbers of the frame; and in order to ascertain the condition of the beam ends, either a strake of deck next the waterways on each side to be taken out, or an examination to be made by boring each end, at the option of the shipowner; iron bolts and treenails to be driven out at the various parts as prescribed in Survey No. 1; proper stages to be made both inside and outside; the windlass to be unhung, and the wood linings stripped; and when in the state above described, the special survey to be held, as directed in Survey No. 1, upon all the parts exposed to view; the condition of the oakum and caulking to be ascertained; the ship to be efficiently repaired with suitable materials, as hereinafter stated.

The surveyors on these points shall transmit to the committee a detailed report, accompanied by such observations as may occur to them, from inspection of the ship, or from information of the repairs she may have received. If, from the report of such special survey, the ship shall appear to be in a sound and thoroughly efficient state, the

committee shall continue such ship on the letter A for such further period as they think fit, not exceeding, however, two-thirds of the number of years which had been originally assigned, so continued shall be distinguished in the register book by the number of years by which the character is extended, being inserted separately under the number assigned on the original character, thereby denoting that the ship has been found on survey in such good and efficient order as to entitle her to be continued for \_\_\_\_\_ years. The period assigned for continuation will, upon all occasions, commence from the time the ship may have gone off the letter A, without regard to the date when the survey for this purpose may have been held. (For periodical surveys, see sec. 24.)

In cases of the repair of ships for continuation under the rules, sec. 51, materials of inferior description (but not below those prescribed for the six years' grade) may be permitted to be used in those parts which must of necessity, under the operation of the rules, sec. 56, be entirely removed on a repair for restoration; subject, however, to the shipowner in every instance making a special application to the committee for the previous sanction.

*Survey.—No. 2.—For British North American built Ships and Fir Ships.*—To entitle such ships to continuation for a period of  $\frac{3}{4}$  of the term originally assigned to them, they must, in addition to the examination prescribed above, be double diagonally from the keel to above the first strake of lower deck spirketting. The doubling to be of the thickness, and be fastened as prescribed in sec. 68; or, if the owner objects to double his ship, she may be submitted to the following survey, viz. :—

The ship must be placed in dry dock or laid on blocks upon ways, so that the keel may be examined and proper stages made both inside and outside; all sheathing to be entirely stripped off the bottom and elsewhere; all the outside planking from the lower part of chocks at floor head upwards, including the planksheers and waterways, to be scraped or dubbed bright; the timbers of the frame to be exposed to view by the removal of the planksheer or of planking equal to one strake fore and aft on each side, above the wales (either inside or outside, at the discretion of the surveyor) also a strake outside all fore and aft between the wales and light water-mark, a short plank in each buttock, and planking or listing of sufficient breadth on each side at the discretion of the surveyor, in the ceiling above the floor heads all fore and aft (or if the shipowner should prefer it, planking outside equal to one strake at the same height), and in order to ascertain the condition of the beam ends, a strake of deck next the waterways on each side is to be taken out; and a sufficient number of treenails to be driven out from various parts of the bottom, so as to ascertain their condition, and that of the planks and timbers through which they pass; the windlass to be unhung, and the wood linings stripped, and when in the state above described, the special survey to be held upon all the parts exposed to view; the condition of the oakum and caulking to be ascertained; the treenails from the upper part of chocks and second foothook heads to the lower part of chock at floor heads to be renewed with through treenails of hardwood for at least half the length the ship amidships, unless they are already of hardwood and prove to be in good condition; and where the middle line bolts are of iron, their condition is to be ascertained, and if this be not practicable, additional bolts of sufficient size must

continue such ship on the letter A period as they think fit, not exceeding two-thirds of the number of years originally assigned. Ships distinguished in the register by the number of years by which the character, being inserted separately under the original character, and that the ship has been found in good and efficient order as to be continued for years. The continuation will, upon all occasions from the time the ship may be letter A, without regard to the survey for this purpose may have for periodical surveys, see sec.

Repair of ships for continuation of the rules, sec. 51, materials of iron (but not below those prescribed grade) may be permitted to be used in places which must of necessity, under the rules, sec. 56, be entirely repaired for restoration; subject, however, to the sanction of the committee for their approval.

**2.—For British North American and Fir Ships.**—To entitle such ships for a period of 3 that are assigned to them, they must, in addition to the provisions prescribed above, be double-planked in the keel to above the first strake of spirketting. The doubling to be done, and be fastened as prescribed in the rules, if the owner objects to double his ship, he must submit to the following survey:

1. The keel must be placed in dry dock or laid on ways, so that the keel may be exposed to view; the keel must be scraped or dubbed bright; the timbers under part of chocks at floor heads, including the plank sheers and water-creeped or dubbed bright; the timbers to be exposed to view by the removal of the keel or of planking equal to one strake on each side, above the wales (either side, at the discretion of the surveyor), and outside all fore and aft between the light water-mark, a short plank in the fore and aft, and planking of sufficient length on each side at the discretion of the surveyor, and the ceiling above the floor heads all fore and aft. If the shipowner should prefer to have the keel equal to one strake at the same time, in order to ascertain the condition of the keel, a strake of deck next the wales on each side is to be taken out; and a number of treenails to be driven out from the keel, so as to ascertain the condition of the bottom, so as to ascertain the condition of the planks and timbers which they pass; the windlass to be unhung, the wood linings stripped, and when as above described, the special survey to be made, all the parts exposed to view; the caulking and caulking to be ascertained from the upper part of chocks at floor heads to the lower part of chocks at the lower part of chocks, and to be renewed with through freeboards for at least half the length of the keel, unless they are already in good and prove to be in good condition; and the middle line bolts are of iron, their condition to be ascertained, and if this be not proved, bolts of sufficient size must be

driven through the keelson, floors, and keel, in each alternate frame, also through the stem, apron, stern post, and deadwood; and if the ship in other respects, she will be allowed continuation for a period not exceeding two-thirds of the term of years originally assigned, subject to annual survey. (For periodical surveys, see sec. 31.)

**Restoration of Ships to the Character A.—First Rule.—55.** If, at any time before the expiration of 3 of the number of years beyond the period originally assigned, an owner be desirous to have his ship restored to the A character, such restoration (on his consenting to the special survey hereinafter described, to be held by two surveyors, and performing the repairs found requisite) will be granted for a period not exceeding two-thirds of the time originally assigned, the same to be calculated from the date of such repairs.

**Requisites for Restoration.—56.** All the bolts in the range of each deck to be driven out, and the planks taken out; the upper deck waterways, and plank sheers and spirketting, and the strake next the waterways on the lower deck in the midships, to be taken out; the sheathing to be entirely stripped off the bottom; all the outside planking from the light water-mark upward, to be scraped bright; a strake in the upper course of the bottom, between the wales and the light water-mark fore and aft, and a plank in the ceiling at the floor heads on each side, to be taken out, the timbers to be clear, and the hooks forward to be exposed; the windlass to be unhung, and the wood linings stripped; and in that state the ship to be submitted to a special survey and examination, at which the attention of the surveyors appointed by this society is to be particularly directed to the state of the decks, the remaining plank of the topsides, the wales, upper courses, and treenails, and other fastenings; also to the state of the frame, hawse timbers, and knightheads, keelson, floors, loothooks, ceiling, and breasthooks, the rudder in all its parts and hangings. In ships built entirely of teak, and iron fastened, if a sufficient number of bolts in the range of each deck be driven out, and the plank sheer, also the strake of deck next the waterways or next the binding strake, on the main and lower decks on both sides, be removed, also the throat bolts of all knees be driven out, and the other requisitions relating to the bottom, ceiling &c. be carried into effect, the further removal of fastenings, bolts, and planks may, under the sanction of the committee, be dispensed with, provided their condition be carefully ascertained and favourably reported upon by the surveyors.

In the case of ships fastened with copper or yellow metal, and galvanised iron, in conformity with the rule, sec. 46, where there is no poop or fore-castle, if the whole of the plank sheer and spirketting of upper deck and outside planking equal to one strake all fore and aft be removed in way of fastening bolts to each tier of beams, below the upper deck beams; and where there is a poop and fore-castle, then if the whole of the plank sheer and spirketting of poop, fore-castle, and waist, and a strake of outside planking (in way of fastening bolts to upper deck beams), the entire lengths of the poop and fore-castle, and outside planking equal to one strake all fore and aft be removed in way of fastening bolts to each tier of beams below the upper deck beams; and in all cases a strake of deck next the waterway of each deck, on both sides, be removed, also the throat bolts of all knees, together with the other requisitions relating to the bottom, ceiling &c., the further removal of fastenings, bolts, and planks may, under the

sanction of the committee, be dispensed with, provided their condition be carefully ascertained and favourably reported upon by the surveyors.

The above relaxations, so far as they relate to the removal of plank and fastenings in the range of the lower deck, will be extended to all ships in which all the lower deck fastenings are of copper or yellow metal.

If, after the above examination, the owner should consent to take out all planks, timbers, beams, knees, waterways, fastenings, and other parts that may be found defective, or objected to, and replace them with materials of the same species or of equal quality with those of which the ship was originally constructed, such ships to be entitled to restoration for a period proportionate to their real condition and the extent of the repairs performed; or if timber of an inferior description, or second-hand English or African oak or teak be used, then for a period not exceeding that for which such materials would have entitled a new ship to stand A according to the tables, subject in either case to the ship being at all times thereafter kept in a state of efficient repair. (For periodical surveys, see sec. 34.)

**Second Rule.—57.** If, at any age of a vessel, an owner be desirous to have his ship restored, such restoration (on his consenting to the special survey hereinafter described, to be held by two surveyors, and performing the repairs thereby found requisite) will be granted for so long a period as may be deemed expedient by the committee, not exceeding, in any case, the term of eight years.

**Requisites for Restoration.—58.** The whole of the outside plank of the vessel to be taken off as low as the second foothook heads. The remainder of the planking, either outside or inside, together with all the decks, to be removed, so as to expose the timbers of the frame entirely to view, the windlass to be unhung, and the wood linings stripped, and in that state the ship to be submitted to a special survey and examination by the surveyors appointed by this society; and if, after such examination, all timbers, beams, knees, keelsons, transoms, breasthooks, remaining plank, inside or outside, or other parts found to be defective, be replaced with materials of the same species, or of equal quality with those of which the ship was originally constructed, and all the treenails driven out and renewed, such ship may be restored. But if timber of an inferior description, or second-hand English or African oak or teak be used, then for a period not exceeding that for which such materials would have entitled a new ship to stand A according to the Tables, subject in either case, to the ship being at all times thereafter kept in a state of efficient repair. (For periodical surveys, see sec. 34.)

**Restoration of British North American built Ships and Fir Ships to the Character A.—First Rule.—55.\*** At any time before the expiration of 3 of the number of years beyond the period originally assigned, a ship may be restored to the A character, on being submitted to the special survey hereinafter described, to be held by two surveyors, and performing the repairs found requisite.

**Requisites for Restoration.—56.\*** All the bolts in the range of each deck to be driven out, and the planks taken out. The upper deck waterways, and plank sheers and spirketting, and the strake next the waterways on the lower deck in the midships to be taken out. In the case of ships fastened with copper or yellow metal and galvanised iron, in conformity with the rules, sec. 46, where there is no poop or fore-castle, if the whole of the

plank-sheer and spirketting of upper deck and outside planking equal to one strake all fore and aft be removed in way of fastening bolts to each tier of beams, below the upper deck beams; and where there is a poop and fore-castle, then if the whole of the plank-sheers and spirketting of poop, fore-castle, and waist, and a strake of outside planking (in way of fastening bolts to upper deck beams), the entire lengths of the poop and fore-castle, and outside planking equal to one strake all fore and aft be removed in way of fastening bolts to each tier of beams below the upper deck beams; and in all cases a strake of deck next the waterway of each deck on both sides be removed, also the throat bolts of all knees, together with the other requisitions relating to the bottom, ceiling &c., the further removal of fastenings, bolts, and planks may, under the sanction of the committee, be dispensed with, provided their condition be carefully ascertained and favourably reported upon by the surveyors.

The above relaxations, so far as they relate to the removal of plank and fastenings in the range of the lower deck, will be extended to all ships in which all the lower deck fastenings are of copper or yellow metal. All sheathing to be entirely stripped off. All the outside planking, from the light water-mark upwards, to be entirely dubbed bright. A strake in the bottom, between the wales and the light water-mark fore and aft, to be taken out. Planking, either inside or outside, at the discretion of the surveyors, in quantity equal to one entire strake fore and aft, on both sides to be taken out in midships immediately above the turn of the bilge, and forward and aft at such height as may, in their judgment, best expose the timbers of the frame to view. The timbers to be clear, and the hooks, transoms, and crutches to be exposed. The windlass to be unlung, and the wood linings stripped; and in that state the ship to be submitted to a special survey and examination, at which the attention of the surveyors is to be particularly directed to the state of the decks, the remaining plank of the topsides, the wales, upper courses, and treenails, and other fastenings; also to the state of the frame, lawse timbers, knightheads, apron, breasthooks, transoms, and crutches, keelsons, floors, foothooks, and ceiling, the rudder in all its parts and hangings, and also the general sheer and form of the ship. Where the middle line bolts are of iron, their condition is to be ascertained, and if this be not practicable, additional bolts of proper size must be driven through the keel-son, floors, and keel, in each alternate frame, also through the stem, apron, and sternpost.

If, after the above examination, the owner should take out all materials and fastenings that may be found defective, or objected to, and replace them with materials allowed by the rules for the period for which the vessel is to be restored, such ships to be entitled to restoration for a period not exceeding  $\frac{2}{3}$  of that originally assigned to them.

In addition to the above requirements, ships of 500 tons and upwards must be doubled diagonally from the keel to above the first strake of lower deck spirketting. The doubling to be of the thickness and be fastened as prescribed in sec. 68. If these regulations be complied with within the first period to which the vessels may be entitled to be continued, under sec. 54, they will be allowed restoration for a period equal to the number of years originally assigned. The restoration will, in all such cases, date from the termination of the original period; but at the expiration thereof they may be entitled to a continuation of one-third of the period of original

designation, under sec. 54, Survey No. 1, in the case of doubled ships, or ships of peculiar construction, special application may be made to the committee. (For periodical surveys, see sec. 34.)

*Second Rule.*—57.\* If, at any age of a vessel, an owner be desirous to have her restored, and restoration (on his consenting to the special survey hereinafter described, to be held by two surveyors, and performing the repairs thereby found requisite) will be granted for a period not exceeding that originally assigned to her.

*Requisites for Restoration.*—58.\* The whole of the outside plank of the vessel to be taken off as low as the second foothook heads. The remainder of the planking, either outside or inside, and all the treenails, together with the decks and waterways, to be removed, so as to expose the frame and beams entirely to view. The windlass to be unlung, and the wood lining stripped; and in that state the ship to be submitted to a special survey and examination, and all materials and fastenings found to be defective must be replaced with materials of the same species, or of equal quality with those of which the ship was originally constructed. If timber of an inferior description be used, a period not exceeding that which such materials would have entitled a new ship to stand according to the tables will be granted. (For periodical surveys, see sec. 34.)

59. Ships which have been restored shall be entitled to continuation, subject to the same conditions of survey and examination as are prescribed for ships proposed to be continued at the expiration of the period first assigned to them (see 54); but in like manner, the term of such extended continuance shall be limited to a period not exceeding  $\frac{1}{3}$  or  $\frac{2}{3}$  of the number of years for which the ships may respectively have been restored, without any reference whatever to the period originally assigned to them.

At the termination of the several periods assigned to ships for remaining on the character A, or A in red, they will have the word 'expired' inserted against them; and if not surveyed prior to the reprinting of the register book, they will appear without any character. (The terms of years assigned to ships on the character A, launched previously to July 1, 1859, also of ships launched during the first 6 months of the years 1860, 1861, 1862, and 1863, will expire on December 31 of the last year of the periods assigned to them respectively. The terms assigned to ships launched during the last 6 months of the years 1859, 1860, 1861, and 1862, will expire on June 30, next after the last year of the periods assigned to them respectively. In the case of ships launched on and after July 1, 1863, the period originally assigned to them on the A 1 character will in every case date from the month in which the vessel may be launched, and will expire at the end of the corresponding month in the year at which the period assigned terminates.) But if, during the last twelve months of the period assigned to them, the owners of a ship shall, in consequence of her being about to proceed on a distant foreign voyage, apply to have her surveyed for continuation on the letter A, or for the character A in red, a special survey shall be held conformably to the rules 54, 54 or 60, as the case may be; and if, from the report of such special survey, the ship shall appear to be in all respects in a sound and efficient state, such as is required by those rules, the committee shall, from the period at which the ship's character would terminate, continue her on the letter A, or assign to her the character A in red in accordance with the rules referred to.

sec. 51, Survey No. 1. In  
 led ships, or ships of peculiar  
 application may be made to  
 (For periodical surveys, see

57.\* If, at any age of a vessel, an  
 is to have her restored, such  
 his consenting to the special  
 or described, to be held by two  
 performing the repairs thereby  
 will be granted for a period not  
 originally assigned to her.

**Restoration.**—58.\* The whole of  
 of the vessel to be taken off as  
 foothook heads. The remainder  
 either outside or inside, and all  
 with the decks and waterway,  
 so as to expose the frame  
 to view. The windlass to be  
 wood lining stripped; and the  
 ship to be submitted to a special  
 mination, and all materials to  
 to be defective must be replaced  
 of the same species, or of equal  
 of which the ship was originally  
 timber of an inferior description  
 not exceeding that which such  
 have entitled a new ship to stand  
 the tables will be granted. (For  
 s, see sec. 34.)

which have been restored shall be  
 mination, subject to the same con-  
 and examination as are pre-  
 scribed to be continued at the ex-  
 period first assigned to them (see,  
 in manner, the term of such extended  
 all be limited to a period not  
 of the number of years for  
 s may respectively have been re-  
 any reference whatever to the  
 y assigned to them.

mination of the several periods assigned  
 maintaining on the character A, or A in  
 have the word "expired" inserted  
 and if not surveyed prior to the  
 register book, they will appear  
 character. (The terms of years  
 ships on the character A, launched  
 July 1, 1859, also of ships launched  
 6 months of the years 1860, 1861,  
 will expire on December 31 of the  
 e periods assigned to them respec-  
 ns assigned to ships launched during  
 hths of the years 1859, 1860, 1861,  
 expire on June 30, next after the  
 he periods assigned to them respec-  
 e case of ships launched on and  
 1863, the period originally assigned  
 e A 1 character will in every case  
 month in which the vessel may be  
 will expire at the end of the corre-  
 h in the year at which the period  
 inates.) But if, during the last  
 of the period assigned to them, the  
 ship shall, in consequence of her  
 proceed on a distant foreign voyage,  
 her surveyed for continuation on  
 for the character A in red, a special  
 held conformably to the rule, &c.  
 he case may be; and if, from the  
 special survey, the ship shall appear  
 ects in a sound and efficient state,  
 ired by those rules, the committee  
 period at which the ship's character  
 te, continue her on the letter A, or  
 he character A in red in accordance  
 referred to.

60. *Ships A, in red.*—Ships that have passed  
 one periods which have or might have been  
 assigned to them for the character A originally,  
 or on continuation, or for restoration, and shall be  
 found on survey to be of a superior description,  
 being fit for the safe conveyance of dry and  
 perishable goods to and from all parts of the world,  
 shall be classed A in red, as the second description  
 of the first class. (For British North American  
 built ships and fir ships, see Second Survey, latter  
 part.)

In all cases in which the owner may claim this  
 character, the ship must undergo a special sur-  
 vey by two surveyors (to be appointed in  
 every instance by the committee), one of whom  
 shall be an exclusive officer of the society, and  
 be subject in other respects to a compliance  
 with the undermentioned requisitions of survey,  
 viz:—

**First Survey for A, in red.**—The ship to be  
 either placed in dry dock or hid on blocks, so  
 that the keel may be examined, and be scraped or  
 clubbed bright from the light water-mark upwards,  
 including the plank-sheers and waterways, so as to  
 expose the surface of the plank to view. (If the  
 ship has been sheathed with wood over felt,  
 fastened with copper or mixed metal nails, within  
 a period of 5 years, and the plank from the light  
 water-mark upwards shall, when so sheathed, have  
 been brightened, and the condition of the bolts,  
 planking, treenails, and caulking ascertained, and  
 favourably reported upon by the surveyors; and  
 provided that the sheathing which covers the  
 leading bolts and raft ports, and a strake of  
 sheathing all fore and aft on each side under the  
 wales be removed, and listings of sheathing cut  
 out at hood ends; and the planking, fastenings,  
 and caulking so exposed shall prove to be in good  
 condition, then, on application to the committee,  
 the stripping from the light water-mark upwards  
 may be dispensed with; but whenever the sheath-  
 ing is removed, the outside planking is to be  
 scraped or clubbed bright, and examined as pre-  
 scribed by the above rule. If the ship has been  
 sheathed with metal within a period of two years,  
 and it shall appear to the surveyors that stripping  
 from the light water-mark upwards may be dis-  
 pensed with, the case will receive due consideration  
 on application to the committee.) Bolts, if of iron,  
 in number not less in any case than 6 on each  
 side, in each range of the deck fastenings to be  
 driven out in ships of 500 tons and under, and  
 increased in number in proportion to the size of  
 the ship, and one treenail to be driven out in every  
 alternate frame or fourth timber between the  
 upper edge of the wales and plank-sheers, and one in  
 every alternate frame or fourth timber between the  
 upper edge of the wales and the light water-mark,  
 and such other parts of the bottom as the surveyors  
 may direct, so as to enable a judgment to be  
 formed as to the general state of the treenails,  
 timbers, and of the planking at the treenail holes.  
 The hold to be cleared, and proper stages made  
 both inside and outside. The windlass to be  
 unhung, and the wood linings stripped. The  
 attention of the surveyors shall then be particularly  
 directed to the state of the upper or main deck  
 and comings, the upper and lower deck bolts, and  
 the outside planks through which they pass, the  
 plank-sheers, waterways, and beams, so far as they  
 can be examined; the bawse timbers, knight-  
 heads, breasthooks, and transoms; the floors and  
 keelsons; the keel, rudder, and windlass; the  
 planking outside and inside, and the treenails;  
 and the frame and inner surface of the outside  
 planking, where they can be seen; and the sheer  
 and general form of the ship; the condition of the

oakum and caulking also to be ascertained, and  
 the ship to be efficiently repaired with suitable  
 materials as hereinafter stated.

The term for which a vessel may be assigned  
 the character A in red upon a compliance with  
 the foregoing requirements, will not exceed  
 $\frac{2}{3}$  the number of years beyond that assigned  
 originally, or on restoration. (For periodical  
 surveys, see sec. 34.)

**Second Survey for A, in red (after two-thirds  
 the number of years beyond that assigned originally,  
 or on Restoration, have expired).**—But when a  
 period of  $\frac{2}{3}$  of the number of years beyond that  
 originally assigned for a vessel's retaining the  
 A character, or if a period of  $\frac{2}{3}$  the number  
 of years beyond that assigned on restoration has  
 elapsed, an owner desirous to have his ship retain,  
 or be placed upon, this character, application must  
 be made to the committee in writing, who will  
 direct the survey to be made by two surveyors,  
 one of whom shall be an exclusive officer of the  
 society; and for the purpose of holding such  
 survey, the ship must be placed in dry dock, or  
 laid on blocks upon ways, so that the keel may be  
 examined; all sheathing to be entirely stripped off  
 the bottom and elsewhere; all the outside planking  
 from light water-mark upwards, including the  
 plank-sheers and waterways, to be scraped or  
 clubbed bright; the timbers of the frame to be  
 exposed to view by the removal of planking equal  
 to one strake fore and aft, on each side, above the  
 wales, either inside or outside, at the discretion of  
 the surveyor; a short plank in each buttock; a  
 plank or listing of sufficient breadth, on each side,  
 at the discretion of the surveyor, in the ceiling  
 above the floor heads all fore and aft (or, if the  
 shipowner should prefer it, a plank outside at the  
 same height), and a reasonable number of treenails  
 before and abaft the same, so as to ascertain  
 the state of the lower timbers of the frame; and in  
 order to ascertain the condition of the beam ends,  
 either a strake of deck next the waterways on  
 each side to be taken out, or an examination be  
 made by boring, at the option of the shipowner;  
 iron bolts and treenails to be driven out at the  
 various parts as prescribed above (in the case of  
 double ships, or ships of peculiar construction,  
 special application may be made to the committee);  
 proper stages to be made both inside and outside;  
 the windlass to be unhung, and the wood linings  
 stripped; and when in the state above described,  
 the special survey to be held as above directed  
 upon all the parts exposed to view; the condition  
 of the oakum and caulking to be ascertained; the  
 ship to be efficiently repaired with suitable ma-  
 terials, as hereinafter stated. And to entitle them  
 to continue this character, such vessels will be re-  
 quired, in addition to the usual annual survey, to  
 undergo a special re-survey, as prescribed above,  
 within a period (from the date of the last special  
 re-survey) not exceeding two-thirds of the several  
 terms of years originally assigned to them, or  
 earlier, if, in the judgment of the surveyors, upon  
 a careful examination of the ship, the same shall  
 appear to them to be necessary. (For periodical  
 surveys, see sec. 34.)

In the repair of vessels for the above character,  
 no materials may be used of a description inferior  
 to those allowed in new ships for the 6 years'  
 grade, except in the case of vessels originally  
 classed for a shorter period than 6 years, when  
 materials equal to those used in the original con-  
 struction will be permitted.

**British North American built Ships and Fir  
 Ships.**—All ships built in the British North  
 American colonies and all fir ships seeking the  
 character A in red, must be submitted to the



iron knees and riders prescribed have one year deducted from which they would otherwise be based in the register book.

The British North American ships, the frames of which are of 600 tons and upwards, and all built) the length of which the fore part of the stem to the stern-post on the range of upper exceed five times their extreme times and under nine times all have diagonal iron plates outside the frame. The said from the upper side of upper tier a lower part of cheeks at first midship, and to the same perpendicular and aft, measured from the keel. When ships are engaged and short armed floors, to extend to half-way between and first foothook heads; the es not to be less than as follows,

Under 200 tons	3 1/2 in.
400 "	4 "
700 "	4 1/2 "
1,000 "	5 "
1,500 "	5 1/2 "
2,000 "	6 "
2,500 "	6 1/2 "

with bolts, one at each alternate less in diameter than the size *high butt bolts* in Table D. The well protected by proper coating, mbers to be coated in the scores receive the said plates.

of plates to be in proportion of not pair to every 12 feet of the ship's taken as above, but not to be more under mensural on a square; the to be placed diagonally, at an angle an 45 degrees, their lower ends after end of the keel in the after the fore end of the keel in the fore crossing each other amidship.

ps to have shelves and waterways beams, each equal in contents to sectional area of the beams of their ks at their ends; each of the said terways to be bolted through the ng at every timber, with bolts in Table D: likewise the shifts of side planking not to be less than 6 ere be a strake wrought between en a distance of 5 feet will be

length of which shall exceed six extreme breadth, or nine times as s their depth, the number of plates s than one pair to every 10 feet of ire length taken as above, but not an 6 feet as under measured on a o be placed diagonally as above cases where the length of the ship times its depth, the builders o submit, through the resident s- committee's approval, their plans he vessel the necessary strength . And in addition to the require- ps of five times their breadth in ships must be fitted with a rider pair of sister keelsons, at the option —the transverse sectional area of elson or sister keelsons each to be f that required in Table B for s. If a rider keelson be adopted

it is to be fastened with a through bolt (of the size required in Table D for keelson bolts) in every frame; or if the owner prefers it, every intermediate bolt may be short, passing through the main and rider keelsons. (In all cases in which a rider keelson is fitted, it must be fastened as prescribed above, irrespective of the relative dimensions of the ship.) If sister keelsons be fitted, they must be fastened with through bolts, in number not less than one in every alternate timber, and of the size required in Table D for *scarpha of keels &c.*

63. All British North American built ships, which have gone, or may go off the list of ships of the A character, or which may be of an age exceeding the period for which they might have had claims to be put upon that grade (whether classed or not), shall, as from time to time they come under examination, be subjected to a careful survey, to be made by one of the surveyors to this society; and no further character shall be assigned them unless a survey shall be held as follows; and planking, either inside or outside, at the discretion of the surveyors, in quantity equal to one entire strake fore and aft on both sides, shall be removed; to be taken out in midships immediately above the turn of the bilge, and at such height forward and aft as may, in their judgment, best expose the timbers of the frame to view; that a special report of the state of these timbers, and of the general state and condition of the upper deck fastenings, waterways, spiraling, plank-sheers, topsides, upper deck with its appendages, lower deck fastenings, wales, counter, plank and treenails outside to the water's edge, rudder, windlass, and capstan, beams and breasthooks, shall be transmitted by the surveyors to the committee; and on the receipt of such report the character shall be assigned. If the E character be then assigned, it shall be continued (subject to an annual survey) for a period not exceeding the number of years originally assigned; at the expiration of which the character will be discontinued, unless a similar survey and examination of the frame be again submitted to.

64. *Ships E* will comprise all ships which shall be found on survey fit for the conveyance of cargoes not in their nature subject to sea damage on any voyage.

65. Subject to occasional inspection, at least once in every 2 years, ships will continue in this class so long as their condition shall, in the opinion of the committee, entitle them thereto.

66. *Ships I* will comprise ships which shall be found on survey fit for the conveyance, on shorter voyages (not out of Europe), of cargoes in their nature not subject to sea damage.

67. The bottom of every ship is to be caulked once in every 5 years, unless wood-sheathed and felted, and then once in every 7 years, except in the case of teak-built ships, upon which a special survey may have been requested, and the surveyors having ascertained, by the removal of a strake of sheathing fore and aft under the wales, and a strake at the first foothook heads, and by causing listings to be cut out at the wood's end, that such caulking is not required, the same may then be dispensed with. In cases where ships have been doubled with doubling of less thickness than is required by, or not fastened in accordance with, the rules, it will not be imperative that such doubling be stripped at the expiration of 7 years, as required for ordinary sheathing; but if, upon survey, the doubling be found in good condition, the period for its remaining on may be extended, with the sanction of the committee, to a term not

exceeding 10 years, provided the doubling below the wales be copper or yellow metal fastened or treenailed. If any ship shall be stripped within the periods above mentioned, her bottom is to be caulked, if necessary.

68. In all cases in which ships may be doubled, doubling of not less than the thickness hereinafter mentioned will be required, the same to be properly wrought and fastened as follows: in every instance the doubling is to be at least single fastened either with treenails or with bolts, and a through bolt in every butt. Ships hereafter doubled, if the doubling be iron fastened, will lose their character, if such fastenings be coppered over. If treenails be used, every treenail must, if practicable, be a through fastening; and if bolts be used, then  $\frac{1}{4}$  of them from the lower part of the bilge upwards must be through and clenched on the ceiling in addition to the butt bolts. In all cases of doubling, the rudder braces are to be removed.

The throat bolts of iron knees, and the bolts of iron hooks, crutches, and pointers, must be renewed through the doubling.

The thickness of the doublings for the wales and bottoms, on ships

Under 100 tons to be not less than	2 in.
Of 400 " and under 600 tons	2 1/2 in.
600 " and above	3 in.

On the topsides of ships not exceeding 300 tons, the thickness may be  $1\frac{1}{2}$  inches.

If the doubling be applied diagonally, it will be allowed to be of the following thicknesses, viz.:—

In ships under 500 tons	1 1/2 in.
500 tons and under 1,000 tons	2 in.
1,000 tons and upwards	2 1/2 in.

No ship hereafter doubled shall be entitled to the character A, or A in red, unless at the time of doubling it be ascertained, in either case, that the frame is capable of securely retaining the fastenings, by one treenail being driven out in every alternate frame or fourth timber between the upper edge of the wales and the light-water mark, and at such other parts of the bottom as the surveyors may direct, so as to enable a judgment to be formed as to the general state of the treenails and timbers, and of the planking in the treenail holes; or should the state of the treenails indicate defective timbers, or should the outside plank be bolt-fastened, then, by cutting out listings or plank at the discretion of the surveyor.

Diagonal doubling on ships built in the British North American colonies, or on ships built of fir, is to be fastened as under, viz.:—

If worked not above 11 inches broad may be single fastened with a through bolt at every butt, every fifth fastening to be a through bolt or a through treenail of hardwood; the distance between these through fastenings not to exceed 4 feet 6 inches. The remaining fastenings to consist of through treenails or 2 long and 2 short dump bolts; the length of the short dumps may be  $\frac{1}{2}$  an inch less than the combined thickness of the doubling and the original outside plank, and that of the long dumps to be not less than the thickness of the doubling added to twice the thickness of the original outside plank.

Before doubling, the original fastenings in the outside planking and the rider bolts should be ascertained to be in efficient condition, or be made good, but all treenails, from the lower part of the cheeks at the floor heads to the upper part of the cheeks at the second futtock heads, throughout the bilges for one half the length of the ship amidships, shall be renewed through the original inside and outside planking with hardwood treenails, unless such

treenails were originally of hardwood or have been recently renewed—then application may be made to the committee with the view of dispensing with this requirement. In all cases the throat bolts and the bolt next thereto in the iron knees and riders must be renewed through the doubling. The upper ends of the diagonal doubling to be worked against a fore and aft strake of doubling, the upper edge of which is to be let into the original plank sufficient to form a caulking seam, say not less than  $1\frac{1}{2}$  inch. The lower ends of the diagonal doubling to be worked against 2 strakes of fore and aft doubling, the lower edge of the lower strake being rabbeted into the keel, and to be not less in thickness than one-and-a-half times the thickness of the doubling. All diagonal doubling to be of rock elm or of equally suitable material, and be wrought on hair felt.

69. *Iron-fastened Ships.*—All ships, although iron-fastened (except as hereinafter mentioned), shall be classed in the same manner as copper-fastened ships, so long as they remain unsheathed with copper, provided they are, in all other respects, constructed in accordance with the rules; but when sheathed with copper over the iron fastenings, the words 'coppered over iron bolts' shall be added to the character in the register book, and continued until the ship be thoroughly copper-fastened.

70. Ships built in India, although fastened with iron, shall be permitted to be copper-sheathed without any mark being placed in the book, provided the bottom be felled or chunamed and wood-sheathed, and subjected to a careful examination of the iron fastenings on every occasion on which the sheathing is stripped off, for which purpose some of the bolts and nails are to be taken out of the lower part of the bottom, and to be seen by the surveyor; but no such ship shall be permitted to continue either on the A or on the A in red class for a longer period than one-half the number of years beyond the term originally assigned for her remaining on the A character, unless the bottom shall have been doubled, or the whole of the iron fastenings taken out or properly secured, and the bottom refastened with bolts, or treenails, or both, including the middle line, breasthook, and crutch bolts.

71. *Equipment.*—All vessels are required to have their masts, spars, and rigging, the rudder, pumps, windlass or capstan, scuppers, and hawse pipes, in good order, and sails in sufficient number and in good condition.

Windlasses, if of wood, are in all cases to have a square iron spindle passed right through them, the diameter of the spindle to range from  $2\frac{1}{2}$  to 5 inches, according to tonnage.

72. Every ship is to be provided with anchors, cables &c., of approved quality, properly tested at a public machine (see notice in Appendix at end of register book), in number and length, as set forth in the society's Table, No. 22 annexed. (See also sec. 32.)

A certificate of all chains and anchors having been tested, and of the strain applied to them, must be produced before the ship is classed.

73. The length and condition of the chain cables are to be ascertained by removal from the lockers on every special survey for classification.

74. In all cases where hepen cables are used,  $\frac{1}{8}$  more in length will be required.

75. *Boats.*—All vessels under 150 tons to be provided with one good boat; and every vessel of 150 tons and above to have a suitable number.

76. The efficient state and condition of the whole of the ships' equipment will be designated by the figure 1; and where the same are found

insufficient in quantity, or defective in quality, by the figure 2.

77. *Ships navigated by Steam.*—Steam ships are to be subject to the same periodical surveys as sailing vessels, and whenever the boilers are taken out, the vessel is to be submitted to a particular and special survey, in order to ascertain her general condition.

78. That with respect to the boilers and machinery, the owners are required to produce to the surveyors at the above-directed surveys, a certificate from some competent engineer, describing their state and condition at those periods; and which certificate it is desirable there should be a description of the particulars of the same, as far as may be practicable, in the manner and form annexed, No. 8; to be appended to the report of survey, and delivered to the committee, who will thereupon insert in the register book the letters 'M.C.', denoting that the boilers and machinery have been inspected and certified to be in good order and safe working condition; but if no certificate of their condition be furnished by the owner or master, then no character can be assigned for the machinery.

79. *Hull.*—The surveyors are directed to examine and report the scantling of timbers, planks, and fastenings, and to state where built, and by whom, in the same manner as directed for sailing vessels.

80. The surveyors are required to report the number, size, length, fastenings, and mode of arrangement of the engine and boiler sleepers, and the description of timber of which they are composed, and whether diagonally trussed with wood or iron, and to what extent; the length, size, and fastenings of shelf-pieces and paddle-beams; and whether the vessel be constructed with sponges, and how they are formed; and to give the length and shifting of the plank outside and inside.

81. *Materials and Equipment.*—The surveyors are to examine and report the number and description of the masts, sails, anchors, cables, hawsers, warps, and boats, as directed to be done for sailing vessels. For weight of anchors, size and length of chains, see Table No. 22.

82. The surveyors are to be particular in examining and reporting the condition of the boats of all vessels employed in carrying passengers.

*Foreign-built Ships.*—It having been deemed desirable that foreign-built ships, which have not been constructed in accordance with the rules of the society, should nevertheless be entered in the register book with a character of efficiency if their condition be such as to entitle them thereto, the following regulations have been adopted for their survey and classification, viz.:

Foreign-built ships which have not been constructed in accordance with the rules, and have not been surveyed by the surveyors to this society while building, for which the owners are desirous of a character of condition or efficiency for seagoing purposes, will be surveyed for entry in the register book on application being made to the committee, in writing, stating the name of the vessel (and if at any time she had any other name, such is to be inserted in the application); likewise where and when she was built, and her length, breadth, depth, and tonnage (whether British or foreign).

The committee will then direct a special survey to be held by two surveyors, to be appointed in every instance by the committee, one of whom at least shall be an exclusive officer of the society, and the ship submitted to a compliance with the undermentioned requisitions of survey, viz.:

In all cases the ship must be placed in dry

ty, or defective in quality, by

*d by Steam.*—Steam ships are the same periodical surveys as whenever the boilers are taken to be submitted to a particular survey, in order to ascertain her

respect to the boilers and machinery are required to produce to the above-directed surveys, a competent engineer, describing in detail at those periods; and it is desirable there should be particulars of the same, as far as possible, in the manner and form to be appended to the report of the committee, who will be in the register book the letters which the boilers and machinery had and certified to be in good condition; but if no certificate be furnished by the owner of character can be assigned for

surveyors are directed to examine the scantling of timbers, planks, and to state where built, and by what manner as directed for sailing;

surveyors are required to report the length, fastenings, and mode of arrangement of engine and boiler sleepers, and of timber of which they are composed diagonally trussed with wood that extent; the length, size, and self-pieces and paddle-beams; and how they are constructed with spencings, and to give the length of the plank outside and inside.

*and Equipment.*—The surveyors are to report the number and description of masts, sails, anchors, cables, and boats, as directed to be done. For weight of anchors, size of sails, see Table No. 22.

Surveyors are to be particular in reporting the condition of the boats employed in carrying passengers.

*Ships.*—It having been deemed expedient to survey foreign-built ships, which have not been surveyed in accordance with the rules of this society, and which would nevertheless be entered in the register with a character of efficiency if their condition were such as to entitle them thereto, the following regulations have been adopted for their survey, viz.:

1. Ships which have not been surveyed in accordance with the rules, and have not been surveyed by the surveyors to this society, for which the owners are desirous of obtaining a character of condition or efficiency for sea service, will be surveyed for entry in the register on application being made to the surveyors, stating the name of the ship, and any time she had any other name, and the date of her last survey (if any); likewise whether she was built, and her length, breadth, and tonnage (whether British or

foreign) will then direct a special survey to be appointed in two surveyors, to be appointed in by the committee, one of whom at the same time to be an exclusive officer of the society, to be submitted to a compliance with the regulations and requisitions of survey, viz.:

1. That the keel and bottom may be seen and properly examined; the hold to be cleared, and proper stages to be made both inside and outside; the timbers to be cleared, bolts and treenails to be driven out at different parts of the ship, and in sufficient number to enable the surveyors to ascertain their condition; the condition of the plank and timbers in the cargo-holes also to be ascertained; the beam ends in ships of 4 or more years old must be examined by boring. The surveyors must then examine and report upon the ship, as to the state of the timbers of the frame (where examined), planking inside and outside, decks, waterways, beams, keels, keelsons, stem, apron, hawse timbers, knees, keel, breasthooks, transoms, rudder, and nightheads, the sheer and general form of the ship, particulars of materials and scantlings, so far as they can be ascertained, and spacing of timbers and beams, thickness and shifting of plank, mode of fastening, sizes and condition of bolts and treenails, and state of caulking in all parts of the vessel.

Survey No. 1. If the ship is less than 4 years old, a listing of not less than 4 inches wide and equal to  $\frac{1}{2}$  of the length of the ship on each side, to be cut out below each set of clamps or shelves in such parts as the surveyors may require, sufficient to enable them to ascertain the size and condition of the frame.

Survey No. 2. If the ship is 4 or more years old, she must be scraped bright from the light water-mark upwards, including the plank sheers and waterways, and a listing of not less than 4 inches wide must be cut fore and aft below each set of clamps or shelves, and at the bilges at the discretion of the surveyor, and a short listing outside at each buttock. This must apply to all ships of 4 or more years old, whether they have had the short listings previously cut or not.

If after such examination all repairs are done to the satisfaction of the surveyors, so as to enable them to make a favourable report, a class of efficiency will be granted by the committee, and entered in the register book, which class will be retained for 12 months only, unless it shall be made to appear by the owner that the ship had not been in any port in the United Kingdom during that period; but in no case will it be continued for more than 2 years, unless the vessel be re-surveyed as above; but upon such re-survey the openings described therein will not be required to be repeated before a period of 4 years.

There will be three designations of condition or character, distinguished thus:

1 F  
2 F  
3 F

1 F denotes ships which are found on survey to be of a superior description, fit for the conveyance of dry and perishable goods to and from all parts of the world.

2 F denotes ships which, although not equal to the foregoing, are nevertheless found on survey to be in a good and efficient condition, and fit for the conveyance of dry and perishable goods, on shorter voyages.

3 F denotes ships which shall be found on survey fit for the conveyance of cargoes not in their nature subject to sea damage.

It is to be distinctly understood that the foregoing regulations will be confined in their application to foreign-built ships.

To entitle the ships to the fig. 1, they must be supplied with stores in accordance with Table 22, attached to the rules.

No one can question the advantages that re-

sult from carrying a plan of this sort completely into execution, or those that have already been derived from the extent to which it has been carried. We confess, however, that we incline to think that the classification of ships should be effected by Government agents. It is invidious to impose on one set of merchants and shipowners the task of deciding upon the condition of the ships or other property belonging to others; and, though we have every confidence in the integrity of the gentlemen composing the committee, the most honourable men are liable to be influenced by an esprit de corps, and by insensible biases.

We, therefore, cannot help thinking that the scheme would have a much better chance of success, and that the classification would be more likely to be correct, were it managed by individuals nowise connected with business. The surveyors, on whose capacity and honesty the whole scheme principally depends, should be quite independent of the good or ill will of those on whose property they have to report. But can that be said to be the case at present? and can it be fairly presumed that merchants or shipowners will deal by the property of their friends and neighbours as it might be dealt with by officers appointed by, and responsible only to, Government? We apprehend that both these questions must be answered in the negative; and hence our conviction that this is a matter in which Government should interfere. No one can doubt that it is bound to do everything in its power to promote the safety of navigation, and to preserve the lives of our seamen. In this view it erects lighthouses, and prescribes regulations as to pilotage &c. But, how indispensable soever, these are not more essential to the interests of navigation than a proper classification of ships; and, if other means should fail fully to effect this desirable purpose, Government will certainly neglect a most important duty if it do not interpose. In the meantime, however, the mercantile and shipping interests are deeply indebted to the gentlemen who have done so much to obviate the abuses of the old system. (For a further discussion of this important question, see the article on the 'Frequency of Shipwrecks,' in the 122nd number of the *Edinburgh Review*; see also the *Reports of the Commons Committees of 1836 and 1843 on Shipwreck, and other Parliamentary Papers.*)

### III. SHIPS (SAFETY OF).

The self-interest and the security of the owners and masters of ships may, perhaps, be supposed to afford the only real guarantee against the occurrence of accidents. But this guarantee is not always, nor perhaps in most instances, to be depended upon; and to obviate in as far as possible the calamitous results that might be occasioned by the carelessness of owners and the ignorance or misconduct of masters, the Legislature has enacted certain rules in the view of securing the proper fitting out of ships and their management. But it is needless to say that a vast deal depends in such cases on the way in which the rules are enforced. And it were better that they did not exist at all, and that passengers and others were left to depend on their own estimate of the parties, than that they should be taught to place an undeserved reliance on rules which are not properly carried out. The following rules on this subject are embodied in part of the Mercantile Shipping Act of 1854, the 17 and 18 Vict. c. 104 of the Merchant Shipping Act and Amendment Act, 25 & 26 Vict. c. 63. (See also ANCHORS and CABLES.)

*Application of Part IV. of Act 17 & 18 Vict.*

c. 104.—The fourth part of this Act shall apply to all British ships; and all foreign steam ships carrying passengers between places in the United Kingdom, shall be subject to all the provisions contained in the fourth part of this Act, and likewise to the same provisions with respect to the certificates of the masters and mates thereof to which British steam ships are subject. (Sec. 291.)

**Boats for Sea-going Ships.**

**Rules as to Boats and Life Buoys.**—The following rules shall be observed with respect to boats and life buoys, viz.:—

1. No decked ship (except ships used solely as steam tugs and ships engaged in the whale fishery) shall proceed to sea from any place in the United Kingdom, unless she is provided, according to her tonnage, with boats duly supplied with all requisites for use, and not being fewer in number

nor less in their cubic contents than the boats, number and cubic contents of which are specified in the following Table:

2. No ship carrying more than ten passengers shall proceed to sea from any place in the United Kingdom, unless, in addition to the boats above required, she is also provided with a life boat furnished with all requisites for use, or unless one of her boats above required is rendered buoyant in the manner of a life boat:

3. No such ship as last aforesaid shall proceed to sea unless she is also provided with two life buoys: and such boats and life buoys shall be kept so as to be at all times fit and ready for use provided, that the enactments with respect to boats and life buoys herein contained shall not apply in any case in which a certificate has been duly obtained under the 10th sec. of the 'Passengers' Act,' 1852 (the 15 & 16 Vict. c. 11 s. 10). [PASSENGERS.] (Sec. 292.)

*Number and Dimensions of Boats with which Sea-going Ships are to be Provided.*

Registered Tonnage		COLUMN 1						COLUMN 2						COLUMN 3						Total Number of Boats
		To be carried by Sailing Ships and Steam Ships						To be carried by Sailing Ships and Steam Ships when they do not carry Boats in col. 3						To be carried by Steam Ships which do not carry the Boat in col. 2						
Sailing Ships	Steam Ships	Boats			Boats			Launches			Boats			Life Boats			Ships carrying Steam Ships			
		Number	Length	Breadth	Depth	Number	Length	Breadth	Depth	Number	Length	Breadth	Depth	Number	Length	Breadth		Depth		
tons	tons	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.		
..	1,000 and upwards	1	18	5	6	2	3	2	2	2	2	2	2	2	2	2	2	2	2	
..	500 to 1,000	1	18	5	6	2	3	2	2	2	2	2	2	2	2	2	2	2	2	
800 and upwards (800 to 900)	500 to 600	1	18	5	6	2	3	2	2	2	2	2	2	2	2	2	2	2	2	
100 to 600	360 to 500	1	16	5	6	2	3	2	2	2	2	2	2	2	2	2	2	2	2	
200 to 400	240 to 360	1	16	5	6	2	3	2	2	2	2	2	2	2	2	2	2	2	2	
100 to 200	120 to 240	1	14	5	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Under 100	60 to 120	1	14	5	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
	Under 60	1	14	5	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	

**Note.**—In sailing ships carrying the number of boats above specified, and steam ships carrying the larger of the two numbers above specified, the boats are to be considered sufficient, if their aggregate cubic contents are equal to the aggregate cubic contents of the boats specified.

In steam ships carrying the smaller of the two numbers above specified, one of the boats must be a launch of the capacity specified in col. 2.

In sailing ships of 200 tons burden and under, not carrying passengers, a dingy may be substituted for the boat in col. 1.

In sailing ships of 150 tons burden and under, not carrying passengers, a substantial boat of capacity sufficient to carry the crew may be substituted for those above specified.

In all steam ships, two paddlebox boats may be substituted for any two of the boats in col. 3.

**Penalties on Masters and Owners &c. neglecting to provide Boats and Life Buoys.**—In any of the following cases, viz.:—

1. If any ship herein required to be provided with boats or life buoys proceeds to sea without being so provided therewith, or if any of such boats or life buoys are lost or rendered unfit for service in the course of the voyage through the wilful fault or negligence of the owner or master; or,

2. If, in case of any of such boats or life buoys being accidentally lost or injured in the course of the voyage, the master wilfully neglects to replace or repair the same on the first opportunity; or,

3. If such boats and life buoys are not kept so as to be at all times fit and ready for use;

Then, if the owner appears to be in fault, he shall

incur a penalty not exceeding 100*l.*, and if the master appears to be in fault, he shall incur a penalty not exceeding 50*l.* (Sec. 293.)

**Officers not to clear Ships not complying with the above Provisions.**—No officer of customs shall grant a clearance or transire for any ship herein required to be provided with boats or with life buoys unless the same is duly so provided; and if any such ship attempts to go to sea without such clearance or transire, any such officer may detain her until she is so provided. (Sec. 294.)

**Lights and Fog Signals, and Meeting and Passing, Build and Equipment of Steam Ships.**

**Iron Steamers to be divided by Water-tight Partitions.**—The following rules shall be observed with respect to the build of iron steam ships, viz.:—

1. Every steam ship built of iron, of 100 tons or upwards, the building of which commences after August 28, 1816, and every steam ship built of iron of less burden than 100 tons, the building of which commences after August 7, 1851 (except ships used solely as steam tugs), shall be divided by substantial transverse water-tight partitions, so that the fore part of the ship shall be separated from the engine room by one of such partitions, and so that the after part of such ship shall be separated from the engine room by another of such partitions:

2. Every steam ship built of iron, the building of which commences after the passing of this Act, shall be divided by such partitions as aforesaid into not less than three equal parts, or as nearly as circumstances permit:

3. In such last-mentioned ship each such part



so as to involve risk of collision, the ship which has the other on her own starboard side shall keep out of the way of the other.

Art. 15. If two ships, one of which is a sailing ship and the other a steam ship, are proceeding in such directions as to involve risk of collision, the steam ship shall keep out of the way of the sailing ship.

Art. 16. Every steam ship, when approaching another ship so as to involve risk of collision, shall slacken her speed, or, if necessary, stop and reverse; and every steam ship shall, when in a fog, go at a moderate speed.

Art. 17. Every vessel overtaking any other vessel shall keep out of the way of the said last-mentioned vessel.

Art. 18. Where by the above rules one of two ships is to keep out of the way, the other shall keep her course, subject to the qualifications contained in the following article.

Art. 19. In obeying and construing these rules due regard must be had to all dangers of navigation; and due regard must also be had to any special circumstances which may exist in any particular case rendering a departure from the above rules necessary in order to avoid immediate danger.

Art. 20. Nothing in these rules shall exonerate any ship or the owner or master or crew thereof from the consequences of any neglect to carry lights or signals, or of any neglect to keep a proper look-out, or of the neglect of any precaution which may be required by the ordinary practice of seamen or by the special circumstances of the case. [COLLISION.]

*Equipment of Steam Ships.*—Steam ships shall be provided as follows (that is to say):—

1. Every steam ship of which a survey is hereby required, shall be provided with a safety valve upon each boiler, so constructed as to be out of the control of the engineer when the steam is up, and, if such valve is in addition to the ordinary valve, it shall be so constructed as to have an area not less and a pressure not greater than the area and pressure on that valve.

2. Every sea-going steam ship employed to carry passengers shall have her compasses properly adjusted from time to time; such adjustment, in the case of ships surveyed as after mentioned, to be made to the satisfaction of the shipwright surveyor, and according to such regulations as may be issued by the Board of Trade.

3. Every sea-going steam ship (unless used solely as a steam tug) shall be provided with a hose adapted for the purpose of extinguishing fire in any part of the ship and capable of being connected with the engines of the ship.

4. Every sea-going ship employed to carry passengers shall be provided with the following means of making signals of distress; viz. 12 blue lights or 12 port fires, and 1 cannon with ammunition for at least 12 charges, or, in the discretion of the master or owner of such ship, with such other means of making signals (if any) as may have previously been approved by the Board of Trade.

5. Every home trade steam ship employed to carry passengers by sea shall be provided with such shelter for the protection of deck passengers (if any) as the Board of Trade, having regard to the nature of the passage, the number of deck passengers to be carried, the season of the year, the safety of the ship, and the circumstances of the case, may require:

And if any steam ship as aforesaid plies or goes to sea from any port in the United Kingdom without being so provided as herein required, then

for each default in any of the above requisites the owner shall (if he appears to be in fault) incur a penalty not exceeding 100*l.*, and the master shall (if he appears to be in fault) incur a penalty not exceeding 50*l.* (17 & 18 Vict. c. 104 s. 301.)

*Penalty for improper Weight on Safety Valve.*—If any person places an undue weight on the safety valve of any steam ship, or, in the case of steam ships surveyed as hereinafter mentioned, increases such weight beyond the limits fixed by such engineer surveyor as hereinafter mentioned, he shall, in addition to any other liabilities he may incur by so doing, incur a penalty not exceeding 100*l.* (See, 302.)

Every steam ship which is required by the 17 & 18 Vict. c. 104 to have a master possessing a certificate, shall also have an engineer or engineers possessing a certificate or certificates from the Board of Trade. (25 & 26 Vict. c. 63 s. 5.)

#### *Survey of Passenger Steamers.*

*Definition of Passenger Steamer.*—For the purpose of the enactments herein contained with respect to surveys and certificates of passenger steam ships, the word 'passengers' shall be held to include any persons carried in a steam ship, other than the master and crew and the owner, his family and servants; and the expression 'passenger steamer' shall be held to include every British steam ship carrying passengers to, from, or between any place or places in the United Kingdom, excepting steam ferry boats working in chains, commonly called steam bridges. (17 & 18 Vict. c. 104 s. 303.)

*Passenger Steamers to be surveyed.*—Every passenger steamer shall be surveyed twice at least in each year in manner after mentioned. (See, 304.)

*Board of Trade to appoint Surveyors and fix their Remuneration.*—The Board of Trade may from time to time appoint such number of fit and proper persons to be shipwright surveyors and engineer surveyors for the purposes of this Act at such ports or places as it thinks proper, and may also appoint a surveyor-general for the United Kingdom, and may from time to time remove such surveyors or any of them, and may from time to time fix and alter the rates of remuneration to be received by such surveyors. (See, 305.)

*Surveyors to have Power to inspect.*—It shall be lawful for the said surveyors in the execution of their duties to go on board any steam ship at all reasonable times, and to inspect the same or any part thereof, or any of the machinery, boats, equipments, or articles on board thereof, or any certificates of the master or mate to which the provisions of this Act or any of the regulations to be made by virtue thereof apply, not unnecessarily detaining or delaying the ship from proceeding on any voyage, and, if in consequence of any accident to any such ship or for any other reason they consider it necessary so to do, to require the ship to be taken into dock for the purpose of surveying the hull thereof; and any person who hinders any such surveyor from going on board any such steam ship or otherwise impedes him in the execution of his duty under this Act, shall incur a penalty not exceeding 5*l.* (See, 306.)

*Board of Trade to regulate Mode of making Surveys.*—The said surveyors shall execute their duties under the direction of the Board of Trade, and such board shall make regulations as to the manner in which the surveys after mentioned shall be made, and as to the notice to be given to the surveyors when surveys are required, and as to the amount and payment of any travelling or other expenses incurred by such surveyors in the execution of their duties, and may thereby deter-

any of the above requisites the captain (to be in fault) incur a penalty not exceeding 100*l.*, and the master shall (in fault) incur a penalty not exceeding 50*l.* (Sec. 307.)

**Penalty on Surveyors receiving Fees unduly.**—Every surveyor who demands or receives directly or indirectly from the owner or master of any ship surveyed by him under the provisions of this Act any fee or remuneration whatsoever for or in respect of such survey, otherwise than as the officer and by the direction of the Board of Trade, shall incur a penalty not exceeding 50*l.* (Sec. 308.)

**Owners to have Surveys made by Shipwright and Engineer Surveyors &c.**—The owner of every passenger steamer shall cause the same to be surveyed at the times hereinafter directed by one of the said shipwright surveyors and by one of the said engineer surveyors appointed as aforesaid; such shipwright surveyor being, in the case of iron steamers, a person who is, in the judgment of the Board of Trade, properly qualified to survey such ships; and such surveyors shall thereupon, if satisfied that they can with propriety do so, give to such owner declarations as follows:—

The declaration of the shipwright surveyor shall contain statements of the following particulars (that is to say):—

1. That the hull of the ship is sufficient for the service intended and in good condition.

2. That the partitions, bents, life buoys, lights, signals, compasses, and shelter for deck passengers, and the certificates of the master and mate or mates, are such, and in such condition, as required by this Act.

3. The time fit less than six months) for the said hull and equipments will be sufficient.

1. The limits (if any) beyond which, as regards the hull and equipments, the ship is, in the surveyor's judgment, not fit to ply.

2. The number of passengers which the ship is, in the judgment of the surveyor, fit to carry, distinguishing, if necessary, between the respective numbers to be carried on the deck and in the cabins; and in different parts of the deck and cabins; such numbers to be subject to such conditions and variations, according to the time of year, the nature of the voyage, the cargo carried, or other circumstances, as the case requires.

And the declaration of the engineer surveyor shall contain statements of the following particulars (that is to say):—

1. That the machinery of the ship is sufficient for the service intended, and in good condition.

2. The time (if less than six months) for which such machinery would be sufficient.

3. That the safety valves and fire hose are such and in such condition as are required by this Act.

4. The limits of the weight to be placed on the safety valves.

5. The limits (if any) beyond which, as regards the machinery, the ship, in the surveyor's judgment is not fit to ply.

And such declarations shall be in such form as the Board of Trade directs. (Sec. 309.)

**Transmission of Declarations to Board of Trade.**—The said owner shall transmit such declarations to the Board of Trade within 14 days after the dates of the receipt thereof respectively; and in default shall forfeit a sum not exceeding 10*l.* for every day that the sending of such declarations is delayed; and such sum shall be paid upon the delivery of the certificate hereinafter mentioned, in addition to the fee payable for the same, and shall be applied in the same manner as such fees. (Sec. 310.)

**Times appointed for Surveys and Transmission of Declarations.**—In all cases where it is possible the said half-yearly surveys shall be made in the

months of April and of October, and the declarations shall be transmitted on or before April 30 and October 31 respectively; but if the owner of any passenger steamer is unable to have the same surveyed in the month of April or October (as the case may be), either by reason of such ship being absent from the United Kingdom during the whole of those periods respectively or by reason of such ship or the machinery thereof being under construction or repair, or of such ship being laid up in dock, or for any other reason satisfactory to the Board of Trade, then he shall have the same surveyed as aforesaid as soon thereafter as possible, and shall transmit such declarations to the Board of Trade within 14 days after the receipt thereof, together with a statement of the reasons which have prevented the survey of such ship at the time before prescribed, and shall, in case of delay in transmitting the declarations, be liable to a forfeiture similar to that mentioned in the last section. (Sec. 311.)

**Board of Trade to issue Certificates.**—Upon the receipt of such declarations, the Board of Trade shall, if satisfied that the provisions of the fourth part of this Act have been complied with, cause a certificate in duplicate to be prepared and issued, to the effect that the provisions of the law with respect to the survey of the ship and the transmission of declarations in respect thereof have been complied with; and such certificate shall state the limits (if any) beyond which, according to the declaration of the surveyors, such ship is not fit to ply, and shall also contain a statement of the number of passengers which, according to the declaration of the shipwright surveyor, such ship is fit to carry, distinguishing (if necessary) between the respective numbers to be carried on the deck and in the cabins and in different parts of the deck and cabins, such number to be subject to such conditions and variations according to the time of year, the nature of the voyage, the cargo carried, and other circumstances, as the case requires. (Sec. 312.)

**Issue and Transmission of Certificates.**—The Board of Trade shall transmit such duplicate certificate to the shipping master or to some other public officer at such port as the owner may mention for the purpose, or at the port where the owner or his agent resides or where the ship was surveyed and is for the time being lying, and shall cause notice of such transmission to be given by post or otherwise to the master or owner or his agent; and the said shipping master or officer shall deliver such duplicate certificate to the said owner, master, or agent, on his applying and paying the fees and other sums (if any) herein mentioned as payable in that behalf; and in proving the due issue and transmission to the owner, agent, or master of such certificate, it shall be sufficient to show that the same has been duly received by such shipping master or public officer as aforesaid, and that due notice of the transmission thereof to such shipping master or officer has been given to such owner, master, or agent. (Sec. 313.)

**Fees to be paid for Certificates.**—The owner of every passenger steamer requiring a certificate under this Act shall pay for every certificate granted by the Board of Trade such fees as such Board directs, not exceeding the fees undermentioned:—

For steamers not exceeding 100 tons . . . . . 4*l.*  
For steamers exceeding 100 and not exceeding 500 tons . . . . . 5  
For steamers exceeding 500 and not exceeding 600 tons . . . . . 4  
And for every additional 500 tons an additional . . . . . 1

(Sec. 314.)

**How long Certificates to continue in force.**—No such certificate shall be held to be in force for the

months of April and of October, and the declarations shall be transmitted on or before April 30 and October 31 respectively; but if the owner of any passenger steamer is unable to have the same surveyed in the month of April or October (as the case may be), either by reason of such ship being absent from the United Kingdom during the whole of those periods respectively or by reason of such ship or the machinery thereof being under construction or repair, or of such ship being laid up in dock, or for any other reason satisfactory to the Board of Trade, then he shall have the same surveyed as aforesaid as soon thereafter as possible, and shall transmit such declarations to the Board of Trade within 14 days after the receipt thereof, together with a statement of the reasons which have prevented the survey of such ship at the time before prescribed, and shall, in case of delay in transmitting the declarations, be liable to a forfeiture similar to that mentioned in the last section. (Sec. 311.)

**Board of Trade to issue Certificates.**—Upon the receipt of such declarations, the Board of Trade shall, if satisfied that the provisions of the fourth part of this Act have been complied with, cause a certificate in duplicate to be prepared and issued, to the effect that the provisions of the law with respect to the survey of the ship and the transmission of declarations in respect thereof have been complied with; and such certificate shall state the limits (if any) beyond which, according to the declaration of the surveyors, such ship is not fit to ply, and shall also contain a statement of the number of passengers which, according to the declaration of the shipwright surveyor, such ship is fit to carry, distinguishing (if necessary) between the respective numbers to be carried on the deck and in the cabins and in different parts of the deck and cabins, such number to be subject to such conditions and variations according to the time of year, the nature of the voyage, the cargo carried, and other circumstances, as the case requires. (Sec. 312.)

**Issue and Transmission of Certificates.**—The Board of Trade shall transmit such duplicate certificate to the shipping master or to some other public officer at such port as the owner may mention for the purpose, or at the port where the owner or his agent resides or where the ship was surveyed and is for the time being lying, and shall cause notice of such transmission to be given by post or otherwise to the master or owner or his agent; and the said shipping master or officer shall deliver such duplicate certificate to the said owner, master, or agent, on his applying and paying the fees and other sums (if any) herein mentioned as payable in that behalf; and in proving the due issue and transmission to the owner, agent, or master of such certificate, it shall be sufficient to show that the same has been duly received by such shipping master or public officer as aforesaid, and that due notice of the transmission thereof to such shipping master or officer has been given to such owner, master, or agent. (Sec. 313.)

**Fees to be paid for Certificates.**—The owner of every passenger steamer requiring a certificate under this Act shall pay for every certificate granted by the Board of Trade such fees as such Board directs, not exceeding the fees undermentioned:—

For steamers not exceeding 100 tons . . . . . 4*l.*  
For steamers exceeding 100 and not exceeding 500 tons . . . . . 5  
For steamers exceeding 500 and not exceeding 600 tons . . . . . 4  
And for every additional 500 tons an additional . . . . . 1

(Sec. 314.)

**How long Certificates to continue in force.**—No such certificate shall be held to be in force for the

purpose of this Act beyond the date fixed by the Board of Trade for the expiration thereof; and no certificate shall be in force after notice is given by the Board of Trade to the owner, agent, or master of the ship to which the same relates, that such board has cancelled or revoked the same; provided, that if any passenger steamer is absent from the United Kingdom at the time when her certificate expires, no penalty shall be incurred for the want of a certificate until she first begins to ply with passengers after her next subsequent return to the United Kingdom; and the Board of Trade may require any certificate which has expired, or has been revoked or cancelled, to be delivered up as it directs; and any owner or master who, without reasonable cause, neglects or refuses to comply with such requirement, shall incur a penalty not exceeding 10*l.* (Sec. 315.)

**Board of Trade may cancel Certificates.**—The Board of Trade may revoke and cancel such certificates in any case in which it has reason to believe,

1. That the declarations of the sufficiency and good condition of the hull, equipments, and machinery of any passenger steamer, or either of them, have been fraudulently or erroneously made; or,

2. That such certificate has otherwise been issued upon false or erroneous information; or,

3. That since the making of such declarations the hull, equipments, or machinery of such ship have sustained any injury, or are otherwise insufficient.

And in every such case the Board of Trade may, if it think fit, require the owner to have the hull, equipments, or machinery of such ship again surveyed, and to transmit a further declaration or declarations of the sufficiency and good condition thereof, before re-issuing any certificate or granting a fresh one in lieu thereof. (Sec. 316.)

**Copy of Certificate to be placed in conspicuous Part of Ship.**—The owner or master of every passenger steamer shall forthwith, on the transmission of any such certificate as aforesaid to him or his agent, cause one of the duplicates thereof so transmitted to be put up in some conspicuous part of the ship, so as to be visible to all persons on board the same, and shall cause it to be continued so put up so long as such certificate remains in force and such ship is in use; and in default, such owner or master shall for every offence incur a penalty not exceeding 10*l.* (Sec. 317.)

**Ship not to proceed on her Voyage without Certificate.**—It shall not be lawful for any passenger steamer to proceed to sea or upon any voyage or excursion with any passengers on board, unless the owner thereof has transmitted to the Board of Trade the declarations before required, nor unless the owner or master thereof has received from such board such a certificate as is before provided for, such certificate being a certificate applicable to the voyage or excursion on which such ship is about to proceed; and no officer of customs shall grant any clearance or transire for any passenger steamer unless upon the production of such certificate; and if any passenger steamer attempts to ply or go to sea without such production, any such officer may detain her until such certificate is produced; and if any passenger steamer plies or goes to sea with any passengers on board, without having one of the duplicates of such certificate as aforesaid (being a certificate then in force, and applicable as aforesaid) so put up as aforesaid in some conspicuous part of the ship, the owner thereof shall for such offence incur a penalty not exceeding 100*l.*, and the master of such ship

shall also incur a further penalty not exceeding 20*l.* (Sec. 318.)

**Penalty for carrying Passengers in Excess of Numbers specified in Certificate.**—If the owner or master or other person in charge of any passenger steamer receives on board thereof, or if such ship has on board, any number of passengers which having regard to the time, occasion, and circumstances of the case, is greater than the number of passengers allowed by the certificate, the owner or master shall incur a penalty not exceeding 2*l.*, and also an additional penalty not exceeding 1*l.* for every passenger over and above the number allowed by the certificate, or, if the fare of any of the passengers on board exceeds 5*s.*, not exceeding double the amount of the fares of all the passengers who are over and above the number so allowed as aforesaid, such fares to be estimated at the highest rate payable by any passenger on board. (Sec. 319.)

**Forgery of Declaration or Certificate a Misdemeanor.**—Every person who knowingly and willfully makes or assists in making or procures to be made a false or fraudulent declaration or certificate with respect to any passenger steamer requiring a certificate under the fourth part of this Act, or who forges, assists in forging, or procures to be forged, fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any declaration or certificate required by the fourth part of this Act, or any words or figures in any such declaration or certificate, or any signature thereto, shall be deemed guilty of a misdemeanor. (Sec. 320.)

**Surveyors to make Returns of the build and other Particulars of Steam Ships &c.**—The said surveyors shall from time to time make such returns to the Board of Trade as it requires with respect to the build, dimensions, draught, bunk, rate of sailing, room for fuel, and the nature and particulars of machinery and equipments of the ship surveyed by them; and every owner, master, and engineer of any such ship, shall, on demand, give to such surveyors all such information and assistance within his power as they require for the purpose of such returns; and every such owner, master, or engineer who, on being applied to for that purpose, willfully refuses or neglects to give such information or assistance, shall be liable to a penalty not exceeding 5*l.* (Sec. 321.)

**Penalties on Persons forcing Way on Board, or refusing to quit the Ship.**—The following offenders, viz.:

1. Any person who, after having been refused admission into any steamer by the owner or person in charge thereof or by any person in the employ of the owner, on account of such steamer being full, and after having had the full amount of his fare (if he has paid the same) returned or tendered to him, nevertheless persists in attempting to enter the same; and

2. Any person, having got on board any steamer, who, upon being requested on the like account by the owner or person in charge thereof or by any person in the employ of the owner to leave such steamer before the same has quitted the place at which such person got on board, and upon having the full amount of his fare (if he has paid the same) returned or tendered to him, refuses to comply with such request; Shall for each such offence incur a penalty not exceeding 40*s.*, to be paid to the said owner. (Sec. 322.)

**Penalty for avoiding Payment of Fares.**—The following offenders, viz.:

1. Any person who travels or attempts to travel in any passenger steamer which has been



To perform such other duties relating to merchant seamen and merchant ships as are hereby or may hereafter under the powers herein contained be committed to them. (Sec. 124.)

**Fees to be paid upon Engagements and Discharges.**—Such fees, not exceeding the sums specified in the annexed Table, as are from time to time fixed by the Board of Trade, shall be payable upon all engagements and discharges effected before shipping masters as after mentioned, and the Board of Trade shall cause scales of the fees payable for the time being to be prepared and to be conspicuously placed in the shipping offices; and all shipping masters, their deputies, clerks, and servants, may refuse to proceed with any engagement or discharge unless the fees payable thereon are first paid. (Sec. 125.)

**Fees to be charged for Matters transacted at Shipping Offices.**

1. Engagement of crews.

	£ s.		£ s.
Under 60 tons	0 4	500 to 600 tons	1 15
60 to 100 "	0 7	600 to 700 "	2 0
100 to 200 "	0 15	700 to 800 "	2 5
200 to 300 "	1 0	800 to 900 "	2 10
300 to 400 "	1 5	900 to 1,000 "	2 15
400 to 500 "	1 10	Above 1,000 "	3 0

And so on for ships of larger tonnage, adding for every 100 tons above 1,000, 5s.

2. Engagement of seamen separately.

2s. for each.

3. Discharge of crews.

	£ s.		£ s.
Under 60 tons	0 4	500 to 600 tons	1 15
60 to 100 "	0 7	600 to 700 "	2 0
100 to 200 "	0 15	700 to 800 "	2 5
200 to 300 "	1 0	800 to 900 "	2 10
300 to 400 "	1 5	900 to 1,000 "	2 15
400 to 500 "	1 10	Above 1,000 "	3 0

And so on for ships of larger tonnage, adding for every 100 tons above 1,000, 5s.

4. Discharge of seamen separately.

2s. for each.

**Masters to pay Fees, and to deduct Part from Wages.**—Every owner or master of a ship engaging or discharging any seaman or seamen in a shipping office or before a shipping master, shall pay to the shipping master the whole of the fees hereby made payable in respect of such engagement or discharge, and may, for the purpose of in part reimbursing himself, deduct in respect of each such engagement or discharge from the wages of all persons (except apprentices) so engaged or discharged, and retain any sums not exceeding the sums specified in the prefixed Table, provided that if in any cases the sums which the owner is so entitled to deduct exceed the amount of the fee payable by him, such excess shall be paid by him to the shipping master in addition to such fee. (Sec. 126.)

**Sums to be deducted from Wages by way of partial Repayment of Fees in preceding Table.**

1. In respect of engagements and discharges of crews, upon each engagement and each discharge. From wages of any mate, purser, engineer, surgeon, carpenter, or steward, 1s. 6d. From wages of all others except apprentices, 1s.

2. In respect of engagements and discharges of seamen separately, upon each engagement and each discharge, 1s.

**Penalty on Shipping Masters taking other Remuneration.**—Any shipping master, deputy shipping master, or any clerk or servant in any shipping office, who demands or receives any remuneration whatever, either directly or indirectly, for hiring or supplying any seaman for any merchant ship, excepting the lawful fees payable under this Act, shall for every such offence incur a penalty not exceeding 20l., and shall also be liable to be dismissed from his office by the Board of Trade. (Sec. 127.)

**Business of Shipping Offices may be transacted at Custom-houses.**—The Board of Trade may, with the consent of the Commissioners of Customs, direct that at any place in which no separate shipping office is established, the whole or any part of the business of the shipping office shall be conducted at the custom-house, and thereupon the same shall be there conducted accordingly; and in respect of such business such custom-house shall for all purposes be deemed to be a shipping office, and the officer of customs there to whom such business is committed shall for all purposes be deemed to be a shipping master within the meaning of this Act. (Sec. 128.)

**In London Sailors' Homes may be Shipping Offices.**—The Board of Trade may appoint any superintendent of or other person connected with any sailors' home in the port of London to be a shipping master, with any necessary deputies, clerks, and servants, and may appoint any officer in any such home to be a shipping officer; and all shipping masters and shipping officers so appointed shall be subject to the immediate control of the Board of Trade, and not of the Local Marine Board of the port. (Sec. 129.)

**Dispensation with Shipping Master's Superintendence.**—The Board of Trade may from time to time dispense with the transaction before a shipping master or in a shipping office of any matters required by this Act to be so transacted; and thereupon such matters shall, if otherwise duly transacted as required by law, be as valid as if transacted before a shipping master or in a shipping office. (Sec. 130.)

V. SHIPS' PAPERS.

The papers or documents required for the manifestation of the property of the ship and cargo &c. are of two sorts; viz. 1st, those required by the law of a particular country—as the certificate of registry, license, charterparty, bills of lading, bill of health &c.—(see these titles)—required by the law of England to be on board British ships; and, 2ndly, those required by the law of nations to be on board neutral ships, to vindicate their title to that character. Mr. Sergeant Marshall, following Hubner (*De la Saisie des Bâtimens neutres*, i. 241—252), has given the following description of the latter class of documents:—

1. *The Passport, Sea Brief, or Sea Letter.*—This is a permission from the neutral state to the captain or master of the ship to proceed on the voyage proposed, and usually contains his name and residence; the name, property, description, tonnage, and destination of the ship; the nature and quantity of the cargo, the place whence it comes, and its destination; with such other matters as the practice of the place requires. This document is indispensably necessary for the safety of every neutral ship. Hubner says that it was the only paper rigorously insisted on by the Baryat officers; by the production of which alone their friends were protected from insult.

2. *The Proofs of Property.*—These ought to show that the ship really belongs to the subjects of a neutral state. If she appear to either belligerent to have been built in the enemy's country, proof is generally required that she was purchased by the neutral before, or captured and legally condemned and sold to the neutral after, the declaration of war; and in the latter case the bill of sale, properly authenticated, ought to be produced. Hubner admits that these proofs are so essential to every neutral vessel, for the prevention of frauds, that such as sail without them have no reason to complain if they be interrupted in their voyages, and their neutrality disputed.

Shipping Offices may be transacted. The Board of Trade may, with the Commissioners of Customs, direct in which no separate shipping office, the whole or any part of the shipping office shall be conducted, and thereupon the same shall be accordingly; and in respect to a custom-house shall for all purposes be a shipping office, and there to whom such business is or all purposes be deemed to be within the meaning of this Act.

Shippers' Homes may be Shipping Office. The Board of Trade may appoint any other person connected with the port of London to be a deputy, and may appoint any other person to be a shipping office; and all shipping offices so appointed to the immediate control of the Board of the Local Marine Board (c. 129).

Shipping Master's Superintendant. The Board of Trade may from time to time direct a shipping office of any matters to be so transacted; and there shall, if otherwise duly transacted by law, be as valid as if transacted by the shipping master or in a shipping office.

#### SHIPS' PAPERS.

Documents required for the manifest of the ship and cargo: viz. 1st, those required by the particular country—as the certificate of clearance, charterparty, bills of lading, &c.—(see these titles)—required for England to be on board British ships; those required by the law of the board neutral ships, to vindicate that character. Mr. Serjeant Hulmer (*De la Saisides Bâtes*, 241—252), has given the following of the latter class of documents:—*Port, Sea Brief, or Sea Letter*, issued from the neutral state to the owner of the ship to proceed on the coast, and usually contains his name, the name, property, description, destination of the ship; the nature and cargo, the place whence it comes, and with such other matters as the law requires. This document is necessary for the safety of every ship. Hulmer says that it was the only one insisted on by the Barbary corsairs, production of which alone protected from insult.

*Bill of Property*.—These ought to be really belongs to the subject of the ship. If she appear to either have been built in the enemy's country, she is generally required that she was neutral before, or captured and sold to the neutral state, or in the latter case, she is properly authenticated, ought to be admitted that these proofs are every neutral vessel, for the goods, that such as sail without them to complain if they be interrupted, and their neutrality disputed.

3. *The Muster Roll*.—This, which the French call *role d'équipage*, contains the names, ages, quality, place of residence, and, above all, the place of birth, of every person of the ship's company. This document is of great use in ascertaining a ship's neutrality. It must naturally excite a strong suspicion if the majority of the crew be found to consist of foreigners, still more if they be natives of the enemy's country. [SEAMEN.]

4. *The Charterparty*.—Where the ship is chartered, this instrument serves to authenticate many of the facts on which the truth of her neutrality must rest, and should therefore be always found on board chartered ships.

5. *The Bills of Lading*.—By these the captain acknowledges the receipt of the goods specified therein, and promises to deliver them to the consignee or his order. Of these there are usually several duplicates; one of which is kept by the captain, one by the shipper of the goods, and one transmitted to the consignee. This instrument being only the evidence of a private transaction between the owner of the goods and the captain, does not carry with it the same degree of authenticity as the charterparty.

6. *The Invoices*.—These contain the particulars and prices of each parcel of goods, with the amount of the freight, duties, and other charges thereon, which are usually transmitted from the shippers to their factors or consignees. These invoices prove by whom the goods were shipped, and to whom consigned. They carry with them, however, but little authenticity; being easily fabricated where fraud is intended.

7. *The Log Book, or Ship's Journal*.—This contains a minute account of the ship's course, with a short history of every occurrence during the voyage. If this be faithfully kept, it will throw great light on the question of neutrality; if it be in any respect fabricated, the fraud may in general be easily detected. [LOG, OFFICIAL.]

8. *The Bill of Health*.—This is a certificate, properly authenticated, that the ship comes from a place where no contagious distemper prevails; and that none of the crew, at the time of her departure, were infected with any such disorder. It is generally found on board ships coming from the Levant, or from the coast of Barbary, where the plague so frequently prevails.

A ship using false or simulated papers is liable to confiscation. (Marshall *On Insurance*, book i. c. 9. s. 6.) [STEAM VESSELS.]

SHOES (Dutch, *schoenen*; Fr. *souliers*; Ger. *schuhe*; Ital. *scarpe*; Russ. *baschmaki*; Span. *zapatos*). Articles of clothing that are universally worn, and require no description. The shoe manufacture is of great value and importance—much more so, indeed, than is generally supposed; for it ranks in the public estimation far below many branches to which it is really much superior in intrinsic value. This results from the circumstance of machinery being hardly introduced into the business, and from its being principally carried on either in petty workshops, or, as is the more usual practice, in the houses of the shoemakers. It is very extensively practised in the metropolis, where the best shoes are made; and is diffused over every part of the country. Northamptonshire and Staffordshire have attained to considerable distinction in the business, large quantities of shoes being made in them, partly for the supply of the metropolis and other large towns, where they are sold 'ready made,' and partly for exportation. Shoemaking (boot-making is always included) is the most extensively practised of all the common trades, next to millinery and dressmaking. By the census of 1861 no

fewer than 279,563 persons (238,090 males, and 41,473 females) were engaged in Great Britain in boot and shoemaking, exclusive of 90,970 shoemakers' wives. In London the business furnished employment to 42,691 persons, and in Northamptonshire to 17,237.

The estimate given, in the art. LEATHER, of the value of the shoes annually manufactured in the United Kingdom is 16,000,000*l.*, so that the share of Great Britain may at present (1869) be safely estimated at above 13,000,000*l.* If we reckon the wages of the 279,563 persons employed in the business at 20*l.* a-year at an average (which, as young people and women are extensively employed, is probably not far from the mark), their total amount will be 5,591,260*l.*, to which has to be added the value of the leather and other materials.

Boots and shoes used formerly to be prohibited, but they are now admitted duty free. Of boots and shoes, we imported in 1867, chiefly from France, 282,953 pairs for women, 98,574 pairs for men, and 504 pairs for children, besides 75,324 pairs of boot fronts, the whole valued at 89,324*l.* The exports of boots and shoes in the six years ending with 1867 were in quantity and value as follows:—

Years	Quantities	Value
1862	5,375,747 pairs	1,677,559
1863	4,439,291 "	1,105,819
1864	4,819,629 "	1,181,421
1865	5,271,298 "	1,362,105
1866	5,549,618 "	998,888
1867	5,288,150 "	952,801

The chief consumers being our Australian and West Indian colonies and Brazil.

Massachusetts is the grand seat of the shoemaking business in the United States; and large quantities of shoes are annually shipped from Boston for New York and the Southern ports.

Though many, and some very ingenious, efforts have been made to manufacture shoes by the aid of machinery, they have hitherto had but little success. This will not appear surprising when it is considered that the size and shape of the feet differ extremely in different persons, and that, consequently, the articles to be produced are destitute of that sameness in their corresponding parts that is so essential in work produced by machinery. The latter has, however, been applied with considerable advantage to the manufacture of shoes or clogs with wooden soles; and it may also be applied, though with no great advantage, where fine work and accurate fitting are little cared for. On the whole, it would seem that the craft of St. Crispin is not very likely to be disturbed by those inventions that have so greatly changed so many other handicrafts. And the vast improvement in the shoes of modern times, compared with those used in antiquity, seems rather to result from the superiority of the leather, or material of which they are made, and the greater skill and dexterity of the workmen, than from the improvement of their tools.

SHUMAC or SUMAC: (Ger. *schmack*, *sumack*; Fr. *sumac*, *roure*, *roux*; Ital. *sommacco*; Span. *zamaque*; Russ. *sumak*). Common shumac (*Rhus coriaria*) is a shrub that grows naturally in Syria, Palestine, Hungary, Spain, and Portugal. That which is cultivated in Italy, and is improperly called *young fustic*, is the *Rhus Cotinus*. It is cultivated with great care: its shoots are cut down every year quite to the root; and, after being dried, they are chipped or reduced to powder by a mill, and thus prepared for the

purposes of dyeing and tanning. The shumac cultivated in the neighbourhood of Montpellier is called *rédout* or *roudo*. Shumac may be considered of good quality when its odour is strong, colour of a lively green, is well ground, and free from stalks. Italian shumac is used in dyeing a full high yellow, approaching to the orange, upon wool or cloth; but the colour is fugitive. Common shumac is useful for drab and dove colours in calico printing, and is also capable of dyeing black. (Baneroff *On Colours*, vol. ii, p. 100.)

Of 13,140 tons of shumac imported in 1867, no fewer than 11,404 were from Italy. In 1867 we re-exported 1,679 tons. The price of shumac varies from 11*l.* 15*s.* to 21*l.* per ton.

The duty of 1*s.* per ton on shumac was repealed in 1815.

**SIERRA LEONE.** An English settlement, near the mouth of the river of the same name, on the west coast of Africa, lat. 8° 30' N., long. 13° 18' W. There is a fixed light on the cape visible 15 miles off, and a small green light on the Government wharf erected in 1863.

*Objects of the Colony.*—This colony was founded partly as a commercial establishment, but more from motives of humanity. It was intended to consist principally of free blacks, who, being instructed in the Christian religion and in the arts of Europe, should become, as it were, a focus whence civilization might be diffused among the surrounding tribes. About 1,200 free negroes, who, having joined the royal standard in the American war, were obliged, at the termination of that contest, to take refuge in Nova Scotia, were conveyed thither in 1792: to these were afterwards added the Maroons from Jamaica; and, since the legal abolition of the slave trade, the negroes taken in the captured vessels, and liberated by the mixed commission courts, have been carried to the colony. The total population of the colony in 1856 amounted to 11,806, all black or coloured, with the exception of about 130 whites.

*Success of the Efforts to civilise the Blacks.*—Great efforts have been made to introduce order and industrious habits amongst these persons. We are sorry to be obliged to add, that these efforts, though prosecuted at an enormous expense of blood and treasure, have been signally unsuccessful. There is, no doubt, some discrepancy in the accounts of the progress made by the blacks. It is, however, sufficiently clear that it has been very inconsiderable, and we do not think that any other result could be rationally anticipated. Their laziness has been loudly complained of, but without reason. Men are not industrious without a motive; and most of those motives that stimulate all classes in colder climates to engage in laborious employments are unknown to the indolent inhabitants of this burning region, where clothing is of little importance, where sufficient supplies of food may be obtained with comparatively little exertion, and where more than half the necessaries and conveniences of Europeans would be positive incumbrances. And had it been otherwise, what progress could a colony be expected to make, into which there have been annually imported crowds of liberated negroes, most of whom are barbarians in the lowest stage of civilization?

*Influence of the Colony upon the illicit Slave Trade.*—As a means of checking the prevalence of the illicit slave trade, the establishment of a colony at Sierra Leone has been worse than useless. The trade is principally carried on with the countries round the Bight of Biafra and the Bight of Benin, many hundred miles distant from Sierra Leone; and the mortality in the captured

ships during their voyage to the latter is often very great. The truth is, that this traffic will never be effectually put down otherwise than by the great Powers declaring it to be piracy, and treating those engaged in it, wherever and by whomsoever they may be found, as sea robbers or pirates. Such a declaration would be quite conformable to the spirit of the declaration put forth by the Congress of Vienna in 1824. [SLAVE TRADE.] But the jealousies with respect to the right of visitation and search are so very great that it is exceedingly doubtful whether the maritime Powers will ever be brought to concur in any declaration of the kind now alluded to; unless, however, something of this sort be done, we apprehend there are but slender grounds for supposing that the trade will be speedily suppressed.

*Climate of Sierra Leone.*—The soil in the vicinity of Sierra Leone seems to be of indifferent fertility, and the climate is about the most destructive that can be imagined. The mortality among the Africans sent to it seems unusually great; and amongst the whites it is quite excessive. Much as we desire the improvement of the blacks, we protest against its being attempted by sending our countrymen to certain destruction in this most pestiferous of all pestiferous places. It would seem, too, that it is quite unnecessary, and that blacks may be employed to fill the official situations in the colony. But if otherwise, it should be unconditionally abandoned.

*Commerce of Sierra Leone and the West Coast of Africa.*—Commercially considered, Sierra Leone appears to quite as little advantage as in other points of view. We import from it teak wood, palm oil, ginger, and ground-nuts, with small quantities of camwood, ivory, hides, gum copal, and other articles; but their value is inconsiderable, not amounting to more than from 70,000*l.* to 80,000*l.* a-year. Palm oil is the great article of export from the west coast of Africa; and by far the largest portion of it is furnished by the coast to the west and south of the Rio Volta, many hundred miles from Sierra Leone. We doubt, indeed, whether the commerce with the latter will ever be of much importance. At all events, we hardly think that it can be expected materially to increase if it be conducted in the way in which it is affirmed that the intercourse with the liberated negroes is at present conducted. (Report on Colonial Possessions, 1851, p. 175.) If there be not some mistake or exaggeration in the statement now referred to, nothing can be conceived more disgraceful. Should it, however, be ascertained that an establishment is really required for the advantageous prosecution of the trade to Western Africa, it is abundantly obvious that it should be placed much farther to the south than Sierra Leone. The island of Fernando Po has been suggested for this purpose; but, after the dear-bought experience we have already had, it is to be hoped that nothing will be done with respect thereto without mature consideration.

In 1864 and 1866 the exports of palm oil from Sierra Leone to all parts amounted to 166,492 and 358,180 gallons. The exports of British produce to the colony consist principally of cottons, apparel, and haberdashery, arms and ammunition, and are but inconsiderable. In 1867 their value amounted to 225,653*l.*, but that was much above the average. The only manufacture that can be said to exist in the colony is the expression of the oil from the ground-nut by means of machinery. [NEXT, GROUND.]

*Expenses incurred on account of Sierra Leone.*—The pecuniary expense occasioned by this colony, and our unsuccessful efforts to suppress

Account of the Quantities and Values of the Principal Articles Imported into the United Kingdom from Sierra Leone in each of the 3 Years ending with 1867.

Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
General - - - - -	59	111	101	£ 1,178	£ 2,957	£ 5,069
Ginger - - - - -	7,211	10,122	10,333	15,540	20,251	14,087
Gum, copal - - - - -	1,661	2,509	4,690	5,511	9,199	6,615
Nuts and kernels, for expressing oil - - - - -	1,685	1,791	1,070	14,131	16,087	11,168
Oil, palm - - - - -	16,911	11,901	17,128	29,633	29,560	29,916
Teeth, elephants' - - - - -	51	49	62	1,575	1,639	2,179
Wax, bees' - - - - -	1	98	29	8	812	258
Wood, beech, oak - - - - -	455	..	..	2,085	..	..
Teak - - - - -	378	..	..	3,103	..	..
All other articles - - - - -	..	..	..	5,715	3,619	1,714
Total - - - - -	..	..	..	76,221	82,617	72,083

voyage to the latter is often truth is, that this traffic will put down otherwise than by declaring it to be piracy, and engaged in it, wherever and by many be found, as sea robbers or celebration would be quite credit of the declaration put forth of Vienna in 1824. [SIERRA LEONE.]

jealousies with respect to the and search are so very great, and doubtful whether the measure be brought to concur in any kind now alluded to; unless of this sort be done, we apprehend grounds for supposing to be speedily suppressed.

**Sierra Leone.**—The soil in the Leone seems to be of individual the climate is about the that can be imagined. The the Africans sent to it seems and amongst the whites it is. Much as we desire the improvements, we protest against its being our countrymen to certain is most pestiferous of all would seem, too, that it is quite that blacks may be employed to tations in the colony. But if ld be unconditionally abandoned.

**Sierra Leone and the West Coast** mercerally considered, the Sierra Leone as little advantage as in other

We import from it teak wood, and ground-nuts, with small wood, ivory, hides, gum copal, as; but their value is inconsidering to more than from 70,000, to

Palm oil is the great article of west coast of Africa; and by far on of it is furnished by the coast south of the Rio Volta, many from Sierra Leone. We doubt, the commerce with the latter will importance. At all events, we at it can be expected materially

be conducted in the way in which at the intercourse with the latter present conducted. (*Report on the Slave Trade, 1851, p. 175.*) If there be an exaggeration in the statement, nothing can be conceived more would it, however, be ascertained. The settlement, is really required for the prosecution of the trade to Western indubitably obvious that it should be further to the south than Sierra land of Fernando Po has been this purpose; but, after the distance we have already had, it is to be being will be done with respect to consideration.

In 1866 the exports of palm oil from all parts amounted to 166,192 and

The exports of British produce consist principally of cottons, apparel, arms and ammunition, and are able. In 1867 their value amounted to that was much above the average. A fact that can be said to exist is the expression of the oil from by means of machinery. [NEX,

ocurred on account of Sierra Leone. The primary expense occasioned by this or unsuccessful efforts to suppress

the foreign slave trade, have been altogether enormous. Mr. Keith Douglas is reported to have stated in the House of Commons, so long ago as July 1831, that 'down to the year 1824 the civil expenses of Sierra Leone amounted to 2,268,000l.; and that the same expenses had amounted, from 1824 to 1830, to 1,082,000l. The naval expenses from 1807 to 1824 had been 1,630,000l. The payments to Spain and Portugal, to induce them to relinquish the slave trade, amounted to 1,230,000l. The expenses on account of captured slaves were 533,092l. The expenses incurred on account of the mixed commission courts were 198,000l. Altogether, this establishment had cost the country (even at that time) nearly 8,000,000l.' The expenditure on account of Sierra Leone in 1866 was 60,539l.

The prodigality of this expenditure is unmatched, except by its uselessness. It is doubtful whether it has prevented a single African from being dragged into slavery, or conferred the smallest real advantage on Africa. It, however, enabled the sovereigns of Spain and Portugal to turn their mercenary humanity to good account.

For further details with respect to Sierra Leone and the trade of Western Africa, see the *Report of the Select Committee of the House of Commons on the West Coast of Africa*, Sess. 1842, and the *Parliamentary Paper* for 1851, already referred to.

**SILK** (Lat. *sericaria*, from *Seres*, the supposed ancient name of the Chinese; Fr. *soie*; Ital. *seta*; Span. *seta*; Ger. *seide*). A fine glossy thread or filament, spun by various species of caterpillars or larve of the *Phalena* genus. Of these, the *Phalena atlas* produces the greatest quantity; but the *Phalena bombyx* is that commonly employed for this purpose in Europe. The silkworm, in its caterpillar stage, which may be considered as the first stage of its existence, after acquiring its full growth (about 3 inches in length), proceeds to enclose itself in an oval-shaped ball, or cocoon, which is formed by an exceedingly slender and long filament of fine yellow silk, emitted from the stomach of the insect preparatory to its assuming the shape of the chrysalis or moth. In this latter stage, after emancipating itself from its silken prison, it seeks its mate, which has undergone a similar transformation; and in two or three days afterwards, the female having deposited her eggs (from 300 to 500 in number), both insects terminate their existence. According to Réaumur, the *phalena* is not the only insect that affords this material—several species of the *aranea*, or spider, enclose their eggs in very fine silk.

**Raw Silk** is produced by the operation of winding off, at the same time, several of the balls or cocoons (which are immersed in hot water, to soften the natural gum on the filament) on a common reel, thereby forming one smooth, even thread.

When the skein is dry, it is taken from the reel and made up into hanks; but before it is fit for weaving, and in order to enable it to undergo the process of dyeing, without furring up or separating the fibres, it is converted into one of three forms; viz. *singles*, *tram*, or *organzine*.

*Singles* (a collective noun) is formed of one of the reeled threads, being twisted, in order to give it strength and firmness.

*Tram* is formed of 2 or more threads twisted together. In this state it is commonly used in weaving, as the *shoot* or *welt*.

*Thrown Silk* is formed of 2, 3, or more singles, according to the substance required, being twisted together in a contrary direction to that in which the singles of which it is composed are twisted. This process is termed *organizing*; and the silk so twisted, *organzine*. The art of throwing was originally confined to Italy, where it was kept a secret for a long period. Stow says it was known in this country since the 5th of Queen Elizabeth, 'when it was gained from the strangers;' and in that year (1562) the silk throwsters of the metropolis were united into a fellowship. They were incorporated in the year 1629; but the art continued to be very imperfect in England until 1719. (See post.)

1. *Historical sketch of the Manufacture.*—The art of rearing silkworms, of unravelling the threads spun by them, and manufacturing the latter into articles of dress and ornament, seems to have been first practised by the Chinese. Virgil is the earliest of the Roman writers who has been supposed to allude to the production of silk in China, and the terms he employs show how little was then known at Rome of the real nature of the article:—

Velleraque ut folia depectant tenuia Seres? (*Georg. lib. ii. lin. 121.*)

But it may be doubted whether Virgil do not, in this line, refer to cotton rather than silk. Pliny, however, has distinctly described the formation of silk by the *bombyx*. (*Hist. Nat. lib. xi. c. 17.*) It is uncertain when it first began to be introduced at Rome; but it was most probably in the age of Pompey and Julius Cæsar, the latter of whom displayed a profusion of silks in some of the magnificent theatrical spectacles with which he sought to conciliate and amuse the people. Owing principally, no doubt, to the great distance of China from Rome, and to the difficulties in the way of the intercourse with that country, which was carried on by land in caravans whose route lay through the Persian empire, and partly, perhaps, to the high price of silk in China, its cost, when it arrived at Rome, was very great; so much so, that a given weight of silk was sometimes sold for an equal weight of gold; at first it was only used by a few ladies eminent for their rank and opulence. In the beginning of the reign of Tiberius, a law was passed, 'ne vestis serica viros foedaret'—that no man should disgrace himself by

wearing a silken garment. (Tacit. *Annal.* lib. ii. c. 33.) But the profligate Heliogabalus despised this law, and was the first of the Roman emperors who wore a dress composed wholly of silk (*holosericum*). The example once set, the custom of wearing silk soon became general among the wealthy citizens of Rome, and throughout the provinces. According as the demand for the article increased, efforts were made to import larger quantities; and the price seems to have progressively declined from the reign of Aurelian. That this must have been the case is obvious from the statement of Ammianus Marcellinus, that silk was in his time (anno 370) very generally worn, even by the lowest classes. 'Sericum ad usum antehac nobilium, nunc etiam infimorum sine ulla discretionis proficiens.' (Lib. xviii. c. 6.)

Till the 6th century, China continued to draw considerable sums from the Roman empire in return for silk, now become indispensable to the Western World. About the year 550, two Persian monks, who had long resided in China and made themselves acquainted with the mode of rearing the silkworm, encouraged by the gifts and promises of Justinian, succeeded in carrying the eggs of the insect to Constantinople. Under their direction they were hatched and fed; they lived and laboured in a foreign climate; a sufficient number of butterflies was saved to propagate the race, and mulberry trees were planted to afford nourishment to the rising generations. A new and important branch of industry was thus established in Europe. Experience and reflection gradually corrected the errors of a new attempt; and the Sogdoite ambassadors acknowledged, in the succeeding reign, that the Romans were not inferior to the natives of China in the education of the insects, and the manufacture of silk. (Gibbon, *Decline and Fall*, vol. vii. p. 99.)

Greece, particularly the Peloponnesus, was early distinguished by the rearing of silkworms, and by the skill and success with which the inhabitants of Thebes, Corinth, and Argos carried on the manufacture. Until the 12th century Greece continued to be the only European country in which these arts were practised; but the force of Roger, king of Sicily, having, in 1147, sacked Corinth, Athens, and Thebes, carried off large numbers of the inhabitants to Palermo, who introduced the culture of the worm, and the manufacture of silk, into Sicily. From this island the arts spread into Italy; and Venice, Milan, Florence, Lucca &c. were soon after distinguished for their success in raising silkworms, and for the extent and beauty of their manufactures of silk. (Gibbon, vol. x. p. 110; *Biographie Universelle*, art. 'Roger II.')

The silk manufacture was introduced into France in 1480; Louis XI. having invited workmen from Italy, who established themselves in Tours. The manufacture was not begun at Lyons till about 1520; when Francis I., having got possession of Milan, prevailed on some artisans of the latter city to establish themselves, under his protection, in the former. Nearly at the same period the rearing of silkworms began to be successfully prosecuted in Provence, and other provinces of the south of France. Henry IV. rewarded such of the early manufacturers as had supported and pursued the trade for 12 years with patents of nobility.

*Silk Manufacture of England.*—The manufacture seems to have been introduced into England in the 15th century. Silk had, however, been used by persons of distinction two centuries previously. The manufacture does not appear to have made much progress till the age of Elizabeth; the tranquillity of whose long reign, and the in-

flux of Flemings, occasioned by the disturbances in the Low Countries, gave a powerful stimulus to the manufactures of England. The silk throwsters of the metropolis were united, as already observed, in a fellowship, in 1562; and were incorporated in 1629. Though retarded by the civil wars, the manufacture continued gradually to advance; and so flourishing had it become, that it is stated in a preamble to a statute passed in 1666 (13 & 14 Ch. II. c. 15), that there were at that time no fewer than 40,000 individuals engaged in the trade. And it is of importance to observe, that though the importation of French and other foreign silks was occasionally prohibited during the reigns of James I. and Charles I., the Protectorate, and the reign of Charles II., the prohibition was not strictly enforced; and, generally speaking, their importation was quite free.

A considerable stimulus, though not nearly so great as has been commonly supposed, was given to the English silk manufacture by the revocation of the Edict of Nantes, in 1685. Louis XIV. drove, by that disgraceful measure, several hundreds of thousands of his most industrious subjects to seek an asylum in foreign countries; of whom it is supposed about 50,000 came to England. Such of these refugees as had been engaged in the silk manufacture established themselves in Spitalfields, where they introduced several new branches of the art. When the refugees fled to England, foreign silks were freely admitted; and it appears from the Custom-house returns, that from 600,000*l.* to 700,000*l.* worth were annually imported in the period from 1685 to 1692, being the very period during which the British silk manufacture made the most rapid advances. But the manufacture was not long permitted to continue on this footing. In 1692, the refugees, who seem to have been quite as conversant with the arts of monopoly as with those either of spinning or weaving, obtained a patent, giving them an exclusive right to manufacture lustrings and à-la-modes, the silks then in greatest demand. This, however, was not enough to satisfy them; for, in 1697, Parliament passed an Act, in compliance with their solicitations, prohibiting the importation of all French and other European silk goods; and in 1701, the prohibition was extended to the silk goods of India and China.

These facts show the fallacy of the opinion, so generally entertained, that we owe the introduction and establishment of the silk manufacture to the prohibitive system. So far from this being the case, it is proved, by statements in numerous Acts of Parliament, and other authentic documents, that the silk manufacture had overcome all the difficulties incident to its first establishment, had been firmly rooted, and had become of great value and importance, long before it was subjected to the trammels of monopoly; that is, before the manufacturers were taught to trust more to fiscal regulations, and the exertions of custom-house officers, than to their skill and ingenuity, for the sale of their goods.

The year 1719 is an important epoch in the history of the British silk manufacture; a patent being then granted to Mr. (afterwards Sir Thomas) Lombe and his brother, for the exclusive property of the famous silk mill erected by them at Derby; for throwing silk, from models they had clandestinely obtained in Italy. At the expiration of the patent, Parliament refused the petition of Sir Thomas Lombe for its renewal; but granted him 14,000*l.* in consideration of the services he had rendered the country, in erecting a machine which, it was supposed, would very soon enable us to dispense wholly with the supplies of thrown silk

we had previously been in the habit of importing from Italy: but instead of being of any advantage, it is most certainly true that the establishment of throwing mills in England has proved one of the most formidable obstacles to the extension of the manufacture amongst us. These mills could not have been constructed unless oppressive duties had been laid on thrown or organzine silk; and the circumstance of their having been erected, and a large amount of capital vested in them, was successfully urged, for more than a century, as a conclusive reason for continuing the high duties.

From this period down to 1824 the history of the silk manufacture presents little more than complaints, on the part of the manufacturers, of the importation of foreign silks; of impotent efforts on the part of Parliament to exclude them; and of combinations and outrages on the part of the workmen. Among the multitude of Acts that were passed in reference to this manufacture, from 1637 to the era of Mr. Huskisson, we believe it would be exceedingly difficult to point out one that is bottomed on anything like sound principle, or that was productive of any but mischievous consequences. The French writers estimate the average exportation of silks from France to England, during the period from 1688 to 1741, at about 12,500,000 francs, or 500,000*l.* a-year. In 1763 attempts were made to check the prevalence of smuggling; and the silk mercers of the metropolis, to show their anxiety to forward the scheme, are said to have recalled their orders for foreign goods. It would seem, however, either that their patriotic ardour had very soon cooled, or they had been supplanted by others not quite so scrupulous: for it appears from a report of a committee of the Privy Council, appointed, in 1766, to enquire into the subject, that smuggling was then carried on to a greater extent than ever, and that 7,072 looms were out of employment. The same committee reported, that though the French were decidedly superior to us in some branches of the trade, we were quite equal, and even superior, to them in others; but instead of proposing, consistently with their report, to admit French silks on a reasonable duty, a measure which would have proved very advantageous to those branches of the manufacture in which we were superior, or nearly equal, to the French, without doing any material injury to the others, which were already in the most depressed condition, they recommended the continuance of the old system; substituting absolute prohibitions in the place of the prohibitory duties that formerly existed. Whatever immediate advantages the manufacturers might have reaped from this measure, the ultimate tendency of which could not fail of being most injurious, were effectually counterbalanced by the turbulent proceedings of the workmen, who succeeded, in 1773, in obtaining from the Legislature an Act which, by itself, was quite sufficient to have destroyed even a prosperous trade. This, which has been commonly called the Spitalfields Act, entitled the weavers of Middlesex to demand a fixed price for their labour, which should be settled by the magistrates; and while both masters and men were restricted from giving or receiving more or less than the fixed price, the manufacturers were liable to heavy penalties if they employed weavers out of the district. The monopoly which the manufacturers had hitherto enjoyed, though incomplete, had had sufficient influence to render inventions and discoveries of comparatively rare occurrence in the silk trade; but the Spitalfields Act extinguished every germ of improvement. Parliament, in its wisdom, having seen fit to enact that a manufacturer should be obliged to pay as

much for work done by the best machinery as if it were done by hand, it would have been folly to have thought of attempting anything new! It is not, however, to be denied that Macclesfield, Manchester, Norwich, Paisley &c. are under obligations to this Act. Had it extended to the whole kingdom, it would have totally extirpated the manufacture; but being confined to Middlesex, it gradually drove the most valuable branches from Spitalfields to places where the rate of wages was determined by the competition of the parties, on the principle of mutual interest and compromised advantage. After having done incalculable mischief, the Act was repealed in 1821. Had it continued down to the present day, it would not have left employment in the metropolis for a single silk weaver.

But, as the effects of this Act did not immediately manifest themselves, it was at first exceedingly popular. After 1785, however, the substitution of cottons in the place of silk gave a severe check to the manufacture, and the weavers then began to discover the real nature of the Spitalfields Act. Being interdicted from working at reduced wages, they were totally thrown out of employment; so that, in 1793, upwards of 4,000 Spitalfields looms were quite idle. In 1798 the trade began to revive, and continued to extend slowly till 1815 and 1816, when the Spitalfields weavers were again involved in sufferings far more extensive and severe than at any former period.

It appears from this brief sketch of the progress of the English silk trade, that from the year 1695 down to our own times it has been exposed to the most appalling vicissitudes. The reason is obvious. The monopoly enjoyed by the manufacturers, and the Spitalfields Act, effectually put a stop to all improvement; so that the manufacture continued stationary in England, while on the Continent it was rapidly advancing. Whenever, therefore, the markets were, either from the miscalculation of the manufacturers or a change of fashion, overloaded with silks, there were no means of disposing of the surplus profitably abroad, and the distress became extreme. Notwithstanding the unparalleled advances we had made in other departments of manufacturing industry, it was affirmed, in 1826, by the member for Coventry (Mr. Ellice), in his place in the House of Commons, 'that there were in that city 9,700 looms; 7,500 of which were in the hands of operative weavers, who applied their manual labour, as well as their machinery, to the manufacture of ribbons. These looms were, for the most part, of the *worst possible construction*; and it would scarcely be believed that the improved loom in France would, in a given time, produce five times as much ribbon as the common loom in England with the same manual labour. He could also state that there existed an improved manufacture in Germany, by which one man could make *forty-eight times as much velvet as could be made in an equal time by an English machine*. What chance was there that the English manufacturer could maintain such a competition?'

Perhaps these statements may have been somewhat exaggerated; but there can be no doubt of their substantial accuracy. Surely, however, no one believes that the inferiority of the machinery used by the English manufacturers was ascribable to anything except that the protection they enjoyed had made them indifferent to improvements. No one believes that the French or Germans are superior to the English in the construction of machines; on the contrary, their inferiority is admitted by themselves, and by

everybody else. That that spirit of invention which has effected such astonishing results in the cotton manufacture should have been so long wholly unknown in that of silk, is entirely to be ascribed to the fact of the former never having been the object of legislative protection. The cotton manufacturers were not bribed into the adoption of a routine system; they could not rest satisfied with mediocrity; but being compelled to put forth all their powers—to avail themselves of every resource of science and of art—they have, in a few years, raised the British cotton manufacture from a subordinate and trifling, to the very first place amongst the manufactures, not of this country only, but of the world.

*Change, in 1826, of the Monopoly System.*—At length, however, the impolicy of the system by which the silk manufacture had been so long depressed, became obvious to every intelligent individual. The principal manufacturers in and about London subscribed, in 1824, a petition to the House of Commons, in which they stated that 'this important manufacture, though recently considerably extended, is still depressed below its natural level, by laws which prevent it from attaining that degree of prosperity which, under more favourable circumstances, it would acquire.' Fortified by this authority, by the experience of 130 years, during which the prohibitive system had been allowed to paralysed the energies of the manufacturers, and by the sanction of Parliamentary committees, Mr. Huskisson moved, on March 8, 1824, that the prohibition of foreign silks should cease on July 5, 1826, and that they should then be admitted for importation on payment of a duty of 30 per cent. ad valorem. On this occasion Mr. Huskisson observed: 'The monopoly had produced, what monopoly was always sure to produce, an indifference with regard to improvement. That useful zeal which gives life to industry, which fosters ingenuity, and which in manufactures occasions unceasing efforts to produce the article in the most economical form, had been comparatively extinguished. To the prohibitive system it was to be ascribed, that in silk only, in the whole range of manufactures, we were left behind our neighbours. We have here a proof of that chilling and benumbing effect which is sure to be produced when no genius is called into action, and when we are rendered indifferent to exertion by the indolent security derived from restrictive regulations. I have not the slightest doubt that if the same system had been continued with respect to the cotton manufacture, it would have been at this moment as subordinate in amount to the woollen as it is junior in its introduction into the country.' (*Speeches*, vol. ii. p. 249.)

We have already alluded to the enormous duties imposed, in 1719, when Sir Thomas Lombe erected his throwing mill at Derby, on foreign organzine silk. These, though subsequently reduced, amounted, in 1824, to no less than 1*s.* 7½*d.* per lb. There was also, at the same time, a duty of 4*s.* per lb. on raw silk imported from Bengal, and of 5*s.* 7½*d.* per lb. on that imported from other places. Even had the manufacture been otherwise in a flourishing condition, such exorbitant duties on the raw material were enough to have destroyed it. Mr. Huskisson, therefore, proposed, by way of preparing the manufacturers for the approaching change of system, that the duty on foreign-thrown silk should be immediately reduced to 7*s.* 6*d.* (it was further reduced to 5*s.* in 1826), and the duty on raw silk to 3*d.* per lb. These proposals were all agreed to; and considerable reductions were at the same time

effected in the duties charged on most of the stuffs used in the manufacture.

It is to be regretted that Mr. Huskisson did not propose that the reduction of the duties on raw and thrown silk, and the legalised importation of foreign silks, should be simultaneous and immediate. During the interval that was allowed manufacturers to make preparations for the change, the French accumulated a large stock of goods to pour into our markets. To quiet the alarm occasioned by this circumstance, a singular device was fallen upon. The French had long been accustomed to manufacture their goods of a certain length; and, in the view of rendering their accumulated stock unfit for our markets, a law was passed in 1826, prohibiting the importation of any silks except such as were of entirely different lengths from those commonly manufactured by the French. No one can regret that this wretched trick, for it deserves no better name, entirely failed of its object. The French manufacturers immediately commenced, with redoubled zeal, the preparation of goods of the legitimate length, and the others, having become unsaleable at any thing like fair prices, were purchased up by the smugglers, and imported, almost entirely, into this country.

But no permanent injury arose from this circumstance; and, on the whole, the effect of the opening of the trade has been such as to justify all the anticipations which the advocates of the measure had formed of its success.

*Effects of the Change of 1826.*—We do not exaggerate, we only state the plain matter of fact, when we affirm that the silk manufacture down to 1826 made a more rapid progress after the abolition of the prohibitive system in 1826 than it had done during the preceding century. The former disparity in quality between goods of French and English make had been materially abated in most articles, while in some the superiority was on our side. The majority of our readers will, probably, be rather surprised to learn that the real or declared value of the silk goods of British manufacture exported to France in 1852 amounted to 257,537*l.*

But though a great step at the time, the change of system effected in 1826 was far from being sufficiently complete. The duty then imposed of 30 per cent. on the importation of foreign silks was, at least, double what it should have been. The expenses of smuggling silk goods into England may, speaking generally, be estimated at about 12 or 15 per cent.; so that the high duty, instead of excluding them, acted as a bounty on their importation through clandestine channels; and probably occasioned, by the temptation which it held out to gambling adventures, a larger quantity to be imported than if the duty had been more nearly proportioned to the expense of smuggling. We ventured to contend in a former edition that in 'the event of the duties being reduced to 12 or 15 per cent. ad valorem, the legitimate imports of foreign silk goods would be considerably increased, and their clandestine importation more than proportionally diminished; and the apparent protection given to the manufacture being reduced, a new stimulus would be applied to industry and invention.' We had predicted that, under such a system, in no very long time, perhaps not more than 5 or 6 years, our superiority over France in some important departments of the silk manufacture would be little less decided than in that of cotton.

It was not, however, to be supposed that all departments of the silk manufacture would be equally benefited by the change of system from prohibition to duties.—*Non omnia possunt.* The pro-



of the far greater supply which is poured in throughout all the channels of smuggling, without being subjected to any entry. In fact, to such an extent is this illicit trade carried, that there is scarcely a haberdasher's shop in the smallest village of the United Kingdom, in which prohibited silks are not sold; and that in the face of duty, and to a very considerable extent.

The honourable member for Coventry (Mr. Ellice) has mentioned the silk goods from India as those against which anything but prohibition would prove an unavailing protection. Now, in my opinion, it is scarcely possible to conceive a stronger case than those very silks furnish against the honourable member's own argument. I believe it is universally known that a large quantity of Bandma handkerchiefs are sold every year, for exportation, by the East India Company. But does any gentleman suppose that these Bandmas are sent to the Continent for the purpose of remaining there? No such thing! They are sold at the company's sales, to the number of about 800,000 or 1,000,000 a year, at about 4s. each; they are immediately shipped off for Hamburg, Antwerp, Rotterdam, Ostend, or Guernsey, and thence they nearly all illicitly find their way back to this country.

Mark, then, the effect of this beautiful system. These Bandmas, which had previously been sold for exportation at 4s., are finally distributed in retail to the people of England at about 8s. each:

and the result of this prohibition is to levy on the consumer a tax, and to give those who live evading your law a bounty of 4s. upon each handkerchief sold in this country.' (*Speeches*, vol. p. 510.)

This, no doubt, was all very true and striking. But had Mr. Huskisson been in the House of Commons in 1844, he might have nearly the same language. He scolded, but he did not kill the snake. The 30 per cent. ad valorem duty which he established, was but little less productive of smuggling than the prohibition which he repealed: and being about double the expense of the clandestine importation of foreign silks, gave rise within the port of London, and, indeed, within the very walls of the custom-house, to a system of fraud ruinous alike to the interests of the revenue and of the honest dealers. The abuse continued till 1845, when Sir Robert Peel reduced the duty to 15 per cent. ad valorem. And while this liberal measure went far to suppress smuggling, and to place all classes of dealers on the footing, it did not materially increase the import of silk goods. In 1860 the duties on foreign silk of every kind were abolished by Mr. Gladstone.

Since the repeal in 1845 of the duties on raw and thrown silk, it is no longer possible to give any account of the exact quantities admitted for consumption. But they may, notwithstanding, be learned with sufficient precision for every practical purpose from the following statements.

I.—Account, illustrative of the Progress of the Silk Manufacture, showing the Quantities of Raw, Waste, and Thrown Silk Imported at different Periods. (*Report of 1832 on Silk Trade*, p. 10, and later *Parl. Papers*.)

Average Imports	Raw	Waste	Thrown	Total
	lb.	lb.	lb.	lb.
1765, 1766, 1767, being the commencement of the absolute prohibition	552,000	..	365,000	917,000
1785, 1786, 1787	551,000	..	357,000	908,000
1801 to 1812	760,000	..	550,000	1,310,000
1815, 1816, 1817, being fifty years after prohibition, and the first 3 years of peace	1,095,000	27,000	893,000	1,915,000
1821, 1822, 1823, being the years immediately previous to the abolition of the prohibition	1,070,000	74,000	555,000	1,699,000
1831, 1832, 1833	3,157,371	608,269	245,270	3,990,910
1839, 1840, 1841	3,518,076	1,055,737	267,085	4,840,908
1850, 1851, 1852	3,127,265	1,605,101	497,156	5,229,522
1861, 1862, 1863, subsequent to the abolition of the duties	9,451,649	3,319,136	82,061	12,852,846
1865, 1866, 1867	6,515,300	3,128,733	107,722	9,751,755

II.—Account of the Quantities of Raw, Waste, and Thrown Silk entered for Consumption in the undermentioned years between 1815 and 1841, with the Total Amount of Duty received on the same. (*Parl. Paper*, No. 296, Sess. 1842.)

Years	Raw	Waste	Thrown	Total of all Sorts	Duty received
	lb.	lb.	lb.	lb.	£ s. d.
1815	1,069,596	27,971	377,822	1,475,389	516,027 12 11
1820	1,622,299	94,863	309,353	2,026,515	611,378 13 7
1825	2,208,506	105,910	659,612	2,974,028	846,150 15 2
1830	3,711,069	485,015	336,535	4,532,619	1,309,541 0 5
1835	4,131,008	1,398,872	254,578	5,784,658	1,620,001 11 3
1836	4,372,501	1,598,721	291,938	6,263,160	1,768,852 3 4
1837	3,750,427	875,781	215,368	4,841,576	1,368,285 16 6
1838	3,685,759	960,147	243,570	4,889,476	1,382,156 18 7
1839	3,485,363	1,048,655	229,910	4,763,928	1,310,027 11 0
1840	3,860,980	745,215	288,381	4,894,576	1,365,601 19 9
1841	3,209,885	1,579,514	267,335	4,856,734	1,300,890 2 3

III.—Account of the Imports and Exports of Raw and Thrown Silk during each of the 7 Years ending with 1867.

Silk	1861		1862		1863		1864		1865		1866		1867	
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
Imports:														
Raw	8,710,681	10,572,125	9,221,115	5,655,401	7,732,450	5,453,804	5,819,048							
Thrown	121,574	62,227	50,383	75,160	60,130	66,840	196,388							
Total	8,905,255	10,634,352	9,271,498	5,730,561	7,792,580	5,520,644	6,015,436							
Exports:														
Raw	4,096,992	5,205,861	3,852,319	5,022,150	5,157,329	1,965,295	1,609,214							
Thrown	621,731	785,101	678,273	868,107	676,827	335,474	482,512							
Total	4,718,723	5,990,962	4,530,592	5,890,257	5,834,156	2,300,769	2,091,726							
Remains for Consumption	4,186,532	4,643,391	4,739,906	908,328	3,978,416	3,210,087	3,713,710							
Average for consumption for the 7 years														
- 5,611,127 lb. a-year.														

Sources of the Supply of Silk.—The following table shows the sources whence we directly derive our supplies of raw and of foreign thrown silk.

IV.—Account of the Quantities of Raw and Thrown Silk Imported into the United Kingdom in each of the 3 Years ending with 1867, specifying the Countries whence they were brought, and the Quantities brought from each.

Raw	1865	1866	1867	Thrown			
				1865	1866	1867	
Egypt	5,094,554	5,405,808	5,850,293	France	63,569	49,369	179,058
France	2,409,274	2,703,114	1,892,436	Other countries	6,761	18,181	17,150
China and Japan	179,919	196,496	35,391	Total	66,150	66,850	196,188
Other countries	588,593	918,529	75,908				
Total	7,732,450	8,453,861	5,819,618				
Waste, knits, and hanks &c.	35,439	25,417	23,031				

V.—Account of the Quantities and Values of the Silk Goods produced in the United Kingdom and Exported therefrom in each of the 3 Years ending with 1867.

Silk Manufactures	Countries to which exported	Quantities			Values		
		1865	1866	1867	1865	1866	1867
Broad piece goods, velvet and lace	United States	1,022,093	1,291,554	695,281	£168,570	£165,503	£25,054
	Egypt	746,361	592,814	413,576	175,801	151,897	106,395
	France	276,163	194,513	84,021	77,592	44,558	6,578
	Other countries	1,057,675	974,043	8,6350	111,000	156,171	138,147
Total	5,089,512	5,015,925	2,966,231	411,151	486,152	316,211	
Ribbons and sewing silk	United States	53,273	51,717	16,615	41,634	42,499	18,421
	Australia	24,417	15,621	5,929	34,453	21,423	8,194
	Other countries	39,602	22,565	13,091	45,994	42,904	35,515
	Total	90,292	82,909	35,729	119,161	111,826	61,900
Articles of silk made, entered at value	Egypt	..	..	..	126,471	119,765	56,694
	United States	..	..	..	97,394	71,498	24,218
	Other countries	..	..	..	290,949	265,925	194,729
	Total	..	..	..	514,794	297,264	175,568
Silk manufactures mixed with other materials	Holland	151,405	115,138	211,753	174,227	176,698	454,568
	France	65,715	56,917	66,569	109,275	56,502	95,273
	Other countries	47,302	12,417	295,783	269,138	145,408	25,510
	Total	370,417	273,572	465,992	472,590	382,698	275,351
Silk thrown	France	215,297	212,236	148,189	125,210	114,809	73,670
	Other countries	222,919	147,065	115,519	164,298	152,702	168,134
	Total	438,216	369,311	263,708	289,508	217,992	181,914
	Total values of exports of silk goods				2,239,560	1,803,586	1,778,462

showing the Quantities of Raw Silk Trade, p. 10.

Waste	Thrown	Total
lb.	lb.	lb.
363,800	19,800	
337,480	39,300	
550,000	110,000	
27,000	203,900	1,015,000
74,698	355,081	1,299,000
688,269	365,370	4,270,000
1,035,737	962,083	4,833,938
1,695,101	427,456	7,248,721
2,549,156	82,061	12,865,286
5,125,733	107,722	9,557,710

entered for Consumption in the Amount of Duty received on the

Date received	£	s.	d.
1,475,389	216,027	12	11
2,087,635	61,428	15	7
3,603,058	246,430	12	3
4,695,517	39,541	0	3
5,788,456	68,853	3	3
6,266,169	28,603	11	7
4,819,576	56,665	18	7
3,887,456	24,969	18	7
4,225,928	51,027	17	0
4,895,401	65,601	19	8
4,250,532	29,890	3	3

Silk during each of the 7 Years

1865	1866	1867
lb.	lb.	lb.
7,732,450	5,455,804	5,819,618
60,150	66,850	196,188
7,792,600	5,522,654	6,015,806
3,157,39	1,965,083	1,602,014
676,87	34,471	422,312
2,811,164	10,567	2,315,77
3,978,416	3,210,987	3,721,70

Imports of Silk into the United Kingdom.

	1865	1866	1867
European	3,090,760	3,442,601	3,238,965
Indian	89,323	66,410	65,674
Miscellaneous	..	..	..
Other silk goods, whensoever imported	1,001,460	887,760	864,250

Silk Manufactures	Imported		
	1865	1866	1867
European	1,602,602	2,016,596	1,709,963
Indian	294,266	296,793	311,162
Miscellaneous	710,669	690,413	1,311,190
Push for making hats	94,258	57,946	53,926
India	..	..	..
Randans, corals, choppos, tussero elatis, ramals, and talfalls	86,057	57,816	59,761

Average Net Weight of Silk Bales (from Supplement to Economist, March 11, 1866).

	lb.	lb.
Bengal	259	190
small	105	175
China raw	102	290
thrown	112	75
Canton	110	..

The silk exported from China consists of two leading varieties, known in commerce by the names of Canton and Nanking. The first, which is raised principally in the province of Canton, is divided into five sorts. The Nanking silk, produced in the province of Kiangnan, is divided into two sorts, known in commerce by the names of Tsalee and Tsynnam. It is very superior to the other, and usually fetches more than double its price. It is wholly imported from Shanghai.

The chief ports for the export of Chinese silks are Shanghai and Canton. Thus the exports of raw silk in 1866 were, from Shanghai, 21,329 bales, valued at 10,331,750 taels; and from Canton, 14,339 bales, valued at 5,670,701 taels. The silk grower looks to the home market for fixing the value of his produce, and prices range according as that demand is active or dull, little or no effect being produced by the foreign exportation, except among speculative holders at the ports.

East India native silk comes almost wholly from Bengal and Pegu. About the year 1760, the East India Company introduced the Italian mode of reeling silk, which was productive of a very great improvement in the quality of the article; but we are not aware that any subsequent improvement has been effected. The silk goods brought from India are not only inferior, in point of quality, to those of Europe, but also to those of China. The total value of the exports of raw silk from British India by sea, in 1866, was 745,345*l.*, and of silk goods 88,289*l.*, both, however, being considerably below the average of the previous 3 years. As will be seen from the foregoing statement, Egypt supplies more than a half of our whole supplies of raw silk.

Turkey silk wholly consisted some years back of what is termed long reel and short reel brutia, a rather coarse description, suited to few buyers, and chiefly used in the ribbon trade of Coventry; but of late it has been imported of a very far superior texture and quality, coming successfully into competition with Italian and China silk. The qualities now known as brutias may be classed as follows; viz. long reel brutia, short reel brutia long reel Mestup (being a finer thread than common brutia), short reel Mestup Seli (a finer sort, generally in loose skeins), Demirdask (a superior kind).

The plains of Brusa (the seat of the silk trade in Asia Minor), and the adjacent villages, produce different qualities, varying considerably in size, colour, and quality. The village of Demirdask produces the finest, owing to the care taken by the natives in selecting the best cocoons, and attending carefully to the evenness of the thread throughout the process of reeling; consequently this description commands a high price, and is approved by our throwsters.

The water of this place is considered favourable to the brightness and glossiness of the silk, by which it may be distinguished from that of Brusa. The silk at Brusa is taken by the country people in small parcels to the behestar or customs, where it pays duty. The proprietor with a broker then takes it to the silk bazaar, where it is handed round to the different stands and sold to the highest bidder, resembling, in this respect, the mode of selling the ores in Cornwall to the different smelters.

A person buying assortments as well as he can the different qualities for packing. It is generally bought by speculators for the Constantinople market, and is forwarded to Ghimelick on camels for shipment per steamers to Constantinople, where it finds its way to the Mizan or some broker's rooms, to be sold to the different merchants. The finest longes are mostly bought for the French and Russian markets, generally the latter. The long reels are going out of use in this country, as the more modern machinery is not adapted to its use.

The Persian silk crop of 1863-4 is stated by Mr. Abbot to have yielded 1,129,536 lb., valued at 731,138*l.* Average price per lb. 12*s.* to 1*l.* best quality 18*s.* Of this produce 400,000 lb. were shipped to Great Britain, 30,000 lb. to France, and 141,600 lb. to Russia.

By far the greater part of the raw and thrown silk that comes to us from France is not the growth of that country, but of Italy. The Italian silk crop of 1867, which (ex. Venetia) yielded about 812,492 myriagrammes or 159,848 cwt., showed an increase of over 6 per cent. beyond the average annual produce during the 11 years since 1857, when the disease of the silkworm first appeared. (*Report of Mr. Consul Colmaghi of January 6, 1868.* See also *Report of April 1868*, by Mr. Secretary of Legation Herries on *The Industrial Condition of Italy*.) The produce of cocoons in France declined from 24,250,000 kilos in 1852 to 4,000,000 in 1865. Though silk, or material having silk for a component part, was never in more general use than at present, no manufacture used for dress is more liable than this to suffer in one or more of its branches from the sudden caprices of fashion. If there be a run upon ribbon, probably down goes lace, and vice versa. The old seats of the manufacture, too, are apparently subject to serious mutations of fortune. Thus the Lyons silk weavers have experienced a sad decline of prosperity since 1856; the produce of their trade in that year, as compared with 1855, being as 74 to 11 (*Times of October 24, 1866*, on the authority of the *Salut Public of Lyons*). On the other hand, the manufacture seems to thrive steadily both in Switzerland (especially in and near Zurich) and in the Rhenish provinces of Prussia.

The following table of the prices of silk is extracted from the very comprehensive circular of Jan. 7, 1869, issued by Messrs. T. & H. Littledale of Liverpool, to which we have been indebted also for information regarding the crops and prices of sugar &c.

Description	Prices		
	s.	d.	q.
China: Tachow	39	0	to 26
Do, superior	27	0	to 31
Tachow	17	6	to 21
Yan an fa	30	0	to 27
Canton	13	0	to 16
Japan	21	0	to 35
Thames, thrown	30	0	to 28
Torcia	12	0	to 14
Italian: Berg. and Milan, raw	45	0	to 12
Naples, raw, raw	15	0	to 18
Bombay, raw	19	0	to 21
Brusa, short reel	..	..	..
Do, medium	..	..	..
Do, long	..	..	..
Hollo reel	52	0	to 55

Description	Native and Common		European	
	s.	d.	s.	d.
Bengal: Banah	15	0	to 13	6
Common	13	6	to 12	0
Cambodia	11	0	to 12	0
Genoa	13	6	to 13	6
Holland	13	0	to 12	0
Java	13	0	to 12	0
Madagascar	13	0	to 12	0
Madagascar	13	0	to 12	0
Madagascar	13	0	to 12	0
Madagascar	13	0	to 12	0

Description	Prices		
	s.	d.	q.
Foreign: Gura waste	..	..	..
Do, good to fine	..	..	..
Do, kams and backs	..	..	..
Turkey ditto	..	..	..
E. I. cocoon	..	..	..
E. I. cocoon	..	..	..
Silk Piece goods: Corahs, inferior	13	0	to 14
Do, fair to good	16	0	to 16
Choppahs and Bhadoones, inferior	11	0	to 11
Do, superior	11	0	to 11

SILVER (Ger. silber; Dutch, zilver; Dan. solv; Swed. silver; Fr. argent; Ital. argento; Span. plata; Port. prata; Russ. серебро; Pol. srebro; Lat. argentum; Gr. ἄργυρος; Arab. faz-zeh). A metal of a fine white colour, without either taste or smell; being in point of brilliancy inferior to none of the metallic bodies, if we except polished steel. It is softer than copper; but harder than gold. When melted its specific gravity is 10.474; when hammered, 10.51. In malleability, it is inferior to none of the metals, if we except gold. It may be beaten out into leaves only  $\frac{1}{1000}$  of an inch thick. Its ductility is equally remarkable; it may be drawn out into wire much finer than a human hair; so fine, indeed, that a single grain of silver may be extended about 400 feet in length. Its tenacity is such, that a wire of silver  $\frac{1}{1000}$  inch in diameter is capable of supporting a weight of 187.13 lb. without breaking. Silver is easily alloyed with copper by fusion. The compound is harder and more sonorous than silver, and retains its white colour even when the proportion of copper exceeds  $\frac{1}{2}$ . The hardness is at a maximum when the copper amounts to one-fifth of the silver. The standard or sterling silver of Britain, of which coin is made, is a compound of 124 parts silver and 1 copper. Its specific gravity is 10.2. The specific gravity of Fine standard silver, composed of 137 parts silver and 7 copper, is 10.175. The French silver coin during the old Government was not nearly so fine, being composed of 261 parts silver and 27 copper, or  $\frac{1}{10}$  parts silver to 1 part copper. The Austrian silver coin contains  $\frac{13}{100}$  of copper. The silver coin of the ancients was nearly pure, and appears not to have been mixed with alloy. Besides being used as coin, or money, silver is extensively employed in the arts. The value of the silver plate annually manufactured is very considerable. Large quantities are also used in plating. The most productive silver mines are in America, particularly in Mexico, Peru, and California. There are also silver mines in Hungary, Saxony, Spain, Norway, and other parts of Europe, and in Asiatic Russia. In 1867 we exported, exclusive



munications. The port has always afforded ready means for the repairing of merchant ships, but the completion of the large and costly docks of the Patent Ship and Dock Company, and of the Tanjong Pagar Dock Company, now offers facilities for the repair of ships of the largest burden, whether built of wood or of iron, as well as of steam machinery, equal perhaps to any that are available in the eastern seas.

The settlement, which exhibits these signal marks of prosperity was founded on February 6, 1819, at which time the island was covered by a primeval forest, while its only inhabitants consisted of a few hundred Malay fishermen, occupying the single villages on its coasts, and which had been founded no further back than 1811. The right of the British to form a settlement on the island was at the time disputed by the Netherlands Government, on the ground of its prior cession to themselves by the native sovereign. But these objections having been withdrawn, the island of Singapore, with numerous adjacent islets, were ceded in absolute property and sovereignty to the East India Company by a treaty concluded in August 1824, with the two Malay princes to whom it belonged. They received in exchange a sum of 60,000 dollars in money, and an annuity of 12,500 dollars to the one and 500 to the other, during their natural lives, with other incidental advantages. The settlement having been originally founded by Mr. (afterwards Sir) Stamford Raffles, then lieutenant-governor of Fort Marlborough, Bencoolen, it was in the first instance a dependency of that Government; but being subsequently transferred to Bengal, it remained under that presidency until its incorporation with the other two settlements in the straits as above.

Being only 80 miles from the equator, there is, of course, little variety in the seasons, but the climate, though hot, is remarkably salubrious, an advantage which is no doubt owing to the thorough ventilation which the island receives from the change of monsoons. There are no regular periodical rains, but showers fall throughout the year; and during the prevalence of the N.E. monsoon, from October till March, rain comes down in sufficient quantity for the inhabitants to mark that period of the year as their most rainy, as well as their coolest season. The range of Fahrenheit's thermometer is from 71° to 89°.

Five years after the foundation of the settlement the first census was taken, when the population was found to amount to 10,683. In 1850 it had approximated 60,000; and the following details of the last census, which was taken in 1860, will at once exhibit the continued increase of the population, and the various nationalities which it includes:—

Europeans and Eurasians (including Indo-Britons, Jews, Portuguese, Armenians, Parsees &c.)	2,115
Malays	10,888
Kingis (or natives of the Coromandel coast)	11,735
Bengalies	1,236
Chinese (including Cochin Chinese)	50,043
Burmese and Siamese	14
Bugs (natives of Celebes)	900
Javanese and Boyanese	3,408
Arabs	117
Total	80,792

The number of Europeans included in the first of the above items was only 360; but it is believed that a more than proportionate increase has since taken place in that branch of the population. The population in 1865 was estimated at 90,700, among whom were 58,000 Chinese, 13,500 Malays, and about 800 Europeans.

The European mercantile body comprises British, Americans, Germans, French &c., and the former includes the principal firms. There is also a considerable number of respectable and opulent

Chinese and Arab merchants, and important mercantile establishments conducted by Jews, Parsees and others. The shopkeepers are mostly Chinese and Kingis, the former preponderating, and also including the most valuable portion of the labouring population.

According to the official returns for 1865-66 the latest at present before the public, the number of Chinese immigrants that arrived at Singapore during that year is reported at no less than 11,279, including 455 females. Of these, over 4,300 found their way to Malacca, Penang, and the immediate neighbourhood, while about 350 embarked for the Mauritius.

The boatmen are chiefly natives of the Coromandel coast; and the Malays employ themselves as fishermen, in cutting timber, and in supplying the settlement with the rude produce of the neighbourhood. There are good daily markets, open at all hours, and well supplied with vegetables, fruits, grain, fish, pork, and green turtle; the latter, the cheapest animal food that can be procured. There is a registry of imports and exports compiled from reports made to the master attendant by the masters of vessels, and invoices delivered to the superintendent of imports and exports.

#### COINS, WEIGHTS, AND MEASURES.

##### Money.

*China*.—Accounts are kept in Indian currency and Spanish dollars, as follows:—

10 pica	make 1 copang.
10 copangs	1 Spanish dollar, equal to 5s. sterling.

##### Exchange.

1 Spanish dollar	=	2 sonat rupes	5 ann
From 10 to 16 ditto	=	10 star pagodas.	
ditto	=	1 pound sterling.	
100 Spanish dollars	=	2187 sonat rupes.	
100 ditto ditto	=	2398 sicca "	
100 Spanish dollars	=	2204 Bombay rupes.	
100 star pagodas	=	425 current "	

##### Measures for Grain, Oil &c.

4 chupas	make 1 ganton	= 1½ gallon.
10 gantons	1 parah.	
20 ditto of rice	1 bag	= 1 peul.
40 peculs or bags	1 covang	= 2 tons of 7 cwt.
2 qrs. avoirdupois,	or 5,395 lb.	in a covang of rice.

##### Weights.

16 taels	make 1 catty.
100 catties	1 peul.
20 peculs	1 covang of 5,395 lb. avoirdupois.
The large peul, by which tin and pepper are sold, weighs 1324 lb.	
3 large peculs	make 1 bulnar of 421 lb. avoirdupois.

Also—10 gantangs	make 1 parah.
80 parabs	1 covang.
1 bag of salt	weighs 100 lb. avoirdupois.
1 bag of rice	161 "
1 bag of dholl	161 "
1 bazar mound	824 "
1 seer	2 lb. 1 oz. avoirdupois.

##### Gold and Silver Weights.

16 mians	make 1 bucal	= 1 oz. 9 dwts. 10 grains Troy.
20 bucalis	1 catty	= 29 or 15 dwts. 11½ grains.

##### Land Measure.

12 sq. R.	make 1 jumbua.
20 jumbua	1 orlong = ¼ of English acre.

##### Goldsmith's Weights.

12 vagas	make 1 miam	= 52 grains Troy.
16 mians	1 bucal	= 2 Spanish dols. = 832 grains.
20 bucalis	1 catty	= 16,640 grains.

A catty of gold is heavier than the common catty in the proportion of 105 to 78.

At Atchet, Siak, Malacca &c. places on the east side of the Malay peninsula, the bucal and catty weights are about 10 per cent. less than the above. There is also a bucal measure, which is in frequent use amongst Europeans and native traders to the eastward, and which is found to weigh very nearly 2 dollars, or 832 grains Troy.

**Commercial Weights.**

16 taels	make	1 tael nearly	lb. avo. dr.
100 catties		1 catty	0 0 23 avo. dr.
3 mowly }		1 mowly peul	147 10 109 "
1 jewla }		1 bahr	498 0 0 "
40 (China } jewla }		1 coyang	5,353 0 0 "

The Malay catty weighs 24 Spanish dollars; the Chinese 22½; hence 15 Malay catties equal 16 Chinese. By the Malay or large peul of 142½ avoirdupois, merchants purchase pepper, tin &c. from native vessels, but sell by the Chinese or Hazar peul of 133½ lb. avoirdupois.

**Measure of Capacity.**

4 chopas	make	1 ganton	cubic inches.
100 gantons		1 coyang	27,165 "

The chopas is divided into halves and quarters. A parah (a common measure) of 10 gantons, but sometimes consists of 5, 15, or 20 gantons.

**Long Measure.**

The haats or equal equals 18 English inches, but the Chinese shopkeepers use the English yard.

**Land Measure.**

4 haats	make	1 depoh	= 2 English yards.
2 depohs		1 jumbas	= 4 "
20 jumbas		1 orlong	= 80 ds. or 1 acre.
		1 rood	= 12 perches English.

English weights and measures are frequently used in reference to European commodities. The mode of transacting business among the European merchants is simple and efficient. Instead of trusting their affairs to native agents, as in other parts of India, they transact them in person, with the occasional assistance of a Chinese erode as an interpreter and broker. The European merchants transact business on their own account; but a great deal of their employment consists in acting as agents for houses in London, Liverpool, Glasgow, Amsterdam, Antwerp, Hamburg, Calcutta, Bombay, Madras, Canton, and Batavia. They are also agents for numerous insurance offices at all these places, and policies of insurance to any extent may be effected without difficulty. The language of commercial intercourse, where many of the natives of the East are concerned, is universally Malay—a simple and easy dialect, of which all the resident merchants have a sufficient acquaintance to enable them to transact ordinary business. The *Straits Times*, a daily newspaper, is now the only journal published in Singapore; it contains a price current, an account of the arrivals and departures of shipping, and an official detail of the exports and imports of the preceding week. The administration of justice is entirely English. A supreme court has been constituted for the colony, of which the chief justice resides at Singapore, and goes on circuit to Malacca, the other judge of the court being permanently resident in Penang.

**Commodities and Prices.**—Singapore is chiefly an entrepot, having, with the exception of pearl sago manufactured on the spot from the raw material imported from the north coast of Sumatra, implements of agriculture, and some others fabricated by the Chinese from European iron, with gambier and catechu grown and manufactured on the island, few commodities of its own for exportation. Large quantities of teak from the neighbouring forests are disposed of here, and much of this has been used lately for the construction of railways in the East. The grain produced on the island not being sufficient for the consumption of the inhabitants for a week, their supplies of rice, wheat &c., are mostly all imported, principally from Java and Calcutta.

**Rates of Commission at Singapore adopted at a General Meeting of Merchants, on February 19, 1830, and revised by the Singapore Chamber of Commerce, on May 8, 1855.**

	Per cent.
1. On all sales or purchases, except as otherwise provided for	5
2. On purchase of goods or produce for returns	2½
3. On sale or purchase of opium	5
4. On sale or purchase of ships, vessels, houses, or lands	5
5. On sale, purchase, or shipment of bullion	1
6. On sale or purchase of diamonds, jewels &c.	2
7. On returns in treasury, bullion, or bills	1
8. On all goods consigned and withdrawn—half commission.	5
9. On sale, purchase, or negotiating of bills, not serving for purchase of goods or produce	5
10. On all goods sold by auction in addition to the above	1
11. On <i>del credere</i> , or guaranteeing sales	2½
12. Shortage, 1 per mille.	
13. On all advances of money for the purpose of trade, whether the goods are consigned to the agent or not, and where a commission of 5 per cent. is not charged	2½
14. On receiving goods, or superintending the fulfilment of contracts where no other commission is desired	2½
15. On guaranteeing bills, bonds, or other engagements, and on becoming security for the administration of estates or to Government or individuals for a contract, agreement &c.	2½
16. On acting for the estates of persons deceased as executors or administrators	5
17. On the management of estates for others, on the amount received	5
18. On procuring freight, or advertising as the agent of owners or commanders—on the amount of freight, whether the same passes through the hands of the agent or not	5
19. On chartering ships for other parties	2½
20. On effecting insurances, or writing orders for ditto	5
21. On settling insurance losses, total or partial, and on procuring return of premium	2½
22. On debts when a process of law or arbitration is necessary 2½ per cent. on the amount claimed, and if recovered by such means	5
23. On bills of exchange noted or protested	5
24. On collecting house-rent	5
25. On ship's disbursements	5
26. Bills when in funds	2½
27. On negotiating loans on respondentia	5
28. On letters of credit granted for mercantile purposes	2½
29. On purchasing or selling Government securities, or on exchanging or transferring the same	5
30. On delivering up do.	5
31. On all advances not punctually liquidated, the agent to have the option of charging a second commission, as upon a fresh advance, provided the charge be only made once in the same year.	1
32. On transhipping all goods or produce	1
33. Ditto treasure	5
34. At the option of the agent, on the amount debited or credited within the year, including interest, and excepting only such items on which at least 2½ per cent. has been charged on account made up to a particular period, unless where such balance is withdrawn without reasonable notice.	1
35. On collecting freight	2½
36. On the freight of vessels consigned to an agent in Singapore, (unless the freight having been paid at the port of loading, when the vessel is loaded <i>outwards</i> by another agent, or proceeds elsewhere for a cargo, in absence of any special agreement)	2½
37. On advances made to account of contracts for produce, the usual guarantee commission and interest to be charged.	5
38. In purchasing produce, the commission to be charged on the invoice, including charges.	5

**Wharfage.**

**Scale of Charges for Landing, Shipping, and Warehousing Goods at the Wharves in New Harbour, and for Storing Coals &c.**

On every ton of cargo landed or shipped	= 25 cents
Treasure &c.	= 2½ per cent.
Opium per chest	= 10 cents
Horses and cattle, each	= 25 "

**Godowns.**—Vessels lying at the wharf have free use of the godowns alongside, for cargo.

Goods remaining in the godowns over seven days, or stored there for a fixed period, pay store rent and fire insurance, at about half the rates authorised by the Chamber of Commerce.

Treasure and other valuable articles are stored, at the risk of parties placing them in the godowns.

No articles of a dangerous nature, such as gunpowder, sulphuric or other acids &c., are received.

**Coals.**—Store rent on coal is 4 per cent. per month. Coal is stored, with ventilators through the heaps, in sheds of small width.

Cooly hire discharging coal ships is 12½ cents per ton, and storing, 12½ cents per ton; removing from sheds and putting on board ship, 25 cents per ton.

Steamers requiring great despatch can be supplied with coolies at 50 cents per day and 75 cents per night.

rements, and important mercantile, conducted by Jews, Parsees, and others, are mostly Chinese, or predominately, and also a valuable portion of the

official returns for 1865-66, before the public, the immigrants that arrived at Singapore is reported as not less than 55 females. Of these, over 1000 to Malacca, Penang, and the neighbourhood, while about 350 emigrated.

chiefly natives of the Coromandel, the Malays employ themselves, in cutting timber, and in cement with the rule produce wood. There are good daily hours, and well supplied with grain, fish, pork, and green. There is a registry of imports led from reports made to the masters of vessels, and to the superintendent of im-

**COINS, AND MEASURES.**

**Money.**  
is kept in Indian currency, as follows:—  
Spanish dollar, equal to 5s. sterling.

**Exchange.**

2 sonat	rupes 5 an
10 atar	rupes, do.
1 peul	sterling
2185 sonat	rupes, ditto
2193 alera	"
2243	Bombay rupes, ditto
445	current "

**Measures for Grain, Oil &c.**

1 ganton	= 11 gallon.
1 parah.	= 1 peul.
1 bog	= 1 peul.
1 coyang	= 2 tons of 7 cwt.
1 bahr,	or 5,353 lb. in a coyang of rice.

**Weights.**

1 catty,	1 peul.
1 coyang of 5,353 lb. avoirdupois,	which tin and pepper are sold, weigh
1 bahr of 421 lb. avoirdupois	
1 parah.	
1 coyang.	
100 lb. avoirdupois.	
161 "	
163 "	
824 "	
2 lb. 1 oz. avoirdupois.	

**Land and Silver Weights.**

1 bucal	= 1 oz. 9 dwts. 101 grains Troy.
1 catty	= 29 oz. 15 dwts. 114 grains.

**Land Measure.**

1 jumbas	= 3 of English acre.
1 orlong	= 3 of English acre.

**Goldsmith's Weights.**

1 miam	= 52 grains Troy.
1 bucal	or 2 Spanish dolls. = 532 grains.
1 catty	= 16,510 grains.

is heavier than the common portion of 105 to 78. In Malacca &c. places on the east peninsula, the bucal and catty are 10 per cent. less than the above. The bucal measure, which is in the hands of the European and native traders, and which is found to weigh very little, or 832 grains Troy.

Boat hire or cartage from the wharf to the town of Singapore is 50 cents per koyan, the same as boat hire from the roadstead to godowns in town.

The following is a statement of the prices of the principal articles of Eastern produce at Singapore on December 8, 1868, from Paterson, Simons & Co.'s circular of that date.

Description of Produce	Present Prices	At Exchange, 4s. 6d. per dollar	
		dl. ct.	dl. ct.
Betnut - per picul	1 75 to 2 0		
Camphor, China - case of 92	5 0	26 50	108s. 9d. per cwt.
Collee, Bally - picul	9 0	9 50	40s. 3d. "
Bugs, Pari - "	10 0	12 0	41s. 3d. "
Bontyne - "	12 20	12 30	53s. "
Campar - "	8 0	9 0	36s. 4d. "
Cardage, Manila - "	14 50	15 0	
Cloves, Zanzibar - "	7 0	7 50	
Ehony, Ceylon - "	1 50	1 75	
Gambier - "	2 90	-	
Gambier cubes in baskets - "	3 40	3 50	15s. 6d. per cwt. in bales
Gambouze - "	65 0	-	20s. 1d. per cwt.
Gutta percha - "	20 0	50 0	82d. to 1s. 9d. per lb.
Gun, Benjamin dammar - "	20 0	55 0	
copal - "	10 0	11 0	
Hides, buffalo - "	11 0	11 25	5 1/2d. per lb.
cow - "	11 0	11 25	6 1/2d. "
Horns, buffalo - "	9 50	10 0	40s. 1 1/2d. per cwt. net
India rubber - "	39 50	41 0	1s. 5 1/2d. per lb.
Mother-of-pearl shells - "	30 0	41 50	
Oil, coconut - "	7 0	7 50	
Opium, Benares - chest	600 0	-	
Turkey - picul	670 0	-	20s. 1 1/2d. per lb.
Pepper, black - "	5 75	5 85	5d. per lb.
white - "	9 75	10 0	4 1/2d. "
Rice, Rangoon cargo koyan	59 0	55 0	
Saigon - "	57 0	58 0	
Siam - "	57 0	60 0	
Rattan, Banjarmasin picul	5 0	5 25	
Straits - "	2 0	4 50	
Sago, flour - "	2 60	2 62	11s. 6d. per cwt.
pearl - "	2 95	3 0	16s. 10d. per cwt. in boxes
Sandilwood, Swan river - "	2 75	-	
Sapanwood, Siam - "	2 10	-	
Segars, Manila No. 2 Corbais - mitte	11 50	12 0	
Segars, Manila No. 2 Habanus - "	11 50	12 0	
Sugar, Siam, white - picul	8 0	9 50	
yellow sorts - "	6 0	7 50	
brown - "	4 0	6 0	
Sticklac, Siam - "	11 50	12 50	
Tea - 20 city, box	5 50	7 50	
Tim, Malacca - picul	23 75	-	95s. 9d. per cwt.
Patung &c. - "	18 0	19 0	
Tallow, buffalo - "	11 0	12 0	
vegetable - "	8 25	8 50	
Tortol-shell - "	25 0	3 0	
Timber - "	-	-	

PENANG, another of the Straits Settlements, is an island at the North-western end of the Straits of Malacca, of which the chief port, called George Town, lat. 5° 24' 15" north, 100° 21' east long., is distant from the opposite mainland of the Malayan peninsula about 2 miles. The island is between 13 and 14 miles in length, and from 5½ to about 10 miles in breadth, and contains an area of over 68,000 acres. There is, however, belonging to the settlement, a strip of territory, called Province Wellesley, on the main land, which is much more extensive, and is estimated to contain 150,000 acres. The island is mountainous, and the summit of the highest of the hills is about 3,000 feet above the level of the sea. Province Wellesley is, on the contrary, an alluvial flat, only a few feet above the level of the sea, but its soil is well adapted for the growth of the sugar cane, as well as the production of rice and other tropical articles. The harbour of Penang lies in the channel formed between the island and the opposite mainland, and is exceedingly spacious, well sheltered, and commodious, the depth of water allowing vessels of large burden to approach within a very short distance of the town. Abundance of water and provisions, including excellent fish, is easily procured.

Penang owes its existence as a British settlement to the enterprise and sagacity of Francis

Light, the master of a merchantman, who, in pursuit of his avocations, had become well acquainted with the resources of the surrounding countries. His recommendations to found a settlement at Penang were first addressed to and favourably received by Warren Hastings, when Governor-General of Bengal, though not acted upon until the administration of his successor. The island, then uninhabited and covered with dense jungle, was formally taken possession of, July 17, 1786, by Captain Light, in the name of the East India Company, to whom it had been ceded and sold by the Rajah of Quedah or Kedah, subject, however, to an annual quit-rent of 10,000 dollars, which from that day to this has been regularly paid to himself and his descendants. Captain Light saw in the new settlement—a port favourable to commerce—a place of refuge for merchant ships where they may refit and be supplied with provisions, wood, and water, and protected from the insults of enemies; and an emporium centrally situated, where the merchants of all nations may conveniently meet and exchange their commodities. He was not deceived in these anticipations. The new settlement began to increase rapidly in trade and population, the imports being reported of the value of 130,000*l.* within three years after its foundation. In 1810 the annual value of the trade had reached 1,107,000*l.*; but thirty years later, it had not advanced beyond about 1,550,000*l.* It took a new start from 1850, since which it has steadily increased, averaging over 3,000,000*l.* in the five years ending 1860; and considerably over 4,000,000*l.* in the succeeding five years. In 1865-66, the imports and exports reached 4,301,957*l.*; and in 1867, 5,341,650*l.*; the particulars for which year are shown in the following table:—

*Return of the Value of Imports into and Exports from Prince of Wales' Island or Penang in 1867.*

Countries	Value	
	Imports	Exports
Great Britain -	1,538,273	2,299,937
North America -	6,901	35,753
Europe -	85,812	31,911
Calcutta -	608,105	767,018
Madras -	231,967	212,161
Bombay -	11,600	4,753
Hongkong -	342,789	567,556
China (other ports) -	301,812	359,891
Siam -	1,100,780	770,650
British Barmah -	770,650	1,066,111
Sumatra -	1,440,215	7,421,000
Malayan Peninsula -	467,980	72,841
Singapore and Malacca -	1,845,755	1,102,590
Ceylon -	14,211	37,576
Arabs -	5,800	28,277
Batavia -	-	5,123
Nicolars -	1,512	1,670
Goa -	2,028	2,255
Total -	8,523,253	16,613,139

or, £1,811,501 5s. 5d. or, £5,350,379 5s. 5d.

*Population.*—The first census, in 1810, included, as every subsequent one has done, the province as well as the island, the population amounting to 31,600. In 1855, it numbered 55,354, and the census of 1860 gave 121,772, exclusive of the military. Of this population the Malays form the chief portion, the Chinese amounting to about 1 of the whole, the remaining population consisting of natives of Bengal and Madras, Arabs, Burmese, Siamese &c. &c., besides Europeans and their descendants. The English are the principal merchants; while some of the Asiatics, such as the Chinese, Arabs, &c. also carry on extensive trade, and frequently attain considerable opulence. There are several bank agencies, and numerous branches of Sea, Life, and Fire Insurance established in the settlement.

a merchantman, who, in pursuance of the surrounding countries, was to found a settlement in the name of Hastings, when Governor Hastings, though not acted upon until his successor. The island, then covered with dense jungle, was discovered, on July 17, 1786, by the name of the East India Company, it had been ceded and sold by the Sultan of Keddah, subject, however, to a payment of 10,000 dollars, which this has been regularly paid to his descendants. Captain Light saw the island, and a port favourable to the trade of refuge for merchant ships was discovered and supplied with fresh water, and protected from the wind; and an emporium centrically situated for the merchants of all nations may be said to have been discovered and commenced in these anticipations. The trade began to increase rapidly in 1810, the imports being reported at 3,000,000, within three years after which the annual value of the trade had increased to 1,107,000; but thirty years after it had advanced beyond about 1,500,000, and in 1850, since which it has increased to 3,000,000, in 1861, averaging over 3,000,000, in 1860; and considerably over 3,000,000 in succeeding five years. In 1860, the imports and exports valued at 5,341,650; in 1867, 5,341,650; the particular year are shown in the following

Value of Imports into and Exports from the Straits Settlements and the Malay Peninsula in 1867.

Value	
Imports	Exports
dols.	dols.
1,558,273	2,999,977
6,903	8,293
83,812	5,014
608,105	20,008
231,067	820,001
11,660	4,678
332,780	87,996
401,812	616,407
1,108,780	939,819
779,630	1,095,411
1,449,616	7,191,000
467,980	795,811
1,885,775	1,102,500
13,411	412,566
5,800	28,427
1,512	3,015
2,026	1,720
8,563,753	16,615,919

or, £1,811,701 5s. 3d. or, £3,550,579 3s. 3d.

The first census, in 1810, included only the Malay population, and since that time the population amounting to 55, it numbered 55,354, and the year 1817, exclusive of the Chinese population the Malays form the principal population consisting of the Chinese amounting to about 1 of the remaining population consisting of the English, Arabs, Burmes, and others, besides Europeans and their families. The English are the principal mercantile community, and the Chinese, &c. also carry on extensive trade, and have obtained considerable opulence. There are also several agencies, and numerous branches of the Fire Insurance established in the

**Agriculture &c.**—The cultivation of the clove and nutmeg was extensively prosecuted in the island, but after a long time of apparent prosperity it resulted in complete failure, and the produce of the soil includes little beyond the Malayan fruits. It has been otherwise in Province Wellesley, where cultivation has been extensively carried on in several branches, particularly in that of the sugar cane, several thousand tons of sugar being annually exported. Tapioca is also produced and exported in large quantities, and attention is being turned to the more extensive production of rice; European capital and skill bearing a large share in promoting these results.

**MALACCA.** The town and territory bearing this name are situated on the western side of the Malayan peninsula. The town, built close on the sea shore, in lat. 2° 14' North, and long. 102° 12' East, is distant about 100 miles from Singapore and 260 from Penang. There is a light vessel in Malacca Straits 2° 52' 30" N. lat., and 101° E. long. Malacca was in former times a large commercial emporium, and possessed an extensive trade, when the small river on which it lies must have afforded important facilities, as it is capable of admitting trading vessels of some burden. But, though a free port, its trade has now long ceased to be of any relative importance, and is almost wholly confined to the two neighbouring settlements of Singapore and Penang. There is no harbour, properly so called; but though ships lie in an open roadstead, the anchorage is safe, and exposed only to the squalls which mark the breaking up of the monsoons. The climate is noted for its salubrity.

Malacca, as is well known, was first of all a Portuguese possession, having been captured from the Malays by Albuquerque in 1511. In 1641 it was taken by the Dutch, who continued its masters until 1795, when the town was surrendered to

a British force, and remained, with its territory, in our possession until 1818. Then it was again given up to the Dutch, under the treaty of Vienna. It finally returned to our possession in 1825, as arranged by treaty with the Dutch of March 1821. The territory stretches over 40 miles along the coast, extending inland in breadth of from 10 to 28 miles. The soil is not fertile, but produces the tropical fruits in great variety and abundance. Pepper as well as rice is grown; and attempts have of late years been made to extend cultivation to other branches. Tin mines have also been worked in the interior to a considerable extent, but trade latterly has been declining. Whatever may have been the former claims of Malacca to importance in other respects, it has certainly increased in population since it became a British settlement. In 1828 the population was estimated at under 30,000; in 1847, at 55,000; and by the last census, in 1860, it numbered 67,667, and is understood to be still on the increase. The greater proportion, perhaps  $\frac{2}{3}$  of the whole population consists of Malays; the Chinese being certainly the most numerous, and constituting the principal traders as well as workers of the tin mines.

The following is a statement of the value of the trade of Malacca for the five years ending with 1865-66, from the latest returns published:—

Years	Imports	Exports	Total
	Rs.	Rs.	Rs.
1861-62	4,512,699	5,535,745	8,048,444
1862-63	4,526,511	5,598,106	8,124,617
1863-64	4,542,818	5,596,011	8,138,829
1864-65	4,535,160	5,681,826	8,216,986
1865-66	4,582,551	5,685,207	8,267,758

**Trade of Singapore.**—The following Table is extracted from the Annual Report on the Administration of the Straits Settlements for 1865-66:—

Comparative Statement of the Value of Imports and Exports of the Straits Settlements, during the Official Years 1864-65 and 1865-66.

SINGAPORE.				
Countries	Imports		Exports	
	1864-65	1865-66	1864-65	1865-66
	rupees	rupees	rupees	rupees
Great Britain	18,753,150	19,022,351	9,886,369	7,652,652
North America	123,165	135,553	1,909,178	5,170,547
Europe	4,575,958	4,073,729	611,060	1,408,671
Australia	351,232	149,103	257,406	110,199
Calcutta	4,606,085	6,967,915	16,587,555	11,193,213
Madras	490,636	224,906	501,419	210,470
Bombay	1,274,702	1,505,981	1,312,059	5,271,573
China	8,316,969	8,793,050	11,538,408	11,571,098
Cochin-China	1,259,173	1,150,418	3,212,651	3,205,759
Siam	2,465,551	2,577,218	5,971,292	5,048,517
Manila	607,586	630,179	1,051,111	1,42,091
Java, Bhoio, Bally &c.	7,036,241	10,813,376	3,951,651	4,678,115
Borneo	1,961,110	1,981,415	1,755,085	2,086,609
Ceylon	844,656	870,201	988,556	1,073,057
Sumatra	1,167,711	1,035,828	914,710	1,125,128
Malacca Peninsula	1,431,608	1,851,552	1,639,809	1,654,022
British Borneo	4,465,760	5,042,429	5,439,256	4,452,061
Miscellaneous	6,825,051	9,087,078	9,151,401	8,929,463
Total rupees	66,182,177	75,000,352	66,359,578	69,924,375

PENANG.				
Countries	Imports		Exports	
	1864-65	1865-66	1864-65	1865-66
	rupees	rupees	rupees	rupees
Great Britain	1,790,053	1,211,921	472,197	4,853,640
North America	4,190	..	224,300	1,091,965
Europe	1,176,210	71,109	4,77,15	127,910
Calcutta	1,865,745	2,507,385	2,181,028	1,086,330
Madras	330,135	395,765	388,255	395,198
Bombay	142,277	35,835	351,705	21,745
China	991,578	1,205,053	2,327,028	2,568,532
Cochin-China	..	..	..	..
Siam	..	..	..	..
British Borneo	2,808,315	2,316,050	4,924,265	2,519,153
Java, Bhoio &c.	2,045,555	2,528,105	1,190,540	2,379,025
Borneo	..	..	..	..
Sumatra	2,251,150	1,769,960	4,519,480	5,092,410
Malayan Peninsula	1,125,575	894,980	2,259,570	1,738,843
Miscellaneous, including Singapore, Malacca, &c.	3,511,360	4,461,722	5,322,530	4,181,885
Total rupees	18,018,425	17,139,087	26,913,654	25,630,298

Value of Imports and Exports of Straits Settlements—continued.

MALACCA.					
Countries	Imports		Exports		Rupees
	1864-65	1865-66	1861-65	1865-66	
	rupees	rupees	rupees	rupees	
Arabia	-	-	-	-	8,612
Malay Peninsula	-	-	-	-	5,607
Sumatra	-	-	-	-	216,651
China	-	-	-	-	4,558
Singapore and Penang	-	-	-	-	2,861,110
Bangou	-	-	-	-	9,526
Total rupees	4,533,160	4,584,531	3,683,926	3,686,207	3,683,826
Rupees	-	-	-	-	2,581

The following statement shows the total value of the import and export trade of Singapore and of Penang and Malacca for the 7 years ending 1865-66. (*Report of the Progress of the Straits Settlements, p. 14.*)

Years	Singapore		Penang		Malacca	
	Exports	Imports	Exports	Imports	Exports	Imports
1859-60	5,651,385	3,719,139	1,950,000	1,580,000	31,524,596	57,16,87
1860-61	4,18,767.18	3,81,265.89	1,66,06,779	1,41,30,107	29,16,237	41,54,00
1861-62	4,96,15,529	5,67,25,011	2,03,63,655	1,68,87,431	35,35,745	43,1,099
1862-63	5,35,55,756	6,46,17,901	2,39,41,096	1,68,45,989	35,98,406	45,26,514
1863-64	6,39,77,438	6,31,70,084	2,56,80,270	1,77,192,630	35,496,011	45,15,916
1864-65	6,63,39,578	6,61,84,177	2,69,15,654	1,80,18,425	36,83,826	45,15,916
1865-66	6,99,21,575	7,50,00,532	2,56,30,298	1,74,19,087	36,86,207	45,82,251

Account of the Quantities and Values of some of the Principal Articles Exported from the United Kingdom to Singapore, in 1865, 1866, and 1867.

Principal Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
Apparel and haberdashery - value	..	..	..	£ 11,787	£ 15,179	£ 19,763
Arms and ammunition:						
fire-arms (small) - no.	4,027	1,455	1,616	5,599	1,370	1,111
gunpowder - lb.	921,137	1,539,981	324,700	25,665	34,152	8,867
Beer and ale - barrels	2,729	3,392	2,656	12,116	11,509	14,405
Coals, cinders, and culm - tons	44,941	61,617	80,435	25,502	36,588	47,405
Copper, wrought and unwrought - cwt.	11,868	4,563	11,161	51,601	19,344	43,542
Cotton yarn - lbs.	1,297,500	1,759,958	3,111,050	127,181	175,016	38,610
Cottons, entered by the yard - yards	43,217,688	59,517,782	71,950,212	918,966	1,353,779	1,889,871
Earthenware and porcelain - value	..	..	..	8,993	18,215	18,251
Glass manufactures - " "	..	..	..	7,109	11,253	11,047
Hardware and cutlery, enumerated - cwt.	3,316	6,521	2,199	19,521	26,077	11,010
Iron, wrought and unwrought - tons	6,000	4,800	5,751	50,019	50,062	55,017
Linen, entered by the yard - yards	1,021,662	1,098,613	95,029	45,566	41,979	38,221
Machinery: steam-engines - value	..	..	..	13,863	6,949	5,017
all other sorts - " "	..	..	..	4,678	8,867	6,599
Woolens, entered by the yard - yards	350,599	1,088,425	899,005	30,636	80,885	69,620
All other articles - value	..	..	..	72,267	92,909	75,450
Total - value	..	..	..	£ 1,110,118	£ 1,286,892	£ 2,063,916

Account of the Quantities and Values of the Articles Imported into the United Kingdom from Singapore and the Straits Settlements in 1865, 1866, and 1867.

Principal Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
Antimony, ore - tons	50	31	10	£ 435	£ 279	£ 100
Camphor - cwt.	503	404	-	2,498	2,173	-
Canes, rattans, not ground - no.	15,021,749	15,620,033	6,799,030	37,728	28,555	10,885
or sticks, other sorts - value	4,119	3,999	5,515	15,059	12,758	6,419
Caoutchouc - lb.	1,665,937	971,125	2,301,814	25,515	38,897	29,018
Coffee - lb.	9,516	4,157	212	48,261	26,555	36,520
Cotton, raw - cwt.	472	290	62	1,773	1,749	62
Catch - tons	173	1	101	11,638	9,750	1,590
Gamboge - cwt.	1,353	1,467	2,293	1,642	20	560
Gum, benzoin - cwt.	1,988	1,609	977	12,165	12,804	18,271
stick lac - " "	1,111	1,260	741	8,443	6,456	1,618
other sorts - " "	21,565	12,221	12,487	2,805	7,445	537
Gutta percha - lb.	15,813	12,155	11,125	119,810	60,628	76,887
Hides, not tanned - " "	127	181	115	3,768	6,053	3,598
Horns, horn tips, and pieces of horn - tons	459	413	255	8,143	7,353	4,518
Indigo - cwt.	15,870	26,989	17,719	1,322	2,855	2,011
Mace - lb.	165	423	9	1,180	1,207	21
Mother-of-pearl shells, rough - cwt.	286,098	212,090	190,838	18,818	14,682	15,011
Nutmegs - lb.	2,550	4,802	5,294	845	894	1,535
Oil, chemical, essential, and perfumed - " "	16,919,575	15,008,363	12,531,749	213,938	193,315	183,901
Pepper - cwt.	37,558	44,989	1	17,089	25,582	1
Rice, not in the husk - cwt.	106,409	151,788	142,844	1,123	186,301	119,861
Sago - gallons	100,040	144,428	89,807	7,740	10,250	7,201
Sugar, refined - cwt.	37,535	15,981	22,095	39,556	15,579	1,430
Tea - lb.	18,191	14,246	15,660	27,509	26,693	27,007
" "	105,535	3,774	-	8,022	306	85,773
Terra japonica (or gambier) - tons	15,110	12,189	15,164	311,843	296,539	372,668
Tin - cwt.	96,933	72,921	85,369	456,031	291,629	372,668
Tortoiseshell or turtleshell, unmanufact. - lb.	4,512	6,706	4,057	3,056	4,336	1,961
Wood, teak - loads	48,092	28,693	12,801	552,539	276,344	119,579
" japan wood - tons	281	637	436	22,121	28,010	12,821
All other articles - value	..	..	..	22,121	28,010	12,821
Total - value	..	..	..	£ 2,155,931	£ 1,609,863	£ 1,634,282

—continued.

Exports	
1861-65	1865-66
rupees	rupees
605,078	565,256
177,058	211,511
2,867,110	2,892,179
40,600	95,256
5,685,826	5,686,407
	2,685,206
	2,981

of the Progress of the Straits

Malacca	
Exports	Imports
rupees	rupees
51,521,396	57,888,881
29,416,257	41,766,001
55,537,715	45,129,099
55,984,406	43,626,100
35,069,611	45,428,819
56,855,286	45,533,109
56,86,207	45,952,951

into the United Kingdom from 1867.

Declared Real Value		
1865	1866	1867
£	£	£
11,787	15,179	19,743
5,599	1,570	1,441
25,693	34,152	8,867
12,116	11,939	19,429
53,502	36,298	49,532
51,604	19,314	15,549
127,814	125,016	25,619
918,966	1,535,779	1,400,811
8,990	18,213	18,214
7,105	11,273	15,411
7,451	10,858	9,065
19,521	26,077	14,110
56,019	59,082	50,417
45,566	41,979	34,321
13,863	69,949	5,137
4,678	8,925	6,539
30,636	90,885	69,230
78,267	92,000	25,439
1,110,118	1,086,507	2,068,018

into the United Kingdom from 1866, and 1867.

Computed Real Value		
1865	1866	1867
£	£	£
435	429	100
2,498	2,175	16,681
37,728	28,358	5,419
15,158	28,294	28,294
27,515	38,897	38,897
48,961	26,558	698
1,774	17,749	1,980
11,638	9,750	7,662
1,642	80	18,751
12,125	6,436	1,381
5,492	7,045	1,381
316	4,812	5,371
1,774	7,858	26,887
2,805	41,085	29,536
119,810	6,035	4,311
3,768	7,858	3,768
8,143	2,855	4,361
1,152	1,807	15,111
1,180	14,663	18,596
18,815	894	18,815
845	745	18,596
215,938	198,315	1
17,659	35,300	18,815
89,162	126,381	7,891
7,740	10,230	4,750
39,356	15,379	51,807
27,909	25,695	25,695
8,092	306	95,775
310,843	396,639	377,686
450,101	491,652	484
3,056	4,536	3,056
552,535	97,644	119,297
1,176	19,031	4,536
22,121	29,010	9,055
2,155,951	1,619,863	1,619,863

The number of square-rigged vessels, including the flags of every European maritime nation, as well as of Arabia, China, Cambodia, Siam, and Chik, which arrived in the roads of Singapore during 1865-66, amounted to 1730, and comprised 738,083 tons, of which 1,036 of 389,529 tons were British.

It may be remarked that a considerable portion of the trade which used at an earlier period to be carried on in native vessels, has of late years been transferred to square-rigged vessels, owned and fitted out by resident Chinese traders.

Much communication with Europe is kept up by the steamers of the Peninsular and Oriental Company and of the Messageries Impériales Company, both of which arrive and depart twice every month; and the Netherlands India Steam Company run a line of steamers, timed to meet the arrival and departure of the Europe mails, between Singapore, Batavia, and the principal outports of the Archipelago.

Telegraphic communication throughout Java has been for some years established by the Government of the Netherlands India, and more recently extended to Sumatra, where a junction is proposed with a line from Singapore, in continuation of the Indian system of telegraphs, which already reaches Moulemin. And the European inhabitants of Singapore look forward with confidence to the prolongation of the line from Java to the Australian colonies, as an immediate consequence of the early connection of England and India by submarine telegraph.

The straits within which the three settlements are situated are formed by the Malayan peninsula on the east, and by the large extent of Sumatra on the west. They bear in a direction from north-west to south-east, and their extreme length may be stated at 500 miles, with numerous bays at both ends, particularly at the south-easterly one. The straits vary in breadth from 40 to 300 miles, and, as already shown, are lighted sufficiently to render the navigation safe.

The greater portion of the materials for this article have been kindly supplied by a gentleman long resident in, and well acquainted with, Singapore. See also *Parl. Papers on Straits Settlements*, &c.

SINOPE. A town of Asia Minor, on the south coast of the Black Sea, lat. 42° 2' 30" N., long. 63° 9' 45" E. Population uncertain, estimated at 10,500. Sinope is situated on a low narrow isthmus, connecting the high rocky promontory of Ad with the mainland. Its port, which is the best on this coast, on the south side of the town, is protected from the north and north-east gales by the isthmus and promontory already mentioned. Ships anchor within ½ mile of the town, from 13 to 17 fathoms; or nearer to it, in from 5 to 7 fathoms. There is a roadstead on the north side of the isthmus, but it is open and exposed. Sinope is one of the principal stations of the Turkish fleet, and there are docks and arsenals for its accommodation and outfit. But the fortifications can afford sufficient protection neither to the town nor the shipping. This was strikingly exemplified in the latter part of 1853, when a Russian squadron attacked, and, without any material loss to itself, totally destroyed, 6 Turkish frigates with several transports at anchor in the roads. Its exports are inconsiderable, the principal being timber, salt, cordage, fish oil &c.

In ancient times, Sinope was a city of great wealth, magnitude, and importance. It was the birthplace of Diogenes the Cynic; and Mithridates made it the capital of his dominions. After his conquest by the Romans under Lucullus, it

became the seat of a colony; and continued for a lengthened period to enjoy a good deal of consideration.

Should civilisation and the arts once more revive in the ancient Pontus and the other countries to the south of the Black Sea, the excellence of its port could not fail to restore to Sinope some portion of its former grandeur. Even now a considerable intercourse is beginning to take place with the countries east and south of Sinope. Diarbekr on the Tigris, in lat. 37° 54' N., long. 39° 53' 45" E., is one of the principal seats of eastern commerce; and caravans set out regularly from it for Aleppo, Smyrna, and Constantinople; but anyone who consults a map of Asia Minor, and of the contiguous countries, will see at once that Trebisond and the neighbouring ports on the south-east coast of the Black Sea are the natural channels through which Armenia, Koordistan, and the north-western ports of Persia may best maintain an intercourse with Europe. We shall afterwards show that the danger to vessels in the roads of Trebisond has been very much exaggerated. [TRENTSON.] In the event, however, of the commerce with the countries referred to becoming of any considerable importance, Sinope would be an advantageous entrepôt to which goods might be brought, and whence they might be conveyed in proper vessels, and at proper times, to the other ports. At all events, it is of material importance that a direct intercourse with the southern coast of the Black Sea should be established, and that the trade with it should not be carried on, as hitherto, through Odessa. (For further particulars as to Sinope, see *Tournefort, Voyage au Levant*, tom. ii. pp. 203-212; and *Norie's Sailing Directions for the Black Sea*.) [TRENTSON.]

SKINS. The term is applied in commercial language to the skins of those animals, as deer, goats, kids, lambs &c., which, when prepared, are used in the lighter works of bookbinding, the manufacture of gloves, parchment &c.; while the term hides is applied to the skins of the ox, horse &c., which, when tanned, are used in the manufacture of shoes, harness, and other heavy and strong articles. Lamb and kid skins are principally used in the glove manufacture; 120 skins being supposed to produce, at an average, 18 dozen pairs of gloves. [LEATHER.]

Account of the Quantities of the Chief Kinds of Skins Imported into the United Kingdom during 1866 and 1867, specifying the Countries whence they were brought, and the Quantities brought from each.

Countries	1866	1867
Deer (undressed):	No.	No.
British India	11,629	—
Other countries	12,789	—
Total	24,418	—
Goat (undressed):		
British India	92,742	92,438
Norway	63,158	73,693
Hamburg	49,696	3,609
Holland	166,905	128,032
Belgium	35,041	50,675
Austrian territories	37,500	—
Turkey Proper	148,858	65,440
East coast of Africa	11,809	—
British possessions in S. Africa	302,610	321,090
British India:		
Bombay and Sind	2,265	1,760
Madras	51,616	68,100
Bengal and Poona	78,650	128,558
Other countries	9,111	25,169
Total	941,980	762,142
Kid (undressed):		
Hamburg	52,016	71,499
British India	5,900	11,109
Other countries	2,000	5,910
Total	57,916	86,509
Kid (dressed):		
France	257,673	313,576
Other countries	9,255	16,256
Total	266,928	329,832

## Quantities of Skins—continued.

Countries	1866	1867
Lamb (undressed):		
Hamburg - - - - -	31,015	35,167
France - - - - -	282,606	112,763
Italy and the Italian islands - - -	607,858	12,000
Turkey - - - - -	153,302	122,830
Other countries - - - - -	111,595	750,558
Total - - - - -	1,206,616	1,011,308
Seal (undressed):		
British N. American colonies - - -	343,570	122,251
The whale fisheries - - - - -	61,510	103,117
Other countries - - - - -	128,561	218,110
Total - - - - -	513,641	443,478
Sheep (undressed):		
Hamburg - - - - -	22,522	—
Holland - - - - -	19,113	19,200
Belgium - - - - -	265,556	155,690
France - - - - -	499,532	128,155
Turkey Proper - - - - -	263,219	278,634
Egypt - - - - -	13,365	—
Morocco - - - - -	19,316	—
Uruguay - - - - -	200,009	455,215
Argentine Confederation - - - - -	1,071,925	915,918
Malta - - - - -	—	—
British possessions in S. Africa - -	762,001	862,716
British India - - - - -	40,169	219,957
Australia - - - - -	189,953	219,953
Other countries - - - - -	21,782	57,218
Total - - - - -	3,091,532	3,518,081
Sheep (tanned, tawed, or dressed):		
Hamburg - - - - -	195,039	185,570
Bremen - - - - -	32,006	—
Holland - - - - -	165,571	127,881
Belgium - - - - -	15,125	27,992
France - - - - -	95,983	109,983
French possessions in India - - - -	46,685	50,500
British India - - - - -	—	15,110
Bombay and Sind - - - - -	8,000	—
Madras - - - - -	1,164,472	1,689,562
Bengal and Pegu - - - - -	2,640	5,000
Ceylon - - - - -	—	—
Australia - - - - -	41,850	58,291
Other countries - - - - -	10,755	11,070
Total - - - - -	1,761,865	2,276,160

The duty on skins having been repealed in 1816, the quantities retained for consumption cannot be stated.

SLATE (ROOF), (Ger. schiefer; Fr. ardoise; Ital. lavagna, lastra; Span. pizarra). A fossil or compact stone (argillaceous schistus) that may be readily split into even, smooth, thin laminae. There are several varieties of this valuable mineral, the prevailing colours being grey, blue, and brown. But the tints are very various; and slates are often marked with streaks of a different colour from the ground. Slate is principally used in the covering of houses, for which purpose it is infinitely superior to thatch or tiles, and is far less expensive than lead. Good roofing slate should not absorb water; and it should be so compact as not to be decomposed by the action of the atmosphere. When properly selected, roof slates are of almost perpetual duration; but those which are spongy and imbibe moisture speedily get covered with moss, and require, at no very distant period, to be renewed.

The use of slates in the covering of houses is entirely European. From the Hellespont to China inclusive there is not a single slated house; and this does not arise from any want of slate, which is as abundant in Asia as in Europe.

Slates carried by land have never been subjected to any duty; but those carried coastwise were, until 1831, charged with duties varying according to their size and species. The injustice of this distinction, and the impolicy of laying any duty on an article of this sort, are obvious. The revenue it produced was quite inconsiderable, not exceeding 35,000*l.* a-year. It was repealed at the same time as the duty on coal carried coastwise.

Since the repeal of the duty, the consumption of slate has been materially increased; and it is now extensively employed for various purposes to which it was not formerly made applicable, such as the flooring of warehouses and vanits, the paving of streets, the formation of cisterns, the covering of worn or decayed floors, and of the walls of houses in exposed situations &c. The slate used for these purposes is cut by the circular saw

into pieces of from 3 an inch to 2 inches. Many hundred tons have been used in the of the last few years in paving, flooring &c. London Docks, and other large establishments.

The principal slate quarries in Great Britain are in Caernarvonshire. Those belonging to Colonel Pennant (now Lord Penrhyn), near Llanberis employ about 1,500 men and boys, and is the most extensive and valuable in the empire, other quarries in the same county employ 1,620 men and boys; and there are some in parts of Wales. There are also extensive quarries at Ulverstone, in Lancashire; and others, of inferior magnitude, in various parts of Westmoreland and Cumberland.

The principal slate quarries in Scotland are Eastdale and Balnclulish, in Argyleshire. Specimens generally, the Scotch quarries do not afford of the size and smoothness of those obtained from the Welsh quarries; and the woodwork of roofs covered with them requires to be strong.

Roofing slates are of different sizes, and denominated Imperials, Queens, Princesses, &c. Their price, supposing their quality to be in all respects equal, depends partly on their size, and partly on their weight. In 1867 we exported (chiefly to the United States and Australasia) 5,364,000 slates by tale, 14,628 tons of the value of the whole being 81,318*l.*

SLAVES AND SLAVE TRADE. A slave, in the ordinary sense of the term, is an individual who is the absolute disposal of another, who has no right to employ and treat him as he pleases. But the state of slavery is susceptible of innumerable modifications; and it has been used in most countries where it has been long established to limit in various ways the power of the master over the slave. The *slave trade* is, of course, the business of those who deal in slaves.

*Origin of Slavery.*—A great deal of learning has been employed in tracing the history of slavery, though the subject is still far from exhausted, and seems most probable that it originally grew out of a state of war. In rude uncivilised communities where the passion of revenge acquires a strong hold, the captives taken in war are adjudged to belong to the victors, who may either put them to death, or reduce them to a state of servitude, and in antiquity, the ideas of war and slavery were inseparable. Probably in very remote ages prisoners were most commonly put to death, but the selfish gradually predominated over the more passionate feelings, and for many ages was usual to reduce them to the condition of slaves; being either sold by their captors, or employed by them, as they might think fit.

The practice of reducing men to a state of slavery, having once begun, was extended in various ways. The progeny of slaves of women in a state of slavery were slaves; and a born free might sell themselves as slaves; and parents had authority, in Judea and Rome, to dispose of their children for the same purpose. (Michælis *On the Laws of Moses*, ii. 63, Eng.) It was the law of Rome, and of most of the ancient states, that the persons of debtors who had contracted obligations which they could not discharge, should become the property of their creditors. 'Servi,' says Justinian, 'nascuntur aut tunc: nascuntur ex ancillis non fiant aut jure gentium, id est ex captivitate jure civili, cum liber homo major viginti annorum ad pretium patris servum esse vendidit potest.' (*Instit.* lib. i. tit. 8.)

*Treatment of Slaves.*—The treatment of slaves



so that, while the workmen employed in them were without emulation or invention, the employments themselves were looked upon as mean and servile. To such an extent did this prejudice operate, that in Rome, Sparta, and other celebrated states, agriculture and arms were the only occupations that were reckoned worthy of a freeman, or in which he could engage without being degraded.

But the principal difference between the slavery of the ancient and modern world consists in the fact that in the former freemen were quite as well suited as slaves for carrying on every art and employment; while in the latter the peculiar constitution of the slaves fit them for employments which, though of the highest importance, cannot be carried on by their masters. The greater intelligence of the whites enables them to exercise a decided superiority over the black or coloured natives of the torrid zone, notwithstanding the latter are incomparably better adapted for the prosecution of those laborious occupations which are indigenous, as it were, to the soil they occupy. It is doubtful whether the constitution of the whites will ever be so accommodated to the climate of the tropics as to enable them to engage in that field labour, carried on in the lower and hotter districts (*tierras calientes*), which is congenial to the blacks. At all events, no such accommodation has hitherto taken place; and, therefore, it would appear that some modification of slavery, or that a supply of suitable compulsory labour of some sort or other, is necessary to enable civilised man to occupy, and to turn to a useful account, some of the most fertile and extensive regions of the earth. And hence the propriety of enquiring into the policy of institutions like this, and of carefully considering the peculiar conditions or circumstances under which they are to be acted upon. Slavery in Europe may be, and we believe is (notwithstanding the opinion of Michaëlis to the contrary), in all respects most objectionable; but it is quite another matter with slavery in Louisiana, Cuba, and Brazil; the circumstances under which they are placed are so very different from ours, that an institution exceedingly inexpedient on this side the Atlantic may be especially suited to them.

The establishment of Christianity contributed more, perhaps, than anything else, first to mitigate, and finally to suppress, slavery in Europe. But, within no very long period after its abolition had been completely effected in this part of the world, it began to be established in America.

The African Slave Trade was commenced by the Portuguese in 1442. It was, however, but of trifling extent till the commencement of the sixteenth century. In consequence, however, of the rapid destruction of the Indians employed in the mines of St. Domingo or Hayti, Charles V. authorised, in 1517, the introduction into the island of African slaves from the establishments of the Portuguese on the coast of Guinea. The concurrence of the emperor was obtained by the intercession of the celebrated Las Casas, bishop of Chiapa, who laboured to protect the Indians by enslaving the Africans; though, as the latter were certainly more vigorous and capable of bearing fatigue than the former, the measure was not in reality so contradictory as it would, at first sight, appear to be. (Robertson's *History of America*, book iii.)

The importation of negroes into the West Indies and America, having once begun, gradually increased, until the traffic became of great extent and importance. Sir John Hawkins was the first

Englishman who engaged in it; and such was the ardour with which our countrymen followed his example, that they exported from Africa more than 300,000 slaves between the years 1680 and 1700; and between 1700 and 1786, 610,000 Africans were imported into Jamaica only; to which adding the imports into the other islands and continental colonies, and those who died on the passage, the number carried from Africa will appear immense. (Bryan Edwards, *History of West Indies*, ii. 64.) The importations by other nations, particularly the French and Portuguese, were also very great.

We do not intend, though the subject be of the highest interest, to make any lengthened enquiries as to the legitimacy or illegitimacy, or policy or impolicy, of the slave trade. We may, however, shortly observe that there can be no doubt that slavery has always existed in Africa, and it is sufficiently well known that previous to the commencement of the traffic, such of the captives taken in war as could not be advantageously employed as slaves were most commonly put to death—cannibalism, the exposure of infants, and human sacrifices, being then also very frequent. The slave trade, by opening a ready and profitable market for slaves, assisted in putting an end to these enormities, though it is at the same time, true that the desire of profiting by their sale has tempted the petty princes to make war on each other for the chance of making captives, and has given a stimulus to man-stealing, and other atrocities. (*Geographical Dictionary*, art. 'Africa.') There can, however, be no reasonable doubt that civilisation has been, on the whole, advanced by the practice of the trade. At all events, no evidence either has been, or, we believe, can be, produced to show that the state of Africa would have been perceptibly improved had the slave trade never been heard of. But it is quite certain, had such been the case, that there would have been a wide difference in the condition of the West Indies, the Southern States of North America, Brazil &c. It will, we apprehend, be found that the culture of sugar and other great colonial staples cannot be profitably carried on in these countries, nor, perhaps, anywhere within the tropics, without a supply of compulsory labour of some sort or other (see ante, *COLONIES*). Neither, we apprehend, can there be a question that the extensive culture of these staples has added greatly to the comforts and conveniences of the inhabitants of most civilised countries; and, if this addition to their enjoyments has been effected without injury to the slaves, it will not be so easy a matter as has been supposed to show the impolicy of the trade. But those who enquire dispassionately into the subject will probably come to the conclusion that, instead of being injured, the slaves have gained by being carried from the Old to the New World. Speaking generally, the negroes are in the lowest state of barbarism, possessing merely the rudiments of the most indispensable arts, a prey to the vilest superstitions and tyranny, without any tincture of learning, and with little or no regard for the future. The circumstances under which they are placed in their native land may, perhaps, account for this low state in which we find them; but, however explained, the genuine negroes of Africa are admitted, even by those least inclined to depreciate them, to be, for the most part, 'either ferocious savages, or stupid, sensual, or indolent.' (Prideaux, *History of Man*, ii. 238, 3rd ed.) Excepting the violence done to their habits and inclinations by one who knows anything of their state in Africa and in the western hemisphere can possibly

doubt that they have gained most materially by their transference to the latter.

But, supposing their character to be such as represented, still it may be contended that their weakness or inferiority gives the whites no right to lord it over them, to convey them to foreign countries, and to reduce them to a state of bondage; and no doubt it is exceedingly difficult to specify in how far the civilised portion of mankind may be entitled to control those that are decidedly less intelligent and advanced than themselves. That they have done so from the earliest ages is, however, indisputable; and everyone who has any acquaintance, however slight, with the history of this society, is aware that the consequences of this control have been in the highest degree advantageous: for, though polished nations have too often abused their superior power and intelligence, still it is abundantly certain that but for their dictating to and subjugating others, half the civilised world would at this moment have been immersed in the grossest barbarism. But without entering into any discussion respecting the application of this principle in the case of Africa, it is enough to know that the Europeans did not originate slavery in that continent; the Africans were enslaved and disposed of as other goods and chattels for centuries before they began to be purchased by the former; and the conduct of the whites is to be determined by the nature of the treatment which the slaves received at their hands.

Now, though it be abundantly certain that this has been on the whole indulgent, it is not to be denied that very many enormities have been perpetrated, which the law should have prohibited and severely punished. The crowding of slaves together in their passage across the Atlantic, and the cruelties which some worthless masters have been accustomed to commit, are of this description. But these outrages are not of the essence of slavery; and they might and should, no doubt, have been suppressed. An institution is not to be confounded with its abuse. The object of the slave trade was to procure a supply of compulsory labourers for the service of the colonists in the West Indies and other tropical countries; but it did not, therefore, follow that the colonists were to be under no restraint, either as to the methods by which they sought to procure such bondage, or as to the power which they might exercise over them.

Neither does it follow, because the slave trade may have been for the general advantage of mankind at a particular period, that it should be indefinitely extended. When as large a supply of negroes has been imported as may be necessary to supply its markets with labour, there can be no good reason for allowing their further importation into a country, at the same time that there seem to be sundry good reasons why it should be put a stop to. By preventing the importation of fresh slaves, the proprietors may find it for their interest to be more attentive to the condition of those already in their possession than they might otherwise be; for it is evident that in such cases they could only look to the natural increase of their slaves for a supply of labour in future, and that they could not expect to supply by foreign importations the place of those who might perish by bad treatment. On these grounds we are inclined to think that the English and Americans acted with quite as much prudence as humanity, in forbidding, in 1807, the further importation of slaves into their dominions. In consequence of the operations of our emissaries in Brazilian waters, the Brazilian Government in 1850 also passed a

severe penal law against the trade. No doubt, too, the slave population in Cuba and Brazil has of late been quite large enough to furnish, with proper treatment, an adequate supply of labourers, how rapidly soever we may suppose them to advance in the career of industry.

We have ventured to submit these statements to the consideration of the reader, not because we have any desire to extenuate the evils inseparable from a state of slavery, or the cruelties of which slave-dealers and slave-proprietors may be justly accused. But, after making every allowance for these drawbacks, it is evident, if the preceding statements be well founded, that slavery as it has existed in more modern times, and still more as it might be established, is not the unqualified abuse it has almost uniformly been represented. On the contrary, we are disposed to regard it as being, under proper modifications, all but indispensable to the profitable cultivation of the western countries in which it is still met with. It is to no purpose to say that free labour is cheaper than slave labour. We more than doubt whether, when applied to them, there be any foundation for such a statement; but that is really immaterial, the fact being, that, were slavery abolished, few or no free labourers would be found to engage in the great departments of industry carried on in the slave-holding countries. It would, indeed, be a contradiction and an absurdity to suppose that it should be otherwise. In countries with a fruitful soil and under a tropical sun, the principal wants of the inhabitants are supplied with but little exertion, and the dolce far niente is their summum bonum. In such situations industry is a sickly plant; and instead of employing their surplus time in the production of articles of ostentation and luxury, the inhabitants most commonly waste it in idleness and apathy. Were the slaves completely emancipated in Brazil, as they have lately been in the Southern States of America, and are about to be in Cuba, it is all but certain that the culture of sugar and cotton would be as completely abandoned in them as in Haiti. And if the change were accompanied by a considerable improvement in the condition of the black population, the sacrifice might not, perhaps, be deemed too great. But where is the ground for supposing that such would be the case? Indeed the fair presumption seems to be the other way. Little, at all events, would be gained by turning a laborious well-fed slave into an idle, improvident, and perhaps beggarly freeman.

There may, however, be such a thing in a colony as a quasi emancipation of slaves, or, which is the same thing, regulations may be enacted giving the slaves freedom, and at the same time excluding them from the possession of that which can alone make that freedom of any practical value. Speaking generally, the blacks in our colonies have little or no capital; and, therefore, they must live either by occupying patches of land on their own account, or by working for others. And provided they be debarred, by regulations effectual to their object, from acquiring or occupying small portions of land, they will necessarily be compelled, how much soever they may dislike it, to engage as labourers on the estates of others. This, however, is probably the very worst sort of compulsory labour. It gives the blacks enough of freedom to make them in the last degree dissatisfied with the regulations by which it is sought practically to nullify it, and makes them at once discontented, refractory, and idle. But, wretched as it is, we believe that at this moment the obstacles that have been and

may be thrown in the way of the blacks obtaining patches of land are the principal dependence of the colonists in our West India islands for the continued culture of colonial staples.

Without entering further on a subject which would require a long essay for its discussion, we may remark that a good work on the subject of slavery is a desideratum which will not, probably, be speedily supplied. In this country it has been treated as if it were everywhere the same, and as if it were in every case an unmixed evil, and an outrage on humanity. This, however, is to confound the most obvious distinctions, to substitute abuse for reasoning, assertion for enquiry, and prejudice for principle. Those who enquire dispassionately into the matter will, perhaps, see abundant reason for agreeing in opinion with Michælis and Grotius (*De Jure Belli*, lib. ii. cap. 27), that while slavery has its evils, it may also have its advantages, and that if there be countries and states of society in which the former very decidedly preponderate, there are those also in which the preponderance is as certainly on the side of the latter.

*Abolition of the Slave Trade.*—Notwithstanding the sanction it received from Parliament, and the sapience of the public, the slave trade was frequently denounced by distinguished individuals, in this and other countries, as essentially cruel and unjust.

The first motion with relation to it in Parliament was made in 1776; but the subject was not taken up systematically till 1787, when a committee was formed, of which Mr. Granville Sharp and Mr. Clarkson, whose names are imperishably associated with the abolition of the slave trade, were members. This committee collected some highly coloured evidence of the enormities produced by the trade, which they circulated throughout the country, and thereby succeeded in making a great impression on the public mind. After a number of witnesses on both sides had been examined before the Privy Council, Mr. Willberforce, on May 12, 1789, moved a series of resolutions condemnatory of the traffic. They were supported by Mr. Burke, Mr. Pitt, and Mr. Fox. But notwithstanding the resolutions were carried, nothing was done to give them effect. The friends of the trade having obtained leave to produce evidence at the bar of the House, contrived to interpose so many delays that the session passed off without anything being done. In the following sessions the struggle was continued with various success, but without any definite result. At length the triumph of the abolitionists was finally consummated in 1807; a bill for the total and immediate abolition of the slave trade, having been carried in both Houses by immense majorities, received the royal assent on March 25, being the last Act of the administration of Mr. Fox and Lord Grenville.

America abolished the slave trade at the same time as England.

But notwithstanding what had been done, further measures were soon discovered to be necessary. The Spanish and the Portuguese continued to carry on the trade to a greater extent than ever; and British subjects did not hesitate, under cover of their flags, to become partners in their adventures. An effectual stop was put to this practice in 1811, by the enactment of a law introduced by Mr. (afterwards Lord) Brougham, that made trading in slaves punishable by transportation for 14 years, or by confinement to hard labour for a term of not more than 5 years nor less than 3 years. And since that period the British Government has zealously exerted itself

for the suppression of the slave trade in every part of the world. But, in defiance of its efforts, considerable numbers of slaves continued for many years to be carried across the Atlantic to America and Cuba, and it will be no easy matter to suppress the trade. Provided, indeed, the Powers were to concede a mutual right of search and to make the traffic in slaves piracy, it might be effectually put down; but there are all too superable prejudices and jealousies in the way of their consenting to adopt such measures. Bantinel's work on the Slave Trade contains the clearest and best exposition that is anywhere to be found of its rise, progress, and suppression, and of the efforts made by the British Government to induce other nations to abandon it.)

The British laws relative to the slave trade were consolidated by the Act 5 Geo. IV. c. 113, as the greater part of this Act was superseded by the statute for the extinction of slavery (3 Wm. IV. c. 73), we shall merely lay before the reader the clauses still in force relating to dealing in slaves.

*Dealing in Slaves in the High Seas &c. deemed Piracy.*—And if any subject or subject of his Majesty, or any person or persons residing being within any of the dominions, forts, settlements, factories, or territories, now or hereafter belonging to his Majesty, or under his Majesty's occupation or possession, or under the government of the United Company of Merchants of England trading to the East Indies, shall, except in such cases as are by this Act permitted, after January 1, 1825, upon the high seas, or in any haven, river, creek, or place where the admiral has jurisdiction, knowingly and wilfully carry away, convey, remove, or aid or assist in carrying away, conveying, or removing, any person or persons as slave or slaves, or for the purpose of his, her, or their being imported or brought as a slave or slaves into any island, colony, country, territory, or place whatsoever, or for the purpose of his, her, or their being sold, transferred, used, or dealt with as a slave or slaves; or shall, after the said January 1, 1825, except in such cases as are by this Act permitted, upon the high seas or within the jurisdiction aforesaid, knowingly and wilfully ship, embark, receive, detain, or confine, or assist in shipping, embarking, receiving, detaining, or confining, on board any ship, vessel, or boat, any person or persons for the purpose of his, her, or their being carried away, conveyed, or removed as a slave or slaves, or for the purpose of his, her, or their being imported, or brought as a slave or slaves into any island, colony, country, territory, or place whatsoever, or for the purpose of his, her, or their being sold, transferred, used, or dealt with as a slave or slaves; then and in every such case the persons so offending shall be deemed and adjudged guilty of piracy, felony, and robbery, and be convicted thereof shall suffer death without benefit of clergy—and loss of lands, goods, and chattels, as pirates, felons, and robbers upon the seas ought to suffer. (Sec. 9.)

*Persons dealing in Slaves, or exporting or importing Slaves &c. guilty of Felony.*—And except in such special cases as are by this Act permitted, if any persons shall deal or trade in, purchase, sell, barter, or transfer, or contract for the dealing or trading in, purchase, sale, barter, or transfer of slaves, or persons intended to be dealt with as slaves; or shall, otherwise than as aforesaid, carry away or remove, or contract for the carrying away or removing of slaves or other persons, or shall import or bring, or contract for the importing or bringing, into any place whatsoever



*Distribution of Slave Compensation.*—The commissioners for the apportionment of the 20,000,000*l.*, granted by Parliament as compensation to slave owners, under the Act 3 & 4 Wm. IV. c. 73, issued the following Table, showing the

average value of a slave in each colony; the number of slaves in each; the total value of the slaves, supposing the annual value of each were realised; and the proportion of the 20,000,000*l.*, received by each colony.

Colony	Average Value of a Slave from 1822 to 1830			Number of Slaves by the last Registration in this Country	Relative Value of the Slaves			Proportion of the 20,000,000 <i>l.</i> , to which each Colony is entitled		
	£	s.	d.		£	s.	d.	£	s.	d.
Bermuda	47	4	11 1/2	4,903	111,297	7	3 1/2	56,581	7	0 1/4
Bahamas	29	18	9	9,705	294,573	15	3 1/2	128,540	7	5 1/2
Jamaica	41	15	3 1/2	311,092	13,331,159	3	3	6,161,927	5	10 1/2
Honduras	129	4	7 1/2	1,920	330,844	0	0	101,058	19	7 1/2
Virgin Islands	31	16	1 1/2	5,192	165,143	9	2	75,910	8	5 1/2
Antigua	32	12	10 1/2	99,557	984,198	0	10 1/2	425,866	7	6 1/2
Montserrat	30	17	10 1/2	6,555	231,666	8	0 1/2	103,528	18	5 1/2
Nevis	39	5	11 1/2	8,722	341,865	6	5 1/2	151,007	2	11 1/2
St. Christopher's	56	6	10 1/2	30,660	793,840	7	1	331,630	10	7 1/2
Bononia	45	8	1 1/2	14,384	624,715	2	0	243,923	12	6 1/2
Barbadoes	47	1	5 1/2	82,807	3,897,276	19	0 1/2	1,721,515	19	7 1/2
Grenada	59	6	0	25,536	1,325,681	16	0	616,144	17	7 1/2
St. Vincent's	58	6	8	22,297	1,311,491	13	4	592,508	18	7 1/2
Tobago	45	12	0 1/2	11,621	239,941	16	2 1/2	231,064	4	11 1/2
St. Lucia	56	18	7 1/2	15,348	759,890	10	4	355,627	15	11 1/2
Trinidad	105	1	5 1/2	22,359	2,272,655	18	0 1/2	1,090,119	1	18 1/2
British Guiana	114	11	5 1/2	81,915	9,749,047	13	5 1/2	4,497,117	10	6 1/2
Cape of Good Hope	75	9	11	38,127	2,824,294	7	9	1,247,101	0	7 1/2
Mauritius	69	11	3	68,613	4,783,185	15	3	2,412,652	10	11 1/2
Total				780,993	45,281,758	15	10 1/2	20,000,000	0	0

During the civil war in the United States of America, a law was passed abolishing slavery throughout this territory, and there can be little doubt that the Spanish revolution of 1868 will lead to the extinction of slavery in Cuba.

SMALTZ or SMALT (Ger. *schmalz*; Dutch, *smalt*; Fr. *smalt*; Ital. *smalto azzurro*, *smaltino*; Span. *esmalte azul*; Russ. *lazor*). An oxide of cobalt, melted with siliceous earth and potash. It is a sort of glass, of a beautiful deep blue colour; and being ground very fine, is known by the name of powder blue. The colour of smaltz is not affected by fire; and it is consequently in great demand in the painting of earthenware. It is also employed in the colouring of paper, and for other purposes in the arts. Beckmann has proved that the process used in the preparation of smaltz was invented about the end of the 15th or the beginning of the 16th century; and that the blue glass of the ancients owes its colour, not to the presence of cobalt or of smaltz, but to that of iron. (*Hist. of Inventions*, vol. ii. art. 'Cobalt.')

Smaltz is principally manufactured in Germany and Norway. 766 cwt., of the value of 5,362*l.*, were imported into the United Kingdom in 1867, and the exports in the same year amounted to 56 cwt.

SMUGGLING. The offence of importing prohibited articles, or of defrauding the revenue by the introduction of articles into consumption, without paying the duties chargeable upon them. It may be committed indifferently either upon the excise or customs revenue.

*Origin and Prevention of Smuggling.*—This crime, which occupies so prominent a place in the criminal legislation of all modern states, is wholly the result of vicious commercial and financial legislation. It is the fruit either of prohibitions of importation, or of oppressively high duties. It does not originate in any depravity inherent in man; but in the folly and ignorance of legislators. A prohibition against importing a commodity does not take away the taste for it; and the imposition of a high duty on any article occasions a universal desire to escape or evade its payment. Hence the rise and occupation of the smuggler. The risk of being detected in the clandestine introduction of commodities under any system of fiscal regulations may always be valued at a certain average rate; and whenever the duties exceed this rate, smuggling immediately takes place. Now, there are plainly but

two ways of checking this practice—either the temptation to smuggle must be diminished by lowering the duties, or the difficulties in the way of smuggling must be increased. The first is obviously the more natural and efficient method of effecting the object in view; but the second has been most generally resorted to, even in cases where the duties were quite excessive. Governments have uniformly almost consulted the persons employed in the collection of the revenue with respect to the best mode of rendering taxes effectual; though it is clear that the interests, prejudices, and peculiar habits of such persons utterly disqualify them from forming a sound opinion on such a subject. They cannot recommend a reduction of duties as a means of repressing smuggling and increasing revenue, without acknowledging their own incapacity to detect and defeat illicit practices; and the result has been, that, instead of ascribing the prevalence of smuggling to its true causes, the officers of customs and excise have almost universally ascribed it to some defect in the laws, or in the mode of administering them, and have proposed repressing it by new regulations, and by increasing the number and severity of the penalties affecting the smuggler. As might have been expected, these attempts have, in the great majority of cases, proved signally unsuccessful. And it has been invariably found, that no vigilance on the part of the revenue officers, and no severity of punishment, can prevent the smuggling of such commodities as are either prohibited or loaded with oppressive duties. The smuggler is generally a popular character; and whatever the law may declare on the subject, it is ludicrous to expect that the bulk of society should ever be brought to think that those who furnish them with cheap brandy, Geneva, tobacco &c. are guilty of any very heinous offence.

'To pretend,' says Adam Smith, 'to have any scruple about buying smuggled goods, though a manifest encouragement to the violation of the revenue laws, and to the perjury which almost always attends it, would, in most countries, be regarded as one of those pedantic pieces of hypocrisy, which, instead of gaining credit with anybody, seems only to expose the person who affects to practise them to the suspicion of being a greater knave than most of his neighbours. By this indulgence of the public, the smuggler is often encouraged to continue a trade, which he is thus

have in each colony; the total value of the annual value of each were a portion of the 20,000,000, &c.

Proportion of the 20,000,000, to which each Colony is entitled	
£	d.
2,000,000	0
1,286,310	7
6,161,927	5
101,859	19
72,910	8
195,966	7
105,594	18
151,007	2
531,630	10
375,923	12
1,741,545	19
616,111	17
594,508	18
831,061	4
555,627	15
1,039,119	1
8,292,117	10
1,247,001	9
2,412,681	10
Deficient fractions	98
20,000,000	0

ing this practice—either the angle must be diminished by or the difficulties in the way be increased. The first is ob- tural and efficient method of in view; but the second has y resorted to, even in cases ere quite excessive. Govern- ally almost consulted the pro- collection of the revenue. The best mode of rendering taxes it is clear that the interests, cular habits of such persons them from forming a sound subject. They cannot recom- of duties as a means of re- and increasing revenue, with- their own incapacity to detect practices; and the result has of ascribing the prevalence of true causes, the officers of also have almost universally defect in the laws, or in ring them, and have propos- new regulations, and by in- and severity of the penalties ggler. As might have been attempts have, in the great proved signally unsuccessful. It invariably found, that no art of the revenue officers, and shment, can prevent the smug- nodities as are either prohibited pressive duties. The smuggler ular character; and whatever re on the subject, it is ludicrous bulk of society should ever be at those who furnish them with vea, tobacco &c. are guilty of offence. says Adam Smith, 'to have any ing smuggled goods, though a cement to the violation of the l to the perjury which almost would, in most countries, be re- those pedantic pieces of hypo- of gaining credit with any- to expose the person who affects to the suspicion of being a greater of his neighbours. By this public, the smuggler is often tinue a trade, which is thus

taught to consider as, in some measure, innocent; and when the severity of the revenue laws is ready to fall upon him, he is frequently disposed to defend with violence what he has been accustomed to regard as his just property; and from being at first rather imprudent than criminal, he, at last, too often becomes one of the most determined violators of the laws of society.' (*Walth of Nations*, p. 406.)

To create by means of high duties an over- whelming temptation to indulge in crime, and then to punish men for indulging in it, is a pro- ceeding completely subversive of every principle of justice. It revolts the natural feelings of the people; and teaches them to feel an interest in the worst characters—for such smugglers gene- rally are—to espouse their cause, and avenge their wrongs. A punishment which is not pro- portioned to the offence, and which does not carry the sanction of public opinion along with it, can never be productive of any good effect. The true way to put down smuggling is to render it unprofitable; to diminish the temptation to engage in it; and this is not to be done by surrounding the coasts with cordons of troops, by the multiplication of oaths and penalties, and making the country the theatre of ferocious and bloody contests in the field, and of perjury and chicanery in the courts of law; but by re- pealing prohibitions, and reducing duties, so that their collection may be enforced with a moderate degree of vigilance; and that the forfeiture of the article may be a sufficient penalty upon the smuggler. It is in this, and in this only, that we must seek for an effectual check to illicit trafficking. Whenever the profits of the fair trader become nearly equal to those of the smuggler, the latter is forced to abandon his hazardous profession. But so long as prohibitions and oppressively high duties are kept up, or which is in fact the same thing, so long as *high bounties* are held out to encourage the adventurous, the need, and the profligate to enter on this career, we may be assured that armies of excise and customs officers, backed by the utmost severity of the revenue laws, will be insufficient to hinder them.

It would be useless to enter in this place into any lengthened details to prove the truth of these statements. Unluckily the entire financial and commercial history of this country and others abounds with instances in point, many of which must be familiar to every reader. The prohibition of foreign products, or the imposition of heavy duties on foreign or native products, does not take away the taste for them. On the contrary, it would seem as if the desire to obtain prohibited or over-taxed articles acquired new strength from the obstacles opposed to its gratification.

Per damna, per cunctas, ab ipso  
Ducit opes animanique ferro.

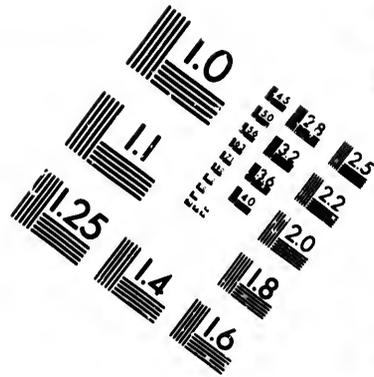
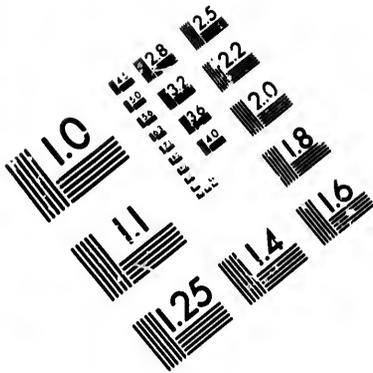
The prohibition of foreign silks which existed previously to 1826 did not hinder their importation in immense quantities. The vigilance and integrity of the custom-house officers were no match for the ingenuity, daring, and douceurs of the smugglers. And at the very moment when the most strenuous efforts were made to effect their exclusion, the silks of France and Hindostan were openly displayed, in Almack's, in the drawing-rooms of St. James's, and in the House of Commons, in mockery of the impotent legislation by which it was attempted to shut them out. There is, in truth, great room for doubting whether the substitution of an ad valorem duty for the whole system of prohibition was at first productive of any material increase in the imports of foreign silks.

The repeal of the prohibition was a most judicious measure; but the duty being unfortunately fixed at too high a limit, it gave an overwhelming stimulus to smuggling. Before the abolition of the duty on silks, the expense of their clandestine importation from France was roughly estimated at about 15 per cent. ad valorem; and as the duty on silks, down to 1845, was double that amount, or 30 per cent., we need not wonder that it was estimated, by well-informed parties, that from a third to a half of the total quantity of imported silks escaped the duty. Indeed, every- one is aware that their clandestine importation was carried on to a great extent, within the port of London, and in the custom-house itself, by the corruption and connivance of the officers. And this, we may be assured, was not a solitary instance. The corruption of the officers is in truth an inevitable consequence of the over-tax system.

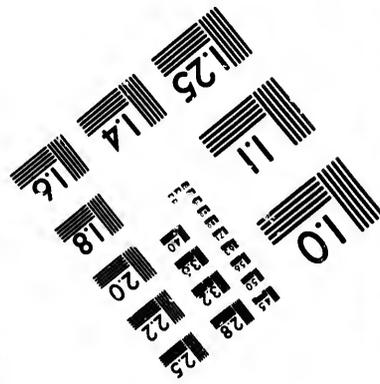
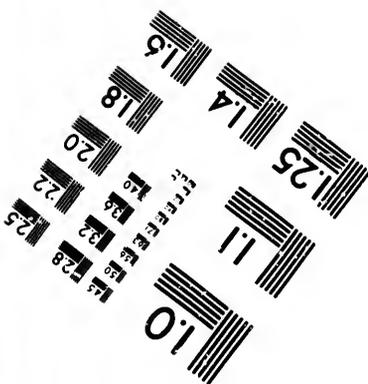
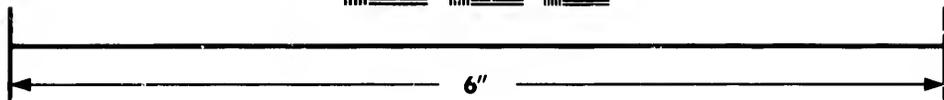
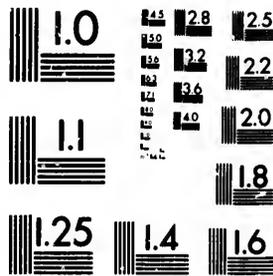
The enormous duties that were imposed previously to 1826 on home-made Scotch and Irish spirits produced, as is seen in the art. SMUTTER, an extent of smuggling and demoralisation of which it is not easy for those who have not attended to such matters to form an idea. At present, however, the duties on tobacco, brandy, and hollands, but especially the first, are the great incentives to smuggling. The preventive water-guard is kept up at great expense for little other purpose than to hinder the clandestine importation of these articles. But notwithstanding its efforts, considerable quantities of them find their way into the country without being subjected to any duty. And how should it be otherwise? The price of tobacco in the contiguous continental ports may, at an average, be taken at from 8*d.* to 10*d.* per lb.; and as the duty on tobacco is from 3*s.* 6*d.* to 5*s.* per lb., need we be surprised to learn that, allowing for the expenses of smuggling, if one cargo out of three be safely landed, the business is as profitable as it is adventurous and exciting? 'But it is not so much by the introduction of tobacco from abroad as by its admixture or adulteration with other articles that the contraband dealers endeavour to defeat the duty.' (*Treatise on Taxation*, 3rd ed. p. 347.)

It may, however, be right to state that it must not be imagined that the mere diminution of an oppressive duty on any article will put down the smuggling to which the duty may have given rise. The diminution may not be sufficiently great; and if so, it will have but little influence. Thus, taking, as above, the cost of smuggling French and other silks into England at 15 per cent. ad valorem, a reduction of the late duty of 30 to 25 or even 20 per cent. would, it is plain, have done little or nothing to prevent their clandestine importation. But its reduction, in 1845, to 15 per cent., by taking away the supposed advantage on the side of the smuggler, all but destroyed his occupation. In reducing duties, either for the prevention of smuggling or the increase of consumption, the reduction must be effectual to its end; that is, in the former case, it must be such as to bring the duty below, or nearly to the level of, the cost of smuggling, and in the latter it must be such as to bring the article within the command of a decidedly larger class of consumers. A reduction of 5*s.* or 6*s.* from the late duty of 22*s.* 10*d.* per gallon on foreign brandy and hollands would have been of no use; for it would not have had any sensible influence either in lessening smuggling or increasing consumption. Even the reduction effected in 1845, by Sir Robert Peel, of 7*s.* 10*d.* per gallon, though advantageous, was too small to have the desired effect. It should have been 10*s.* per gallon.





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These considerations show the degree of weight which should be attached to the statements of those who endeavour to excuse or apologise for exorbitant duties by showing that they have sometimes been reduced without any material increase taking place in the consumption of the articles on which they are laid, or any material diminution of smuggling. In exemplification of this, it has been stated that though the duty on tobacco was reduced in 1825 from 4s. to 3s. per lb., the consumption was not increased in anything like the same proportion; and that notwithstanding the rapid growth of population, a period of 10 years elapsed before the tobacco revenue rose to its former level. But no one acquainted with the facts could have anticipated any other result. Taking the cost of tobacco at an average at 6d. per lb. (which is beyond the mark), the duty previously to and since the reduction has been respectively 800 and 600 per cent. ad valorem. And it is needless to say that the least of these duties holds out an overwhelming temptation to smuggling and fraud. The truth is, that the reduction of duty in 1825 was an ill-advised measure; and there is perhaps no great reason to conclude that the further reduction of the present duty of 3s. per lb. to 2s. would be much wiser, or that, while it sacrificed revenue, it would be at all sufficient to suppress illicit practices. It is idle, therefore, by referring to instances of this sort, to endeavour to make it be believed that an adequate diminution of taxation is not followed by a corresponding increase of consumption. Had the duty on coffee, instead of being reduced, in 1808, from 1s. 8d. per lb. to 7d., been reduced only to 1s. 3d. (the proportion in which the tobacco-duty was reduced), the effect would have been all but imperceptible; and instead of the consumption being immediately increased from about 1,000,000 lb. to 9,000,000 lb., the presumption is it would not have been increased to 1,500,000 lb. In taxation, as in everything else, unless the means be adequate to the desired ends, the result will be nothing. If you offer a premium of 3 to 1 on smuggling, do you imagine you will abate the nuisance you have called into existence by reducing the premium to 6 to 1 or 4 to 1? It will be found in every case in which a reduction of duty is not followed by a more than corresponding increase of consumption, that the article continues to be over-taxed, or that the duty left upon it either exceeds the cost of smuggling, or places it beyond the reach of those who might otherwise become its consumers. We are bold to say that no instance can be found in the financial history of this or any other country of an adequate reduction of the duty on an over-taxed article not being followed by a cessation of smuggling and a great increase of consumption. (See *Treatise on Taxation*, by the author of this work, part ii. c. 9, 3rd ed.)

*Law as to Smuggling in England.*—The penalties imposed on illicit dealing in commodities subject to duties of excise have been specified in the articles on such commodities. The following extract from the Customs Consolidation Act, the 16 & 17 Vict. c. 107, refers expressly to smuggling. The importance of the subject has induced us to give a full abstract of the clauses.

#### RESTRICTIONS ON SMALL CRAFT, AND THE REGULATIONS FOR THE PREVENTION OF SMUGGLING.

*Commissioners may make General Regulations for Vessels and Boats not exceeding 100 tons.*—The Commissioners of Customs may from time to time, by order under their hands, make such

general regulations as they shall deem expedient in respect of vessels and boats not exceeding 100 tons burden, for the purpose of prescribing, with reference to the tonnage, build, or description of such vessels or boats, the limits within which the same may be employed, the mode of navigation in the manner in which such vessels or boats shall be so employed, and if armed, the number and description of arms, the quantity of ammunition and such other terms, particulars, conditions, and restrictions as the said commissioners may think fit, and also from time to time may revoke, alter, or vary such regulations; and the general regulations made under any former Act, and in force at the time of the passing of this Act, shall remain and continue in force until altered, varied, or revoked. (Sec. 196.)

*Vessels and Boats used contrary to Regulation forfeited.*—Every ship or boat which shall be used or employed in any manner contrary to the regulations prescribed by the Commissioners of Customs shall be liable to forfeiture, unless the same shall have been specially licensed by the Commissioners of Customs to be so used or employed as next hereinafter provided. (Sec. 197.)

*Commissioners of Customs may grant Special Licenses on Terms.*—The Commissioners of Customs may, if they shall so think fit, grant licenses in respect of any vessels or boats not exceeding 100 tons burden, upon such terms and conditions, and subject to such restrictions and stipulations, as in such licenses mentioned, notwithstanding any general regulations made in pursuance of this Act, whether the said regulations shall be revoked or not; and if any vessel or boat so licensed shall not comply with the conditions imposed by or expressed in any such license, or if such vessel or boat shall be found without having such license on board, such vessel or boat shall be forfeited. (Sec. 198.)

*Commissioners may revoke Licenses.*—The Commissioners of Customs may revoke, alter, or vary any license or licenses granted under any former Act, or which may hereafter be granted under this or any other Act relating to the customs. (Sec. 199.)

*Vessels made use of in Removal of uncustomed or prohibited Goods forfeited.*—If any such vessel or boat shall be used in the importation, landing, removal, carriage, or conveyance of any uncustomed or prohibited goods, the same shall be forfeited, and the owner and master of every such vessel or boat shall each forfeit and pay a penalty equal to the value of such vessel or boat, not in any case exceeding 500*l.* (Sec. 200.)

*Regulations to extend to Channel Islands.*—All the regulations which shall be so made by the said commissioners of customs relating to vessels and boats, and the power to grant, revoke, or vary such licenses, shall extend to the Channel Islands. (Sec. 201.)

*Ships not to sail from Channel Islands without Clearance.*—No ship or boat belonging wholly or in part to her Majesty's subjects shall sail from the Channel Islands without a clearance, whether in ballast or having a cargo; and if with cargo, the master shall give bond to her Majesty in double the value of such cargo for the due landing thereof at the port for which such ship or boat clears; and every such ship or boat not having such clearance, or which, having a clearance for her cargo, shall be found light, or to have discharged any part of her cargo before arrival at the port or place of discharge specified in the clearance, shall be forfeited. (Sec. 202.)

*Boats of Vessels to bear Name of Vessel, Port, and Master.*—The owner of every ship belonging

they shall deem expedient and boats not exceeding 100 tons for the purpose of preserving, with the name, build, or description of the vessel, the limits within which they are to be employed, the mode of navigation, the number of such vessels or boats shall be determined, the number and description of the quantity of ammunition, arms, and accoutrements, and the names, particulars, conditions, and places, and the said commissioners may think fit from time to time may revoke, alter, or vary the same; and the general regulations made in any former Act, and in force at the passing of this Act, shall remain in force until altered, varied, or repealed. (Sec. 196.)

*Boats used contrary to Regulations.*—If any ship or boat which shall be used in any manner contrary to the regulations made by the Commissioners of Customs for the purpose of preventing the importation of goods, or if any ship or boat licensed by the Commissioners to be so used or employed as next hereinafter shall be so used. (Sec. 197.)

*Special Licenses.*—The Commissioners of Customs may think fit, grant licenses to any vessel or boats not exceeding 100 tons upon such terms and conditions, and subject to such restrictions and stipulations, as they shall think fit, notwithstanding any regulations made in pursuance of the said regulations shall be revoked, altered, or varied. (Sec. 198.)

*Revocation of Licenses.*—The Commissioners may revoke, alter, or vary any license granted under any former Act, and hereafter to be granted under this Act, relating to the customs. (Sec. 199.)

*Seizure of uncustomed or prohibited goods.*—If any such vessel or boat, or conveyance of any uncustomed goods, the same shall be found on board of every such vessel or boat, and each of them shall pay a penalty of £500. (Sec. 200.)

*Extend to Channel Islands.*—All the provisions of this Act shall be so made by the said Commissioners relating to vessels and boats, and power to grant, revoke, or vary the same shall extend to the Channel Islands.

*Clearance from Channel Islands without license.*—If any ship or boat belonging wholly or in part to Her Majesty's subjects shall sail from the Channel Islands without a clearance, whether for the purpose of carrying a cargo; and if with cargo, the owner shall give bond to Her Majesty for the due landing of such cargo for the due landing of which such ship or boat shall be liable; and if such ship or boat not having such clearance, or which, having a clearance for the same, shall be found light, or to have discharged any of her cargo before arrival at the place of destination, the clearance shall be forfeited. (Sec. 202.)

*Boats to bear Name of Vessel, Port, and Owner.*—The owner of every ship belonging

wholly or in part to any of Her Majesty's subjects shall paint or cause to be painted upon the outside of the stern of every boat belonging to such ship the name of such ship and the port or place to which she belongs, and the master's name within the transom, in white or yellow Roman letters, not less than 2 inches in length, on a black ground, on pain of the forfeiture of every such boat not so marked, wherever the same shall be found. (Sec. 203.)

*Boat not belonging to Ships to have Name of Owner and Port thereon.*—The owner of every boat not belonging to any ship shall paint or cause to be painted upon the stern of such boat, in white or yellow Roman letters, of 2 inches in length, on a black ground, the name of the owner of the boat and the port or place to which she belongs, on pain of the forfeiture of such boat not so marked, wherever the same shall be found. (Sec. 204.)

*British Vessels having secret Places for concealing or Devices for running Goods, and Foreign Vessels having Goods in secret Places, forfeited.*—All ships and boats belonging wholly or in part to Her Majesty's subjects having false bulkheads, false bows, double sides or bottoms, or any secret or disguised place whatsoever, adapted for the purpose of concealing goods, constructed in such ships or boats, or having any hole, pipe, or device in or about such ships or boats adapted for the purpose of running goods, shall be forfeited; and all foreign ships or boats coming into any port of the United Kingdom having on board any goods liable to the payment of duties, or prohibited to be imported into the United Kingdom, concealed in false bulkheads, false bows, double sides or bottoms, or in any secret or disguised place whatsoever, constructed in such ships or boats, shall be forfeited. (Sec. 205.)

*Goods unshipped without Payment of Duty, and prohibited Goods, liable to Forfeiture.*—If any goods liable to the payment of duties shall be unshipped from any ship or boat in the United Kingdom (customs or other duties not being first paid or secured), or if any prohibited goods whatsoever shall be imported or brought into any part of the United Kingdom, or if any goods whatever which shall have been warehoused or otherwise secured in the United Kingdom, either for home consumption or exportation, shall be clandestinely or illegally removed from or out of any warehouse or place of security; or if any goods which are prohibited to be exported shall be put on board any ship or boat, with intent to be laden or shipped for exportation, or shall be brought to any quay, wharf, or other place in the United Kingdom, in order to be put on board any ship or boat for the purpose of being exported; or if any goods which are prohibited to be exported shall be found in any package produced to any officer of customs as containing goods not so prohibited; or if any goods subject to any duty or restriction in respect of importation, or which are prohibited to be imported into the United Kingdom, shall be found or discovered to have been concealed in any manner on board any ship or boat within the limits of any port of the United Kingdom, or shall be found either before or after landing to have been concealed in any manner on board any such ship or boat, within such limits as aforesaid; then and in every of the foregoing cases all such goods shall be forfeited, together with any goods which shall be found packed with or used in concealing them. (Sec. 206.)

*Spirits and Tobacco found removing to be deemed run.*—All spirits and tobacco which shall be found removing without a legal permit or cer-

tificate for the same shall be deemed to be spirits or tobacco respectively liable to and unshipped without payment of duty, unless the party in whose possession the same shall be found or seized shall prove to the contrary. (Sec. 207.)

*Restricted Goods to be deemed run.*—All goods the importation of which is in any way restricted, which are of a description admissible to duty, and which shall be found or seized in the United Kingdom under any law relating to the customs or excise, shall, for the purpose of proceeding for the forfeiture of them, or for any penalty incurred in respect of them, be described in any information exhibited on account of such forfeiture or penalty as and on the trial or hearing thereof be deemed and taken to be goods liable to and unshipped without payment of duties, unless the contrary be proved. (Sec. 208.)

*Vessels found within certain Distances of the Coast of the United Kingdom or Channel Islands with certain Goods on board forfeited, with the Goods.*—If any ship or boat belonging wholly or in part to Her Majesty's subjects, or having half the persons on board subjects of Her Majesty, shall be found or discovered to have been within 4 leagues of that part of the coast of the United Kingdom which is between the North Foreland on the coast of Kent and Beachy Head on the coast of Sussex, or within 8 leagues of any other part of the coast of the United Kingdom, or if any foreign ship or boat having one or more subjects of Her Majesty on board shall be found or discovered to have been within 3 leagues of the coast of the United Kingdom, or if any foreign ship or boat shall be found or discovered to have been within 1 league of the coast of the United Kingdom, or if any ship or boat shall be found or discovered to have been within 1 league of the Channel Islands, any such ship or boat so found or discovered, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, any spirits, not being in a cask or other vessel capable of containing liquids of the size or content of 20 gallons at the least, or any tea exceeding 6 lb. weight in the whole, or any tobacco or snuff not being in a cask or package containing 200 lb. weight of tobacco or snuff at the least, or being separated or divided in any manner within any cask or package, or any tobacco stalks, tobacco stalk flour, snuff work, or any cordage or other articles adapted and prepared for slinging or sinking small casks, or any casks or other vessels whatsoever of less size or content than 20 gallons, of the description used for the smuggling of spirits, then and in every such case the said spirits, tea, tobacco, snuff, tobacco stalks, tobacco stalk flour, and snuff work, together with the casks or packages containing the same, and the cordage or other articles, casks, and other vessels of the description aforesaid, and also the ship or boat, shall be forfeited. (Sec. 209.)

*Vessels or Boats arriving within any Port of the United Kingdom or of the Channel Islands having prohibited Goods on board or attached thereto forfeited.*—If any ship or boat shall be found or discovered to have been within any port, bay, harbour, river, or creek of the United Kingdom or the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, any spirits, not being in a cask or other vessel capable of containing liquids of the size or content of 20 gallons at the least, or any tobacco or snuff, not being in a cask or package containing 200 lb.

weight of such tobacco or snuff at the least, or being separated or divided in any manner within any cask or package, or any tobacco stalks, tobacco stalk flour, or snuff work, every such ship or boat, and such spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, and snuff work shall be forfeited; but if it shall be made to appear to the satisfaction of the Commissioners of Customs that such spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, or snuff work were on board without the knowledge or privity of the owner or master of such ship or boat, and without any wilful neglect or want of reasonable care on their parts, then and in such case the said Commissioners shall deliver up the said ship or boat to the owner or master of the same. (Sec. 210.)

*Forfeiture not to extend to Ships and Goods in certain Cases.*—Nothing herein contained shall extend to render any ship of 120 tons burden or upwards liable to forfeiture on account of any tobacco coming direct from the East Indies or the Turkish dominions, including Egypt, if in packages each containing not less than 100 lb. nett weight of such tobacco; nor on account of any snuff or negrohead tobacco the produce of and imported direct from the United States of America, if in packages each containing not less than 150 lb. nett weight of such snuff or tobacco; nor on account of any tobacco imported from Malta in packages each containing not less than 80 lb. nett weight of such tobacco; nor on account of any tobacco the produce of Porto Rico, Mexico, South America, St. Domingo, Cuba, the British possessions in America and the West Coast of Africa, if in packages each containing not less than 80 lb. nett weight of such tobacco, and imported direct from those places or from the United States of America; nor on account of any cigars, if in packages each containing not less than 100 lb. nett weight of such cigars; nor on account of any cigarillos or cigarettos, if in packages each containing not less than 75 lb. nett weight of such cigarillos or cigarettos; nor to render any ship of 150 tons burden or upwards liable to forfeiture on account of any tea, or of any spirits in glass bottles or stone bottles not exceeding the size of 3 pints each, such tobacco, snuff, cigars, cigarillos or cigarettos, tea, and spirits being really part of the cargo of such ship; nor to render any ship liable to forfeiture on account of any spirits, tea, or tobacco really intended for the consumption of the seamen or passengers on board during their voyage, and not being more in quantity than is necessary for that purpose; nor to render any ship liable to forfeiture if really bound from one foreign port to another foreign port, and pursuing such voyage, wind and weather permitting. (Sec. 211.)

*Ships in Port with a Cargo and afterwards found in Ballast, and Cargo unaccounted for, forfeited.*—If any ship or boat whatever shall be found within the limits of any port of the United Kingdom with a cargo on board, and such ship or boat shall afterwards be found light or in ballast, and the master is unable to give a due account of the port or place within the United Kingdom where such ship or boat shall have legally discharged her cargo, such ship or boat shall be forfeited. (Sec. 212.)

*Certain Ships from which Goods are thrown overboard to prevent Seizure to be forfeited.*—Every ship or boat belonging wholly or in part to her Majesty's subjects, or having on board one or more of her Majesty's subjects, which shall be found or discovered to have been within 4 leagues of that part of the coast of the United Kingdom which is between the North Foreland on the coast of Kent and Beech Head on the coast of Sussex, or within 8 leagues of any other part of the coast of the

United Kingdom from which any part of the lading of such ship or boat shall have been thrown overboard, or on board which any of the goods shall be staved or destroyed to prevent seizure, shall be forfeited. (Sec. 213.)

*Ships throwing overboard any Goods during Chase, forfeited, and Persons escaping deemed Subjects.*—When any ship or boat belonging wholly or in part to her Majesty's subjects, or having half the persons on board subjects of her Majesty shall be found within 100 leagues of the coast of the United Kingdom, and shall not bring to upon signal made by any vessel or boat in her Majesty's service or in the service of the revenue, hoisting the proper pendant and ensign in order to bring such ship or boat to, and thereupon chase shall be given, if any person or persons on board such ship or boat so chased shall during the chase, or before such ship or boat shall bring to, throw overboard any part of her lading, or shall stove or destroy any part of such lading, to prevent seizure thereof, then and in any such case such ship or boat shall be forfeited; and all persons escaping from any such ship or boat, or from any foreign ship or boat, during any chase made thereof by any vessel or boat in her Majesty's service or in the service of the revenue, shall be deemed subjects of her Majesty, unless the contrary be proved. (Sec. 214.)

*Ships not bringing to may be fired into.*—If any ship or boat liable to seizure or examination under this or any Act for the prevention of smuggling shall not bring to when required so to do, on being chased by any vessel or boat in her Majesty's navy having the proper pendant and ensign of her Majesty's ships hoisted, or by any vessel or boat duly employed for the prevention of smuggling, having a proper pendant and ensign hoisted, it shall be lawful for the captain, master, or other person having the charge or command of such vessel or boat in her Majesty's navy, or employed as aforesaid (first causing a gun to be fired as a signal), to fire at or into such ship or boat, and such captain, master, or other person acting in his aid or by his direction, shall be and is hereby indemnified and discharged from any indictment, penalty, action, or other proceeding for so doing. (Sec. 215.)

*Ships may be searched within the Limits of the Ports.*—Any officer or officers of the army, navy, or marine duly employed for the prevention of smuggling, and on full pay, or any officer or officers of customs, producing his or their warrant or deputation (if required), may go on board any ship which shall be within the limits of any port of the United Kingdom, and rummage and search the cabin and all other parts of such ship for prohibited or uncustomed goods, and remain on board such ship so long as she shall continue within the limits of such port. (Sec. 216.)

*Officers of Customs may, on probable Cause, stop Carts &c., and search for Goods.*—Any officer of customs or excise, or other person acting in his or their aid, or duly employed for the prevention of smuggling, may, upon reasonable suspicion, stop and examine any cart, waggon, or other means of conveyance, for the purpose of ascertaining whether any smuggled goods are contained therein; and if no such goods shall be found, the officer or other person so stopping and examining such cart, waggon, or other conveyance, having had probable cause to suspect that such cart, waggon, or other conveyance had smuggled goods contained therein, shall not, on account of such stoppage and search, be liable to any prosecution or action at law on account thereof; and all persons driving or conducting such cart, waggon,



smuggling and on full pay, may search any person on board any ship or boat within the limits of any port in the United Kingdom or the Channel Islands, or any person who shall have landed from any ship or boat, provided such officer shall have good reason to suppose that such person has any uncustomed or prohibited goods secreted about his person; and if any person shall obstruct any such officer in going, remaining, or returning from on board, or in searching such ship or boat or person, every such person shall forfeit the sum of 100*l.*; and if any passenger or other person on board any such ship or boat, or who may have landed from any such ship or boat, shall, upon being questioned by any such officer whether he has any foreign goods upon his person or in his possession, deny the same, and any such goods shall after such denial be discovered to be or to have been upon his person or in his possession, such goods shall be forfeited, and such person shall forfeit treble the value of such goods. (Sec. 226.)

*Person before Search may require to be taken before a Justice or Officers of Customs.*—Before any person shall be searched by any such officer as aforesaid, such person may require such officer to take him or her before any justice, or before the collector, comptroller, or other acting principal officer of the customs, who shall, if he see no reasonable cause for search, discharge such person, but if otherwise, direct such person to be searched, and if a female, she shall not be searched by any other than a female. (Sec. 227.)

*Penalty on Officers for Misconduct.*—Any officer required to take any such person before such justice, collector, comptroller, or other superior officer of customs shall do so with all reasonable despatch; but if such officer shall require any person to be searched, not having reasonable ground to suppose that he has uncustomed or prohibited goods about his person, such officer shall forfeit and pay any sum not exceeding 10*l.* (Sec. 228.)

*Persons concerned in importing prohibited or restricted Goods &c. to forfeit treble the Value, or 100*l.**—Every person who shall be concerned in importing or bringing into the United Kingdom any prohibited goods, or any goods the importation of which is restricted, contrary to such prohibition or restriction, and whether the same be unshipped or not; and every person who shall unship or assist or be otherwise concerned in the unshipping of any goods which are prohibited or of any goods which are restricted and imported contrary to such restriction, or of any goods liable to duty, the duties for which have not been paid or secured; or who shall knowingly harbour, keep, or conceal, or shall knowingly permit or suffer or cause or procure to be harboured, kept, or concealed, any such goods, or any goods which shall have been illegally removed without payment of duty from any warehouse or place of security in which they may have been deposited; or to whose hands and possession any such goods shall knowingly come; or who shall assist or be concerned in the illegal removal of any goods from any warehouse or place of security in which they shall have been deposited as aforesaid; or who shall be in any way knowingly concerned in conveying, removing, depositing, concealing, or in any manner dealing with any goods liable to duties of customs, with intent to defraud her Majesty of such duties or any part thereof; or who shall be in any way knowingly concerned in any fraudulent evasion or attempt at evasion of such duties or any part thereof; shall in each and every of the foregoing cases forfeit either treble the value of the goods or the penalty of 100*l.*, at the election of the commissioners of customs. (Sec. 229.)

*If Goods be removed Prior to Examination, Penalty upon the Party concerned in the Removal.*—Every person who shall remove any goods imported into the United Kingdom from any ship, quay, wharf, or other place previous to the examination thereof by the proper officer of customs, unless under the care or authority of such officer, or who shall remove or withdraw from any quay, wharf, or other place any goods entered to be warehoused after the landing thereof, so that no sufficient account is taken thereof by the proper officer, or so that the same are not duly warehoused, and every person who shall assist or be otherwise concerned in such removal or withdrawal, or shall knowingly harbour, keep, or conceal, or shall knowingly permit or suffer, or cause or procure to be harboured, kept, or concealed, any such goods, or to whose possession any such goods shall knowingly come, every such person shall forfeit either treble the value thereof or the penalty of 100*l.*, at the election of the commissioners of customs. (Sec. 230.)

*Persons unshipping or concerned in the carrying away or concealing Spirits or Tobacco to forfeit 100*l.* and may be detained.*—Every person who shall unship or be aiding or concerned in the unshipping of any spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, or snuff-work, or of any tea, such tea being of the value of 10*l.* or upwards, liable to forfeiture under this or any other Act relating to the customs or excise, or who shall carry, convey, or conceal, or be aiding, assisting, or concerned in the carrying, conveying, or concealing of any such spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, or snuff-work, or of any such tea as aforesaid, shall forfeit for each such offence treble the value of such goods, or the sum of 100*l.*, at the election of the commissioners of customs; and every such person may be detained, to be dealt with as hereinafter directed. (Sec. 231.)

*Persons found or discovered to have been on board Vessels liable to Forfeiture subject to be committed to any House of Correction.*—Every subject of her Majesty who shall be found or discovered to have been on board any ship or boat liable to forfeiture under this or any Act relating to the customs for being found or discovered to have been within any of the distances in this Act mentioned from the United Kingdom or the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, such goods or things as subject such ship or boat to forfeiture, or who shall be found or discovered to have been within any such distances as aforesaid on board any ship or boat from which any part of the cargo or lading shall have been thrown overboard, or staved or destroyed, to prevent seizure, and every person, not being a subject of her Majesty, who shall be found or discovered to have been on board any ship or boat liable to forfeiture for any of the causes last aforesaid within one league of the coast of the United Kingdom or of the Channel Islands, shall, upon being duly convicted of any of the said offences before any justice, be adjudged by such justice, for the first of such offences, to be imprisoned in any house of correction, and there kept to hard labour, for any term not less than 6 nor more than 9 months, and for the second of such offences for any term not less than 9 nor more than 12 months, and for the third or any subsequent offence for 12 months; and every such person may be detained, and taken before any justice, to be dealt with as hereinafter directed. (Sec. 232.)

red Prior to Examination, shall remove any goods into the United Kingdom from any ship, in any place previous to the arrival of the proper officer of customs, or by the care or authority of any other person, or shall remove or withdraw from any other place any goods intended after the landing thereof, and no account is taken thereof by the proper officer, so that the same are not duly accounted for by any person who shall assist or be concerned in such removal or withdrawal, or who knowingly harbour, keep, or receive, or who, whose possession any such goods may come, every such person shall be liable to the value thereof or the value of the election of the commissioners. (Sec. 230.)

*Persons on board Vessels within Ports of the United Kingdom with Contraband Articles, subject to Penalty of 100*l.* and Detention.*—Every person who shall be found or discovered to have been on board any ship or boat liable to forfeiture under this or any other Act relating to the customs for being found or discovered to have been within any port, bay, harbour, river, or creek of the United Kingdom, or of the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, such goods or things as are liable to forfeiture, or who shall be found or discovered to have been on board any of her Majesty's ships or vessels, or on board any ship or vessel in her Majesty's employment or service, or on board of any foreign post-office packet, being a national vessel, employed in carrying the mails between any foreign country and the United Kingdom, such last-mentioned ships, vessels, or packets being found or discovered to have been within any port, bay, harbour, river, or creek of the United Kingdom or the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, any spirits, not being in a cask or other vessel capable of containing liquids of the size or content of 20 gallons at the least, or any tobacco or snuff, not being in a cask or package containing 200 lb. of such tobacco or snuff at least, or being separated or divided in any manner within any cask or package, shall forfeit the sum of 100*l.*; and every such person shall and may be detained, and taken before any justice, to be dealt with as hereinafter directed. (Sec. 231.)

*Persons in her Majesty's Service detained, to be secured on board until Warrant procured.*—Where any person or persons, being part of the crew of any of her Majesty's ships or vessels, or of any ship or vessel in her Majesty's employment or service, and liable to detention, shall have been detained under any law relating to the customs, such person or persons, upon notice thereof by the detaining officer to the commanding officer of the ship or vessel, shall be placed in security by such commanding officer on board such ship or vessel until such detaining officer shall have obtained a warrant from a justice for bringing such person or persons before him or any other justice or justices, to be dealt with according to law, which warrant such justice is required to grant upon complaint made to him by such officer of customs stating the offence for which such person or persons is or are liable to detention. (Sec. 231.)

*Any Person escaping may afterwards be detained.*—If any person liable to be detained under this or any other Act relating to the customs shall not be detained at the time of committing the offence for which he is so liable, or shall after detention make his escape, such person shall and may at any time afterwards be detained and taken before any justice, to be dealt with as if detained at the time of committing such offence. (Sec. 235.)

*Magistrates to proceed to Conviction of Smugglers in certain Cases without an Order of Customs.*—Whenever any person shall have been detained, and taken before any justice, for being found or discovered to have been on board any ship or boat within any port, bay, harbour, river, or creek of the United Kingdom or the Channel Islands, such ship or boat having on board or having had on board spirits or tobacco in such casks or packages as would, under this or any other Act relating to the customs, subject the same to forfeiture, or for un-

shipping or for aiding or being concerned in the unshipping of any spirits or tobacco liable to forfeiture under this or any other Act relating to the customs or excise, or for carrying, conveying, or concealing, or for aiding or being concerned in the carrying, conveying, or concealing of any such spirits or tobacco, and it shall appear to such justice that the quantity of spirits in respect of which such person has been so detained does not exceed 2 gallons, or that the quantity of tobacco in respect of which such person has been so detained does not exceed 10 lb. weight, such justice may proceed summarily upon the case without any information, and although no direction shall have been given by the Commissioners of Customs, and convict such person of such offence, and adjudge that such person shall, in lieu of any other penalty, forfeit any sum not less than the single value nor more than treble the value of such goods, including the duties of importation due thereon, and in default of payment of such sum of money commit such person to any of her Majesty's gaols for any time not exceeding one month. (Sec. 236.)

*Where Persons are taken before a Justice under any Act relating to the Customs, such Justice may order them to be detained a reasonable Time, or admit to Bail.*—When any person shall have been detained for any offence against this or any other Act relating to the customs, and taken before any justice, such justice may, if he see reasonable cause, order such person to be detained in gaol, or in the custody of the police or constabulary force, a reasonable time, to obtain the order of the Commissioners of Customs or Inland Revenue, and to prepare the necessary informations, convictions, and warrants of commitment, and at the expiration of such time to be brought before him, or any other justice or justices, who may then finally hear and determine the matter: but any person so detained may be liberated, on giving by recognisance, security to the satisfaction of such justice in the sum of 100*l.*, or in the amount of the penalty sought to be recovered, to appear at such time and place as shall be appointed by such justice for hearing the case. (Sec. 237.)

*Penalty on persons offering Goods for Sale under Pretence of being run or prohibited.*—If any person shall offer for sale any goods under pretence that the same are prohibited, or have been unshipped and run on shore without payment of duties, all such goods (although not liable to any duties or prohibited) shall be forfeited, and every person so offering the same for sale shall forfeit treble the value of such goods. (Sec. 238.)

*No subjects except Officers to take up Spirits in small Casks sunk or floating upon the Sea.*—No subject of her Majesty, other than officers of the navy, customs, or excise, shall intermeddle with or take up any spirits, being in casks of less content than 20 gallons, which may be found floating upon or sunk in the sea within 100 leagues of the United Kingdom, and if any spirits shall be so intermeddled with or taken up, the same shall be forfeited, together with any ship or boat in which they are found. (Sec. 239.)

*Commissioners of Treasury or Customs may restore Seizures &c.*—The Commissioners of the Treasury or Customs may mitigate or remit any penalty or fine, or any part of any penalty or fine, incurred under this or any Act relating to the customs, or release from confinement any person committed under this or any Act relating to the customs, on such terms and conditions as to them shall appear proper. (Sec. 240.)

*Persons signalling Smuggling Vessels may be detained, and forfeit 100*l.*, or be kept to Hard Labour*

for One Year.—No person shall, after sunset and before sunrise between September 21 and April 1, or after the hour of 8 in the evening and before the hour of 6 in the morning at any other time of the year, make, aid, or assist in making any signal in or on board or from any ship or boat, or on or from any part of the coast or shore of the United Kingdom, or within 6 miles of any part of such coast or shore, for the purpose of giving notice to any person on board any smuggling ship or boat, whether any person so on board of such ship or boat be or not within distance to notice any such signal; and if any person, contrary to this Act, shall make or cause to be made, or aid or assist in making, any such signal, such person so offending shall be guilty of a misdemeanor; and any person may stop, arrest, and detain the person so offending, and convey him before any justice, who, if he see cause, shall commit the offender to the next county gaol, there to remain until delivered by due course of law; and it shall not be necessary to prove on any indictment or information in such case that any ship or boat was actually on the coast; and the offender being duly convicted shall, by order of the court before whom he shall be convicted, either forfeit the penalty of 100*l.*, or, at the discretion of such court, be committed to the common gaol or house of correction, there to be kept to hard labour for any term not exceeding one year. (Sec. 241.)

*Proof of a Signal not being intended on Defendant.*—If any person be charged with or indicted for having made or caused to be made, or for aiding or assisting in making, any such signal as aforesaid, the burden of proof that such signal so charged as having been made with intent and for the purpose of giving such notice as aforesaid was not made with such intent and for such purpose shall be upon the defendant against whom such charge is made or such indictment is found. (Sec. 242.)

*Any Person may prevent Signals, and enter Lands for that Purpose.*—Any person whatsoever may prevent any signal being made as aforesaid, and may go upon any lands for that purpose, without being liable to any indictment, suit, or action for the same. (Sec. 243.)

*Persons assembling to the Number of Three or more to run Spirits, Tobacco, or obstructing Officers, to be sent to House of Correction.*—All persons assembling to the number of 3 or more, for the purpose of unshipping, carrying, conveying, or concealing any spirits or tobacco, or any tea or silk (such tea or silk being of the value of 10*l.* or more), liable to forfeiture under this or any other Act relating to the customs or excise, and every person who shall by any means procure or hire, or shall depute or authorise any other person to procure or hire, any person or persons to assemble for the purpose of being concerned in the landing or unshipping, or carrying, conveying, or concealing any goods which are prohibited to be imported, or the duties for which have not been paid or secured, and every person who shall obstruct any officer or officers of the army, navy, or marines, being duly employed for the prevention of smuggling, or any officer or officers of customs or excise, or any person acting in his or their aid or assistance, or duly employed for the prevention of smuggling, in the execution of his or their duty, or in the due seizing of any goods liable to forfeiture by this Act or any Act relating to the customs, or who shall rescue, attempt or endeavour to rescue, or cause to be rescued, any goods which have been duly seized, or who shall before or at or after any seizure stave, break, or otherwise destroy, or attempt or endeavour to break, stave, or other-

wise destroy, any goods, to prevent the seizure thereof or the securing of the same, shall, upon being duly convicted of any of the said offences before any justice of the peace, be adjudged by such justice for the first offence to be imprisoned in any house of correction and there kept to hard labour for any term not less than 6 nor more than 9 months, and for the second offence for any term not less than 9 nor more than 12 months, and for the third or any subsequent offence for 12 months. (Sec. 244.)

*Three or more armed Persons assembled to hide or rescue smuggled goods guilty of Felony.*—If any persons, to the number of 3 or more, armed with firearms or other offensive weapons, shall, within the United Kingdom, or within the limits of any port, harbour, or creek thereof, be assembled in order to be aiding and assisting in the illegal landing, running, or carrying away of any prohibited goods, or any goods liable to any duties which have not been paid or secured, or in rescuing or taking away any such goods as aforesaid after seizure from the officer of the customs, or other officer authorised to seize the same, or from any person or persons employed by or assisting them, or from the place where the same shall have been lodged by them, or in rescuing any person who shall have been apprehended for any offence made felony by this or any Act relating to the customs, or in the preventing the apprehension of any person who shall have been guilty of such offence, or in case any persons to the number of 3 or more so armed as aforesaid shall, within the United Kingdom, or within the limits of any port, harbour, or creek thereof, be so aiding or assisting, every person so offending, and every person aiding, abetting, or assisting therein, shall, being thereof convicted, be adjudged guilty of felony, and shall be liable, at the discretion of the court before which he shall be convicted, to be transported beyond the seas for the term of his natural life, or for any term not less than 15 years, or to be imprisoned for any term not exceeding 3 years. (Sec. 245.)

*Persons shooting at Boats belonging to Navy or Revenue Service, guilty of Felony.*—If any person shall maliciously shoot at any vessel or boat belonging to her Majesty's navy, or in the service of the revenue, within 100 leagues of any part of the coast of the United Kingdom, or shall maliciously shoot at, maim, or wound any officer of the army, navy, or marines, being duly employed for the prevention of smuggling, and on full pay, or any officer of customs or excise, or any person acting in his aid or assistance, or duly employed for the prevention of smuggling, in the execution of his office or duty, every person so offending, and every person aiding, abetting, or assisting therein, shall, upon conviction, be adjudged guilty of felony, and shall be liable, at the discretion of the court before which he shall be convicted, to be transported beyond the seas for the term of his natural life, or for any term not less than 15 years, or to be imprisoned for any term not exceeding 3 years. (Sec. 246.)

*Any person in company with Four others, having smuggled Goods, or with one other, armed or disguised, guilty of Felony.*—If any person in company with more than 4 others be found with any goods liable to forfeiture under this or any other Act relating to the customs or excise, or in company with 1 other person, within 5 miles of the sea coast or of any tidal river, and carrying offensive arms or weapons, or disguised in any way, every such person shall be adjudged guilty of felony, and shall, on conviction of such offence, be transported as a felon for the term of 7 years. (Sec. 247.)



cer or person as aforesaid to induce him in any way to neglect his duty, or to do, conceal, or connive at any act whereby any of the provisions of any Act of Parliament relating to the customs may be evaded, shall forfeit the sum of 200*l.* (See, 259.)

**SMYRNA.** A large city and seaport of Asiatic Turkey, on the western side of Asia Minor, lat. 33° 25' 36" N., long. 27° 6' 45" E. Population estimated at from 130,000 to 150,000, of whom  $\frac{1}{2}$  may be Turks, and the remainder Greeks, Armenians, Franks, Jews &c. Smyrna is situated at the bottom of a deep gulf; the entrance to which lies between Mytilene on the north, and Cape Carabourun, in lat. 38° 41' 30" N., long. 26° 21' E., on the south. In addition to the light placed on Sanjak Kalessi in 1848, there were three other lights placed in the gulf in 1863, viz. a lighthouse on Cape Mermiui, 38° 37' N. lat., 26° 46' 29" E. long., and two light vessels, one off Tani Kedesse, and the other on Sanjak Spit. The accompanying illustration gives a better idea of the Gulf of Smyrna than could be derived from any description. The dotted line shows the course inwards. The passage between James' Castle (D) on the south and the opposite sand-bank is narrow; but there is from 9 to 10 fathoms water, with blue clay bottom. Merchant ships anchor abreast of the city in from 7 to 8 fathoms; but the water is so deep that they may come close to the quays. The *inbat*, or sea breeze, blows from morning till evening, and is always waited for by ships going up to the city. There is excellent anchorage in most parts of the gulf, merely avoiding the shoals on the north side.

Smyrna is a place of great antiquity. The excellence of its port, and its admirable situation, have made it to be several times rebuilt, after being destroyed by earthquakes. On approaching it from the sea, it has the appearance of an amphitheatre; the castle is at the back of the town, which it commands on the top of the hill; but it is in a state of decay, and could oppose no resistance to an invading force. The interior of the city does not correspond to its external appearance; the streets being, for the most part, narrow, dirty, and ill-paved. Owing to the want of cleanliness, and of all sorts of precautions, on the part of the Turks, Smyrna is frequently visited by the plague. In 1814 from 50,000 to 60,000 of the inhabitants are said to have been cut off by this dreadful scourge. The trade of this city is more extensive than that of any other in the Turkish empire, and Smyrna is the great steam centre for the whole Levant. The caravans from Persia are chiefly composed of Armenians. They arrive and depart at fixed periods, which are nearly identical with those of the arrival and departure of most of the foreign ships frequenting the port. But it is now connected by railway with Ghuzel-Hissar, or Aidin, near the Mendere, 62 miles S.E. of Smyrna. Bargains are principally effected by Jew brokers, many of whom have amassed considerable fortunes. The principal articles of import consist of furs, iron, butter &c. from Odessa and Taganrog; and of cotton-stuffs and twist, silk and woollen goods, coffee, sugar, cochineal, and dye-woods, iron, coal, tin and tin plates, rum, brandy, paper, cheese, glass, wine &c. from Great Britain, France, Italy, the United States &c. The exports consist principally of cotton, which is the most valuable article, madder, dried fruits, valonia, opium, sponges, carpets, silk, wool, box-wood, emery-stone, drugs, yellow-berries, galls, wax, copper, hare-skins, goats' wool, &c.

We are indebted to Mr. Rolleston's *Report* on Smyrna, to Mr. Consul Cumberbatch's *Report* of June 20, 1868, and to private information, for most part of the following details.

'The business,' says Mr. Rolleston, 'of exporting and importing goods to and from Europe is becoming more and more monopolised by the Greek merchants. They are compelled by the conditions of the insurance companies to employ European bottoms and sailors to transport their freight, and they have a line of English steamers in their employment. It is in great measure their local knowledge and connections which enable them to compete with merchants of other nations at so great an advantage in this particular branch of business. There are many instances to be pointed out in Smyrna of Greek merchants who have raised themselves by their own exertions and industry from a very poor condition to one of opulence, and on the other hand it is said that their very wealthiest merchants are in the habit of furthering their own interests by methods which, though not positively dishonest, are yet such as none but the pettiest tradesman of another race would condescend to employ.'

But this natural result of the brutal tyranny under which (thanks to the jealousies and selfishness of the principal Christian Powers) they have so long groaned, is now rapidly wearing away; and at the present time there are many Greek merchants who are not more distinguished by their intelligence and enterprise than by their straightforwardness and integrity.

Mr. Rolleston says that hatred of the Turks is so deeply rooted in the heart of every Greek as to constitute a part of their moral nature; and it would have been extraordinary indeed had such not been the case.

The Turkish population is almost wholly occupied in agricultural labour, or in the rudest sorts of manufactures. The portrage of Smyrna gives employment to about 3,000 of the lowest order of Turks.

*Sales* are effected by a merchant's broker, and what is termed a street or out-door broker; the former receiving his instructions from the seller, and the latter acting on behalf of the buyer. When the terms are mutually agreed upon, the real buyer and seller personally meet; and a bond or obligatory note stating the terms and amount of the transaction is drawn out and signed by the buyer; and when not much approved of, one or more signatures are required to the bond, who individually and collectively become responsible for the fulfilment of it.

*Purchases* are similarly made, except that the purchaser or agent himself, in the first instance, and his brokers, inspect the goods he is about to treat for: cash down is generally expected; and it is but seldom that a short credit of 1 or 2 carriers is obtained; it not unfrequently happens, also, that  $\frac{1}{4}$  or even  $\frac{1}{2}$  of the purchase amount is advanced to the seller, when an insufficient quantity of the article wanted by the buyer is in the place, and which must then be procured from the interior or place of growth. The money advanced (which is to be returned if the quality does not suit) is sent by a confidential person on the part of the purchaser, accompanied either by the seller in person, or by some one representing him.

*Barter* are generally attended with delay, impediments, and sacrifices to the European agent, who exchanges his constituents' goods for native produce, and are never completed without his paying a large portion in cash, which is mostly  $\frac{1}{2}$ , sometimes even  $\frac{3}{4}$ , but never less than  $\frac{1}{4}$  of the full amount; besides always paying a higher price for the produce than if it were bought for ready money. On the other hand, so far as the agent's transaction goes in goods, the price of

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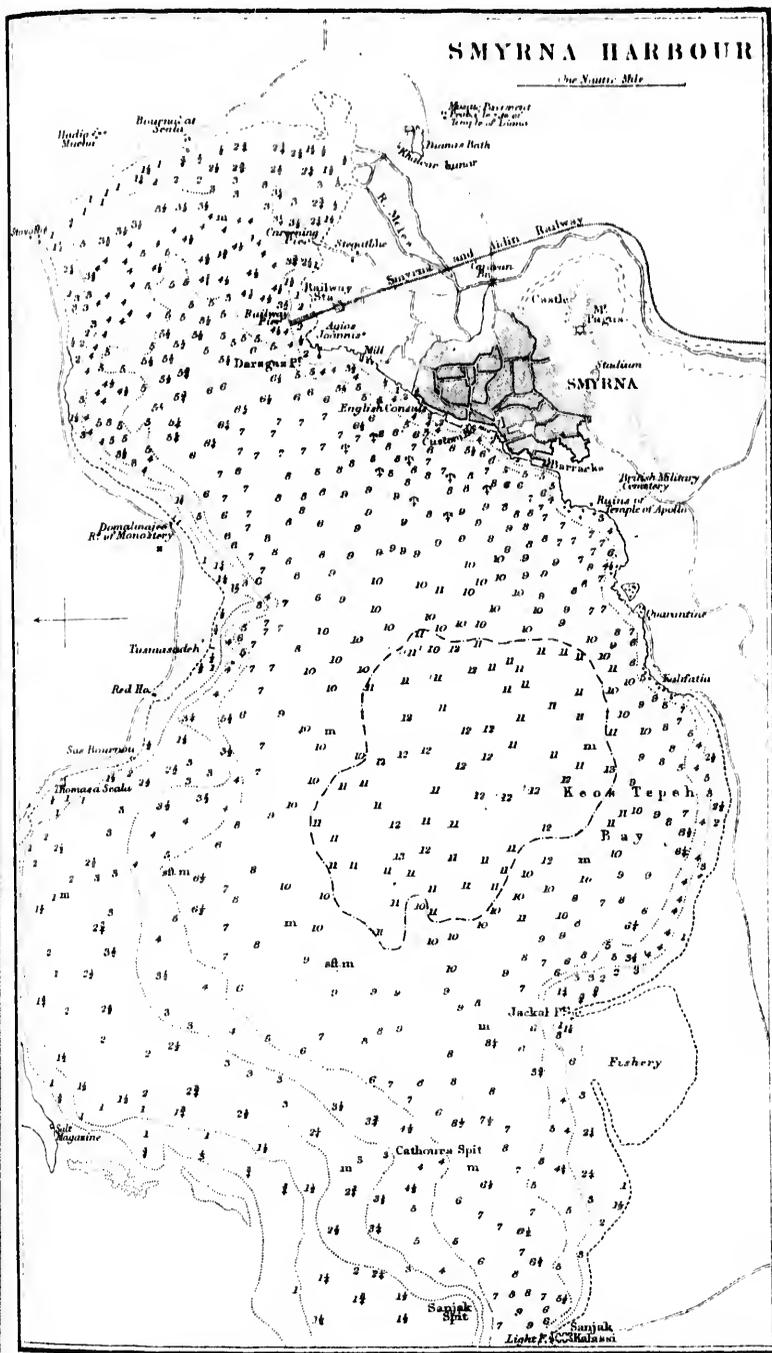
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which he also advances, it is equal to an advantageous cash sale, deducting a discount; but still he loses, as we have just stated, on that part of the operation which subjects him to the necessity of giving ready money for such part of the produce as remains above the counter-value given in goods, at a higher rate than it is worth in the open market. Thus the advantage is all in favour of this country, and against the agent. Indeed, barterers are seldom undertaken unless when a profitable result is anticipated, when European goods are difficult to be placed upon selling conditions, either from the want of demand or a glutted market, or when (which is mostly the case) the holder of such goods has orders from the owners of them to remit them in produce, and thus realise their property, if not upon profitable terms, at least without the risk arising from bad debts; sometimes, also, outstanding bonds are taken in part payment, to the extent occasionally of  $\frac{1}{2}$ ; another  $\frac{1}{4}$  is taken in goods at an advance of from 5 to 10 or 12 per cent. above current prices; and the remaining  $\frac{1}{4}$  in cash against produce, at from 5 to 10 per cent. more than it fetches in the bazaars. However, it is by barter alone that any extensive transaction ever takes place, or that it can be either readily or safely effected.

**Sales on Credit.**—The terms of credit vary considerably, and depend entirely upon the quality of the goods which the agent sells.

**Sales for Cash.**—These very seldom occur indeed, and then only when money is abundant, or the article sold scarce and in great demand; in fact, not 1 sale in 100 is made on these terms; and in about the same ratio is a discount taken off from a bazaar bond at even an exorbitant rate, however short the period may be that it has to run; occasionally a sale is, however, effected for  $\frac{1}{2}$  cash, and the other  $\frac{1}{2}$  short credit, for some very rare goods.

#### Imports.

The value of the imports in 1867 was less than in 1866 by 186,790*l*.

**Coffee.**—This is one of the most current articles received here, and is sent from England, France, Holland, Trieste, Marseilles, Leghorn, Genoa, and America; but first, and principally of late years, from the latter country—600 sacks, although occasionally that amount is doubled. France follows, but on a less extensive scale; and Austria, Holland, and the small ports in the south of Europe, do not together export more than 4 different qualities of coffee in the market; namely, Mocha, St. Domingo, Havannah, and Brazil: the first is sent from Alexandria, and by American vessels, and but seldom from Europe; the consumption is, however, limited, and does not exceed 60,000 okes annually. At Constantinople the consumption is much greater. An Asiatic cannot do without his coffee; and it is well known that in Smyrna alone not less than perhaps 400,000 cups of it are daily drunk, which, computed at the cost price of 2 paras each, amount to 20,000 piastres. St. Domingo and Havannah coffees are preferred to the Brazil, although, when the latter is of a fair round quality, there is not more than 2 per cent. difference in price; the small green West India berry certainly commands a ready sale; but, for the finest sort, not more than 6 or 8 per cent. can be obtained above the middling and sound quality. Coffee is amongst the very few articles which occasionally meet with a partial and entire cash sale and short credit; and is, moreover, from the means and character of the dealers in it, the least liable to risk from insolvency. It is also the easiest through which an

advantageous barter can be effected, as a much larger quantity of coffee will be taken in exchange for produce than almost any other item of European merchandise.

**Sugar** is the next in consequence. This article is supplied from the same sources as coffee, and is attended in its disposal with similar results. White crushed, white Havannah, brown do., white East India, refined in small loaves of 4 lb. and in large of 8 lb. each; the 2 latter are mostly shipped from America and England. The brown and ordinary sorts are not so current.

**Indigo** always meets a ready sale, and not unfrequently a profitable one; it is attended likewise with all the advantages and facilities attached to coffee and sugar, and is furnished by Europe and America, but principally by England. The qualities received consist of East India purple and copper, ditto common, and Guatemala. The first of the 3 is the kind best adapted for our markets, and is placed sooner and better than the other 2; but, as is the case with coffee, the *very fine* will not pay cost price, and ought therefore never to be sent. The pieces suited for our buyers ought to be good sized, with about an equal proportion of purple and copper in each piece.

**Manufactures.**—White or unprinted cotton goods are most in demand during the warm weather, and the coloured or printed stuffs during winter, although a considerable quantity of all sorts is regularly and largely sold throughout the whole year. East Indian manufactures are supplied by America and England exclusively; the latter country also sends fair imitations of the East Indian loom, in long cloths, seersuckers &c. The native consumers are exceedingly fastidious in their choice of designs and colours, which ought very frequently to be altered, in order to meet their capricious taste. Manufactured goods are always sold at long credits, but large barterers are often effected through them. A person desirous of entering into this item of our commerce is almost certain ultimately to reap an advantage; but he must have patience, a large capital, and must not be disheartened at the first or second result of his enterprise, should it disappoint his hopes of profit. He must also enter into the thing with spirit, and keep his agent always supplied with the goods he may recommend; and he is to remember that many months must elapse before he can expect a return by bills of exchange, but sooner if he order a barter. The capital employed must also at least be to the amount of 20,000*l*. to do any good; and further, this sum ought to be disbursed by him without any pecuniary embarrassment or inconvenience. For a person willing to undertake such a step, he would require to be regularly furnished with patterns, and advices of the manner in which they ought to be printed and varied; and with *competent means*, a real desire to follow the branch up firmly, and full information of what is required, a most extensive and finally lucrative business would be done.

**Cotton Twist** forms no inconsiderable article in this trade, and is supplied exclusively from England. Mule twist has, however, superseded, in some degree, the demand which formerly existed for water twist, and is consequently more in request. Water twist is nevertheless saleable, and both qualities ought to be of rather high numbers. This article is often given in barter, but mostly sold at rather long credits, and hardly ever for cash.

**Iron, machinery, and coal** are all largely imported, especially since the commencement of the railway to Aidin. They are wholly supplied by England.

*Rum and Brandy.*—Leeward Island and Jamaica rum furnished by America and England; the former particularly in the lower qualities, of which we have a full market at low prices. The better kind and brandy are supplied from England, but do not obtain a proportionate advance compared with the common sorts. Brandy is but of limited demand, and 2 or 3 puncheons are sufficient at a time. It ought, as well as rum, to be deeply coloured.

*Spices* are all saleable in small parcels at a time, particularly pepper and pimento; the latter of which, in small sound berries, is demanded at good prices. Nutmegs are very abundant, and offering very low without finding purchasers. France, America, and England supply spices, but France more cloves than other kinds; and it may be remarked that the qualities received from England are preferred. Credit on selling is generally short.

*Cochineal* is a fair article new and then in small quantities; and when in demand, at times fetches good prices, occasionally a cash sale, and always one of the shortest credits. Annual consumption, 4,500 okes.

In concluding our observations on imports, we could wish to impress the conviction that a poor man's purpose cannot be answered in speculating to this country; for, should his circumstances require a speedy remittance in bills, he must submit to a heavy sacrifice, in order to meet his wants, by selling his property for whatever it may fetch in cash; and such a measure cannot but be attended with very heavy loss. On the contrary, when an opulent person finds that his property cannot be realised at saving prices, he can afford to wait until a more favourable moment presents itself; and such a moment, in less than 12 months, is almost certain to arrive, when he retires his money with an advantage more than equal to any interest he could obtain for it in Europe.

*Account of the Quantities and Values of the Articles Imported into Smyrna in 1866.*

Articles	Quantities	Value
Iron shot, nails &c.	{ packages 31,670 tons 12,785	} £ 297,810
Manufactures, silk &c.	packages 54,329	861,280
Butter and cheese	" "	5,295 150,807
Wood and timber	" "	244,281 85,781
Coffee	bags 70,551	361,522
Cochineal, indigo &c.	packages 1,971	15,381
Coal	tons 85,752	30,671
Cloth, cotton, stuff, linen	pieces 8,690	462,552
Drugs and medicines	" "	7,309 95,572
Flour, wheat, rice &c.	" "	64,173 225,752
Stoneware, glass &c.	" "	12,367 60,500
Gold wire, watches &c.	cases 157	42,550
Dried fish &c.	" "	3,567 30,365
Skins	" "	2,751 50,722
Furniture, hardware, stationery, firearms &c.	" "	40,781 440,741
Rum, brandy, and spirits	" "	19,780 241,82
Sugar	" "	18,400 95,672
Tobacco, snuff &c.	boxes 3,400	70,960
Sundries	{ packages 21,750 pieces 29,781 tons 2,750	} 74,707
Total	—	3,762,530

*Exports.*

The value of the exports in 1867 exceeded in value those of 1866 by 848,930*l.*

*Figs* are exported in larger quantity for America than for England, but those intended for the English market are of a finer quality. A considerable quantity of the figs intended for America are shipped on board the Liverpool line of steamers for England, and are subsequently transhipped at that port. The certainty and expedition of this route to America have begun to cause a diminution in the number of clippers employed in the fruit trade between America and Asia Minor.

*Carpets.*—England takes more than  $\frac{1}{3}$  of the

carpets manufactured in Anatolia. These carpets are made in the interior, and by the aid of very simple machinery, manual labour entering largely into the means employed. Orders are given by an agent, and it is generally necessary for him, on account of the poverty of the workers, to advance a considerable sum of money to enable them to purchase materials. As much as  $\frac{1}{3}$  of the entire value of the carpets is thus advanced sometimes previously to their completion. As regards the dyeing of the carpet, the red colour in the Turkey carpet is generally, and ought to be always, produced by madder. Logwood is also employed, and cochineal; but where the latter is made use of, the colour of the carpet is apt to fade. Blue comes from indigo, and yellow from the yellow Persian berries.

*Silk.*—Much of the silk exported from Smyrna is brought from Brusa and other places in the interior; but within the last few years a good deal has been prepared in Smyrna.

*Drugs and Gums* form a principal branch of commerce, and are almost entirely in the hands of the Jews. It is only when gum-arabic and mastic are scarce, or the demand for exportation very brisk, that much variation exists in the price of drugs. Trieste, and occasionally America, consume a considerable portion of gums, but the largest quantity goes to the English markets. Barbers are often effected through this medium. It is impossible to ascertain the quantities of drugs received in Smyrna, and equally so to know the quantity remaining, as they are dispersed all over the city, and consumed so irregularly in Europe as bids defiance to all regular calculation.

*Opium.*—The produce in 1867 was about 1,200 chests, and of good quality, and exported principally to China, Europe, and America.

*Sponges* are an article of considerable moment, particularly for the English markets, and a good deal found among the islands in the Grecian Archipelago, brought here, and cleaned for exportation. They vary in price from 6 to 90 piastres per oke, according to fineness and quality: the better sorts alone answer for speculation, and they are, from the considerable quantity sent to London, turned to good account. The produce depends so entirely on chance, that no correct estimate of the yearly quantity can be formed; however, we are seldom in want of a moderate supply. The malpractices of the sponge agents at Smyrna in loading them with black sand and gum water lead to much litigation.

*Galls* are shipped in considerable quantities for the English, German, and French markets; the two former, however, being the largest consumers: for England, the blue galls are those principally sent. Annual produce of all sorts, 5,500 kintals.

*Valonic* employs more British shipping for full cargoes of only one article than any other species of produce, if we except, perhaps, fruit. It can be had to any extent, and at all periods. The crop of 1867 produced 32,000 tons, half of which was exported to Europe.

*Fruit.*—This is an article which occupies the attention of all Smyrna, more or less, and produces, during the season, great interest and activity. Figs come to market early in September, and raisins are ready for shipping early in October; the former are procurable only at Smyrna, where the latter in all their qualities may be procured; but the shipments are generally made at Cesne, Vouria, Carabourna, Usbeck &c., from which ports the name of the raisin takes its origin. Large sums are frequently gained in fruit speculations; and when the demand in England is brisk, and

in Anatolia. These carpets are made by the aid of very manual labour entering largely. Orders are given by generally necessary for him, poverty of the workers, to a sum of money to enable materials. As much as of the carpets is thus advanced to their completion. As of the carpet, the red colour is generally, and ought to be dyed by madder. Logwood is used cochineal; but where the f, the colour of the carpet is apt from indigo, and yellow Persian berries.

The silk exported from Smyrna and other places in the in the last few years a good deal in Smyrna.

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the prices and quality fair with us, it very seldom happens indeed that any loss is sustained; it is, however, attended with risk; must be shipped dry; and ought only to go in a very fast, sound vessel, as much depends upon a first, or at least an early arrival, which obtains in general a higher price than the latter arrivals. The quantity produced is always uncertain.

Account of the Quantities and Values of the Articles Exported from Smyrna in 1866.

Articles	Quantities	Value
		£
Madder roots	bales 20,721	250,711
Wheat, barley, flour	tons 2,609	15,703
Logwood &c.	pieces 4,409	4,650
Cotton	bales 31,850	591,000
Wool, gums, galls	bales 8,160	122,327
Drugs, opium &c.	15,980	587,910
Sponges &c.	boxes 9,770	237,785
Wool, raw	boxes 155	3,150
Dry fruits	packages 195,100	652,085
Wool, raw	boxes and cases 690,000	192,500
Wool, raw berries &c.	bags 49,875	198,675
Wool, hair &c.	bales 8,620	30,582
Lamb skins &c.	pieces 3,070	75,500
Cocoons, silk &c.	tons 410	161,790
Carpets, cloths &c.	packages 1,815	385,361
Wool, raw	tons 29,580	24,200
Wool, raw	barrel 1,600	
Wool, raw	package 2,520	220,193
Wool, raw	tons 2,045	
Total		3,606,210

Prices of the Principal Exports at the Port of Smyrna in the Year 1866.

	£	s.	d.
Barley	imp. qr.	1	0
Beans	ton	1	0
Hones	ton	6	0
Roswood	ton	0	0
Carpets	sq. pike	0	0
Chrome one	ton	7	0
Cocoons	cwt.	11	0
Ea	ton	2	0
Raisins, red	ton	1	5
black	ton	0	9
sultana	ton	1	15
Galls	ton	5	10
Gums	ton	10	0
Esperire	cwt.	9	0
Madder roots	cwt.	1	15
Opium	lb.	0	17
Gra of roses	oz.	1	15
Resin	barrel	1	15
Rags	cwt.	0	15
Rugs	piece	6	0
Sammony	lb.	0	18
Seed, cotton	ton	2	0
canary	imp. qr.	2	10
hemp	lb.	0	12
Silk, waste	lb.	0	6
Sponges	ton	0	16
Sorex	cwt.	2	0
Stones, emery	ton	4	0
Tobacco	lb.	0	5
Wool, raw	ton	18	0
Wine	barrel of 40 galls.	3	10
Wool, goats'	lb.	0	5
sheep's	ton	0	10
cotton	ton	0	10
Skins, lamb	bale	16	0
Yellow berries	cwt.	4	10

Accounts are kept in piastres, composed of 40 paras and 80ths.

Exchange.

London, 108 to 110½ piastres per £ sterling in 1867.

English Equivalents of Weights, Measures, and Moneys.

Weights.

1 cke or 400 drams = 2½ lb.  
1 canter or 43 oke = 1 cwt. 8 lb.  
1 tchoki = 2 cwt. 13½ lb.

Dry Measure.

8½ kilos = 1 Imperial quarter

Currency.

1 piastre = 2d.  
110 piastres = 11s.  
110 piastres = 11s. sterling

Shipping in 1866 and 1867.—The total number of vessels which entered the port of Smyrna, by steam and sail, in 1866, was 1,506, of 600,817 tons.

The total number of those which left it was 1,508, of 600,630 tons, as follows:—

Nationality	Entered		Cleared	
	Vessels	Tons	Vessels	Tons
British	152	92,665	161	95,954
American	6	1,886	6	1,886
Austrian	491	122,612	196	122,028
Dutch	10	1,480	10	1,480
French	168	39,727	161	39,117
Greek	274	50,179	265	50,570
Hanoverian	2	266	2	266
Harbour Towns	5	460	5	460
Italian	36	10,963	36	10,870
Mecklenburg	2	462	2	462
Oldenburg	6	701	6	701
Prussian	6	1,510	6	1,510
Russian	57	36,861	59	35,852
Spanish	11	5,620	11	5,620
Swedish and Norwegian	4	1,037	4	1,037
Turkish and Egyptian	567	175,550	571	175,900
Total	1,506	600,517	1,508	600,630

Comparison of the Navigation and Trade of Smyrna in 1866 and 1867.

Years	Entered			Cleared		
	Num-ber	Tonnage	Value of Cargoes	Num-ber	Tonnage	Value of Cargoes
1866	1,506	600,517	3,589,690	1,508	600,630	3,558,610
1867	1,461	531,917	3,103,900	1,421	515,804	3,107,570
	De-crease 42	Decrease 68,600	Decrease 186,790	De-crease 81	Decrease 84,826	Increase 819,350

Coasting Trade 1866, 1867.—The native coasting trade is not included, and may be stated as follows:—

Entered.—1,603 small craft, of 23,506 tons, value of cargoes 172,840l., in 1866; and 1,423 small craft, of 21,004 tons, with cargoes worth 164,280l., in 1867.

Cleared.—1,576 small craft, of 22,602 tons, value of cargoes 47,600l., in 1866; and 1,396 small craft, of 20,584 tons, with cargoes worth 58,630l., in 1867.

Port Regulations.—No alterations have taken place in the port and quarantine regulations and dues since 1865, which are as follows:—

Masters can anchor their vessels in this port at discretion. Immediately after their anchoring they are requested to proceed to the health office, to produce bill of health, and to perform certain other formalities in order to obtain free entry.

No master is allowed to throw ballast overboard in this port.

Charges on Entrance. Anehorage.—A fee of 6d. is payable by every vessel anchoring.

For obtaining Pratique the following fees are payable by the master:—

	£	s.	d.
For a vessel not exceeding 75 tons	0	0	4½
200 "	0	0	11
250 "	1	0	0
over 250 tons	3	8	0

Charges on Clearing. Bill of Health.—Vessels clearing for a Turkish port are required to be furnished with a Turkish bill of health, the charge for which varies as follows:—

	£	s.	d.
For a vessel not exceeding 25 tons	0	0	4½
75 "	0	0	6
125 "	1	0	0
175 "	2	0	0
250 "	2	11	0
300 "	3	8	0
over 300 tons	4	5	0

If provided from any other Turkish port with such a document, the same can be used, and then half of the above is payable.

Consular Fees (British).—For every vessel: entrance and clearance fee, 10s.; hospital dues, 3d. per ton. This latter payment is not demanded from vessels which arrive and depart in ballast, which do not receive any benefit from the hospital.

*Light Dues* are payable at this port by all vessels before clearing as follows:—

About 1*l.* per ton for entry;  
1*d.* per ton for clearing;

but for every ton exceeding 800 tons the dues are reduced to one-half the above amounts.

*Quarantine*.—The following expenses are to be defrayed by the ship, in case she is placed in quarantine:—

For 2 guard-on board, per day, each	-	£	4	d.	1
Besides on every vessel not exceeding 25 tons	-	£	1	6	1
75 "	-	£	1	10	0
125 "	-	£	2	9	0
175 "	-	£	3	8	0
250 "	-	£	4	6	0
500 "	-	£	5	6	0
Over 500 tons	-	£	6	3	0

*Goods* are required to be landed at the lazaretto.

For 1 bale not weighting over 110 lb.	-	£	2	d.	3
250 "	-	£	5	2	1
350 "	-	£	7	1	0
Above those weights	-	£	9	0	0

*Goods* of value, from which disinfection is difficult:—

Each bale not exceeding 110 lb.	-	£	0	d.	9
250 "	-	£	1	6	0
350 "	-	£	2	2	0
Over 350 tons	-	£	5	5	0
Guards for duty if required, each per day	-	£	4	4	0

*Passengers* must be landed likewise at the lazaretto; each room per day, 8*s.* 2*d.*; guard required per day, 4*s.* 4*d.*

*Pilots*.—There are no regular pilots at this port, but some are procurable; they are generally engaged by masters merely to assist in navigating their vessels free of this gulf, and are landed before getting out of the same, for which the fee is about 1*l.*

Ships can likewise be provided at the entrance of the Gulf of Smyrna at the cost of 2*l.* for bringing their vessels to this anchorage.

The number of British vessels entered and cleared in 1866 and 1867 was as follows:—

Entered			Cleared		
Vessels	Tonnage	Value of Cargoes	Vessels	Tonnage	Value of Cargoes
162	92,665	£ 1,163,509	161	93,951	£ 1,550,049
212	117,511	£ 1,247,065	206	115,153	£ 1,771,150

Of which 76 were steamers.

*Lines of Steamers*.—Austrian, French, and English call regularly at Smyrna. Most of the merchant steamers carrying thither the Austrian or the French flag belong either to the Austrian Lloyd, or the Messageries Impériales Company. Both these companies are richly endowed by their respective Governments, and the latter of the two has for some time carried the English mails. Though these steam companies aim especially at securing passenger traffic, they nevertheless afford considerable facilities for shipping cargo, and goods of all kinds are weekly exported and imported by their agency.

There are several lines of steam-ships between Smyrna and Liverpool. These ships are all, without exception, propelled by the screw; the majority are barque and a few ship-rigged. Their average tonnage is much larger than that of the other two lines, and they direct their attention to the securing of good freights rather than passengers, who, though well provided for in other respects, might be inconvenienced in these boats by the long stay which their waiting for cargo sometimes entails upon them in Smyrna and Alexandria. The Liverpool ships generally go to Constantinople first, and having discharged cargo there, they return by Smyrna. If they succeed in getting a full cargo there, they return

direct to England; but if not, they go round by Alexandria. Besides the English lines belonging to English houses, there is also, as already mentioned, a line of English steam-ships in the employ of a company of Greek and Armenian merchants. Though there is no regular line of steam communication between Smyrna and London, yet this means of intercourse between the two places does exist, and about once every month a steamer sails direct for London.

The profuse supply of steam-ships has begun to affect the interests of sailing vessels engaged in the Smyrna trade. A good average passage for a sailing vessel, when favoured by the wind, from England to Smyrna, may be estimated at 50 days; it is not unfrequently done in less time; and we have heard of an instance in which a ship arrived in Smyrna in 21 days after leaving Cardiff. But these are all voyages performed under favourable conditions, and these favourable conditions are very frequently wanting. The Liverpool steamers will, under the most unfavourable circumstances, reach Liverpool within 17 days from the date of their leaving Smyrna. It is obvious that sailing vessels must compete with great disadvantage with these steamers, in all cases where certainty and expedition are required; and in the fruit trade it is said that steam will at no distant period enjoy almost a monopoly in freights. The merchant in America finds it answer his purpose better in many cases to have his cargo of furs shipped in a steamer at Smyrna for Liverpool, and subsequently transhipped at the latter port, than to have them brought direct without any transhipment in a sailing ship from Smyrna to America. The same causes will operate still more powerfully upon the European fruit ships. In fact, the peculiarities of the Mediterranean navigation seem to require steam more than most other seas. The Mediterranean possesses no trade winds, and is, on the contrary, especially liable to sudden changes and dead calms. Schooners and brigs were the favourite class of vessels employed in the Smyrna fruit trade, but have been superseded by a somewhat higher style of vessel.

*Railways*.—The Aidin and Smyrna Railway was open to Aidin in September 1866, as well as the Casaba line to Casaba. The result of the former has not been satisfactory, as the expenses are barely defrayed; but it has not yet had a fair trial. Nearly half of the traffic of this district is still carried on by the camels.

The Casaba line was more successful, and obtains at least nine-tenths of the traffic from that district, realising about 7 per cent. upon the capital expended.

In his *Lettres sur la Turquie* (i. 425), the well-informed M. Ubicini estimated the value of the imports into Smyrna in 1851 at 28,473,000 fr., and that of the exports at 36,682,000 fr. The coasting trade, as that between Smyrna, Constantinople, Syra, Alexandria, and the Levant generally is usually denominated, is almost entirely in the hands of the Greeks, and is very extensive. Ubicini reckoned the value of the imports of English and Swiss cottons at above 14,000,000 fr.; the other leading articles of import are English and German woollens, French silks, and colonial products.

**SNUFF** (Ger. schmpftabak; Fr. tabac en poudre; Ital. tabacco da naso; Span. tabaco de polvo; Russ. nosowoi tabak). A powder formerly in very general use as an erfine. Tobacco is the usual basis of snuff; but small quantities of other articles are frequently added to it, to vary its pungency, flavour, scent &c. Though substantially

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the same, the kinds and names of snuff are infinite, and are perpetually changing. There are, however, three principal sorts: the first, granulated; the second, an impalpable powder; and the third, the bran or coarse part remaining after sifting the second sort. Unless taken in excess, no bad consequences result from its use; but the fashion of snuffing has been for some years rapidly on the decline.

The customs duty on snuff is now (1865) from 3s. 9d. to 4s. 6d. per lb.

It would appear, from the 12th Customs' report, published in 1868, that the exportation of snuff has materially increased since the introduction of the drawback on that article in 1863. In 1867 we exported 225,370 lb., and imported 21,923 lb. of snuff. Manufacturers of tobacco and snuff pay license duty (according to the amount of business done), from 5l. 5s. to 31l. 10s.

Dealers in tobacco and snuff are obliged to take out a license, renewable annually, which costs 5s. 3d. (an occasional license to sell off the premises may be had at the rate of 4d. per diem). They must have their premises duly enrolled, and have their names written in large legible characters over their door, or on some conspicuous part of their house, under a penalty of 50l. The dyeing of snuff with ochre, amber, or any other colouring matter except water tinged with colour, is prohibited under a penalty of 100l.; and its intermixture with fustic, yellow, ebony, touchwood, sand, dirt, leaves &c. is prohibited under a penalty of 100l. and the forfeiture of the article. (1 & 2 Geo. IV. c. 109.) If snuff be found to contain 4 per cent. of any substance, not being tobacco, and other than water only, or water tinged with colour, or flavoured only, such snuff shall be deemed adulterated, and shall be forfeited, and the parties subjected to a penalty of 100l. over and above all other penalties and forfeitures. (Ib.) No quantity of snuff weighing above 2 lb. shall be removed by land or water without a permit. (29 Geo. III. c. 68.) [Tonacco.]

SNUFF-BOXES are made of every variety of pattern, and of an endless variety of materials. We only mention them here for the purpose of giving the following details, not elsewhere to be met with, with respect to the manufacture of Laurencekirk or Ayrshire boxes. These are made of wood, admirably jointed, painted, and varnished. These beautiful boxes were first manufactured at Laurencekirk, in Kincardineshire, about 60 years since. The original inventor was a cripple, and instead of curtains, his bed (rather a curious workshop) was surrounded with benches and receptacles for tools, in the contrivance and use of which he discovered the utmost ingenuity. Instead of taking out a patent, the inventor confided his secret to a joiner in the same village, who in a few years amassed considerable property; while the other died, as he had lived, in the greatest poverty. The great difficulty of the manufacture lies in the formation of the hinge, which, in a genuine box, is so delicately made as hardly to be visible. Peculiar, or, as they are called, secret tools, are required in its formation; and though greatly improved by time and experience, the mystery attached to their preparation is still so studiously kept up, that the workmen employed in one shop are debarred having any communication with those employed in another.

About the beginning of this century, an ingenious individual belonging to the village of Cumnock, in Ayrshire, of the name of Crawford, having seen one of the Laurencekirk snuff-boxes, succeeded, after various attempts, by the assistance

of a watchmaker of the same village, who made the tools, in producing a similar box; and by his success greatly enriched his native parish and province. Unfortunately, however, he did not improve his own fortune by his ingenuity; and died early in 1844 in very poor circumstances. For a while, the Laurencekirk boxes were most in demand; but Crawford and his neighbours in Cumnock not only copied the art, but so improved and perfected it, that in a few years for every box made in the north there were, probably, 20 made in the south. In 1826, the Cumnock trade was divided among 8 master manufacturers, who employed considerably more than 100 persons. But after having greatly declined in the interval, it did not in 1859 employ more than 5 per cent. of that number, and now (1869) this business is extinct in Cumnock. The manufacture is almost wholly confined to Mauchline, and about 380 hands are engaged in it and in the manufacture of work-boxes, tea-boxes, and fancy wood work, principally the latter. The popularity of the boxes has of late years declined in Britain (they never had any sale in Ireland); but, on the other hand, the taste for them has gained ground in several parts of the Continent and in America, and the demand for them is brisk and gradually increasing. The manufacture is also carried on, though to a very limited extent, at Auchinleck, and one or two other places. Plane is the wood in common use, and the cost of the wood in an ordinary-sized box does not exceed 1d.; the paints and varnish are rated at 2d.; and though something is lost by selecting timber of the finest colour, the whole expense of the raw material falls considerably short of ½ per cent. on the return it yields, which consists almost wholly of the wages of labour.

The snuff-box manufacture, like most other departments of industry, has been greatly facilitated by the division of labour; and in all workshops of any size four classes of persons are employed—turners, box-makers, painters, and checkers or polishers. When Crawford first commenced business, he obtained almost any price he chose to ask; and many instances occurred in which ordinary-sized snuff-boxes sold at 2l. 12s. 6d., and ladies' work-boxes at 25l. But as the trade increased it became necessary to employ apprentices, who first became journeymen, and then masters; and such have been the effects of improvement and competition, that articles such as those specified above may be obtained at the respective prices of two and twenty-five shillings; while common boxes, which, in 1837, sold for 18s. a dozen, might, in 1850, be bought for 7s. By means of the *Pentagraph*, which is much employed, the largest engravings are reduced to the size most convenient to the workman, without injury to the prints; so that a snuff-box manufacturer, like a Dunfermline weaver, can work to order by exhibiting on wood his employer's coat of arms, or any object he may fancy within the range of the pictorial art. Some of the painters display considerable talent, and, when they put forth their strength, produce box-lids worth being preserved as pictures. At first, nearly the whole subjects chosen as ornaments were taken from Burns's poems; and there can be no doubt that the 'Cotter's Saturday Night,' 'Tam O'Shanter,' 'Willie brewed a peck o'maut' &c. &c. have penetrated in this form into every quarter of the habitable globe. Now, however, the artists take a wider range; the studios of Wilkie, Landseer &c. have been laid under contribution; landscapes are as often met with as figures; and there is scarcely a celebrated scene in the country that is not pictured forth more or less perfectly on the

lid of an Ayrshire snuff-box. Some very wretched imitations of Ayrshire boxes have been produced in different parts of England; but they can deceive no one who ever saw a genuine box. The hinge, as well as the finishing, is clumsy in the extreme.

The article on this curious manufacture in our former edition was written by the late John M'Diarmid, Esq., editor of the *Dumfries Courier*; but the business has materially changed during the last 20 years. The statements in the present article have been derived from Mauchline.

SOAP (Ger. seife; Fr. savon; Ital. sapone; Spau. jabon; Russ. mtillo; Lat. sapo). The soap met with in commerce is generally divided into two sorts, *hard* and *soft*: the former is made of soda and tallow or oil, and the latter of potash and similar oily matters. Soap made of tallow and soda has a whitish colour, and is, therefore, sometimes denominated *white* soap: but it is usual for soap-makers, in order to lower the price of the article, to mix a considerable portion of resin with the tallow; this mixture forms the common *yellow* soap of this country. Soap made of tallow &c. and potash does not assume a solid form; its consistence is never greater than that of hog's lard. The properties of soft soap as a detergent do not differ materially from those of hard soap, but it is not nearly so convenient to use. The alkali employed by the ancient Gauls and Germans in the formation of soap was potash; hence we see why it was described by the Romans as an unguent. The oil employed for making soft soap in this country is whale oil. A little tallow is also added, which, by a peculiar management, is dispersed through the soap in fine white spots. The soap made in countries which produce olive oil, as the south of France, Italy, and Spain, is preferable to the soap of this country, which is usually manufactured from grease, tallow &c. (Thomson's *Chemistry*).

For a full account of the manufacture, see *Ure's Dictionary*, by Hunt.

The use of soap as a detergent is well known: it may, in fact, be considered as a necessary of life. Its consumption in most civilised countries is immense. Pliny informs us that soap was first invented by the Gauls; that it was composed of tallow and ashes; and that the German soap was reckoned the best. (Lib. xviii. c. 51.)

Down to 1833, a duty was charged on hard soap which is by far the most extensively used, of 3s. per lb., or 28s. per cwt., while the price of soap-duty paid rarely exceeded 6d. per lb., or 66s. per cwt., so that the duty was fully 100 per cent. But besides this high duty, the substances of which soap is made, viz. tallow, barilla, and turpentine, or resin, were respectively charged with duties of 3s. 4d., 2s., and 4s. 4d. per cwt.; and taking these indirect taxes into account, it may be truly stated that soap was taxed from 120 to 130 per cent. ad valorem. The imposition of so exorbitant a duty on an article indispensable to the prosecution of many branches of manufacture, and to the comfort and cleanliness of all orders of persons, was in the last degree inexpedient. During the five years ending with 1832, the consumption of duty-paid soap was nearly stationary; though there can be little doubt, from the increase of manufactures and population during that period, that it would have been very considerably extended, but for the increase of smuggling. This practice was facilitated by the total exemption which Ireland enjoyed from this duty; for it not unfrequently happened that the soap made in this country, and sent to Ireland under a drawback, was again clandestinely introduced into Great Britain. It is, perhaps, needless to say that nothing but the effectual reduction of the duty could put a stop to the smuggling and fraud that had been so generally practised. So long

An Account of the Quantity of Soap made in different Towns of Great Britain, distinguishing between Silticated, Hard, and Soft Soap, during the Year ending January 5, 1852.

Towns	Silticated Soap	Other Hard Soap	Soft Soap	Towns	Silticated Soap	Other Hard Soap	Soft Soap
	lb.	lb.	lb.		lb.	lb.	lb.
<b>ENGLAND.</b>							
Bath	..	409,050	..	Yarmouth	..	65,890	..
Hempstead	..	151,687	..	Oxford	..	5,350	..
Birmingham	..	365,110	..	Plymouth	..	3,851,820	3,080
Smethwick	..	2,375,720	54,690	Liskeard	..	..	1,500
Buckburn	..	222,250	..	Wallingford	..	..	..
Burnley	..	311,780	..	Greenwich	..	8,712,150	..
Hawthorn	..	614,640	..	Sheffield	7	423,546	..
St. Helen's	..	..	111,010	Bury	..	168,300	..
Bristol	..	12,898,630	407,200	Ipwich	7,710	672,100	..
Canterbury	..	534,040	..	Brenford	..	4,440,450	..
Chester	6,480	631,620	..	Rocham	..	24,420	..
Derby	..	297,520	..	Staines	..	11,420	..
Dorchester	..	314,690	..	Wandsworth	..	5,484	..
Gateshead	..	7,131,500	..	Brighton	..	311,490	..
Braintree	6,000	6,010	..	Lewes	..	360,890	..
Maldon	5,800	86,950	..	Taunton	..	20,420	..
Clare	55,880	212,650	..	Bridgewater	..	12,100	..
Gloucester	..	1,343,730	..	Cardiff	4,680	97,270	..
Stanford	..	464,510	..	Liamdlo	..	4,620	..
Bristol	..	..	1,861,570	Bromsgrove	..	1,749,180	..
Huddersfield	..	..	726,910	York	..	433,040	..
Arundel	..	278,850	..				
Gosport	..	44,590	..		480,297	125,485,099	11,335,333
Portsmouth	..	406,710	..		899,736	44,034,102	539,369
Hull	..	2,322,042	155,560	<b>Total, England</b>	<b>1,320,035</b>	<b>169,519,201</b>	<b>11,874,538</b>
Bridlington	..	34,460	..				
Southampton	..	4,180	..	<b>SCOTLAND.</b>			
Preston	..	225,970	77,910	Aberdeen	..	..	447,899
Leeds	..	355,890	..	Ayr	..	..	21,398
Wakefield	..	3,795,810	..	Greenock	..	111,045	310,003
Leicester	4,550	34,700	..	Paisley	..	698,270	661,890
Oakham	..	2,090	..	Leith	..	2,297,408	135,890
Hudley	..	802,190	..	Glasgow	7,150	10,649,219	5,560,908
Wednesbury	..	633,090	..	Preston Pans	..	874,210	17,670
Lincoln	..	365,080	..	Lindithgow	..	336,630	..
Louth	..	405,790	..	Dunfermline	..	245,490	..
Spilsby	..	26,070	..				
Liverpool	350,250	39,384,595	7,375,270	<b>Total, Scotland</b>	<b>7,150</b>	<b>15,206,061</b>	<b>7,150,119</b>
Hirkenhead	..	391,874	..				
Hell	..	15,600	165,015	<b>Totals Collected</b>			
Manchester	..	1,143,550	..	England	1,320,035	169,519,201	11,874,532
Salford	..	779,010	..	Scotland	7,150	15,206,061	7,150,119
Newcastle	..	3,561,040	..	<b>Total</b>	<b>1,327,185</b>	<b>184,725,262</b>	<b>19,024,651</b>
South Shields	..	1,076,880	..				
Towcester	..	25,350	..				
Runcorn	..	11,287,360	..				
Warrington	..	5,147,090	..				
Norwich	..	1,241,350	..				
Lowestoft	2,970	126,260	..				

of the manufacture, see Urea.

a detergent is well known, considered as a necessary of life, in most civilised countries. It informs us that soap was first used; that it was composed of tallow and that the German soap was (Lib. xviii. c. 61.)

Duty was charged on hard soap, most extensively used, of 3d. per cwt., while the price of soft soap exceeded 6d. per lb., or 6s. per ton, was fully 100 per cent. But duty, the substances of which tallow, barilla, and turpentine, were actively charged with duties of 4d. per cwt.; and taking these into account, it may be truly stated that from 120 to 130 per cent. addition of so exorbitant a duty is payable to the prosecution of the manufacture, and to the comfort of all orders of persons, was in the end. During the five years of the consumption of duty-paid soap, though there can be no increase of manufactures and that period, that it would have been extended, but for the increase. This practice was facilitated in which Ireland enjoyed from not unfrequently happened that in this country, and sent to Ireland was again clandestinely introduced. It is, perhaps, needless to say that the effectual reduction of a stop to the smuggling and so generally practised. So long

Great Britain, distinguishing Monday January 5, 1852.

Sifted Soap		Other Hard Soap		Soft Soap	
lb.	..	lb.	..	lb.	..
..	65,890	..	..	..	..
..	35,550	..	..	..	..
..	3,859,820	..	1,960	..	1,660
..	12,578	..	..	..	..
..	8,712,150	..	..	..	..
..	425,548	..	..	..	..
..	169,300	..	..	..	..
7,710	578,100	..	..	..	..
..	4,440,450	..	..	..	..
..	24,420	..	..	..	..
..	11,420	..	..	..	..
..	3,484	..	..	..	..
..	511,490	..	..	..	..
..	360,890	..	..	..	..
..	20,020	..	..	..	..
..	14,190	..	..	..	..
..	97,470	..	..	..	..
4,650	1,749,183	..	..	..	..
..	855,010	..	..	..	..
420,297	125,485,699	11,835,555	..	..	..
899,738	44,034,102	339,669	..	..	..
1,320,035	169,519,801	11,874,521	..	..	..
..	..	447,899	..	..	..
..	11,045	41,118	..	..	..
..	698,270	300,043	..	..	..
..	2,297,490	661,580	..	..	..
7,150	10,624,210	1,560,268	..	..	..
..	874,910	..	..	..	..
..	338,650	15,670	..	..	..
..	243,490	..	..	..	..
7,150	15,206,064	7,150,119	..	..	..
Totals Collected					
1,320,035	169,519,801	11,874,521	..	..	..
7,150	15,206,064	7,150,119	..	..	..
1,327,185	184,725,865	19,024,641	..	..	..

as the profit to be made by breaking the law was so high as 120 or 130 per cent., so long was it sure to be broken, despite the multiplication of penalties and the utmost activity and vigilance of the officers. But the duty having been reduced 50 per cent. in 1833, the temptation to smuggle was materially diminished. And the increased consumption which followed the reduction of duties hindered the revenue from declining more than 1/4th or 25 per cent. Hence the advantages resulting from the diminished temptation to smuggling and fraud, and the influence of the reduced price of the article, in facilitating manufacturing industry, and in promoting habits of cleanliness, were obtained without any very considerable sacrifice.

In a former edition of this work we took leave to observe that 'the entire repeal of the soap duty would be a popular measure; but, seeing that a large amount of revenue must be raised, and that those taxes only are productive which affect all classes of the community, we should not be disposed to recommend such a measure. It is not the tax itself, but the oppressive extent to which it was carried, that made it objectionable. Instead of proposing its repeal, we think it should be extended to Ireland. The exemption of one part of the empire from a duty of this sort imposed on another part, is contrary to all principle, and is fraught with pernicious results. It will be impossible to get rid of smuggling so long as this unjust distinction is suffered to exist. Were the duty extended to Ireland, the necessity for granting drawbacks on the soap exported to it, and of laying countervailing duties on that imported from it, would, of course, fall to the ground. And we feel pretty confident, that though a still further deduction were made from the rate of duty its productiveness would not, under such circumstances, be impaired, even in England.'

Government, however, not feeling disposed to support an unpopular, and, in some respects, an objectionable tax, consented in 1853 to its repeal.

The Table on preceding page is interesting, inasmuch as it shows the extent of the manufacture during the last year but one that it was subject to a duty, and as it will be an authentic standard with which to compare its future progress.

The total net revenue derived from soap amounted in 1852 to 1,126,046l. In 1851, 13,487,270 lb. soap were exported, the drawback on which amounted to 88,468l.

Drawbacks and allowances were also made during the same year of 104,420l. to the woollen, silk, flax, and cotton manufacturers on account of the soap used by them. And the trouble to the manufacturers arising from this system, with the opportunities which it afforded for the commission of fraud, constituted the principal objections to the duty.

The declared value of 219,372 cwt. of soap exported in 1867 amounted to 289,206l.

SODA. [ALKALI.]

SOUTH SEA DUTIES. The Act of the 9 Anne, c. 21 establishing the South Sea Company, conveyed to them the exclusive privilege of trading to the Pacific Ocean, and along the east coast of America, from the Orinoco to Cape Horn.

This privilege was taken away by 47 Geo. III. c. 23; and to raise a guarantee fund for the indemnification of the Company, a duty of 2 per cent. ad valorem was imposed by 55 Geo. III. c. 37 on all goods, except those from Brazil and Dutch Surinam (the provinces of Rio de la Plata were afterwards added), and except blubber, oil &c. of whales, or fish caught by crews of British or Irish ships, imported from within the aforesaid limits. A duty of 1s. 6d. per ton was also

imposed on all vessels (except in ballast or importing) the produce of the fishery of British subjects) entering inwards or clearing outwards from or to places within the said limits. The duties ceased when the guarantee fund was completed.

SOY. A species of sauce prepared in China and Japan from a small bean, the produce of the *Dolichos soja*. It is eaten with fish and other articles. It should be chosen of a good flavour, not too salt nor too sweet, of a good thick consistency, a brown colour, and clear: when shaken in a glass it should leave a coat on the surface of a bright yellowish-brown colour; if it do not, it is of an inferior kind, and should be rejected. Japan soy is deemed superior to the Chinese. It is worth from 3s. to 4s. per gallon. It is believed to be extensively counterfeited. In 1867 we imported 11,493 gallons of soy, valued at 1,795l., and exported 2,166 gallons. (Millburn's *Oriental Com.; Chinese Repository*; &c.)

SPAIN. [ALICANTE; BARCELONA; CADIZ; MALAGA; &c.] An order of the Spanish Provisional Government is published in the *London Gazette* (March 23, 1869), extending to the ships of every nation the power, hitherto enjoyed by Spanish vessels only, of going to foreign ports with cargoes from foreign America, and with cargoes of dried fish from the same ports, with a consular register under the same rates and formalities as are established by Articles 8 and 260 of the customs ordinances, and by a subsequent decree (see *London Gazette* of April 8, 1869). British vessels coming from British India are entitled to national treatment in respect of the payment of port and navigation dues on the Spanish colonies.

SPELTER. A name frequently given to ZINC. SPERMACEI (Ger. wallrath; Fr. blanc de balaine, sperme de balaine; Ital. spermacci; Span. esperma de ballena; Russ. spermazet). A product obtained from the brain of the *Physeter macrocephalus*, a species of whale inhabiting the Southern Ocean. The brain being dug out from the cavity of the head, the oil is separated from it by dripping. The residue is crude spermacci, of which an ordinary-sized whale will yield 12 barrels. After being brought to England, it is purified. It then concretes into a white, crystallised, brittle, semitransparent, unctuous substance, nearly odorous and insipid. On being cut into small pieces, it assumes a flaky aspect. Its specific gravity is 9.433. It is used in the manufacture of candles, in medicine &c. We imported in 1867, besides 320,081 lb. of spermacci, 3,226 tons of spermacci, or head matter, valued at 373,367l., of which 2,832 tons were from the United States.

SPICES (Ger. spezereien; Dutch, speerijen; Fr. épicerie, épices; Ital. spezi, spezierio; Span. especias, especerías; Port. especiaria; Russ. priánte korenja). Under this denomination are included all those vegetable productions which are fragrant to the smell and pungent to the palate; such as cloves, ginger, nutmegs, allspice &c. These will be found under their proper heads.

SPIRIT OF WINE. [ALCOHOL.]

SPIRITS. All inflammable liquids obtained by distillation, as brandy, rum, geneva, whisky, gin &c., are comprised under this designation. The term *British spirits* is applied indiscriminately to the various sorts of spirits manufactured in Great Britain and Ireland. Of these, gin and whisky are by far the most important.

The manufacture of spirits is placed under the *surveillance* of the excise, and a very large revenue is obtained from it. The Act 23 & 24 Vict. c. 114 lays down most of the regulations to be followed

by the distillers in the manufacture, and by the officers in charging the duties. This Act is of great length, having no fewer than 223 clauses: it is, besides, exceedingly complicated, and the penalties in it amount to many thousand pounds. It would, therefore, be to no purpose to attempt giving any abstract of it in this place. Every one carrying on the business of distillation must have the Act in his possession, and be practically acquainted with its operation.

Several subsequent Acts, such as the 24 & 25 Vict. c. 91 s. 3; the 28 & 29 Vict. c. 96 s. 27; and the 31 & 32 Vict. c. 124 s. 5, refer more especially to methylated spirits.

1. *Spirit Duties. Consumption of British Spirits in Great Britain and Ireland.*—There are, perhaps, no better subjects for taxation than spirituous and fermented liquors. They are essentially luxuries; and while moderate duties on them are, in consequence of their being very generally used, exceedingly productive, the increase of price which they occasion has a tendency to lessen their consumption by the poor, to whom, when taken in excess, they are exceedingly pernicious. Few Governments, however, have been satisfied with imposing moderate duties on spirits; but, partly with the view of increasing the revenue, and partly with the view of placing them beyond the reach of the lower classes, have almost invariably loaded them with such oppressively high duties as have entirely defeated both objects. The imposition of such duties does not take away the appetite for spirits; and as no vigilance of the officers or severity of the laws has been found sufficient to secure a monopoly of the market to the legal distillers, the real effect of the high duties has been to throw the supply of a large proportion of the demand into the hands of the illicit distiller, and to superadd the atrocities of the smuggler to the illness and dissipation of the drunkard.

During the latter part of the reign of George I. and the earlier part of that of George II. gin-drinking was exceedingly prevalent; and the cheapness of ardent spirits, and the multiplication of public houses, were denounced from the pulpit, and in the presentments of grand juries, as pregnant with the most destructive consequences to the health and morals of the community. At length ministers determined to make a vigorous effort to put a stop to the further use of spirituous liquors except as a cordial or medicine. For this purpose an Act was passed in 1736, the history and effects of which deserve to be studied by all who are clamorous for an increase of the duties on spirits. Its preamble is to this effect:—'Whereas the drinking of spirituous liquors, or strong water, is become very common, especially among people of lower and inferior rank, the constant and excessive use of which tends greatly to the destruction of their health, rendering them unfit for useful labour and business, debauching their morals, and inciting them to perpetrate all vices; and the ill consequences of the excessive use of such liquors are not confined to the present generation, but extend to future ages, and tend to the destruction and ruin of this kingdom.' The enactments were such as might be expected to follow a preamble of this sort. They were not intended to repress the vice of gin-drinking, but to root it out altogether. To accomplish this, a duty of twenty shillings per gallon was laid on spirits, exclusive of a heavy license duty on retailers. Extraordinary encouragements were at the same time held out to informers, and a fine of 100*l.* was ordered to be rigorously exacted from those who, were it even through inadvertency, should vend the smallest quantity of spirits which had not paid the full duty. Here was an Act which

might, one should think, have satisfied the bitterest enemy of gin. But instead of the anticipated effects, it produced those directly opposite. The respectable dealers withdrew from a trade proscribed by the Legislature; so that the spirit business fell almost entirely into the hands of the lowest and most profligate characters, who, as they had nothing to lose, were not deterred by penalties from breaking through all its provisions. The populace having in this, as in all similar cases, espoused the cause of the smugglers and unlicensed dealers, the officers of the revenue were openly assaulted in the streets of London and other great towns; informers were hunted down like wild beasts and drunkenness, disorders, and crimes increased with a frightful rapidity.

Within two years of the passing of the Act, says Tindal, 'it had become odious and contemptible, and policy as well as humanity forced the Commissioners of Excise to mitigate its penalties.' (*Continuation of Rapin*, vol. viii. p. 358, ed. 1759.) The same historian mentions (vol. viii. p. 390), that during the two years in question no fewer than 12,000 persons were convicted of offences connected with the sale of spirits. But no exertion on the part of the revenue officers and magistrates could stem the torrent of smuggling. According to a statement made by the Earl of Cholmondeley in the House of Lords (*Timberland's Debates in the House of Lords*, vol. viii. p. 388), it appears that at the very time when the sale of spirits was declared to be illegal, and every possible exertion made to suppress it, upwards of SEVEN MILLIONS of gallons were annually consumed in London and other parts immediately adjacent. Under such circumstances Government had but one course to follow—to give up the unequal struggle. In 1742 the high prohibitory duties were accordingly repealed, and such moderate duties imposed as were calculated to increase the revenue by increasing the consumption of legally distilled spirits. The bill for this purpose was vehemently opposed in the House of Lords by most of the bishops, and many other peers, who exhausted all their rhetoric in depicting the mischievous consequences that would result from a toleration of the practice of gin-drinking. To these declamations it was unanswerably replied, that whatever the evils of the practice might be, it was impossible to repress them by prohibitory enactments; and that the attempts to do so had been productive of far more mischief than had ever resulted, or could be expected to result, from the greatest abuse of spirits. The consequences of the change were highly beneficial. An instant stop was put to smuggling; and if the vice of drunkenness was not materially diminished, it has never been stated that it was increased.

But it is unnecessary to go back to the reign of George II. for proofs of the impotency of high duties to take away the taste for such an article, or to lessen its consumption. The occurrences that took place in later reigns, though they would seem to be already forgotten, are equally decisive as to this question.

*Duties in Ireland.*—Perhaps no country has suffered more from the excessive height to which duties on spirits have been carried than Ireland. If heavy taxes, enforced by severe fiscal regulations, could make a people sober and industrious, the Irish would be the most so of any on the face of the earth. In order to make the possessors of property join heartily in suppressing illicit distillation, the novel expedient was here resorted to of imposing a heavy fine on every parish, town land, manor land, or lordship in which an unlicensed still was found; while the unfortunate wretches found working it were subjected to

transportation for seven years. But instead of putting down illicit distillation, these unheard-of severities rendered it universal, and filled the country with bloodshed, and even rebellion. It is stated by the Rev. Mr. Chichester, in his valuable pamphlet on the *Irish Distillery Laws*, published in 1818, that 'the Irish system seemed to have been formed in order to perpetuate smuggling and anarchy. It has culled 'the evils of both savage and civilised life, and rejected all the advantages which they contain. The calamities of civilised warfare are, in general, inferior to those produced by the Irish distillery laws; and I doubt whether any nation of modern Europe, which is not in a state of actual revolution, can furnish instances of legal cruelty commensurate to those which I have represented.' (Pp. 92—107.)

These statements are borne out to the fullest extent by the official details in the *Reports of the Revenue Commissioners*. In 1811, say the Commissioners (*Fifth Report*, p. 19), when the duty on spirits was 2s. 6d. per gallon, duty was paid in Ireland on 6,500,361 gallons (Irish measure); whereas, in 1822, when the duty was 5s. 6d., only 2,910,483 gallons were brought to the charge. The Commissioners estimate that the annual consumption of spirits in Ireland was at this very period not less than TEN MILLIONS of gallons; and, as scarcely three millions paid duty, it followed that seven millions were illegally supplied; and 'taking one million of gallons as the quantity fraudulently furnished for consumption by the licensed distillers, the produce of the unlicensed stills may be estimated at six millions of gallons.' (*Ib.* p. 8.) Now, it is material to keep in mind that this vast amount of smuggling was carried on in the teeth of the above barbarous statutes, and in despite of the utmost exertions of the police and military to prevent it; the only result being the exasperation of the populace, and the perpetration of revolting atrocities both by them and the military. 'In Ireland,' say the Commissioners, 'it will appear, from the evidence annexed to this report, that parts of the country have been absolutely disorganised, and placed in opposition not only to the civil authority, but to the military force of the Government. The profits to be obtained from the evasion of the law have been such as to encourage numerous individuals to persevere in these desperate pursuits, notwithstanding the risk of property and life with which they have been attended.'

To put an end to such evils, the Commissioners recommended that the duty on spirits should be reduced from 5s. 6d. to 2s. the wine gallon (2s. 4d. the imperial gallon), and Government wisely consented to act upon this recommendation. In 1823 the duties were accordingly reduced; and the official account given on p. 1318 will show what has been the result of this measure.

It may appear, on a superficial view of this table, as if the consumption of spirits in Ireland had been nearly trebled in consequence of the reduction of the duty in 1823; but in point of fact it was not in any degree increased. The reduction of the duties substituted legal for illicit distillation, and freed the country from the perjuries and other atrocities that grew out of the previous system; but it would be wholly erroneous to say that it increased drunkenness. We have already seen that the Commissioners, who had the best means of obtaining accurate information, estimated the consumption of spirits in Ireland, in 1823, at TEN MILLIONS of gallons; and when greatest, in 1838, 13 years after, the consumption was only 12,296,842 gallons. No doubt, therefore, the measure deserves to be considered as having

been in every point of view most successful. It will be seen that the increase of duty from 2s. 10d. to 3s. 4d. in 1830 perceptibly diminished the quantity of spirits brought to the charge; and as it was found to give a considerable stimulus to illicit distillation, which had previously been nearly extinct, the duty was reduced to 2s. 4d. in 1835. The extraordinary decrease in the consumption of spirits after 1839, though in some degree, perhaps, ascribable to the addition of 4d. per gallon made to the duty in 1840, was no doubt principally owing to the exertions of Father Mathew, and the spread of temperance societies; and notwithstanding the loss of revenue it occasioned, the change was certainly of great public advantage; provided it had been maintained, it is not easy to suppose that anything could have occurred better fitted to improve the physical and moral condition of the people. The addition of 1s. per gallon made to the duty in 1842 was repealed in 1844; for while it gave a stimulus to clandestine distillation, it was pretty obvious it would not have added anything to the revenue, or given any additional impetus to the temperance movement. The apparent effect of the additions to the duty in 1858 and 1860 on the consumption in Ireland was a fall from 6,783,207 gallons in the year ended March 31, 1858, to 5,418,409 gallons in the following official year, and a further fall from 5,550,241 gallons in the year ended March 31, 1860, to 4,191,560 gallons in the succeeding year.

*Duties in Scotland.*—The experience of Scotland is hardly decisive as to this question. The exorbitance of the duties produced nearly the same effects there as in Ireland. Mr. John Hay Forbes, sheriff-depute of Perthshire, and afterwards a lord of session, stated in evidence before the Commissioners, that, according to the best information he could obtain, the quantity of illegally distilled spirits annually produced in the Highlands could not amount to less than two millions of gallons. In corroboration of this, he stated that, in 1821, only 298,138 gallons were brought to the charge in the Highlands; and of these, 254,000 gallons were permitted to the Lowlands, leaving only 44,000 gallons for the consumption of the whole country—a supply which, we are well assured, would hardly be sufficient for the demand of two moderately populous parishes. In a letter of Captain Munro of Teaninich to the Commissioners, it is stated that, 'at Tain, where there are upwards of 23 licensed public houses, not one gallon had been permitted from the legal distilleries for upwards of twelve months,' though a small quantity of smuggled whisky had been purchased at the excise sales, to give a colour of legality to the trade. The same gentleman thus expresses himself in another part of his letter:—'The moral effect of this baneful trade of smuggling on the lower classes is most conspicuous, and increasing in an alarming degree, as evidenced by the multiplicity of crimes, and by a degree of insubordination formerly little known in this part of the country. In several districts, such as Strathconan, Strathcarron &c., the excise officers are now often deforced, and dare not attempt to do their duty; and smuggled whisky is often carried to market by smugglers escorted by armed men, in defiance of the laws. In short, the Irish system is making progress in the Highlands of Scotland.'

To arrest the progress of demoralisation, Government, pursuant to the judicious advice of the Commissioners, reduced the duties on Scotch to the same level as those on Irish whisky; and the consequences were equally salutary. The prefixed statement sets the influence of the reduction of the duty in 1823 in the most striking point

of view, the consumption of duty-paid spirits having more than doubled in the course of 2 years, at the same time that illicit distillation was all but suppressed. But we much doubt whether the existing duties (1869) be not a great deal too high. They are now, it is true, more easily collected than formerly, and spirit drinking is, no doubt, much too prevalent in Scotland; but the latter will not be lessened by any increase of duty that gives a stimulus to smuggling.

*Duties in England.*—Previously to the reduction of the duty on Irish and Scotch spirits, the duty on English spirits had been as high as 11s. 8d. per gallon. This high duty, and the restrictions under which the trade was placed, were productive of the worst effects. They went far to enable the distillers to fix the price of spirits, and consequently (we quote the words of the Commissioners of Excise Inquiry) to raise it much beyond that which was sufficient to repay, with a profit,

1.—An Account of the Quantities of Home-made Spirits charged with Consumption Duties, and specifying the Rates of Duty in each Division of the Empire since 1800, with the Total Amount of the Duty.

Years	England		Scotland				Ireland		United Kingdom	
	Imperial Gallons charged with Consumption Duty	Rate of Duty	Imperial Gallons charged with Consumption Duty	Rate of Duty		Imperial Gallons charged with Consumption Duty	Rate of Duty	Total Gallons	Total Amount of Duty	
				Lowlands, per gallon of still content	Highlands					
				£ s. d.	£ s. d.					
1800	4,352,888	4-10 <sup>1</sup> / <sub>10</sub> 5-4 <sup>1</sup> / <sub>10</sub>	1,277,996	6 16 4	7 16 0 <sup>1</sup> / <sub>2</sub>	1,330,500	2-4 <sup>1</sup> / <sub>2</sub>	6,960,981	1,509,001	
1801	2,555,920	5-4 <sup>1</sup> / <sub>10</sub>	225,251			355,106		3,206,957	765,292	
1802	3,981,072		1,158,558			4,715,098	2-10 <sup>1</sup> / <sub>2</sub>	9,854,728	1,936,217	
1803	5,370,377	5-4 <sup>1</sup> / <sub>10</sub> 8-0 <sup>1</sup> / <sub>10</sub>	2,028,409			4,313,095	2-10 <sup>1</sup> / <sub>2</sub> 3-6 <sup>1</sup> / <sub>2</sub>	11,735,831	2,588,260	
1804	3,690,745	8-0 <sup>1</sup> / <sub>10</sub>	1,889,757	5-0 <sup>1</sup> / <sub>10</sub> 3 <sup>7</sup> / <sub>10</sub>	5-0 <sup>1</sup> / <sub>10</sub> 2 <sup>1</sup> / <sub>10</sub>	3,515,598	3-6 <sup>1</sup> / <sub>2</sub> 4-1	9,211,101	1,678,413	
1805	4,952,615		1,625,987			3,686,433	4-1	10,211,865	2,148,800	
1806	4,094,985		1,812,437			3,898,107		9,767,329	2,877,002	
1807	4,747,365		2,655,478	5-8 <sup>1</sup> / <sub>10</sub> 5 <sup>7</sup> / <sub>10</sub>	5-0 <sup>1</sup> / <sub>10</sub> 4-11 <sup>1</sup> / <sub>2</sub>	5,597,204		12,999,017	3,565,052	
1808	5,590,884		2,683,312			3,575,150		11,649,656	3,885,211	
1809	4,035,825		1,315,155			1,360,786		6,711,316	1,874,142	
1810	4,787,555		1,748,140			4,728,522	4-1 2-6 <sup>1</sup> / <sub>2</sub>	11,264,417	3,434,434	
1811	4,776,330	8-0 <sup>1</sup> / <sub>10</sub> 10-2 <sup>7</sup> / <sub>10</sub>	1,931,092	5-8 <sup>1</sup> / <sub>10</sub> 8-0 <sup>1</sup> / <sub>10</sub>	4-11 <sup>1</sup> / <sub>2</sub> 6-7 <sup>1</sup> / <sub>2</sub>	6,378,479	3-6 <sup>1</sup> / <sub>2</sub>	13,105,901	4,860,959	
1812	5,242,479	10-2 <sup>7</sup> / <sub>10</sub>	1,687,905	8-0 <sup>1</sup> / <sub>10</sub> 1 <sup>1</sup> / <sub>10</sub>	6-7 <sup>1</sup> / <sub>2</sub>	4,009,501	2-6 <sup>1</sup> / <sub>2</sub> 5-1 <sup>1</sup> / <sub>2</sub>	10,939,676	4,176,077	
1813	4,892,477		1,231,291			3,158,695	3-6 <sup>1</sup> / <sub>2</sub> 5-7 <sup>1</sup> / <sub>2</sub>	8,683,461	3,092,461	
1814	4,956,965		1,174,187			5,353,713	5-7 <sup>1</sup> / <sub>2</sub>	11,824,869	4,927,011	
1815	5,468,987		1,591,144	Lowlands and Highlands	9-11 <sup>1</sup> / <sub>2</sub>	4,323,844	5-7 <sup>1</sup> / <sub>2</sub> 6-1 <sup>1</sup> / <sub>2</sub>	11,583,979	1,857,000	
1816	4,745,484		918,859			3,537,200	6-1 <sup>1</sup> / <sub>2</sub> 5-7 <sup>1</sup> / <sub>2</sub>	9,221,513	3,011,000	
1817	4,153,983		1,066,593		6-2	3,586,512	5-7 <sup>1</sup> / <sub>2</sub>	9,626,915	3,515,000	
1818	5,299,669		2,066,888			4,284,447	11-0 <sup>1</sup> / <sub>10</sub> 9-9 <sup>1</sup> / <sub>10</sub>	11,010,997	4,489,000	
1819	4,146,505	10-2 <sup>7</sup> / <sub>10</sub> 11-8 <sup>1</sup> / <sub>10</sub>	2,125,150			3,976,516		9,918,171	3,315,000	
1820	4,284,798	11-8 <sup>1</sup> / <sub>10</sub>	1,865,987			3,299,650		9,418,435	4,012,000	
1821	4,125,616		2,385,195			5,311,102		9,822,573	4,082,573	
1822	4,634,055		2,225,121			2,910,183		9,829,662	4,252,000	
1823	5,803,212		2,303,286		6-2 2-4 <sup>1</sup> / <sub>2</sub>	3,990,376	5-7 <sup>1</sup> / <sub>2</sub> 2-4 <sup>1</sup> / <sub>2</sub>	9,696,951	3,405,400	
1824	4,392,611		4,550,301		2-4 <sup>1</sup> / <sub>2</sub> 5 <sup>1</sup> / <sub>2</sub>	6,690,315	2-4 <sup>1</sup> / <sub>2</sub> 5 <sup>1</sup> / <sub>2</sub>	15,455,227	5,832,200	
1825	5,681,019		5,981,549			9,267,744		18,978,312	5,981,500	
1826	7,407,904	7-0	3,989,788		2-10	6,838,967	7-10	18,230,859	4,125,000	
1827	6,671,562		4,752,199			8,260,604		19,681,485	4,175,000	
1828	7,759,687		5,716,180			9,077,903		23,415,770	4,835,000	
1829	7,700,766		5,777,280			9,242,224		22,030,750	4,385,700	
1830	7,734,101	7-0 7-6	6,007,631		2-10 3-0 3-4	9,001,539	2-10 3-0 3-4	22,741,271	5,299,500	
1831	7,431,017	7-6	5,700,589			8,710,672	3-4	21,845,408	5,189,600	
1832	7,281,980		5,407,097			8,657,756		21,546,753	5,074,800	
1833	7,717,303		5,988,556			8,168,596		21,871,465	5,235,000	
1834	7,614,501		6,045,043			9,708,416	3-4 2-4	25,397,790	5,313,000	
1835	7,315,655		6,019,332			11,581,235	3-4	27,110,808	5,075,000	
1836	7,873,709		6,620,926			12,848,772		36,145,501	5,885,800	
1837	7,133,869		6,421,035			12,493,559		32,493,559	5,996,000	
1838	7,939,190		9,209,711			12,299,512		36,186,945	5,815,500	
1839	8,146,579		6,188,582			10,815,709		35,190,813	5,952,200	
1840	8,278,118	7-6 7-10	6,380,138		3-4 3-8	7,401,051	2-4 2-8	21,859,557	5,999,000	
1841	9,166,985	7-10	5,980,905		3-8	6,826,443	2-8	25,401,333	6,105,000	
1842	7,976,051		5,595,186			5,299,650	2-8 3-8	18,811,890	5,016,800	
1843	7,724,051		5,595,798			5,546,483	3-8 3-8	18,961,332	4,940,000	
1844	8,233,410		5,329,938			5,150,137	3-8	20,606,225	5,171,800	
1845	9,075,381		6,444,011			7,045,106		27,567,684	6,040,000	
1846	9,179,530		6,975,091			7,932,076		21,106,697	5,831,000	
1847	8,409,165		6,195,249			6,035,383		20,639,797	5,231,000	
1848	8,581,327		7,448,180			7,072,935		24,492,467	5,947,000	
1849	9,053,676		6,933,903			6,973,533		22,862,012	5,474,000	
1850	9,531,312		7,128,997			7,408,096		23,264,285	5,918,000	
1851	9,295,578		6,837,110			7,560,518		23,076,396	6,012,000	
1852	9,829,608		7,172,015			8,908,256		25,400,879	6,255,000	
1853	10,530,307		6,534,648		3-8 3-8	8,136,562	2-6 3-4	25,981,517	6,592,000	
1854	10,680,611		6,355,379		4-8 6-0 6-0	8,417,711	3-4 4-0	25,838,884	7,000,000	
1855	10,381,100	7-10 8-0	5,544,519		6-2 8-6 6-0	6,228,836	4-6 4-2	21,857,275	7,015,000	
1856	9,345,549	8-0	7,175,953		8-0	6,781,008	6-2	23,900,256	8,069,000	
1857	10,199,565		7,036,822			6,290,045	6-2	24,156,433	8,045,000	
1858	10,028,591		6,781,879			6,402,142	6-0 8-0	23,214,619	9,000,000	
1859	12,576,318		5,404,173			5,746,534	8-0	25,729,026	9,010,000	
1860	11,894,385	8-0 10-0	4,725,745	8-0	6-4 10-0	4,714,523	8-0 10-0	21,538,185	9,400,000	
1861	10,816,605	10-0	4,410,998			4,986,598		19,511,001	9,750,000	
1862	10,158,892		4,400,271			5,977,021		18,356,187	9,418,000	
1863	10,561,205		4,695,950			5,865,979		19,118,099	9,592,000	
1864	11,196,452		5,014,121			4,090,219		20,292,692	10,104,000	
1865	11,238,105		5,198,607			4,374,443		20,811,155	10,095,000	
1866	11,717,111		5,461,465			5,035,814		21,110,103	10,100,000	
1867	11,265,713		4,983,009			4,989,654		21,189,576	10,599,000	



fact of so many gallons having been charged in it with the consumption duty, would not enable us to specify what the consumption really amounted to. Thus, in 1858, duty was paid in Scotland on 6,836,037 gallons; but the Commissioners of Inland Revenue, after making the provisionally mentioned allowances, estimated the consumption at only 5,301,000 gallons, this amount being, of course, exclusive of foreign spirits, and of all such British spirits as might have been illegally brought into consumption.

*Equalisation of the Duties on Spirits.*—It would require very cogent reasons to vindicate the policy of imposing different duties on the same article in the different divisions of the United Kingdom. And it was supposed that in the case of the duties on spirits, the greater facilities for illegal distillation in Scotland and Ireland afforded a valid plea for the duties being less in them than in England. Though this may have been the case formerly, the more perfect civilisation of both countries has doubtless tended, in this respect, to assimilate them more and more to England. And there cannot, as we think, be a doubt of the expediency of the recent equalisation of the duties. But it does not, therefore, follow that 8s. or 10s. per gallon is a proper sum at which to fix the general duty. We apprehend that either will be found to be too high, and that while a lower duty would yield as large, or perhaps a larger revenue, it would do this without stimulating drunkenness, by checking smuggling and adulteration.

*Trade in Spirits.*—The old law, 6 Geo. IV. c. 80, as to rectifying, dealing in, and retailing spirits has been repealed, and the Spirits Act (23 & 24 Vict. c. 114) already referred to contains the present regulations for the guidance of those connected with these branches of the business.

For the regulations as to the importation &c. of foreign spirits, and duties thereon, see BRANDY, GENEVA, and RUM.

SPONGE (Ger. schwamm; Fr. éponge; Ital. spugna; Span. esponja). A soft, light, very porous, and compressible substance, readily imbibing water, and as readily giving it out again.

It is found adhering to rocks, particularly in the Mediterranean Sea, about the islands of the Archipelago. It was formerly supposed to be a vegetable production, but is now classed among the zoophytes; and analysed, it yields the same principles as animal substances in general. The inhabitants in several of the Greek islands have been trained from their infancy to dive for sponges. They adhere firmly to the bottom, and are not detached without a good deal of trouble. The extraordinary clearness of the water facilitates the operations of the divers. Smyrna is the great market for sponge. The price varies from 6 to 16 piastres per oke for ordinary and dirty, and from 80 to 100 piastres per oke for fine and picked specimens. Sponge is also fished for in the Red Sea. (Ure's Dictionary; Savary's Letters on Greece, Eng. ed. p. 109; and private communications.)

About 20 miles S.E. from Napoli di Romania (Naplia), in the gulf of that name, is the small town of Cranidi, the inhabitants of which are the principal sponge-fishers of the Archipelago and Levant. The fishery is carried on partly by spear-fishing, and partly by diving; the latter securing the sponge free from injury, which is not the case with the former. The Cranidiots are most expert divers, and anecdotes approaching to the marvellous are told of their feats. After the sponge is fished up, when perfectly free from sand, and dry, it is so very light that large pieces of it are moved with

the slightest breath of air. It is customary, however, to impregnate it with sand. This is done by stringing the sponges together, and laying them on the sand to allow the ripple of the sea to wash them with the finest particles. They are then placed in heaps under piles of stones which press them closely together, so that they become, when dry, hard and flat, and have to be beaten and sifted. But though this be done, and though they are sometimes further washed and sifted, they will, though apparently quite clean, weigh three or four times their original weight. It is, perhaps, needless to add that they are always sold by weight.

Sponge is used in surgery, and for a variety of purposes in the arts. It was formerly charged with a duty of 6d. per lb., which was repealed in 1815. In 1867, our imports and exports of sponge were respectively 980,259 lb. and 149,968 lb., valued at 86,201l. and 15,154l.

SQUILL (Ger. meerzweibel; Fr. scille, oignon marin; Ital. scilla, cipolla marina; Span. cebolla albarann), or, as it is sometimes denominated, the *Sea onion*, is a plant with a large pear-shaped, bulbous root, which is the only part that is used.

It grows spontaneously on sandy shores in Spain and the Levant; whence we are annually supplied with the roots. They should be chosen large, plump, fresh, and full of a clammy juice; some are of a brownish-red colour, and others white; but no difference is observed in the qualities of the two sorts. The root is very nauseous, intensely bitter, and acrid; much handled, it ulcerates the skin. The bulbs are brought to England preserved fresh in sand. The acrimony of the roots, on which their virtue depends, is partially destroyed by drying and long keeping, but if exposed readily recovers moisture. Squill is one of the most powerful and useful remedies in the materia medica. (*British Pharmacopœia*, 1867; Lewis's *Mat. Med.*; Thomson's *Dispensatory*.)

STADE. A small city of Hanover, on the Schwinge, 22 miles W. by N. of Hamburg, lat. 53° 36' 32" N., long. 9° 28' 34" E. Pop. (1864) 8,421. It has very little trade, and would be quite unworthy of notice in a work of this sort, except for the circumstance that a toll or duty, charged by the Government of Hanover (before it fell into the hands of Prussia), on goods conveyed up the Elbe to Hamburg, whether for consumption or transit, used to be charged at the castle of Brunshausen contiguous to this town.

All vessels bound for Hamburg had to heave to (and those of some countries to anchor) in passing the guard-ship opposite to the castle, and send their papers, including manifests, bills of lading, cocketts &c., on shore, that the duty, which was in general about  $\frac{1}{2}$  per cent. ad valorem, might be computed from them. This being done, the ship was allowed to proceed, and the duty was paid at Hamburg.

On former occasions we expressed our surprise that an obstruction of this sort should have been tolerated for so long a period. The duties fell heavily on certain descriptions of goods; and were, at an average, decidedly higher than the duties charged in Hamburg. They were most objectionable, however, from their requiring many troublesome regulations to be complied with; the unintentional deviation from any one of which exposed the cargo to confiscation, and never failed to occasion a great deal of delay, trouble, and expense. As the principal part of the foreign trade of the Elbe was in our hands, we were, of course, principally affected by the Stade toll; and considering the source of the nuisance, it was not a little astonishing it should not have been abated long ago. The

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sum which the Hanoverian Government derived  
from the duties was but trifling compared with the  
injury they inflicted on our trade; and we sug-  
gested that the British Government should buy  
an exemption from so vexatious a duty; as few  
things would do more to extend our trade with  
Hamburg than the completion of an arrangement  
of this sort.

By an agreement effected with Hanover in 1814,  
the duties were reduced and placed on an improved  
footing; and British vessels, with those belong-  
ing to countries having reciprocity treaties with  
Hanover, were no longer obliged to *heave to* in  
passing the guard-ship at Irons-hausen, but might  
proceed direct to Hamburg, and pay the duties in  
the toll-office in that city. Still, however, this  
arrangement was merely an improvement of what  
was in its nature incurably bad. This toll on the  
Elbe was an outrage on all commercial nations;  
and the precedent set by the abolition of the  
Sound dues was followed, and the different coun-  
tries which trade with Hamburg, by a self-imposed  
contribution in proportion to the number of  
their ships engaged in the trade, at length bought  
it up.

But it is not enough that the Stade duties have  
been abolished. All the duties imposed on the  
traffic carried on by the Elbe above Hamburg  
ought, also, to be suppressed. This great high-  
way should be open to the free use of those who  
may be inclined to avail themselves of the facilities  
which it affords for the importation and exportation  
of products into and from the centre of Europe.  
It is quite monstrous that it should be in the  
power of the governments of petty states to shut  
up or encumber one of the principal channels of  
the trade of this quarter of the world. (For full  
details with respect to the Stade duty, see the  
*Report of the Committee of the House of Commons*  
on the subject, Paper No. 429, Sept. 1858. Mr.  
Cousin Ward in his last *Report* holds out a hope of  
speedy abolition of the tolls in the Upper Elbe.)

STARCH (Ger. amidan; Fr. amidon; Ital.  
amidi, amito; Span. amidon, almidon; Russ.  
knechmal). A substance obtained from vegetables.  
It has a fine white colour, and is usually con-  
creted in longish masses; it has scarcely any smell,  
and very little taste. When kept dry, it continues  
for a long time uninjured, though exposed to the  
air. It is insoluble in cold water; but combines  
with boiling water—forming with it a kind of  
jelly. It exists chiefly in the white and brittle  
parts of vegetables, particularly in tuberose roots,  
and the seeds of the graminaceous plants. It may  
be extracted by pounding these parts, and agitating  
them in cold water; when the *parenchyma* or  
fibrous parts will first subside; and these being  
removed, a fine white powder diffused through the  
water will gradually subside, which is the starch.  
Or: the pounded or grated substance, as the roots  
of potatoes, acorns, or horse chestnuts, for instance,  
may be put into a hair sieve, and the starch  
washed through the cold water, leaving the grosser  
matter behind. Farinaceous seeds may be ground  
and treated in a similar manner. Oily seeds re-  
quire to have the oil expressed from them before  
the farina is extracted. Potato starch goes a good  
deal further than wheat starch—a less quantity  
of it sufficing to form a paste of equal thickness with  
water. It has a very perceptible crystalline ap-  
pearance, and is apparently heavier than common  
starch. (Thomson's *Chemistry*; Ure's *Dictionary*.)

Starch was charged, down to 1834, with an  
exise duty of 84d. per lb.; but the injurious in-  
fluence of the duty, the nett produce of which did  
not exceed 85,000*l.*, having been forcibly pointed  
out by the Commissioners of Revenue Inquiry, it

was repealed in the course of the above year. In  
1833, duty was paid on 8,070,028 lb. starch. The  
manufacture has since, however, been greatly ex-  
tended. In 1867 we exported 14,965 cwt. of starch,  
valued at 13,468*l.*

STATIONERY. A term which is not very well  
defined; but which is now commonly understood  
to designate the pens, ink, paper, wax, wafers,  
and other materials necessary to the writing of  
letters, including pen-knives, erasers &c. Formerly  
the term had a wider signification, stationer and  
bookseller being held to be synonymous. (John-  
son, voce 'Stationer.') And hence it is that the  
Stationers' Company formerly comprised, and  
continues to comprise, all the more eminent book-  
sellers and publishers of the metropolis. The  
name has no doubt been derived from the *stationes*  
(stations) that were assigned in the forum at Rome  
to the vendors of books, which were classed among  
the *mercium vilissimarum*. (Ducange, vi. 715, voce  
'Stationaril'.)

Besides the vast quantities of stationery con-  
sumed at home, the value of our exports amounted,  
in 1867, to 943,602*l.*, while our imports, chiefly of  
paper, were valued at 564,486*l.* [PAPER; &c.]

The stationery for the British Government is  
supplied by a peculiar department called the  
'Stationery Office,' which has, also, the charge of  
the public printing.

STEAM VESSELS (REGULATION OF).  
Subjoined are those parts of the Merchant Ship-  
ping Act of 1854 (17 & 18 Vict. c. 104) and the  
Merchant Shipping Act Amendment Act of 1862  
(25 & 26 Vict. c. 63) which refer more especially to  
the regulation of steam navigation, and the lights  
&c. to be carried by sea-going vessels.

*Board of Trade may appoint Inspectors.*—The  
Board of Trade may from time to time, when-  
ever it seems expedient to them so to do, appoint  
any person, as an inspector, to report to them  
upon the following matters (that is to say):—

(1) Upon the nature and causes of any accident  
or damage which any ship has sustained or caused,  
or is alleged to have sustained or caused:

(2) Whether the provisions of this Act, or any  
regulations made under or by virtue of this Act,  
have been complied with:

(3) Whether the hull and machinery of any  
steam ship are sufficient and in good condition.  
(Sec. 14.)

*Powers of Inspectors.*—Every such inspector as  
aforesaid shall have the following powers (that  
is to say):—

(1) He may go on board any ship, and may  
inspect the same or any part thereof, or any of  
the machinery, boats, equipments, or articles on  
board thereof to which the provisions of this Act  
apply, not unnecessarily detaining or delaying her  
from proceeding on any voyage:

(2) He may enter and inspect any premises  
the entry or inspection of which appears to him to  
be requisite for the purpose of the report which he  
is directed to make:

(3) He may, by summons under his hand,  
require the attendance of all such persons as he  
thinks fit to call before him and examine for such  
purpose, and may require answers or returns to  
any enquiries he thinks fit to make:

(4) He may require and enforce the production  
of all books, papers, or documents which he  
considers important for such purpose:

(5) He may administer oaths, or may, in lieu  
of requiring or administering an oath, require  
every person examined by him to make and  
subscribe a declaration of the truth of the state-  
ments made by him in his examination. (Sec. 15.)

The Board of Trade have issued a Book of

Instructions to their surveyors of steam vessels under the Merchant Shipping Act of 1854, par. 4. See also Regulations as to Passenger Ships. [PASSENGERS.]

*Allowance for Engine Room in Steamers.*—In every ship propelled by steam or other power requiring engine room, an allowance shall be made for the space occupied by the propelling power, and the amount so allowed shall be deducted from the gross tonnage of the ship ascertained as aforesaid, and the remainder shall be deemed to be the register tonnage of such ship; and such deduction shall be estimated as follows (that is to say):—

(a) *To be rateable in ordinary Steamers.*—As regards ships propelled by paddle-wheels in which the tonnage of the space solely occupied by and necessary for the proper working of the boilers and machinery is above 20 per cent. and under 30 per cent. of the gross tonnage of the ship, such deduction shall be  $\frac{30}{100}$  of such gross tonnage; and in ships propelled by screws in which the tonnage of such space is above 13 per cent. and under 20 per cent. of such gross tonnage, such deduction shall be  $\frac{32}{100}$  of such gross tonnage:

(2) *In case of separate Compartments.*—If in any ship in which the space aforesaid is to be measured the engines and boilers are fitted in separate compartments, the contents of each shall be measured severally in like manner, according to the above rules, and the sum of their several results shall be deemed to be the tonnage of the said space:

(3) *Shaft Trunk of Screw Steamer.*—In the case of screw steamers in which the space aforesaid is to be measured, the contents of the shaft trunk shall be added to and deemed to form part of such space, and shall be ascertained by multiplying together the mean length, breadth, and depth of the trunk, and dividing the product by 100:

(4) *Alteration of Engine Room.*—If in any ship in which the space aforesaid is to be measured any alteration be made in the length or capacity of such space, or if any cabins be fitted in such space, such ship shall be deemed to be a ship not registered until remeasurement:

(5) *Penalty for carrying Goods in such Space.*—If in any ship in which the space aforesaid is to be measured any goods or stores are carried in such space, the master and owner shall each be liable to a penalty not exceeding 100*l.* (Sec. 23.)

*Power to remeasure Engine Rooms improperly extended.*—If it appears to the Commissioners of Customs that in any steam ship measured before this Act comes into operation store rooms or coal bunkers have been introduced into or thrown across the engine room, so that the deduction from the tonnage on account of the engine room is larger than it ought to be, the said Commissioners may, if they think fit, direct such engine room to be remeasured according to the rules in force before this Act comes into operation, excluding the space occupied by such store rooms or coal bunkers, or may, if the owners so desire, cause the ship to be remeasured according to the rules hereinbefore contained, and subject to the conditions contained in the last preceding section; and after remeasurement, the said Commissioners shall cause the ship to be registered anew, or the registry thereof to be altered, as the case may require. (Sec. 28.)

*Officers may be appointed and Regulations made for Measurement of Ships.*—The Commissioners of Customs may, with the sanction of the Treasury, appoint such persons to superintend the survey and admeasurement of ships as they think fit; and

may, with the approval of the Board of Trade, make such regulations for that purpose as may be necessary; and also, with the like approval, make such modifications and alterations as from time to time become necessary in the tonnage rules hereby prescribed, in order to the more accurate and uniform application thereof, and the effectual carrying out of the principle of admeasurement therein adopted. (Sec. 29.)

*Build and Equipment of Steam Ships.*

*Iron Steamers to be divided by water-tight Partitions.*—The following rules shall be observed with respect to the build of iron steam ships (that is to say):—

(1) Every steam ship built of iron, of 100 tons or upwards, the building of which commenced after August 28, 1846, and every steam ship built of iron of less burden than 100 tons, the building of which commenced after August 7, 1851, (except ships used solely as steam tugs), shall be divided by substantial transverse water-tight partitions, so that the fore part of the ship shall be separated from the engine room by one of such partitions, and so that the after part of such ship shall be separated from the engine room by another of such partitions:

(2) Every steam ship built of iron, the building of which commences after the passing of this Act, shall be divided by such partitions as aforesaid into not less than 3 equal parts, or as nearly so as circumstances permit:

(3) In such last-mentioned ships each such partition as aforesaid shall be of equal strength with the side plates of the ship with which it is in contact:

(4) Every screw steam ship built of iron, the building of which commences after the passing of this Act, shall, in addition to the above partitions, be fitted with a small water-tight compartment inclosing the after-extremity of the shaft:

*Officers of Customs not to grant Certificates except so divided.*—And no officer of customs or other person shall grant a clearance or transire for any iron steam ship required to be divided or fitted as aforesaid, unless the same is so divided and fitted; and if any such ship attempts to ply or go to sea without such clearance or transire, any such officer may detain her until she is so divided and fitted; and if any steam ship hereinbefore to be so divided or fitted plies or goes to sea without being so divided or fitted, the owner shall incur a penalty not exceeding 100*l.* (Sec. 300.)

*Equipment of Steam Ships.*—Steam ships shall be provided as follows (that is to say):—

(1) *Safety Valve.*—Every steam ship of which a survey is hereby required shall be provided with a safety valve upon each boiler, so constructed as to be out of the control of the engineer when the steam is up, and, if such valve is in addition to the ordinary valve, it shall be so constructed as to have an area not less and a pressure not greater than the area of and pressure on that valve:

(2) *Compasses to be adjusted.*—Every sea-going steam ship employed to carry passengers shall have her compasses properly adjusted from time to time; such adjustment, in the case of ships surveyed as hereinafter mentioned, to be made to the satisfaction of the shipwright surveyor, and according to such regulations as may be issued by the Board of Trade:

(3) *Fire Hose.*—Every sea-going steam ship (unless used solely as a steam tug) shall be provided with a hose adapted for the purpose of extinguishing fire in any part of the ship, and capable of being connected with the engines of the ship:

of the Board of Trade, for that purpose as may be with the like approval, make alterations as from time to time necessary in the tonnage rules in order to the more accuracy thereof, and the effectual principle of admittance.

#### Construction of Steam Ships.

Every steam ship shall be divided by water-tight bulkheads, and the following rules shall be observed in the construction of iron steam ships (that

Every steam ship built of iron, of 100 tons and upwards, and every steam ship built of iron, of less than 100 tons, the building of which commenced after August 7, 1861, and which is solely or mainly as steam tugs, shall be divided into transverse water-tight compartments, and the part of the ship shall be the engine room by one of such compartments, and the after part of such ship shall be the engine room by one of such compartments.

Every steam ship built of iron, the building of which commenced after the passing of this Act, shall be divided into equal parts, or as nearly so as may be practicable.

Every steam ship of such strength and construction as shall be of equal strength with which it is intended to be used.

Every steam ship built of iron, the building of which commenced after the passing of this Act, shall be divided into equal parts, or as nearly so as may be practicable, and the water-tight compartment next to the engine room shall be of equal strength with that of the other compartments of the shaft.

Every steam ship shall not be granted Certificates except on the application of an officer of customs or other authority, and no clearance or transire for any such ship shall be granted to be divided or fitted as a steam ship, unless the same is so divided and fitted; and no steam ship shall attempt to ply or go to sea in any such transire, unless such steam ship until she is so divided and fitted as a steam ship hereinafter to be mentioned, shall be so divided and fitted, and the owner shall incur a penalty not exceeding 100*l.* (Sec. 300.)

Every steam ship shall be so constructed as to be of equal strength with that of the other compartments of the shaft.

Every steam ship of which the building commenced after the passing of this Act, shall be so constructed as to be of equal strength with that of the other compartments of the shaft, and the pressure on that valve shall be so adjusted.

Every sea-going steam ship shall be so constructed as to be of equal strength with that of the other compartments of the shaft, and the pressure on that valve shall be so adjusted.

Every sea-going steam ship shall be so constructed as to be of equal strength with that of the other compartments of the shaft, and the pressure on that valve shall be so adjusted.

(4) *Signal.*—Every sea-going steam ship employed to carry passengers shall be provided with the following means of making signals of distress (that is to say): 12 blue lights or 12 port fires, and 1 cannon with ammunition for at least 12 charges, or, in the discretion of the master or owner of such ship, with such other means of making signals (if any) as may have previously been approved by the Board of Trade:

(5) *Shelter for Deck Passengers.*—Every home trade steam ship employed to carry passengers by sea shall be provided with such shelter for the protection of deck passengers (if any) as the Board of Trade, having regard to the nature of the passage, the number of deck passengers to be carried, the season of the year, the safety of the ship, and the circumstances of the case, may require; and if any steam ship as aforesaid plies or goes to sea from any port in the United Kingdom without being so provided as herebefore required, then for each default in any of the above requisites the owner shall (if he appears to be in fault) incur a penalty not exceeding 100*l.*, and the master shall (if he appears to be in fault) incur a penalty not exceeding 50*l.* (Sec. 301.)

*Penalty for improper Weight on Safety Valve.*—If any person places an undue weight on the safety valve of any steam ship, or, in the case of steam ships surveyed as hereinafter mentioned, increases such weight beyond the limits fixed by such engineer surveyor as hereinafter mentioned, he shall, in addition to any other liabilities he may incur by so doing, incur a penalty not exceeding 100*l.* (Sec. 302.)

#### Survey of Passenger Steamers.

*Definition of 'Passengers' and 'Passenger Steamer.'*—For the purpose of the enactments herein contained with respect to surveys and certificates of passenger steam ships, the word 'passengers' shall be held to include any person carried in a steam ship, other than the master and crew and the owner, his family and servants; and the expression 'passenger steamer' shall be held to include every British steam ship carrying passengers to, from, or between any place or places in the United Kingdom, excepting steam ferry boats working in channels, commonly called steam bridges. (Sec. 303.) [PASSENGERS.]

*Passenger Steamers to be surveyed.*—Every passenger steamer shall be surveyed twice at the least in each year in manner hereinafter mentioned. (Sec. 304.)

*Board of Trade to appoint Surveyors, and fix their Remuneration.*—The Board of Trade may from time to time appoint such number of fit and proper persons to be shipwright surveyors and engineer surveyors for the purposes of this Act at such ports or places as it thinks proper, and may also appoint a surveyor-general for the United Kingdom, and may from time to time remove such surveyors or any of them, and may from time to time fix and alter the rates of remuneration to be received by such surveyors. (Sec. 305.)

*Surveyors to have Power to inspect.*—It shall be lawful for the said surveyors in the execution of their duties to go on board any steam ships at all reasonable times, and to inspect the same or any part thereof, or any of the machinery, boats, equipments, or articles on board thereof, or any certificates of the master or mate to which the provisions of this Act or any of the regulations to be made by virtue thereof apply, not unnecessarily detaining or delaying the ship from proceeding on any voyage, and if in consequence of any accident to any such ship or for any other reason they

consider it necessary so to do, to require the ship to be taken into dock for the purpose of surveying the hull thereof; and any person who hinders any such surveyor from going on board any such steam ship, or otherwise impedes him in the execution of his duty under this Act, shall incur a penalty not exceeding 5*l.* (Sec. 306.)

*Board of Trade to regulate Mode of making Surveys.*—The said surveyors shall execute their duties under the direction of the Board of Trade, and such Board shall make regulations as to the manner in which the surveys hereinafter mentioned shall be made, and as to the notice to be given to the surveyors when surveys are required, and as to the amount and payment of any travelling or other expenses incurred by such surveyors in the execution of their duties, and may thereby determine the persons by whom and the conditions under which such payment shall be made.

*Penalty on Surveyors receiving Fees unlawfully.*—Every surveyor who demands or receives directly or indirectly from the owner or master of any ship surveyed by him under the provisions of this Act any fee or remuneration whatsoever for or in respect of such survey, otherwise than as the officer and by the direction of the Board of Trade, shall incur a penalty not exceeding 50*l.* (Sec. 308.)

*Owners to have Surveys made by Shipwright and Engineer Surveyors, and Surveyors to give Declarations.*—The owner of every passenger steamer shall cause the same to be surveyed at the times hereinafter directed by one of the said shipwright surveyors and by one of the said engineer surveyors so appointed as aforesaid; such shipwright surveyor being, in the case of iron steamers, a person who is, in the judgment of the Board of Trade, properly qualified to survey such ships; and such surveyors shall thereupon, if satisfied that they can with propriety do so, give to such owner declarations as follows.

The declaration of the shipwright surveyor shall contain statements of the following particulars (that is to say):—

(1) That the hull of the ship is sufficient for the service intended, and in good condition:

(2) That the partitions, boats, life buoys, lights, signals, compasses, and shelter for deck passengers, and the certificates of the master and mate or mates, are such, and in such condition, as required by this Act:

(3) The time (if less than 6 months) for which the said hull and equipments will be sufficient:

(4) The limits (if any) beyond which, as regards the hull and equipments, the ship is, in the surveyor's judgment, not fit to ply:

(5) The number of passengers which the ship is, in the judgment of the surveyor, fit to carry, distinguishing, if necessary, between the respective numbers to be carried on the deck and in the cabins, and in different parts of the deck and cabins; such numbers to be subject to such conditions and variations, according to the time of year, the nature of the voyage, the cargo carried, or other circumstances, as the case requires.

And the declaration of the engineer surveyor shall contain statements of the following particulars (that is to say):—

(1) That the machinery of the ship is sufficient for the service intended, and in good condition:

(2) The time (if less than 6 months) for which such machinery will be sufficient:

(3) That the safety valves and fire hose are such and in such condition as are required by this Act:

(4) The limits of the weight to be placed on the safety valves:

(5) The limits (if any) beyond which, as re-

gards the machinery, the ship is, in the surveyor's judgment, not fit to ply :

And such declarations shall be in such form as the Board of Trade directs. (Sec. 309.)

**Transmission of Declarations to Board of Trade.**  
**Penalty for Delay.**—The said owner shall transmit such declarations to the Board of Trade within 14 days after the dates of the receipt thereof respectively, and in default shall forfeit a sum not exceeding 10s. for every day that the sending of such declarations is delayed ; and such sum shall be paid upon the delivery of the certificate hereinafter mentioned, in addition to the fee payable for the same, and shall be applied in the same manner as such fees. (Sec. 310.)

**Times appointed for Surveys and Transmission of Declarations.**—In all cases where it is possible the said half-yearly surveys shall be made in the months of April and of October, and the declarations shall be transmitted on or before April 30 and October 31 respectively ; but if the owner of any passenger steamer is unable to have the same surveyed in the month of April or October (as the case may be), either by reason of such ship being absent from the United Kingdom during the whole of those periods respectively, or by reason of such ship or the machinery thereof being under construction or repair, or of such ship being laid up in dock, or for any other reason satisfactory to the Board of Trade, then he shall have the same surveyed as aforesaid as soon thereafter as possible, and shall transmit such declarations to the Board of Trade within 14 days after the receipt thereof, together with a statement of the reasons which have prevented the survey of such ship at the time hereinbefore prescribed, and shall, in case of delay in transmitting the declarations, be liable to a forfeiture similar to that mentioned in the last preceding section. (Sec. 311.)

**Board of Trade to issue Certificates.**—Upon the receipt of such declarations the Board of Trade shall, if satisfied that the provisions of the fourth part of this Act have been complied with, cause a certificate in duplicate to be prepared and issued, to the effect that the provisions of the law with respect to the survey of the ship and the transmission of declarations in respect thereof have been complied with ; and such certificate shall state the limits (if any) beyond which, according to the declaration of the surveyors, such ship is not fit to ply, and shall also contain a statement of the number of passengers which, according to the declaration of the shipwright surveyor, such ship is fit to carry, distinguishing (if necessary) between the respective numbers to be carried on the deck and in the cabins and in different parts of the deck and cabins, such number to be subject to such conditions and variations according to the time of year, the nature of the voyage, the cargo carried, and other circumstances, as the case requires. (Sec. 312.)

**Issue and Transmission of Certificates.**—The Board of Trade shall transmit such duplicate certificate to the shipping master or to some other public officer at such port as the owner may mention for the purpose, or at the port where the owner or his agent resides or where the ship was surveyed and is for the time being lying, and shall cause notice of such transmission to be given by post or otherwise to the master or owner or his agent ; and the said shipping master or officer shall deliver such duplicate certificate to the said owner, master, or agent, on his applying and paying the fees and other sums (if any) herein mentioned as payable in that behalf ; and in proving the due issue and transmission to the owner, agent, or master of such certificate, it shall

be sufficient to show that the same has been duly received by such shipping master or public officer as aforesaid, and that due notice of the transmission thereof to such shipping master or officer has been given to such owner, master, or agent. (Sec. 313.)

**Fees to be paid for Certificates.**—The owner of every passenger steamer requiring a certificate under the fourth part of this Act, shall pay for every certificate granted by the Board of Trade such fees as such Board directs, not exceeding the fees mentioned in the Table marked T. in the schedule hereto. (Sec. 314.)

**How long Certificates to continue in force.**—No certificate shall be held to be in force for the purposes of the fourth part of this Act beyond the date fixed by the Board of Trade for the expiration thereof ; and no certificate shall be in force after notice is given by the Board of Trade to the owner, agent, or master of the ship to which the same relates, that such Board has cancelled or revoked the same : provided, that if any passenger steamer is absent from the United Kingdom at the time when her certificate expires, no penalty shall be incurred for the want of a certificate until she first begins to ply with passengers after her next subsequent return to the United Kingdom ; and the Board of Trade may require any certificate which has expired, or has been revoked or cancelled, to be delivered up as it directs ; and any owner or master who, without reasonable cause, neglects or refuses to comply with such requirement, shall incur a penalty not exceeding 10l. (Sec. 315.)

**Board of Trade may cancel Certificates and require fresh Declarations.**—The Board of Trade may revoke and cancel such certificates, in any case in which it has reason to believe—

(1) That the declarations of the sufficiency and good condition of the hull, equipments, and machinery of any passenger steamer, or either of them, have been fraudulently or erroneously made ; or,

(2) That such certificate has otherwise been issued upon false or erroneous information ; or,

(3) That since the making of such declarations the hull, equipments, or machinery of such ship have sustained any injury, or are otherwise insufficient :

And in every such case the Board of Trade may, if it thinks fit, require the owner to have the hull, equipments, or machinery of such ship again surveyed, and to transmit a further declaration or declarations of the sufficiency and good condition thereof, before re-issuing any certificate or granting a fresh one in lieu thereof. (Sec. 316.)

**Copy of Certificate to be placed in conspicuous part of Ship.**—The owner or master of every passenger steamer shall forthwith, on the transmission of any such certificate as aforesaid to him or his agent, cause one of the duplicates thereof so transmitted to be put up in some conspicuous part of the ship, so as to be visible to all persons on board the same, and shall cause it to be continued so put up so long as such certificate remains in force and such ship is in use ; and in default such owner or master shall for every offence incur a penalty not exceeding 10l. (Sec. 317.)

**Ship not to proceed on her Voyage without Certificate.**—It shall not be lawful for any passenger steamer to proceed to sea or upon any voyage of excursion with any passengers on board, unless the owner thereof has transmitted to the Board of Trade the declarations hereinbefore required, nor unless the owner or master thereof has received from such Board such a certificate as hereinbefore provided for, such certificate being

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a certificate applicable to the voyage or excursion on which such ship is about to proceed; and no officer of customs shall grant any clearance or transire for any passenger steamer unless upon the production of such certificate as aforesaid (being a certificate then in force and applicable as aforesaid); and if any passenger steamer attempts to ply or go to sea without such production, any such officer may detain her until such certificate is produced; and if any passenger steamer plies or goes to sea with any passengers on board, without having one of the duplicates of such certificate as aforesaid (being a certificate then in force, and applicable as aforesaid), so put up as aforesaid in some conspicuous part of the ship, the owner thereof shall for such offence incur a penalty not exceeding 100l., and the master of such ship shall also incur a further penalty not exceeding 20l. (Sec. 318.)

**Penalty for carrying Passengers in Excess of Numbers specified in Certificate.**—If the owner or master or other person in charge of any passenger steamer receives on board thereof or on or in any part thereof, or if such ship has on board thereof or on or in any part thereof, any number of passengers which, having regard to the time, occasion, and circumstances of the case, is greater than the number of passengers allowed by the certificate, the owner or master shall incur a penalty not exceeding 20l., and also an additional penalty not exceeding 5s. for every passenger over and above the number allowed by the certificate, or, if the fare of any of the passengers on board exceeds 5s., not exceeding double the amount of the fares of all the passengers who are over and above the number so allowed as aforesaid, such fares to be estimated at the highest rate of fare payable by any passenger on board. (Sec. 319.)

**Forgery of Declaration or Certificate a Misdemeanor.**—Every person who knowingly and wilfully makes or assists in making or procures to be made a false or fraudulent declaration or certificate with respect to any passenger steamer requiring a certificate under the fourth part of this Act, or who forges, assists in forging, or procures to be forged, fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any declaration or certificate required by the fourth part of this Act, or any words or figures in any such declaration or certificate, or any signature thereto, shall be deemed guilty of a misdemeanor. (Sec. 320.)

**Surveyors to make Returns of the Build and other Particulars of Steam Ships, and Owners and Masters to give Information for that purpose.**—The said surveyors shall from time to time make such returns to the Board of Trade as it requires with respect to the build, dimensions, draught, burden, rate of sailing, room for fuel, and the nature and particulars of machinery and equipments of the ships surveyed by them; and every owner, master, and engineer of any such ship shall, on demand, give to such surveyors all such information and assistance within his power as they require for the purpose of such returns; and every such owner, master, or engineer who, on being applied to for that purpose, wilfully refuses or neglects to give such information or assistance, shall be liable to a penalty not exceeding 5l.

**Misconduct by Passengers in Steamers.**

**Penalties on Persons forcing way on board, or refusing to quit the Ship.**—The following offenders, that is to say—

(1) Any person who, after having been refused admission into any steamer by the owner or

person in charge thereof or by any person in the employ of the owner thereof, on account of such steamer being full, and after having had the full amount of his fare (if he has paid the same) returned or tendered to him, nevertheless persists in attempting to enter the same; and

(2) Any person, having got on board any steamer, who, upon being requested on the like account by the owner or person in charge thereof or by any person in the employ of the owner, to leave such steamer before the same has quitted the place at which such person got on board, and upon having the full amount of his fare (if he has paid the same) returned or tendered to him, refuses to comply with such request; Shall for each such offence incur a penalty not exceeding 40s., to be paid to the said owner. (Sec. 322.)

**Penalty on avoiding Payment of Fares.**—The following offenders, that is to say—

(1) Any person who travels or attempts to travel in any passenger steamer which has been duly surveyed in conformity with the provisions of this Act, without having previously paid his fare, and with intent to avoid payment thereof; and

(2) Any person who, having paid his fare for a certain distance, knowingly and wilfully proceeds in any such steamer beyond such distance, without previously paying the additional fare for the additional distance, and with intent to avoid payment thereof; and

(3) Any person who knowingly and wilfully refuses or neglects, on arriving at the point to which he has paid his fare, to quit any such steamer; Shall for every such offence incur a penalty not exceeding 5s., in addition to the fare payable by him, such penalty to be payable to the owner of such steamer. (Sec. 323.)

**Penalty on Persons refusing to give their Name and Address.**—Every person who, having committed any of the offences mentioned in the two last preceding sections or either of them, refuses, on application of the master of the ship or of any other person in the employ of the owner thereof, to give his name and address, or who on such application gives a false name or address, shall incur a penalty not exceeding 20l., to be paid to the said owner. (Sec. 324.)

**Power to refuse or remove Passengers who are drunk or misconduct themselves.**—The master of any home trade passenger steam ship may refuse to receive on board thereof any person who by reason of drunkenness or otherwise is in such a state, or misconducts himself in such a manner, as to cause annoyance to other passengers on board, or, if such person is on board, may put him on shore at any convenient place; and no person so refused admittance or put on shore shall be entitled to the return of any fare he may have paid. (Sec. 325.)

#### Accidents.

**Accidents to Steam Ships to be reported to Board of Trade.**—Whenever any steam ship has sustained or caused any accident occasioning loss of life or any serious injury to any person, or has received any material damage affecting her seaworthiness or her efficiency either in her hull or in any part of her machinery, the owner or master shall, within 24 hours after the happening of such accident or damage, or as soon thereafter as possible, send to the Board of Trade, by letter signed by such owner or master, a report of such accident or damage, and of the probable occasion thereof, stating the name of the ship, the port to which she belongs, and the place where she is;

and if such owner or master neglect so to do, he shall for such offence incur a penalty not exceeding 50*l.* (Sec. 326.)

*Notice to be given of apprehended Loss of Steam Ships.*—If the owner of any steam ship have reason, owing to the non-appearance of such ship or to any other circumstance, to apprehend that such ship has been wholly lost, he shall as soon as conveniently may be send notice thereof in like manner to the Board of Trade; and if he neglect so to do within a reasonable time, he shall for such offence incur a penalty not exceeding 50*l.* (Sec. 327.)

*Collisions to be entered in Official Log.*—In every case of collision, in which it is practicable so to do, the master shall immediately after the occurrence cause a statement thereof, and of the circumstances under which the same occurred, to be entered in the official log book (if any), such entry to be signed by the master, and also by the mate or one of the crew, and in default shall incur a penalty not exceeding 20*l.* (Sec. 328.) [COLLISION.]

#### *Carrying dangerous Goods.*

*Provisions to prevent the taking dangerous Goods on board without due Notice.*—No person shall be entitled to carry in any ship, or to require the master or owner of any ship to carry therein, any aquafortis, oil of vitriol, gunpowder, or any other goods which, in the judgment of such master or owner, are of a dangerous nature; and if any person carries or sends by any ship any goods of a dangerous nature without distinctly marking their nature on the outside of the package containing the same, or otherwise giving notice in writing to the master or owner at or before the time of carrying or sending the same to be shipped, he shall for every such offence incur a penalty not exceeding 100*l.*; and the master or owner of any ship may refuse to take on board any parcel that he suspects to contain goods of a dangerous nature, and may require them to be opened to ascertain the fact. (Sec. 329.)

#### *Certificates for Engineers (Part III. of Merchant Shipping Act, 1854).*

*Steam Ships to carry Certificated Engineers.*—On and after June 1, 1863, every steam ship which is required by the principal Act to have a master possessing a certificate from the Board of Trade shall also have an engineer or engineers possessing a certificate or certificates from the Board of Trade as follows (that is to say):—

(1) Engineers' certificates shall be of two grades, viz. 'first-class engineer's certificates,' and 'second-class engineer's certificates':

(2) Every foreign-going steam ship of 100 nominal horse power or upwards shall have as its first and second engineers 2 certificated engineers, the first possessing a 'first-class engineer's certificate,' and the second possessing a 'second-class engineer's certificate' or a certificate of the higher grade:

(3) Every foreign-going steam ship of less than 100 nominal horse power shall have as its only or first engineer an engineer possessing a 'second-class engineer's certificate' or a certificate of the higher grade:

(4) Every sea-going home trade passenger steam ship shall have as its only or first engineer an engineer possessing a 'second-class engineer's certificate' or a certificate of the higher grade:

(5) Every person who, having been engaged to serve in any of the above capacities in any such steam ship as aforesaid, goes to sea in that capacity without being at the time entitled to and possessed

of such certificate as is required by this section, and every person who employs any person in any of the above capacities in such ship without ascertaining that he is at the time entitled to and possessed of such certificate as is required by this section, shall for each such offence incur a penalty not exceeding 50*l.* (25 & 26 Vict. c. 63 s. 5.) [PASSENGERS; SEAMEN; SHIPPING.]

**STEEL** (Fr. acier; Ger. Stahl; Ital. acciaio; Lat. chalybs; Russ. stal; Span. acero; Swed. stål) is iron combined with a small portion of carbon, and has been, for that reason, called carbonised iron. The proportion of carbon has not been ascertained with much precision. It is supposed to amount, at an average, to  $\frac{1}{100}$ . Steel is so hard as to be unmalleanable while cold; or at least it acquires that property by being immersed, while ignited, in a cold liquid: for this immersion, though it has no effect upon iron, adds greatly to the hardness of steel. It is brittle, resists the file, cuts glass, affords sparks with flint, and retains the magnetic virtue for any length of time. It loses this hardness by being ignited, and cooled very slowly. It is malleable when red hot, but scarcely so when raised to a white heat. It may be hammered out into much thinner plates than iron. It is more sonorous; and its specific gravit. when hammered is greater than that of iron—varying from 7.78 to 7.81. Steel is usually divided into 3 sorts, according to the method in which it is prepared; as *natural steel*, *steel of cementation*, and *cast steel*. The latter is the most valuable of all, as its texture is the most compact, and it admits of the finest polish. It is used for razors, surgeons' instruments, and similar purposes. Steel is chiefly employed in the manufacture of swords, knives, and cutting instruments of all sorts used in the arts; for which it is peculiarly adapted by its hardness, and the fineness of the edge which may be given to it. We imported from Sweden in 1867, exclusive of manufactured articles, 4,656 tons of unwrought steel, valued at 69,042*l.* (Thomson's *Chemistry*; see also *Ure's Dictionary* by Hunt.) [IRON.]

**STETTIN.** A city of Prussia, on the left bank of the Oder, about 36 miles from its mouth, in lat. 53° 25' 8" N., long. 14° 34' E. It is well built, strongly fortified, and had in 1867 a population, including military, of 73,581.

Stettin is the seat of an extensive and growing commerce. She owes this distinction mainly to her situation. The Oder, which flows through the centre of the Prussian dominions, is navigable as far as Ratibor, near the extreme southern boundary of Prussian Silesia, and is united by means of canals with the Vistula, the Elbe, the Spree &c. Stettin is, consequently, the principal emporium of some very extensive and flourishing countries; being not only the port of Frankfort-on-the-Oder, Breslau &c., but also of Berlin. She is also the centre of an extensive system of railways, communicating with Berlin and the west parts of Germany on the one hand, and on the other with Posen, Bromberg, and Danzig. Hence, at the proper seasons, her wharves are crowded with lighters that bring down the produce of the different countries traversed by the river, and bring back colonial products, and other articles of foreign growth and manufacture. Vessels of considerable burden, or those drawing above 7 or 8 feet water, load and unload, by means of lighters, at the mouth of the river, at Swinemünde, the outpost of Stettin, on the east coast of the Isle of Usedom, in lat. 53° 55' N., long. 14° 15' 15" E. Formerly there were not more than 7 feet water over the bar adjacent to Swine-

is required by this section, employs any person in any cities in such ship without a certificate as is required by each such offence incurring 50l. (25 & 26 Vict. SEAMEN; SHIPPING; Ger. stahl; Ital. acciaio; Span. acero; Swed. stål; with a small portion of iron, for that reason, called carboniferous iron, the proportion of carbon has not much precision. It is at an average, to be unamalleable while cold; ores that property by being nited, in a cold liquid; for which it has no effect upon the hardness of steel. It is le, cuts glass, affords sparks the magnetic virtue for any loses this hardness by being very slowly. It is malleable scarcely so when raised to a hammered out into much iron. It is more sonorous; when hammered is greater—varying from 778 to 781, divided into 3 sorts, according to which it is prepared; as natural alteration, and cast steel. The malleable of all, as its texture is, and it admits of the finest razors, surgeons' instruments, &c. Steel is chiefly employed of swords, knives, and cutting sorts used in the arts; for early adapted by its hardness, the edge which may be given from Sweden in 1807, executed articles, 4,656 tons of valued at 69,042l. (Thomson's Dictionary by Hunt)

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munde; but the harbour of the latter has recently been so much improved by the construction of piers and breakwaters, dredging &c., that it is now the best on the Prussian coast, and admits vessels drawing from 18 to 19 feet water. A lighthouse has been erected at the extremity of the eastern pier, in 53° 56' N. lat. and 14° 17' E. long., visible 10 miles off, and there is another (visible for 21 miles) situated a mile and a half south of the Mole Light. There are also two light-ships between Swinemunde and Stettin. Stettin is a free port; that is, a port into and from which all sorts of goods may be imported and re-exported free of duty. Goods brought through the Sound, imported at Stettin, and entered for home consumption in the Prussian custom, used to be charged with 2½ per cent. less duty than if they had been imported through any other channel. This was intended to reimburse the merchant for the Sound duties, and to encourage importation by this direct route in preference to that carried on through Hamburg and Embden; but as the Sound duties have been abolished, it is probable that goods imported at Stettin will no longer enjoy this preference. There is a great wool fair in the month of June each year.

**Money, Weights, and Measures,** same as at DANZIG. The Bank of Berlin has a branch at Stettin, and there are also insurance offices.

**Imports and Exports.**—The principal articles of import at Stettin are sugar, coffee, dye-woods, wine, iron, and hardware, oil, tallow, cotton and cotton goods, herrings, spirits, linseed, coal, salt &c. The principal exports are corn, especially wheat; spirits, seeds, spelter, timber &c.

**Shipping Dues.**—In 1863, the shipping dues were considerably reduced, viz. the sea dues 37 per cent., and the river dues 25 per cent.

On December 1, 1867, a still greater reduction took place; the dues to be levied on and from that day being fixed by a royal edict, as follows:—

*Sea Dues for all Vessels entering and leaving the Harbour of Swinemunde.*

With cargoes—		Groschen	Groschen
On entering	-	4	4
On leaving	-	4	4
In ballast—			
On leaving	-	2	4
On entering	-	2	4

Per normal last—about 1½ register ton.

**River Dues.**—The river dues for vessels navigating the Swine, Peene, and Divenow, and the Haff—consequently for all vessels proceeding from Swinemunde to Stettin, and from Stettin to Swinemunde—which amounted to 1 groschen and ½ groschen per last, are abolished.

The present rate of 4 groschen per last would be about 26s. 8d. per 100 reg. tons.

Vessels above 40 lasts burden have also to pay 9 pennings per last—about 5s. per 100 reg. tons—for port charges at Stettin.

By another royal decree, which came into operation on March 1, 1868—

1. Vessels under 40 lasts are to pay one-half of the dues levied on vessels above that burden, i.e. 2 groschen and 1 groschen.
2. Vessels with cargoes consisting entirely of coals, coke, turf, slates, tiles, bricks, paving and quarry stones, granite, limestone, gypsum, chalk, clay, sand, raw sulphur, or salt, to be charged the same as vessels in ballast, viz. 2 groschen per last.
3. No dues to be levied:—

(a) On vessels in ballast that enter the harbour of Swinemunde in search of freight, and leave it in ballast.

(b) On vessels that enter the harbour to receive orders and leave it without either discharging or taking in cargo.

4. Vessels above 40 lasts proceeding directly between any of the following ports, viz. Swinemunde, Colbergermunde, Stolpmunde, Rugenwalde, Dantzie, and Neufahrwasser, are exempted from the entrance dues of the harbour to which they are bound.

As the river dues are now abolished, and the sea dues reduced 50 per cent., and vessels with cargoes of coals pay the same dues as vessels in ballast, and as almost all the British vessels that discharge at Swinemunde arrive at that port with coals and leave in ballast, the reduced charges for such vessels will amount to 66½ per cent., and for vessels bound to Stettin, with other cargoes than coals, slates &c., to 55½ per cent.

*Pilotage.*

From Stettin to Swinemunde } Swinemunde to Stettin } up to	10 lasts, 2 r. dols.
from 11 to 20	3 "
" 21 " 30	3½ "
" 31 " 40	4 "
" 41 " 150	4 "

and upwards, for each 10 lasts, ½ dollar more.

Ships of more than 150 lasts burden to pay the same dues as those of 141 to 150 lasts.

Stettin is one of the principal shipping ports in the Prussian dominions, and is connected with Berlin by railway. See also DANZIG.

**Port Regulations.**—All vessels are prohibited entering Swinemunde unless forced by stress of weather, without previously heaving to for, and receiving a pilot on board. But when compelled to enter without a pilot, the master is to observe the signals made from the beacon erected on the eastern and western moles as follows:—

*Notice.*

1. When pilots cannot put to sea, and captains of ships are nevertheless resolved to enter the harbour, a red flag will be hoisted on the direction beacon of the eastern mole.
2. The captains will then steer until they find themselves E.E. by S. on the compass, from the lighthouse placed on the utmost point of the east mole, taking care to keep the outermost great white buoy, situate on the end of the western ground in a depth of 16 feet, on the starboard, and the next black buoy, in an oblique line towards the lighthouse, on the larboard.
3. In that situation of the vessel the two new beacons cover themselves in the direction of S.S.E., and in this course, keeping the two beacons completely covered, the captains sail into the port up to the second landing berth of the eastern mole, four cables' length beyond the lighthouse, keeping off the mole half a cable's length.
4. At that place, the captains, taking care to remain a little South, are expected by the pilots to go on board of their vessels.
5. On entering the port all the white buoys are to remain on the starboard side of the vessel (see 2).
6. For facilitating the finding and keeping the directions given in this instruction in case the buoys should have been removed by sea, or taken up on account of the advanced season, signals will be given with a red flag from the direction beacon on the eastern mole.
7. The captains must follow the signals in so far as to steer to that part where the flag is hoisted perpendicularly.
8. Should there be no pilot at sea, and no flag hoisted on the beckoning beacon, the captains must not attempt to enter the port at all, but either anchor in the roads or remain at sea.

SHIPPING AND NAVIGATION.

Account of the Number, Tonnage &c. of British Vessels arrived at Stettin and Swinemunde in 1866 and 1867.

Description of Vessels	1866			1867		
	Number of Vessels	Tonnage	Number of Crews exclusive of Masters	Number of Vessels	Tonnage	Number of Crews exclusive of Masters
<b>Stettin—</b>						
Sailing vessels - - -	137	66,318	2,405	180	83,856	3,116
Total - - - - -	400	95,921	5,700	478	111,911	4,572
<b>Swinemunde—</b>						
Sailing vessels - - -	11	8,031	251	23	14,825	478
Total - - - - -	107	41,077	1,392	81	19,392	298
<b>Grand Total</b> - - - -	507	144,155	7,092	559	147,024	5,618

Left Stettin in ballast—  
 1865 - 71 - 20,386, or 22.74 per cent. of the total tonnage entered.  
 1866 - 38 - 11,911 " 11.45  
 1867 - 52 - 15,452 " 12.58

Account of the Mercantile Marine of the Province of Pomerania on January 1, 1868, distinguishing Steamers from Sailing Vessels, and Sea-going from River and Coasting Craft, stating Tonnage of each in Prussian Lasts, and contrasting the Amount of the same with the Amounts on January 1, 1859 and 1867.

Ports where the Managing Owners reside	Steamers				Sailing Vessels				Total January 1, 1868	
	Sea-going		River		Sea-going		Coasting (under 40 lasts)			
	Number of Vessels	Lasts	Number of Vessels	Lasts	Number of Vessels	Lasts	Number of Vessels	Lasts	Number of Vessels	Lasts
Stettin - - - - -	18	2,487	24	385	155	28,115	7	216	208	29,203
Straßund - - - - -	..	..	1	31	153	23,493	22	718	176	24,411
Harp, Franzburg District	..	..	..	7	171	21,610	114	2,610	216	24,417
Greifswalde - - - - -	..	..	..	48	..	9,651	9	250	37	9,841
Uckermunde - - - - -	..	..	1	14	43	7,709	..	..	44	7,714
Wolgast - - - - -	..	1	188	..	4	6,689	11	288	62	7,819
Rügenwalde - - - - -	..	..	..	..	..	..	..	..	45	4,216
Swinemunde - - - - -	..	..	2	17	25	4,270	17	363	41	4,650
Kolberg - - - - -	..	..	..	..	18	2,829	17	331	55	3,250
Minor Ports - - - - -	..	60	7	220	43	6,514	171	4,484	222	11,218
<b>Total in 1868</b> - - - -	50	2,735	42	721	689	112,137	358	9,660	1,139	125,535
" 1867 - - - - -	21	2,599	43	761	698	111,415	295	9,871	1,157	121,701
" 1859 - - - - -	15	1,898	28	987	672	101,151	388	6,649	1,003	108,215

Account of the Number and Tonnage, in Prussian Lasts, of all Sea-going Vessels, except Coasting Craft, entered at Swinemunde in 1865 and 1866.

Nationality	1865		1866	
	Number of Vessels	Lasts	Number of Vessels	Lasts
Prussian - - - - -	1,082	124,683	919	115,608
British - - - - -	586	85,272	666	86,512
German States - - -	237	25,512	237	19,734
Dutch - - - - -	116	11,999	88	12,063
Swedish and Norw.	..	..	..	..
Danish - - - - -	250	9,026	146	7,585
Russian - - - - -	143	4,276	107	5,812
Other nations - - -	13	1,209	14	1,864
Total - - - - -	32	1,878	13	904
<b>Total - - - - -</b>	2,509	261,385	2,092	249,910

Of the vessels entered at Swinemunde, there arrived at Stettin—  
 In 1865 - - - 2,078 vessels, of 182,645 lasts  
 1866 - - - 2,043 " 175,934 "  
 1867 - - - 2,214 " 200,487 "

Trade.—The abolition of the Sound dues, and the improved communications by means of railways with the interior, have led to a great increase in the trade of Stettin. This is evident from the following account of the imports and exports of the town by sea:—

Years	Imports	Exports	Total
	£	£	£
1855	2,601,234	1,011,969	3,616,902
1856	3,604,567	1,709,693	5,314,260
1857	4,308,636	2,722,451	7,031,088
1865	6,905,778	2,420,969	9,326,745
1866	5,395,346	2,237,419	8,632,765
1867	8,374,547	4,665,773	13,040,320

This is a very extraordinary increase. In the import trade it has principally taken place in the articles of coals, iron, and raw cotton, from England; oils, seeds, coffee, potash &c. The

great articles of export from Stettin are corn, timber, and spirits.

Account of the Quantities of the different Varieties of Corn Exported from Stettin in 1866, specifying the Quantities sent to Great Britain and to other Countries, in Imperial Quarters.

Articles	1866			Total in 1865
	To Great Britain	To other Countries	Total	
Wheat - - - - -	Imp. qr. 315,361	qr. 35,688	367,549	249,235
Rye - - - - -	5,380	73,120	79,500	79,974
Barley - - - - -	869,650	29,101	298,754	167,048
Oats - - - - -	51,494	8,223	59,647	8,708
Total Corn	641,315	164,138	806,450	496,964
Buckwheat, vetches - - - - -	..	..	..	3,170
Peas, beans - - - - -	27,425	5,941	33,566	29,581
Potatoes - - - - -	22	16,438	16,480	17,246
<b>Total - - - - -</b>	668,762	186,514	855,296	539,811

The total quantity of corn exported in 1867 was 972,076 quarters.

In addition to corn, timber, and spirits, the principal articles of export are spelter, oil-cake, bones, clover and other seeds, wool, glass &c.

We also send to Prussia large quantities of foreign and colonial produce, the value of the exports thereof in 1867 having amounted to 2,498,165*l*. Sometimes, however, they are much greater. But it can hardly be necessary to add, that a large (though not so large now as formerly) portion of our trade with Prussia is indirect, being carried on through the Hanse Towns, Holland &c. (Much of the information in this article has been derived from Mr. Consul Blackwell's very instructive Report of March 25, 1868.)

Direct Trade of the United Kingdom with Prussia.—Account of the Quantities and of the Computed Values of the Principal Articles Imported from Prussia into the United Kingdom in each of the 4 Years ending with 1867.

Principal Articles	Quantities				Computed Real Value			
	1861	1865	1866	1867	1861	1865	1866	1867
Beer, spruce - - - - - gals.	116,756	91,788	68,888	69,785	£ 22,761	19,889	11,926	15,119
Bones of animals and fish (except whalefins) - - - - - tons	1,449	2,614	4,127	4,181	8,515	11,511	29,550	21,013
Corn.—Wheat - - - - - cwt.	1,973,228	5,405,314	4,410,471	5,572,263	2,197,047	2,778,534	3,810,851	4,559,806
Harley - - - - - "	706,911	739,910	1,681,537	2,470,172	298,101	376,617	299,773	299,773
Maize - - - - - "	171,779	69,901	496,174	3,05,859	45,407	25,621	206,416	179,884
Rye - - - - - "	287,419	375,911	184,181	127,903	127,903	19,196	38,884	5,412
Peas and beans - - - - - "	63,542	366,917	493,288	268,175	253,261	151,518	207,428	118,576
Wheat flour - - - - - "	33,557	66,297	65,675	41,067	20,933	45,627	48,408	39,081
Flax, dressed - - - - - "	1,401	1,401	1,401	1,401	3,229	3,229	3,229	11,279
rough or undressed - - - - - "	86,179	51,299	48,551	89,750	227,017	135,880	134,695	245,955
raw and ecolla of - - - - - "	5,162	5,378	5,103	1,221	12,295	5,417	8,581	5,650
Oil of turpentine - - - - - tons	2,594	5,201	5,653	5,653	13,971	15,590	21,228	19,690
rapeseed - - - - - "	1,830	2,290	2,437	2,437	3,701	3,862	5,545	5,545
Oil seed cake - - - - - tons	1,891	814	1,918	2,688	85,666	39,040	81,842	105,914
Turk oil - - - - - cwt.	2,680	4,810	5,658	2,357	37,914	58,615	40,741	19,015
Macx and other materials, for making paper - - - - - tons	7,484	7,092	9,205	6,373	169,260	157,891	211,102	137,917
Seed.—Flax - - - - - cwt.	5,323	2,428	2,428	5,527	14,856	7,009	8,592	18,245
Linseed and flaxseed - - - - - qr.	89,591	73,920	61,115	67,536	148,139	169,002	149,871	168,592
Rape - - - - - "	54,336	71,053	91,556	85,189	164,032	21,591	25,674	230,577
Turns - - - - - "	12,961	11,503	11,503	11,886	21,683	28,028	21,429	29,229
Spelter or zinc - - - - - tons	1,294	5,292	5,601	5,610	30,923	135,503	124,053	127,507
Spirits, unenumerated, not brewed - - - - - gal.	75,077	410,001	213,616	37,664	5,039	27,257	12,821	2,845
Wood and timber:— not sawn or split - - - - - loads	279,271	389,170	274,385	227,278	1,051,907	1,286,245	807,815	587,076
duals, battens, boards &c.— sawn or split - - - - - "	59,087	63,551	67,002	75,056	128,243	185,716	190,648	209,088
staves - - - - - "	22,638	24,617	23,265	19,614	299,136	300,993	363,632	221,553
lathwood - - - - - "	12,707	15,526	15,526	15,526	25,331	15,526	15,526	15,075
Wool, sheep and lambs' - - - - - lb.	420,423	279,611	1,097,592	575,789	39,113	26,750	106,785	133,339
Woolen rags, torn up, to be used as wool - - - - - "	706,912	676,072	761,712	628,768	11,339	13,885	11,090	8,566
All other articles - - - - - value	..	..	..	..	94,616	116,491	128,051	97,759
Total - - - - - value	..	..	..	..	5,802,919	6,126,205	6,866,751	..

Account of the Quantities and Values of the Principal Articles of Domestic Growth and Manufacture Exported from the United Kingdom to Prussia in each of the 3 Years ending with 1867.

Principal and other Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
Alkali, soda - - - - - cwt.	182,981	78,413	196,031	70,629	39,615	89,338
Beer and ale - - - - - bbls.	3,168	2,009	10,280	9,292	9,292	9,018
Borns, refined in the United Kingdom - - - - - lb.	9,019	1,578	2,895	5,522	4,480	8,723
Cement - - - - - cwt.	188,788	195,868	147,813	83,322	11,146	16,706
Coal, cinders, and culm - - - - - tons	607,771	484,068	507,960	27,592	205,114	291,137
Copper, wrought and unwrought - - - - - lb.	5,512	5,613	6,511	15,775	16,680	49,435
Cotton yarn - - - - - lb.	2,121,121	4,181,259	7,029,086	299,492	580,880	701,083
Cottons, enumerated by the yard - - - - - yards	935,256	601,222	3,970,978	26,816	30,980	124,050
all other kinds - - - - - value	..	..	..	7,498	9,615	12,852
Drugs and chemical products - - - - - lb.	1,779	1,779	1,779	10,082	10,082	15,623
Fish, herrings - - - - - cwts.	159,824	179,731	255,575	255,155	270,830	374,421
Hardware and cutlery, unenumerated - - - - - cwt.	7,080	4,803	5,969	19,329	45,136	32,435
Iron, wrought and unwrought - - - - - tons	72,088	41,177	42,099	541,859	272,261	260,952
Lead and shot - - - - - value	151	591	67	2,678	12,165	1,327
Leather, wrought and unwrought - - - - - value	..	..	..	2,057	801	1,222
Linen yarn - - - - - lb.	951,765	511,076	1,517,615	69,101	43,900	78,403
Linens, entered by the yard - - - - - yards	775,137	754,120	901,680	41,191	42,101	59,450
Machinery - steam engines - - - - - value	..	..	..	31,119	5,060	50,025
all other kinds - - - - - value	..	..	..	136,158	96,762	210,664
Molasses - - - - - cwt.	6,995	7,143	12,581	5,169	6,765	10,071
Oil, seed - - - - - gallons	876,319	258,143	288,449	112,073	28,344	47,642
Paints, colours (oo. other wise described) - - - - - value	..	..	..	2,559	2,310	4,334
Salt - - - - - tons	55,119	40,740	49,016	25,271	22,454	30,953
Silk - - - - - cwt.	2,591	1,980	4,278	12,538	8,639	19,335
Tin plates - - - - - value	..	..	..	11,619	4,139	12,102
Woolen and worsted yarns - - - - - lb.	688,177	392,123	1,244,591	109,112	65,576	195,545
Woolens, entered by the yard - - - - - yards	406,682	375,111	1,111,035	34,225	35,092	91,709
all other articles - - - - - value	..	..	..	166,210	4,803	4,287
Total - - - - - value	..	..	..	2,095,320	1,800,499	2,827,147

1867		
Number of Vessels	Tonnage	Number of Crew (exclusive of Masters)
..	85,856	3,146
..	30,365	1,152
..	111,811	4,572
..	12,825	474
..	19,392	598
..	32,917	1,026
..	117,028	5,648

January 1, 1868, distinguishing between Crufts, stating Tonnage with the Amounts on January 1,

1868		Total January 1, 1868	
Number of Vessels	Lasts	Number of Vessels	Lasts
7	216	208	29,201
22	718	176	24,411
114	2,610	246	22,227
9	280	57	8,830
..	..	41	2,771
11	288	62	7,210
20	430	45	4,618
17	303	41	4,680
17	531	35	3,290
171	4,464	222	11,374
388	9,660	1,139	125,353
395	9,871	1,157	124,751
288	5,529	1,003	109,503

Export from Stettin to the coast,

Quantities of the different Varieties from Stettin in 1866, Species sent to Great Britain and in Imperial Quins.

1866			Total to 1865
To other Countries	Total	..	..
..	..	..	..
55,668	367,549	218,535	..
73,180	79,800	79,814	..
29,101	298,754	167,046	..
8,223	59,647	5,709	..
164,135	805,640	496,661	..
..	..	3,179	..
..	5,941	33,366	62,351
..	16,528	16,480	12,416
..	186,534	855,296	589,211

Quantity of corn exported in 1867

.. corn, timber, and spirits, the export are spelter, oil-cake, other seeds, wool, glass &c.

Prussia large quantities of produce, the value of the ex- having amounted to 2,498,163. .., the .. are much greater. But necessary to add, that a large .. now as formerly) portion of .. is indirect, being carried to the Towns, Holland &c. (Much in this article has been derived from Blackwell's very instructive 1866.)

STOCKHOLM. The capital city of Sweden, situated at the junction of the lake Maelar with an inlet of the Baltic, in lat. 59° 20' 6" N., long. 18° 3' 7" E.; a well-built, handsome city. Population in 1865, 133,361.

The entrance to the harbour is intricate and dangerous, and should not be attempted without a pilot; but the harbour itself is capacious and excellent, the largest vessels lying in safety close to the quays, which can accommodate several hundreds. The depth of water in the harbour varies from 5 to 6 fathoms. 'Kodjupet,' directly to the north of Stockholm, is the passage which determines the draught of vessels bound for this port. The highest water line at Kodjupet is from 28 to 29 feet, but in consequence of the sudden bends in the passage it is not safe, especially for vessels of

much length, to attempt to pass with a greater draught than 24 feet. Of Stockholm is the Svenskar Bjorn light-vessel, in 59° 35' N. lat., and 19° 46' W. long. Stockholm possesses from a third to a half of the foreign trade of Sweden; but this is confined within comparatively narrow limits. The Government was long accustomed to endeavour to promote industry by excluding foreign products; latterly, however, this system has been very considerably relaxed, with great advantage to the trade of the country, and the well-being of the people. Notwithstanding the general inferiority of the soil, and the backwardness of the climate, agriculture has, within the last 20 years, made a more rapid progress in Sweden than in, perhaps, any other country of Europe; and instead of importing, as was formerly

the case, she now exports large quantities of oats and other grain. (See post, for her exports of corn to England.) Still iron, timber, and deals form the principal articles of export. Swedish iron is of very superior quality, and is rather extensively used in Great Britain, our imports of pig and bar iron from Sweden amounting, in 1867, to upwards of 76,313 tons, exclusive of 4,656 tons of steel. In addition to the above leading articles, Stockholm exports pitch, tar, copper &c. The timber is inferior to that from the southern ports of the Baltic. The imports principally consist of colonial products; cotton stuffs and yarn; iron, hardware, machinery, and coal, mostly from England; with woollens, wine, silks, salt, hides, guano, fish, brandy, wool, fruit &c.

**Pilotage.**—Pilots may be obtained by vessels coming from the north, at Arholm and Söderam; and by vessels from the east and south, at Land-sort, Hufvuds-kär, and Sandhamn.

The entrance from Sandhamn is the shortest and straightest, and therefore the easiest and cheapest passage to Stockholm.

#### Pilotage Charges.

Swedish Zweck	From Land-sort to Stockholm, 72 English Miles	Swedish Zweck	From Sandhamn to Stockholm, 38 English Miles	Swedish Zweck	From Arholm to Stockholm, 56 English Miles
1	rkndl. öre	6	rkndl. öre	6	rkndl. öre
2	30 30	7	16 00	7	21 30
3	37 80	8	20 00	8	21 30
4	45 50	9	21 20	9	37 60
5	52 80	10	28 50	10	44 10
6	60 40	11	32 40	11	50 70
7	67 90	12	36 00	12	57 30
8	75 50	13	40 70	13	63 10
9	83 10	14	44 80	14	70 30
10	90 50	15	49 00	15	76 90
11	98 20	16	53 00	16	83 30
12	105 60	17	57 30	17	89 70
13	113 30	18	61 30	18	96 30
14	120 70	19	65 50	19	102 90
15	128 30	20	69 60	20	109 40
16	135 90		73 70	20	115 90

For vessels clearing outward in ballast, the above charges are reduced by one-half. An extra charge of 1 riksdaler 50 öre is made for attestation.

The winter charges, dating from September 1 to April 30, are increased by 25 per cent. from the sea to the first pilot station inside the buoys.

Pilot's return fares, about 12 riksdaler.

Vessels bound to any place on the line of passage up to Stockholm must take pilots at Land-sort.

**Light Dues.**—Inwards—84 riksdaler; outwards with cargo—84 riksdaler.

Outwards in ballast—42 riksdaler.

**Lock Dues.**—For the vessel—Under 50 Swedish nylläst, 6 öre per nylläst; for every nylläst above 50, 35 öre per nylläst.

For the cargo—For every nylläst, 30 öre per nylläst.

**Shipping and Character of Sailors.**—In 1866 there belonged to Sweden 3,323 vessels, of the aggregate burden of 447,795 English tons. 'I would,' says the British consul at Stockholm, 'beg to remark, that in consequence of the superior education of the masters and mates of Swedish mercantile vessels, the subordination and steadiness of their crews, combined with great care in loading and unloading their cargoes, they and the Norwegians have become favourite carriers with merchants of all nations. This preference is not to be attributed to a lower rate of freight, though they offer that advantage also, but to the confidence reposed in the zeal and intelligence of the masters and crews.' This is the true cause of the great increase, of late years, in the number of Swedish ships bringing cargoes from foreign countries to England.

Table, showing the Number and Tonnage of British Vessels which arrived at the Port of Stockholm in the Decade 1858-67.

Years	Number of Sailing Vessels	Number of Steamers	Total	Aggregate Tonnage
1858	16	1	17	5,501
1859	28	1	29	5,573
1860	16	1	17	5,513
1861	26	4	30	6,812
1862	45	2	47	9,309
1863	39	5	44	10,911
1864	31	5	36	9,559
1865	63	18	81	21,617
1866	48	20	68	24,811
1867	55	21	76	20,093

#### Currency.

The unit is the riksdaler divided into 100 öre.

Taking the exchange at par, 18 riksdaler to the £ sterling.

1 riksdaler = 1s. 3d. English.

1 öre = about  $\frac{1}{16}$  d. English.

#### Weights.

The unit is the skelpund (100 skelpund = 23\*7117 lb. avoirdupois).

The skelpund is subdivided into 100 ort, and 10,000 korn; 100 skelpund make 1 centner, and 10,000 skelpund 1 nylläst.

1 nylläst = about 85 cwt. 75 lb. avoirdupois.

1 centner = 110 lb. 11 oz. avoirdupois.

1 skelpund = 11 oz. 7 dr. 2 sc. 9 gr. avoirdupois.

1 skippund = 100 Swedish skelpund.

#### Measures.

**Long Measure.**—The unit is the fot (100 fot = 97\*110 English feet).

The fot is subdivided into 10 tum, and 100 linker.

10 fot make 1 stang, and 100 fot 1 ref.

1 ref. = about 12 fathoms 1 yd. 4 in. 2 barley-corns English.

1 stang = 1 fathom 1 yd. 4 in.

1 fot = 11 in. 2 barley-corns.

1 tum = 1 in.

**Square Measure.**—The unit of Swedish superficial measurement is the square fot.

11 square fot = 136\*675 English square inches.

The square fot is subdivided into 100 square tum, and 10,000 square linker.

100 square fot make 1 square stang, and 10,000 square fot 1 square ref.

1 square ref. = about 55 square rods, 4 yds. 2 ft. 10 in. 7 barley-corns.

1 square stang = 10 sq. yds. 4 ft. 127 in. 7 barley-corns.

1 square fot = 136\*675 sq. in. 6 barley-corns.

1 square tum = 1 in. 5 barley-corns.

**Cubic Measure.**—Applied to the measurement of dry goods, liquids, and solids.

The unit is the cubic fot (100 cubic fot equal to 92 English cubic feet—7\*15\*1117 inches).

The cubic fot is subdivided into 10 kanner, 1,000 cubic tum, and 1,000,000 cubic linker.

1 cubic fot = 1597\*91117 English cubic inches.

1 cubic kanner = 159\*719117

For dry goods:—1 tunna = 5 cubic fot 6 kanner, Swedish.

For liquids:—1 tunna = 4 cubic fot 8 kanner, Swedish.

We export to Sweden considerable quantities of colonial and foreign produce, the value thereof having amounted in 1866 to 716,717*l.*, and in 1867 to 752,889*l.*

The Swedish smelting furnaces and iron-works are licensed to produce certain quantities, some being as low as 50 tons, and others as high as 400 or 500 tons; and some fine bar iron-works have licenses for 1,000 tons each. These licenses are granted by or over all the College of Mines, which has a control over iron-works and mining operations. The iron-masters make annual returns of their manufacture, which must not exceed the privileged or license quantity, on pain of the overplus being confiscated. The college has established courts of mines in every district, with supervising officers of various ranks. All iron sent to a port of shipment must be landed at the public weigh-house, the superintendent of which is a delegate of the college, so that it is impossible for an iron-master to send more iron to market than his license authorises. It is true that sales are made to inland consumers at the forges, of which no returns are made out, and in so far the licenses are exceeded; but it is not supposed that the quantity so disposed of exceeds a few thousand tons a-year. Every furnace and forge pays a certain annual duty to the Crown. Its amount is fixed by the college when the license is granted; and care is taken not to grant the license to anyone unless he have the command of forests equal to the required supply of charcoal, without encroaching on the supply of this material required for the existing forges in the neighbour-

**Number and Tonnage of British  
arrived at the Port of Stockholm  
1858-67.**

Number of Steamers	Total	Aggregate Tonnage
1	17	3,591
1	20	5,533
1	17	3,513
4	30	6,812
2	45	9,499
5	34	10,914
5	39	9,579
18	81	21,517
20	68	20,811
21	76	20,095

**Currency.**  
1 rixdaler = 100 ore.  
1 rixdaler to the £ sterling.

**Weights.**  
100 skapund = 93.7117 lb. avoirdupois.  
100 art, and 10,000 kern; 100 skat.  
1, and 10,000 skapund = 1 nylst.  
1, and 10,000 skapund = 1 nylst.  
1, and 10,000 skapund = 1 nylst.  
1, and 10,000 skapund = 1 nylst.

**Measures.**  
100 fot = 97.110 English feet.  
100 tun, and 100 linker.  
100 fot = 1 ref.  
100 fot = 1 ref.  
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10 tons, and others as high as 400 or  
one fine bar iron-works have licenses  
ch. These licenses are granted by  
lege of Mines, which has a control  
mining operations. The iron-mas-  
ter returns of their manufacture,  
exceed the privileged or licensed  
of the overplus being confiscated.  
established courts of mines in  
with supervising officers of various  
sent to a port of shipment must  
public weigh-house, the superin-  
tendant is a delegate of the college, so  
possible for an iron-master to send  
market than his license authorities.  
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not the quantity so disposed of ex-  
ceeds 100 tons a-year. Every furnace  
pays a certain annual duty to the Crown,  
which is taken care of when the license  
is granted unless he have the command of  
the required supply of charcoal  
for the supply of this material  
existing forges in the neighbour-





Account of the Values of the Imports and Exports of Sweden in 1865-6, from and to each Country traded with; showing the Average Amounts of the 5 Years ending with 1865.

	1865		1866		1861-65	
	Exports	Imports	Exports	Imports	Average Exports	Average Imports
	riksdaler	riksdaler	riksdaler	riksdaler	riksdaler	riksdaler
Great Britain and Ireland	55,244,000	31,144,000	55,520,000	35,853,000	44,096,000	24,209,000
Northern Germany and the Hanseatic Towns	8,544,000	32,851,000	8,781,000	32,446,000	7,609,000	33,874,000
France	11,545,000	3,715,000	12,625,000	5,214,000	10,086,000	2,378,800
Denmark, Schleswig-Holstein	10,850,000	10,079,000	9,985,000	10,542,000	7,880,000	8,845,800
Norway	3,009,000	2,884,000	4,115,000	6,581,000	2,677,000	5,596,000
Russia and Finland	1,951,000	5,167,000	2,085,000	8,143,000	2,156,000	6,981,000
Holland and Belgium	6,651,000	5,158,000	5,878,000	4,876,000	5,115,000	5,016,000
Spain and Portugal	5,167,000	1,905,000	5,601,000	1,115,000	5,225,000	1,157,000
United States	1,096,000	686,000	2,785,000	651,000	1,350,000	1,647,800
East Indies and Australia	30,000	30,000	1,855,000	3,204,000	71,000	5,766,200
West Indies	1,127,000	445,000	—	—	1,257,000	815,500
Coast of Good Hope and District	160,000	—	35,000	42,000	59,000	7,900
Ceylon and Malta	25,000	—	72,000	—	112,000	300
Other States	5,272,000	6,895,000	2,165,000	6,125,000	2,895,000	6,984,000
Total	108,096,000	102,863,000	107,066,000	117,200,000	92,467,000	100,825,800

Account of the Quantities and Values of the Principal Articles Imported from Sweden into the United Kingdom in each of the 3 Years ending with 1867.

Principal Articles	Quantities			Computed Real Value			
	1865	1866	1867	1865	1866	1867	
				£	£	£	
Animals: oxen and bulls	no.	3,106	5,155	4,459	61,915	98,551	85,974
cows and calves	..	157	642	784	1,882	4,917	4,154
horses	..	26,786	29,558	18,239	11,076	12,912	12,593
sheep	..	171,382	246,155	329,452	64,147	125,465	68,845
pigs	..	3,060,204	2,291,211	3,168,706	1,001,516	268,726	1,990,441
other kinds	..	25,277	7,506	6,944	10,179	5,366	2,986
Copper ore	tons	985	2,095	1,101	15,527	20,027	11,110
Iron ore	..	91	25	25	825	425	—
in bars, unwrought	..	6,338	4,685	505	18,896	6,746	475
pig	..	45,016	51,533	60,056	509,550	525,594	601,514
steel, unwrought	..	7,284	6,835	18,987	35,194	51,635	81,135
other kinds	..	2,235	5,495	5,162	31,618	47,783	25,996
of iron	..	4,340	2,506	4,656	61,253	44,095	60,412
of steel	..	125,600	168,808	171,517	27,572	31,666	22,723
of copper	..	880	1,080	815	7,569	8,767	6,855
of other metals	..	2,627	6,659	15,477	5,871	14,571	35,275
of iron, unwrought	..	209	24	115	3,480	914	990
of iron, wrought	..	214,365	235,362	201,162	490,555	435,141	452,412
of steel, wrought	..	506,440	505,767	580,419	1,588,395	1,199,024	1,569,662
of copper, wrought	..	35,944	35,272	40,282	341,847	288,637	326,666
of other metals, wrought	..	22,510	11,220	13,701	52,225	50,229	24,581
of iron, wrought	..	..	..	..	88,952	90,922	66,146
of steel, wrought	..	..	..	..	4,199,794	4,001,856	4,756,503
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..	..	..	..
of iron, wrought	..	..	..	..	..	..	..
of steel, wrought	..	..	..	..	..	..	..
of copper, wrought	..	..	..	..	..	..	..
of other metals, wrought	..	..	..	..			

correct estimate of the numbers engaged in mining industry. Sweden now (1869) boasts upwards of 1,000 English miles of railway.

STOCKINGS, as everyone knows, are coverings for the legs. They are formed of only one thread entwined, so as to form a species of tissue, extremely elastic, and readily adapting itself to the figure of the part it is employed to cover. This tissue cannot be called cloth, for it has neither warp nor woof, but it approaches closely to it; and for the purposes to which it is applied, it is very superior.

1. *Historical Sketch of the Stocking Manufacture.*—It is well known that the Romans and other ancient nations had no particular clothing for the legs. During the middle ages, however, hose or leggings, made of cloth, began to be used; and at a later period the art of knitting stockings was discovered. Unluckily, nothing certain is known as to the individual by whom, the place where, or the time when, this important invention was made. Howell, in his *History of the World* (vol. iii, p. 222), says that Henry VIII. wore none but cloth hose, except there came from Spain by great chance a pair of silk stockings; that Sir Thomas Gresham, the famous merchant, presented Edward VI. with a pair of long silk stockings from Spain, and that the present was much taken notice of; and he adds, that Queen Elizabeth was presented, in the third year of her reign, with a pair of black knit silk stockings, and that from that time she ceased to wear cloth hose. It would appear from this circumstantial account, that the art of knitting stockings, or at least that the first specimens of knit stockings, had been introduced into England from Spain about the middle of the 16th century; and such seems to have been the general opinion, till an allusion to the practice of knitting, in the pretended poems of Rowley, forged by Chatterton, made the subject be more carefully investigated. The result of this investigation showed clearly that the practice of knitting was well known in England, and had been referred to in Acts of Parliament, a good many years previously to the period mentioned by Howell. But it had then, most probably, been applied only to the manufacture of woollen stockings; and the general use of cloth hose shows that even these had not been numerous. There is no evidence to show whether the art is native to England, or has been imported. (Beckmann's *Inventions*, vol. iv. art. 'Knitting, Nets, and Stockings.')

It is singular that the stocking frame, which, even in its rudest form, is a very complex and ingenious machine, that could not be discovered accidentally, but must have been the result of deep combination and profound sagacity, should have been discovered so early as 1589; before, in fact, the business of knitting was generally introduced. The inventor of this admirable machine was Mr. William Lee, of Woodborough, in Nottinghamshire. He attempted to set up an establishment at Calverton, near Nottingham, for the manufacture of stockings, but met with no success. In this situation he applied to the queen for assistance; but instead of meeting with that remuneration to which his genius and invention so well entitled him, he was discouraged and discountenanced! It need not, therefore, excite surprise that Lee accepted the invitation of Henry IV. of France, who having heard of the invention, promised him a magnificent reward if he would carry it to France. Henry kept his word, and Lee introduced the stocking frame at Rouen with distinguished success; but after the assassination of the king,

the concern got into difficulties, and Lee died in poverty at Paris. A knowledge of the machine was brought back from France to England by some of the workmen who had emigrated with Lee, and who established themselves in Nottinghamshire, which still continues to be the principal seat of the manufacture. (Beckmann's *Inventions*, vol. iv. pp. 313-324; and *Letters on the Utility and Policy of Machines*, Lond. 1870.)

During the first century after the invention of the stocking frame, few improvements were made upon it, and two men were usually employed to work one frame. But in the course of last century the machine was very greatly improved. The late ingenious Mr. Jedediah Strutt, of Derby, was the first individual who succeeded in adapting it to the manufacture of ribbed stockings.

2. *Statistical View of the Stocking Trade.*—It is not possible, perhaps, to obtain any very satisfactory information in regard to the extent or value of the stocking trade. It embraces not only stockings, properly so called, but a great many other articles, including woollen and cotton drawers, gloves, mitts, nightcaps, socks, knitted shawls &c. And even as respects stockings, the varieties are so very numerous and differ so widely, comprising all sorts, from those of the finest to those of the coarsest silk, cotton, and wool, that nothing better than a rough estimate can be formed of their value.

In 1832, Mr. Felkin, of Nottingham, who made many elaborate enquiries into the subject, estimated the number of frames at work at 33,000, and the total value of the hosiery produced at 1,991,000*l.* This estimate was probably underrated at the time; and is now, there can be no doubt, greatly below the mark. From the best information we can obtain, we incline to think that the entire value of the hosiery produced in Great Britain, whether by frames or otherwise, may (1868) amount to somewhere about 6,500,000*l.* a-year. The average consumption per individual of hosiery in the same division of the empire may, it is believed, be taken at about 4*s.* a-year; and if we take the population at 25 millions, this will give 5,000,000*l.* for their consumption; and adding to this 1,000,000*l.* for the value of the exports to foreign countries (1,200,627*l.* in 1860), a sum of 6,000,000*l.* will remain to defray the cost of those sent to Ireland. We are pretty well satisfied that this estimate is not far from the mark. And moderate as it may seem to be when compared with others that have been put forward, it sets the great importance of the manufacture in a very striking point of view.

Of 1,206,626 dozen pairs of cotton and woollen stockings and socks, of the value of 448,028*l.* exported in 1867, 334,951 dozen pairs, worth 131,415*l.* were shipped for Australia. Of the residue, which were sent to a great many places, the United States and the Argentine Confederation took the largest numbers.

In Mr. Felkin's paper on the state of the lace and hosiery trades of Nottingham, read at the meeting of the Social Science Association held in 1866, he says:—

'In the hosiery business of Nottingham there were at work in 1865 11,000 narrow hand machines, employing domestically 7,500 men and 3,500 women and youths, at wages from 6*s.* to 26*s.*, averaging, by the statements of the accounts of the hands themselves, 40*s.* 6*d.* weekly; also 4,250 wide hand machines, likewise domestically employing 4,250 men, from 10*s.* to 30*s.*, averaging, according to the workmen's statement, 15*s.* weekly wages. These 15,250 hand frames were placed in 4,620 shops, in 80 parishes spread over the

ilities, and Lee died in knowledge of the machine in France to England by who had emigrated with themselves in Nottingham, to be the principal (Heckmann's *Inventories*, 324; and *Lettres on the Machines*, Lond. 1870.)

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county of Nottingham. The entire average wages of 42,000 frames in 1844 was about 6s. a week only. These two classes of hand machines, it is computed, give employment to about 20,000 women and girls as winders and senners, earning 4s. each on an average. There are about 1,000 wide power rotary frames, employing 700 men, at from 20s. to 32s.; and about 15,000 girls and women, senners and winders, on an average of 5s. weekly. There are about 1,200 sets of circular round power frames improved, employing 500 men and 500 youths, at from 12s. to 35s. weekly; and 1,000 women, getting 12s. to 20s. weekly wages. The winders, cutters, menders, and others attached to these are about 11,000 women and girls, averaging 7s. to 12s. a week. And there are about 400 warp machines making hosiery by power, employing 400 men, at 14s. to 35s.; and 200 youths, at 12s. to 20s.; besides 400 warpers &c. (men), gaining about 25s., and also 2,000 women and girls stitching &c., at 8s. a week on an average. It is probable that there are 2,000 men employed in bleaching, dyeing &c., and as porters &c., at 20s. to 35s. weekly; besides 5,000 menders, folders &c., working in warehouses, at from 8s. to 12s. weekly. To these must be added the warehousemen and clerks in 86 establishments for finishing and sale of goods in Nottingham. The Nottingham hosiery business is now believed to be giving employment to about 17,000 males and 41,000 females—together 61,000 workpeople. The estimated returns amounted in 1865 to about 3,000,000. The two staple trades of Nottingham, therefore, distributed in return an amount of somewhat more than 3,000,000 sterling last year, and furnished in the aggregate, employment to nearly 200,000 workpeople.

#### STORAX. [BALSAM.]

STORES, MILITARY AND NAVAL, include arms, ammunition &c. It is enacted that the importation of arms and ammunition may be prohibited by proclamation or order in council (s. 45), and the exportation, or carrying coastwise of military and naval stores, may be prohibited in the same way (s. 150), and the importation of gunpowder, ammunition, arms, or utensils of war, into British America or the Mauritius, except from the United Kingdom or any British possession, is absolutely prohibited (s. 159). (16 & 17 Vict. c. 107, or Customs Consolidation Act.)

STORES. In Commercial Navigation, the supplies of different articles provided for the subsistence and accommodation of the ship's crew and passengers.

It is laid down, in general, that the surplus stores of every ship arriving from parts beyond seas are to be subject to the same duties and regulations as those which affect similar commodities when imported as merchandise; but if it shall appear to the collector of customs that the quantity of such stores is not excessive, nor unsuitable, under all the circumstances of the voyage, they may be entered for the private use of the master, purser, or owner of such ship, on payment of the proper duties, or be warehoused for the future use of such ship, although the same could not be legally imported by way of merchandise. (16 & 17 Vict. c. 107.)

For such places as are not included in the annexed list, the same allowance should be granted as is given to the place nearest thereunto.

Goods delivered into the charge of the searchers to be shipped as stores, may be so shipped without entry or payment of any duty, for any ship of the burden of 50 tons at least bound upon a voyage to foreign parts, the probable duration of which

out and home will not be less than 40 days; provided such stores be duly borne upon the ship's victualling bill, and be shipped in such quantities, and subject to such directions and regulations, as the Commissioners of Customs shall direct and appoint. (16 & 17 Vict. c. 107 s. 140.)

Rum of the British plantations may be delivered to the searcher, to be shipped as stores for any ship, without entry or payment of any duty; and any surplus stores of any ship may be delivered to the searcher, to be re-shipped as stores for the same ship, or for the same master in another ship, without entry or payment of any duty—such rum and such surplus stores being duly borne upon the victualling bills of such ships respectively; and if the ship, for the future use of which any surplus stores have been warehoused, shall have been broken up or sold, such stores may be so delivered for the use of any other ship belonging to the same owners, or may be entered for payment of duty, and delivered for the private use of such owners or any of them, or of the master or purser of the ship. (Sec. 17.)

The searchers in London, on clearance of vessels coastwise to take in cargoes for foreign parts, are to apprise the collectors of customs at the outports where the vessels may be bound, of the quantity and description of the goods which may have been shipped as stores on board such vessels, and that bond has been given by the masters of the vessels that no part of such stores shall be consumed by the crews, or any package opened or altered, until the vessels have actually been cleared on their foreign voyages; and the collectors of customs at the out-ports are in like manner to cause a similar communication to be made to the ports where the outward cargoes are to be taken on board, and the officers at such ports are to take care to ascertain that the several goods so shipped are actually on board the vessels on their arrival, and have neither been consumed nor run on shore during the coasting voyage; and if so, to report the same to the Board. (*Min. by Com. of Customs*, February 13, 1833.)

*List of Foreign Goods allowed (with the addition of 25 per cent. to guard against the casualties of a sea voyage) to be shipped as Stores from the bonded Warehouses free of Duty. (Customs Minute, November 29, 1832, and numerous subsequent orders of that Board, and the 11 & 12 Vict. c. 122.)*

Tea,  $\frac{3}{4}$  oz.; coffee or cocoa, or cocoa paste, 1 oz. per day for each person on board, with the option to ship the entire quantity required for the voyage of either species of these articles, half an oz. of tea being considered equal to one oz. of coffee or cocoa, or cocoa paste.

Wine, 1 quart per day for the master, each mate, and cabin passenger.

Wine may be shipped instead of spirits, or a proportion of each, 1 pint of wine being equal to  $\frac{1}{2}$  pint of spirits.

Wine bottled in the bonded warehouses for exportation may be shipped as stores, in packages containing not less than 1 doz. reputed quarts or 2 doz. reputed pint bottles.

Spirits, viz. brandy, geneva, rum (British plantation),  $\frac{3}{4}$  pint per day for each person on board.

British plantation or East India rum or British spirits to be in the proportion of  $\frac{1}{3}$  of the whole quantity of spirits shipped. Spirits imported in bottles, or bottled in the bonded warehouses for exportation, may be shipped as stores, in pack-

A List by which to calculate the Amount of Stores for the estimated Average Number of Days' Duration of a Voyage from the United Kingdom to the different Ports enumerated and back.

Ports of Destination	Days of Voyage	Ports of Destination	Days of Voyage	Ports of Destination	Days of Voyage	Ports of Destination	Days of Voyage
Abo -	100	Copenhagen -	100	Malabar -	565	Rome -	150
Acapulco, Mexico -	450	Cosquimo -	300	Malacca -	405	Rosgen -	100
Alexandria -	180	Cornu Isle -	140	Malaga -	100	St. Andro -	100
Algeiras -	180	Cuba -	130	Malta -	140	St. Andrew, N. B. Seas -	100
Algera -	180	Cuddalore -	30	Mangalore -	100	St. Augustine's Bay -	100
Alicant -	110	Crusatad -	100	Manilla -	450	St. Bartholomew -	100
Almeria -	140	Cuba -	210	Maranham -	100	St. Christopher's -	100
Alton -	110	Cuddalore -	400	Maracaibo -	100	St. Helena -	100
Ancona -	160	Cyprus -	240	Marselles -	150	St. Domingo -	100
Amalbona -	180	Catania -	180	Martinico -	100	St. Eustacia -	100
Antigon -	180	Cyprus -	180	Mexico -	400	St. Helena -	100
Archangel -	120	Dantzic -	100	Mauritius -	270	St. John, New Bruns. -	100
Archipelago Isles -	180	Davia's Straits -	210	Mexico -	100	St. John's, Newfoundland -	100
Ascension Is. -	240	Delaware Bay -	150	Mexico -	150	St. Lucia -	100
Augustine's Bay -	150	Demerara -	150	Mexico, Vide Vera Cruz and Arapulco -	110	St. Martin -	100
Australia -	420	Dominica -	100	Mexico -	110	St. Mary's -	95
Azores Isles -	90	Drontheim -	150	Mitromichi -	100	St. Michael's, Azores -	200
Bahama Isles -	150	Ellhu Isle -	95	Mitromichi -	100	St. Salvador, or Bahia -	200
Bahia -	200	Elbing -	95	Shelva -	365	St. Sophia -	100
Batavia -	120	Elizour -	100	Shelva -	100	St. Thomas -	100
Barbadoes -	180	Emden -	42	Moscovoe -	130	St. Ubes -	100
Barcelona -	110	Essequibo -	190	Monte Video -	230	St. Vincent's -	100
Berbec -	365	Fazoull Isles -	150	Montreal -	100	St. Vincent's -	100
Berwick -	400	Ferroe Islands, N. Sea -	100	Montserrat -	180	Sagarno -	100
Bay of Campeachy -	210	Ferroe Islands, Canaries -	95	Nantes -	80	Santonis -	100
Bay of Roses -	110	Fayal -	80	Nantes -	150	Santonis -	100
Bayonne -	80	Fernando Po -	180	Narbonne -	400	Santonis -	100
Bengal -	400	Ferrol -	80	Naraganan -	400	Santonis -	100
Berbec -	180	Friendly Islands -	430	Naraganan -	100	Santonis -	100
Bergen -	180	Galapagos -	180	New Brunswick -	100	Santonis -	100
Bermuda -	120	Gaspagnan -	400	Newfoundland -	100	Santonis -	100
Bilboa -	80	Greena -	150	New Guinea -	400	Santonis -	100
Bombay -	365	Greena -	150	New Hebrides -	100	Santonis -	100
Bona -	120	Gro -	365	Newport -	120	Santonis -	100
Bordeaux -	80	Gro -	190	New Providence -	165	Santonis -	100
Borbonis -	100	Littonburg -	190	New South Wales -	100	Santonis -	100
Boston -	120	Greek Islands, and -	180	New Zealand -	100	Stettin -	370
Botany Bay -	420	Greena -	180	Nice -	100	Stockholm -	100
Brazil -	300	Greenland Fishery -	180	Nizam -	100	Sumatra -	100
Bremen -	42	Greena -	180	Nizam -	100	Nizam -	100
Buenos Ayres -	210	Guadaloupe -	180	Nova Scotia -	120	Nusa -	100
Bullia -	50	Guyanaul -	420	Onoro -	80	Nusa -	100
Calabar -	180	Hallax -	120	Onoro -	80	Nusa -	100
Calcutta -	400	Hamburg -	42	Onoro -	80	Nusa -	100
Callao -	180	Havannah -	42	Onoro -	80	Nusa -	100
Canary Isles -	95	Havannah -	42	Onoro -	80	Nusa -	100
Candia Isle -	160	Helsingland -	42	Onoro -	80	Nusa -	100
Canton -	420	Hobart Town -	400	Onoro -	80	Nusa -	100
Cape Coast Castle -	200	Honduras -	420	Onoro -	80	Nusa -	100
Cape of Good Hope -	210	Hudson's Bay -	210	Onoro -	80	Nusa -	100
Cape Hurd -	410	Iceland -	100	Onoro -	80	Nusa -	100
Cape St. Mary -	180	London Isles -	150	Onoro -	80	Nusa -	100
Cape de Verde Islands, -	180	Islands in the Archip. -	180	Onoro -	80	Nusa -	100
St. Antonio -	100	Isle of Salde -	150	Onoro -	80	Nusa -	100
St. Jago -	100	Isles of France and -	150	Onoro -	80	Nusa -	100
St. Vincent -	100	Bourbon -	270	Onoro -	80	Nusa -	100
Cartagena -	100	Canary -	110	Onoro -	80	Nusa -	100
Cartagena -	100	Jamaica -	210	Onoro -	80	Nusa -	100
Cartagena, Spanish -	210	Java -	400	Onoro -	80	Nusa -	100
Cayenne -	180	Java -	400	Onoro -	80	Nusa -	100
Cephalonia -	140	La Ceception -	410	Onoro -	80	Nusa -	100
Cebu -	130	Ladrones -	430	Onoro -	80	Nusa -	100
Cebu -	120	La Guayra -	410	Onoro -	80	Nusa -	100
Ceylon -	365	Leighorn -	150	Onoro -	80	Nusa -	100
Charlestown -	120	Lima -	400	Onoro -	80	Nusa -	100
Chesapeake Bay -	120	Lisbon -	80	Onoro -	80	Nusa -	100
Chili -	360	Long Island -	130	Onoro -	80	Nusa -	100
China -	420	Lubeck -	100	Onoro -	80	Nusa -	100
Christiana -	100	Madagascar -	270	Onoro -	80	Nusa -	100
Civita Vecchia -	130	Madeira -	90	Onoro -	80	Nusa -	100
Columbia River -	200	Madras -	400	Onoro -	80	Nusa -	100
Columbo -	365	Majorca -	110	Onoro -	80	Nusa -	100
Constantinople -	180			Onoro -	80	Nusa -	100

ages or cases containing not less than 1 dozen bottles each.

*Raw Sugar, Bastard, Refined, and Molasses, Cane Juice or Syrup (together or separate), 1 lb. per week for each person on board.*

*Dried Fruits, 2 lb. per week for each person on board.*

*Rice, 2 lb. per week for each person on board.*

*Foreign or British Segars, ½ oz. per day for the master, each mate, and each cabin passenger.*

The entire quantity of foreign segars allowed as stores for each voyage to be shipped in one package.

*A List of British manufactured Goods to be allowed to be shipped as Stores on the usual Bounty or Drawback.*

*British refined Sugar, 3 oz. per day for the master, each mate, and each cabin passenger.*

*British manufactured Tobacco, ¼ oz. per day per man.*

*British excisable Goods, viz. beer, ale, and porter (together or separate), 1 quart per day for the master, each mate, and each passenger.*

*Vinegar, ½ pint per week for each person on board.*

*For Temperance Ships, Brandy ½ of the allowances of spirits of all sorts issued to other ships.*

*Sugar, Molasses, Cane Juice, or Syrup, 3 oz. per day.*

STRAITS SETTLEMENTS. [SINGAPORE.] STRANDING. In Navigation, the running of a ship on shore, or on the beach.

It is the invariable practice to subjoin the following memorandum to policies of insurance executed by private individuals in this country: 'N.B.—Corn, fish, salt, fruit, flour, and seed are warranted free from average, unless general, or the ship be stranded; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under 5l. per cent.; and all other goods, also the ship and freight, are warranted

Average Number of Days enumerated and back.

Ports of Destination	Days of Voyage
Borne	150
Buenos	150
St. Andrew, N. B. W. Ind.	150
St. Augustine Bay	150
St. Bartholomew	150
St. Christopher's	150
St. Cruz	150
St. Domingo	150
St. Helena	150
St. John, New Bruns.	150
St. John's, Newfound.	150
St. Lucia	150
St. Martin	150
St. Mary's	150
St. Michael's, Azores	150
St. Salvador, or Bahia	150
St. Sebastian	150
St. Thomas	150
St. Udoe	150
St. Vincent's	150
Saloe	150
Salerno	150
Salween	150
Sandwich Isles	150
Santa Martha	150
Sardonia Isle	150
Savannah	150
Scanderoon	150
Senegal	150
Serra Leone	150
Singapore	150
Singora	150
Society Islands	150
South Sea Fishery	150
St. Peter	150
Stockholm	150
Sumatra	150
Sunda	150
Swan River	150
Sydney, N.S. Wales	150
Syracuse	150
Tanger	150
Tarragona	150
Tellicoehy	150
Teneriffe	150
Timor	150
Tolago	150
Tromingen	150
Turtia	150
Toulon	150
Tranquebar	150
Treviso	150
Trincomalee	150
Trinidad	150
Trincomalee Bay	150
Tripoli	150
Truxillo	150
Tybee	150
Vadivie	150
Valencia	150
Valparaiso	150
Van Diemen's Land	150
Venezuela	150
Venice	150
Vera Cruz	150
Vigo	150
Wybang	150
Zante Isle	150
Zara	150
Zea	150

free of average under 31, per cent. unless general, or the ship be stranded.

It is, therefore, of the greatest importance accurately to define what shall be deemed a stranding. But this is no easy matter; and much diversity of opinion has been entertained with respect to it. It would, however, appear that merely striking against a rock, bank, or shore, is not a stranding; and that, to constitute it, the ship must be upon the rock &c. for some time (how long?). Mr. Justice Park has the following observations on this subject: 'It is not every touching or striking upon a fixed body in the sea or river that will constitute a stranding. Thus Lord Ellenborough held, that in order to establish a stranding, the ship must be stationary; for that merely striking on a rock, and remaining there a short time (as in the case then at the bar, about a minute and a half), and their passing on, though the vessel may have received some injury, is not a stranding. Lord Ellenborough's language is important. — *Ex re termini* stranding means lying on the shore, or something analogous to that. To use a vulgar phrase, which has been applied to this subject, if it be *touch and go* with the ship, there is no stranding. It cannot be enough that the ship lie for a few moments on her beam ends. Every striking must necessarily produce a retardation of the ship's motion. If by the force of the elements she is run aground, and becomes stationary, it is immaterial whether this be on piles, on the muddy bank of a river, or on rocks on the sea shore; but a mere striking will not do, wherever that may happen. I cannot look to the consequences, without considering the *causa causans*. There has been a curiosity in the cases about stranding not creditable to the law. A little common sense may dispose of them more satisfactorily.'

This is the clearest and most satisfactory statement we have met with on this subject; still it is very vague. Lord Ellenborough and Mr. Justice Park hold, that to constitute a stranding, the ship must be stationary; but they also hold, that if she merely remain upon a rock &c. for a short time, she is not to be considered as having been stationary. Hence everything turns upon what shall be considered as a short time. And we cannot help thinking that it would be better, in order to put to rest all doubts upon the subject, to decide either that every striking against a rock, the shore &c., by which damage is done to the ship, should be considered a stranding; or that not striking against a rock &c. should be considered as such, provided the ship be got off within a specified time. Perhaps a tide would be the most proper period that could be fixed.

The insurance companies exclude the words 'or the ship be stranded' from the memorandum. [INSURANCE, MARINE.]

**STURGEON FISHERY.** The sturgeon is a large, valuable, and well-known fish, of which there are several species, viz. the sturgeon, properly so called, or *Acipenser sturio*; the beluga, or *Acipenser huso*; the sevruga, or *Acipenser stellatus* &c. The sturgeon annually ascends our rivers, but in no great number, and is taken by accident in the salmon nets. It is plentiful in the North American rivers, and on the southern shores of the Baltic; and is met with in the Mediterranean &c. But it is found in the greatest abundance on the northern shores of the Caspian, and in the rivers Wolga and Ural; and there its fishery employs a great number of hands, and is an important object of national industry. Owing to the length and strictness of the Lents in the Greek Church, the consumption

of fish in Russia is immense; and from its central position, and the facilities afforded for their conveyance by the Wolga, the products of the Caspian fishery, and those of its tributary streams, are easily distributed over a vast extent of country. Besides the pickled carcases of the fish, caviar is prepared from the roes; and blinglass, of the best quality, from the sounds, and both are largely exported. The caviar made by the Ural Cossacks is reckoned the best. The belugas are sometimes of a very large size, weighing from 1,000 lb. to 1,500 lb.; and yield a good deal of oil. The seal fishery is also pretty extensively prosecuted in the Caspian. The reader will find a detailed account of the mode in which the fishery is carried on in this sea, and in the rivers Wolga and Ural, in Tooke's *Russia*, vol. iii, pp. 49-72.

M. Tegoborski estimated the total value of the produce of the fisheries now referred to at 5,000,000 silver roubles a-year. In 1867, 22,192 cwt. of caviar were exported from Taganrog. In 1867 we imported 120 cwt., valued at 1,826l.

**SUCCADES.** Of succades and confectionery (including fruits and vegetables preserved in sugar, and exclusive of 341,799 lb. of preserved ginger (valued at 25,769l.), we imported, in 1867, 1,636,185 lb., valued at 81,764l. Of these, 791,167 lb. were entered for home consumption, paying a duty of 1d. per lb. In 1867 we exported 1,636,644 lb. of British, and 1,618,977 lb. of foreign confectionery, worth in all 130,312l.

**SUGAR** (Fr. sucre; Ger. zucker; Ital. zucchero; Russ. sachar; Span. azucar; Arab. sukhir; Malay, soola; Sans. sarkari). A sweet granulated substance, too well known to require any particular description. It is everywhere in extensive use; and in this country ranks rather among the indispensable necessities of life than among luxuries. In point of commercial importance it is second to very few articles. It is chiefly prepared from the expressed juice of the *arundo saccharifera*, or sugar cane; but it is also procured from an immense variety of other plants, as maple, beet-root, birch, pارسnep &c.

**I. Species of Sugar.**—The sugar met with in commerce is usually of four sorts—brown, or muscovado sugar; clayed sugar; refined, or loaf sugar; and sugar candy. The difference between one sort of sugar and another depends altogether on the different modes in which they are prepared.

**1. Brown, or Muscovado Sugar.**—The plants or canes being crushed in a mill, the juice, having passed through a strainer, is collected in the clarifier, where it is first exposed to the action of a gentle fire, after being 'tempered' (mixed with alkali), for the purpose of facilitating the separation of the liquor from its impurities. It is then conveyed into the large evaporating copper, and successively into two others, each of smaller size; the superintending boiler freeing it, during the process, from the scum and feculent matters which rise to the surface. The syrup then reaches the last copper vessel, called the 'striking tache,' where it is boiled till sufficiently concentrated to be capable of granulating in the cooler, whence it is transferred with the least possible delay, to prevent charring. Here it soon ceases to be a liquid; and when fully crystallised, is put into hogsheds (called 'potting'), placed on their ends in the curing-house, with several apertures in their bottoms, through which the molasses drain into a cistern below. In this state they remain till properly cured, when the casks are filled up, and prepared for shipment.

**2. Clayed Sugar** is prepared by taking the

Goods, viz. beer, ale, and separate), 1 quart per day for each passenger.

Ships, Brandy  $\frac{1}{2}$  of the allowed sorts issued to other ships. Cane Juice, or Syrup, 3 oz.

**LEMENTS.** [SINGAPORE.] In Navigation, the running of the beach. The practice to subjoin the name to policies of insurance of individuals in this country: salt, fruit, flour, and seed from average, unless general, and; sugar, tobacco, hemp, and all other and freight, are warranted

juice, as in the case of muscovado sugar when boiled to a proper consistency, and pouring it into conical pots with the apex downwards. These pots have a hole at the lower extremity, through which the molasses or syrup is allowed to drain. After this drain has continued for some time, a stratum of moistened clay is spread over the surface of the pots; the moisture of which, percolating through the mass, is found to contribute powerfully to its purification.

3. *Refined Sugar* may be prepared from muscovado or clayed sugar, by redissolving the sugar in water, and, after boiling it with some purifying substances, pouring it, as before, into conical pots, which are again covered with moistened clay. A repetition of this process produces *double refined sugar*. But a variety of improved processes are now resorted to.

4. *Sugar Candy*.—Solutions of brown or clayed sugar, boiled till they become thick, and then removed into a hot room, formed upon sticks or strings put into the vessels for that purpose, into crystals, or candy.

11. *Historical Notice of Sugar*.—The history of sugar is involved in a good deal of obscurity. It was very imperfectly known by the Greeks and Romans. Theophrastus, who lived about 320 years before the Christian era, the first writer whose works have come down to us by whom it is mentioned, calls it a sort of 'honey extracted from canes or reeds.' Strabo states, on the authority of Nearchus, Alexander's admiral, that 'reeds in India yield honey without bees.' And Seneca, who was put to death A.C. 65, alludes to sugar in a way which shows how little was then known respecting it (Epist. 84):—'Alunt,' says he, 'inveni apud Indos mel in arundinum foliis, quod aut ros illius cœli, aut ipsius arundinis humor dulcis et pinguior gignat.'

Of the ancients, Dioscorides and Pliny have given the most precise description of sugar. The former says, it is 'a sort of conereted honey, found upon canes, in India and Arabia Felix; it is in consistence like salt, and is, like it, brittle between the teeth.' And Pliny describes it as 'honey collected from canes, like a gum, white and brittle between the teeth; the largest is of the size of a hazel nut: it is used in medicine only.' (Sacharum et Arabia fert, sed laudatius India; est autem mel in arundinibus collectum, gummiuum modo candidum, dentibus fragile, amplissimum nucis avellane magnitudine, ad medicinam tantum usum.—Lib. xii. c. 17.)

It is evident, from these statements, that the knowledge of the Greeks and Romans with respect to the mode of obtaining sugar was singularly imperfect. They appear to have thought that it was found adhering to the cane, or that it issued from it in the state of juice, and then concreted like gum. Indeed, Lucan expressly alludes to Indians near the Ganges—

Quilque bibunt tenerâ dulces ab arundine succos.—Lib. iii. 237.

But these statements are evidently without foundation. Sugar cannot be obtained from the cane without the aid of art. It is never found native. Instead of flowing from the plant, it must be forcibly expressed, and then subjected to a variety of processes. It is not, however, quite so clear as has been generally supposed that the Romans were wholly unacquainted with the mode of procuring sugar. The remarkable line of

Et quas percoquili Ebusa cannas.—Sylv. lib. i. v. 15.

has been conjectured, apparently on pretty good grounds, to refer to the boiling of the juice of the

cane. But the passage has been differently read, and is too enigmatical to be much depended on.

Dr. Moseley conjectures, apparently with much probability, that the sugar described by Pliny and Dioscorides, as being made use of at Rome, was sugar candy obtained from China. This, indeed, is the only sort of sugar to which their description will at all apply. And it would seem that the mode of preparing sugar candy has been understood and practised in China from a very remote antiquity; and that large quantities of it have been in all ages exported to India, whence it is most probable, small quantities found their way to Rome. (*Treatise on Sugar*, 2nd ed. pp. 66-71. This, as well as Dr. Moseley's *Treatise on Coffee*, is a very learned and able work.)

Europe seems to be indebted to the Saracens, not only for the first considerable supplies of sugar, but for the earliest example of its manufacture. Having, in the course of the 9th century, conquered Rhodes, Cyprus, Sicily, and Crete, they introduced into them the sugar cane, with the cultivation and preparation of which they were familiar. It is mentioned by the Venetian historians, that their countrymen imported, in the 12th century, sugar from Sicily at a cheaper rate than they could import it from Egypt. (*Essai de l'Histoire du Commerce de Venise*, p. 100.) The Crusades tended to spread a taste for sugar throughout the Western world; but there can be no doubt that it was cultivated as now stated, in modern Europe, antecedently to the era of the Crusades and that it was also previously imported by the Venetians, Amalutians, and others, who carried on a commercial intercourse, from a very remote epoch, with Alexandria and other cities in the Levant. It was certainly imported into Venice in 996.—(See the *Essai*, &c. p. 70.)

The art of refining sugar, and making what is called loaf-sugar, is said, by Dr. Moseley, to be a modern European invention, the discovery of a Venetian about the end of the 15th or the beginning of the 16th century. (Moseley, p. 66.) But this is doubtful, for Le Grand d'Aussy has shown that white or, as he calls it, refined sugar (*sucre blanc ou raffiné*), had been introduced into and used in France for more than a century and a half previously to the date assigned for the discovery of the process of refining in Venice. (*Le privilège des François*, ii. 198, ed. 1815.) But white sugar is not necessarily, as Le Grand d'Aussy seems to suppose, refined; it may be merely clayed, like Havannah sugar, which is as white as refined sugar. This sugar was imported from Egypt principally by Italians; and the probability is, that the latter were the first Europeans who practised the art, which, however, would appear to have originated in the East.

The cane had, as already seen, been introduced into Sicily, and its culture practised, previously to the middle of the 12th century. It also was carried to Spain and cultivated by the Saracens soon after they obtained a footing in that country. The first plantations were at Valencia; but they were afterwards extended to Granada and Murcia. Mr. Thomas Willoughby, who travelled over great part of Spain in 1664, has given an interesting account of the state of the Spanish sugar plantations, and of the mode of manufacturing the sugar.

Plants of the sugar cane were carried by the Spaniards and Portuguese to the Canary Islands, and Madeira, in the early part of the 15th century; and it has been asserted by many, that these islands furnished the first plants of the sugar cane that ever grew in America.

has been differently read, to be much depended on. It is, apparently with much probability, described by Pliny as made use of at Rome, and obtained from China. This is the sort of sugar to which their name is applied. And it would seem that refined sugar candy has been used in China from a very early period, that large quantities of it were exported to India, whence small quantities found their way to Europe. See *Treatise on Sugar*, 2nd edit. pp. 10, 11, as Dr. Moseley's *Treatise on the Art of Raising and Refining Sugar*, and able work.)

It is indebted to the Saracens for the introduction of considerable supplies of it. The earliest example of its manufacture is found in the course of the 9th century, in Cyprus, Sicily, and Crete. From thence the sugar cane, with the preparation of which they were first mentioned by the Venetian merchants, was introduced into our countrymen imported, in the year from Sicily as a cheaper article to import it from Egypt. See *du Commerce de Venise*, which tends to spread a taste for it at the Western world; but that it was cultivated in the West Indies, antedating the discovery of the Indies, and that it was also introduced by the Venetians, Amaltheo carried on a commercial traffic in it, at a very remote epoch, with Alexandria in the Levant. It was introduced into Venice in 996.—(See the

history of sugar, and making what is called, by Dr. Moseley, to be a new invention, the discovery of which is dated at the end of the 15th or the beginning of the 16th century. (Moseley, p. 66.) But Le Grand d'Aussy has shown that refined sugar (saccharum) had been introduced into Europe more than a century and a half before the date assigned for the discovery of refining in Venice. (The *Annals*, ii. 198, ed. 1815.) But white refined sugar, which is as white as snow, this sugar was imported from Italy by the Venetians; and the latter were the first Europeans to refine it, which, however, would not have been introduced into Europe until the 12th century. It was also introduced and cultivated by the Saracens in Sicily and in that country. It was first introduced into Europe as were at Valencia; but they were first introduced to Granada and Murcia. Columbus, who travelled over the island in 1492, has given an account of the state of the Spanish sugar plantations, and the mode of manufacturing the

sugar cane were carried by the Portuguese to the Canary Islands. In the early part of the 15th century it had been asserted by many, that the first plants of the cane were first grown in America.

But though it is sufficiently established that the Spaniards early conveyed plants of the sugar cane to the New World, there can be no doubt, notwithstanding Humboldt seems to incline to the opposite opinion (*Essai Politique sur la Nouvelle Espagne*, liv. iv. c. 10), that this was a work of supererogation, and that the cane was indigenous both to the American continent and islands. It was not for the plant itself, which flourished spontaneously in many parts when it was discovered by Columbus, but for the art of making sugar from it, that the New World is indebted to the Spaniards and Portuguese; and these to the nations of the East. (Lafitau, *Mœurs des Sauvages*, tome ii. p. 150; Edwards's *West Indies*, vol. ii. p. 238.)

Barbadoes is the oldest settlement of the English in the West Indies. We took possession of it in 1627; and so early as 1616 began to export sugar thence to England. The trade of Barbadoes attained its maximum in 1676, furnishing, it is said, employment, at that period, for 400 sail of vessels, averaging 150 tons burden; but this statement is most probably exaggerated.

Jamaica was discovered by Columbus, in his second voyage, and was first occupied by the Spaniards. It was wrested from them by an expedition sent against it by Cromwell in 1656; and has since continued in our possession, forming by far the most valuable of our West Indian colonies. At the time when it was conquered, there were only 3 small sugar plantations upon it, but, in consequence of the influx of English settlers from Barbadoes and the mother country, fresh plantations were speedily formed, and continued rapidly to increase.

The sugar cane is said to have been first cultivated in St. Domingo, or Hayti, in 1506. It succeeded better there than in any other of the West Indian Islands. Peter Martyr, in a work published in 1590, states that, in 1518, there were 20 sugar-works in St. Domingo established by the Spaniards. 'It is marvellous,' says he, 'to consider how all things increase and prosper in the island. There are now 28 sugar presses, whereas great plenty of sugar is made. The canes or reeds wherein the sugar groweth, are bigger and higher than in any other place; and are as big as a man's wrist, and higher than the stature of a man by the half. This is much wonderful, that whereas in Valencia, in Spain, where a great quantity of sugar is made yearly, whensoever they apply themselves to the great increase thereof, yet doth every root bring forth not past 5 or 6, or at most 7 of these reeds; whereas at St. Domingo, 1 root beareth 20, and oftentimes 30.' (Eng. trans. p. 172.)

Sugar from St. Domingo formed, for a lengthened period, the principal part of the European supplies. Previously to its devastation in 1790, no fewer than 65,000 tons of sugar were exported from the French portion of the island.

III. *Sources whence the Supply of Sugar is derived.*—The West Indies (including Cuba), Louisiana, Java, Brazil, Mauritius, Madras, the Isle de Réunion, and the Philippines, are the principal sources whence the foreign supplies required for the European, American, and Australian markets are derived. But of late years the supplies of tropical sugar brought to Europe have been materially increased by the beet-root sugar raised in France, Belgium, Germany, Russia &c.

On the whole we incline to think that we shall be sufficiently near the mark if we estimate the produce of sugar in 1868 at about 1,600,000 tons cane, and 400,000 tons beet-root, making a

total produce of perhaps 2,000,000 tons, or even more.

Loaf or lump sugar is unknown in the East, sugar candy being the only species of refined sugar that is made use of in India, China &c. The manufacture of sugar candy is carried on in Hindostan, but the process is extremely rude and imperfect. In China, however, it is manufactured in a very superior manner, and large quantities are exported. When of the best description, it is in large white crystals, and is a very beautiful article. Two sorts of sugar candy are met with at Canton, viz. Chinchew and Canton; the former being the produce of the province of Fokien, and the latter, as its name implies, of that of Canton. The Chinchew is by far the best, and is about 50 per cent. dearer than the other. Chinese sugar candy is extensively consumed by Europeans at the different settlements throughout the East. With the exception of 1852, when 2,085 tons raw sugar were imported from China, very little has latterly been brought to our markets from that empire. It seems, indeed, to be pretty well understood that the sugar of China is unable to withstand the competition of that of Java, Brazil, and Cuba.

*Consumption of Tropical Sugar.*—It is exceedingly difficult, or rather we should say quite impossible, to get any correct information with respect to the consumption of sugar in most countries. In as far as regards this country, the subjoined tables furnish ample information. It appears from them that, at an average of the 5 years ending with 1844, the consumption of sugar in the United Kingdom amounted to about 200,000 tons a-year, exclusive of about 10,000 tons of bastard or inferior sugar, obtained from boiling molasses. In the course of the ensuing year Sir Robert Peel reduced the duties on British colonial muscovado sugars from 25s. 2½d. to 14s. per cwt., a considerable reduction being made, at the same time, in the duty on foreign sugar the produce of free labour. In consequence of this reduction the entries of sugar for home consumption increased from 206,472 tons in 1814 to 242,830 tons in 1845, exclusive in both years of molasses equivalent to about 15,000 tons. In 1846 further changes were made in the duties by the admission of foreign slave-grown sugar at a reasonable rate; and in 1854 the entries for consumption amounted to 416,619 tons. But they declined during the next 3 years. The entries in 1858, however, rose, including refined, to about 437,000 tons, and in 1868, with lower duties, they reached, including the quantities used in breweries &c., 600,000 tons, to which about 20,000 tons may be added for molasses. (See post.)

The statements given by Schnitzler (*Statistique de la France*, i. 296) show that, at an average of 1840 and 1841, the consumption of colonial and foreign sugars amounted in France to 73,139,000 kilog., or 71,425 tons a-year; and adding to this quantity the produce of the beet-root plantations for these years, amounting to about 30,000,000 kilog., the whole consumption would be about 103,000,000 kilog., exclusive of the quantity surreptitiously introduced. But the home supply of sugar has greatly increased in the interval; and it further appears that, in 1865, 209,585,832 kilog. of foreign and colonial sugar were entered for home consumption. Perhaps we should hardly be justified in estimating the imports (minus re-exports) of foreign and colonial sugar into France at above 200,000 tons in ordinary years, making, with beet-root, the consumption about 350,000 tons.

The Low Countries, Germany, and Austria are supplied through Holland, the Hanse Towns, the

ports on the south shore of the Baltic, and Trieste. Most part of the produce of the Dutch colonies is imported into Holland, and considerable quantities are also imported from other countries; so that, on the whole, the imports into the Dutch ports may be fairly estimated at from 90,000 to 100,000 (97,912 in 1865) tons a-year. The imports into Hamburg, Bremen, and Lubeck, amount (including refined), at an average, to about 25,000 tons a-year, and those into Belgium to above 20,000 tons. There is also a considerable importation of sugar into Stettin and other Baltic ports belonging to Germany and Prussia. The imports into the Austrian dominions through Trieste and other channels may be taken at about 30,000 tons.

The consumption of sugar in Spain was estimated by Montveran (*Statistique des Colonies*, p. 92) at 41,050 tons. But, despite the considerable consumption of cocoa in Spain, and the moderation of the duties on sugar, we have little or no doubt that this estimate at the time was beyond the mark. Probably, were the consumption now stated at 55,000 tons, it would be quite as much as it amounts to. We may, perhaps, estimate the consumption of Portugal at about 12,000 tons.

In 1863 duty was paid in Russia on nearly 35,000 tons of raw sugar, exclusive of what is clandestinely imported, and exclusive, also, of the clandestine imports of refined sugar. This, with beet-root sugar, may raise the total supply to 70,000 tons.

Table showing the Quantities and Values of the Imports of Foreign Sugar, of all Sorts, into European Russia, exclusive of Finland, in 1861, 1862, 1863, and 1865.

Years	Quantities	Values
	poods	silver roubles
1861	1,092,136	5,596,624
1862	1,261,502	6,121,418
1863	2,150,806	10,759,412
1865	2,137,528	1,718,640

To the average, or 950,000 poods, has to be added about 35,000 tons of beet-root sugar raised in the empire, besides what is smuggled.

During the year ending June 30, 1865, the United States imported (principally from Cuba and Porto Rico) 607,937,674 lb., of which 30,350,081 lb. were re-exported, leaving 577,587,593 lb., or upwards of 257,000 tons, for the consumption of the Union. But in addition to increasing imports of foreign sugar the United States draw a large portion of their supply from the plantations in Louisiana, the produce of which had increased rapidly down to the commencement of the Civil War. Perhaps the produce might then be estimated at about 180,000 tons at an average. Mr. Consul Donohoe, of New Orleans, in Feb. 1867, says that the production in 1866 was greater than in 1865, but that there is no foreign export of sugar and molasses from that port. The whole shipments of native raw and refined sugar from the Union during the year ended June 30, 1864, amounted only to 2,328,483 lb., or about 1,040 tons. The States derive a further supply of 18,000 or 20,000 tons of sugar from the maple.

On the whole, therefore, we shall not perhaps be far wrong in estimating the consumption of colonial, tropical, and beet-root sugar as follows, viz.:

	tons	tons
The United Kingdom, inclusive of distilleries &c.	-	550,000
France, including beet-root	-	350,000
Colonial sugars for the Netherlands, Belgium, Germany, Prussia, Austria, Hungary, and Italy, per Dutch ports, deducting re-exports to Russia and other countries	-	70,000
Hanse Towns	-	30,000
Belgium	-	20,000

	tons	tons
Rostock, Stettin, Königsberg, and other ports on the Baltic, including the imports from Holland and the Hanse Towns	-	10,000
Austria by Trieste	-	30,000
Beet-root	-	100,000
Spain	-	50,000
Portugal	-	12,000
Russia, including beet-root	-	70,000
Denmark and Sweden	-	15,000
Italy, Sicily, Sardinia, Turkey, Greece, and the Levant generally	-	55,000
United States	-	500,000
Canada, Australia, Cape of Good Hope &c.	-	50,000
		1,916,000

Now, supposing these statements to be reasonably correct, it would appear that the aggregate supply of sugar so far exceeds the demand, that it may be fairly presumed that the permission now given to employ sugar in our distilleries and breweries, at an excise duty of 3s. 6d. per cwt., can have no lasting influence over its price. The quantities taken for this purpose have hitherto been inconsiderable, viz. in 1856, 131,623 cwt.; 1857, 5,225 do.; 1858, 17,554 do.; and in the year ended March 31, 1868, 356,088 do. It is, no doubt, true that the demand for sugar is rapidly increasing in this and most other countries; but, as the power to increase its supply (so long at least, as Cuba and Brazil are supplied with slave labour) is all but illimitable, no permanent rise of prices need at present be anticipated.

Taking the price of sugar at the rate of only 20s. per cwt. or 20l. per ton, the prime cost of the article (1,846,000 tons) to the people of Europe, the United States, and other countries above mentioned, will be 36,920,000l. sterling; to which adding 50 per cent. for duty, its total cost will be 55,380,000l. This is sufficient to prove the paramount importance of the trade in this article. Exclusive of sugar, the other products of the cane, as rum, molasses, treacle &c., are of very great value. The gross revenue derived by the British treasury from rum alone, amounted, in the year ended March 31, 1868, to 2,137,553l.

*Progressive Consumption of Sugar in Great Britain.*—We are not aware that there are any authentic accounts with respect to the precise period when sugar first began to be used in England. It certainly was imported in small quantities by the Venetians and Genoese in the 14th and 15th centuries (in Marin's *Storia del Commercio de Veneziani*, vol. v. p. 306, there is an account of a shipment made at Venice for England in 1319, of 100,000 lb. sugar, and 10,000 lb. sugar candy; the sugar is said to have been brought from the Levant); but honey was then, and for long after, the principal ingredient employed in sweetening liquors and dishes. Even in the early part of the 17th century the quantity of sugar imported was very inconsiderable; and it was made use of only in the houses of the rich and great. It was not till the latter part of the century, when coffee and tea began to be introduced, that sugar came into general demand. In 1700 the quantity consumed in Great Britain was about 10,000 tons, or 22,400,000 lb.; whereas, in 1867, the consumption amounted to above 584,866 tons, or more than 1,310,000,000 lb.; so that sugar forms not only one of the principal articles of importation and sources of revenue, but an important necessary of life.

Great, however, as the increase in the use of sugar has certainly been, it may, we think, be fairly presumed that the demand for it is still a good deal below its natural limit; and now that the duties are reasonable, and the trade placed on a proper footing, we confidently anticipate that the consumption of sugar, and also the revenue derived from it, will yet be considerably increased.

During the first half of last century the consumption of sugar increased five-fold. It amounted, as already stated—

tons		lb.	
1770	to 10,000	or	22,000,000
1770	14,000	-	31,500,000
1784	49,000	-	91,000,000
1791	55,270	-	119,500,000
1770-75	72,500 (average)	-	162,500,000
1786-90	81,000	-	181,500,000

In the reign of Queen Anne, the duty on sugar amounted to 3s. 5d. per cwt. Small additions were made to it in the reign of George II.; but in 1780 it was only 6s. 8d. In 1781 a considerable addition was made to the previous duty; and in 1787 it was as high as 12s. 4d. In 1791 it was raised to 15s.; and while its extensive and increasing consumption pointed it out as an article well fitted to augment the public revenue, the pressure on the public finances, caused by the French war, occasioned its being loaded with duties, which, though they yielded a large return, would, there is good reason to think, have been

more productive had they been lower. In 1797 the duty was raised to 17s. 6d.; two years after, it was raised to 20s.; and by successive augmentations in 1803, 1804, and 1806, it was raised to 30s.; but in the last-mentioned year it was enacted that, in the event of the market price of sugar in bond, or exclusive of the duty, being for the four months previous to January 5, May 5, or September 5, below 49s. per cwt., the lords of the Treasury might remit 1s. per cwt. of the duty; that if the prices were below 48s., they might remit 2s.; and if below 47s., they might remit 3s., which was the greatest reduction that could be made. In 1826 the duty on West India sugar was declared to be constant at 27s., without regard to price; the duty on sugar from the Mauritius being then also reduced to 27s. In 1830 the duty was reduced to 21s. on West India and Mauritius sugar, and to 32s. on East India sugar; and in 1836 the duty on the latter was reduced to the same level as that on the former.

Account of the Quantity of Sugar retained for Home Consumption in Great Britain, the Net Revenue derived from it, and the Rates of Duty with which it was charged, in each Year from 1789 to 1814, both inclusive.

Years	Quantities retained for Home Consumption	Net Revenue	Rates of Duty					
			British Plantation Sugar		East India Sugar, including Mauritius			
	cwt.	£ s. d.	per cwt.	per cent.	per cwt.	per cent.	ad valorem	
1789	1,171,109	879,632 11 11	0 12 1	..	..	..	..	
1790	1,536,232	908,931 17 4	0 15 0	0 2 8	..	..	57 16 5	
1791	1,405,211	1,071,903 16 5	..	..	..	..	..	
1792	1,561,929	1,019,528 12 1	..	..	..	..	..	
1793	1,677,697	1,316,502 13 5	..	..	..	..	..	
1794	1,189,392	1,031,492 4 2	..	..	..	..	..	
1795	1,336,430	995,261 16 1	..	..	..	..	..	
1796	1,534,062	1,225,213 7 5	..	..	..	..	..	
1797	1,275,722	1,299,711 0 7	0 17 6	0 5 2	..	..	37 16 5	
1798	1,436,528	1,761,000 15 9	0 19 0	0 5 2	..	..	40 16 3	
1799	2,772,438	2,521,935 16 5	1 0 0	0 2 6	..	..	42 16 3	
1800	1,506,924	1,835,412 11 1	..	..	..	..	..	
1801	2,473,795	2,786,928 18 1	..	..	..	..	42 16 3	
1802	2,650,511	2,910,901 6 11	..	..	..	..	..	
1803	1,492,565	1,551,457 17 11	1 4 0	1 6 4	..	..	1 4 0	
1804	2,145,569	2,456,824 18 2	1 6 6	1 9 1	..	..	1 7 6	
1805	2,076,103	2,439,725 1 10	1 7 0	1 9 8	..	..	1 7 0	
1806	2,001,747	2,099,599 5 6	..	..	..	..	..	
1807	2,277,865	2,450,753 6 3	..	..	..	..	..	
1808	2,846,815	4,177,916 3 1	..	..	1 10 0	..	1 0 0	
1809	2,504,507	3,275,295 2 3	..	..	1 10 0	..	1 0 0	
1810	3,489,312	5,117,530 12 9	1 1 9	1 12 0	..	..	1 0 0	
1811	3,226,757	5,339,218 4 3	1 8 0	1 11 0	..	..	1 0 0	
1812	2,604,019	3,539,529 17 2	1 7 0	1 10 0	..	..	1 0 0	
1813	2,609,663	3,539,529 17 2	1 10 0	1 15 0	..	..	1 0 0	
1814	3,397,999	3,276,515 6 5	..	..	..	..	1 0 0	

\* Sugar used in distilleries included in these years.

Account of the Quantities of Sugar Imported into the United Kingdom from the West Indies and British Guiana, distinguishing the Quantities from each Colony, in the undermentioned Years, from 1845 to 1867, both inclusive.

From which imported	Sugar, unrefined										
	1845	1850	1855	1862	1865	1861	1865	1866	1867		
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.		
Barbadoes	910,013	115,860	919,039	926,880	502,560	502,550	1,100,825	251,607	184,736		
Bonaire	31,185	521,658	592,567	701,255	619,989	531,706	661,761	750,515	745,823		
Demerara	27,883	51,816	55,078	57,142	56,568	40,639	55,991	54,732	58,556		
Grenada	1,200	99,959	66,981	58,200	39,181	85,385	74,316	84,521	96,613		
Guiana	742,867	575,022	450,282	553,013	511,654	471,521	421,305	570,298	495,510		
Montserrat	11,265	1,607	455	2,117	6,647	7,967	8,309	19,386	10,500		
Nova	50,883	15,718	33,988	35,733	39,124	16,119	99,718	55,513	85,701		
St. Christopher	142,773	79,718	111,745	186,913	200,961	96,800	209,791	222,998	162,415		
St. Lucia	71,250	53,903	65,932	97,567	95,711	85,821	99,171	121,999	101,923		
St. Vincent	132,873	139,581	39,123	145,288	136,355	125,746	131,624	170,679	168,439		
Tobago	62,700	44,927	39,574	72,503	47,535	47,537	49,749	79,478	68,063		
Toronto	7,177	1,406	..	1,718	..	..	..	..	..		
Trinidad	361,152	366,220	418,902	687,444	601,050	672,726	558,455	814,944	732,893		
Bahama	1,669	..	..	670	..	..	..	478	..		
Bermuda	..	..	..	..	760	..	..	..	..		
Demerara	499,102	474,750	675,851	875,759	889,087	965,991	1,035,377	1,104,711	890,845		
Barbadoes	120,575	55,215	85,401	120,129	97,939	99,351	97,538	129,090	121,290		
Total	2,857,703	2,589,420	2,915,592	3,265,188	3,622,778	3,261,478	3,569,088	4,110,855	3,221,750		

We had occasion, in a former edition of this work, to remark on the impolicy and injustice of charging sugar from our possessions in the East Indies with a higher rate of duty than was laid on sugar from the West Indies. But, as already

seen, this distinction was suppressed in 1836, and the sugar of our various colonial possessions and dependencies is now admitted for consumption on the same terms. Previously to 1845 the duty on sugar from:

... and other ...  
... including the ...  
... and the ...  
10,000  
30,000  
100,000  
560,000  
570,000  
120,000  
70,000  
11,000  
570,000  
500,000  
50,000  
1,916,000

... these statements to be reason-  
... appear that the aggregate  
... exceeds the demand, that it  
... had the permission now  
... sugar in our distilleries and  
... and of 3s. 6d. per cwt.  
... influence over its price. The  
... this purpose have hitherto  
... viz. in 1856, 134,623 cwt.;  
... 17,553 do.; and in the year  
... 1868, 356,088 do. It is, no  
... demand for sugar is rapidly  
... and most other countries; but,  
... increase its supply (so long as  
... Brazil are supplied with slave  
... limitable, no permanent rise of  
... can be anticipated.  
... of sugar at the rate of only  
... per ton, the prime cost of the  
... (ons) to the people of Europe,  
... and other countries, ...  
... 36,920,000 sterling ...  
... for duty, its total cost ...  
... is sufficient to cover the ...  
... of the trade in this article,  
... the other products of the  
... usses, trencle &c., are of very  
... gross revenue derived by the  
... from rum alone, amounted, in  
... from 31, 1868, to 2,137,533.  
... assumption of Sugar in Great  
... not aware that there are any  
... with respect to the precise  
... first began to be used in Eng-  
... was imported in small quanti-  
... tians and Genoese in the 14th  
... (in Marin's Storia del Com-  
... ni, vol. v. p. 306, there is an  
... ment made at Venice for Eng-  
... 10,000 lb. sugar, and 10,000 lb.  
... sugar is said to have been  
... Levant); but honey was then,  
... the principal ingredient em-  
... in liquors and dishes. Even in  
... the 17th century the quantity of  
... is very inconsiderable; and it  
... in the houses of the rich and  
... the latter part of the century,  
... began to be introduced, that  
... general demand. In 1700 the  
... in Great Britain was about  
... 2,400,000 lb.; whereas, in 1867,  
... amounted to above 584,866 tons,  
... 310,000,000 lb.; so that sugar  
... one of the principal articles of  
... sources of revenue, but an im-  
... of life.  
... as the increase in the use of  
... ly been, it may, we think, be  
... that the demand for it is still a  
... its natural limit; and now that  
... sonable, and the trade placed on  
... we confidently anticipate that  
... of sugar, and also the revenue  
... will yet be considerably increased.

An Account, showing the Quantities in Cents, of the several Sorts of Raw, excluding Refined, Sugar Imported into the United Kingdom; the Quantities retained for actual Consumption within the same; the Rates of Duty charged on Sugar when entered for Home Consumption, and the Nett Revenue accruing thereon; in each Year since 1815; with a Statement of the Average Prices per Cent. of British and Foreign Sugar in Bond for the same Years.

Years	Quantities of Sugar Imported into the United Kingdom, in cwt.					Quantities of Sugar retained or entered for Consumption in the United Kingdom, in cwt.					Total Quantity retained or entered for Consumption.	Rates of Duty per cent.					New Revenues from Sugar	Prices per cent. of	
	British Plantation	Mauritius	East India	Foreign	Total Imported	British Plantation	East India	Foreign	Total retained or entered for Consumption.	British Plantation		Mauritius	East India	Foreign	British Muscovado	Havana and other			
1815	3,642,807		135,639	366,989	4,134,335	2,131,030	43,041	37,428	2,211,229	(Muscovado) 1 10 0	..	£ 4.	from May 5. - 1 17	£ 6 10	4 4				
1816	3,560,317		137,032	192,780	3,890,119	2,446,458	35,980	49,403	2,495,931	from 1 10 0	..	1 17	from Sept. 5. - 5 0	4 4	4 4				
1817	3,679,338		135,893	105,916	3,911,151	3,957,081	97,372	4,555	3,961,611	Sept. 5. 1 7	..	1 17	5 0	48 7	53 8				
1818	3,775,219		162,395	135,032	4,076,806	3,704,421	25,626	419	3,704,840	1 10 0	..	2 0	5 0	50 0	52 2				
1819	3,907,151		305,527	85,837	4,198,515	3,720,509	100,016	245	3,820,900	{ In May 5, 1 10 0 } { from Sept. 5, 1 6 }	..	10 May 5 Sept. 5 - 1 17	10 May 5 Sept. 5 - 3 3	41 4	42 2				
1820	3,769,658		277,928	168,990	4,006,676	2,816,758	81,795	281	2,901,461	{ from Sept. 5, 1 7 }	..	1 17	5 0	35 2	35 4				
1821	3,775,961		296,372	115,924	4,178,166	2,959,111	130,205	298	3,056,882	1 7 0	..	1 17	5 0	33 2	34 4				
1822	3,775,584		219,580	308,598	4,303,766	3,125,507	102,911	185	3,298,991	1 7 0	..	1 17	5 0	31 0	32 6				
1823	3,555,032		271,848	208,750	4,112,630	3,218,701	152,675	50	3,267,434	1 7 0	..	1 17	5 0	31 6	32 10				
1825	3,501,881		145,995	167,156	3,808,135	3,572,623	107,900	23	3,079,848	1 7 0	..	1 17	5 0	31 6	32 10				
1826	4,002,486		155,986	75,901	4,119,095	3,430,632	145,212	96	3,575,900	Brown or Muscovado and chylid	..	1 17	Muscovado and chylid	30 7	32 6				
1827	3,550,918		169,585	194,114	4,110,018	3,270,885	69,656	186	3,340,997	1 7 0	..	1 17	3 0	31 8	31 8				
1828	4,132,215		227,358	231,284	4,590,857	3,491,469	116,443	111	3,602,419	1 7 0	..	1 17	3 0	31 8	31 8				
1829	3,915,268		485,710	303,532	4,310,002	3,590,011	131,979	91	3,782,004	from 1 7 0	..	1 17	3 0	31 8	31 8				
1830	4,103,746		161,719	556,988	4,662,453	3,667,396	115,556	79	3,781,011	from July 5, 1 4 1	..	1 12	3 0	31 8	31 8				
1831	3,781,845		186,357	452,477	4,267,719	3,575,259	79,600	615	3,655,534	1 4 0	..	1 12	3 0	31 8	31 8				
1832	3,844,244		176,611	368,623	4,389,478	3,690,590	139,003	71	3,691,891	1 4 0	..	1 12	3 0	31 8	31 8				
1833	3,565,918		101,331	261,751	3,929,000	3,557,851	98,680	31	3,656,262	1 4 0	..	1 12	3 0	31 8	31 8				
1836	3,600,317		497,203	390,112	4,497,632	3,278,144	110,222	33	3,488,239	1 4 0	..	1 12	3 0	40 10	33 2				

\* These are all Mauritius, retained for consumption, after the quantities required for a new or refined sugar, subsequently to p. 2 amount of the duty, have been deducted.

From August 15  
Of any Brit. Pos. British Pos. Of any other within the E. I. British Pos. Of any other within the E. I. which Foreign Sugar is Prohibited from being Imported

£ 4 6 7 12 0



British possession was decidedly too high, being no less than 25s. 2d. (24s. + 5 per cent.) per cwt. But whether this were so or not, there cannot, we apprehend, be so much as the shadow of a doubt that the duty on foreign sugars was then more than twice as great as it should have been. This duty, which amounted for a lengthened period to 63s. per cwt., was, in fact, intended to be prohibitory; and so long as our foreign dependencies furnished so much sugar as not only to supply the markets of the United Kingdom, but to furnish, besides, a considerable excess for exportation to others, there was little to object to in the magnitude of the duty. Latterly, however, it became most oppressive in its operation. In consequence, as already seen, of the measures connected with the emancipation of the slaves, the imports of sugar from the West Indies declined from 4,117,746 cwt. in 1831, to 2,857,703 cwt. in 1845. Owing to the immigration of hill-coolies, and other circumstances, the emancipation of the slaves in the Mauritius had comparatively little

effect; and since 1845 there has been a very great increase in the exports of sugar from that island. [Poiré Louis.] But despite this circumstance, and the increase in the imports of sugar from India since 1840, the decrease in the imports from the West Indies was not, for a considerable time, fully compensated. On the one hand, therefore, we had a rapidly increasing population, and on the other we had that population confined by an oppressive duty to a market for sugar, the supply of which had been diminished. The consequences were such as every man of sense might have anticipated from the outset. The business of refining for the foreign market, and our export trade in sugar, were all but annihilated, while the average Gazette price of muscovado sugar admissible to the English markets amounted during the 3 years ending with 1841 to about double the price of foreign sugar in bond, of equal or superior quality. We beg, in illustration of what is now stated, to subjoin an

*Account of the Quantities of Sugar retained for Consumption, of the Nett Produce of the Duties thereon, and of the Prices per Cwt. of British Sugar (ex Duty), and Brazil Sugar in Bond, in 1842, 1843, 1844, with the Average of these 3 Years.*

Years	Quantities cwt.	Nett Revenue from Duties on Sugar £	Average Prices of British Muscovado Sugar		Average Prices of Brazil Sugar (Brown and Yellow)	
			s. d.	s. d.	s. d.	s. d.
1842	5,668,437	4,874,812	36 11	18 5	17 2	
1843	4,028,507	5,076,326	33 9½	17 2	17 0	
1844	4,129,991	5,205,222	35 5	17 0	17 0	
Total	14,026,935	15,154,360	103 11½	£2 12 5		
Average of 3 years	5,008,912½	5,051,153½	34 7½	17 5½		

Now, it appears from this statement, that while the price of British sugar (exclusive of duty) amounted during the 3 years ending with 1844 to 34s. 7½d. per cwt., the price of Brazil (and Cuba) sugar was only 17s. 5½d. per do. And hence it follows, that, had the then prohibitory duty of 63s. on foreign sugar been reduced to the same rate (25s. 2d. or 24s. + 5 per cent.) as the then duty on British sugars, the people of the United Kingdom might have bought the same quantity of sugar for 17s. 5½d. that cost them 34s. 7½d.; that is, they might have got about 2 lb. of sugar for the same sacrifice it cost them to get 1 lb. The aggregate loss to the public from this preposterous arrangement of the sugar duties, during the period in question, was quite enormous. It appears from the above account that the average consumption of sugar, during each of the 3 years ending with 1844, amounted to 4,008,912½ cwt., which at 34s. 7½d. cost 6,944,605l. 14s. 5d. But had we been allowed to go into the foreign market for sugar, we might have got the same quantity for 3,502,230l. 13s., being a saving in 1 year of no less than 3,442,375l. 1s. 5d., and in 3 years, of 10,327,125l. 4s. 3d. But it may, perhaps, be said, that had our ports been open to the free importation of Brazilian and other foreign sugars, the price of the latter would have been raised: and so probably it would; though, considering the vast extent and productiveness of the field from which sugar may be brought, we doubt whether this effect would be very sensible. But, supposing that the opening of our ports had raised the price of foreign sugar from 17s. 5½d. to 22s. per cwt., still the saving would have amounted to 2,534,801l. 15s. 9d. a-year.

Under these circumstances there could no longer be a doubt that the reduction of the old prohibitory duty of 63s. per cwt. on foreign sugar was imperatively required; this was partially effected in 1841, when the duty on foreign sugar, if produced by free labour, was reduced to 36s. 8½d. per cwt.;

and when, in 1845, the duty on British colonial sugars was reduced to 14s. per cwt., that on free labour sugar was further reduced to 23s. 4d. per cwt.

But though these reductions of duty effected a great improvement in the old system, they were inadequate to place it on a satisfactory footing. The reduction of the duty on foreign sugar applied to that only which was produced by free labour; the sugar produced by the labour of slaves (unless we happened to be bound by treaty to admit it at the low duty) continuing subject to the old prohibitory duty of 66s. per cwt. Nothing, however, could be more inexpedient than this distinction, on which we took the liberty to animadvert as follows in a former edition of this work:—

'We take, without any scruple, the cotton, tobacco, rice, and other products of slave-holding countries; and such being the case, it is not very easy to see on what principle we refuse to take their sugar. There is no reason to think that we are at all likely to hasten, by this refusal, the emancipation of their slaves (even if that were certainly desirable), or to improve their condition: our policy in this respect is injurious to ourselves, without being of the smallest advantage to anyone else.

'But the truth is, if we look a little narrowly into the circumstances, we shall find that we do the very thing we pretend not to do. We annually export large quantities of British produce to Cuba and Brazil; but the sugar of those countries, the principal article they have to send us, being excluded from our markets, we cannot bring it direct to this country, but we carry it to Hamburg and other continental emporiums, and there exchange it for wool, flax, and other articles we are allowed to import; so that, in effect, we transmute the slave-grown sugar into other things, and consume it under its new form. We do not employ it to sweeten tea and coffee; but we clothe ourselves with wool and flax, manure our lands with bones,

there has been a very great increase of sugar from that island, despite this circumstance, the imports of sugar from Cuba and Brazil, have increased, and the decrease in the imports from Java, for a considerable time. On the one hand, therefore, the increasing population, and on the other, the population confined by an artificial market for sugar, the supply is not exhausted. The consequences of this are of course of a nature which of course might have been anticipated. The business of refining sugar, and our export trade in refined sugar, while the average price of muscovado sugar admitted to duty was about double the price of Java and Manilla sugar being consumed in England, less of it will remain to be sent to the Continent, where, by means of our policy, a corresponding market will be opened for slave-grown sugar.

*Nett Produce of the Duties on Sugar and Brazil Sugar in Bond, in the Year 1845.*

Quantity of British Sugar	Average Prices of British Sugar (Thrown and Yield)
4,111,000	£ 18 3
9,500,000	17 2
5,000,000	17 0
11,000,000	£2 12 5
22,000,000	17 5

the duty on British colonial sugar to 14s. per cwt., that on Java further reduced to 23s. 4d.

reductions of duty effected in the old system, they were in it on a satisfactory footing. The duty on foreign sugar applied was produced by free labour, by the labour of slaves (unless bound by treaty to admit it at a certain price, subject to the old price, per cwt. Nothing, however, expedient than this distinction, the liberty to animadvert as an objection of this work:—

without any scruple, the cotton, and other products of slave-holding, being the case, it is not very far from principle we refuse to take any notice of it. There is no reason to think that we should hasten, by this refusal, to deprive our slaves (even if that were the case) of any improvement in their condition: respect is injurious to ourselves, and the smallest advantage to any one.

As, if we look a little narrowly at the matter, we shall find that we do not pretend not to do. We annually import a large quantity of British produce to Cuba, and the sugar of those countries, they have to send us, being exported to our markets, we cannot bring it direct to us, we carry it to Hamburg and other ports, and there exchange it for other articles which we are allowed to import. In effect, we transmute the sugar into other things, and consume it in that form. We do not employ it to grow coffee; but we clothe ourselves with it, manure our lands with bones,

and manufacture our paper of rags, which are all bought by it. But suppose we were a little more Quixotic, and that after getting the sugar we threw it into the sea, the result, as respects Cuba and Brazil, would be the same. We give, by buying their sugar, all the encouragement in our power to the slavery that exists in them; what we shall do with the sugar is our own affair; and whether we use it, sell it to others, or destroy it, is, as far as slavery is concerned, quite immaterial. But it is by no means immaterial as respects our trade with slave-holding countries; inasmuch as the preference we give to the sugars of others tempts them to lay discriminating duties on our products, and to discourage and embarrass our trade. And even were it otherwise desirable, it may be doubted whether it be in our power to exclude slave-grown sugar. Certificates of origin will, we apprehend, be rather a slender security for this result. But supposing them to be effectual, the consequence will be that a greater quantity of Java and Manilla sugar being consumed in England, less of it will remain to be sent to the Continent, where, by means of our policy, a corresponding market will be opened for slave-grown sugar.

But admitting that something might be found to say in favour of the policy of wholly excluding slave-grown sugar, we, in effect, abandon it, by admitting the slave-grown sugar of the United States and other countries with which we have treaties of reciprocity; so that, after all, our policy in this respect is prohibitive only of the sugars of Cuba, Porto Rico, and Brazil. If the Americans chose to send us the whole sugar grown in Louisiana, every ounce of which is the produce of slave labour, importing in its stead sugar from the Hawaiian and Bahia, it would be freely admitted to our markets. Hence it is that, while we exclude the slave-grown sugar of those friendly countries of whose trade we might, if we chose, have a virtual monopoly, we admit the slave-grown sugar of our rivals—of the only people whose commercial marine can come into competition with our own. And to show that this contradiction is not imaginary, we may mention that, during the (then) present year (1845) about 300 tons of the sugar of Louisiana (the quality of the latter is not, as now prepared, well suited to our markets) and Venezuela have been admitted to consumption under the new Act. Is it, we beg to ask, possible to speak too harshly of such a policy? to imagine anything more perverse, contradictory, and absurd?

It were really, therefore, to be wished that we should cease to rave, as we have done for the last 20 years, about slavery; and that we should allow our merchants to buy sugar, as we allow them to buy cotton and other things, without enquiring how, or by whom, it is produced. We may be assured that we should give as little encouragement to slavery by so doing as we give by our present system, while we should, at the same time, give greater facilities to our trade, and full scope to the late, and in other respects, wise and liberal measures.

We are glad to have to state that the principle contended for in the above paragraphs has since been fully admitted by the Legislature; the Act of 1846, 9 & 10 Vict. c. 63, having equalised the duty on all descriptions of foreign sugars.

It will further be observed that under the system adopted in 1845, a discriminating duty of 9s. 4d. per cwt. was imposed on foreign muscovado sugar admitted to consumption over and above the duty (14s. per cwt.) imposed on British sugar. Inas-

much, however, as the latter was inadequate to the supply of the United Kingdom, the effect of this regulation was to add 9s. 4d. per cwt. to the price of all the sugar, British as well as foreign, entered for consumption. And it was hardly to be supposed, after the striking recognition of the principles of free trade given by the Legislature in passing the Act for the abolition of the corn laws, that the protective system would be permitted to continue for the sake of the sugar colonies. The abolition of the former was, in truth, all but equivalent to the abolition of the latter. And the 9 & 10 Vict. c. 63, referred to above, which put an end to the distinction between free and slave-grown sugar, provided also for the equalisation of the duties on British and foreign sugars, which, had it been maintained, would have been finally effected on July 5, 1851.

This last Act, however, was afterwards superseded by the 11 & 12 Vict. c. 97, which, exclusive of some changes in the duties, deferred their complete equalisation till 1854.

*Comparative Efficiency of Free and Slave Labour in the Production of Sugar.*—But though it was not to be expected that a discriminating duty in favour of the sugar of our colonies would be tolerated, it is by no means clear that its abolition has not been an injustice to the latter. The equalisation of the duties would have been in all respects unobjectionable, were the circumstances under which the planters in our colonies are placed identical with or similar to those under which their competitors are placed in Cuba, Brazil, and Java. Such, however, is not the case. The instruments of production possessed by the latter are totally different from those possessed by the former. In Brazil and Cuba the planters are furnished with slave labour, and in Java the population, though not enslaved, is subjected to compulsory service. Unless, therefore, it can be shown that free labour is as efficient in the production of sugar in the West Indies and Demerara as slave or compulsory labour, it will necessarily follow that the equalisation of the duties on British and foreign sugars was an injustice to our colonists.

It has been alleged over and over again in vindication of this equalisation, that free labour is at once cheaper and more efficient than slave labour; and without enquiring into the truth of this allegation, we shall admit the greater cheapness of free labour in countries where freemen and slaves are equally suited to the employments carried on in them, and where these employments would be spontaneously followed by the slaves were they emancipated. But the conditions under which the production of sugar is carried on in the inter-tropical regions of the New World are entirely different from those now stated. Whites are not capable of field labour in such climates; and the raising of sugar is not an employment that would be voluntarily undertaken by free blacks. The latter have few wants. They reckon as useless incumbrances many articles in "insupportable cold or temperate climates. Hence the *curis acaens mortalia corda*, so powerful in Europe, has but little influence in Jamaica and Trinidad. Men are not instinctively laborious or enterprising. Industry is with them merely a means to an end, a sacrifice they make to obtain supplies of the necessaries and conveniences of human life. Whenever the sacrifice required to procure food, clothes, and other necessary accommodations is considerable, the population is generally industrious; and a taste for labour being widely diffused, those who are not obliged to apply

themselves to the production of necessities, engage in the production of superfluities. But wherever the principal wants of man may be supplied with but little exertion, idleness becomes the distinguishing characteristic of the population; and, instead of employing their spare time in the production of articles of ostentation and luxury, they usually waste it in idleness and apathy. Now this is the precise state of the blacks in the West Indies. Their necessities and desires are of a very limited description; and are generally indeed fully satisfied by the produce of a small patch of land, requiring but little labour in its cultivation: and such being the case, it would be contradictory to suppose that they should voluntarily employ themselves in the hard labour necessary to produce sugar. Consistently with what is now stated, we find that Hayti, or St. Domingo, though the most fruitful of the West Indian islands, and though, when a colony of France, it furnished immense supplies of sugar, does not export, now that it is occupied by free blacks, a single ton. This, also, is the case in Mexico: and what reasonable ground have we for supposing that the result would be different in Jamaica, Cuba, or Brazil, were the blacks free and able (which is not the case in our islands) easily to obtain patches of land? The possession of the latter is requisite to enable them to exist without engaging in laborious service; and in the event of their not being able to obtain land, they may be forced to employ themselves in the culture of sugar; though, as it is against their inclination, they will withdraw from their work on the first

opportunity, and will, while employed, indulge as much as possible in idleness.

Hence it would seem that, whether slave and compulsory labour be cheaper or dearer than free labour, it is indispensable to the production of sugar. We do not presume, in making this statement, to give any opinion in regard to the policy or impolicy of the suppression of slavery in our colonies. The freedom of the blacks may be a more than sufficient compensation for the cessation of supplies of sugar from them. But, whether it be so or not, we regard it as the merest illusion to suppose that the severe drudgery of sugar planting will ever be efficiently carried on in the West Indies by really free labourers.

The mere exclusion of slave-grown sugar would not, however, as many seem to suppose, have in any degree obviated the hardships to which our planters have been exposed. It would merely have forced a larger quantity of the sugars of Java and China upon our markets, and opened a larger field for the consumption of slave-grown sugar on the Continent. Justice to our colonists required that either a discriminating duty should have been imposed in their favour on all foreign sugars, or that they should have been compensated in some other way. But as the former method of dealing fairly by them would have been repugnant to the national feeling and highly objectionable, at the same time that it is more than doubtful whether it would have done real service to the planters, some less offensive and more efficient alternative should have been resorted to. We subjoin

*An Account of the Quantities of the different Descriptions of Unrefined Sugar entered for Consumption in the United Kingdom during each of the 35 Years ending with 1867; with an Account of the Amount of Duty received on the same, the average Price of Muscovado Sugar in Bond &c.*

Years	Quantities entered for Consumption				Net Revenue from Duties on Sugar	Average Price of British Muscovado Sugar per cwt.
	British Plantations (including Mauritius)	East India	Foreign	Total		
1832	cwt. 3,375,329	cwt. 79,600	cwt. 605	cwt. 3,655,534	£ 4,394,338	£ s. d. 1 2 8
1833	3,555,790	99,083	71	3,654,944	4,414,572	1 5 8
1834	5,649,522	121,000	50	5,770,572	4,559,392	1 5 3
1835	3,757,851	98,680	31	3,856,562	4,667,900	1 13 5
1836	3,578,144	110,222	3	3,688,369	4,184,165	2 0 10
1837	5,684,712	270,655	43	5,955,410	4,769,665	1 16 7
1838	3,191,225	418,375	65	3,609,665	4,656,891	1 13 8
1839	5,349,398	477,252	49	5,826,699	4,586,536	1 19 2
1840	3,074,198	518,520	2,316	3,594,034	4,449,070	2 9 1
1841	2,992,203	1,065,114	261	4,057,578	5,114,390	1 19 8
1842	4,054,586	955,248	104	5,009,938	4,874,912	1 16 11
1843	2,972,564	1,065,667	76	4,038,307	5,071,536	1 13 9
1844	3,084,159	1,045,206	98	4,129,463	5,203,270	1 13 8
1845	3,548,111	1,251,176	77,307	4,806,694	5,574,471	1 14 11
1846	3,177,608	1,140,309	692,739	5,010,656	5,906,780	1 11 3
1847	3,625,066	1,182,425	974,019	5,779,510	4,405,237	1 8 3
1848	5,571,581	1,349,751	1,220,264	6,141,596	4,557,537	1 5 8
1849	4,054,581	1,354,228	876,478	6,285,287	5,012,177	1 5 4
1850	3,780,002	1,397,095	508,395	5,685,492	5,984,411	1 6 1
1851	3,396,568	1,257,638	1,279,041	6,933,247	5,979,141	1 5 6
1852	4,081,329	1,624,012	690,266	6,405,607	5,805,836	1 7 5
1853	4,379,481	1,361,375	1,531,979	7,272,835	4,083,836	1 4 6
1854	4,559,064	990,405	2,459,291	8,008,760	4,711,757	1 2 8
1855	4,117,974	765,460	2,591,374	7,474,808	5,036,900	1 5 5
1856	4,531,917	859,773	1,618,750	6,810,440	5,129,646	1 10 0
1857	5,131,971	1,073,147	2,016,172	7,121,290	5,055,001	1 6 11
1858	4,201,006	931,421	3,117,127	8,249,554	5,476,950	1 7 6
1859	4,326,537	940,475	3,375,508	8,642,520	5,944,893	1 5 1
1860	4,317,192	775,840	3,413,850	8,506,882	5,836,199	1 6 2
1861	4,951,059	542,114	5,793,173	11,286,346	6,133,427	1 2 4
1862	4,409,009	447,679	4,461,934	9,111,622	6,239,750	1 7 7
1863	4,925,479	316,438	3,962,699	9,204,616	6,244,979	1 0 6
1864	5,359,093	387,012	4,581,012	10,327,117	5,163,108	1 6 10
1865	4,696,593	467,121	4,714,811	9,878,935	5,401,174	1 2 0
1866	5,419,119	298,539	4,739,537	10,457,195	5,292,626	1 0 0
1867	4,532,911	394,745	6,199,257	10,926,913	5,585,586	1 0 0

*Sugar Duties.*—The 11 & 12 Vict. c. 97 regulated and materially reduced the duties on colonial and foreign sugars. But the war with Russia occasioned their subsequent increase. And though they have since been thrice reduced, viz. by the 20 & 21 Vict. c. 61, the 27 & 28 Vict. c. 18, and by the 30 Vict. c. 10, it is very doubtful whether that reduction will be permanent. The probability,

indeed, seems to be quite the other way. And it must be admitted that when fairly imposed, and not carried to an extravagant height, these duties afford one of the least exceptional means by which a large revenue may be most conveniently raised. The sugar duties at present are as follows, viz. :—

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Unrefined Sugar entered for  
ending with 1867; with an  
Price of Muscovado Sugar

Net Revenue from Duties on Sugar	Average Price of British Muscovado Sugar per cwt.
£ 4,393,338	1 7 8
4,414,302	1 9 8
4,559,392	1 9 5
4,667,960	1 13 5
4,811,165	2 0 10
4,760,565	1 14 7
4,656,891	1 19 2
4,580,536	2 1 1
4,449,070	2 10 1
5,114,390	1 16 11
4,871,912	1 13 9
5,076,395	1 15 4
5,205,270	1 12 11
5,371,471	1 11 2
5,896,780	1 11 2
4,405,237	1 12 8
4,557,837	1 6 1
5,919,177	1 5 1
5,884,411	1 5 6
5,979,111	1 2 5
5,895,836	1 2 5
4,935,836	1 2 8
4,711,757	1 2 8
5,058,500	1 3 8
5,189,616	1 6 11
5,055,034	1 7 6
5,876,950	1 5 1
5,944,895	1 6 2
5,526,199	1 2 4
5,435,227	1 1 7
6,239,750	1 0 6
6,214,079	1 6 10
5,165,102	1 2 9
5,201,174	1 0 0
5,592,636	1 0 0
5,285,586	1 0 0

be quite the other way. And  
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extravagant height, these duties  
at least exceptional means by  
venue may be most conveniently  
or duties at present are as follows,

## SUGAR

1315

### Customs Duties on Sugar Imported into Great Britain and Ireland, imposed by Act 30 Vict. c. 10.

Candy, brown or white, refined sugar, or sugar rendered by any process equal in quality thereto, and manufactures of refined sugar	s.	d.
Sugar not equal to refined—		12 0
First class	11	3
Second class	10	6
Third class	9	7
Fourth class, including cane-juice	8	0
Molasses	3	6

### Excise Duties on Sugar made in the United Kingdom.

Candy, brown or white, refined sugar, or sugar rendered by any process equal in quality thereto, and manufactures of refined sugar	s.	d.
Sugar not equal to refined, according to the standard samples approved by the Lords of the Treasury for assessing the duties of customs on sugar imported into the United Kingdom, viz.—		12 0
First class	11	3
Second class	10	6
Third class	9	7
Fourth class	8	0
Molasses	3	6

The quantity of sugar consumed in Great Britain, previously to the change in 1845, allowing for the quantity sent to Ireland, was more than double what it was in 1790. But had the duty continued at 12s. 4d., its amount in that year, there cannot, we think, be much doubt, provided foreign sugars had also been admitted under a reasonable duty, that the consumption would have been trebled or more. During the intervening period the population had been little less than doubled, and the proportion which the middle classes bear to the whole population had been decidedly augmented. The consumption of coffee—an article in the preparation of which a great deal of sugar is used in this country by all who can afford it—is about 85 times as great now as in 1790; that is, it has increased from under 1,000,000 lb. to about 35,000,000 lb. The consumption of tea is more than sixfold; and there has been a great increase in the use of home-made wines, preserved and baked fruits &c. Instead, therefore, of having done little more than increase proportionally to the increase of population, it may be fairly presumed that the consumption of sugar would, had there not been some powerful countervailing cause in operation, have increased in a far greater degree. Instead of amounting, in 1844, to little more than 4,000,000 cwt., the consumption of Great Britain should have amounted to about 6,000,000 cwt.

Taking the aggregate consumption of sugar in Great Britain previously to 1845 at 400,000,000 lb., and the population at 20,000,000, the average consumption of each individual would have been about 20 lb., ex molasses. This, though a far greater average than that of France, or any of the continental states, was but small compared with what it was supposed it would amount to when supplied under a more liberal system. In work-houses, the customary annual allowance for each individual is, we believe, 34 lb.; and, in private families, the smallest separate allowance for domestics is 1 lb. a-week, or 52 lb. a-year. These facts strongly corroborate what we formerly stated as to the extent to which the consumption of sugar would probably be increased under the new system; and others may be referred to, that are little less conclusive. Mr. Huskisson observed, in his place in the House of Commons, on Mr. Grant's motion for a reduction of the sugar duties, May 25, 1829, that 'in consequence of the present enormous duty on sugar, the poor working man with a large family, to whom peace were a serious consideration, was denied the use of that commodity; and he believed he did not go too far when he stated that TWO-THIRDS of the poorer consumers

of coffee drank that beverage without sugar. If, then, the price of sugar were reduced, it would become an article of his consumption, like many other articles—woollens, for example, which are now used for their cheapness—which he was formerly unable to purchase.' (*Speeches*, vol. iii. p. 455.) Mr. Huskisson's conclusions are now in the way of being fully realised. In 1844, for example, the consumption of the United Kingdom amounted to 206,472 tons; in 1847 it had increased to 290,282 tons; in 1850 to 310,390; and in 1851, when the duties were equalised, it amounted to 401,437 tons raw, and 15,182 do. refined; while in the year to March 31, 1868, our consumption of sugar of all kinds exceeded 600,000 tons. And this, it will be observed, is exclusive of about 20,000 tons molasses entered for consumption. And we may add, in illustration of the way in which this extraordinary increase has been effected, that while, in London and other parts of the country, the sales of sugar by the grocers who supply the higher classes have been but little extended, the sales by those who principally deal with the lower classes have augmented from 50 to 100, and, in some cases, to 150 and 200 per cent. This is the best possible proof of the salutary as well as of the powerful influence of the reduction of the duties. But it is only what might have been anticipated; inasmuch as the consumption of the more opulent classes was but little affected by the previous high duty.

In Ireland, especially, the most beneficial effects have resulted from the reduction of the duties on sugar. The direct importations of sugar into Ireland did not, previously to the late changes, exceed 18,500 tons; and, adding to these 6,000 tons for the second-hand importations (including bastards) from Great Britain, which, we believe, was quite as much or more than they amounted to, the entire consumption of that country would be 25,000 tons, or 57,000,000 lb., which, taking the then population at 8,000,000, gave 7-125 lb. to each individual; or nearly  $\frac{1}{4}$  of the average consumption of each individual in Great Britain. So singular a result must, no doubt, be principally ascribed to the poverty of the Irish; but there can be no doubt that it was partly, also, owing to over-taxation. And the reduction of the duty, though it occasioned an immediate loss of revenue in Ireland, was sure in the end to be productive of its increase, besides being attended with other and still more beneficial consequences. Next to the suppression of agitation and assassination, the 'one thing needful' in Ireland is to inspire the population with a taste for the conveniences and enjoyments of civilised life; and the first step towards supplying this desideratum is, if possible, to make articles of convenience and luxury attainable by the mass of the people. If this be done, whether by a reduction of duties or otherwise, we may expect that the desire inherent in all individuals of improving their condition will impel them to exert themselves to obtain them. A taste for such articles will be gradually diffused among all ranks; and ultimately, it may be presumed, it will be thought discreditable to be without them. It is probable, owing to the late extraordinary decrease of the population in Ireland, that the deliveries of sugar may not be so great now as formerly; but if it be maintained at near its old level, it will show a great increase in the consumption per individual.

The Board of Inland Revenue made some elaborate enquiries with respect to the comparative consumption of sugar and tea by the higher, the middle, and the lower classes. But it would be wrong to lay much stress upon the conclusions

resulting from such investigations. At the best they should be regarded only as very rude approximations. Even as such, however, they are deserving of attention. We subjoin the result of the Board's enquiries in as far as they relate to sugar.

*Proportional Consumption of Sugar in Great Britain by the Higher, the Middle, and the Poorer or Working Classes.*

	England	Scotland	Great Britain
	per cent.	per cent.	per cent.
The upper classes consume . . . . .	23	22	22½
The middle classes . . . . .	57	40	54
The poorer or working classes . . . . .	40	38	39½
Total . . . . .	100	100	100

Mr. Ogilvie, a very intelligent customs officer, has made the following observations in regard to the consumption of sugar:—

'In England, sugar is generally used by the working classes in the raw or unrefined state, though the preference for refined sugar is gradually and extensively increasing. In London and other large towns, when refined sugar can be purchased for 6d. per lb., it is universally preferred; but when the price rises above that, the poor are obliged to fall back upon the raw.

'In Scotland, raw sugar is but little used, except by the very poorest: inferior qualities of refined, known as "crushed lump" and "bastards," being generally used by the middling and lower classes, the use of loaf sugar being confined to the wealthier classes.

'In the north of Ireland, particularly in the manufacturing districts around Belfast and Londonderry, the produce of Liverpool and Greenock refineries meets with a large sale. In Limerick it is stated that two-thirds of the consumption consist of refined loaf and crushed; but in the other parts of Ireland raw sugar is the chief article of consumption among the working classes, loaf sugar being consumed only by the rich, and by the better classes of mechanics and farmers in their whisky punch. Among all classes, sugar is more an article of consumption than tea, because the poor use it with coffee and cocoa as well as with tea, and among the rich it enters largely into many culinary preparations.' (*Parl. Paper*, No. 184, sess. 1857.)

*United States.*—Next to Great Britain, the United States are now, as previously seen, by far the largest consumers of sugar; and Louisiana had become, previous to the commencement of the civil war and the abolition of slavery, a principal producing country.

Allowing 36,000 tons for molasses and maple sugar, and taking the population of the Union at 35,000,000, the total average consumption in 1868 has been estimated at nearly 31 lb. for each individual.

The crops of sugar in Louisiana are very fluctuating, being apt to be injured by frost. Probably the average produce may not, as previously stated, exceed from 170,000 to 180,000 tons. The refining business has made rapid progress in the United States; so much so, that the produce of refined sugar has been estimated at about 170,000 tons.

It may, perhaps, be proper to state that these estimates, like others of the same kind, though nearly, are not to be considered as being entirely accurate; and the best of them always differ more or less from each other. Again, it does not follow that quantities entered for consumption in any one year are actually consumed in that period.

To decide this point we must know the stocks on hand at the beginning and end of the year, and these it is either impossible or very difficult to learn exactly.

*Use of Sugar in Distilleries and Breweries.*—In a former edition of this work we expressed ourselves on this subject as follows: 'The use of sugar in these establishments, though not absolutely prohibited, is at present placed under restrictions which are equivalent to a prohibition. There can, however, be no doubt that these restrictions should be abolished, and free leave given to the growers and importers of sugar and molasses, and, indeed, of everything else, to convert them to any purpose to which they may be applicable. This has hitherto been objected to, except in periods of scarcity, partly from a wish to promote the interests of the barley growers and maltsters in this country, and partly from the alleged risk of smuggling and loss to the revenue. But now that the policy, or rather impolicy, of protection has been renounced by the Legislature, and that foreign barley may be imported and employed in any way, under a nearly nominal duty, there is plainly no ground or pretence on which the agriculturists can object to the use of sugar; and as respects the risk of fraud and loss to the revenue, we do not think it amounts to much. In cases where sugar only is to be used in distilleries and breweries, the risk of fraud could hardly amount to anything; and in the cases in which it is partly used along with malt or raw grain, or both, it would be easy, seeing that the capacity of sugar to produce spirits and beer, as compared with malt and grain, is well known, to take such precautions as would prevent any amount of fraud worth talking about. But, however it may be carried into effect, it would seem to be indispensable that the distilleries and breweries, as well as every other legitimate channel of consumption carried on in the kingdom, should be open to all who raise or import sugar, or anything else, on their paying the customary rates of duty. This is the only way in which the interests of the consumers, which are identical with those of the public, can be effectually secured; and it is obvious that, to carry out the great principle of the freedom of industry, it is not merely necessary to permit the free importation of colonial and other products, but to allow them, after being imported, to be employed in any way their owners may think fit. Under this system justice will be done to all parties, and the public be supplied with the best and the cheapest articles.' And we are glad to have to state that this principle has since been fully carried into effect by the Acts 10 Vict. c. 3, 11 & 12 Vict. c. 100, 27 & 28 Vict. c. 18, and 30 Vict. c. 10, to which we beg to refer.

*Adulteration.*—Sugar is an article which is especially liable to adulteration; and its high price during many years, coupled with the high duty, gave a powerful stimulus to this nefarious practice. Perhaps we might not be far from the mark, were we to estimate the quantity of foreign matters intentionally mixed up with sugar, and sold as such in this country, previously to the late reduction of duties, at 10,000 or 12,000 tons a-year. Sago and potato flour are the articles which have been most extensively used for this purpose. When mixed with sugar they give it a whiter and finer appearance; and, unless the dose be overdone, increase its price about 4s. per cwt. It is extremely difficult to deal with an abuse of this sort. No doubt the fall in the price of sugar following the placing of the trade on a proper footing, and the reduction of the duty, have lessened the temptation to adulterate. But they

have not wholly removed it, the materials employed to adulterate being decidedly cheaper than sugar, however supplied. In this, as in most cases of the sort, the best security against adulteration is to deal only with grocers of the highest character.

**Refining of Sugar for Home Consumption.**—Of late years the refining of British colonial sugar for exportation has wholly ceased. Indeed the tide has now turned the other way. In 1857, 11,896, and in 1867 38,576, tons foreign refined sugar, principally from Holland, France, and Belgium, were taken for our consumption, while we only exported 8,632 tons of British refined and candy sugar. But despite this circumstance, the refining of sugar for home use is extensively carried on, and has increased considerably since the reduction of the duties. At present (1868) there are upwards of 50 refining establishments in Great Britain, with a capital probably exceeding 1,500,000*l*. It is supposed that these establishments will use in the course of the current year from 230,000 to 250,000 tons raw sugar, which will produce, exclusive of molasses and bastards, from about 180,000 to 200,000 tons refined sugar. A large portion of this produce consists of what is called 'crushed lumps,' a variety of refined sugar which is rapidly superseding the finer descriptions of East Indian sugar, and even of West Indian muscovades. Refined sugar is now used by very many families by whom it was formerly never tasted.

According to the mean of several estimates—

100 cwts. of sugar, double-refined for	corresponding in quality	
to double refined	are equal to 129 cwts. raw sugar.	cwts.
100 cwts. of sugar single-refined	-	119
100 " bastards	-	85
100 " molasses	-	39

**Drawback or Bounty on the Exportation of Refined Sugar.**—It may be doubted whether the business of refining sugar for exportation has ever been productive of any material national advantage to us. It was long suspected—and the fact seems to have been sufficiently established—that the drawback formerly allowed on the exportation of refined sugar was greater than the duty charged on the raw sugar used in its manufacture; the excess being, in fact, a bounty paid to those engaged in the trade. Previously to 1826, the drawback on double-refined sugar was 4*s*. per cwt.; it was then reduced to 3*s*., but there is reason to think that that was still considerably above the mark. The average price of sugar in bond in this country was, for several years, from 5*s*. to 6*s*. per cwt. above what sugar of the same quality brought on the Continent; a difference which, as we then exported sugar, could not have been maintained, had it not been for the bounty. The same conclusion was established by trials made at a sugar-house taken for the purpose by Government; and in consequence the drawback was reduced to what was supposed to be the fair equivalent of the duties paid on the raw sugar; a measure of the expediency of which no doubt can be entertained.

The existing bounties or drawbacks on the exportation of British refined sugar are as follows, viz:—

*Drawbacks allowed by the Act 30 Vict. c. 10 on Refined Sugar when Exported to Foreign Parts, or removed to the Isle of Man for Consumption therein, or Deposited in Customs' Warehouse for Delivery as Ships' Stores, or for the purpose of sweetening British Spirits in Bond.*

Upon refined sugar in loaf, complete and whole, or lumps duly refined, having been perfectly clarified and thoroughly dried in the stove, and being of a uniform whiteness throughout, and

Upon such sugar powdered, crushed, or broken in a warehouse approved by the Commissioners of Customs, such sugar having been there first inspected by the officers of customs in lumps or leaves, as if for immediate shipment, and then packed for exportation in the presence of such officers, and at the expense of the exporter, and upon cards and also upon sugar refined by the centrifugal or by any other process, and not in any way inferior to the export standard sample No. 1 approved by the lords of the Treasury	cwt. 12	0
Upon refined sugar unpowdered, crushed, or broken, and not in any way inferior to the export standard sample No. 2 approved by the lords of the Treasury, and which shall not contain more than five per cent. of moisture over and above what the same would contain if thoroughly dried in the stove	"	11 5
Upon other refined sugar unpowdered, being in lumps or pieces ground, powdered, or crushed	"	11 3
Not in any way inferior to the export standard sample No. 3 approved by the lords of the Treasury	"	10 6
Not in any way inferior to the export standard sample No. 4 approved by the lords of the Treasury	"	9 7
Inferior to the above last-mentioned standard sample	"	8 0

Most foreign countries have endeavoured to bolster up the refining business, not merely by excluding foreign refined sugars from their markets, but by granting the most lavish bounties on the exportation of sugar refined at home. In France, this sort of policy, if we may so call it, was carried so far, that out of a gross revenue of about 40,000,000 francs (1,570,000*l*.) paid into the treasury on account of the sugar duties in 1832, about 19,000,000 (750,000*l*.) were returned as drawback on the export of refined sugar. As the French Government could not afford to lose the sugar duties, which would very speedily have been swallowed up by the drawback, necessity compelled them to modify their system, by making the allowance to the exporter more nearly correspond with the duty. The refining of sugar has been carried on within the last few years to a very great extent in Holland; but here also the business has received an unnatural extension, by artificial encouragement.

Prussia, and most parts of Germany, to which we formerly exported large quantities of refined sugar, no longer admit it except at a high duty.

**BEET-ROOT SUGAR.**—The manufacture of sugar from beet-root is carried on to a very considerable extent in several parts of the Continent, particularly in France and the North of Germany. It began in France during the exclusion of colonial products in the reign of Napoleon, and received a severe check at the return of peace, by the admission of West Indian sugars at a reasonable duty. It is probable, indeed, that it would long since have been entirely extinguished, but for the additions made to the duties on colonial and foreign sugars in 1820 and 1822. After the last-mentioned epoch, however, the production of beet-root sugar began rapidly to increase; and such was its progress, that though, in 1828, its produce did not exceed 4,000,000 kilos, it amounted in 1838 to 39,199,408 kilos. But this extension of cultivation, instead of being of any advantage, entailed a heavy loss on the public, inasmuch as the beet-root growers sold their sugar, which paid no duty, at the same rate that the colonists sold theirs, which paid a large revenue to the treasury. It was not possible that such a system could be permanent. And the well-founded complaints of the colonists of the injustice of which they were the victims, enforced by the rapid decline of the revenue derived from sugar, which, indeed, was threatened with total extinction, occasioned the imposition, in 1838, of a duty of 16 fr. 50 cents, per 100 kilos. (about 6*s*. 9*d*. per cwt.) on beet-root sugar, which, in 1840, was increased to 27 fr. 50 cents. (about 11*s*. per cwt.). But even this last

increase left a differential duty (or bounty) of 20 fr. per 100 kilos. in favour of beet-root sugar, as compared with colonial raw sugar; so that, while the beet-root cultivators affirmed they should be ruined, the colonists vehemently complained of the preference that was given to them. It was, indeed, known, from the facility with which the beet-root growers had previously contrived to evade the duty, that its increase would not be so injurious to them as was supposed; but the manufacture sustained notwithstanding a severe check, and sundry plantations were abandoned.

But further and still more considerable changes have since been made in the conditions under which the culture of beet-root is carried on. In 1842 it was proposed, in order to get rid of the difficulties in which it had involved the country, to grub up the plantations, paying the planters 40,000,000 fr. (1,600,000*l.*) as an indemnity for their loss. And this was at the time considered by many as the best and most equitable mode of dealing with what was confessedly a very difficult matter. It was not, however, adopted; and next year it was resolved annually to raise the duty on beet-root sugar by 5 fr. per 100 kilos., till the duty on it should be equalised with that on colonial sugar. This new system came into operation on August 1, 1844; and in August 1848 the nominal equalisation of the duties was effected. It was very generally believed at the time that this measure would go far to annihilate the production of beet-root sugar; but such has not been the case. The falling off in the supplies of sugar from the French colonies which took place in the 5 or 6 years immediately posterior to 1848, when the slaves were emancipated, and the high differential duty on foreign sugars, were very favourable to the beet-root growers, and gave them, indeed, a modified monopoly of the home market. These, which were uncertain and evanescent advantages, disappeared with the increased production of sugar in the Isle of Réunion (Bourbon) and the diminution of the differential duties. Owing, however, to the very great improvements that had been effected in the interval in the production of beet-root sugar, it was not injuriously affected by these circumstances, and has continued not only to keep its ground in competition with colonial and foreign sugars, but to make a rapid increase. It is affected, of course, by variations in the seasons, in the price of corn, and other circumstances. But such was its progress, that in 1858 (certainly an unusually favourable year), the crop was estimated at 151,514,436 kilos., or about 150,000 tons; and in 1868 sufficient land was sown to expect a production of 300,000 tons. And besides France, the production of beet-root sugar is largely carried on, and is increasing in Belgium, which produces about 40,000 tons per annum, and in Germany and Russia. A table in the *Report* of Mr. Secretary of Legation Baillie, of December 1868, shows that the production of raw sugar in the Zollverein, in the 2 years from September 1 to August 31, 1866 and 1867, was 3,713,912 centners and 3,900,000 centners. See also Mr. Secretary of Legation Fenton's *Report* of June 1868, on the manufacture of beet-root sugar in the States of the Zollverein. Hence it would appear that what was long considered as a sort of exotic industry, introduced when colonial sugar was excluded from the Continent, and depending in great measure on custom-house regulations, will most probably become a well-established, leading, industrial pursuit. This is a very unprecedented result, and one which we certainly did not anticipate. There are very few instances in the history of industry, of any important business or employment, origi-

nating under such peculiar circumstances, being able to maintain its ground after they have ceased to exist. Whether, indeed, it be really worth the sacrifices that have been incurred in its establishment, may be fairly doubted. At all events, in this case they appear to have been sufficient to insure their object.

But, though the beet-root sugar of France and the Continent generally were loaded with the same duty as colonial sugar, and though its culture were notwithstanding extensively prosecuted, that would give no countenance to the opinion of those who contend that free labour is universally as effective in the production of sugar as slave or compulsory labour. The question which the Legislature and people of America had to consider, was not between the efficiency of free and slave labour in Europe, but between free and slave labour in the Intertropical regions of the New World. Admitting that the free labourers of France and Prussia raise sugar as cheaply as the slaves of Cuba and Brazil, does that afford any solid ground for concluding that the blacks of Louisiana and Texas, now that they are really free, will be equally successful in their competition with them? There is plainly no analogy between the cases. And our conviction is, as previously stated, that without compulsory labour of some sort or other, not a pound of sugar will eventually be raised either in Louisiana, or in our colonies or anywhere else in America.

Sugar raised in the United Kingdom is charged with the like duty that is laid on colonial sugar.

**MAPLE SUGAR.**—A species of maple (*Acer saccharinum*, Linn.) yields a considerable quantity of sugar. It grows plentifully in the United States and in Canada; and in some districts furnishes the inhabitants with more of the sugar they make use of. Though inferior in grain and strength to that which is produced from the cane, maple sugar granulates better than that of the beet-root, or any other vegetable, the cane excepted. It is produced from the sap, which is obtained by perforating the tree in the spring, to the depth of about 2 inches, and setting a vessel for its reception. The quantity afforded varies with the tree and the season. From 2 to 3 gallons may be about the daily average yield of a single tree, but some trees have yielded more than 20 gallons in a day, and others not more than a pint. The process of boiling the juice does not differ materially from what is followed with the cane juice in the West India. It is necessary that it should be boiled as soon after it is drawn from the tree as possible. If it be allowed to stand above 24 hours, it is apt to undergo the vinous and acetous fermentation, by which its saccharine quality is destroyed. (Bouchette's *British America*, vol. i. p. 371; *Timber Trees and Fruits, Library of Entertaining Knowledge*.)

The following is an extract and relative list of prices in January 1868 and 1869, from the Circular of Messrs. T. & H. Littledale & Co., of Liverpool, January 7, 1869:—

'*Sugar.*—The past year (1868) has been one of general disappointment to the importer and refiner alike. In the spring there was a rally of 1s. to 2s., but it was soon lost, large arrivals subsequently taking place in excess of general expectation, and chiefly from Cuba, where the crop turned out 75,000 tons larger than the previous year, being estimated at 670,000 tons, against 595,000 tons. The total import has been about 55,000 tons greater than in 1867, and the consumption, partly through an indifferent fruit season, 20,000 tons less. The stock in the four ports is 147,000 tons, against 123,000 last year, 178,000 in 1867, 189,000 in



of the middle and upper classes. There are several newspapers and other periodical publications.

Sydney is admirably adapted for the capital of a great trading colony. Port Jackson is one of the finest natural basins in the world. It stretches about 15 miles into the country, and has numerous creeks and bays; the anchorage is everywhere excellent, and ships are protected from every wind. The entrance to this fine bay is between two gigantic cliffs, not quite 2 miles apart. On the most southerly, in lat. 33° 51' 14" S., long. 151° 18' 15" E., a lighthouse, with a revolving light visible 21 miles off, was erected in 1817, the lantern of which is elevated 76 feet above the ground, and about 345 feet above the sea; and on the inner south head there is a fixed light visible for 14 miles. The bay is navigable for ships of any burden to the distance of 15 miles from its entrance, or 7 miles above Sydney, up what is called the Paramatta River. Ships come close up to the wharves and stores of the town, their cargoes being hoisted from the ship's hold into the warehouses. Sydney is consequently the emporium of all the settlements in this part of Australia, and has a very extensive trade.

Down to the discovery of the gold fields in 1851, wool was by far the most important product raised in the colony. The increase of cattle and sheep, but especially the latter, in Australia, has, in truth, been altogether extraordinary. Previously to the arrival of the English settlers in New South Wales in 1778, neither horse nor cow, sheep nor hog, had ever set foot on the continent. The stock they brought with them was limited in the extreme, consisting only of 7 horses, 7 head of cattle, 29 sheep, 19 goats, and 74 pigs. And

from this late and scanty stock, assisted by a few subsequent importations, have been derived all the vast numbers of sheep and other useful animals now to be found in the Australian continent. For a while the rate of increase was comparatively slow. But from 1810 down to the present time, the multiplication of sheep and other stock, especially the former, has been rapid beyond all precedent. This is shown by the following

Account of the Sheep's Wool Annually Imported from Australia into the United Kingdom since 1818.

Years	Quantity	Years	Quantity	Years	Quantity
	lb.		lb.		lb.
1818	78,525	1838	7,837,423	1858	47,076,010
1820	89,415	1840	10,128,774	1859	47,489,659
1821	325,993	1841	9,721,453	1860	49,142,706
1826	1,106,303	1842	12,399,080	1861	54,622,159
1827	512,738	1843	12,959,671	1862	49,009,655
1828	1,571,186	1844	17,435,790	1863	51,104,500
1829	1,376,612	1845	17,590,712	1864	55,700,441
1830	1,967,279	1846	21,150,687	1865	59,165,329
1831	2,511,205	1847	21,865,270	1866	68,506,222
1832	2,377,057	1848	26,058,815	1867	71,759,092
1833	3,516,869	1849	30,034,567	1868	77,173,446
1834	5,558,091	1850	35,771,671	1869	99,037,459
1835	4,210,507	1851	39,048,224	1870	109,234,961
1836	4,996,615	1852	41,810,137	1871	115,772,091
1837	7,060,525	1853	45,127,301	1872	133,098,476

Down to 1851 the colony of New South Wales comprised the extensive province of Port Phillip, now Victoria. But the latter was then separated from the former, and formed into an independent State, with a governor and legislature of its own. And the district called Moreton, on the north, was separated from it in 1859, and formed into the independent colony of Queensland. [See also BRISBANE; MELBOURNE.]

We subjoin a

Table Illustrative of the Progress of the Colony from 1845 to 1866 inclusive.

Years	Population	Value of Exports (exclusive of specie)	Value of Imports	Value of Produce or Manufacture of the United Kingdom	Land in Cultivation	Value of Exports of Wool	Value of Exports of Tallow	Produce of Land Sales	Receipts from Licenses, and Duties and Quota Bents
1845	181,556	1,092,589	985,561	612,912	158,237	612,705	90,479	11,101	29,111
1850	265,595	1,537,784	1,333,113	964,561	141,617	788,054	167,538	55,251	41,157
1856	296,823	3,130,800	5,420,971	3,475,359	185,015	1,503,750	137,402		
1866	431,112	5,162,615	8,867,071	2,917,577		4,326,105			

The value of the exports of tallow in 1865 amounted to 131,976*l*.

The revenue of the colony amounted in 1866 to 3,253,179*l*, and the expenditure to 3,012,571*l*.

N.B.—The returns of the population include

the late district of Port Phillip, now the colony of Victoria, down to the year 1850 inclusive, and that of Queensland down to 1856.

Trade of the United Kingdom with New South Wales.

Account of the Quantities and Values of the Principal Articles Imported into the United Kingdom from New South Wales (exclusive of Queensland) in each of the 3 Years ending with 1867.

Principal Articles	Quantities			Computed Real Value			
	1865	1866	1867	1865	1866	1867	
				£	£	£	
Bones of animals and fish (except whaleins -	tuns	310	182	149	2,252	1,261	1,286
Copper ore and regulus -	"	1,317	3,029	2,379	31,057	39,811	51,435
unwrought and part wrought -	"	921	521	1,057	19,101	41,037	72,311
Cotton, raw -	cwt.	1,504	3,846	5,169	13,136	27,069	28,619
Gun, powder -	"	18,240	15,928	10,285	43,568	31,338	21,203
of other sorts -	"	740	70	458	1,301	200	1,519
Hides, not tanned -	lb.	71,509	71,892	55,356	131,516	134,155	104,573
tanned, tawed, curried, or dressed -	"	21,386	97,113	231,121	809	3,794	8,891
Iron, chromate of -	tuns	151	-	-	706	-	-
Oil, cocoa-nut -	cwt.	21,551	24,557	30,067	50,696	51,645	68,176
sperruceit or head matter -	tuns	151	-	42	11,851	4,622	4,999
rain or saliter -	"	4	110	4	191	4,891	-
Skins, sheep, undressed -	no.	33,237	52,808	55,869	4,902	8,507	8,784
Tallow -	cwt.	86,268	23,514	27,692	181,326	51,184	58,177
Tortoise-shell or turtleshell, unmanufactured -	..	5,555	4,016	7,106	2,924	4,518	4,652
Whalefins -	cwt.	119	102	173	2,414	2,155	2,995
Wood: stringy bark, red and blue gum, and other woods for shipbuilding -	loads	687	540	162	6,570	1,817	972
Wool, sheep and lambs' -	lb.	26,029,103	25,529,528	32,080,137	2,152,961	2,326,105	4,782,031
All other articles -	..	..	..	..	39,530	94,372	29,577
Total -	-	-	-	-	4,705,247	4,785,291	5,310,046

Account of the Quantities and Values of the Principal Foreign Articles Exported from the United Kingdom to New South Wales during each of the 3 Years ending with 1867.

Principal Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
Candles, tallow - - - cwt.	4,517	7,811	5,789	16,199	26,898	21,226
do. wax - - - do.	10	22	961	106	2,281	2,914
Oil, as roasted or ground - - - lb.	203,590	128,596	102,069	2,567	5,537	1,287
Pulverised - - - do.	191,733	194,158	74,778	7,305	7,280	3,801
Paraffin, ready-made - - - do.	5,286	8,288	57,706	1,875	4,611	2,151
Perse, curly-made - - - cwt.	8,711	19,193	15,592	7,039	19,115	19,582
Perse, straight - - - do.	2,001	5,088	810	9,837	25,029	4,598
Perse, curly, unenumerated - - - do.	489	299	962	988	1,422	581
Perse, straight, unenumerated - - - do.	416	967	199	333	771	159
Reeds or bounties of straw - - - lb.	79	50	243	187	151	769
Reeds, cut - - - tons	61	39	35	3,369	2,228	5,299
Reeds, whole - - - do.	2,233	589	601	1,690	483	495
Reeds, cut - - - cwt.	179	292	872	326	517	1,781
Reeds, whole - - - do.	9,351	4,921	7,913	3,649	7,033	5,625
Silk manufactures - - - lb.	1,291	1,927	109	2,759	5,095	210
Lead snuff and ribbons - - - proof gallons	565,910	216,905	272,811	54,136	19,799	28,011
Spinners' raw - - - lb.	106,521	91,531	36,813	28,406	22,838	13,591
do. mixed in bond - - - do.	72,807	72,807	11,687	11,151	7,219	11,169
do. mixed in bond - - - lb.	26,761	6,985	4,511	2,907	321	380
do. mixed in bond - - - barrels	631	556	631	419	470	495
do. mixed in bond - - - lb.	97,751	376	885	2,446	376	58
Tea, unmanufactured - - - lb.	121,291	196,763	195,559	6,409	8,497	6,310
do. manufactured and mixed - - - lb.	128,136	349,117	1,867	8,041	6,962	10,689
Wool, raw or spit - - - gallons	179,819	114,756	65,452	48,169	35,150	19,768
Wool, raw or spit - - - tons	721	229	109	992	636	270
Woolen manufactures - - - pieces	656	21	85	910	125	453
Woolen manufactures - - - at value	..	..	..	2,415	5,609	3,462
Woolen manufactures - - - at value	..	..	..	39,621	35,901	23,171
All other articles - - - ..	..	..	..	265,532	218,361	165,299
Total - - - ..	..	..	..	..	..	..

stock, assisted by a few, have been derived all sheep and other useful and in the Australian the rate of increase was but from 1810 down to multiplication of sheep and the former, has been rapid This is shown by the

Wool Annually Imported from the United Kingdom since

Quantity	Years	Quantity
lb.		lb.
7,837,425	1855	47,057,610
10,128,774	1856	37,896,959
9,411,225	1856	49,115,366
12,399,090	1856	52,032,139
12,959,671	1857	49,009,635
17,435,790	1858	51,101,599
17,509,712	1859	53,709,410
21,130,687	1860	59,166,930
21,865,270	1861	68,566,222
26,036,815	1862	71,339,992
30,034,567	1863	75,177,546
35,771,671	1864	89,053,139
39,014,221	1865	109,573,861
41,810,137	1866	113,774,991
43,197,301	1867	135,309,126

colony of New South Wales province of Port Phillip, the latter was then separated formed into an independent and legislature of its own. Moreton, on the north, in 1859, and formed into of Queensland. [See also

to 1866 inclusive.

Value of Exports of Tallow	Produce of Land Sales	Receipts from Licenses, and other Duties
£	£	£
90,479	11,104	22,111
167,838	55,251	11,437
157,202		

Port Phillip, now the colony the year 1850 inclusive, and down to 1856.

Wales.

Wales since the United Kingdom 6 Years ending with 1867.

Computed Real Value		
1865	1866	1867
£	£	£
2,258	1,561	1,286
21,057	38,811	31,133
19,101	41,057	27,314
13,136	27,069	28,619
18,568	31,538	21,895
1,301	200	1,418
131,316	134,455	109,573
307	3,794	8,289
706		68,176
50,696	51,645	4,399
11,851	892	1,399
1,191	4,981	8,765
4,902	5,877	59,117
19,995	51,181	4,074
2,921	3,518	2,972
2,411	2,153	2,996
		879
6,370	1,817	4,782,031
2,192,964	2,396,105	29,867
29,210	29,374	
2,705,217	2,783,291	3,316,446

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture Exported from the United Kingdom to New South Wales (exclusive of Queensland) during each of the 3 Years ending with 1866.

Principal Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
Apparel and haberdashery - - - value	..	..	..	711,918	637,867	340,792
Arms and ammunition - - - do.	..	..	..	31,666	26,106	11,761
Bags, empty - - - do.	82,062	59,903	4,202	70,982	49,091	33,607
Barrel and cask - - - barrels	17,020	41,983	38,107	151,002	182,113	145,920
Bags, printed - - - cwt.	2,197	2,404	1,867	27,614	26,877	21,474
Candles - - - lb.	305,769	531,112	265,900	6,221	11,611	10,776
Carpets, of all sorts - - - no.	61	11	28	6,430	1,771	13,884
Confectionery - - - value	..	..	..	11,210	6,536	4,211
Copper, wrought and unwrought - - - cwt.	5,530	6,511	4,071	21,591	24,185	17,125
Corn, grain, meal, and flour - - - value	..	..	..	20,915	26,410	12,428
Cottons, entered by the yard - - - yards	8,319,317	8,011,357	6,750,269	260,281	268,321	180,149
do. at value - - - ..	..	..	..	41,118	39,497	45,750
Dyes and chemical products - - - ..	..	..	..	46,946	37,825	31,262
Earthenware and porcelain - - - ..	..	..	..	41,118	39,497	15,521
Furniture, cabinet and upholstery wares - - - ..	..	..	..	19,664	26,760	7,716
Glass manufactures - - - ..	..	..	..	49,766	49,247	39,621
Hanks and cutlery, unenumerated - - - cwt.	52,995	21,822	10,782	132,749	97,085	50,714
Hats, of all sorts - - - dozens	70,262	25,031	19,721	68,290	34,713	41,316
Iron, wrought and unwrought - - - tons	14,923	19,313	15,988	298,923	372,032	167,350
Lead and shot - - - no.	730	550	322	16,401	18,865	6,378
Leather, wrought and unwrought - - - value	..	..	..	322,095	12,411	138,097
do. soldiers and harness - - - ..	..	..	..	61,391	59,890	25,700
Linen, entered by the yard - - - yards	3,171,289	2,210,556	1,199,371	118,993	80,858	56,501
do. at value - - - ..	..	..	..	85,031	31,963	30,374
Machinery and mill work - - - ..	..	..	..	17,689	19,096	9,239
Musical instruments - - - ..	..	..	..	55,770	61,379	45,097
Paper of all sorts (including paper hangings) - - - cwt.	19,815	25,010	18,607	42,325	60,721	31,568
Pipes and saues - - - value	..	..	..	12,811	9,967	7,909
Prints - - - ..	..	..	..	15,814	17,531	5,680
Spices - - - gallons	48,373	29,201	28,011	309,137	256,515	203,882
Stationery, other than paper - - - value	..	..	..	5,797	4,051	3,228
Woolens, entered by the yard - - - value	..	..	..	25,338	16,797	14,398
do. at value - - - ..	..	..	..	411,249	361,727	275,511
All other articles - - - ..	..	..	..	..	..	..
Total - - - ..	..	..	..	3,571,133	2,917,577	2,030,240

Statement of the Quantities of Gold Exported from New South Wales and Victoria since the commencement of the Discoveries in 1851.

Year	New South Wales		Victoria	
	Quantity Exported	Value	Quantity Exported	Value
1851	oz.	£	oz.	£
1851	111,130	468,356	145,137	478,777
1852	362,873	7,600,175	1,088,526	6,135,728
1853	518,052	1,781,171	2,397,725	8,611,529
1854	237,910	775,269	2,144,089	8,255,550
1855	61,384	209,250	9,721,553	39,901,150
1856	42,165	138,007	2,985,991	11,913,458
1857	255,561	985,859	7,762,460	10,987,591
1858	231,907	901,960	8,298,478	10,107,806
1859	475,995	1,699,078	2,280,950	9,122,037
1860	485,012	1,876,019	2,428,466	8,315,801
1861	488,291	1,800,098	1,978,864	7,915,532
1862	699,666	2,715,937	1,662,148	6,649,621
1863	605,522	2,361,949	1,627,066	6,508,264
1864	721,297	2,909,250	1,845,819	6,209,237
1865	682,541	2,647,668	1,506,737	6,226,948
1866	742,250	2,921,891	1,180,397	5,928,948
1867	461,274	2,170,165	1,152,687	5,738,063
Total	7,828,704	30,855,374	33,438,713	130,228,066

The establishment of a mint at Sydney will account for the small amount of gold exported in 1855 and 1856.

The colony is naturally better suited for pasturage than for tillage, and, in consequence, considerable quantities of corn and rice are imported from Van Diemen's Land and other places. But we may remark, by the way, that the preference given to pasturage has been in no inconsiderable degree occasioned by the policy (if so we may designate a worthless compound of pedantry and quackery) that has been pursued in regard to the sale of waste lands in the colony. We have elsewhere shown that when the minimum price charged for these waste lands, 4 or 5 acres of which are required to depasture a single sheep, was fixed at no less than 20s. an acre (!), the purchase of land for agricultural purposes comparatively ceased; and it was taken

in large tracts for grazing by leasees, or squatters. In consequence the progress of cultivation, and the settlement of the colony, have been seriously interrupted by this system; while, instead of concentrating the population, as we were told it would do, it led to its all but indefinite dispersion. But a *felix-velocitas* policy of this sort cannot be long maintained. And when it has been abandoned, a fresh stimulus will be given to agriculture and emigration, and the prosperity of this and the other Australian colonies will be materially increased.

Considering the character of a large proportion of the population, one need not be surprised at the circumstance of drunkenness being a prevalent vice, and consequently that spirits and wines are very largely imported. The other great articles of importation are manufactured goods and apparel of all sorts, hardware, earthenware, saddlery, books and stationery, carriages &c., from England; tea from China; and sugar from the Mauritius and Calcutta.

The value of the imports into Sydney exceeded for a lengthened period the value of the exports; the excess of the former being, in fact, the amount of the remittances from this country on account of the convict establishment. But since the latter was suppressed, the value of the exports has been equal to that of the imports, and now greatly exceeds them. Occasionally there has been a great deal of overtrading at Sydney; and the revulsions consequent thereon have been quite as ruinous there as in England and elsewhere. There are several banks in the town, and a savings' bank.

*Population &c.*—The British settlements in New South Wales were originally intended to serve as penal establishments, to which convicts might be transported, and employed in public and private works; and were, till very lately, used for this purpose. The first vessel with convicts arrived at Botany Bay in January 1788; but it having been found to be quite unsuitable as a site for a colony, the establishment was removed to Port Jackson. Convicts of all sorts continued to be sent to the latter till 1839; but from that period down to 1843 none were sent, except those who had been confined in Pentonville and other penitentiaries. In the last-mentioned year the system entirely ceased; and from that period no convicts have been sent to Sydney. During the period that transportation continued in force, 54,583 convicts, of whom 47,092 were males and 7,491 females, were carried to Sydney. In 1846 the convicts of all classes in New South Wales amounted to 10,555, of whom 6,500 were liberated in 1848; and the residue had been reduced to 1,708 in December 1851. Convictism (to borrow a colonial phrase) has, therefore, terminated in New South Wales; but the taint it has imparted to the population will not be easily effaced.

The total population of the colony of New South Wales, ex Victoria, amounted, in 1866, to 431,412, of whom 239,820 were males. The progress of the colony has been much more rapid than might have been anticipated, considering the character and habits of the convicts annually landed upon its shores, the difficulties which the great distance from England interposes in the way of an immigration of voluntary settlers, and the inferiority of the soil. Owing to the circumstance of the great majority of the convicts and other emigrants being males, a great disproportion has always existed between the sexes in the colony, which has materially retarded its progress, and been, in other respects, productive of per-

nicious results. Government, however, availing itself of the assistance of benevolent individuals at home and in the colony, has within these few years materially lessened the disproportion referred to, by sending out considerable numbers of young unmarried females free of expense. Much, it was obvious, of the influence of this measure was to depend on the discrimination with which the female emigrants were selected; and various precautions were taken, by the organisation of committees, and otherwise, to exclude from amongst them those whose character was in any degree suspicious. It could not be expected that these precautions should be completely successful; and very conflicting accounts have been received as to the conduct of the females on their landing, and the influence of their immigration on the colony. But though the results of the scheme may, in some respects, have fallen short of the anticipations of its more sanguine promoters, there can be no manner of doubt that it has been, on the whole, decidedly advantageous; and that it has tended both to increase the population and to improve the morals of the colony.

Emigration to New South Wales, independently of the allurements of the gold fields, holds out several advantages to the industrious emigrant, which, again, are partially counterbalanced by some disadvantages. There has been at all times a pretty brisk demand for labour; wages, though not extravagant, have been high; provisions, except in years of drought, have been moderately cheap; and the climate is mild, moderately healthy, and suitable for European constitutions. The drawbacks are—the immense distance from Europe, and the consequent cost of the voyage; the general inferiority and exorbitant price of land, which will no doubt be shortly obviated; the frequent recurrence of droughts; and, perhaps, also, the taint of convictism, in a large portion of the population. The greater mildness and salubrity of the climate appears to be the principal recommendation in favour of emigrating to Australia rather than to Canada or the United States. Whether this be a sufficient counterpoise to the disadvantages attending it is a point which we do not presume to decide, but which deserves the serious consideration of intending emigrants. It seems to be the unanimous opinion of everyone acquainted with the colony, and entitled to be heard upon such a subject, that *'in every case, emigrants of every sort will find it for their interest to come out married.'*

The stimulus given to immigration by the discovery of gold has been less felt here than in Victoria; but it has, notwithstanding, been very powerful. Still, it is impossible, to form any conjecture in regard to its continuance, as that must in great measure depend on the future productiveness of the gold fields. But whether it continue about stationary, diminish or increase, it is plain that the demand of those engaged in the search for gold, for provisions and other articles of accommodation, cannot fail in the end to give a corresponding impulse to every branch of industry, and to re-establish that general equality, taking all things into account, which usually subsists between wages and profits in different departments. How prosperous soever the 'diggings' may be, the labourers drawn to them in the first instance from agriculture and other pursuits will be sure to be restored to the latter, or replaced by others.

*Moneys, Weights, and Measures.*—Accounts are kept in sterling money; the Sydney mint coining large quantities of sovereigns, which are now cur-

government, however, availing  
 of benevolent individuals  
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 assented the disproportion re-  
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 males free of expense. Much  
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 may be, the labourers drawn to  
 instance from agriculture and  
 will be sure to be restored to the  
 l by others.

ts, and Measures.—Accounts are  
 money; the Sydney mint coin-  
 of sovereigns, which are now cur-

rent coin, and legal tender in the mother country,  
 as well as Australia, but Spanish dollars are  
 abundant. They pass current at 5s. each. The  
 weights and measures are the same as those of  
 England.

[COLONIES; TARIFFS; COLONIAL.]

SYRA, the ancient Syros, one of the islands of  
 the Greek Archipelago (part of the modern  
 kingdom of Greece), whose salubrity and fertility  
 have been celebrated by Homer (*Iliad*, book xv.  
 438 &c.), in the group called the  
 Northern Cyclades, 15 miles W. from the greater  
 Delos, its port, on the east side of the island, being  
 in lat. 37° 26' 30" N., long. 24° 57' E. It is from  
 9 to 10 miles in length, by about 5 in breadth.  
 Though rugged, it is carefully cultivated, and  
 produces garden stuffs, wine, olives, figs, cotton  
 &c., with a little barley. The population in 1830  
 was set down by Mr. Urquhart at 4,500; but in  
 1861 it had risen to 18,511.

It is indebted for this extraordinary increase of  
 population to the convenience and excellence of its  
 port and its central situation, which have made  
 it a considerable commercial entrepôt. Though  
 small, its harbour is accessible to line-of-battle  
 ships. The holding ground is good, and it has in  
 its centre about 10 fathoms water. Merchantmen  
 from 400 to 500 tons burden moor within about  
 100 yards of the wharves. Winds from the S.E.  
 round to E.N.E. throw in a heavy swell; but  
 the port is well protected from winds from all  
 other points. A lighthouse, with a revolving light,  
 visible 20 miles off, has been erected on Gaidaro  
 island, about 1½ mile S.E. from the port, and  
 there is a red fixed light on the East Mole. Most  
 part of the trade that formerly centred at Scio, is  
 now carried on here; and the island has not only  
 received numerous immigrants from Scio, but also  
 from many other parts of Greece. Great Britain  
 and most European Powers have consuls in Syra;  
 and it also is the principal seat of the Protestant  
 missionaries to the Levant. The town is on the  
 N. side of the harbour. The oldest portion occu-  
 pies the summit of a conical-shaped hill, probably  
 the site of the acropolis of the ancient city. (See  
 the sketch in Tournefort, *Voyage du Levant*, i. 321.)  
 But the new streets and houses, of which there  
 are many, come down to the water's edge. It has  
 an appearance of great bustle and animation. Its

copious spring of pure fresh water has been en-  
 gaged by Clarke. (*Travels*, vi. 153.) Pherecydes,  
 one of the most celebrated of the ancient Greek  
 philosophers, the disciple of Pittacus, and the  
 master of Pythagoras, was a native of this island.

For *Port Regulations, Quarantine, Tonnage*  
*Duty, Tariff &c.*, see PATRAS.

*Pilotage*.—There are no fixed dues for pilotage;  
 but when a vessel makes a signal for a pilot, the  
 harbour master sends his boat to pilot the vessel  
 in, for which service a fee of 5 Spanish dollars is  
 paid.

*Weights and Measures* same as at PATRAS.

A few miles to the east of Syra lies Delos.  
 This island, regarded in antiquity with peculiar  
 veneration from its being the birthplace of Apollo  
 and Diana, is no less celebrated in the com-  
 mercial than in the religious history of ancient  
 Greece. Its sacred character, by insuring its  
 immunity from hostile attacks, and its central  
 situation, made it a favourite mart for the pro-  
 ducts of the states of Greece, Asia Minor,  
 Phœnicia, Egypt &c. Religion, pleasure, and  
 trade had all their votaries at its festivals; which  
 were famous throughout the ancient world for  
 the splendour of the rites and processions, and the  
 magnitude of the business transacted. It were  
 too much to expect that Syra should ever attain  
 to equal importance, even as an entrepôt. But  
 as she enjoys most of those advantages of position  
 that contributed to render Delos one of the  
 principal emporiums of antiquity, it may be hoped,  
 now that there is a reasonable prospect of good  
 order and freedom being again established in  
 Greece, that she may also acquire some portion  
 of her celebrity. It may be worth while mentioning,  
 as strikingly evincing the mutability of human  
 affairs, that at present both the great and the  
 little Delos are uninhabited. And Tournefort  
 states, that the inhabitants of Mycone were, in  
 the early part of last century, in the habit of  
 holding the greater Delos, for the purposes of  
 pasturage, paying to the Grand Seigneur a rent of  
 20 crowns a-year for that famous island. (Tourne-  
 fort, *Voyage du Levant*, 4to. ed. tome i. pp. 290—  
 325. There is a good account of the religious  
 rites celebrated at Delos, though but a very  
 indifferent one of its commerce, in the *Travels of*  
*Anacharsis*.)

## T

TACAMAHAC. A resin obtained chiefly from  
 the *Fagara ostandra*; and formerly in use for  
 fumigation and plasters. There are two sorts,  
 the West and East Indian, the latter being, how-  
 ever, uncommon. It is of a light brown colour,  
 very brittle, and easily melted when heated.  
 When pure, it has an aromatic smell, between  
 that of lavender and musk; and dissolves im-  
 perfectly in alcohol, but completely in ether, water  
 having no action upon it. (Thomson's *Chemistry*;  
 Watt's *Dictionary of Chemistry*.)

TAGANROG. A city of European Russia, on  
 the north coast of the Sea of Azof, near the mouth  
 of the river Don, lat. 47° 12' 48" N., long. 38° 33'  
 E. Its population has been estimated at 24,304  
 in 1863, but Mr. Consul Carruthers, writing in June  
 1868, says, that without statistical information  
 there are no precise data to rely on. It has a naval  
 hospital, a lazaretto &c.; and there are annual  
 fairs in May, August, and November. Taganrog  
 is a place of considerable commercial importance.

It was intended by its illustrious founder, Peter  
 the Great, to replace Azof, the ancient emporium  
 of the Don, the port of which had become all but  
 inaccessible; and its whole consequence is de-  
 rived from this circumstance, or from its being  
 the entrepôt of the commerce of the countries  
 traversed by that great river. The largest  
 portion by far of the trade is carried on with  
 Constantinople, Smyrna, and other Turkish ports;  
 but a good deal is also carried on with the Italian  
 and other foreign ports; and there is an ex-  
 tensive coasting trade with Odessa and other  
 Russian ports. In 1868 the exports to foreign  
 countries comprised, among other articles, 1,632,541  
 quarters of wheat, 91,168 lb. tallow, 6,117,264 lb.  
 wool, 25,134 cwt. caviar, 206,622 quarters linned  
 &c. The highest price per quarter of the best  
 hard wheat in 1868 was 2*l.* 12*s.* 7*d.*, and the  
 lowest 2*l.* 3*s.* 7*d.*, both free on board.

Seeing that Taganrog was built to obviate the  
 difficulties that had to be encountered by vessels

entering the Don, through the shallowness of the water, it might have been supposed that care would be taken to place it in a position in which it should be, in as far as possible, free from this defect. This important consideration seems, however, to have been to a great degree overlooked. The Gulf of the Don is seldom navigable by vessels drawing more than from 10 to 11 feet water, and even these cannot approach within less than about 700 yards of the town. They are principally loaded by carts, drawn each by a single horse, the expenses being so very considerable that it costs from 120 to 150 copecks to ship a chetwert of wheat. Without altering the position of the town, these defects might, as was suggested in the last edition of this work, be obviated with but little difficulty, by constructing a wooden pier by which vessels in the roads might be sheltered, and from which they might be laden. However, Mr. Consul Carruthers, in his *Report* of January 19, 1869, intimates that at length a new mole is being constructed, and the municipality, under some extraordinary impulse, has also contracted for lighting the streets with gas, a branch bank has been established, and a railway to connect Taganrog with Kharkoff has just been commenced.

*Sea of Azof.*—Anyone who takes up a map of Russia in Europe will at once perceive the vast importance of this sea (the *Pelus Mæotis* of the ancients) as an outlet for the products of the most fertile provinces of the empire. At its N.E. extremity it receives the Don (an. *Tanusis*), which, with its navigable tributaries the Donetz, Medveditza &c., flows through an immense extent of fruitful territory. Peter the Great was fully sensible of the paramount importance of this channel of communication; and he not only, as stated above, founded Taganrog on the estuary of the Don, but joined the latter to the Wolga by means of a canal, uniting in this way the Caspian with the sea of Azof. It is singular, however, that the Russian Government, which has, in other respects, so sedulously followed up the plans of the great father of his country, would seem of late years rather to have discouraged the trade of the Sea of Azof. As evidence of this, we may mention that no efforts have been made to deepen the channel over the bar at the mouth of the Don, to remove the other obstructions to the easy navigation of the river, or to improve any of the ports on the sea; and though all vessels entering the sea are no longer obliged to perform a lengthened quarantine at Kertsch on the W. side of the Straits of Yenikalé, still the delays to shipping consequent on the defecation and vexatious arrangements as to pilotage, lighterage and quarantine, are loudly complained of. (Mr. Consul Barrow's *Report* of January 1, 1867, and February 10, 1868.) The Russian Government wished to make Kertsch a dépôt for the produce of the various ports on the Sea of Azof, which it was supposed would be con-

veyed to it in lighters. But experience has shown that this expectation is not destined to be realised; the charges attending the bringing of produce to the Straits of Yenikalé by means of lighters, and its transhipment, being so very heavy that more than  $\frac{2}{10}$  of the shipping that arrive at Kertsch proceed to load at Taganrog, Mariapol, and other ports on the sea. Kertsch has a population of about 20,000.

It is not surely too much to expect that the Russian Government will see the advantage of removing all obstructions to the navigation of one of the principal channels for the commerce of the empire; and thus to permit its subjects to avail themselves of those gigantic means of production which a less illiberal policy would enable them fully to command. It is plain that ships may load and unload at Taganrog with as little danger to the health of the contiguous provinces as at Kertsch; and such being the case, why should they not be permitted to sail direct for the former? Through the efforts of the British Consul in 1867, much of the extortion and injustice practised at the Quarantine and Customs Departments was suppressed.

The Sea of Azof is usually shut by frost for about 3 months in winter, and it is besides shallow, and in parts encumbered with sand banks. But it may, notwithstanding, be navigated by vessels of considerable burden with but little risk or difficulty. Its greatest depth in the middle is about 7 fathoms; but it shoals gradually to the sides, and at Taganrog there is only from 10 to 11 feet water. Its depth is, however, materially affected by the direction and strength of winds. The only entrance to this sea is by the Straits of Yenikalé, the *Bo-jorus Cimærius* of the ancients, a narrow and difficult passage, having in some places not more than 13 feet water. Owing to the great quantity of fresh water poured into the Sea of Azof, and its limited magnitude, its water is brackish merely. (Norie's *Sailing Directions for the Mediterranean and Black Seas*; &c.) Mr. Consul Barrow called attention in 1866 to the fact that the revolution of the Yenikalé light occupied 2' 14", and not 1 minute, as given out, but no doubt the defect has been remedied.

It is impossible to form any estimate of the future magnitude of the trade of this sea, were it placed under a more liberal policy, and reasonable facilities afforded for its extension. No doubt, however, it would be very great; it being the natural seat of the commerce of some of the most extensive and fertile countries of Eastern Europe. The subjoined returns show that even now it is of the first importance; and with a little encouragement, or with the mere absence of obstruction, it would no doubt rapidly increase. It may, indeed, be fully concluded that sooner or later Taganrog is destined to become one of the first commercial ports in the world, if not the very first.

*Statement, showing the Quantities of the Principal Articles Exported from Taganrog during each of the 5 Years ending with 1868, with their Total Value in Pounds Sterling.*

Merchandise	1861	1865	1866	1867	1868
Wheat - - - - -	933,295	961,386	1,187,888	1,336,100	1,638,541
Rye - - - - -	1,554	1,733	94,952	316,289	330,605
Barley - - - - -	5,153	16,518	70,511	7,748	256,016
Oats - - - - -	15,421	13,562	75,988	..	..
Linseed - - - - -	191,846	146,607	195,227	206,629	429,861
Rapeseed - - - - -	37,735	31,735	15,740	39,650	59,995
Wool - - - - -	6,663,400	5,913,791	6,751,504	6,117,964	7,059,564
Tallow - - - - -	68,820	77,963	102,300	87,210	91,168
Butter - - - - -	34,296	26,110	37,837	55,676	38,804
Caviar - - - - -	11,055	11,903	23,495	22,192	25,134
Hides - - - - -	826	862	1,119	124	7,014
Flour - - - - -	4,809	2,832	7,590	15,900	..
Macaroni &c. - - -	1,954	1,928	1,370	..	..
Iron - - - - -	11,571	6,380	7,457	6,763	9,308
Tobacco - - - - -	9,642	5,113	8,794	4,307	16,357
Hugs - - - - -	3,478	..	15,594	2,111	..
Total value in £ sterling -	2,633,876	2,301,590	3,338,513	4,726,657	5,977,800

Account of the Number of Vessels, and their Tonnage, that have visited Taganrog in each of the 5 Years ending with 1868.

Nationality	1861		1865		1866		1867		1868	
	Ships	Tons								
British	166	46,679	130	56,581	176	52,611	239	78,392	302	102,250
Russian	75	11,538	54	19,151	62	15,221	65	15,912	80	21,716
Greek	375	63,691	417	56,673	396	63,291	392	68,805	370	82,916
Italian	166	48,557	183	48,825	270	73,018	262	81,667	264	90,169
North German	22	1,929	31	9,328	39	13,878	74	26,861	79	27,916
Spanish and Norwegian	12	5,395	29	16,573	21	10,351	53	18,878	60	31,299
Swedish	98	17,298	93	18,005	87	12,624	86	20,821	177	59,011
Total	817	199,265	766	196,719	1,021	269,717	1,084	314,258	1,359	415,830

Statement exhibiting the Principal Articles Imported into Taganrog in the 5 Years ending with 1867, and the Total Estimated Value in Pounds Sterling in those Years and 1868.

Merchandise	1863	1864	1865	1866	1867
Fruits, dried	cwt. 12,2618	91,502	90,722	23,184	29,999
Wool	dox. 57,877	51,800	26,911	47,727	39,300
Oil, olive	cwt. 28,327	27,642	35,994	32,971	30,290
Wine, in casks	gals. 411,714	378,718	353,291	111,285	353,992
Wine, in bottles	bot. 30,813	29,800	29,613	30,728	35,109
Porter	do. 29,141	74,000	9,558	49,011	34,995
Other	cwt. 4,378	2,863	2,808	5,759	5,896
Sauces, &c.	do. 17,55	2,171	4,819	2,668	3,132
Tea	lb. 135,510	69,840	91,389	86,292	23,136
Coffee	cwt. 2,790	2,175	2,171	1,992	2,236
Sugar	do. 6,473	..	..	722	..
Pepper	do. 882	771	256	181	222
Indigo	do. 427	445	445	203	523
Rice	do. 2,182	961	1,518	695	1,228
Tobacco	do. 5,292	3,976	2,255	1,755	3,621
Macaroni	do. £ 67,000	55,100	17,200	55,000	50,510
Implement	do. ..	..	..	..	..
Rice &c.	pieces 105,500	2,400	11,137	207,550	148,800
Sales	do. ..	..	..	..	..
Total value in £ sterling	665,220	511,435	414,006	473,216	599,168

N.B. The total value of the imports in 1868 was 541,000.

By far the largest portions of the wheat and tallow exported from ports on the Sea of Azof are shipped for England. (For an account of the imports from south Russia, see art. PETERSBURG.) In 1866 the ports on the Sea of Azof were visited by 1,821 British and foreign ships, of the aggregate burden of 303,718 tons, of which only 7,609 were Russian. Were the navigation of the Don improved, and facilities given to foreigners entering the sea, the exports might be largely increased, even with recent prices, which have been nearly the same as those of Odessa. The harvests in the south of Russia fluctuate very greatly. [Odessa.]

The imports into the Sea of Azof are but inconsiderable, principally consisting of tobacco, Greek wines, oils, dried fruits, and such like articles.

The Emperor Alexander, whose reign will always form a memorable and brilliant era in the history of Russia, expired at Taganrog on November 19, 1825. (For further particulars see Schmitzer, *La Russie*, p. 717; Hagemeister *On the Trade of the Black Sea*, p. 31 &c.; *Russian Official Accounts*; and *Reports* by the British Consuls at Taganrog and Odessa.)

*Money, Weights, and Measures*, same as those of Petersburg.

*Caspian Sea, Magnitude, Ports of &c.*—The Caspian Sea, or rather Lake (the *Mare Hyrcanum* of the ancients), extends lengthwise from north to south about 740 miles, varying in breadth from 112 to 275 miles. In some parts, particularly on the southern shores, it is so very deep that a line of 450 fathoms will not reach the bottom; whereas in the northern parts, and opposite to the mouths of the Volga, it is comparatively shallow; and owing to the frequent occurrence of shoals, it is not safely navigated by vessels drawing more than 10 or 12 feet water. Its level had been variously estimated by Olivier and Lowitz at from 64 to 53 feet below that of the Black Sea; but the observations of M. Humboldt made the difference of level between them no less than 300 feet. This, however, was supposed to involve some mistake; and its level has since been ascertained by an expedition fitted out by the Russian Government to

be 116 feet below the level of the Black Sea. The water of the Caspian is not salt, but brackish merely; it has no tides, but gales of wind raise a very heavy sea. It is extremely prolific of fish and seals. The value of the sturgeon caught in the Russian fisheries amounts to a very large sum. [STURGEON FISHERY.] They proceed in shoals up the rivers, where they are captured without the least apparent diminution of their numbers. The salmon is remarkably fine; and herrings are in such abundance, that, after a storm, the shores of the Persian provinces of Gilian and Mazandaran are nearly covered with them. (Kinneir's *Memoir of the Persian Empire*, p. 6; *Memoir on the Caspian Sea*, in Malte Brun's *Geography*; Humboldt, *Fragmens de Geologie &c.*)

Astrakhan is situated on an island of the Volga, more than 50 miles from the mouth of that river; and owing to the extensive command of internal navigation it possesses, it is a place of very considerable commercial importance. In 1863 the value of the imports into Astrakhan was 1,330,636 silver roubles, and of the exports 287,277 silver roubles. Baku, acquired by the Russians in 1801, is, however, the best port on the western side of the Caspian. It is situated on the southern shore of a peninsula that projects far into the sea, in lat. 40° 22' N., long. 51° 10' E. The harbour is spacious and convenient; and its central and advanced position gives it superior advantages as a trading station. Prodigious quantities of naphtha are procured in the vicinity of Baku. It is drawn from wells, some of which yield from 1,000 to 1,500 lb. a-day. It is used as a substitute for lamp oil; and when ignited, emits a clear light, with much smoke and a disagreeable smell. Large quantities are exported in skins to the Persian and Tartar ports on the south and east shores of the sea.

*Vessels*.—The largest class of vessels by which the Caspian Sea is navigated are called by the Russians *schuyts*, and belong wholly to Astrakhan and Baku; their burden varies from 90 to 150, and, in some instances, 200 tons. They are not built on any scientific principle, and are con-

But experience has shown not destined to be realised; the bringing of produce to by means of lighters, and so very heavy that more g that arrive at Kertsch nrog, Mariopol, and other tch has a population of

much to expect that the will see the advantage of ns to the navigation of ne s for the commerce of he permit its subjects to avail riantic means of production policy would enable them is plain that ships may anrog with as little danger contiguous provinces as at ing the case, why should to sail direct for the for- orts of the British Consul extortion and injustice pra- and Customs Departments

usually shut by frost for ater, and it is besides shal- mbered with sand banks, standing, to be navigated by burden with but little risk at deepest depth in the middle is it shoals gradually to there is only from 10 to 11 ch is, however, materially ion and strength of winds, this sea is by the Straits of s *Chimmerius* of the ancients, it passage, having in some 13 feet water. Owing to the h water poured into the Sea at magnitude, its water is orie's *Sailing Directions for and Black Seas*; &c.) Mr. attention in 1866 to the tion of the Yenikalé light t 1 minute, as given out, but as been remedied.

to form any estimate of the the trade of this sea, were it liberal policy, and reasonable its extension. No doubt, e very great; it being the mmerce of some of the most countries of Eastern Europe. s show that even now it is of and with a little encourage- ere absence of obstruction, it ly increase. It may, indeed, at sooner or later Taganrog e one of the first com-ship- id, if not the very first.

from Taganrog during each Pounds Sterling.

1867	1868
1,336,100	1,638,511
316,299	350,605
7,748	256,016
806,629	429,861
20,650	50,395
6,117,264	7,032,564
87,410	91,168
53,676	58,881
22,192	25,138
123	7,014
15,900	..
811	..
6,763	9,308
2,307	16,357
3,111	..
4,726,687	5,875,900

structed of the worst materials, that is, of the timber of the barks that bring grain down the Wolga to Astrakhan. There are supposed to be, in all, about 100 sail of these vessels. There is a second class of vessels employed in the trade of the Caspian, called *razchives*. They carry from 70 to 140 tons, and sail better than the schuyts. Their number is estimated at about 50. Exclusive of the above, there are great numbers of small craft employed in the coasting trade, in the rivers, in the fisheries, and in acting as lighters to the schuyts. Steam boats are extensively employed on the Wolga; and they are now also found in most parts of the Caspian. The masters and crews of the vessels employed on this sea are, for the most part, as ignorant as can well be imagined. They are generally quite incapable of making an observation, or of keeping a reckoning; so that accidents frequently occur, that might be avoided by the most ordinary acquaintance with the principles of navigation. (These statements are made, partly upon official, and partly upon private authority: the latter may, however, be safely relied on.)

The trade of this great sea is entirely in the hands of the Russians; by whom it is carried on from the ports of Astrakhan and Baku, with the Persian ports of Astrabad, Balfoosh &c. on the south; and with the Tartar ports of Mangishlak, Balkan &c. on the east. It is very insignificant, compared with what it ought to be; the value of the total imports into Asiatic Russia having been 3,799,120*l.*, and that of the exports 2,163,256*l.* On the whole, however, a gradual improvement is taking place; and whatever objections may, on other grounds, be made to the encroachments of Russia in this quarter, there can be no manner of doubt, that, by introducing comparative security and good order into the countries under her authority, she has materially improved their condition, and accelerated their progress to a more advanced state.

**TALC.** This mineral occurs both crystallised and massive. It is soft, smooth, greasy to the feel, and may be split into fine plates or leaves, which are flexible, but not elastic. It has a greenish, whitish, or silver-like lustre. The leaves are transparent, and are used in many parts of India and China, as they were used in ancient Rome (Plin. *Hist. Nat. lib. xxxvi. c. 22*), in windows instead of glass. In Beugal, a seer of talc costs about 2 rupees, and will sometimes yield a dozen panes 12 inches by 9, or 10 by 10, according to the form of the mass, transparent enough to allow ordinary subjects to be seen at 20 or 30 yards' distance. It should be chosen of a beautiful pearl colour; but it has, in general, either a yellowish or faint blue tinge. Its pure translucent flakes are frequently used by the Indians for ornamenting the baubles employed in their ceremonies. Talc is employed in the composition of *rouge végétal*. The Romans prepared with it a beautiful blue, by combining it with the colouring fluid of particular kinds of testaceous animals. Talc is met with in Aberdeenshire, Perthshire, and Banffshire in Scotland; and in various parts of the Continent, where rocks of serpentine and porphyry occur. The talc brought from the Tyrolese mountains is called in commerce Venetian talc. Several varieties are found in India and Ceylon. (Thomson's *Chemistry*; Rees's *Cyclopaedia*; Milburn's *Orient. Com.*; Ainslie's *Materia Indica*; Watt's *Chemical Dictionary*, ed. 1868.)

**TALLOW** (Fr. *suif*; Ger. *talg*; Ital. *sevo*; sego; Russ. *salo*, *tolpencoe*; Span. *sebo*). Animal fat melted and separated from the fibrous matter mixed with it. Its quality depends partly on the

animal from which it has been prepared, but more, perhaps, on the care taken in its purification. It is firm, brittle, and has a peculiar heavy odour. When pure, it is white, tasteless, and nearly insipid; but the tallow of commerce has usually a yellowish tinge; and is divided, according to the degree of its purity and consistence, into candle and soap tallow.

Tallow is an article of great importance. It is manufactured into candles and soap, and is extensively used in the dressing of leather, and in various processes of the arts. Besides our extensive supplies of native tallow, we annually import a very large quantity, principally from Russia, the River Plate, and the Australian colonies. M. Tegoborski estimated the average annual exports of tallow from Russia at 3,810,000 poods, of the value of 13,871,000 roubles; that is, taking the rouble at 3*s.* 2*d.*, 2,196,241*l.* sterling. (*Forces productives de la Russie*, i. 242.) And the total export from European Russia (ex Finland) in 1865 was 2,938,077 poods, valued at 11,752,308 silver roubles. Of this immense supply by far the largest portion is brought to England: the remainder being exported to Prussia, France, the Hanse Towns, Turkey &c.

We borrow from the work of Mr. Barrison on the Commerce of Petersburg the following details with respect to the tallow trade of that city:

Tallow is divided into different sorts; namely, white and yellow *candle tallow*, and common and Siberian *soap tallow*; although it is allowed that the same sort often differs in quality.

Tallow is brought to Petersburg from the interior; and the best soap tallow from Siberia, by various rivers, to the Lake Ladoga; and thence, by the canal of Schlussemburg, to the Neva.

An *ambare*, or warehouse, is appropriated to the reception of tallow, where, on its arrival, it is selected and assorted (*bracketed*). The casks are then marked with three circular stamps, which state the quality of the tallow, the period of selecting, and the name of the selector (*bracket*).

The casks in which white tallow is brought have a singular appearance; their form being conical, and their diameter at one end about 2*ft.* feet, and at the other only 1½ foot; the casks of yellow tallow are of the common shape. There are also others, denominated ½ casks.

To calculate the tare, the tallow is removed from a certain number of casks, which are weighed, and an average tare is thence deduced for the whole lot. A cask weighs 8*½*, 9, 10, or 11 per cent., but the average is generally about 10 per cent. of the entire weight of tallow and cask.

*Account of the Quantities and Values of the Tallow Imported into the United Kingdom in 1867, specifying the Countries whence it was brought, and the Quantities and Values furnished by each.*

Countries	Total Quantities	Computed Value	Average Price per cent.
	cwt.	£	¢
Russia	622,869	1,375,680	2 1/4
France	7,015	15,153	2 1/2
Morocco	2,883	6,186	2 1/2
United States:			
N. Atlantic ports	158,150	306,698	2 1/4
S. Atlantic ports	5,418	12,019	2 1/4
Ports on the Pacific	1,120	2,468	2 1/4
Brazil	25,261	58,637	2 1/2
Uruguay	141,031	325,312	2 1/4
Argentine Confederation	111,541	249,499	2 1/4
Australia	43,373	92,916	2 1/4
Canada	1,152	2,549	2 1/4
Other parts	1,712	3,729	2 1/4
Total	1,105,158	2,419,594	2 1/4

Yellow candle tallow, when good, should be clean, dry, hard when broken, and of a fine yellow

Account of the Quantities of Tallow Imported into the United Kingdom in each of the 6 Years ending with 1867.

	1862	1863	1864	1865	1866	1867
Tallow - - - cwt.	1,103,217	1,160,219	1,011,566	1,361,318	1,322,177	1,105,158

colour throughout. The white candle tallow, when good, is white, brittle, hard, dry, and clean. The best white tallow is brought from Woronesch. As for soap tallow, the more greasy and yellow it is, the better the quality. That from Siberia is the purest, and commonly fetches a higher price than the other sorts.

Formerly the oil and tallow warehouses were the same; and this occasioned great difficulties in shipping, because all vessels or lighters taking in tallow or oil were obliged to haul down to the *ambare* and wait in rotation for their cargoes. The consequence was, that when much business was doing, a vessel was often detained for several weeks at the *ambare* before she could get her cargo on board. Now the tallow and oil warehouses are separated, and every article has its own place. When a shipment of tallow is made, the agent is furnished by the selector (*bracker*) with a sample from each cask.

Captains, in order to obtain more freight, usually load some casks of tallow upon deck; but it is more for the interest of the owner to avoid this, if possible, because the tallow loses, through the

heat of the sun, considerably both in weight and quality.

One hundred and twenty poods of tallow, at gross weight, make a Petersburg last, and 63 poods an English ton.

Before the abolition of the duty tallow from foreign countries was charged with a duty of 1s. 6d. per cwt., while that from a British possession was charged with a duty of only 1d. per cwt. In a financial point of view, these duties were of little importance; but they were imposed on an illiberal principle, were justly offensive to other countries, and provoked them to retaliate.

The price of tallow fluctuated very much during the last European war, and during the Russian war. This was occasioned, principally, by the obstacles that were at different periods thrown in the way of supplies from Russia. The price of tallow is also affected by the state of the seasons. Some very extensive speculations have at various periods been attempted in tallow; but seldom, it is believed, with much advantage to the parties. Yellow candle tallow was worth, in the London market, in April 1869, from 46s. to 46s. 6d. per cwt. In 1867 we imported 707 cwt. of vegetable tallow.

London and Liverpool Prices, Stocks &c., of Tallow, in the Years undermentioned. From Circular of January 9, 1869, issued by Messrs. Laird and Adamson, Brokers, of Liverpool.

LIVERPOOL (all sorts).					
Tallow, in Casks	1858	1862	1866	1867	1868
Prices per cwt. December 31 - - -	46s. to 55s. 6d.	43s. to 47s. 6d.	42s. to 46s. 6d.	42s. 6d. to 45s. 6d.	46s. 6d. to 48s.
Stocks on December 31 - - -	6,450	12,600	13,971	4,200	4,319
Imports from Jan. 1 to Dec. 31 -	24,280	46,500	51,015	41,770	51,715
Consumption and Exports, per annum	30,150	48,100	47,311	51,551	51,396
LONDON (all sorts).					
Prices per cwt. of P. V. C. on Dec. 31	51s.	41s. 9d.	41s. 9d.	42s. 9d.	47s. 5d.
Stocks on December 31 - - -	33,757	55,300	48,002	40,017	42,175
Imports from Jan. 1 to Dec. 31 -	105,831	83,102	91,571	77,182	95,061
Deliveries from do. - - -	100,969	81,761	92,129	85,467	90,892

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Quantities and Values of the Tallow Imported into the United Kingdom in each of the Countries whence it was Imported, in the Years undermentioned.

	Total Quantities	Computed Value	Average Price per cent.
cwt.	£	£	per cent.
622,860	1,315,680	2 5 3	
2,015	15,153	2 3 6	
2,883	6,196	2 1 0	
138,150	306,608	2 4 3	
6,418	15,019	2 3 4	
3,180	2,168	2 4 1	
25,550	58,637	2 2 5	
141,054	323,313	2 1 9	
111,541	249,490	2 2 11	
43,775	92,916	2 1 7	
1,152	2,349	2 1 1	
1,712	3,295	2 1 1	
1,105,158	2,419,591		

tallow, when good, should be when broken, and of a fine yellow

TALLY TRADE. The name given to the system of dealing carried on in London and other large towns, by which shopkeepers furnish certain articles on credit to their customers, the latter agreeing to pay the stipulated price by certain weekly or monthly instalments.

In the metropolis there are about 60 or 70 tally-shops of note, and from 500 to 600 on a smaller scale. They are also spread over the country to a considerable extent, particularly in the manufacturing districts. The customers of the tally-shops are mostly women; consisting, principally, of the wives of labourers, mechanics, porters &c., servant girls, and females of loose character. Few only of the more respectable classes have been infatuated enough to resort to them. Drapery goods, wearing apparel, coals, household furniture, hardware &c. are furnished; and even funerals are performed; but few or no articles of food, except tea, are sold upon the tally plan.

We believe that this is the very worst mode in which credit is afforded. The facility which it gives of obtaining an article when wanted, and the notion so apt to be entertained that the weekly or monthly instalments may be paid without difficulty, make those who resort to the tally-shops overlook the exorbitant price, and usual bad quality, of the articles they obtain from them, and generate habits of improvidence that seldom fail to involve

the parties in irretrievable ruin. It is not going too far to say that nine-tenths of the articles supplied by tally-shops might be dispensed with. As already observed, women are the principal customers; and it is not easy to exaggerate the mischief that has been entailed on the families of many industrious labourers by their wives having got entangled with tally-shops. They buy goods without the knowledge of their husbands; and these are not unfrequently pawned, and the proceeds spent in gin. So destructive, indeed, is the operation of the system, that the establishment of a tally-shop in any district is almost certain to occasion an increase in the paupers belonging to it. Even the unmarried females who do not pay are demoralised and ruined by the system; because, if a woman who buys 3 gowns pays for the 2 first, and runs away from the payment of the last, she gains nothing *in point of saving*, while she becomes indifferent to an act of dishonesty. As tally debts can only be collected whilst a supply of goods is kept up, as soon as that supply is stopped the debtor either flies to another district, or awaits a summons. Where the wife has contracted the debt, she usually appears before the commissioners, who in general order the debt to be paid by weekly or monthly instalments. But it often occurs, from the wife not being able to keep up such payments, that execu-

tion issues, and the poor husband is frequently arrested and lodged in prison for a debt of the existence of which he was entirely ignorant. In this way numbers of the working classes are completely ruined; they lose their employment, and themselves and families are reduced to beggary. The intelligent keeper of Whitecross-street Prison (Mr. Barrett) stated that from 150 to 200 persons are annually imprisoned there for tally-shop debts, in sums of from 10s. to 5l., and that in one year 30 prisoners were at the suit of one tally-shop alone. Such imprisonments, however, are now much decreased, in consequence, as is believed, of the Court of Requests discouraging the tally system by ordering claims of this kind to be paid by extremely small instalments, and these at very distant intervals; and also in consequence of no composition being allowed by the charities for the relief of poor prisoners with reference to such debts.

It is estimated that in London alone about 850,000l., or nearly 1,000,000l. sterling, is annually returned in this trade. From his large profits (generally from 25 to 40 per cent.), it is obvious that in a few transactions the tally-shop keeper becomes independent of the existing debt; and with capital and good management, it is said that some have realised considerable sums of money in this business.

According to the custom of the trade, Mondays, Tuesdays, Wednesdays, and Thursdays are the days set apart for collecting money from the customers. The tally-man sends round his collector through the different 'walks,' and the amount of a collection which keeps the collector engaged from morning till night, even in a good tally concern, seldom exceeds 4l. a day. The payments are invariably made in shillings and sixpences—but the people seldom or never pay at the tally-shops; they rarely call there unless something else is wanted. The tally-shop keeper trusts one party on the recommendation of another; but guarantees are never required—certainly no written guarantees; and a verbal guarantee is, according to Lord Tenterden's Act, not binding. It is part of the collector's business, besides getting money, to beat up for fresh customers in his walk.

The greater number of the small tally concerns are kept by Scotchmen: it is a curious fact, that when a 'tally-walk' is to be sold, which is often the case, a Scotchman's walk will bring 15 per cent. more than an Englishman's. It is believed to contain a better description of customers.

From the causes above mentioned, assisted, perhaps, by the salutary influence of savings banks, this obnoxious trade is understood to be rather on the wane. It will never, however, be completely rooted out except by adopting the plan we have previously suggested [CREDIT] for placing all small debts beyond the pale of the law; and the fact that the adoption of this plan would have so beneficial a result is an additional and powerful recommendation in its favour. In cases where failures take place, the creditors of a tally-shop keeper are in general terrified into the acceptance of a small composition. The very sight of the tally ledgers, from 10 to 20 in number, containing debts from 5s. to 5l., dotted over the pages like a small pattern on a piece of printed cotton, and spread over every district in and round London, determines the creditors to accept of any offer, however small, rather than encounter the collection of such disreputable assets. In an affair of this kind, concluded a few years since, where the business was under the management of a respectable accountant in the

City, the whole debts due to the concern, good, bad, and doubtful, amounted to 8,700l., while the number of debtors was 7,600, giving an average of 22s. 10d. each.

N.B.—This article has been compiled wholly from private, but authentic, information.

**TAMARINDS** (Ger. tamarinden; Fr. tamarins; Ital. and Span. tamarindo; Arab. imhlic; Hind. tintiri), the preserved pulp of the *Tamarindus Indica*, a tree which grows in the East and West Indies, in Arabia, and Egypt. In the West Indies the pods or fruit, being gathered when ripe, and freed from the shelly fragments, are placed in layers in a cask, and boiling syrup poured over them till the cask be filled; the syrup pervades every part quite down to the bottom; and when cool, the cask is headed for sale. The East India tamarinds are darker coloured and drier, and are said to be preserved without sugar. When good, tamarinds are free from any degree of mustiness; the seeds are hard, flat, and clean; the strings tough and entire; and a clean knife thrust into them does not receive any coating of copper. They should be preserved in closely covered jars. (Thomson's *Dispensatory*; *British Pharmacopœia*, 1867.) The duty on tamarinds, after being greatly reduced in 1842, was wholly repealed in 1853. Our imports of tamarinds in 1867 amounted to 1,701,673 lb., valued at 17,781l.

**TAPIOCA**. A species of starch or white coarse powder derived from the roots of the bitter cassava (*Janipha manihot*), an American plant, raised all over South America, but principally in Brazil, where it is called *nandio* or *manioc*, and in Singapore and the Eastern Straits Settlements. The roots of the plant, being peeled, are subjected to pressure under water in a kind of bag made of rushes; the juice which is forced out by this process being a deadly poison, and employed as such by the Indians to poison their arrows. But the residuum, or farinaceous matter remaining after the expulsion of the juice, is perfectly wholesome, and makes excellent bread. Tapioca, as stated above, is prepared from this residuum, and being nutritious, and easy of digestion, is extensively used in the making of puddings. When dressed, it is not easily distinguished from sugar. The imports amounted in 1867 to 25,782 cwt., whereof 15,660 cwt. were from Singapore and the Straits Settlements, and 5,066 cwt. from Brazil. Duty 4½d. per cwt.

**TAR** (Fr. goudron; Ger. theer; Ital. catrame; Pol. amola gesta; Russ. degot, smola shikajia; Swed. tjara). A thick, black, unctuous substance, chiefly obtained from the pine, and other turpentine trees, by burning them in a close smothering heat.

The tar of the north of Europe is very superior to that of the United States, and is an article of great commercial importance. The process followed in making it has been described as follows by Dr. Clarke:—"The inlets of the Gulf (Bothnia) everywhere appeared of the grandest character, surrounded by noble forests, whose tall trees, flourishing luxuriantly, covered the soil quite down to the water's edge. From the most southern parts of Westro-Bothnia to the northern extremity of the Gulf, the inhabitants are occupied in the manufacture of tar, proofs of which are visible in the whole extent of the coast. The process by which the tar is obtained is very simple; and as we often witnessed it, we shall now describe it, from a tar-work we halted to inspect upon the spot. The situation most favourable to the process is in a forest near to a marsh or bog; because the roots of the fir, from which tar is principally extracted, are always most

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productive in such places. A conical cavity is  
then made in the ground (generally in the side of  
a bank or sloping hill); and the roots of the fir,  
together with logs and billets of the same, being  
neatly trussed in a stack of the same conical  
shape, are let into this cavity. The whole is then  
covered with turf, to prevent the volatile parts  
from being dissipated, which by means of a heavy  
wooden mallet, and a wooden stamper, worked  
separately by two men, is beaten down and ren-  
dered as firm as possible above the wood. The stack  
of billets is then kindled, and a slow combustion  
of the fir takes place, without flame, as in making  
charcoal. During this combustion the tar ex-  
udes; and a cast iron pan being at the bottom of  
the funnel, with a spout which projects through  
the side of the bank, barrels are placed beneath  
this spout to collect the fluid as it comes away.  
As fast as the barrels are filled, they are bunged  
and ready for immediate exportation. From this  
description it will be evident that the mode of  
obtaining tar is by a kind of distillation *per de-  
scensum*; the turpentine, melted by fire, mixing  
with the sap and juices of the fir, while the wood  
itself, becoming charred, is converted into char-  
coal. The most curious part of the story is, that  
this simple method of extracting tar is precisely  
that which is described by Theophrastus and  
Dioscorides; and there is not the smallest differ-  
ence between a tar-work in the forests of Westro-  
Bothnia and those of ancient Greece. The Greeks  
made stacks of pine; and having covered them  
with turf, they were suffered to burn in the same  
smothered manner; while the tar, melting, fell to  
the bottom of the stack, and ran out by a small  
channel cut for the purpose.

Tar was charged, previously to 1844, on being  
admitted to consumption, with a duty of 15*s.* per  
barrel; but this duty being repealed in  
the course of that year, it has since been admitted  
duty free. It is principally brought from Russia.  
Thus of 155,372 barrels, valued at 116,949*l.*, im-  
ported in 1867, 143,814 were supplied by Russia,  
N.B. The last contains 12 barrels, and each barrel  
31 gallons.

TARE. An abatement or deduction made from  
the weight of a parcel of goods on account of the  
weight of the chest, cask, bag &c. in which they  
are contained. Tare is distinguished into *real*  
*tare*, *customary tare*, and *average tare*. The first  
is the actual weight of the package; the second,  
its supposed weight, according to the practice  
among merchants; and the third is the medium  
tare, deduced from weighing a few packages, and  
taking it as a standard for the whole. In Am-  
sterdam, and some other commercial cities, tares  
are generally fixed by custom; but in this coun-  
try, the prevailing practice, as to all goods that  
can be unpacked without injury, both at the  
Custom-house and among merchants, is to ascer-  
tain the real tare. Sometimes, however, the  
buyer and seller make a particular agreement  
about it. We have, for the most part, specified  
the different tares allowed upon particular com-  
modities, in the descriptions given of them in this  
work. (For the tares at AMSTERDAM, BORDEAUX,  
&c., see these articles; see also ALLOWANCES.)

TARE, VETCH, or FITCH. A plant (*Vicia*  
*sativa*, Linn.) that has been cultivated in this  
country from time immemorial, principally for  
its stem and leaves, which are used in the feeding  
of sheep, horses, and cattle, but partly also for  
its seed. Horses are said to thrive better upon  
tares than upon clover and rye grass; and cows  
that are fed upon them to give most milk. The  
seed is principally used in the feeding of pigeons  
and other poultry. The imports in 1866 amounted

to 15,911 qrs. from Denmark, Prussia, the Hanse  
Towns, and France.

TARIFF. A table, alphabetically arranged,  
specifying the various duties, drawbacks, boun-  
ties &c. charged and allowed on the importation  
and exportation of articles of foreign and domestic  
produce.

I. TARIFF, BRITISH.  
II. TARIFFS, COLONIAL.  
III. TARIFFS, FOREIGN.

I. BRITISH TARIFF.

The first two columns of the subjoined Table  
contain an account of the duties existing on  
January 1, 1869, on the various articles charged  
with duties on being imported for consumption  
into the United Kingdom, distinguishing between  
the duties when the articles come from foreign  
countries and from colonial possessions.

Those who compare the following tariff with  
the tariffs in the copies of this work issued pre-  
viously to 1842 will be forcibly struck with the  
vast difference between them. Notwithstanding  
the improvements effected by Mr. Huskisson, the  
tariff continued, down to the epoch now referred  
to, on a most objectionable footing. Hundreds of  
articles were loaded with duties which, while  
they brought little revenue into the public  
treasury, opposed formidable obstacles to the  
extension of commerce; a host of other articles,  
including live cattle and fresh provisions, were  
wholly prohibited; high duties were laid on  
various articles of consumption, and on others  
that were necessary to the prosecution of some of  
our principal manufactures; and some most im-  
portant articles, including corn, sugar, and timber,  
were burdened with duties imposed not so much  
for the sake of revenue as of protection. But the  
change in these respects since 1842 has been  
greater than any one, however sanguine, could  
have anticipated. Then Sir Robert Peel began  
that course of commercial reform which will,  
for ever, distinguish his administration; and  
such were the energy, skill, and success with  
which that great minister prosecuted his plans,  
that in the brief space of 4 years he obviated,  
with but little sacrifice of revenue, almost all  
the defects alluded to above, and effected a  
vast and most salutary change in our commercial  
policy.

Sir Robert Peel's commercial reforms were  
principally embodied in the Acts 5 & 6 Vict. c.  
47, 8 Vict. c. 12, 9 & 10 Vict. c. 22, and 9 & 10  
Vict. c. 23. The first of these Acts permitted  
cattle, sheep, hogs, beef, salmon, and other  
articles that had previously been prohibited, to  
be imported under reasonable duties; the second,  
or the 8 Vict. c. 12, repealed the duties on about  
420 different articles; and though many of these  
were of comparatively trifling importance, the  
list comprised others of a very different class,  
such, for example, as ashes, barilla, bark, flax  
and tow, cotton wool, hemp, hides, indigo,  
madder; palm, olive, and train oil; sago, salt-  
petre, raw silk, all sorts of skins and furs, straw  
for plating, all sorts of fancy woods, with a host  
of others; the third of the above-mentioned  
statutes, or the 9 & 10 Vict. c. 22, is the famous  
Act for the modification and repeal of the corn  
laws; and the fourth and last, the 9 & 10 Vict.  
c. 23, is the Tariff Act of 1846, which entirely  
repealed the duties on cattle, sheep, hogs, beef,  
bacon, and other leading products; at the same  
time that it reduced the duties on silks, butter,  
cheese, and nearly 100 other articles.

Sir Robert Peel also reduced the duty on

Table Exhibiting the Duties Payable on January 1, 1869, on Goods, Wares, and Merchandise Imported into the United Kingdom, from Foreign Parts, and from British Possessions; and those Payable on the same Articles in 1819 and 1787 when Imported from Foreign Parts.

Articles	Rates of Duty on Jan. 1, 1869		Rates of Duty in 1819		Rates of Duty in 1787	
	£ s. d.	per	£ s. d.		£ s. d.	
Almonds, paste of	0	0	60	0	27	10
*Arrowroot	0	0	0	0	27	10
*Barley, perked	0	0	0	17	0	8
*Beer and ale	1	0	1	1	0	5
Bottle	1	0	1	1	0	5
Of other sorts	1	0	1	6	0	11
*Biscuit and bread	0	0	0	0	0	0
Cakes, plain	0	3	4	0		Prohibited
Cassava powder	0	0	0	0	0	4
Cherries, dried	0	0	0	0	0	4
Chicory, or any other vegetable matter applicable to the uses of chicory or coffee:						
Raw or kiln dried	1	6				
Roasted or ground	0	3	20	0	27	10
Chiroform	0	0				
Cocoa	0	0				
Husks and shells	0	0				
Paste or chocolate	0	0				
Coffee	0	0				
Kin dried, roasted or ground	0	0				
Collodion	1	4				
Comfits, dry	0	0	0	2	0	0
Confectionery	0	0				
*Corn, grain, meal, and flour:						
Wheat, barley, oats, rye, pease, beans, maize or Indian corn, buckwheat, bear or bigg	0	0				
Wheat meal and flour, barley meal, oat meal and groats, rye meal and flour, pea meal, bean meal, maize or Indian corn meal, buckwheat meal, and meal not otherwise enumerated or described	0	0				
Currants	0	7	2	4	1	3
Essence of spruce - for every £100 value	10	0	20	0	27	10
Ether, sulphuric	1	2	1	6	0	14
Figs	0	7	0	7	0	7
Fig cake	0	7	0	3	2	10
Ginger, preserved	0	0	0	3	2	10
*Macaroni, see Vermicelli.						
Malt	1	5				
*Manduca flour	0	0				
*Manna crump	0	0				
Marmalade	0	0	1	3	0	0
Milk, preserved (as confectionery)	0	0				
Naphtha or methylic alcohol, purified	0	10				
Pickles, preserved in vinegar	0	0	0	6	0	10
Plate, of gold	0	17	3	16	9	per oz.
silver	0	1	0	6	4	
Plums, commonly called French plums and prunes	0	7	7	0	0	0
Dried or preserved (except in sugar), not otherwise enumerated	0	7	7	0	1	8
Preserved in sugar	0	0				
Potato flour	0	0				
*Powder, hair	0	0	9	15	0	per cwt.
perfumers, applicable to the same uses as starch	0	0	13	10	0	per 1000
Perfumes	0	7	0	9	10	27
Raisins	0	7	1	7	6	12
*Rice dust and meal	0	0				
*Sago and sago flour or meal	0	0	3	14	8	1
*Sesumina	0	0				
Spirits and strong waters:						
Spirits or strong waters not being sweetened or mixed with any article so that the degree of strength thereof cannot be ascertained by Nyke's hydrometer, for every gallon of the strength of proof by such hydrometer, and so in proportion for any greater or less strength than the strength of proof, as 1 for any greater or less quantity than a gallon:						
Brandy	0	10	0	2	2	0
Genever	0	10	0	2	2	0
Rum of and from any foreign country, being the country of its production	0	10				
Rum from any country not being the country of its production	0	10				
Tafia, of and from any colony of France	0	10				
Rum and spirits of and from a British Possession in America, or the Island of Mauritius, and rum of and from any British Possession within the limits of the East India Company's charter, in regard to which the conditions of the Act 4 Vict. c. 8 have or shall have been fulfilled	0	10	0	1	6	3
Unenumerated	0	10				
Other spirits, being sweetened or mixed so that the degree of strength cannot be ascertained as aforesaid:						
Rum shrab, liqueurs and cordons, of and from a British Possession in America, or the Island of Mauritius, or a British Possession within the limits of the East India Company's charter, in regard to which the conditions of the Act 4 Vict. c. 8 have or shall have been fulfilled	0	10	0	1	6	0
Perfumed spirits, to be used as perfumery only	0	14				
Water, Cologne, in flasks or otherwise, to be charged as "perfumed spirits"	0	14				
Unenumerated	0	14				
*Starch	0	0				
Gum of, terrified or calcined	0	0				
Succades, including all fruits and vegetables, preserved in sugar, not otherwise enumerated	0	0				

\* The Chancellor of the Exchequer this year (1869) proposes to abolish the duties marked thus \*, and to reduce those marked thus †.



this. It was furnished in its more extended form for a former edition of this work by the late Mr. J. D. Hume, of the Board of Trade.

The duties in the preceding table have been imposed by various statutes.

The rules and regulations to be followed in regard to the importation and exportation of goods are embodied in the Customs Consolidation Act of 1853, and subsequent Acts; and will be found in this work under the head IMPORTATION AND EXPORTATION. But it may be useful to subjoin the following clause in regard to the importation of duty-free goods, viz.:-

**Particulars of Entry.**—The importer of any goods not subject to duties of customs, or his agent, shall deliver to the collector a bill of entry of such goods in the same manner and form and containing the same particulars as are required on the entry of dutiable goods, so far as the same is practicable, which entry, so far as regards the goods, shall be a transcript of the report, and shall therein describe such goods according to the terms upon which such goods are free of duty, and the value of such goods as shall have been previously chargeable with duty at value; and such bill of entry, when signed by the collector, shall be transmitted to the proper officer, and be his warrant for the delivery of the goods mentioned therein; and the importer, owner, or consignee of such goods, or his agent, shall within 14 days after the entry and landing thereof, deliver to the collector, or other proper officer of customs a full and true account of the goods so landed; provided, that at Liverpool, and with the sanction of the Commissioners of Customs at any other port where the docks, quays, and wharfs shall in like manner be wholly or principally under the control and management of one and the same corporate body, the owner, master, or consignee of the importing ship, or his agent, shall sign and leave with the collector of the customs, within 14 days next after the final discharge of such goods, a full and accurate list thereof, stating the quantities

and distinguishing the weights and contents by measurement of such goods, if any, comprised therein, as shall be chargeable by weight or by measurement for the freight payable thereon, and the names of the consignees (according to the bills of lading), or the names of the persons actually paying freight for the same; and on failure to leave such list, such owner, master, consignee, or agent shall forfeit the sum of 20*l.* (Sec. 60.)

**Inland Revenue (Excise) Duties in the United Kingdom, January 1, 1869.**

Chicory, or any other vegetable matter applicable to the uses of chicory or ruffles, grown in the United Kingdom, raw or kiln-dried	cwt.	£ s. d.
Hackney carriages, London	per week	0 7 0
Sundays - - - - - if not used on	per week	0 6 0
Malt made from barley	hh.	0 2 7
less or bigger	hh.	0 2 0
Plate, gold, wrought	oz. troy	0 16 0
silver, wrought	oz. troy	0 0 6
Race horses	each	5 11 0
Railways, in England and Scotland, on sums received for conveyance of passengers	per cent.	5 0 0
Spirits, made in Great Britain or Ireland	per gal.	0 19 0
Guernsey, Jersey, Alderney, or Sark, imported into Great Britain or Ireland	gal.	0 10 5
Stage carriages in the United Kingdom, equal to refined	mile	0 0 0
Not equal to refined—		
Class 1	"	0 11 5
2	"	0 10 0
3	"	0 9 7
4	"	0 8 0
Sugar used by any brewer of beer for sale, in the brewing or making of beer	"	0 3 6
Molasses	"	0 3 6

\* These articles are subject to an additional duty of 5 per cent.

The excise or inland duties are repaid, or, as it is termed, drawn back, on the goods being exported. The drawback on the malt used in brewing is computed at the rate of 5*s.* the barrel of 36 imperial gallons.

**Duties repealed.**—We subjoin a list of the articles the duties on which were repealed in 1815, 1816, 1833, 1860, and down to 1868, by the Acts 8 Vict. c. 12, 9 & 10 Vict. c. 23, 16 & 17 Vict. c. 106, and 23 & 24 Vict. c. 110 &c. &c.

Agates or cornellians, set or not set	fowling-pieces, or guns of any other sort not enumerated, and pistols	Books, of editions printed prior to 1815, bound or unbound
Alumum	Art. Works of	Borax, refined
Alkazobilla seed	Albee, pearl and jet	Borax or glass, unrefined
Alkali	sooty, weed, and wood unenumerated	Bottles of glass, earth, and stone, empty
Alkanet root	Asphaltum or Bitum. in Judæicum	Bottles of brass
Almonds, bitter, sweet, &c.	Balsam, Canada	Box wood
Jordan	capivi	Bran and pollard
Aloes	Peru	Brass, manufactures of, not otherwise enumerated
Alum	Riga	powder of
Aluminium	holm of Gilead, and unenumerated	old, fit only to be remanufactured
Amber, rough	Balsam	wire
manufactured, except beads	capivi	Brazil wood
Ambergris	Peru	Brazillets wood
Amboina wood	Riga	Bricks or clinkers
Ammunition, shot, large and small, lead iron	holm of Gilead, and unenumerated	Dutch
rockets and other combustibles, for purposes of war, not enumerated	Balsam	other sorts
Archives	capivi	Brimstone, refined in rolls
Angelica, not rinded	Peru	in flour
Animals, living; viz.:	of other sorts	not refined
asses	Bar wood	Bristles, rough, or in any way sorted
goats	Berries, sulphate of, ground	Broads of gold or silver
hills	Basket rods, peeled and unpeeled	Bronze, all works of art
oxen and bulls	Baskets	manufactures of, or of metal braned or lacquered
cows	Bast ropes, twines, and strands	powder
calves	Beads and bangles of glass	Brooms and brushes of all sorts
horses, mares, geldings, colts, foals	Beads, viz.:	Burials
mules	orange	Buttons and foreign coin of gold or silver
sheep	crystal	Butter
horns	jet	Buttons and studs
swine and hogs	not otherwise enumerated or described	Cabinet ware
pigs, sucking	Beech, fresh or slightly salted	Cables, not being iron cables, tarred or not tarred, old and new
Annatto, roll or flag	silted	Iron
Antimony, ore of crude	Beech wood	Cameos, not set
regulus of	Berries, sulphate of, ground	Camellia flowers
Apples, raw	Basket rods, peeled and unpeeled	Camellia, refined and unrefined
dried	Baskets	Canwood
Aquarilla	Bast ropes, twines, and strands	Candles
Argol	Beads and bangles of glass	spermaceti
Aristolochia	Beads, viz.:	stearine
Arms, viz.:	orange	tallow
swords, cutlasses, matchets, bayonets, gun-barrels, gunlocks, cannon, and mortars of iron, not mounted or accompanied with carriages	crystal	wax
cannon and mortars of brass, not mounted or accompanied with carriages	jet	Candlewick
cannon and mortars, mounted or accompanied with carriages, and other fire arms, viz.:	not otherwise enumerated or described	Cane, bamboo
muskets, rifles, carbines,	Beech, fresh or slightly salted	reed
muskets, rifles, carbines,	silted	rattans, not ground
muskets, rifles, carbines,	Beech wood	or sticks, unenumerated
muskets, rifles, carbines,	Berries, sulphate of, ground	
muskets, rifles, carbines,	Basket rods, peeled and unpeeled	
muskets, rifles, carbines,	Baskets	
muskets, rifles, carbines,	Bast ropes, twines, and strands	
muskets, rifles, carbines,	Beads and bangles of glass	
muskets, rifles, carbines,	Beads, viz.:	
muskets, rifles, carbines,	orange	
muskets, rifles, carbines,	crystal	
muskets, rifles, carbines,	jet	
muskets, rifles, carbines,	not otherwise enumerated or described	
muskets, rifles, carbines,	Beech, fresh or slightly salted	
muskets, rifles, carbines,	silted	
muskets, rifles, carbines,	Beech wood	
muskets, rifles, carbines,	Berries, sulphate of, ground	
muskets, rifles, carbines,	Basket rods, peeled and unpeeled	
muskets, rifles, carbines,	Baskets	
muskets, rifles, carbines,	Bast ropes, twines, and strands	
muskets, rifles, carbines,	Beads and bangles of glass	
muskets, rifles, carbines,	Beads, viz.:	
muskets, rifles, carbines,	orange	
muskets, rifles, carbines,	crystal	
muskets, rifles, carbines,	jet	
muskets, rifles, carbines,	not otherwise enumerated or described	
muskets, rifles, carbines,	Beech, fresh or slightly salted	
muskets, rifles, carbines,	silted	
muskets, rifles, carbines,	Beech wood	
muskets, rifles, carbines,	Berries, sulphate of, ground	
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muskets, rifles, carbines,	crystal	
muskets, rifles, carbines,	jet	
muskets, rifles, carbines,	not otherwise enumerated or described	
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muskets, rifles, carbines,	silted	
muskets, rifles, carbines,	Beech wood	
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muskets, rifles, carbines,	not otherwise enumerated or described	
muskets, rifles, carbines,	Beech, fresh or slightly salted	
muskets, rifles, carbines,	silted	
muskets, rifles, carbines,	Beech wood	
muskets, rifles, carbines,	Berries, sulphate of, ground	
muskets, rifles, carbines,	Basket rods, peeled and unpeeled	
muskets, rifles, carbines,	Baskets	
muskets, rifles, carbines,	Bast ropes, twines, and strands	
muskets, rifles, carbines,	Beads and bangles of glass	
muskets, rifles, carbines,	Beads, viz.:	
muskets, rifles, carbines,	orange	
muskets, rifles, carbines,	crystal	
muskets, rifles, carbines,	jet	
muskets, rifles, carbines,	not otherwise enumerated or described	
muskets, rifles, carbines,	Beech, fresh or slightly salted	
muskets, rifles, carbines,	silted	
muskets, rifles, carbines,	Beech wood	
muskets, rifles, carbines,	Berries, sulphate of, ground	
muskets, rifles, carbines,	Basket rods, peeled and unpeeled	
muskets, rifles, carbines,	Baskets	
muskets, rifles, carbines,	Bast ropes, twines, and strands	
muskets, rifles, carbines,	Beads and bangles of glass	
muskets, rifles, carbines,	Beads, viz.:	



Leather manufactures, viz.:

boot backs  
 boot fronts  
 gloves of leather, viz.—  
 habit mitts  
 habit gloves  
 men's gloves  
 women's gloves or mitts  
 any articles made of leather, or any  
 manufacture whereof leather is the  
 most valuable part, not otherwise enu-  
 merated or described

Leaves of roses  
 Larches  
 Lentils  
 Lignum vitæ  
 Limes  
 Linen; viz. :  
 caultrics and laws, commonly called  
 French law, plain  
 bordered handkerchiefs  
 damask  
 diamond diaper  
 sails of all sorts  
 lawns of any sort, not French  
 slays  
 cambric handkerchief, hemmed, or hem-  
 stitched, not trimmed  
 plain linen or diaper, whether chequered  
 or striped with dye yarn or not, and  
 manufactures of linen, or of linen  
 mixed with cotton or with wool, not  
 particularly enumerated, or otherwise  
 charged with duty, not being articles  
 wholly or in part made up.

Iquorice root :  
 paste  
 juice  
 powder

Litharge  
 Live creatures illustrative of natural history  
 Logwood  
 Losh bides  
 Lucifers of wood, the cubic foot of external  
 packages, measured internally  
 Macaroni and vermicelli  
 Mace  
 Madrier  
 Madrier root  
 Magna græcia ware  
 Mahogany  
 Manganese, ore of  
 Manna  
 Manuscs, unenumerated  
 Manuscripts  
 Maps and charts, or parts thereof, plain or  
 coloured  
 Maple wood  
 Mats and matting  
 Mattresses  
 Meat, salted or fresh, not otherwise described,  
 or preserved in any other way than salted  
 Medals of any sort  
 Medullar  
 Mercury, prepured  
 Metal, bell  
 leaf (not gold) of all kinds  
 Mill boards  
 Minerals and fossils, unenumerated  
 Metals of rock or wood  
 Morphus and its salts  
 Moss, lichen islandicus  
 other than rock or Iceland moss  
 rock, for dyers' use  
 Mother-of-pearl shells  
 Mussels

Musical instruments :  
 musical boxes, small, not exceeding 1 in.  
 in length  
 large  
 ventrures or extra accompaniments  
 pianofortes, horizontal grand  
 upright or square  
 harmoniums or setaphones  
 accordions, commonly called Chinese  
 other sorts, including flutins, and com-  
 mon German concertinas  
 brass instruments, all sorts  
 not otherwise enumerated or described

Musk

Mustard flour  
 mixed or manufactured (except flour)

Myrrhain  
 Myrrh  
 Naphtha  
 New Zealand wood  
 Nicaragua wood  
 Nickel, arsenate of, in lumps or powder  
 being in an unrefined state  
 metallic, and oxide of, refined  
 ore of

Nitre, cubic  
 Nutmeg  
 wild, in the shell  
 wild, not in the shell  
 or other species or admixtures thereof,  
 ground

Nuts :  
 kernels of walnuts, and of peach stones,  
 and of nuts or kernels thereof, unenu-  
 merated, commonly used for expressing  
 oil therefrom  
 cocos nuts  
 Pistachio  
 small nuts  
 walnuts  
 nuts and kernels, unenumerated

Nox vomica  
 Okum  
 Olibre  
 Oil, animal

Oil, castor

coccos nut  
 oliva  
 lard  
 palm  
 parau  
 rock  
 resin  
 train, blubber, spermaceti oil, or lard  
 matter  
 hemmed  
 lined  
 rased  
 without  
 or spirit of turpentine  
 seed, unenumerated  
 of almonds  
 bays  
 chemical, essential, or perfumed  
 of cloves

Oil cloth for table covers  
 Oil seed cake  
 Oilstone  
 Olive wood  
 Olives  
 Onions  
 Opera glasses, single  
 double, and all marine and race glasses  
 not being telescopes

Opium  
 Orange flower water  
 Oranges and lemons  
 peel of

Orefal  
 Ore, unenumerated  
 Oriment  
 Orris root  
 Orseille  
 Painters' colors, unenumerated, manu-  
 factured or unmanufactured  
 Palm-leaf thatch  
 Palmetto thatch manufactures

Paper :  
 brown, made of old rope or cordage only,  
 without separating or extracting the  
 pitch or tar therefrom, and without any  
 mixture of other materials therewith  
 printed, painted, or stained paper hang-  
 ings, or flock paper  
 waste, or paper of any other sort not par-  
 ticularly enumerated or described, not  
 otherwise charged with duty  
 gilt, stained, coloured, embossed, and all  
 fancy kinds, not being paper hangings

Parchment  
 Partridge wood  
 Pasteboard  
 Pearls  
 Pears, raw  
 dried  
 Peas of date and other sorts  
 Pens  
 Pepper of all sorts  
 Percussion caps  
 Perfumery, not otherwise enumerated  
 Petroleum  
 Powder, manufacturer's, or not otherwise enu-  
 merated  
 Phosphorus  
 Pickles preserved in vinegar  
 and vegetables preserved in salt  
 Pictures  
 Pimento  
 Pink root  
 Pitch  
 Burgundy  
 Plantains  
 Plants, shrubs, and trees alive  
 Plaster of Paris  
 Plate, battered as bullion  
 wires, gilt or plated

Platina, and ore of platina  
 Plating, of clip, not being of greater value  
 than 6d. per piece of 60 yards  
 or other manufactures of straw, chip,  
 or other materials to be used in, or proper  
 for, making or ornamenting hats or  
 bonnets, not otherwise enumerated or  
 charged with duty  
 cordnet, single and twist of straw, or of  
 other materials  
 willow squares

Plumbago  
 Pollard  
 Pomatum  
 Pomgranates  
 peel of  
 Pork, fresh  
 salted, not hams  
 Potash  
 Potatoes  
 Pots, melting, for goldsmiths  
 of stone

Poultry, game, and rabbits, alive or dead  
 Precious stones  
 Prints and drawings, plain or coloured  
 admitted under treaties of international  
 copyright  
 or and of the option of the importer, single  
 bound

Puddings and sausages  
 Purple wood  
 Pyrites  
 Quassa  
 Quicksilver  
 Quills, goose  
 swan

Quinines  
 Quinine  
 Radix contrayerva  
 emulic compause

Rails eringil

speculandum  
 rhatanium  
 senckm  
 serpentarie or snake root  
 Rays, old ropes or junk, or old fishing rigs,  
 fit only for making paper or pasteboard  
 pulp of  
 woolen  
 Rags, scraps  
 Red wood or guinea wood  
 Rhubarb  
 Rice, except dust and meal  
 Rice water  
 Rosewood  
 Rosin  
 Saccharum autumn  
 Sallinwer  
 Salliron  
 Sal ammoniac  
 limonium  
 prunella  
 Salsp or saltp  
 Salicine  
 Salt  
 Saltpetre  
 Sandal wood  
 Sanguis draconis  
 Sankh wood  
 Sapan wood  
 Saraparilla  
 Sassafras  
 Sathu wood  
 Saucos, not otherwise enumerated  
 Saueters' red  
 white or yellow  
 Sausages or puddings  
 Scalearth  
 Scammony  
 Seeds; acorn  
 almond  
 beans, kidney or French  
 burnt  
 canary  
 caraway  
 carrot  
 clover  
 colchicum  
 cole  
 coriander  
 croton  
 curcumin  
 dani  
 fennegreek  
 flax  
 forest  
 garden, unenumerated  
 grass seeds of all sorts  
 hemp  
 leek  
 lentils  
 lettuce  
 linseed and flaxseed  
 lucerne  
 lupia  
 maw  
 mustard  
 onion  
 parsley  
 poppy  
 quince  
 rape  
 sesamum  
 shrub or tree  
 tares  
 retail  
 unenumerated, commonly used for ex-  
 pressing oil therefrom  
 worms  
 not particularly enumerated or described,  
 or otherwise charged with duty

Senels root  
 Senoa  
 Shilpa, British, broken up or to be broken up  
 with tackle, apparel, and furniture (ex-  
 cept sails)  
 foreign ships or vessels  
 British ships, or vessels entitled to be  
 registered as such, not having been  
 built in the United Kingdom

Shumac  
 Silk, raw  
 knubs or husks, and waste silk  
 thrown, not dyed, and dyed, viz. :  
 singles or train, organtine or crape  
 coraha, chappas, badamass, tawort  
 clothes, romals, and tallies  
 China crape shawls, scarfs, handkerchiefs,  
 and pieces, viz. :  
 plain and damask  
 embroikery  
 damask

poogees, viz. :  
 articles, manufactures of silk, or of silk  
 and any other material, not being ar-  
 ticles wholly or in part made up, not  
 particularly enumerated or otherwise  
 charged with duty  
 manufactures of silk, or of silk and any  
 other material, not particularly enu-  
 merated or otherwise charged with  
 duty  
 manufactures of silk, or of silk mixed with  
 metal or any other material (the produce  
 of Europe, viz. :  
 silk or satin, plain, striped, figured, or  
 hroned, viz. :  
 broad stuffs  
 articles thereof not otherwise enu-  
 merated

...ing  
...sh  
...tanium  
...or snake root  
...old roots or junk, or old fishing net,  
...ly for making paper or pasteboard  
...ellen  
...of grapes  
...ood or green wood  
...except dust and meal  
...water  
...root  
...arium astorini  
...er  
...on  
...mimonic  
...omomum  
...urella  
...of katip  
...ine  
...etra  
...al wood  
...guia dronici  
...a Maria wood  
...on wood  
...apitala  
...ufra  
...in wood  
...not otherwise enumerated  
...nders' reel  
...white or yellow  
...or or judding  
...elmalis  
...monny  
...sacrum  
...anised  
...beans, kidney or French  
...urns  
...canary  
...arroway  
...car  
...clove  
...colchicum  
...cole  
...coriander  
...croton  
...commin  
...dari  
...fungreek  
...flax  
...forest  
...garden, unenumerated  
...grass seeds of oil torts  
...man  
...teck  
...lentils  
...lettuce  
...linseed and flaxseed  
...lucerne  
...lupin  
...maw  
...millet  
...mustard  
...onion  
...parsley  
...poppy  
...quico  
...rape  
...samam  
...shrub or tree  
...tates  
...trefol  
...unenumerated, commonly used for ex-  
...pressing oil therefrom  
...worm  
...not particularly enumerated or described,  
...or otherwise charged with duty  
...Seneca root  
...Senna  
...ships, British, broken up or to be broken up,  
...with tackle, apparel, and furniture (ex-  
...cept sails)  
...foreign ships or vessels  
...British ships, or vessels entitled to be  
...registered as such, not having been  
...in the United Kingdom  
...Shumac  
...Silk, raw  
...thrown, not dyed, and waste silk  
...single or tram, organzine, or crape  
...corde, choppis, bamboula, tette  
...clothes, romals, and talties  
...China crape shawls, scarfs, handkerchiefs,  
...and pieces, viz.:  
...plain and diamant  
...embroidery  
...ponges, viz.:  
...articles, manufactures of silk, or of silk  
...and any other material, not being ar-  
...ticles wholly or in part made up, not  
...particularly enumerated or other-  
...wise charged with duty  
...manufactures of silk, or of silk and any  
...other material, not particularly enu-  
...merated or otherwise charged with  
...duty  
...manufactures of silk, or of silk mixed with  
...metal or any other in its real produce  
...of Europe, viz.:  
...silk or satin, plain, striped, figured, or  
...brocaded, viz.:  
...tood stuffs  
...articles thereof not otherwise enu-  
...merated

**Silk**  
...ure, mixed with silk, satin, or other  
...materials, viz.:  
...brood stuffs  
...articles thereof not otherwise enu-  
...merated  
...velvet, plain or figured, viz.:  
...brood stuffs  
...articles thereof not otherwise enu-  
...merated  
...brood stuffs, the foundation of which is  
...wholly composed of cotton, or other  
...materials than silk  
...ghibbons, plain silk, of one colour only  
...plain satin, of one colour only  
...silk or satin striped, figured, or bro-  
...caded, or plain ribbons of more than  
...one colour  
...gauze or crappe, plain, striped, figured,  
...or brocaded  
...gare, mixed with silk, satin, or  
...other materials  
...velvet or plush, wholly of silk, or of silk  
...mixed with cotton, viz.:  
...plaid, or embossed by depression, with-  
...out satin or fancy edge  
...figured, brocaded, or striped or  
...spotted, or with fancy or satin edge,  
...and silk ribbons, in any way mixed  
...or ornamented with velvet or  
...plush  
...manufactures of silk, or of silk and any  
...other material called plush, not being  
...ribbons  
...articles thereof not otherwise enu-  
...merated  
...black plush, commonly used for making  
...hats  
...fancy silk net or tinsel  
...plain silk lace or net called tolle  
...bolts and umbrellas  
...damask of silk and wool, or of silk and  
...other materials for furniture  
...military of silk, or of which the greater  
...part of the materials is of silk, viz.:  
...turbans or caps  
...hats or bonnets  
...dresses  
...manufactures of silk, or of silk mixed with  
...any other material  
...Silkworm gut  
...Siam and furs, viz.:  
...pelts and tails  
...marten, undressed  
...sea, in the hair, not tanned, tawed, or  
...dressed  
...squirrel or calabar, undressed  
...badger, undressed  
...bear, undressed  
...leopard, undressed  
...cat, undressed  
...chacilla, undressed  
...coyote, undressed  
...dog, undressed  
...dog in the hair, not tanned, tawed, or  
...dressed  
...dog fish, undressed  
...ele, undressed  
...ermine, dressed or undressed  
...fish, undressed  
...fish, undressed  
...fox tails, undressed  
...goat, raw or undressed  
...goose, undressed  
...hairs, undressed  
...house, undressed  
...kangaroo, undressed  
...kid, in the hair, undressed  
...kolobak, undressed  
...leopard, undressed  
...lion, undressed  
...lynx, undressed  
...marten tails, undressed  
...mink, undressed  
...moose, undressed  
...musquall, undressed  
...mutra, undressed  
...oxer, undressed  
...once, undressed  
...pawther, undressed  
...pelt, undressed  
...pawson, undressed  
...sole, undressed  
...sable tails or tips, undressed  
...squirrel or calabar, tails of, undressed  
...swan, undressed  
...tiger, undressed  
...weasel, undressed  
...wolf, undressed or tawed

**Skins and furs, viz.:**  
...wings, undressed  
...deer, Ind'n, half dressed, tanned, tawed,  
...or in any way dressed  
...ermine, dressed  
...kid, dressed and dyed or coloured  
...lamb, tanned or tawed  
...lamb, dressed or coloured  
...dressed in oil  
...mina, dressed  
...pelt, tanned, tawed, or in any way dressed  
...goat, tanned, tawed, or in any way dressed  
...lamb, undressed, in the wool  
...sheep, undressed, in the wool  
...tanned or tawed, dressed in oil  
...squirrel or calabar, undressed, tawed  
...wolf, tawed  
...kid, dressed, and dyed or coloured  
...and furs, or pieces thereof, unenumerated,  
...tanned, tawed, curried, or dressed  
...and furs, or pieces thereof, tawed or un-  
...dressed, unenumerated  
...Snails  
...Soap, hard  
...soft  
...Naples  
...scented or fancy soap  
...Soda  
...Soy  
...Spa ware  
...Specimens of minerals, fossils, illustrative of  
...natural history  
...Specified wood  
...Spectacles  
...Spelter, manufactures of, not otherwise enu-  
...merated  
...Spelter or zinc, rolled, but not otherwise  
...manufactured  
...crude, in cakes  
...oxide and white of  
...rods for bolts  
...Spencer  
...Sponge  
...Squalls, dried or not dried  
...Starch, gum of, tortoise or calined  
...Stationary  
...Staves, not exceeding 72 inches in length, nor  
...7 inches in breadth, nor 3 1/2 inches in thick-  
...ness  
...Stays or sets of linen or cotton, or of linen  
...and cotton mixed  
...Stearine  
...Steel, unwrought  
...serp  
...manufactures of  
...Stones in lamps, not in any manner hewn,  
...including stones to be used for lithography  
...in blocks, stamped or rough scalped  
...stone and slate, hewn  
...marble, sawn in slabs, or otherwise ma-  
...nufactured  
...Straw or grass for plaiting  
...Sugar of lead  
...Sulphur impressions  
...Sweet wood  
...Tails  
...Tallow  
...Tallow, vegetable  
...Tannin  
...Tar  
...Barbadoes  
...Tarras  
...Tartaric acid  
...Teasles  
...Teeth, elephants'  
...sea cow, sea-horse, or sea-norse  
...Telescopes  
...Terra japonica  
...Sienna  
...verde  
...umbr  
...Theobal, not otherwise enumerated or de-  
...scribed  
...Tiles  
...Timber  
...Tin, ore and regulus of  
...in blocks, ingots, bars, or slabs  
...manufactures of, not otherwise enu-  
...merated  
...full  
...Tobacco-pipes of clay  
...Tongues  
...Torsal  
...Tortoise-shell or turtle-shell, unmanufactured  
...Toys  
...marbles  
...all other toys  
...Truffles  
...Tulip-wood  
...Turmeric

**Turnery, not otherwise described**  
...Turpentine  
...of Venice, Scio, or Cyprus  
...Twine  
...Pica marine  
...Vanilla  
...Vanelloes  
...Varnish, not otherwise described  
...Vases, ancient, not of stone or wood  
...Vegetables  
...all vegetables not enumerated or de-  
...scribed  
...preserved in salt  
...Vellum  
...Veners  
...Verdigris  
...Verjuice  
...Vermilion  
...Wafers  
...Walnut wood  
...Washing balls  
...Watches of gold, silver, or other metal  
...Water  
...Cologne, the flask  
...when not in flasks  
...mineral  
...Wax, bleached  
...unbleached  
...myrtle  
...scolding  
...vegetable  
...Weld  
...White fine  
...Whipcord  
...Wire, gilt or plated  
...silver  
...Wood  
...Wood for ship building, viz.: stringy bark,  
...red and blue gum, green harts, mora-  
...and locust woods, and woods formerly  
...admitted at the same duty as teak  
...treeless of stringy bark, red and blue  
...gum, and locust woods, and all treeless  
...of and from British possessions  
...above list  
...Wood:  
...birch and fir, hewn, imported for the  
...sole purpose of making herring barrels  
...for the use of fisheries  
...waste wood  
...hoops  
...treeless of and from British possessions  
...teak  
...timber and wood, not being deals, battens,  
...boards, staves, handspikes, oars, lath-  
...wood, or other timber or wood sawn,  
...split, or otherwise dressed, except hewn  
...deals, battens, boards, or other timber or  
...wood sawn or split  
...staves  
...firewood  
...handspike  
...knees  
...softwood  
...oars  
...spars of wood  
...spokes for wheels  
...wood planed or otherwise dressed or pre-  
...pared for use  
...Wool, beaver  
...cut and combed  
...goats' wool or hair  
...sheep's or lambs' wool  
...cross  
...hairs  
...cotton and waste of cotton wool  
...Woolens:  
...articles or manufactures of wool (not  
...being goats' wool), or of wool mixed  
...with cotton  
...carpets and rugs  
...printed  
...shawls, scarfs, and handkerchiefs, plain  
...glaces, wholly or in part made up  
...Yarn:  
...cable yarn  
...camel or mohair  
...raw linen  
...woollen or worsted, scored, bleached, or  
...coloured  
...not scored, bleached, or coloured  
...silk and worsted spun together, and not  
...dyed  
...worsted, raw, not dyed, or only partially  
...dyed, and not being fit or proper for  
...manufacturing or other purposes  
...Yeast, dried  
...Zaffre  
...Zelira wood  
...Zinc

The following resolutions of the Chancellor of the Exchequer have been approved by the House of Commons, and will probably become law during the current session (1869).  
1. That the duties of customs chargeable upon the articles unmentioned, imported into Great Britain and Ireland, shall cease and determine, viz.:—  
Corn, grain, meal, and flour, and articles of the like character, viz.:—  
Wheat.  
Barley.

Oats.  
Rye.  
Pease.  
Beans.  
Maize or Indian corn,  
Buck wheat.  
Bear or bigg.  
Wheat meal and flour.  
Barley meal.  
Oat meal and groats.  
Rye meal and flour.  
Pea meal.

Bean meal.  
 Maize or Indian corn meal.  
 Buck wheat meal.  
 Meal, not otherwise enumerated or described.  
 Arrow root.  
 Barley, pearled.  
 Biscuit and bread.  
 Cassava powder.  
 Macaroni.  
 Mandioca flour.  
 Manna crop.  
 Potato flour.  
 Powder, viz. hair,  
     perfumed.  
 not otherwise enumerated or described  
 that will serve the same purpose as starch.  
 Rice dust and meal.  
 Sago.  
 Semolina.  
 Starch.  
     gum of, torrifed or calcined.  
 Tapioca.  
 Vermicelli.

2. That, in lieu of the duties of customs now chargeable on beer and ale, as denominated in the tariff, on importation into Great Britain or Ireland, the following duties shall be charged, viz. :—

Beer and ale, viz. :—

Mum, the barrel of 36 gallons	-	-	£ s. d.
Spruce, the barrel of 36 gallons	-	-	1 1 0

Of other sorts, viz. :—

Beer, the worts of which were before fermentation of a specific gravity not exceeding 1,065°, the barrel of 36 gallons	-	-	0 8 0
Exceeding 1,065°, and not exceeding 1,090°, the barrel of 36 gallons	-	-	0 11 0
Exceeding 1,090°, the barrel of 36 gallons	-	-	0 16 0

*Grant of Income Tax.*—3. That, towards raising the supply granted to her Majesty, there shall be charged, collected, and paid for one year, commencing on April 6, 1869, for and in respect of all property, profits, and gains mentioned or described as chargeable in the Act passed in the sixteenth and seventeenth years of her Majesty's reign, c. 34, for granting to her Majesty duties on profit arising from property, professions, trades, and offices, the following rates and duties (that is to say) :—

For every 20s. of the annual value or amount of all such property, profits, and gains (except those chargeable under Schedule (B) of the said Act), the rate or duty of 6d.

And for and in respect of the occupation of lands, tenements, hereditaments, and heritages chargeable under Schedule (B) of the said Act, for every 20s. of the annual value thereof, in England, the rate or duty of 3d., and in Scotland and Ireland respectively, the rate or duty of 2½d.

Subject to the provisions contained in sec. 3 of the Act 26 Viet. c. 22 for the exemption of persons whose whole income from every source is under 100l. a-year, and relief of those whose income is under 200l. a-year.

*Repeal of Assessed Taxes.*—4. That the duties of assessed taxes now payable in Great Britain shall cease to be assessed in respect of male servants, carriages, horses, mares or geldings, mules, hair powder, and armorial bearings employed, kept, used, or worn respectively after April 5, 1869, in England, and after May 24, 1869, in Scotland, and on persons using or exercising the trade and business of a horse dealer after such days respectively.

*Repeal of Excise Locomotion Duties.*—5. That, on January 1, 1870, the following duties of excise shall cease to be payable (that is to say) :—

Upon licenses to let horses for hire in Great Britain.

Upon licenses to let to hire horses for the purpose of travelling post by the mile, or from stage to stage in Ireland.

Upon licenses to keep, use, and let to hire hackney carriages, within the limits of the metropolitan police district and the city of London, and also the weekly duties payable in respect of such hackney carriages.

Upon licenses to keep, use, and employ stage carriages in Great Britain, and also the mileage duty payable in respect of such stage carriages.

*Grant of Excise Duties on Male Servants, Carriages, Horses, Mules, and Armorial Bearings, and on Horse Dealers.*—6. That towards raising the supply granted to her Majesty, there shall be granted, charged, levied, and paid on and after January 1, 1870, in and throughout Great Britain the following duties of excise upon licenses to be taken out annually by the persons who shall employ any male servant, or who shall keep any carriage, or horse or mule, or who shall wear or use any armorial bearings, or who shall exercise or carry on the trade of a horse dealer.

*Male Servants.*

For every male servant employed either wholly or partially in any of the following capacities, viz. :—maitre d'hôtel, house steward, master of the horse, groom of the chambers, valet de chambre, butler, under butler, clerk of the kitchen, confectioner, cook, house porter, footman, page, waiter, coachman, groom, postillion, stable boy or helper in the stables, gardener, under gardener, park keeper, game keeper or game wacher, huntman and whipper-in, or in any capacity involving the duties of any of the above descriptions of servants by whatever style the person acting in such capacity may be called

*Carriages.*

For every carriage drawn by a horse or mule, or by horses or mules (except a wagon, cart, or other vehicle used solely for the conveyance of any goods or burden in the course of trade or husbandry, and whereon the Christian name and surname, and place of abode or place of business of the owner, shall be visibly and legibly painted)—

If such carriage shall have 4 or more wheels, and shall be of the weight of 3 cwt. or upwards

If such carriage shall have less than 4 wheels, or having 4 or more wheels, shall be of less weight than 3 cwt.

*Horses and Mules.*

For every horse or mule (including a horse or pony of any sex or description or age, but not including a foal, filly, or foxy, or mule, which shall never have been used for any purpose of draught or riding)

*Armorial Bearings.*

For armorial bearings (including any armorial bearing, crest, or ensign, by whatever name the same shall be called)—

If such armorial bearings shall be painted, marked, or affixed on or to any carriage

If such armorial bearings shall be otherwise worn or used

*Horse Dealers.*

Every horse dealer in Great Britain

*Repeal of the Percentage Duty on Fire Insurances.*—7. That, on June 25, 1869, the stamp duty at the rate of 1s. 6d. per cent. per annum, now payable in respect of insurances against loss of damage by fire only, shall cease to be payable.

*Repeal of Excise Duties on Tea Licenses.*—8. That, from July 5, 1869, the duties of excise now payable upon licenses to be taken out by persons trading in or selling coffee, tea, cocoa nuts, chocolate, or pepper, shall cease to be payable.

For Tariff of the Isle of Man, see MAN, ISLE OF.

II. TARIFFS, COLONIAL.  
 See also ADELAIDE, CAPE TOWN, MELBOURNE, TASMANIA &c.

Statements showing the alterations on colonial tariffs are laid before Parliament periodically.  
 For Indian Tariff, see CALCUTTA.











Account of the Quantities and Values of the Principal Articles Imported at the Ports of Hobart Town and Launceston in each of the Years 1861, 1865, and 1866.

Articles	Quantities			Value		
	1861	1865	1866	1861	1865	1866
Apparel and shos - - - value	..	..	..	26,233	21,631	29,049
Beer and provisions - - packages	5,334	1,576	1,969	8,831	1,114	1,273
Hats and shoes - - - value	..	..	..	15,176	20,839	16,785
Canvas and bagging - - yards	..	..	..	4,098	3,847	1,578
Drop ry - - - value	..	..	..	201,630	166,895	229,971
Iron and tin - - - tons	430	779	582	8,388	8,112	9,193
Ironmong ry and hardware - value	..	..	..	57,715	46,945	48,929
Livestock & Cattle - - number	1,877	9,987	1,513	47,760	29,165	14,779
Malt liquor - - - value	17,184	9,142	13,523	14,470	8,418	15,941
Oil in stores - - - value	..	..	..	11,608	15,091	8,197
Stationery - - - value	..	..	..	11,679	20,620	21,888
Sugar, raw - - - (packages) bags	1,663	..	..	21,121	20,620	21,888
Tea - - - (packages)	40,470	50,597	..	66,177	86,164	123,129
Tobacco - - - lb.	..	..	..	68,761	41,211	41,981
Wine - - - value	..	..	..	41,667	11,076	18,011
Total value - - -	..	..	..	12,694	9,115	13,184
	..	..	..	308,263	762,575	912,107

Of the imports, about  $\frac{3}{4}$  are from the United Kingdom, and more than  $\frac{1}{2}$  of the residue from India and other British possessions. About  $\frac{1}{3}$  of the exports are destined for the United Kingdom, and the rest for our colonies and possessions.

In 1867 the value of the total imports into the United Kingdom from Tasmania was 406,430*l.*, and that of the total exports from the United Kingdom to Tasmania 223,923*l.*, of which 216,850*l.* represented British produce and manufactures.

Number and Tonnage of Vessels Entered and Cleared, with Cargoes and in Ballast, at each of the Two Chief Ports of Tasmania in 1866.

Ports	Entered						Cleared					
	With Cargoes		In Ballast		Total		With Cargoes		In Ballast		Total	
	vessels	tons	vessels	tons	vessels	tons	vessels	tons	vessels	tons	vessels	tons
Hobart Town	184	46,858	45	7,710	227	54,568	216	56,192	20	4,682	236	60,874
Launceston	298	42,169	158	11,166	456	53,335	389	49,322	7	1,439	396	50,761
Total	482	89,027	203	18,876	685	107,903	605	105,514	27	6,121	632	111,635

The discovery of the gold fields in Victoria and New South Wales had an instantaneous and powerful effect on Tasmania. All sorts of industrious undertakings were paralysed. The emigration from the colony was sudden and excessive; and many farmers were all but totally deserted by their labourers. But, though exposed for a while to great difficulties, a revulsion soon began to take effect in favour of the Tasmanian colonists. An unlimited market, at greatly advanced prices, was opened in the adjoining continent for their grain, potatoes, timber, and other products. Hence

many of the better class of labourers again returned to the colony, some with considerable sums of money. And the emigration had the effect of ridding the island of the worst portion of the convicts, who were found carrying on their depredations at the 'diggings,' on the roads, and in the towns of Victoria and New South Wales. (See the valuable work of Westgarth, entitled *Victoria, its Gold Mines &c.*, cap. vi.) The emigration, however, has had a marked effect on the imports and exports of the colony, as will be seen from the foregoing as well as the following table.

Statement of the Declared Value of Imports into, and Exports from, Tasmania, and the Rate per Head of Population, for each of Ten Years ending with 1866.

Years	Imports	Exports	Population	Rate per Head of					
				Imports		Exports			
	£	£		£	s.	d.	£	s.	d.
1857	1,271,087	1,551,655	85,612	15	4	0	16	1	0
1858	1,328,612	1,151,609	81,430	15	14	9	13	12	10
1859	1,165,307	1,195,908	86,131	13	9	7	13	16	2
1860	1,068,411	962,170	88,655	12	2	8	10	18	6
1861	953,517	995,167	90,211	10	11	4	10	10	1
1862	857,125	916,719	90,728	9	9	0	10	2	8
1863	904,940	999,511	91,519	9	17	3	10	18	8
1864	908,225	975,730	93,307	9	11	8	10	9	11
1865	767,375	880,965	95,201	8	0	2	9	5	8
1866	915,017	831,006	97,268	9	15	6	8	11	5

**Tariff.**—The Legislature of Van Diemen's Land, after advising with the other Australian colonies, passed an Act, which came into operation in February 1853, simplifying and reducing the tariff. It proceeds on the principle of imposing duties on a few articles in extensive demand, and more especially on those belonging to the class of stimulants, and exempting the others. Hence ardent spirits have attracted the marked attention of the Tasmanian financiers, for the scale of duties is as follows, viz.:—

	£	s.	d.	p.	d.
Brandy, per gal.	..	..	..	12	0
Hollands, rum, gin, and all other spirits, per gal.	..	..	..	12	0
Wine, in wood	..	..	..	2	0
Bottle, per doz.	..	..	..	4	0 and 8

Tobacco, per lb.	..	..	..	..	..
Sugar, raw, per cwt.	..	..	..	..	..
Tea, per lb.	..	..	..	..	..
Coffee, per lb.	..	..	..	..	..
Malt liquor, in wood, per gal.	..	..	..	..	..
per doz.	..	..	..	1	0 and 2
Dried fruits, per lb.	..	..	..	..	..

See further under Tariffs, Colonial.

**Rates of Pilotage, Harbour Dues &c.**

**Wharfers.**

	£	s.	d.
On landing each cask, bale, or package	..	..	0 0 9
iron, per ton	..	..	0 0 9
salt	..	..	0 3 0
timber, per 1,000 feet	..	..	0 2 0
On shipping each cask, bale, or package	..	..	0 0 3
iron, per ton	..	..	0 3 0
salt	..	..	0 1 0

Colonial produce, when landed or shipped, is not subjected to any charge, except for a surffiance.

Value	
1865	1866
21,671	29,040
1,711	2,275
20,959	26,765
5,827	1,558
8,112	20,971
166,895	309,911
8,112	30,955
46,945	48,639
30,165	14,559
8,418	15,911
15,691	8,607
4,060	8,758
20,620	21,988
86,164	125,129
41,211	41,981
11,076	18,911
9,115	15,184
762,575	912,107

The total imports into the Tasmanian was 406,430l., and exports from the United Kingdom, of which 216,850l. produce and manufactures.

and in Ballast, at each of

Cleared			
In Ballast		Total	
vessels	tons	vessels	tons
20	4,682	256	25,101
7	1,139	296	50,961
27	6,121	552	106,062

er class of labourers again only, some with considerable emigration had the island of the worst portion were found carrying on their diggings, on the roads, and in the New South Wales. The work of Westgarth, entitled *Lines &c.*, cap. vi.) The emigrants had a marked effect on the colony, as will be seen as well as the following table.

om, Tasmania, and the Rate with 1866.

Rate per Head of			
Imports		Exports	
£	s. d.	£	s. d.
4	0 0	16	4 0
14	9 6	13	12 10
9	11 6	13	16 24
2	8	10	18 6
11	4 2	10	0 8
9	11 6	10	9 11
17	3 6	10	18 5
11	8 6	10	9 11
10	5 6	9	5 8
13	6 4	8	11 2 1/2

under Tariffs, Colonial.

Harbour Dues &c.

Wharfage.	
£	s. d.
0	0 9
0	0 9
0	3 0
0	0 6
0	0 5
0	0 6
0	1 0
0	0 1

anded or shipped, is not subjected to any

*Fees.*

	£	s.	d.
A surfrance to land or ship goods	0	0	1
A warrant to remove goods from under bond	0	1	0
On landing each cask or package of spirits or wine	0	0	6
On the registry of vessels not exceeding 40 tons	2	0	0
above 40 tons, per ton	0	1	0
To the chief clerk, on the registry of vessels	0	10	0
On entering charge of a vessel	0	10	0

*Rates of Pilots at the Port.*

Draught of water	Into			Out		
	£	s.	d.	£	s.	d.
10 feet and under	3	0	11 1/2	2	7	10
11 "	3	5	18	2	0	5 1/2
12 "	3	8	5	2	15	1 1/2
13 "	3	15	6 1/2	2	18	9 1/2
14 "	4	5	5 1/2	2	6	1 1/2
15 "	4	10	11 1/2	3	17	8 1/2
16 "	5	17	0	4	12	0 1/2
17 "	7	1	4 1/2	5	9	11 1/2
18 "	8	15	0	6	14	7 1/2
19 "	10	11	6	8	6	10
20 "	13	5	5	10	4	9

*At Port Dalrymple*

Proceeding above	Whirlpool Beach			Remainder below Whirlpool Beach		
	£	s.	d.	£	s.	d.
7 feet and under	2	5	6	1	10	3
Above 7 feet, per foot	0	6	6	0	1	1

If the pilot does not board the vessel outside the middle ground at the Heads at George Town, or the weather not permitting his going outside, if he be not ready to show the channel by keeping his boat in the fair way until the ship can be boarded, he shall forfeit half the pilotage inwards.

For every number of inches below 6, no charge is to be made; for 1/2 a foot and upwards, 1 foot is to be charged.

Colonial vessels are exempted from the payment of pilotage, unless the master shall make the signal for a pilot and accept his service.

These details have been partly derived from the *Statistics of the Colony*, published at Hobart Town; and partly from Mr. Westgarth's book, and different *Parliamentary Papers*.

**TATTA or TATTAL.** A town in the territory of Sinde, situated about 60 miles in a direct line from the sea, at a short distance from the western bank of the river Indus, in lat. 24° 41' N., long. 68° E. Population uncertain, probably about 8,000. The streets are narrow and dirty; but the houses, though built of mud, chopped straw, and timber, are superior to the low huts seen in the adjoining towns and villages.

**Trade.**—Being situated a little above the part where the Indus divides into the two great branches by which its waters are poured into the Indian Ocean, it might be supposed that Tatta would be a place of great trade; but, owing to the unwholesomeness of the climate, the barbarism of the tribes on its banks, and other causes, its commerce has never corresponded with what might have been anticipated, looking at its position on the map. It had probably attained the acmé of its prosperity in the beginning of the 16th century. In 1555, the Portuguese, by way, as they stated, of avenging the treachery of the king of Sinde, infamous massacred 8,000 of the inhabitants, and burned the town. (*Conquêtes des Portugais*, tome iv. p. 183.) It is probable that Tatta never fully recovered from this dreadful blow; but Mr. Hamilton mentions that in the 17th century it was extensive and populous, possessing much commerce, with manufactures of silk, wool, and cabinet ware. The decayed state in which we now find it, has been a consequence of the misgovernment and rapacity of its late rulers, the Ameers of Sinde, under whose sway it fell more than 50 years before it became, in 1844, British territory.

In 1635 the English established a factory at Tatta, in the view of facilitating the disposal of woollens and other goods in the countries traversed by the Indus; and the building occupied by the factory, though far from magnificent, was recently, if it be not still, the best, not in Tatta only, but in the whole country of Sinde.

The chief exports are rice, shawls from Cashmere, opium from Malwah, hides, ghee, cotton, goats' wool, carpets, drugs &c. Patchock, an article largely consumed in China, is a peculiar export of Sinde. The imports comprise a variety of articles, but the quantities are trifling; they consist principally of spices, dye stuffs, hardware, tin, iron &c., broad cloths, English cottons, silks &c. But at present the trade is quite inconsiderable; and no one could believe, a priori, that the natural emporium of so great a river as the Indus, traversing many extensive countries, would cut so insignificant a figure in the trading world. It may be said to be well nigh superseded by Kurrahee, which now boasts railway communication with Hyderabad and the Indus, and telegraphic communication with Aden.

**Navigation and Trade of the Indus.**—The navigation of this magnificent river by the fleet of Alexander the Great has conferred on it a classical celebrity not to be matched by any other river of the East. Its magnitude, too, is worthy of its fame. It may be navigated by that bottomed boats as far as Attock, and its tributary stream the Ravee is navigable to Lahore, both places being above 1,000 miles from the sea. But, unfortunately, its navigation is extremely difficult, and it may be doubted whether it will ever realise any considerable portion of the advantages which have of late years been anticipated from its being opened. The mouths of the river are ill-defined, shallow, and infested with movable sand-banks, while the violence of the bore, or tide, makes their entrance at all times a matter of difficulty for vessels of a small draught of water suitable to their navigation, and during the period of the western monsoon they are all but impracticable. Whatever other changes may have taken place in the river, the tides at its mouth would seem to have been nearly the same in antiquity as at present. Their violence created the greatest alarm in the fleet of Alexander; and occasioned, indeed, the loss of several vessels. (Arrian, lib. vi. c. 19.) This, no doubt, is the reason that for centuries past the navigation from and to the sea through the delta of the Indus has been almost wholly abandoned; and that all products brought down the river and destined for exportation by sea are conveyed from Tatta overland to Kurrahee, a seaport a little to the north of the most northerly mouth of the river, about 60 miles in a direct line from Tatta; and that all those coming from parts beyond sea and destined for countries on the Indus are conveyed from Kurrahee to Tatta by the same route, or by the railway to Hyderabad already referred to.

Even after it has been entered, the navigation of the Indus is peculiarly difficult, partly from the strength of the current during the period of the inundation, and partly from shallows, and the sudden and constant shifting of the channel: what was a navigable passage one day is not unfrequently quite unnavigable a day or two after. The *dummers*, or native craft, by which the river is navigated, though of very small burden, frequently get aground.

If the Indus should ever become a considerable commercial highway, it will, most probably, be brought about by the intervention of suitable steamers; and it seems to be the opinion of the best judges, that, provided the steamers employed be flat bottomed, and do not draw more than 28 or 30 inches water, they might, with proper precautions, be navigated from the sea for nearly 1,000 miles inland. But exclusive of the physical obstacles to the navigation of the river, the backward state of the country through which it flows,

and the poverty and barbarism of the inhabitants, are formidable obstacles to its becoming of much importance as a commercial highway. The inhabitants along its banks have little taste for foreign commodities; and even if they had, they have few products suitable for export to exchange for them. No doubt, should regular government, industry, and civilisation be introduced into the Punjab, Candah, and the contiguous countries, the case might be very different, and the trade of the Indus might become of very considerable importance. But this, if it be ever effected, must require a lengthened period to bring it about; so that those who look for any material addition being speedily made to our trade, or to that of India, by the opening of the Indus, will, there is too much reason to think, be entirely disappointed. (See, for further particulars, the art. 'Indus' in the *Geographical Dictionary*, and the authorities there referred to; see also Captain Postans' work on Sind; and especially the memoir in the appendix (p. 361) of Captain Carless, *On the Navigation of the Indus*.)

Dr. Faist, the very well-informed editor of the *Bombay Times*, in his work on the British expedition into Afghanistan, made the following observations on the trade of the Indus:—

'The glowing descriptions of Burnes appear to have given a very exaggerated idea of the value of the internal traffic of the countries beyond the Indus. It was forgotten that where there was no industry, no manufactures or mineral wealth, no sea-coast or rivers to permit exportation, there could be little or nothing to give in exchange for imports; and that the wants of a population purely nomadic must at all times be simple and singularly few. The whole of our commerce with Persia has never exceeded 2,000,000*l.* sterling a-year, rarely above 1,000,000*l.*; the total of our trade with Afghanistan certainly never exceeded 1,000,000*l.* annually, and has very rarely amounted to more than the half of 1,000,000*l.* Besides this, the Indus in reality was never closed save by its own dangerous entrances and shallow depth of water. Lord Ellenborough has opened the Indus as far as Mithen Kote; and the Sutlej, in continuation of this, to the Markanda, where it ceases to be navigable for the smallest craft. Yet the gross value of the British goods consumed by the countries adjoining does not at present amount to a quarter of 1,000,000*l.* sterling, and will not in all likelihood be doubled for 10 years to come; the expense of maintaining troops betwixt Kurrachee and Bukkur, both stations included, exceeding 600,000*l.* a-year; with a less force it would be unwise to think of keeping these stations at all. The great line of traffic was not along but across the Indus, by the Delhi frontier, or parallel to it at a distance of 100 miles, by Sonmence and Kelat. The countries beyond the Indus, besides, have always been open to the free admission of every variety of foreign imports on paying a moderate fixed duty. The chief obstruction in reaching these is irremediable by treaty; and arises from the attacks of the plundering tribes in the passes, which cannot be restrained save by the payment of a black mail or subsidy.'

The delta of the Indus has little in common with the delta of the Nile, except its shape. Not a fourth part of it is cultivated, and its few inhabitants principally lead a pastoral life. It is overgrown with tamarisks and other wild shrubs; and though intersected by the numerous mouths of the river, its surface is dry and arid, and it is in a great degree destitute of fresh water. [KURRACHEE.]

### Weights and Measures same as at Calcutta.

#### Money.

Accounts are kept in rupees, caravats, and pie; 12 pie = 1 carvat; 50 caravats = 1 rupee. Rupees are current in Sind, 45 caravats = 1 pie.

#### Small Weights.

24 Moons	=	1 Ruttee
6 Ruttees	=	1 Massa
12 Massas	=	1 Tola

#### Grain Weights.

1 Picul	=	1 Anny
10 Annas	=	1 Picea ser
40 Seers	=	1 Maund, or 74 lb.
	=	5 oz. 7 dwts. avoirdupois

#### Long Measures.

1 Gaur	=	2 inches
10 Gours	=	1 Gaur chat
1 Gaur cloth	=	24 in. at Gatta

#### Grain Measures.

4 Ruttees	=	1 Twiler
4 Twilers	=	1 Cosua
60 Cosuas	=	1 Carvat of wheat, or 2 Pice 4 Maunds, or 24 Bombay yards

Diamonds and pearls are sold by bulbas and ratties; 1 bulbas = 1 carvat, about 2 grs. Troy. (Molam's *Orind. Commerce*.)

TEA (in one Chinese dialect cha, in another te; Dutch, te; Fr. thé; Ital. te; Russ. tehni; Hin. cha; Malay, (ch). The leaves of the tree or shrub *Thea viridis*, Linn.

### I. DESCRIPTION OF THE TEA PLANT.—TEA TRADE OF CHINA.

### II. RISE AND PROGRESS OF THE BRITISH TEA TRADE.—CONSUMPTION OF TEA.

### III. EAST INDIA COMPANY'S MONOPOLY.—INFLUENCE OF, ON THE PRICE OF TEA—CONDITIONS UNDER WHICH IT WAS HELD.—ABOLITION OF.

### IV. DUTIES ON TEA.—CONSUMPTION OF, IN THE UNITED KINGDOM, THE CONTINENT, THE UNITED STATES ETC.

### DESCRIPTION OF THE TEA PLANT.—TEA TRADE OF CHINA.

*Description of the Plant.*—Places where it is cultivated.—The tea plant ordinarily grows to the height of from 3 to 6 feet, and has a general resemblance to the myrtle, as the latter is seen in congenial situations in the southern countries of Europe. It is a polyandrous plant, of the natural order *Camellifera*, and has a white blossom, with yellow style and anthers, not unlike those of a small dog-rose. The stem is bushy, with numerous branches, and very leafy. The leaves are alternate, on short, thick, channelled footstalks, evergreen, of a longish elliptic form, with a blunt, notched point, and serrated except at the base. These leaves are the valuable part of the plant. The *Camellias*, particularly the *Camellia Sasanqua*, of the same natural family as the tea tree, and very closely resembling it, are the only plants liable to be confounded with it by a careful observer. The leaves of the particular *camellia* just named are, indeed, often used in some parts of China as a substitute for those of the tea tree.

The effects of tea on the human frame are those of a very mild narcotic; and, like those of many other narcotics taken in small quantities—even of opium itself—they are exhilarating. The green varieties of the plant possess this quality in a higher degree than the black; and a stronger infusion of the former will, in most constitutions, produce considerable excitement and wakefulness. Of all narcotics, however, tea is the least pernicious; if, indeed, it be so in any degree, which we very much doubt.

The tea shrub may be described as a very hardy evergreen, growing readily in the open air, from the equator to the 45th degree of latitude. For the last 60 years it has been reared in this country, without difficulty, in greenhouses; and thriv-



flavour.' Bohea, or the lowest black tea, is partly composed of the lower grades; that is, of the fourth crop of the teas of Fokien, left unsold in the market of Canton after the season of exportation has passed; and partly of the teas of the district of Woping in Canton. The green teas are grown and selected in the same manner as the black, to which the description now given more particularly refers; and the different qualities arise from the same causes. The gumpowder here stands in the place of the pekoe; being composed of the unopened buds of the spring crop. Imperial hyson, and young hyson, consist of the second and third crops. The light and inferior leaves, separated from the hyson by a winnowing machine, constitute hyson skin, an article in considerable demand amongst the Americans. The process of drying the green teas differs from that of the black; the first being dried in iron pots or vases over a fire, the operator continually stirring the leaves with his naked hand. The operation is one of considerable nicety, particularly with the finer teas, and is performed by persons who make it their exclusive business.

The following is Mr. Hall's (*Cultivation and Manufacture of Tea*) summary of the process of manufacture. 'Place the leaves in a sieve, expose them to the sun and air, toss and turn them, as lay, then place them in the shade till they give out a certain degree of fragrance; then roast them in an iron vessel, roll them with hands or feet, and finally dry them over a charcoal fire—and you will have fair congou tea.' Four pounds of fresh leaves make 1 lb. of tea. Mr. Wray calculates that the consumption of tea in China itself is not less than 2,000,000,000 lb., and the area over which it is cultivated as equal to 25,000,000 acres.

*Tea Trade in China.*—The tea merchants commonly receive advances from the principal merchants and other capitalists of Canton; but, with this exception, are altogether independent of them; nor have the latter any exclusive privilege or claim of pre-emption. They are very numerous; those connected with the green tea districts alone being about 400 in number. The black tea merchants are less numerous, but more wealthy. The greater part of the tea is brought to Canton by land carriage, or inland navigation, but chiefly by the first; it is conveyed by porters; the roads of China, in the southern provinces, not generally admitting of wheel carriages, and beasts of burden being very rare. A small quantity of black tea is brought by sea, but probably smuggled; for this cheaper mode of transportation is discouraged by Government, which it deprives of the transit duties levied on inland carriage. The length of land carriage from the principal districts

where the green teas are grown to Canton is probably not less than 700 miles; nor that of the black tea, over a mountainous country, less than 200 miles. The tea merchants begin to arrive in Canton about the middle of October, and the busy season continues until the beginning of March; being briskest in November, December, and January. Tea, for the most part, could, previously to the late changes, only be bought from the Hong or licensed merchants; but some of these, the least prosperous in their circumstances, were supported by wealthy *outside* merchants, as they are called; and thus the trade was considerably extended. The prices in the Canton and other markets vary from year to year with the crop, the stock on hand, and the external demand as in any other articles, and in any other market. After the season is over, or when the westerly monsoon sets in, during the month of March, and impedes the regular intercourse of foreigners with China, there is a fall in the price of tea, not only arising from this circumstance, but from a certain depreciation in quality, from the age of the tea; which, like most other vegetable productions, is injured by keeping, particularly in a hot and damp climate.

*Foreign Trade in Tea.*—There seems to be little mystery in the selection and purchase of teas; for the business is both safely and effectively accomplished, not only by the supercargoes of the American ships, but frequently by the masters; and it was ascertained by the sales at the East India House, that there was no difference between the qualities of the teas purchased by the commanders and officers of the Company's ships without any assistance from the officers of the factory, and those purchased for the Company by the latter. An unusual degree of good faith, indeed, appears to be observed, on the part of the Chinese merchants, with respect to this commodity; for it was proved before the select committee of the House of Commons, in 1830, that it was the regular practice of the Hong merchants to receive back, and return good tea for, my chest or parcel upon which any fraud might have been practised, which sometimes happens in the conveyance of the teas from Canton on board ship. Such restitution has occasionally been made even at the distance of 1 or 2 years. The Company enjoyed no advantage over other purchasers in the Canton market except that which the largest purchaser has in every market, viz. a selection of the teas, on the payment of the same prices as others; and this advantage they enjoyed only as respects the black teas, the Americans being the largest purchasers of green teas.

We subjoin a Table for calculating the cost of tea,

Comparison of the Cost of Tea per Picul (133 1/2 lb. Avoirdupois) with the Rate per Pound and Ton of 9 Cwt. or 1,008 lb. per Ton.

Per Picul	Exchange 1s. per Dol.		Exchange 1s. 5d. per Dol.		Exchange 1s. 4d. per Dol.		Exchange 1s. 5d. per Dol.		Exchange 1s. 6d. per Dol.	
	Per Lb.	Per Ton	Per Lb.	Per Ton	Per Lb.	Per Ton	Per Lb.	Per Ton	Per Lb.	Per Ton
20	10	42 0 0	10-625	41 12 6	10-833	45 10 0	11-042	46 7 6	11-250	47 5 0
21	10 1/2	44 0 0	11-156	46 17 1 1/2	11-375	47 15 6	11-591	48 15 0	11-938	49 15 0
22	11	46 0 0	11-487	49 1 9	12-016	50 1 0	12-116	51 0 3	12-375	51 10 6
23	11 1/2	48 0 0	12-210	51 6 3/4	12-458	52 6 6	12-698	53 6 7 1/2	12-936	54 6 6
24	12	50 8 0	12-550	53 11 0	13-000	53 11 0	13-260	55 13 0	13-500	56 13 0
25	12 1/2	52 10 0	13-281	55 15 7 1/2	13-511	56 17 6	13-802	57 19 3/4	14-065	59 1 3
26	13	54 12 0	14-012	58 0 3	14-083	59 3 0	14-514	60 5 0	14-625	61 8 6
27	13 1/2	56 14 0	14-743	60 4 7 1/2	14-492	61 8 6	14-946	62 12 3/4	15-188	63 15 0
28	14	58 16 0	15-474	62 9 6	15-168	63 11 0	15-458	64 18 6	15-750	66 3 0
29	14 1/2	61 18 0	16-205	64 11 1 1/2	15-708	65 19 6	16-010	67 4 1 1/2	16-313	68 10 3
30	15	63 0 0	16-936	66 18 9	16-250	68 5 0	16-562	69 11 5 1/2	16-875	70 15 0
31	15 1/2	65 2 0	17-667	69 3 3/4	16-901	70 9 0	17-114	71 17 3/4	17-138	73 1 3
32	16	67 4 0	18-400	71 8 0	17-555	72 16 0	17-666	74 4 0	18-000	75 12 0
33	16 1/2	69 6 0	19-131	73 12 7 1/2	18-117	75 1 6	18-218	76 10 3/4	18-565	77 15 0
34	17	71 8 0	19-862	75 17 5 1/2	18-678	77 7 6	18-779	78 16 9	19-125	80 6 6
35	17 1/2	73 10 0	20-593	78 1 1 1/2	19-239	79 12 6	19-323	81 3 1 1/2	19-688	82 13 9
36	18	75 12 0	21-324	80 6 6	19-800	81 18 0	19-875	83 9 6	20-250	85 1 3
37	18 1/2	77 14 0	22-055	82 11 1 1/2	20-361	83 3 6	20-927	85 15 0	20-813	87 8 3
38	19	79 16 0	22-786	84 15 9	20-922	86 9 0	20-979	88 2 3	21-375	89 15 6
39	19 1/2	81 18 0	23-517	87 0 3/4	21-483	88 14 6	21-551	90 8 7 1/2	21-938	92 6 6
40	20	83 0 0	24-248	89 5 0	22-044	91 0 0	22-083	92 15 0	22-500	94 10 6

Thus, 1s. 5d. per dollar, one teel per picul is equal to 24s. per lb.

*Real Net Weight and Measurement of a Chest of different Descriptions of Tea.*

	weight	sol. meas.
Dutch, whole chests	caties 1 1/2	feet 8 1/2
do. "	8 1/2	8 1/2
do. "	10	8 3/4
China chests	63 to 61	8 1/2
Bombay "	60 to 62	8 1/2
East "	19 to 20	8 3/4
Hyson "	48 to 50	8 1/2
Hyson skin "	48 to 50	8 1/2
Tea and long chests	62 to 63	8 1/2
Camptocler "	60 to 61	8 1/2
English "	70 to 71	8 1/2
Young Hyson "	60 to 72	8 1/2

Thus, 1s. 3d. per dollar, 1 tael per picul is equal to 5d. per pound.

**II. RISE AND PROGRESS OF THE BRITISH TEA TRADE.—CONSUMPTION OF TEA.**

The late rise and present magnitude of the British tea trade are among the most extraordinary phenomena in the history of commerce. Tea was wholly unknown to the Greeks and Romans, and even to our ancestors previously to the end of the 16th or the beginning of the 17th century. It seems to have been originally imported in small quantities by the Dutch; but was hardly known in this country till after 1650. In 1659, however, it began to be used in coffee houses; for, in an Act passed in that year, a duty of 8d. is laid on every gallon of coffee, chocolate, sherbet, and tea, made and sold. But it is abundantly evident that it was then only beginning to be introduced. The following entry appears in the Diary of Mr. Pepys, secretary to the Admiralty:—'September 25, 1661, I sent for a cup of tea (a China drink), of which I had never drank before.' In 1663, the East India Company bought 2 lb. 2 oz. of tea as a present for his Majesty. In 1667, they issued the first order to import tea, directed to their agent at Bantam, to the effect that he should send home 100 lb. of the best tea he could get (Milburn's *Orient Com.* ii. 530; Macpherson's *Hist. of Com. with India*, pp. 130-132.) Since then, the consumption seems to have gone on regularly though slowly increasing. In 1689, instead of charging a duty on the decoction made from the leaves, an excise duty of 5s. per lb. was laid on the tea itself. The importation of tea from 1710 downwards is exhibited in the following Tables.

The reductions made in the duties on tea in 1715 and 1781, strikingly evince the superior productiveness of low duties on articles in general demand, and are, in that respect, especially worthy attention. Previously to 1715, tea was charged with an excise duty of no less than 4s. per lb., and with a customs duty of 11 per cent. ad valorem; and it appears that at an average of the 5 years ending Midsommer, 1745, the teas entered for consumption amounted to 768,520 lb. a-year, yielding an average excise and customs revenue of 175,222l. a-year. But though the taste for tea was then comparatively little diffused, it was well known that its clandestine importation was extensively carried on, and that its real consumption was much greater than its apparent consumption. To check this illegitimate traffic, which enriched the smuggler at the expense of the revenue and of the fair trader, a bill was carried through Parliament in 1745, in pursuance of the recommendation of a Committee of the House of Commons, by which the excise duty on tea was reduced from 4s. to 1s. per lb. and 25 per cent. ad valorem; and as the price of the teas sold at the Company's sales was then about 4s. per lb., the 25 per cent. was, in fact, equivalent to 1s. per lb., making the new excise duty 2s. per lb., being a reduction of 50 per cent. This measure, which had in a great degree the merit of originality, was eminently

successful. In the year immediately after the reduction of the duty, the entries of tea for consumption amounted to about 1,800,000 lb., being nearly three times as much as they had amounted to in the last year of the high duties; and the increase in the second and third years of the new system was also most striking. But to set the operation of this well-considered measure in the clearest point of view, we subjoin—

*An Account of the Quantities of Tea entered for Consumption, and of the Produce of the Excise and Customs Duties thereon during each of the Five Years preceding, and subsequent to Midsommer, 1745, when the Excise Duty on Tea was reduced from 4s. to 2s. per lb. (McCulloch, On Taxation, p. 332.)*

Years	Quantities		Duties	
	lb.	£	£	s.
1741	880,701	206,799	0	0
1742	836,000	190,653	10	0
1743	2,767,000	183,501	10	0
1744	2,088,500	161,538	0	0
1745	6,010,000	111,500	0	0
Total	3,612,600	876,412	0	0
Average of 5 years	722,520	175,282	0	0
1746	1,800,000	294,000	0	0
1747	2,000,000	26,000	0	0
1748*	2,000,000	25,800	0	0
1749	2,200,000	37,500	0	0
1750†	2,200,000	37,500	0	0
Total	11,000,000	315,800	0	0
Average of 5 years	2,200,000	63,160	0	0

\* In 1748, 5 per cent. was added to the customs duty on all dry goods, but its influence on tea was next to imperceptible.  
† In 1750 the entries increased to 3,000,000 lb.

But notwithstanding this manseverable demonstration of the superior productiveness of low duties, they were again increased in 1759; and fluctuated, between that epoch and 1781, from about 65 to 120 per cent. ad valorem. The effects which followed this inordinate extension of the duties are equally instructive with those which followed their reduction. The revenue was not increased in anything like a corresponding proportion; and as the use of tea had become comparatively general, smuggling was carried to an infinitely greater extent than at any former period. In the nine years preceding 1780, above 118,000,000 lb. of tea were exported from China to Europe in ships belonging to the continent, and about 50,000,000 lb. in ships belonging to England. But from the best information attainable, it appears that the real consumption was almost exactly the reverse of the quantities imported; and that while the consumption of the British dominions amounted to above 13,000,000 lb. a-year, the consumption of the Continent did not exceed 5,500,000. If this statement be nearly correct, it follows that an annual supply of about eight million lb. must have been clandestinely imported into this country, in defiance of the revenue laws. But this was not the worst effect of the high duties; for many of the retail dealers who purchased tea at the East India Company's sales, being in a great measure beaten out of the market, were, that they might put themselves in a condition to stand the competition of the smugglers, tempted to adulterate their teas by mixing them with sloe and ash leaves. (Macpherson's *Commerce with India*, p. 208; Milburn's *Oriental Commerce*, vol. ii. p. 540.) At length, in 1781, ministers, having in vain tried every other resource for the suppression of smuggling, resolved to follow the precedent of 1745, and reduced the duty on tea from 11s. to 12½ per cent. This measure was as successful as the former; smuggling and the practice of adulteration were immediately put an end to. The following statement shows that the quantity of tea sold by

grown to Canton is promiles; nor that of the alinous country, less than ehants begin to arrive in the of October, and the until the beginning of in November, December, or the most part, could, changes, only be bought need merchants; but some aspers in their circum- by wealthy outside mer- and thus the trade was The prices in the Canton y from year to year with a hand, and the external her articles, and in any on season is over, or when sets in, during the month the regular intercourse of there is a fall in the price ng from this circumstance, pteciation in quality, from which, like most other, is injured by keeping, and damp climate.

**Tea.**—There seems to be selection and purchase of s is both safely and effect- not only by the supercargos, but frequently by the ascertained by the sales at- e, that there was no differ- ities of the teas purchas- and officers of the Company's sistance from the officers of e purchased for the Company usual degree of good faith, observed, on the part of the with respect to this com- proved before the select- sion of Commons, in 1830, gular practice of the Hong e back, and return good tea areel upon which any frau- practised, which sometimes ayevance of the teas from ip. Such restitution has ee- even at the distance of 1 or rpany enjoyed no advantage sers in the Canton market the largest purchaser has in a selection of the teas, on the no prices as others; and this joyed only as respects the mericans being the largest e for calculating the cost of tea.

*Table of the Rate per Pound and*

Per Ton	Per Cwt.	Per Ton
46 7 6	11 2 0	47 5 0
48 15 10 1/2	11 8 1/2	49 14 3 1/2
51 0 3	12 3 1/2	51 6 0
55 6 7 1/2	12 9 5/8	56 11 0
57 19 4 1/2	14 0 3/4	61 5 6
60 5 9	14 6 3/4	62 11 9
62 12 1 1/2	15 2 0	65 3 0
61 18 6	15 7 1/2	68 10 3 1/2
67 4 10 1/2	16 3 1/4	70 17 1/2
69 11 3	16 8 3/4	71 14 9
71 17 7 1/2	17 4 1/4	72 12 0
74 4 0	18 0 0	75 9 6
76 6 7 1/2	18 5 1/2	77 13 0
78 16 9	19 1 1/4	79 15 9
81 3 1 1/2	19 6 3/4	81 11 0
85 9 6 1/2	19 12 1/2	82 8 3 1/2
86 15 10 1/2	20 8 1/2	85 15 6
88 2 3	21 3 1/2	86 12 0
90 8 7 1/2	21 8 3/4	88 9 6
92 15 0	22 3 3/4	91 10 0

per lb.



An Account of the Quantities of Tea Imported into the United Kingdom during each of the undermentioned Years ending with 1867; specifying the Quantities re-exported, the Quantities Annually Retained for Home Consumption, the Rates of Duty, and the Annual Produce of the Duties.

Years	Quantities Imported	Quantities re-exported	Quantities retained for Consumption	Amount of Duty received thereon	Rates of Duty
	lb.	lb.	lb.		
1853	32,057,532	2,140,000	31,827,532	5,114,102	If sold at or under 2s. per lb. 96l. per cent. ad valorem.
1854	25,610,800	1,181,905	24,428,895	5,589,594	At or above 2s. per lb. 100l. ditto.
1855	41,750,550	2,158,929	39,591,621	6,074,157	By tea, 1s. 6d. per lb.; Congou, Twankay, Hyson Skin, Orange Pekoe, and Company, 2s. 6d. per lb.; all other sorts, 3s. per lb. (from April 22.)
1856	49,507,201	4,209,865	45,297,336	6,474,750	All sorts 2s. 1d. per lb. (from July 1.)
1857	36,973,981	4,716,218	32,257,763	5,225,810	.. .. ..
1858	40,113,711	2,277,877	37,835,834	5,367,035	.. .. ..
1859	38,178,008	3,618,212	34,559,796	5,528,803	.. .. ..
1860	28,021,882	2,585,384	25,436,498	5,172,804	3d. per cent. additional from May 15
1861	30,282,796	4,190,263	26,092,533	5,273,508	.. .. ..
1862	40,745,158	5,710,127	35,035,031	4,988,257	.. .. ..
1863	46,612,757	4,581,111	42,031,646	4,407,612	.. .. ..
1864	53,137,028	4,828,985	48,308,043	4,324,193	.. .. ..
1865	54,939,072	4,405,580	50,533,492	4,875,165	.. .. ..
1866	44,767,142	3,535,668	41,231,474	5,112,060	.. .. ..
1867	35,621,916	4,718,158	30,903,758	5,066,194	.. .. ..
1868	47,717,555	3,531,598	44,185,957	4,873,769	.. .. ..
1869	35,459,649	4,415,617	31,044,032	5,171,422	.. .. ..
1870	30,212,384	5,015,699	25,196,685	5,206,661	.. .. ..
1871	31,466,421	3,531,598	27,934,823	5,062,463	2s. per lb. plus 5 per cent.
1872	66,260,535	6,134,243	60,126,292	5,685,181	.. .. ..
1873	70,235,135	4,830,009	65,405,126	5,683,791	.. .. ..
1874	85,296,052	4,405,580	80,890,472	6,290,149	1s. 10d. per lb.
1875	82,266,657	13,026,207	69,240,450	5,310,245	1s. 6d. .. ..
1876	86,200,411	5,718,761	80,481,650	5,576,026	1s. 9d. .. ..
1877	91,958,988	6,507,598	85,451,390	5,606,632	1s. 5d. .. ..
1878	79,430,478	2,410,570	77,019,908	5,171,471	1s. 3d. .. ..
1879	139,610,011	20,215,151	119,394,860	5,588,148	6d. .. ..
1880	128,028,526	31,131,112	96,897,414	5,276,299	.. .. ..

Britain from 1789 to 1862, from 1789 to 1827; specific Duty.

Ireland

Rates of Duty	
Black;	Green;
4d. per lb.	6d. per lb.
1853	4d. per lb.
1854	4d. per lb.
1855	4d. per lb.
1856	4d. per lb.
1857	4d. per lb.
1858	4d. per lb.
1859	4d. per lb.
1860	4d. per lb.
1861	4d. per lb.
1862	4d. per lb.
1863	4d. per lb.
1864	4d. per lb.
1865	4d. per lb.
1866	4d. per lb.
1867	4d. per lb.
1868	4d. per lb.
1869	4d. per lb.
1870	4d. per lb.
1871	4d. per lb.
1872	4d. per lb.
1873	4d. per lb.
1874	4d. per lb.
1875	4d. per lb.
1876	4d. per lb.
1877	4d. per lb.
1878	4d. per lb.
1879	4d. per lb.
1880	4d. per lb.
1881	4d. per lb.
1882	4d. per lb.
1883	4d. per lb.
1884	4d. per lb.
1885	4d. per lb.
1886	4d. per lb.
1887	4d. per lb.
1888	4d. per lb.
1889	4d. per lb.
1890	4d. per lb.
1891	4d. per lb.
1892	4d. per lb.
1893	4d. per lb.
1894	4d. per lb.
1895	4d. per lb.
1896	4d. per lb.
1897	4d. per lb.
1898	4d. per lb.
1899	4d. per lb.
1900	4d. per lb.

By the Company

By the Company

suggesting the plan neither belonged to Mr. Richardson, nor to any of those who then claimed it; and such of our readers as will take the trouble to look into a pamphlet ascribed to Sir Matthew Decker (*Serious Considerations on the present High Duties*), published in 1733, will find that the measure adopted in 1784 had been strenuously recommended 40 years before.

But the principle of the Commutation Act, and the striking advantage that had resulted from the reduction of the duty, were soon lost sight of. In 1795 the duty was augmented to 25 per cent.; and after successive augmentations in 1797, 1798, 1800, and 1806, it was raised in 1806, to 36 per cent. ad valorem, at which it continued till 1843, when it was raised to 100 per cent. on all teas that brought above 2s. per lb. at the Company's sales.

The preceding and following statements show the progress of the consumption of tea in this country from a very remote epoch down to the present time:—

An Account showing the Quantity of Tea annually consumed in the United Kingdom, with the average Rate and aggregate Amount of Duty collected thereon; and the average Price, exclusive and inclusive of the Duty.

Year	Tea consumed in United Kingdom	Amount of Duty	Average Price per lb.	Average Price per lb. in Bond	Average Price per lb. including Duty
1789	5,251,505	5,362,035	1 1	1 7 1/2	5 8 1/2
1790	5,127,287	5,558,803	2 1	1 8 1/2	4 9
1791	5,222,508	5,472,884	2 1/2	2 7 1/2	4 9
1792	2,985,507	2,075,698	2 1/2	1 11	4 2 1/2
1793	3,755,011	4,085,957	2 1/2	2 0 1/2	4 2 1/2
1794	10,283,293	4,107,612	2 1/2	1 3 1/2	5 6 1/2
1795	41,865,751	4,521,193	2 1/2	1 2 1/2	5 5
1796	41,065,133	4,835,553	2 1/2	1 11 1/2	5 4
1797	46,104,514	5,115,005	2 1/2	1 11 1/2	5 3 1/2
1798	165,118,821	5,066,104	2 1/2	1 11 1/2	5 3 1/2
1799	2,091,170	5,471,422	2 1/2	1 11 1/2	5 3 1/2
1800	5,177,292	5,505,500	2 1/2	1 11 1/2	5 3 1/2
1801	35,000,419	5,901,625	2 1/2	1 11 1/2	5 3 1/2
1802	34,750,511	5,981,172	2 1/2	1 11 1/2	5 3 1/2
1803	38,531,087	5,983,791	1 1/2	1 11 1/2	5 3 1/2
1804	42,053,411	4,780,149	1 1/2	1 11 1/2	5 3 1/2
1805	65,129,436	5,510,275	1 1/2	1 11 1/2	5 3 1/2
1806	65,275,212	5,556,026	1 1/2	1 11 1/2	5 3 1/2
1807	69,139,845	5,066,048	1 1/2	1 11 1/2	5 3 1/2
1808	73,245,133	5,186,174	1 1/2	1 11 1/2	5 3 1/2
1809	102,512,887	2,538,148	0 6	1 7 1/2	2 1 1/2
1810	111,020,287	2,776,789	0 6	1 7 1/2	2 1 1/2

Account of the Quantity of Tea remaining for Home Consumption in Great Britain from 1711 to 1786, obtained by deducting the Quantity exported from the Quantity sold at the Company's Sales.

Years	Lb.	Years	Lb.	Year	Lb.
1711	141,095	1750	2,700,000	1781	3,578,499
1720	237,901	1755	2,278,156	1782	4,166,854
1725	286,191	1760	2,425,613	1783	3,087,616
1730	537,016	1765	1,900,456	1784	8,608,175
1735	1,380,000	1770	2,725,538	1785	13,167,715
1740	1,880,700	1775	5,175,513	1786	15,985,506
1745	600,000	1780	5,588,513		

N.B.—We have made up this statement from the accounts given in Milburn's *Oriental Commerce* (vol. ii. p. 531), and Postlethwayt's Dictionary, art. 'Tea.'

Account of the Quantity of Tea entered for Home Consumption in the United Kingdom, the Net Amount of Duty received thereon, and the Rates of Duty, from 1848 to 1867.

Years	Quantities	Duty received thereon	Rates of Duty
	lb.	£	
1848	48,731,789	5,594,992	2s. 2 1/2d. per lb. May 15, 1810
1849	50,921,576	5,474,122	.. .. ..
1850	51,472,502	5,306,961	.. .. ..
1851	55,919,059	5,904,025	.. .. ..
1852	51,215,031	5,981,172	.. .. ..
1853	58,831,087	5,083,791	1s. 10d. per lb. June 1, 1853
1854	61,035,811	4,704,119	1s. 6d. per lb. April 6, 1854
1855	63,429,286	5,110,275	1s. 9d. per lb. April 21, 1855
1856	65,178,212	5,556,026	.. .. ..
1857	69,150,815	5,900,048	1s. 5d. per lb. April 6, 1857
1858	73,247,181	5,456,170	.. .. ..
1859	76,364,008	5,498,921	.. .. ..
1860	76,842,016	5,112,925	.. .. ..
1861	77,019,461	5,501,200	.. .. ..
1862	78,817,061	5,582,793	.. .. ..
1863	83,200,779	4,629,222	1s. per lb. April 25, 1863
1864	88,675,009	4,437,868	.. .. ..
1865	97,921,911	3,180,282	6d. per lb. June 1, 1865
1866	102,057,887	2,558,148	.. .. ..
1867	111,020,287	2,776,136	.. .. ..

The following table, compiled by the Inspector-General of Imports and Exports, sets the most material circumstances connected with the tea trade in a very clear and striking point of view. The Inspector-General has added to his table two more columns, one showing the annual population of the United Kingdom, and the other the annual average consumption of tea by each individual of that population. But we have omitted these, inasmuch as the average in question was wholly

fallacious. The consumption of tea per individual in Great Britain was formerly a good deal more than double its consumption per individual in Ireland. And though the proportional consumption in the latter has increased since the occurrence of the potatoe rot in 1816, it is still much below

the consumption either in England or Scotland. This, indeed, is very clearly exhibited in the table showing the comparative consumption of tea at different epochs in each of the three kingdoms. The quantity for Ireland in 1866 is that given on an average of 3 years to 1865, in Thom's *Directory*.

*Account of the Total and Average Consumption of Tea by Each Individual of the Population in England, Scotland, and Ireland, in 1811 and 1856, and Great Britain and Ireland in 1866.*

Countries	Total Consumption			Average Consumption by each Individual		
	1811	1856	1866	1811	1856	1866
	lb.	lb.	lb.	lb. oz.	lb. oz.	lb. oz.
England	28,805,156	47,091,635	90,115,885	1 13	2 8	3 10
Scotland	2,983,126	6,583,253	12,299,902	1 2	2 3	2 7
Ireland	3,897,375	8,708,311	10,521,887	0 10	1 7	2 2
United Kingdom	35,685,657	62,383,211	112,937,694	1 6	2 4	3 6

### III.—EAST INDIA COMPANY'S MONOPOLY—INFLUENCE OF, ON THE PRICE OF TEA—CONDITIONS UNDER WHICH IT WAS HELD—ABOLITION OF.

From its origin down to 1831, the trade in tea was monopolised by the East India Company. Considerable quantities of tea were, indeed, at different times, smuggled into the country; but no British subject, not authorised by the Company, was ever allowed openly to import tea. Being thus the *only sellers*, they had it in their power, by limiting the quantity brought to market, to raise its price above its natural elevation, and to realise immense profits at the expense of the public. They might, no doubt, have declined availing themselves of this power; but no such forbearance could be rationally expected from the Company, or from any other body of men. All individuals and associations exert themselves to obtain the highest price for whatever they have to sell: and it is found that those who are protected from the competition of others, or who have obtained a monopoly of any market, invariably raise the price of their commodities to a very high pitch. The East India Company did this, probably, to a less extent than most other bodies that have enjoyed such exclusive privileges. Still, however, it is an undoubted fact, that the teas sold by them during the last years of the monopoly cost the people of Britain upwards of 1,500,000*l.* a-year more than they would have cost had they been sold at the price at which teas of equal quality were sold, under a system of free competition, in New York, Hamburg, Amsterdam &c. (For proofs of this statement, see 1st edition of this *Dictionary*, p. 1031.)

The Legislature endeavoured at different periods, to prevent the Company from abusing their monopoly, by enacting regulations as to the sale of tea; and though no longer of any practical importance, it may be worth while briefly to notice some of the more important, and the means by which they were defeated. In 1745, for example, when the great deduction was made from the amount of the tea duties, it was enacted, by a statute passed in that year (18 Geo. II. c. 26), in order to prevent the Company from depriving the public of the benefit of this reduction, that in case the tea imported by the East India Company shall not always be sufficient to answer the consumption thereof in Great Britain, and to keep the price of tea in this country upon an equality with the price thereof in the neighbouring Continent of Europe, it shall be lawful for the said Company, and their successors, to import into Great Britain such quantities of tea as they shall think necessary from any part of Europe: and by another section of the same statute, it is enacted, that if the East India Company shall, at any time, neglect to keep the British market supplied with a sufficient

quantity of tea at reasonable prices, it shall be lawful for the lords of the Treasury to grant licenses to any other person or persons, body politic or corporate, to import tea into Great Britain from any port of Europe.

Had this statute been enforced, it would certainly have restrained the demands of the Company within reasonable limits; but it was very soon forgotten, and the Company continued, as before, to sell their teas at an enormous advance as compared with their prices in Hamburg and Amsterdam.

The same well-founded jealousy, which dictated the Act of 1745, was again displayed in the proceedings at the reduction of the duties in 1784. It was then enacted (21 Geo. III. c. 58), that the East India Company should make 4 sales of tea every year as near as conveniently may be at equal distances of time from each other, and should put up at such sales such quantities of tea as may be judged sufficient to supply the demand; and at each sale the tea to be put up shall be sold without reserve to the highest bidder, provided an advance of 1*l.* per pound be bid upon the price at which the same is put up. By another clause it was enacted, that it should not be lawful for the East India Company to put up their teas for sale at a price which shall, upon the whole of the teas so put up at any sale, exceed the prime cost thereof, with the freight and charges of importation, together with lawful interest from the time of arrival of such teas in Great Britain, and the common premium of insurance as a compensation for the sea risk incurred thereon. The Company were further ordered to keep a stock, equal to at least 1 year's consumption, according to the sales of the preceding year, always beforehand. And they were bound to lay before the lords of the Treasury copies of the accounts and estimates upon which their orders for importation, prices for sale, and quantities put up to sale, should be grounded.

The object of these conditions is obvious. They were intended to secure a plentiful supply of tea to the public, and to prevent its being sold at an oppressive increase of price. But monopoly and low prices are altogether incompatible. The conditions now referred to were, as to all practicable purposes at least, quite inoperative.

1. In the first place, the Company made various additions to the prime cost, and consequently to the putting-up price of their tea, which they ought not to have made, but which the lords of the Treasury, had they been so disposed, could hardly disallow. They always, for example, charged the cost of the factory in Canton to the price of tea. This establishment consisted of about 20 persons, and cost at an average about 100,000*l.* a-year. We do not presume to say that it was altogether useless. Undoubtedly, however, it might have been conducted at half the expense.

in England or Scotland. It is exhibited in the table of the consumption of tea at the three kingdoms. In 1866 is that given on 1865; in Thom's *Directory*.

*Individual of the Population in and Ireland in 1866.*

Consumption by each Individual		1866		1865	
lb.	oz.	lb.	oz.	lb.	oz.
2	8	2	8	2	8
2	5	2	5	2	5
1	7	1	7	1	7
2	4	2	4	2	4

reasonable prices, it shall be the duty of the Treasury to grant a bounty on tea for the consumption of persons, body politic or persons, in Great Britain from

1865. It has been enforced, it would be thought, the demands of the reasonable limits; but it was found that the Company continued, their teas at an enormous price, with their prices in Ham-

burgh, which dictated again displayed in the production of the duties in 1781. (21 Geo. III. c. 38), that the Company should make 4 sales of tea as conveniently may be at a time from each other, and such sales such quantities of tea sufficient to supply the demand: tea to be put up shall be sold at the highest bidders, provided no person be bid upon the price is put up. By another clause it should not be lawful for the Company to put up their teas for sale, shall, upon the whole of the tea sale, exceed the prime cost weight and charges of importation, lawful interest from the time teas in Great Britain, and the cost of insurance as a compensation thereon. The Company had to keep a stock, equal to at least 12 months of the sales of the year, always beforehand. And the accounts and estimates upon which for importation, prices for sale, up to sale, should be grounded, these conditions is obvious. They were to prevent its being sold at an advance of price. But monopoly and competition together incompatible. The conditions were, as to all practicable quite inoperative.

In 1866, the Company made various sales of prime cost, and consequently to the price of their tea, which they were made, but which the terms of the act they been so disposed, could not be always, for example, of the factory in Canton to the Company. This establishment consisted of 1000 men, and cost at an average about £1,000,000.

We do not presume to say that it is useless. Undoubtedly, however, it is conducted at half the expense.

It is a fact, that the whole American business at Canton has been transacted by the captains of the ships; and every one knows that they have had fewer disturbances with the natives than the English.

2. In the second place, it was established by the evidence taken before the select committee of 1830, that the Company had for many years thrown the whole losses arising from their outward investment upon tea, by estimating the value of the tea, or Chinese money in which the accounts are kept, at the price which it cost for the purpose of being vested in tea. This was a complete evasion of the provisions of the statute; but it was one which it was very difficult, if not impossible, to defeat.

3. In the third place, the obligation imposed on the Company, of keeping a year's supply of tea in their warehouses, contributed both to raise its price, and deteriorate its quality. From a return made to an order of the select committee of the House of Commons in 1830 (*First Report*, App. p. 23), it appeared that the shortest time any tea sold by the Company had been in store was 14 months; and that, at an average, all the teas sold during the 3 years ending with 1829 had been 17 months in store. But, according to the evidence of the most respectable American witnesses, the black and coarser kinds of tea are depreciated at least 5 per cent. by being kept a twelvemonth, and are, indeed, hardly saleable after the arrival of fresh teas from China. Adding, therefore, warehouse rent, interest of capital, and insurance for 17 months, to the deterioration in point of quality, we may estimate the loss to the public, by this well-meant but most injudicious interference of the Legislature, at 15 per cent. upon the price of all the teas sold.

4. In the fourth place, it is obvious, even supposing the prime cost of the Company's teas had not been improperly enhanced, that the regulation obliging them to be sold at an advance of 1d. per lb. if offered, on the putting-up price, could not be otherwise than nugatory. Had the trade been open, private merchants would have undersold each other, until the price of tea, like that of sugar or coffee, had been reduced to the very lowest point that would yield the sellers the customary rate of profit. But the Company was in an entirely different situation. Being the *only sellers*, they invariably *understocked* the market. Instead of bringing forward such quantities of tea as might have occasioned its sale at a small advance upon the upset price, they adjusted the supply so that the price was raised to a much higher elevation. Now, it will be observed, that all that this system of management put into the Company's coffers consisted of *extra profit*; for the putting-up price embraced every item that could fairly enter into the cost of the tea, including both interest on capital and insurance, and including also, as we have seen, several items that had but little to do with it. To show the extent to which this source of profit was cultivated, we may mention, that at the June sale in 1830, the Company put up congrua at 1s. 8d. and 2s. 1d. per lb.; the lowest sort, or that put up at 1s. 8d., being sold partly at 2s. 1 1/2d., being an advance of *twenty-two and a half* per cent., and partly at 2s. 5d., being an advance of *forty-five* per cent.; while the highest sort, or that put up at 2s. 1d., was sold partly at 2s. 2d., being an advance of *four* per cent., and partly at 3s. 7d., being an advance of no less than *seventy-two* per cent. above the upset price; that is, above a price calculated to yield *ordinary profits*. Mr. Mills, an intelligent tea merchant, in a paper laid before the committee of the House of Lords on

East India affairs, showed, that the advance on teas sold at the Company's June sale in 1830, above the putting-up price, amounted to £22,177,18s. 1d.; and as there are 4 such sales in the year, the total advance must have been about 600,000l.; and this was considerably under what it had been a few years previously.

These statements show generally how the Company deflected the provisions of the Act of 1781, and, indeed, turned them to its own advantage. But, as already observed, nothing else could be expected. It is nugatory to attempt to combine monopoly with low prices and good qualities. They never have existed, and it is not possible they ever should exist, together. Monopoly is the parent of dearth and scarcity; freedom, of cheapness and plenty.

Great, however, as was the sacrifice entailed on the people of Britain by the Company's monopoly, it is doubtful whether it yielded any considerable amount of revenue to the Company. Everyone, indeed, must be satisfied, on general grounds, that it was impossible for the Company to make anything like the same profits by the privileges conceded to them, that would have been made by private individuals enjoying similar advantages. 'The spirit of monopolists,' to borrow the just and expressive language of Gibbon, 'is narrow, lazy, and oppressive. Their work is more costly and less productive than that of independent artists; and the new improvements, so eagerly grasped by the competition of freedom, are admitted with slow and sullen reluctance, in those proud corporations above the fear of a rival, and below the confession of an error.' We have no doubt that the directors of the East India Company were disposed to extend its commerce, and to manage it according to the most approved principles, but they were wholly without the means of giving effect to their wishes. They had to operate through servants; and it is to be imagined that the *employés* of such bodies will ever display that watchful attention to their interests, or conduct the business entrusted to their care with the unsparing economy practised by private merchants trading on their own account, superintending their own concerns, and responsible in their own private fortunes for every error they may commit? The affairs of the Company, notwithstanding the efforts of the directors to introduce activity and economy, have always been managed according to a system of routine. Their captains and mercantile agents were, we doubt not, 'all honourable men;' but it were an insult to common sense to suppose that they may be compared for a moment with individual trading on their own account, in the great requisites of zeal, conduct, and skill.

Several gentlemen of great knowledge and experience, who carefully enquired into the state of the Company's affairs in 1830, expressed their decided conviction that they made nothing by the tea trade; the increased price at which they sold the article not being more than sufficient to balance the immense expenses incident to the monopoly. Perhaps this statement may be somewhat exaggerated, though we incline to think it is not far from the mark. Taking, however, the accounts laid by the Company before the committee on Indian affairs, as they stand, it would appear that the profits realised by them during the 3 years ending with 1827-28 amounted to 2,542,569l., being at the rate of 817,523l. a-year. (*Appendix to Second Report of Select Committee of 1830*, p. 95.) But we have already seen that the excess of price received by the Company for their teas, over the price of similar teas sold at New York and Hamburg, has been above 1,500,000l. a-year; so that,

according to the Company's own showing, their monopoly occasioned an *absolute loss* of 452,477*l.*, exclusive of its mischievous influence in lessening the consumption of tea, and in confining our trade with China to less than a third of what it will probably amount to under a system giving free scope to the energies of individual enterprise.

The renewal of a monopoly productive of such results was, therefore, wholly out of the question. There was hardly, indeed, in 1833, an individual in the empire out of the pale of the Company who was not anxious for the opening of the trade to China; and the Act 3 & 4 Wm. IV. c. 85 (ante, EAST INDIA COMPANY), abolishing the company's monopoly, and making it lawful for all individuals to import tea, was passed with almost no opposition.

#### IV.—DUTIES OF TEA.—CONSUMPTION OF TEA IN THE UNITED KINGDOM, THE CONTINENT, THE UNITED STATES, ETC.

Down to April 22, 1834, the duty on tea was an *ad valorem* one of 96 per cent. on all teas sold under 2*s.* a pound, and of 100 per cent. on all that were sold at or above 2*s.* charged on the prices which they brought at the Company's sales. This was, certainly, a high duty; though, as a large amount of revenue must be raised, we do not know, had the trade been free, that it could have been fairly objected to on that ground. But, under the monopoly system, the duty was, in fact, about 200 per cent. *ad valorem*. For, the price of the tea sold by the Company being forced up to nearly double what it would have been under a free system, it followed, inasmuch as the duty varied directly as the price, that it also was doubled when the latter was doubled. The price of congou in Hamburg, for example, varied, during the latter years of the monopoly, from 1*s.* 2*d.* to 1*s.* 4*d.* per lb.; and had the Company supplied our markets with congou at the same rate, it would have cost us, duty included, nearly 2*s.* 4*d.* and 2*s.* 8*d.* per lb. But instead of this, the congou sold by the Company was, at an average, a good deal above 2*s.* per lb.; and the duty being as much, it invariably cost from 4*s.* to 5*s.* per lb. Hence, though the duty was only 100 per cent. on the Company's price, it was really above 200 per cent. on the price of tea in an open market. The mischief of the monopoly was thus greatly aggravated; inasmuch as every addition made by it to the cost of the article made an equal addition to the duty on it.

The *ad valorem* duties ceased on April 22, 1834; and, under the Act 3 & 4 Wm. IV. c. 101, all tea imported into the United Kingdom for home consumption was charged with a customs duty as follows:—

	per lb.
Bohea	4 d.
Congou, twankay, hy-on skin, orange pekoe, and camoué	1 6
Son-hong, hoowry pekoe, hyson, young hyson, gunpowder, imperial, and other teas not enumerated	2 2
	3 0

If we compare these duties with the wholesale prices of tea, they will be seen to have been exceedingly heavy, particularly on bohea and congou. Bohea may be sold, exclusive of duty, at or under 10*d.* or 1*s.* per lb.; so that the fixed duty was equivalent to an *ad valorem* duty of 150 per cent. or upwards. But to impose such a duty on an article fitted to enter largely into the consumption of the lower classes, seems to us in the last degree oppressive. It must have gone far to neutralise the beneficial effects that would otherwise have resulted from the abolition of the monopoly; and by confining the consumption of the article within comparatively narrow bounds, have rendered the duty less productive than it would

have been had it been lower. In consequence, however, of the complaints of the importers of tea that the discriminating duties were not, and could not be, fairly assessed, and that teas were sometimes charged at 2*s.* 2*d.* or 3*s.* per lb. that should only have paid 1*s.* 6*d.*, the duty was repealed in about two years, by the Act 5 & 6 Wm. IV. c. 32, which enacted that an equal duty of 2*s.* 4*d.* per lb. (increased in 1810 to 2*s.* 2*d.*) should be charged, after July 1, 1836, on all teas entered for consumption in the United Kingdom.

Considering the very great differences in the qualities and the prices of the different varieties of tea, it would have been extremely desirable, had it been practicable, that the duty on them should have been assessed on an *ad valorem* principle. But after the Company's sales had ceased, and the trade had been fully opened, this was no longer possible; and it was found in the case of tea, as of wine, sugar, and similar articles, that it was better to adopt an unfair principle which could be fairly carried out, than to adopt a principle which, though fair in the abstract, was sure in its practical operation to lead to every species of abuse.

We remarked on this subject in our *Treatise on Taxation*, as follows:—

“But while we admit that the necessity of the case, or the impossibility of fairly assessing discriminating duties on the different varieties of tea, fully justified their repeal, and the imposition of a single duty in their stead, we contend that nothing can justify the magnitude of this single duty, which is, beyond all question, the most objectionable in our tariff.”

“It has, we are aware, been alleged that the duty of 2*s.* 4*d.* per lb. is not really so bad as it looks; that it is a mistake to suppose that the lower classes use inferior teas, and that the reduction of the duty on them would not materially increase their consumption. But those who make such statements either know nothing of the facts of the case, or reckon on the ignorance of those to whom they address themselves. It appears from the official returns, that in 1816-17 and 1817-18 the price of bohea sold at the Company's sales was about 5*s.* 6*d.*; so that it must have cost the buyer, duty included, about 5*s.* per lb.; and in these years the consumption amounted, at an average, to 1,781,000 lb. a-year. But in 1830-31 and 1831-32, when the price of bohea to the buyer was reduced to 3*s.* 4*d.* per lb. (1*s.* 8*d.* price and 1*s.* 8*d.* duty), the consumption rose to 6,285,000 lb.; showing, beyond all dispute, that a fall of 1*s.* 8*d.* in the price of bohea had more than trebled its consumption. And though St. Augustine has said that “nullum mendacium tam impudens est ut teste careat,” we hardly think that anyone will venture to affirm, in the teeth of an experiment like this, that bohea would not be used, if it could be procured by the poorer classes; or that the demand for it would not be very greatly extended by a reduction of 1*s.* 2*d.* or 1*s.* 3*d.* per lb. in its price.”

“Taking the average price of bohea in bond in London at 8*d.*, 10*d.*, or 1*s.* per lb., a duty of the same amount would, of course, be equal to an *ad valorem* duty of 100 per cent., which is certainly high for a duty on a necessary consumed by the poor. But even with a duty of 1*s.* per lb. bohea might be retailed at 2*s.* or 2*s.* 2*d.* per lb.; and at this price there can be no manner of doubt that the consumption would amount to 10 or 12,000,000 of pounds. The reduction of the duty on congou to 1*s.* per lb. would, also, be of the greatest importance to the lower and middle classes; and the powerful stimulus it would give to consumption

lower. In consequence of the duties were not, and could not, and that teas were some- or 3s. per lb. that should the duty was repealed in Act 5 & 6 Wm. IV. c. 32, equal duty of 2s. 1d. per lb. (to 2s. 2 1/2d.) should be repealed, on all teas exported from the Kingdom.

The great differences in the prices of the different varieties of tea have been extremely desirable, so that the duty on them assessed on an ad valorem the Company's sales had not been fully opened, this duty; and it was found in the sugar, and similar articles, carried out an unfair principle adopted, than to adopt a fair in the abstract, was operation to lead to every

is subject in our Treatise on

it that the necessity of the duty of fairly assessing the different varieties of tea, repeal, and the imposition of our steel, we contend that the magnitude of this single and all question, the most

ware, been alleged that the lb. is not really so bad as it is—take to suppose that the inferior teas, and that the re- on them would not materially caption. But those who make per know nothing of the facts on the ignorance of those to themselves. It appears from that in 1816-17 and 1817-18 the Company's sales was at 5s. have cost the buyer, at 3s. per lb.; and in these on amount, at an average year. But in 1830-31 and price of bohea to the buyer was 1s. 8d. or 1s. 3d. price and 1s. 8d. option rose to 6,285,000 lb.; dispute, that a fall of 1s. 8d. had more than trebled its though St. Augustine has mendacium tam impudens est ardly think that anyone will in the teeth of an experiment would not be used, if it could poorer classes; or that the not be very greatly extended 1s. 2d. or 1s. 3d. per lb. in its

age price of bohea in bond in 1s. per lb., a duty of the 1d. of course, be equal to an ad 10 per cent, which is certainly a necessary consumed by the with a duty of 1s. per lb. bohea at 2s. or 2s. 2d. per lb.; and at no manner of doubt that it would amount to 10 or 12,000,000 reduction of the duty on congou tea, also, be of the greatest im- and middle classes, and the it would give to consumers

and consequently, also, to the demand for sugar, which is indispensable to the use of tea, makes it all but certain, that in no very lengthened period the revenue would lose little by the change.

'We admit, however, that a reduction of the duty to 1s. per lb. would occasion at the outset a very considerable loss of revenue, amounting to, perhaps, from 1,000,000*l.* to 1,500,000*l.* a year. But this loss might be advantageously compensated by adding 1/2 per cent. to the house-tax, and extending it to all houses under 10*l.* a year. A measure of this sort, besides being just and proper in itself, would be in accordance with the precedent set by Mr. Pitt in 1781. And while it would be advantageous to the trade of the country, the occupiers of houses would gain more by the fall in the price of teas than they would lose by the imposition and increase of the house-tax. A duty of 1 per cent. on a house of 10*l.* a year would only amount to 8s. And supposing the duty on black teas to be reduced to 1s. per lb., a fall of 1s. 2 1/2d. per lb. would be effected in the price; so that, supposing the consumption of tea by families occupying 10*l.* houses to amount, at an average, to only 10 lbs. a year, they would save 3s. 10 1/2d. a year, or nearly half their house-tax, by the commutation.

'Taking the price of bohea and low congou in bond in London at 1s. per lb. (and it is usually less), the duty of 2s. 2 1/2d., with which they are at present charged, is equivalent to an ad valorem one of considerably more than two hundred per cent.; whereas, taking the price of the hyson and other superior teas consumed by the rich at from 3s. to 4s. per lb., the duty on them does not exceed from about 50 to 67 per cent. ad valorem, that is, it does not amount to more than 1/3 to 1/2 part of the duty laid on the teas consumed by the poor. Surely, however, this is neither an age nor a country in which an anomaly of this sort can be safely maintained. The public necessities require that the tea, sugar, and other necessaries of the poor should be taxed; but the obvious principles of justice, also, require that the duties on them should be, if not lower, at all events no higher than those laid on the necessaries or luxuries of the rich. The existing tea duties contradict this plain principle, and are at once unjust and exorbitant. The duty on bohea and the lower congous should not, in fact, exceed 6*l.* or 8*l.* per lb., and means may be found, in the commutation we have ventured to suggest, of reducing it to that amount.

'It has been supposed that such an effectual reduction of the duties on tea would greatly increase our trade with China. But others doubt whether such would be the case, so far, at least, as regards our exports, and we are inclined to agree with them. The demand of the Chinese for opium far exceeds their demand for any other foreign product; and it is at present, and has long been, the most advantageous article of export to China. The presumption, consequently, is, that were increased quantities of tea sent from China, it would lead rather to an increase of the imports of opium than of the cottons or hardware of England; or it might, perhaps, check or lessen the heavy drain for bullion that is now operating on China. But though it might not increase our exports to China, it would not fail to make a corresponding addition to those to India, which furnishes the opium sent to China. Every increase of imports is sure to occasion, directly or indirectly, an equal increase of exports. But whatever may be its immediate or remote influence on the trade with the east, a reduction of the duty on tea is required by other and more pressing considerations,

by a regard to the well-being of our own people, and to those principles of equal and impartial justice with which the duty we have suggested is in perfect harmony, and to which the present duty on tea is in direct contradiction.' (*Treatise on Taxation*, 2nd ed. p. 318.)

The plan we ventured to suggest for a commutation of the duty was not adopted, but its effectual reduction was then determined on and eventually carried out. All parties appear to have become satisfied that the former duty could no longer be maintained. Its reduction formed a prominent feature in the Budget proposed by Mr. Disraeli; and after the rejection of the latter, it formed an equally prominent feature in the Budget introduced by Mr. Gladstone, and was afterwards passed into a law; the duty being regulated as follows, viz.:—

To April 5, 1854	From April 5, 1854, to April 5, 1857	From April 5, 1857, to April 5, 1859	From and after April 5, 1859
1 <i>l.</i> 10 <i>d.</i> per lb.	1 <i>l.</i> 6 <i>d.</i> per lb.	1 <i>l.</i> 5 <i>d.</i> per lb.	1 <i>l.</i> 0 <i>d.</i> per lb.

But among its other mischievous effects, the war with Russia made it necessary, not merely to suspend this arrangement, but to raise the duties to 1s. 3*d.* per lb., at which rate they continued till April 6, 1857, when they were reduced to 1s. 5*d.*

This rate of duty was continued until Mr. Gladstone, in April 1863, as one of the principal features of his Budget, carried the reduction to 1s. per lb., which, two years afterwards, in June 1865, he further supplemented by decreasing it to 6*d.* per lb., at which point it now stands.

We beg to subjoin an estimate, which we have submitted to the highest mercantile authorities, showing in detail the different items which enter into the price of tea, and its cost to the public.

*Estimate of the Cost to the Public of the Tea retained for Home Consumption in the United Kingdom, supposing it to amount to 114,700,000 lb.*

Cost of tea free on board in China, all charges inclusive,	£
114,700,000 lb. at 1 <i>l.</i> per lb.	5,735,000
Freight at 1 <i>d.</i> per ton, measuring 50 cubic ft., and averaging about 1,000 lbs. of tea to the ton	13,000
Loading charges and dock rates	201,000
Marine insurance and in-land charges, 3 per cent.	172,000
Interest for 6 months on the price of tea in China	113,000
Cost of tea in England	6,720,000
Duty	2,200,000
Outlay, and profits of wholesale and retail dealers &c.	1,800,000
Making the average cost to the consumer very near 2 <i>l.</i> 10 <i>d.</i> per lb.	11,758,750

We believe that this estimate comes as near the mark as it is possible to do in such enquiries. It sets the oppressiveness of the late duty in a striking point of view. It may be supposed, perhaps, that we have overrated the profits of the dealers; but we do not admit that such is the case. There are above 177,000 retail dealers in tea, and taking their profits at 10*l.* each at an average, they would exceed 1,770,000*l.* It should, also, be borne in mind that the profits made by the retail of tea are to be regarded as including the greater part of those made by the retail of sugar, which is sold almost at its cost price. Indeed, very many grocers will not supply customers with sugar unless they also supply them with tea.

The following statements in regard to the deliveries &c. and prices of tea, are derived from the valuable circular of Messrs. Percival & Co., 10 Philpot Lane, 1865-1867.

The annexed table shows the sources whence we derived our supplies of tea in 1867.

*Capacity of China to furnish additional Supplies of Tea.*—It had been sometimes contended, that should the duties on tea be materially reduced,

Imports and Deliveries of Tea in the United Kingdom in 1866 and 1867, with the Stocks on December 31 in each Year.

Description of Tea	Import		Delivery		Stock	
	1866	1867	1866	1867	1866	1867
	lb.	lb.	lb.	lb.	do.	do.
Bulch	2,400	17,000	6,000	2,000	30	30
Canton	105,037,000	89,027,000	99,155,000	107,822,000	57,172,000	57,172,000
Caper	-	5,000	20,000	7,000	-	31,000
Scented paper	1,000,000	5,000,000	4,500,000	4,110,000	2,010,000	1,700,000
Pan-bang	12,000	18,000	70,000	28,000	70,000	60,000
Ning Yung and Dolong	4,550,000	5,650,000	5,150,000	4,750,000	4,200,000	5,200,000
Son-hong	-	-	-	-	-	-
Pekoe (black leaf) and H. Muey	382,000	370,000	611,000	617,000	978,000	751,000
Pekoe flowery	-	-	-	-	-	-
Orange pekoe	-	-	-	-	-	-
Scented long pekoe	6,100,000	5,020,000	4,098,000	5,737,000	7,052,000	7,750,000
Twankey	551,000	553,000	621,000	600,000	350,000	300,000
Hyson skin	52,000	24,000	64,000	41,000	114,000	90,000
Hyson	1,836,000	1,110,000	1,803,000	1,290,000	1,348,000	860,000
Young hyson	4,175,000	5,129,000	4,111,000	3,799,000	1,985,000	2,500,000
Imperial	1,110,000	1,300,000	1,300,000	1,220,000	400,000	400,000
Gunpowder	5,990,000	4,545,000	4,667,000	4,200,000	1,200,000	1,300,000
Sorts	-	-	-	-	-	-
Assam and Japan	6,950,000	8,100,000	5,918,000	7,320,000	2,811,000	3,500,000
Island navigation	-	-	-	-	-	-
Total	159,000,000	171,500,000	153,000,000	145,000,000	9,000,000	76,700,000
Black	17,168,000	11,912,000	12,101,000	13,285,000	89,402,000	71,010,000
Green	11,832,000	14,820,000	14,999,000	12,715,000	5,998,000	5,710,000
	1866		1867		1866	
	lb.		lb.		lb.	
Total delivered	-	-	137,875,000	-	116,397,000	-
Exported	-	-	39,399,000	-	37,080,000	-
Home Consumption	-	-	107,511,000	-	114,742,000	-

Tea imported into United Kingdom in 1865	Total Imports	Entered for Consumption	Total Value	Average Prices	Gross Duties paid and per lb.
	lb.	lb.	£	per lb.	£
From Hamburg	57,575	56,122	4,505	1 6 1/2	0 11
Holland	402,255	479,035	71,900	1 7	1 5/8
France	409,001	307,237	37,550	1 5 1/2	0 10 1/2
Egypt	188,777	115,777	12,406	1 0 1/2	2 1/2
China	150,865,500	96,697,288	10,115,488	1 5 1/2	2 1/2
Japan	1,308,800	200,000	152,979	1 4 1/2	8 1/2
United States:-					
North Atlantic Ports	256,104	161,207	17,537	1 3	4 1/2
South Atlantic Ports	901	503	68	1 6	1 1/2
Ports on the Pacific	208	308	16	1 0	1 1/2
British India:-					
Bombay and Scinde	49,604	665	50	1 6 1/2	1 1/2
Malacca	650	-	-	-	-
Bengal and Pegu	5,563,529	3,290,093	521,107	1 11 1/2	9 1/2
Other parts	89,011	118,611	7,001	1 6 1/2	3 1/2
Total	159,610,011	102,521,887	11,008,000	-	2 1/2

Prices Current of Teas in London, on December 31, 1865, 1866, 1867, and 1868.

	1865		1866		1867		1868	
	s.	d.	s.	d.	s.	d.	s.	d.
Congou, ordinary affines	0 8	10 1/2	0 7	10 1/8	0 5 1/2	0 6 1/2	0 8 1/2	10 1/2
good ordinary to but middling, broken	0 11	1 0 1/2	0 11	1 0 1/2	0 9 1/2	0 11	0 11 1/2	1 1
but middling rather coarse to rather strong	1 0 1/2	1 1	1 0	1 1	1 0	1 1	1 1	1 1
but middling blackish leaf, 2nd cl., Ho How and Ning Chow, and red leaf	1 1 1/2	1 3	0 11	1 1	0 11 1/2	1 1	1 1 1/2	1 2
but middling blackish leaf, Sanchukye kind	1 4	1 5	1 1 1/2	1 5	1 2	1 4	1 2 1/2	1 4
but middling to middling, Pekoe Sanchong, and Kaisow	1 5	1 8	1 1	1 8	1 5	1 9	1 4 1/2	1 9
but middling to middling blackish leaf pekoe flavour, Mouing, fine to finest Mouing, Dupack, and Kaisow	1 11	2 6	1 2	2 6	1 2	2 6	1 1	2 4
Ning Yung and Dolong, fair to fine	0 10	2 8	0 8	1 0	1 1	2 6	1 1	2 6
Sanchong, ordinary	1 0	1 5	1 8	2 0	1 7	2 0	1 7	1 11
Fair to good	1 6	1 8	2 2	2 4	2 2	2 8	2 1	2 5
fine to finest	1 9	2 10	1 2	2 0	1 2	2 8	1 8	2 7
Flowery pekoe, fair to good	0	2 0	2 6	5 0	2 6	2 9	1 0	notation
fine to very fine and flowery	2 2	5 6	0 10	2 4	1 0	2 6	0 0	2 5
Orange Pekoe, scented, common in 10 catty boxes	0 10	2 4	1 2	1 6	1 0	1 6	0 11 1/2	1 5
fair to fine ditto	1 0	1 4	1 7	2 0	1 7	2 6	1 3	2 2
Twankey, common	1 0	1 0	0 8	0 10 1/2	0 10 1/2	1 0	1 0	1 1
Fair to Hyson kind	1 0 1/2	1 1	0 8	0 9	0 10	1 1	1 1 1/2	1 1 1/2
Hyson skin, common to fair	0 7 1/2	1 0	1 0	1 2	1 3	1 6	1 1 1/2	1 6 1/2
Hyson, ordinary to common	1 1	1 6	1 5	2 0	1 9	2 3	1 1	2 1 1/2
fair	1 8	2 2	2 0	2 4	2 4	3 0	2 9	3 1
good to finest	2 4	2 10	2 6	3 0	3 5	4 6	3 5	4 6
fine to superfine	2 11	3 6	1 2	3 4	0 11	3 0	1 1	2 1 1/2
Young hyson, common to finest	1 1	5 1	1 2	2 0	1 1	2 0	1 2	1 9
Imperial, common to fair	0 10	1 6	2 1	2 8	2 1	2 9	1 10	2 6
fine to finest	1 7	2 8	1 6	2 8	1 5	2 1	1 5	2 5
Gunpowder	1 4	2 4	2 2	3 8	2 2	2 4	2 4	3 5
fine to finest	2 5	4 0	1 2	4 0	1 2	4 0	1 2	3 6
Assam tea	1 3	4 2	1 2	4 0	1 2	4 0	1 2	3 6

7, with the Stocks on

	1866	1867
1000	18,000	18,000
2000	36,000	36,000
3000	54,000	54,000
4000	72,000	72,000
5000	90,000	90,000
6000	108,000	108,000
7000	126,000	126,000
8000	144,000	144,000
9000	162,000	162,000
10000	180,000	180,000
11000	198,000	198,000
12000	216,000	216,000
13000	234,000	234,000
14000	252,000	252,000
15000	270,000	270,000
16000	288,000	288,000
17000	306,000	306,000
18000	324,000	324,000
19000	342,000	342,000
20000	360,000	360,000
21000	378,000	378,000
22000	396,000	396,000
23000	414,000	414,000
24000	432,000	432,000
25000	450,000	450,000
26000	468,000	468,000
27000	486,000	486,000
28000	504,000	504,000
29000	522,000	522,000
30000	540,000	540,000

	Average Prices		Gross Duties levied on each lb.
	per lb.	per 100 lbs.	
35	1 0 3	1 0 3	1 0 3
40	1 0 6	1 0 6	1 0 6
45	1 0 9	1 0 9	1 0 9
50	1 1 2	1 1 2	1 1 2
55	1 1 5	1 1 5	1 1 5
60	1 1 8	1 1 8	1 1 8
65	1 2 1	1 2 1	1 2 1
70	1 2 4	1 2 4	1 2 4
75	1 2 7	1 2 7	1 2 7
80	1 3 0	1 3 0	1 3 0
85	1 3 3	1 3 3	1 3 3
90	1 3 6	1 3 6	1 3 6
95	1 3 9	1 3 9	1 3 9
100	1 4 2	1 4 2	1 4 2
105	1 4 5	1 4 5	1 4 5
110	1 4 8	1 4 8	1 4 8
115	1 5 1	1 5 1	1 5 1
120	1 5 4	1 5 4	1 5 4
125	1 5 7	1 5 7	1 5 7
130	1 6 0	1 6 0	1 6 0
135	1 6 3	1 6 3	1 6 3
140	1 6 6	1 6 6	1 6 6
145	1 6 9	1 6 9	1 6 9
150	1 7 2	1 7 2	1 7 2
155	1 7 5	1 7 5	1 7 5
160	1 7 8	1 7 8	1 7 8
165	1 8 1	1 8 1	1 8 1
170	1 8 4	1 8 4	1 8 4
175	1 8 7	1 8 7	1 8 7
180	1 9 0	1 9 0	1 9 0
185	1 9 3	1 9 3	1 9 3
190	1 9 6	1 9 6	1 9 6
195	1 9 9	1 9 9	1 9 9
200	2 0 2	2 0 2	2 0 2

5, 1866, 1867, and 1868.

1867		1868	
a.	d.	a.	d.
0	0	0	0
1	0	1	0
2	0	2	0
3	0	3	0
4	0	4	0
5	0	5	0
6	0	6	0
7	0	7	0
8	0	8	0
9	0	9	0
10	1	10	1
11	1	11	1
12	1	12	1
13	1	13	1
14	1	14	1
15	1	15	1
16	1	16	1
17	1	17	1
18	1	18	1
19	1	19	1
20	2	20	2
21	2	21	2
22	2	22	2
23	2	23	2
24	2	24	2
25	2	25	2
26	2	26	2
27	2	27	2
28	2	28	2
29	2	29	2
30	3	30	3
31	3	31	3
32	3	32	3
33	3	33	3
34	3	34	3
35	3	35	3
36	3	36	3
37	3	37	3
38	3	38	3
39	3	39	3
40	4	40	4
41	4	41	4
42	4	42	4
43	4	43	4
44	4	44	4
45	4	45	4
46	4	46	4
47	4	47	4
48	4	48	4
49	4	49	4
50	5	50	5
51	5	51	5
52	5	52	5
53	5	53	5
54	5	54	5
55	5	55	5
56	5	56	5
57	5	57	5
58	5	58	5
59	5	59	5
60	6	60	6
61	6	61	6
62	6	62	6
63	6	63	6
64	6	64	6
65	6	65	6
66	6	66	6
67	6	67	6
68	6	68	6
69	6	69	6
70	7	70	7
71	7	71	7
72	7	72	7
73	7	73	7
74	7	74	7
75	7	75	7
76	7	76	7
77	7	77	7
78	7	78	7
79	7	79	7
80	8	80	8
81	8	81	8
82	8	82	8
83	8	83	8
84	8	84	8
85	8	85	8
86	8	86	8
87	8	87	8
88	8	88	8
89	8	89	8
90	9	90	9
91	9	91	9
92	9	92	9
93	9	93	9
94	9	94	9
95	9	95	9
96	9	96	9
97	9	97	9
98	9	98	9
99	9	99	9
100	10	100	10

the increased demand of this country could not be supplied, and that the reduction of the duty would not really benefit the British consumer, but the Chinese. Our readers will hardly expect that we should enter at any length into the refutation of so absurd a notion. At the commencement of last century the entire annual consumption of tea in this country, the Continent, and America, did not certainly amount to 500,000 lb.; whereas the consumption of Great Britain, the Continent, the United States, and Australia, amounts at present (1867) to about 160,000,000 or 170,000,000 lb.; and yet every one acquainted with the history of the trade is aware that, though the consumption has increased more than three hundred and forty times, the prices in all open markets have, with few exceptions, been regularly declining. We may, therefore, rest quite easy upon this point. The production of tea is rapidly extending in China, and its vast extent, its capacities for raising unlimited quantities of tea, and the extent to which it is there used, negative the idea that any conceivable increase of the consumption of this country should have any perceptible or permanent influence on its cost price. But at the same time, occurrences of rebellion or extensive commotions in the country may for a while interrupt the usual supply, and occasion a temporary rise of price. The export of Assam tea from India to Great Britain has, within the last five years, doubled, and is still apparently on the increase, the greatest attention being now paid to the cultivation of the plant.

*The Quantities of Tea exported by Sea from China in ordinary Years may (1868) be estimated as follows, viz:—*

	lb.
United Kingdom	123,000,000
America	22,000,000
Australia	12,000,000
Holland	3,000,000
India	1,000,000
Other places	5,000,000
Total	166,000,000

The exports of tea to Russia by land amount to 11,000,000 or 15,000,000 lb. a-year.

**Retail Dealers in Tea.**—Retailers in tea are obliged to take out a license, which costs 11s. 6d. a-year to those rated at 8l. or upwards, and 2s. 6d. to those rated under 8l. In 1868 their numbers were, for the United Kingdom, 104,798 of the first, and 72,351 of the second, but the Chancellor of the Exchequer (Mr. Lowe) proposes to abolish the license tax in the course of this year, 1869.

**Adulteration of Tea.**—It might have been fairly enough anticipated, from the high price of, and the high duty on tea, and the facility with which it may be mixed up with foreign substances, that it would not escape adulteration; and the records of the courts of justice show that such is the case, several dealers having been convicted of this pernicious practice. The adulteration is usually effected either by the intermixture of sloe or ash leaves with fresh teas, or by mixing the latter with tea that has been already used. The penalties on such offenses are stated below; but the best, or rather the only, security on which any reliance can be placed, is to be found in the character and respectability of the parties dealing in tea. Even were he influenced by nothing else, it would be extreme folly in any person carrying on an extensive business to engage in such dishonest practices; for they can hardly fail of being detected; and the ruin of his business, that would follow such exposure, would be more than balance whatever gains he could hope to make by his fraudulent schemes.

**Penalties on Adulteration.**—If any dealer in or seller of tea dye or fabricate any sloe or other

leaves in imitation of tea, or mix or colour leaves of tea with terra Japonica or other ingredient, or vend or expose to sale, or have in possession the same, he shall forfeit, for every pound of such adulteration, 10l. (1 Geo. II. c. 11 s. 11.)

Every person, whether a dealer in or seller of tea, or not, who shall dye or fabricate any sloe leaves, liquorice leaves, or the leaves of tea that have been used, or the leaves of the ash, elder, or other tree, shrub, or plant, in imitation of tea, or who shall mix or colour such leaves with terra Japonica, copperas, sugar, molasses, clay, logwood, or other ingredient, or who shall sell or expose to sale, or have in custody, any such adulteration in imitation of tea, shall for every pound forfeit, on conviction, by the oath of 1 witness, before a justice, 5l.; or on non-payment, be committed to the house of correction for not more than 12 nor less than 6 months. (17 Geo. III. c. 29 s. 1.)

Any person having in possession any quantity exceeding 6 pounds of sloe, ash, or elder leaves, or the leaves of any other tree, plant, or shrub, green or manufactured, and shall not prove to the satisfaction of the justice hearing the matter that the same were gathered with the consent of the owner of the trees &c., and that they were gathered for some other purpose than that of being fabricated in imitation of tea, shall forfeit 5l. for every pound in his possession, or, on non-payment, be committed to prison. (Sec. 2.)

If an officer of excise, or other person, make oath that he suspects herbs dyed, or otherwise prepared in imitation of tea, are hid or lodged in any place, a justice may issue a warrant for seizing the same by day or night (in the night in presence of a constable), together with all waggons, tubs, and packages in which they may be contained; the herbs may be directed to be burnt, and the waggons &c. sold, and after deducting expenses, the proceeds to be shared, half to informer, and half to poor of the parish. Obstructing such seizure subjects the offender to a penalty of 50l. or not less than 6 nor more than 12 months' imprisonment. (Sec. 3.)

Herbs not to be burnt, if owner can prove, within 24 hours, that they were gathered with consent of proprietor of trees, plants, or shrubs, and that they were not intended to be fabricated in imitation of tea. (Sec. 4.)

Occupier of premises where herbs are found, liable to the penalties, unless he can prove they were lodged without his consent. (Sec. 5.)

**Consumption of Tea on the Continent and in the United States.**—Of the Continental states, Russia and Holland are the only ones in which the consumption of tea is considerable. In 1865 the imports of tea into European Russia, ex Finland, amounted to 365,339 pounds. The consumption of tea in Holland amounted in 1865 to 5,500,000 lb. The consumption of France does not exceed 700,000 lb. The importations into Hamburg vary between 3,000,000 and 3,500,000 lb., the greater part of which is forwarded to the interior of Germany.

The consumption of the United States amounts to from 35,000,000 to 40,000,000 lb. a-year. Duties on tea used to form one of the largest items of American revenue, having in some years produced 650,000l. Their magnitude, however, was justly complained of; and it is probably owing to this circumstance that, while the consumption of tea was for several years pretty stationary in the United States, that of coffee increased with even greater rapidity than in England. The flourishing state of the revenue for a number of years having admitted of a very great reduction of duties, those on tea were for a time wholly re-

pealed. As was to be expected, the consumption, while duty free, rapidly increased. The duty under the present United States tariff is 25 cents per lb.

**TEAK WOOD or INDIAN OAK.** The produce of the *Tectona grandis*, a large forest tree, that grows in dry and elevated districts in the south of India, the Burman empire, Pegu, Ava, Siam, Java, the Straits Settlements &c.

Teak timber is by far the best in the East; it works easily, and, though porous, is strong and durable; it is easily seasoned, and shrinks very little; it is of an oily nature, and, therefore, does not injure iron. Mr. Crawford says, that in comparing teak and oak together, the useful qualities of the former will be found to preponderate. 'It is equally strong, and somewhat more buoyant. Its durability is more uniform and decided; and to insure that durability it demands less care and preparation; for it may be put in use almost green from the forest, without danger of dry or wet rot. It is fit to endure all climates and alterations of climate.' (Tredgold's *Principles of Carpentry*, p. 206; Crawford's *East Archip.*, vol. 1, p. 431; Rees's *Cyclopaedia* &c.)

The teak of Malabar, produced on the high table land of the south of India, is deemed the best of any. It is the closest in its fibre, and contains the largest quantity of oil, being at once the heaviest and the most durable. This species of teak is used for the keel, timbers, and such parts of a ship as are under water; owing to its great weight, it is less suitable for the upper works, and is not at all fit for spars. The teak of Java ranks next to that of Malabar, and is especially suitable for planking. The Rangoon or Burmah teak, and that of Siam, are not so close grained or durable as the others. They are, however, the most buoyant, and are, therefore, best fitted for masts and spars. Malabar teak is extensively used in the building yards of Bombay. Ships built wholly of it are almost indestructible by ordinary wear and tear; and instances are not rare of their having lasted from 80 to 100 years; they are said to sail indifferently; but this is probably owing as much to some defect in their construction as to the weight of the timber. Calcutta ships are never wholly built of teak; the timbers and framework are always of native wood, and the planking and deck only of teak. The teak of Burma, being conveyed with comparatively little difficulty to the ports of Rangoon and Maulmain, is the cheapest and most abundant of any, and it is mainly owing to the facility with which supplies of it are obtained that ship-building is now carried on so very extensively at Maulmain. It is largely exported to Calcutta and Madras. [RANGOON.] (*Private information.*)

In 1866 we imported, chiefly from Singapore and the Straits Settlements, 35,724 loads of teak, valued at 342,101.

A species of timber called African teak is exported from the west coast of Africa. But, in point of fact, it is not teak, and it is destitute of several of its most valuable properties. It is, however, for some purposes, a useful species of timber.

**TEASEL or FULLERS' THISTLE** (Ger. weberdistel, kratzdistel; Fr. chardon à carder; Ital. cardo da cardare; Span. cardencha, cardo peinador). This plant, which is cultivated in the north and west of England, is an article of considerable importance to clothiers, who employ the crooked awns of the heads for raising the nap on woollen cloths; for this purpose they are fixed round the periphery of a large broad wheel, against which the cloth is held while the machine is turned. In

choosing teasels, the preference should be given to those with the largest bur, and most pointed, which are generally called *male teasels*. They are mostly used in preparing and dressing stockings and coverlets; the smaller kind, commonly called the fullers' or drapers', and sometimes the *female teasels*, are used in the preparation of the finer stuffs, as cloths, ratons &c.

**TEETH, ELEPHANTS'.** [IVORY.]

**TELEGRAPH** (the term is derived from the Greek *τῆλε* and *γράφω*). An instrument to write at a distance. The use of telegraphs, or of some mode of communication by signals or signs, is of very ancient date (Rollin's *Ancient History*, book xviii. sec. 6), but commerce derived comparatively little direct advantage from them till the modern application of electro-magnetism to telegraphic purposes. Any scientific description of the principle and action of the electro-magnetic telegraph, even if appropriate, as it is not, to a work like this, would be unintelligible to most readers were it not accompanied by diagrams or other illustrations. We would therefore refer for this information, in succinct form and moderate compass, to Brande and Cox's *Dictionary of Science and Art*; or, for a more elaborate dissertation on the subject, to the last edition of the *Encyclopaedia Britannica*, the article in which embodies very full descriptions of some of Sir Charles Wheatstone's inventions, and much other interesting matter.

Suffice it here to say, that we can not only send messages in an incredibly short time to the uttermost parts of Europe, but also to America by the Atlantic cable, and to India &c. And doubtless we shall soon be enabled to communicate in this expeditious way with every civilised portion of the globe. A good operator can send 2,000 words per hour.

The introduction of this modern telegraph followed so closely on that of railways, and has been so intimately associated with them, that their direction in this country has not been of that perfectly independent character that the extent and importance of this sort of communication, especially in commercial and political matters, would seem to demand. The Legislature having taken this view of the matter last year (1868), passed an Act (31 & 32 Vict. c. 110), empowering the Government to acquire and maintain the various telegraphs in the United Kingdom, and to work them through the medium of the Post Office. Probably the arrangements for the purchase of the whole will be effected in the course of this year (1869), and the issue of fresh regulations and tables of rates may be looked for ere long.

Already, under EAST INDIES, the scale of charges for messages by the Indian telegraph has been given; but as changes in those at home are immediately in prospect, it would be superfluous to state in detail the present tariffs of the various telegraph companies.

In demonstrating the advantages of a low scale of charges, Mr. Cyrus Field has informed us, that under the 25*l.* tariff the receipts of the Atlantic Telegraph Company were 505*l.* per day, while they were 579*l.* under a 10*l.* rate, and 630*l.* under the 5 guinea tariff. In an extract from the *New York Tribune*, given by the *Times* of October 18, 1868, the number of miles of telegraph lines worked in the United States is stated to have been about 12,000 in 1848, 40,000 in 1858, and 120,000 in 1868.

In 1867 we exported telegraph wire and apparatus (chiefly to Norway, Cuba, India, and Newfoundland) of the aggregate value of 210,000*l.*

**THREAD** (Ger. zwirn; Dutch, gareen; Fr. fil; Ital. filo, refe; Span. hilo, torzal; Russ. nitki). A



importance that a great commercial and manufacturing nation like England should be abundantly supplied on the lowest terms, that article is timber. Owing to the deficiency of our home supplies, most part of the timber, with the exception of oak, required for building ships and houses, and most part, also, of that employed in the construction of machinery, is imported from abroad. Any individual acquainted with the purposes to which timber is applied, but ignorant of our peculiar policy with respect to it, would never, certainly, imagine that such an article could have been made the subject of oppressive duties, and of still more oppressive preferences. Timber is not to be looked at in the same light as most other commodities. It is against all principle to impose heavy duties on materials intended to be subsequently manufactured; but timber is the raw material of the most important of all manufactures—that of the instruments of production. Suppose it were proposed to lay a heavy duty on ships, waggons, looms, or workshops when completed; would not such a proposal be universally scouted? And yet this is what was really done. The finished articles were not, indeed, directly taxed; but the principal material of which they were made, and without which they could not be constructed, was burdened with an exorbitant duty. To dwell on the impolicy of such a tax would be worse than useless. Of all things essential to the prosperity of manufacturing industry, improved and cheap machinery is the most indispensable. Most individuals amongst us were ready enough to ridicule the contradictory conduct of the French Government, who, at the very moment that they were endeavouring to bolster up a manufacturing interest, laid enormous duties on foreign iron, and thus doubled or trebled the price of some of the most important manufacturing implements. Timber is, however, of quite as much importance in this respect as iron; and our conduct in having burdened it with exorbitant duties partook as largely of the *fish-de-se* character as that of our neighbours. Indeed, as will be immediately seen, it was perhaps less defensible. Some plausible, and probably conclusive, reasonings may be urged in defence of moderate duties on iron and timber, when they are imposed for the sake of revenue; but this apology for financial rapacity cannot be set up in defence of the iron duties of France or the late timber duties of England. The former, however, were the least objectionable; they were imposed to encourage the production of iron in France; whereas the duties on timber in England were imposed for the sake, principally, of promoting the lumber trade of Canada, and of forcing the employment of a few thousand additional tons of shipping. We did not sacrifice the goose for the sake of the golden eggs, but for the sake of the oil she had picked up.

2. *Origin and Operation of the discriminating Duty in favour of American Timber.*—The practice of encouraging the importation of the timber of Canada and our other possessions in North America in preference to that of foreign countries is but of recent growth. It took its rise during the administration of Mr. Vansittart, and bore in every part the impress of his favourite policy. The events that took place in 1808 having seriously affected our previous relations with the Baltic Powers, a deficiency in the accustomed supply of timber began to be apprehended; and the ship-owners and Canada merchants naturally enough availed themselves of this circumstance to excite the fears of the ministry, and to induce them to change the fair and liberal system on

which the trade in timber had been conducted down to that time, by granting extraordinary encouragement to its importation from Canada. Even as a temporary expedient, applicable to a peculiar emergency, the policy of giving any such encouragement is extremely doubtful. Supposing timber not to have been any longer obtainable from the north of Europe, its price would have risen, and it would, of course, have been imported from Canada, the United States, or wherever it could be had, without any interference on the part of Government. But, in 1809, a large addition was made to the duties previously charged on timber from the north of Europe, at the same time that those previously charged on timber from Canada and our other possessions in America were almost entirely repealed; and in the very next year (1810) the duties thus imposed on Baltic timber were *doubled*. Nor did the increase of duties on such timber stop even here. In 1814, after Napoleon's disastrous campaign in Russia, and when the free navigation of the Baltic had been restored, 25 per cent. was added to the duties on European timber. The expediency of increasing the revenue was, no doubt, pleaded in justification of this measure; but we believe it was really intended to augment the preference in favour of Canada timber; for how could it be supposed that an increase of the duties on an article imported from a particular quarter of the world, that was already taxed up to the very highest point, could add any thing considerable to the revenue, when a convertible article might be imported from another quarter duty free? The various duties laid on European timber amounted, when consolidated by the Act 59 Geo. III. c. 52, to 3*l.* 5*s.* per load.

Admitting, for the moment, that the peculiar and unprecedented aspect of things in 1808 and 1809 warranted the giving of some preference to the importation of timber from Canada, such preference should plainly have ceased in 1813. So long as the communication with the bridge is interrupted, we may be forced to use a boat to cross the river; but when the communication is again opened, and when there is not the remotest chance of its future interruption, it would be a singular absurdity to refuse to resume the use of the bridge, and to continue the costly and inconvenient practice of being ferried over. This, however, is exactly what we did in the case of the Canada trade. Because a fortuitous combination of circumstances obliged us, upon one occasion, to import inferior timber at a comparatively high price, we resolved to continue the practice. The history of commerce affords few such displays of gratuitous folly.

The absurdity of this conduct will appear still more striking if we reflect for a moment on the peculiar situation of the countries in the north of Europe. The nations round the Baltic have made little progress in manufacturing industry. They abound in valuable raw products; but they are wholly destitute of the finer species of manufactured commodities, and of colonies. Nor have they any real inducement to attempt supplying themselves directly with the former, or to establish the latter. Their iron and copper mines, their vast forests, and their immense tracts of fertile and hitherto unoccupied land, afford far more ready and advantageous investments for their deficient capital than could be found in manufactures or foreign trade. Russia and Prussia were, indeed, tempted, by our corn and timber laws, to exclude some species of manufactured goods; but it is not possible that they should succeed in materially limiting our exports to

timber had been conducted by granting extraordinary importation from Canada, a policy of giving any is extremely doubtful. Suppose have been any longer obtain of Europe, its price would world, of course, have been and, the United States, or had, without any interference. But, in 1809, a large the duties previously charged north of Europe, at the same sionally charged on timber from possessions in America were cealed; and in the very next ities thus imposed on Baltic her. Nor did the increase of ber stop even here. In 1811, disastrous campaign in Russia, navigation of the Baltic had er cent, was added to the duties er. The expediency of issue was, no doubt, pleaded in s measure; but we believe it l to augment the preference in timber; for how could it be increase of the duties on an om a particular quarter of the already taxed up to the very ld add any thing considerable a convertible article might be other quarter duty free? Be- 1 on European timber amounted, 4 by the Act 59 Geo. III. c. 52.

the moment, that the peculiar aspect of things in 1808 and the giving of some preference of timber from Canada, certainly have ceased in 1813. No communication with the bridge is by forced to use a boat to cross when the communication is again there is not the remotest chance of resumption, it would be a singular to resume the use of the bridge, the costly and inconvenient practice over. This, however, it did in the case of the Canada a fortuitous combination of cir- ed us, upon one occasion, to timber at a comparatively high d to continue the practice. The ce affords few such displays of

of this conduct will appear still we reflect for a moment on the n of the countries in the north of sions round the Baltic have made a manufacturing industry. They able raw products; but they are of the finer species of manufac- ves, and of colonies. Nor have duccent to attempt supplying ir iron and copper mines, their their immense tracts of fertile noccupied land, afford far more ntageous investments for that l than could be found in man- eign trade. Russia and Prussia emptied, by our corn and timber e some species of manufactured is not possible that they should terially limiting our exports to

them, provided we do not second their efforts by refusing to admit their products.

Of all the countries in the world, there is obviously none which has so many facilities for carrying on an advantageous trade with the north as Great Britain. We have a surplus of all those products of which Russia, Prussia, Sweden, Denmark, and Norway stand most in need; and, on the other hand, they have a surplus of many of those of which we are comparatively destitute. The immense traffic we carry on with the Baltic does not, therefore, depend, in any considerable degree, on artificial or accidental circumstances. It does not rest on the wretched foundation of custom-house regulations or discriminating duties, but on the gratification of mutual wants and desires. It has been justly remarked by the Marquis Gärner, the excellent translator of the *Wealth of Nations*, that no considerable portion of the increased power and wealth of England may be traced to the growing opulence of Russia. But the Russian empire is yet only in the infancy of civilisation; she must continue for a very long period to advance in the career of improvement; and it will be our own fault if we do not reap still greater advantages from her progress.

Such is the nature of that commerce against which the discriminating duties on timber from the north of Europe aimed a severe blow. In 1809, when this system began, 428,000 tons of British shipping entered inwards from the Baltic. In 1811, the year after the 25 per cent. of additional duty had been imposed on Baltic timber, and when all the ports of that sea were open to our ships, only 212,900 tons of British shipping entered inwards, being little more than the half of what it amounted to when the system began. And notwithstanding the vast increase, in the interval, of population and wealth in the countries round the Baltic, our trade with the different ports on that sea had not recovered, in 1813, from the blows inflicted on it in 1809 and 1811. In 1812 only 295,135 tons of British shipping left the Baltic for the United Kingdom.

The following extract from the evidence of Mr. Edward Patzeker, a merchant of Memel, given before the committee of the House of Commons on the foreign trade of the country, in 1821, shows the effect that the increased duties on timber had on the commerce with Prussia:—

‘Has there been a great alteration in the timber trade between Memel and this country of late years?’—‘Since the war, a great alteration: before the war we used to have 950 to 1,000 English ships in a year, and since the war we have had from 200 to 300 only.’

‘When you talk of 900 ships, do you mean 900 ships trading between Great Britain and Memel?’—‘Yes.’

‘Do you mean that number of cargoes were loaded in the year for England?’—‘Yes.’

‘How many cargoes were loaded for Great Britain during the last year (1820)?’—‘About 250 or 280 cargoes; there have not been more.’

‘To what cause do you attribute that diminution in the trade?’—‘To the high duties in England; for formerly the duties were only 16s. and some pence; now they are 3l. 5s. in a British, and 2l. 8s. in a foreign ship.’

‘Has that diminished trade in timber produced a great alteration in the circumstances of the people of Prussia?’—‘Yes; for it is the only trade which we can carry on; wheat and all the rest of our articles cannot be brought here: timber is the only one that can be brought, and the trade from Poland has very much ceased in consequence of the diminished demand for it; the people cannot

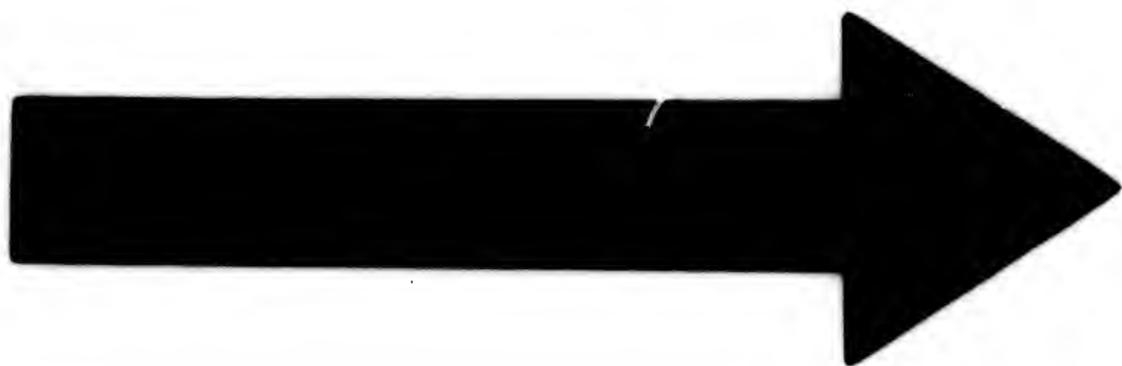
sell their goods, and we cannot take such quantities of timber as we used to do; and, therefore, they cannot take English goods from us.’

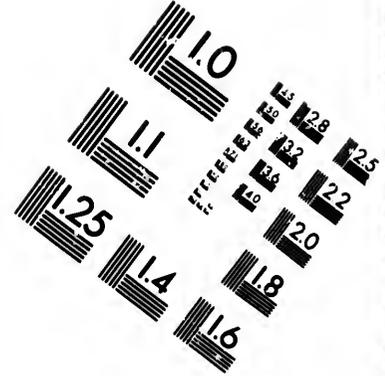
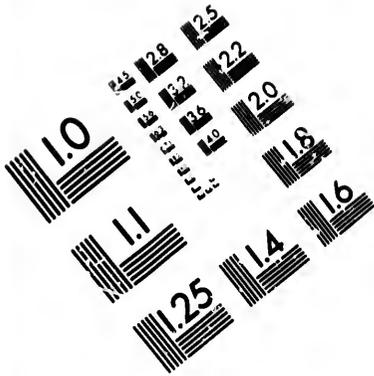
‘If such an alteration was to take place in the duties on timber in this country as to give the Prussians a larger share of the trade than they at present enjoy, do you think that would produce increased friendly feelings on the part of the people of your country to the people of this country?’—

‘It would. *They would certainly take far more goods from hence, as they could get better rid of them.* The Poles, also, would take more of them.’ (*Report*, March 9, 1821, p. 107.)

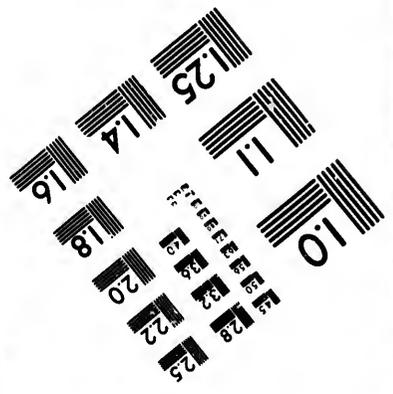
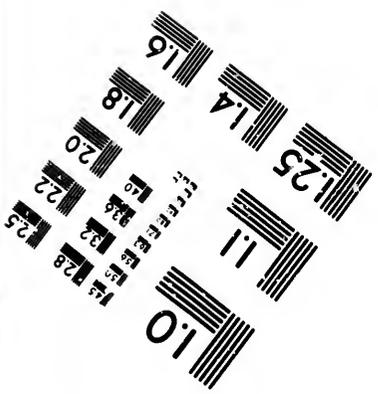
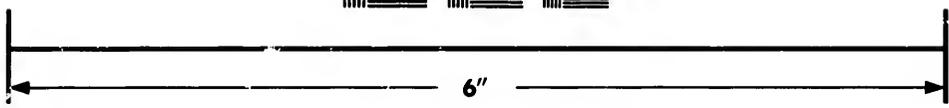
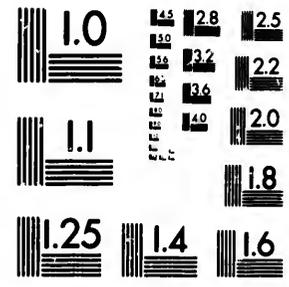
The effect that the increased duties had on the trade with Norway and Sweden, aggravated as they in some degree were by the method of charging the duty on deals, was still more striking and extraordinary. These countries had few products, except timber and iron, to exchange for our commodities; and as neither of these could be advantageously imported into England under the new system, the trade with them almost entirely ceased; and they were reluctantly compelled to resort to the markets of France and Holland for the articles they had formerly imported from us. In proof of this, we may mention that the exports to Sweden, which amounted in 1811 to 211,818*l.*, declined in 1819 to 46,556*l.*, and even in 1812 were only 199,313*l.*; while the exports to Norway, which had, in 1813, amounted to 199,902*l.*, fell in 1813 to 61,711*l.*, and in 1812 had only increased to 121,701*l.*

This extraordinary falling off in so very important a branch of our commerce having been established beyond all question by evidence taken before the committees of Lords and Commons on the foreign trade of the country in 1820, an approach to a better system was made in 1821, when the duty on timber from the north of Europe was reduced from 3*l.* 5*s.* to 2*l.* 6*s.* per load, at the same time that a duty of 10*s.* per load was laid on timber from British America. This, however, was a comparatively inefficient measure. It was stated, to be sure, at the time, that the 2*l.* 5*s.* per load of excess of duty that was thus continued on Baltic timber over that laid on timber imported from Canada was not more than enough to balance the higher prime cost, the greater freight, and other charges consequent upon the importation of the latter; and that it would, therefore, be in future indifferent to a merchant whether he imported timber from Memel or Miramichi. In point of fact, however, the discriminating duty continued in favour of Canada timber was far too high to allow of this equalisation being effected. So much was this the case, that there were instances of ships loading with timber in the north of Europe, carrying that timber to Canada, and then bringing it to England as Canada timber; the difference of duty having been about sufficient to indemnify the enormous expense of this round about voyage. We do not mean to say that this was a common practice; but what are we to think of a commercial regulation that admitted of such an adventure being undertaken with any prospect of success? Admitting, however, that the duty had been adjusted so as to have had the anticipated effect, could anything be more preposterous and absurd than to impose it on such a principle? There are mines of coal in New Holland; but what should we think, were an attempt made to impose such duties on coals from Newcastle as should render it indifferent to a London dealer whether he imported a cargo of coal from the Tyne or Botany Bay? Now, the case of the timber duties was, in point of principle, precisely the same. We may obtain timber from





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countries so near at hand that our ships may make 3, 4, 5, and even 6 voyages a-year to them. According to the evidence of Mr. J. D. Powles, then secretary to the London Dock Company, ships can make six voyages from Norway, 3 or 4 from Prussia, and 2 from Russia, in a season. (*Commons' Report*, p. 89.) And we refused to admit it unless loaded with a duty that raised its price to a level with what was brought from the other side of the Atlantic—a voyage which our ships cannot, at most, perform above twice a-year.

3. *Comparative Quality of Baltic and Canada Timber.*—Had the timber of Canada been, at the period we speak of, decidedly superior to that of the north of Europe, something might have been found to say in favour of the discriminating duty; for it might have been contended, with some show of reason, that it was of the utmost consequence, considering the application of timber to ship and house building, and other important purposes, to prevent the importation of an inferior species, even though it might be cheaper. But the system we adopted was of a totally different character. We did not attempt to shut out an article which, though cheap, was inferior; but committed the twofold absurdity of shutting out one that was at once cheap and at that time really, or supposed to be, superior.

The committee of the House of Lords observe, in their *First Report on the Foreign Trade of the Country*, that 'the North American timber is more soft, less durable, and every description of it more liable, though in different degrees, to the dry rot, than timber of the north of Europe. The red pine, however, which bears a small proportion to the other descriptions of timber, and the greater part of which, though imported from Canada, is the produce of the United States, is distinguished from the white pine by its greater durability. On the whole, it is stated by one of the commissioners of his Majesty's navy, most distinguished for practical knowledge, experience, and skill, that the timber of Canada, both oak and fir, does not possess, for the purpose of ship-building, more than half the durability of wood of the same description the produce of the north of Europe. The result of its application to other purposes of building is described by timber merchants and carpenters to be nearly similar' (p. 4).

Important evidence was given in support of this view; but though such was the opinion of the best informed parties at the time, and though its correctness is in some respects not to be doubted, still there can be no question that the inferiority of British North American timber was set in too strong a light in the evidence referred to, and that it is, in fact, better fitted for several important purposes than Baltic timber. Not only is the red American pine of a very superior quality, but the pine and spruce planks of New Brunswick and Nova Scotia, especially the latter, are universally preferred, for the purposes to which they are applied, to all other varieties of timber; and notwithstanding the reduction of the discriminating duty, and eventual abolition of all duties on timber, their importation, as will be seen, has increased beyond all precedent. These circumstances were not, however, known to the parties who introduced the discriminating system, which was at the time, and for long after, most injurious to the best interests of the United Kingdom.

4. *Apologies for the Discriminating Duty.*—If anything ought, more than another, to make legislators pause before enacting a restrictive regulation, it is the difficulty of receding from it. After it has been enforced for a while, a variety of interests usually grow up under its protection,

which may be materially injured by its repeal. All, however, that the persons so interested can justly claim, is, that sufficient time, and every possible facility, should be afforded them to prepare for a change of system. Because the interest of a comparatively small portion of the community may be injuriously affected by the abolition of a regulation ascertained to be inimical to the public, it is, therefore, to be contended that we should, in all hazards, continue to enforce the regulation we have so unwisely enacted? To maintain the affirmative would be to give perpetuity to the worst errors and absurdities, and would be an effectual bar to every sort of improvement. No change, even from a bad to a good system, should be rashly set about; but when once the expediency of an alteration has been clearly established, it ought to be resolutely carried into effect.

It was objected to the abolition of the discriminating duties on timber, that it would be injurious to Canada and the shipping interest. We believe, however, that the injury was not nearly so great as has been represented; that it was, in fact, quite inconsiderable. So far from the *lumber trade*—or the trade of felling wood, squaring it, and floating it down the rivers to the shipping ports—being advantageous to a colony, it is distinctly and completely the reverse. The habits which it generates are quite subversive of that sober, steady spirit of industry so essential to a settler in a rude country; to such a great degree, indeed, is this the case, that lumberers have been described as the pests of a colony, 'made and kept vicious by the very trade by which they live.' But, abstracting altogether from the circumstances now alluded to, it has been shown, over and over again, that the abolition of the lumber trade would materially benefit the real interests of the colonies. It is ludicrous, indeed, seeing that not one tree in a hundred is fit for the purposes of being squared for timber, to suppose that the discontinuance of the trade could be any serious loss. But the fact is, that when trees are cut down by lumberers, for export as timber, instead of being burnt down, so great a growth of brushwood takes place, that it actually costs more to clear the ground where the lumberers have been than where they have not been. Mr. Richards, who was sent out by Government to report on the influence of the lumber trade, represented it as most unfavourable; and observed that 'when time or chance shall induce or compel the inhabitants to desist from this employment, agriculture will begin to raise its head.' The statements of Captain Moorsom, in his *Letters from Nova Scotia*, are exactly similar. He considered the depression of the timber market, although a severe loss to many individuals, a 'decided gain to the colony,' from the check it has given to the 'lumbering mania' (p. 53).

The statements that were made as to the amount of capital expended on sawmills, and other fixed works for carrying on the lumber trade, had been singularly exaggerated, and Mr. P. Thomson (afterwards Lord Sydenham), who used the best means of acquiring accurate information on this point, stated, in his speech on March 18, 1831, that if 500,000*l.* were taken as the amount, it would be a great deal above rather than under the real value.

The fact is, that in so far as the interests of the colonies are concerned, it is plain they did not really lose by the repeal of the differential duties on foreign timber. For the quality of their timber having been well ascertained, and the prejudice with which it had formerly to contend having subsided, it was found quite able successfully to maintain its ground, under a free system, with the timber of the Baltic or of anywhere else.

terially injured by its repeal, the persons so interested can find sufficient time, and every one could be afforded them to present a system. Because the interests of a small portion of the community are affected by the abolition of a duty, it would be inimical to the public interest, were it contended that we should, at least, endeavour to enforce the regulation now enacted? To maintain the law, and to give perpetuity to the absurdities, and would be an improvement. No one would be a bad to a good system, should it be enacted; but when once the expediency has been clearly established, it is to be carried into effect.

To the abolition of the discriminating duty, that it would be injurious to the shipping interest. We believe, that injury was not nearly so great as is contended; that it was, in fact, quite so far from the lumber trade—or from the shipping ports—being a colony, it is distinctly and completely a benefit. The habits which it generates are of that sober, steady spirit of industry to a settler in a rude country; and, indeed, is this the case, that has been described as the pests of a bad kept vicious by the very trade itself. But, abstracting altogether the advantages now alluded to, it has been over again, that the abolition of the duty would materially benefit the real colonies. It is ludicrous, indeed, to see a tree in a hundred is fit for the square of timber, to suppose the value of the trade could be any thing less than the fact, that when trees are cut down, for export as timber, they are burnt down, so great a quantity of lumber, that it actually costs more than where the lumberers have their mills; and they have not been. Mr. Nicholson, in his report to the Government to report on the lumber trade, represented the value of the trade, and observed that, when the duty shall induce or compel the lumberers from this employment, agriculture will raise its head. The statements in his Letters from Nova Scotia are similar. He considered the lumber market, although a severe check it has given to the lumber trade (p. 53).

It is to be noted that were made as to the value of the lumber trade, and the carrying on the lumber trade, had exaggerated, and Mr. P. Thomson (of Sydneyham), who had the best and most accurate information on this subject, in his speech on March 18, 1831, that the value of the trade, if taken as the amount, it would be a great deal more than the real value. And in so far as the interests of the country are concerned, it is plain they did not desire the repeal of the differential duties. For the quality of their timber, as ascertained, and the prejudice against formerly to contend having found quite able successfully to contend, under a free system, with the Baltic or of anywhere else.

Had the imports of timber from British North America fallen off to the extent that was once anticipated, from the reduction or repeal of the discriminating duty, it would, no doubt, have affected the shipping interest. But it could not, under any circumstances, have done this to any very great extent. And it is material, too, to observe that whatever temporary inconvenience the shipping interest might have sustained from the change, its future consequences would have been singularly advantageous to it. The high price of timber employed in the building of ships was then the heaviest drawback on the British shipowners; but the equalisation, and still more the abolition, of the duties, have reduced and will keep down this price; and will, consequently, be in so far advantageous to our shipowners.

*Changes proposed or effected in the Timber Duties from 1831 to 1866 inclusive.*—Considering the vicious principle on which the duties on timber were imposed, and their pernicious influence, the tenacity with which they were long supported, and the little opposition made to them, may well excite surprise. In 1831 Lord Althorp moved that the duties on foreign timber should be reduced 6s. per load on January 1, 1832; 6s. more on January 1, 1833; and 3s. on January 1, 1834; making the whole reduction 15s. per load, and leaving a protection in favour of Canada timber of 50s. per load. The only real objection to this proposal was, that it did not go far enough—that it 'scotched the snake without killing it.' But, moderate as it was, it was rejected by a large majority, and the project fell to the ground.

In 1835 a committee of the House of Commons appointed to enquire into the operation of the duties on timber recommended a reduction not exceeding 15s. of the protective duty of 45s. levied on European timber.

But no step was taken to give effect to these resolutions of the committee, so that the trade continued on its old footing down to 1842.

The differential duty of 45s. per load in favour of Canada timber was, however, reduced by the Tariff Act of the above year, from October 10, 1843, to 24s. per load on timber properly so called, and to 30s. on deals. But, though this was a signal improvement on the previous system, it left much to be desired. It was brought about by reducing the previous duties on foreign timber from 55s. to 25s. and 32s. per load, and the previous duty on British colonial timber from 10s. to 1s. and 2s. per load. While, however, everyone must admit that the reduction of the duty on foreign timber was most proper, it is not easy to see why any reduction should have been made in the duty on Canadian timber. Had it been allowed to remain as it was, or at 10s. per load, the discriminating duty in favour of colonial timber would have amounted to 15s. and 22s. per load, which certainly was a great deal too much, at the same time that there would have been comparatively little loss of revenue. The precedent thus set was, however, further followed up in 1847, when the discriminating duty was reduced to 14s. And it was further followed up by the Act of 1851, the 14 & 15 Vict. c. 62, which imposed a duty of 7s. 6d. per load on squared timber, and of 10s. per do. on deals and battens brought from foreign countries. Again in 1860 the duties were reduced to 1s. and 2s. per load, and in March 1866 the duties were abolished, and importation became free. In the last edition we added, 'if the duty is to be maintained, this (7s. 6d. per load) is as low as it should be, or, perhaps, lower. But there can be no reason why it should not, and there are many why it should, be extended to

Estimate, from the very valuable Circular of Messrs. Churchill and Sim, of the Lumber Importation and Consumption of Wood, 1863 to 1868.

	OF SAWN WOOD, OR DEALS, BATTENS, BOARDS, AND ENDS, IN PIECES										OF HEVEN TIMBER, SPARS, RAILWAY STEEPERS, &c., IN LOADS									
	1863	1864	1865	1866	1867	1868	1863	1864	1865	1866	1867	1868	1863	1864	1865	1866	1867	1868		
Norway Flooring Boards	1,495,000	1,940,000	1,601,000	1,293,000	1,831,000	1,916,000	16,500	13,900	13,700	18,700	18,200	11,900	16,000	16,500	16,000	16,500	16,000	16,500		
Sweden	2,711,000	2,650,000	4,300,000	1,652,000	2,410,000	4,126,000	41,200	51,500	37,600	27,600	22,700	17,000	41,200	41,200	41,200	41,200	41,200	41,200		
Prussia	1,180,000	1,750,000	1,800,000	2,500,000	3,750,000	3,750,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000		
United States and Germany	67,000	75,000	1,800,000	4,297,000	1,410,000	1,716,000	105,200	105,200	105,200	105,200	105,200	105,200	105,200	105,200	105,200	105,200	105,200	105,200		
Total Foreign Importation	6,735,000	7,125,000	9,192,000	7,222,000	10,620,000	12,013,000	191,000	207,200	200,200	277,500	271,500	179,000	191,000	191,000	191,000	191,000	191,000	191,000		
Estimated Consumption	5,877,000	6,258,000	7,505,000	9,108,000	9,218,000	11,040,000	190,000	190,000	190,000	190,000	190,000	111,500	190,000	190,000	190,000	190,000	190,000	190,000		
Canada	2,102,000	1,570,000	2,711,000	2,653,000	4,013,000	2,537,000	26,000	41,900	12,600	14,800	15,800	15,500	26,000	26,000	26,000	26,000	26,000	26,000		
New Brunswick and Nova Scotia	1,122,000	1,570,000	1,190,000	995,000	679,000	1,167,000	27,000	1,300	3,900	1,400	1,400	2,400	27,000	27,000	27,000	27,000	27,000	27,000		
Africa, East and West Indies &c.	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000		
Total Colonial Importation	3,224,000	3,142,000	4,903,000	4,652,000	5,104,000	5,104,000	59,000	64,100	18,500	18,600	19,600	27,700	59,000	59,000	59,000	59,000	59,000	59,000		
Estimated Consumption	5,287,000	5,777,000	5,119,000	5,611,000	5,075,000	5,719,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000		
Total Importation	9,639,000	9,618,000	13,195,000	11,206,000	12,312,000	15,147,000	250,000	250,000	250,000	250,000	250,000	187,000	250,000	250,000	250,000	250,000	250,000	250,000		
Total Consumption	9,161,000	9,635,000	12,178,000	12,291,000	11,539,000	12,942,000	250,000	250,000	250,000	250,000	250,000	187,000	250,000	250,000	250,000	250,000	250,000	250,000		



Wool and Timber Imported  
1867.

Values		
1865	1866	1867
£	£	£
5,570,501	4,513,372	5,346,814
6,559,951	6,287,745	5,994,066
6,199,119	5,700,828	106,437
171,614	117,837	125,900
56,159	68,293	77,294
206,018	111,981	115,811
83,337	89,663	29,518
7,619	15,691	1,058
151,259	50,039	1,629
69,057	31,516	69,558
125,789	170,305	127,151
4,694	166	629
45,667	28,601	17,579
45,679	29,224	46,609
507,244	592,351	48,888
15,016	7,197	5,905
48,977	43,508	38,411

including Birkenhead, and the  
years ending February 1, 1869,  
1869.

Consumption to February 1 in each year

1866	1867	1868	1869
31,000	1,592,000	1,515,000	1,053,000
37,000	401,000	373,000	324,000
84,000	136,000	78,000	29,000
325,000	5,178,000	1,671,000	1,299,000
335,000	517,000	456,000	267,000
351,000	655,000	719,000	618,000
395,000	1,983,000	178,000	124,000
46,000	18,000	25,000	26,000
412,000	511,000	357,000	287,000
11,731	124,115	12,889	15,562
67,181	65,729	63,197	69,929
899	724	591	39
379	283	259	181
1,359	928	703	72
63,000	812,000	881,000	750,000
3,000	5,167	4,742	5,277
1,081	231	2,054	1,576
377	359	421	465
11	84	10	31
916	817	710	781
6,569	9,497	10,211	7,051
52,401	4,201	7,119	102
2,901	5,546	4,993	5,307
10,453	8,271	8,253	6,874
1,927	9,669	8,471	9,000
9,000	23,500	15,000	15,000
65,000	758,000	1,155,000	1,170,000
175,000	120,000	81,000	152,000
17,500	11,000	10,000	20,000
279,000	271,000	295,000	194,000
1,179	1,256	1,111	702

leaf, is about  $\frac{1}{1000}$  of an inch  
might be beaten out into leaves as  
such were required for the purposes  
ility and tenacity it is very inferior.  
78 inch in diameter is capable of  
weight of 34.7 lb. only without  
it is very flexible, and produces a  
e when bent. It may be readily  
copper, zinc &c., forming very  
pounds. (Thomson's Chemistry;  
try, by Hunt.)

This metal are found in compar-  
ees; the principal, and perhaps the  
e Cornwall, Galicia, Erzgebirge in  
emia, the Malay countries, China,  
Asia. They are peculiar to primi-  
erally in granite, either in veins or  
e often associated with copper and

used as a covering to several other  
s tinned, to prevent its rapid oxida-  
ed to air and moisture; and the  
is applied to copper, to avoid the  
ets to which those who a.e. in the  
oying cooking utensils made of this

metal are always liable. The solutions of tin in  
the nitric, muriatic, nitro-sulphuric, and tartaric  
acids, are much used in dyeing, as giving a degree  
of permanency and brilliancy to several colours,  
to be obtained by the use of no other mordants  
with which we are at present acquainted: tin  
forms the basis of pewter, in the composition of  
which it is alloyed with lead; when rolled into  
thin sheets, it is called tin-foil, and is applied,  
with the addition of mercury, to cover the surface of  
glass, thus forming looking-glasses, mirrors &c.;  
and in combination with sulphur, it constitutes  
what is called mosaic gold. (Joyce's Chem. Min.)

TIN PLATES, known in Scotland by the name  
of white iron, are applicable to a great variety of  
purposes. They are formed of thin plates of iron  
dipped into molten tin. The tin not only covers  
the surface of the iron, but penetrates it com-  
pletely, and gives the whole a white colour. It  
is usual to add about  $\frac{1}{10}$  of copper to the tin, to  
prevent it from forming too thick a coat upon the  
iron.

The demand for tin plates, which has always  
been considerable, has latterly increased with  
extraordinary rapidity. The exports in 1867  
amounted to 1,579,692 cwt., valued at 2,063,269*l.*,  
of which no less than 1,390,064*l.* worth went to  
the United States. In 1866 the value of the  
exports amounted to 1,896,192*l.* During 1867,  
81,209 cwt. of British, and 26,576 cwt. of foreign  
and colonial tin were exported from this country,  
in addition to the unwrought tin plates and tin  
and tinned wares.

Historical Notices of the British Tin Trade.—  
The tin mines of Cornwall have been worked from  
a very remote era. The voyages of the Phœni-  
cians to the Cassiterides, or tin islands, are men-  
tioned by Herodotus (lib. iii. c. 115), Diodorus  
Siculus (lib. iv. p. 301, ed. 1604), and Strabo  
(Geog. lib. iii.). Some difference of opinion has  
indeed, been entertained as to the particular  
islands to which the Phœnicians applied the term  
Cassiterides; but Borlase (*Account of the Scilly  
Islands*, p. 72), Larcher (*Herodote*, tome iii. p.  
384, ed. 1802), and the ablest critics, agree that  
they are the Scilly Islands and the western ex-  
tremity of Cornwall. After the destruction of  
Carthage, the British tin trade, which was always  
reckoned of peculiar importance, was carried on  
by the merchants of Marseilles, and subsequently  
by the Romans. Besides Britain, Spain furnished  
the ancients with considerable quantities of tin.  
We have no very precise information as to the  
purposes to which they applied this metal. It  
has been supposed that the Phœnicians, so famous  
for their purple dyes, were acquainted with the  
use of the solution of tin in nitro-muriatic acid in  
fixing that colour. The best of the ancient  
mirrors, or *specula*, were also made of a mixture  
of copper and tin: and tin was used in the coating  
of copper vessels. (Watson's *Chemical Essays*,  
vol. iv.)

In modern times, the tin mines of Cornwall and  
Devon have been wrought with various degrees of  
energy and success. Queen Elizabeth brought  
over some German miners, by whom some of the  
processes were improved. During the civil wars,  
the mines were much neglected. At the com-  
mencement of last century, however, the business  
of mining was carried on with renewed vigour;  
and from 1720 to 1740 the annual produce was  
about 2,100 tons. The produce went on gradually  
increasing, till it amounted, in the 10 years from  
1730 to 1800, to 3,254 tons a-year. During the  
next 15 years the produce fell off; and for the 5  
years ending with 1815, it was always consid-  
erably under 3,000 tons a-year. But in the last-

mentioned year a considerable increase took  
place: and since 1816, the produce has been, with  
the exception of 1820, always above 3,000 tons a-  
year. And latterly it has so increased, that on  
the average of the 5 years ending with 1867, the  
annual produce of the mines has been 12,991 tons  
of tin ore, and 8,385 tons of metallic tin, of the  
value of 1,441,798*l.*

The price of British tin was 92*l.* per ton in  
1800 and at an average, from 1811 to 1815 in-  
clusive, was about 140*l.* per ton. Its fall from 1815  
to 1820, and its comparatively low price for several  
years thereafter, were owing to a variety of  
causes: partly to improvements in the art of  
working the mines, partly to the increased supply  
of metal obtained from them, and partly and  
principally to the competition of the tin of Banca  
and of the Malay countries. Previously to 1814,  
we had in some measure a monopoly of the  
market of the world. But since then the Banca  
mines have been wrought with unusual spirit;  
and their produce has been so much increased, as  
not only fully to supply the market of China, to  
which we formerly exported from 600 to 1,000  
tons, but to meet us in every European market.  
Malay tin is now very extensively imported, for  
warehousing, into England, at the same time that  
large quantities are carried direct to Holland,  
where there are refining houses. But, notwith-  
standing these circumstances, both our exports of  
tin and its price have increased considerably of  
late years.

Duty on British Tin.—All tin produced in  
Cornwall was subject, from a very remote period  
down to 1837, to a coinage duty of 4*l.* per ton,  
payable to the Duke of Cornwall: the tin raised  
in Devonshire was subject to a similar duty of  
1*l.* 13*s.* 4*d.* per ton. This duty produced from  
16,000*l.* to 20,000*l.* a-year; and was felt to be a  
serious grievance, not only from its amount, but  
from the vexatious regulations under which it  
was collected. Luckily, however, the duty on  
tin, and all regulations with respect to its coinage,  
were abolished by 1 & 2 Vict. c. 120. Compensa-  
tion was made to the duchy of Cornwall for the  
loss arising from this abolition, by settling on its  
possessors a perpetual annuity equal to the net  
average amount of the duties during the 10 years  
ending with 1837.

TIN, ORIENTAL. (Malay, tima; Hin. kalai;  
Siamese, dibuk; Burmese, kye-p'kyu, white  
copper). In commercial language usually called  
Banca tin. It is found in several provinces of  
China; but the most extensive and, probably,  
richest tin district in the world exists in the  
Malay countries. This comprehends the whole  
of the peninsula, from the extreme cape to the  
latitude of 14° on its western side, and to 11° on  
its eastern, and comprehends several of the small  
islands lying in the route between the peninsula  
and Java, as far as the latitude of 9° south; so  
that the whole of this tin district has an extreme  
length of near 1,200 miles. By far the greater  
number of the mines within these limits are as  
yet unwrought and unexplored. It was only in  
the beginning of last century that the mines of  
Banca, the most productive at present worked,  
were accidentally discovered. The whole tin of  
the Malay countries is the produce of alluvial  
ores, or what is called, in Cornwall, 'Stream-  
work'; and from the abundance in which the  
mineral has been found by the mere washing of  
the soil, no attempt has hitherto been made at  
regular mining, or obtaining the ore from its  
rocky matrix. Malay tin, consequently, is grain  
tin, or tin in a very pure state; that being the  
species which alluvial ore uniformly produces,

The mines, or rather excavations, are perpendicular pits of from 15 to 25 feet deep; and when the soil and a superstratum of common clay are removed, the bed containing the ore, consisting of quartz and granitic gravel, is reached. The sand and gravel are separated from the ore by passing a stream of water through the whole materials. The ore so obtained is preserved in heaps, and smelted periodically with charcoal in a blast furnace. The mine or pit is kept clear of water by the Chinese wheel. No cuttle are used in any part of the process, human labour being had recourse to throughout the whole of its stages. The most imperfect part of the process is the smelting. The stream ores of Cornwall, which are generally poor, afford from 65 to 75 per cent. of grain tin; whereas, owing to the imperfection of the process, from those of Banca not more than 55 or 60 are usually obtained.

With very trifling exceptions, the whole tin of the Malay islands is mined and smelted by Chinese settlers; and before their skill and enterprise were applied to its production, the metal seems to have been obtained by the inhabitants of the countries which produced it, by processes hardly more skillful than those by which the precious metals were procured by the native inhabitants of America, prior to the introduction of European skill and machinery. The following estimate has been given of the annual produce of the principal states and places producing tin:—

East coast of the Malay peninsula—		meals
Junk Ceylon	-	5,000
Queia	-	2,000
Pera	-	5,000
Salangore	-	5,000
Malacca	-	4,000
Total	-	17,000
West coast of the Malay peninsula and islands—		
Singora and Patani	-	5,000
Tringau	-	2,000
Pahang	-	5,000
Singkep	-	5,000
Banca	-	75,000
Total	-	95,000

This can be considered only as a rough estimate; but we believe it is not far wide of the truth. The most considerable port of exportation is Batavia; from which there is sent annually, either directly or through orders from the Dutch Government or the authorities at Banca, between 4,000 and 5,000 tons. In Hunt's mineral statistics, the production of the Scotch Banca mines is stated at 4,182 tons in 1865, 4,807 tons in 1866, and 4,260 tons in 1867, and the *Economist* of January 2, 1869, quoting the official returns of the Dutch Trading Company, stated the total stock of Banca tin in Holland in December 1868 to have been 142,014 slabs. From Prince of Wales Island there is also a considerable quantity exported; and a smaller one direct to China in junks, from several of the native ports on the eastern shore of the Malay peninsula. The great marts for the consumption of tin are China, Hindostan, and the continent of Europe. The quality of the different descriptions of Malay tin, although there may be some inconsiderable difference in the quality of the original ores, seems to be derived chiefly from the greater or less skill with which the process of smelting is conducted; and this, again, necessarily depends upon the extent of capital and goodness of the machinery employed. The mining operations of Banca have long been conducted upon a larger scale, and with more skill, than in any other of the Malay countries; and, consequently, the metal produced in this island is superior by from 10 to 12 per cent.: in the market of Canton it is called 'old tin,' in contradistinction to 'new tin,' the produce of the

other Malay countries. Next, in point of quality to the produce of Banca, are those of Tringau and Stugkep, which are not more than 5 per cent. inferior to it. The tin of the state of Pera, a considerable part of which is produced by the natives themselves, without Chinese assistance, is the worst, and usually about 15 per cent. below that of Banca. The native tin of China is 10 per cent. inferior to that of Banca, and is probably blown tin, like the greater part of that of Cornwall, and, like it, the produce of regular mining operations, and not alluvial. The produce of the Chinese mines is said of late years to have greatly decreased; probably owing to the great increase which has recently taken place in the produce of the Malay countries, and the cheapness and abundance with which it finds its way to China. It should be added, that of late years, and chiefly owing to the very low price and abundance of German spelter (zinc) in the Indian market, the commodity has occasionally been fraudulently mixed with tin. The Chinese brokers of Canton, however, are sufficiently expert to detect the adulteration; and it is believed that this discreditable practice has lately ceased.

The price of tin, taking the Dutch market as the standard, has fluctuated in the 10 years from 1870 to 1867 from 111s. to 81s. 95s. being the price in September 7, 1867. (Hunt's *Mineral Statistics* for 1867; Crawford's *History of the Indian Archipelago*; Dr. Horstfeld's *M.S. Statistical View of the Island of Banca*; *Singapore Chronicle*; *Canton Register*; &c.)

TOBACCO (Dan. tobak; Dutch, tabak; Ger. tabak; Ital. tabacco; Pol. tobakia; Russ. tabak; Span. tabaco; Arab. bujjerbhag; Hind. tum-bakū; Malay, tambracoo). The dried leaves of the *Nicotiana Tabacum*, a plant indigenous to America, but which succeeds very well, and is extensively cultivated, in most parts of the Old World. The recent leaves possess very little odour or taste; but when dried, their odour is strong, narcotic, and somewhat fetid; their taste bitter and extremely acrid. When well cured, they are of a yellowish green colour. When distilled, they yield an essential oil, on which their virtue depends, and which is said to be a virulent poison. The leaves are used in various ways; being chewed, smoked, and ground and manufactured into snuff. It is in the last mentioned form that tobacco was for many years principally used in Great Britain; but now almost the whole consumption is effected by smoking. Though the contrary has been often asserted, the use of tobacco does not seem to be productive of any perceptible bad consequence.

1. *Historical Sketch of Tobacco*.—The taste for tobacco, though apparently administering only to a frivolous gratification, has given birth to a most extensive commerce, and been a powerful spur to industry. Being a native of the New World, its introduction into Europe dates only from the early part of the sixteenth century. Seeds of the plant were sent, in 1560, from Portugal, to Catherine de' Medici, by Jean Nicot, the French ambassador in that country, from whom it has received its botanical name. The notion, at one time so general, that the specific appellation tobacco was derived from its having been imported from Tobago, is now universally admitted to be without foundation. Humboldt has shown that tobacco was the term used in the Haytian language to designate the pipe, or instrument made use of by the natives in smoking the herb; and the term, having been transferred by the Spaniards from the pipe to the herb itself, has been adopted by the other nations of the

ies. Next, in point of quality, Banca, are those of Tringana are not more than 5 per cent. tin of the state of Pera, a conch which is produced by the natives at Chinese assistance, is the about 15 per cent. below that five tin of China is 10 per cent. Banca, and is probably block or part of that of Cornwall; produce of regular mining operational. The produce of the mid of late years to have greatly owing to the great increase taken place in the produce of es, and the cheapness and abundance, it finds its way to China. It that of late years, and chiefly y low price and abundance of (ine) in the Indian market, this occasionally been fraudulently The Chinese brokers of Canton. iciently expert to detect the l it is believed that this cile has lately ceased.

aking the Dutch market as the tuated in the 10 years from 187 to, to 81s., 95s. being the price in 17. (Hunt's *Mineral Statistics* Ford's *History of the Indian* Horsfield's *M.S. Statistical View* Banca; *Singapore Chronicle*, &c.)

Dan. tobak; Dutch. tabak; Ger. tobacco; Pol. tobakia; Russ. tabak; Arab. bujjerhang; Hind. tambak (bambacoo). The dried leaves of America, a plant indigenous to America, grows very well, and is extensively raised in the West Indies. The tobacco has very little odour or taste; its odour is strong, narcotic, and its taste bitter and excruciating. When well cured, they are of a yellowish colour. When distilled, they yield an oil, on which their virtue is said to be a virulent poison, which is used in various ways; being used in ground and manufactured in the last mentioned form that in many years principally used in but now almost the whole collected by smoking. Though the use of it is often asserted, the use of it seem to be productive of any consequence.

*Sketch of Tobacco.*—The taste for tobacco, apparently administering only by the pipe, has given birth to a commerce, and been a powerful inducement into a native of the New World. Being introduced into Europe dates early in the part of the sixteenth century. The plant were sent, in 1560, from the West Indies, by Jean Nicot, French ambassador in that country, from which it received its botanical name. The time so general, that the specific name tobacco was derived from its having been first introduced into Europe from Tobago, is now universally admitted without foundation. Humboldt has shown that tobacco was the term used in the West Indies to designate the pipe, or the use of it by the natives in smoking. The term, having been transferred from the pipe to the herb itself, and then to the other nations of the

ancient world. (*Essai politique sur la Nouvelle-Espagne*, vol. iii. p. 50, 2nd edit.) Tobacco is believed to have been first introduced into England by the settlers who returned, in 1586, from the colony which it had been attempted to found in Virginia, under the auspices of Sir Walter Raleigh, in the preceding year. Harriott, who accompanied this expedition, gives, in his description of Virginia, an account of the tobacco plant, and of the manner in which it was used by the natives; adding, that the English, during the time they were in Virginia, and since their return home, were accustomed to smoke it after the fashion of the Indians, and found many rare and wonderful experiments of the virtue thereof. (Hakluyt, vol. i. p. 75.)

Raleigh, and other young men of fashion, having adopted the practice of smoking, it spread amongst the English; as it had previously spread amongst the Spaniards, Portuguese, French, and other Continental nations. But it made its greatest progress in this country after the foundation of the colony at James Town in Virginia, in 1607. The soil of the colony being found particularly well fitted for the culture of tobacco, considerable quantities were raised and sent home; and the numerous individuals interested in the colony contributed to introduce that taste for it which was diffused amongst all classes with astonishing rapidity.

James I. attempted, by repeated proclamations and publications, some of them couched in very strong terms, to restrain the use of tobacco. But his efforts had very little effect; and the settlers in Virginia continued to experience a more rapidly increasing and better demand for tobacco than for any other product of the colony.

During the earlier part of the reign of Charles I., the trade in tobacco was monopolised by the Crown. This monopoly was not, however, of long continuance, and totally ceased at the breaking out of the civil war.

Tobacco plants had been early introduced into England, and were found to answer remarkably well. Their cultivation was, indeed, prohibited by James, and afterwards by Charles, but apparently without effect. At length, however, the growing consumption of tobacco having excited the attention of the government financiers, it was seen that, by imposing a duty on its importation, a considerable revenue might be raised; but that, were it allowed to be freely cultivated at home, it would be very difficult to collect a duty upon it. In 1643, the Lords and Commons imposed a moderate duty, for the sake of revenue, on plantation tobacco; but instead of directly prohibiting the use of native tobacco, they burdened it with such a duty as, it was supposed, would occasion its culture to be abandoned. The facility, however, with which the duty was evaded, soon satisfied the republican leaders that more vigorous measures were required to stop its cultivation, and consequently to render its importation a source of revenue. Hence, in 1652, an Act was passed, prohibiting the growth of tobacco in England, and appointing commissioners to see its provisions carried into effect. This Act was confirmed at the Restoration, by the Act Charles II. c. 34, which ordered that all tobacco plantations should be destroyed. These measures were believed, at the time, to have been principally brought about by the solicitations of the planters; but their real intention was not so much to conciliate or benefit the latter, as to facilitate the collection of a revenue from tobacco; and, considered in this point of view, their policy seems quite unexceptionable.

This Act did not, however, extend to Ireland; and, previous to 1830, the cultivation of tobacco made considerable progress in the country. Had this been allowed to continue, there can be no question that, in a few years, the revenue from tobacco, amounting to about 4,500,000*l.* a year, would have been most materially diminished; for it would be quite visionary to suppose that any plan could have been devised for collecting a duty even of 100 per cent. upon tobacco—(see *post*)—supposing it to have been generally cultivated in Ireland. No one, therefore, can question the wisdom of the Act 1 & 2 Wm. IV. c. 13, prohibiting its growth in that country, and the rigorous enforcement of its provisions. Any advantage Ireland might have gained by its cultivation would have been but a poor compensation for the sacrifice of revenue it must have occasioned.

In some countries, as England, tobacco was, down to a comparatively late period, much used in the form of snuff; in others it is principally chewed; but, in one form or other, it is everywhere made use of. So early as 1624, Pope Urban VIII. issued a bull, excommunicating those who smoked in churches! The practice of smoking was at one time exceedingly prevalent in this country; but during the reign of George III. it was well nigh superseded, at least amongst the higher and middle classes, by the practice of snuff-taking. Latterly, however, smoking has been extensively revived, and is much more generally practised than formerly, while snuffing is no longer in fashion.

We quote the following statement as to the universality of the use of tobacco from a learned paper on its 'Introduction and Use,' in the 22nd volume (p. 142) of the *Asiatic Journal*: 'In Spain, France, and Germany, in Holland, Sweden, Denmark, and Russia, the practice of smoking tobacco prevails amongst the rich and poor, the learned and the gay. In the United States of America, smoking is often carried to an excess. It is not uncommon for boys to have a pipe or cigar in the mouth during the greatest part of the day. The death of a child is not unfrequently recorded in American newspapers, with the following remark subjoined:—"supposed to be occasioned by excessive smoking." If we pass to the East we shall find the practice almost universal. In Turkey, the pipe is perpetually in the mouth; and the most solemn conferences are generally concluded with a friendly pipe, employed like the calumet of peace amongst the Indians. In the East Indies, not merely all classes, but both sexes, inhale the fragrant steam; the only distinction among them consisting in the shape of the instrument employed, and the species of the herb smoked. In China, the habit equally prevails; and a modern traveller in that country (Barrow) states, that every Chinese female, from the age of 8 or 9 years, wears, as an appendage to her dress, a small silken purse or pocket to hold tobacco, and a pipe, with the use of which many of them are not unacquainted at this tender age. This prevalence of the practice, at an early period, amongst the Chinese, is appealed to by M. Pallas as an evidence that "in Asia, and especially in China, the use of tobacco for smoking is more ancient than the discovery of the New World." He adds—"Amongst the Chinese, and amongst the Mongol tribes who had the most intercourse with them, the custom of smoking is so general, so frequent, and has become so indispensable a luxury; the tobacco purse affixed to their belt so necessary an article of dress; the form of the pipes, from which the Dutch seem to have taken the model of theirs, so original; and, lastly, the

preparation of the yellow leaves, which are merely rubbed to pieces and then put into the pipe, so peculiar; that they could not possibly derive all this from America by way of Europe; especially as India, where the practice of smoking is not so general, intervenes between Persia and China."

This, however, is a very doubtful proposition. It seems sufficiently established that the tobacco plant was first brought from Brazil to India about the year 1617; and it is most probable that it was thence carried to Siam, China, and other eastern countries. The names given to it in all the languages of the East are obviously of European, or rather American, origin; a fact which seems completely to negative the idea of its being indigenous to the East.

*Sources of Supply. Importation into Great Britain.*—Tobacco is now very extensively cultivated in France, the Zollverein States, Austria, and other European countries, in the Levant, and in India; but the tobacco of the United States and Cuba is still very generally admitted to be decidedly superior to most others. It is much higher flavoured than the tobacco of Europe; a superiority attributable in some degree, perhaps, to a different mode of treatment; but far more, it is believed, to differences of soil and climate. In the circular of Messrs. Parry and Crosbie, of Liverpool, dated January 4, 1869, the high character of American strips is especially noted.

Previously to the American war, our supplies of tobacco were almost entirely derived from Virginia and Maryland; and they are still principally imported from these states: of 57,586,287 lb. of unmanufactured tobacco imported in 1867, no fewer than 37,547,166 lbs. came from the United States. Mr. Jefferson, in his *Notes on Virginia*, has given a very unfavourable view of the effects of the tobacco culture. It was, indeed, well known to be a crop that speedily exhausted all but the very best lands; and in addition to this, Mr. J. says that 'it is a culture productive of infinite wretchedness. Those employed in it are in a continued state of exertion, beyond the powers of nature to support. Little food of any kind is raised by them; so that the men and animals on these farms are badly fed, and the earth is rapidly impoverished.' (English ed. p. 278.)

Tobacco is extensively cultivated in Mexico, but only for home consumption. It might probably, however, were it not for the restrictions under which it is placed, form a considerable article of export from that country. Under the Spanish Government, the tobacco monopoly was one of the principal sources of revenue; yielding from 4,000,000 to 4,500,000 dollars, exclusive of the expenses of administration, amounting to about 800,000 dollars. No tobacco was allowed to be cultivated, except in a few specified places. Commissioners, or *guardias de tabaco*, were appointed, whose duty it was to take care that all tobacco plantations without the privileged districts should be destroyed. The Government fixed the price at which the cultivators of tobacco were obliged to sell it to its agents. The sale of the manufactured tobacco was farmed out; and cigars were not allowed to be sold, except at the royal *estancos*. No one was allowed to use cigars of his own manufacture. This oppressive monopoly was established in 1764. It has been continued, from the difficulty of supplying the revenue which it produces, by the revolutionary Governments. (Humboldt, *Nouvelle-Espagne*, iii. 49; Poinsett's *Notes on Mexico*, note 116, Lond. ed.) In France, Spain, Austria, and some other countries, the trade in tobacco is monopolised by

their respective governments, and yields a large revenue.

Cuba is celebrated for its tobacco, particularly its cigars. These consist of the leaves, formed into small rolls, for the purpose of smoking. At one time their importation into this country was prohibited; but for many years this has been permitted, and the exorbitant duty of 9s. per lb. having been reduced since March 1863 to 5s. the entries for consumption have more than doubled in the interval, the entries in 1868 having amounted to 885,622 lb. Havana cigars are usually reckoned the best. Previously to 1820, the cultivation and sale of tobacco were subjected to the same sort of monopoly in Cuba as in Mexico; but, at the period referred to, the trade was thrown open. In consequence of the freedom thus given to the business, the production and exportation of tobacco both rapidly increased, though hardly, perhaps, so much as might have been expected; the culture of sugar and coffee being for a while reckoned more profitable; that, however, is no longer the case. In 1867 were exported from Havannah alone 7,716,802 lb. of tobacco and 199,027,000,000 cigars.

*Consumption of Duty-paid Tobacco in the United Kingdom.*—It appears from the following account, which is not elsewhere to be met with, that the consumption of duty-paid tobacco in Great Britain has increased from about 8,000,000 lb. in 1789, to 40,726,767 lb. in 1867; the duty on unmanufactured tobacco having fluctuated during the same period from 1s. 3d. to 4s. per lb. The present rates of duty as fixed by the 26 & 27 Vict. c. 7 are specified in the annexed Table No. II. There are, however, good grounds for thinking that the consumption would have been much greater, perhaps nearly doubled, had the duty continued at 1s. 3d. per lb. The subjoined table shows that during the 3 years ending with 1797, when the duty in Ireland was 8d. per lb., the annual average consumption of duty-paid tobacco, in that part of the United Kingdom, was 7,455,221 lb. And the population having increased in the interval from about 4 to 5½ millions, the fair presumption is, had the duty continued the same, that the consumption of tobacco would have increased in the same proportion. But, instead of this, the average annual consumption during the 3 years ending with 1865 has only been 6,725,479 lb., or not quite two-thirds of what it might, under the supposed circumstances, have been reasonably expected to be. But the inference thence arising as to the influence of the duty is not, after all, quite so conclusive as it would appear to be from this statement. For it is next to certain that at the first mentioned period duty-paid tobacco would be extensively smuggled from Ireland into England, where the duty was 11d. per lb. heavier; and since the equalisation of the duty between the two countries it is probable that some considerable portion of the tobacco used in Ireland, and carried thither by the cross-channel trade, has already paid duty in this country. Apart, however, from all considerations of this sort, there can be no manner of doubt that the consumption both in Britain and Ireland would be very largely increased by reducing the duty to 1s. 6d. or 1s. per lb.

*Smuggling.*—The price of tobacco in bond varies from 3d. and 4d. to 6d., 8d., and 10d. per lb.; so that a duty of even 3s. amounts to 1,200 per cent. on the inferior, and to 360 per cent. on the superior qualities. But, though quite excessive, this is one of those articles on which a high duty is least objectionable. It is true that the more the wants and desires of man are multiplied the more in-



II.—Account of the Quantities of Tobacco of all sorts Entered for Home Consumption in the United Kingdom; the Nett Revenue of Customs; and the Rates of Duty thereon from 1859 to 1867.

Years	Quantities Entered for Home Consumption			Nett Revenue of Customs	Rates of Duty
	Unmanufactured	Manufactured	Total		
£	lb.	lb.	lb.	£	
1859	31,495,075	298,197	31,793,272	5,552,517	{ Unmanufactured, 5s. 14-5d. per lb. } May 15,
1860	35,106,611	285,201	35,391,812	5,619,251	{ Manufactured, 9s. 5-7-5d. per lb. } 18 10, and
1861	34,527,121	309,664	34,836,785	5,585,617	{ ditto ditto } July 9,
1862	35,493,416	331,150	35,824,566	5,691,169	{ ditto ditto } 18 12
1863	36,750,661	582,379	37,333,040	5,920,167	{ Unmanufactured, containing 10 lb } March 27,
1864	37,189,856	764,316	37,954,172	6,055,129	{ or more of moisture in every 100 } 18 6
1865	38,076,812	828,158	38,904,970	6,200,655	{ lb., 5s. 1d. per lb. containing } 18 6
1866	39,621,852	881,299	40,503,151	6,167,393	{ less than ditto, 5s. 6d. per lb. } ditto
1867	39,787,921	932,813	40,720,734	6,196,559	{ Manufactured, other than cigars, } ditto
					{ Foreign manufactures, 4s. 9d. per lb. } ditto

The tobacco monopoly of Austria, inclusive of an area of 66,000 Austrian acres with a produce of 560,000 cwt. of dried leaf, yielded to the Government in 1865 about 50,000,000 florins.

Prices of Tobacco in Bond in London, February and April 1869.

	W. T. Hill & Son's Circular, Feb. 1, 1869		Price's Current, April 1869	
	Per lb.		Per lb.	
Mayland fine yellow	s. d.	s. d.	s. d.	s. d.
yellow	0 1	0 0 9	0 8	0 8 4
brown to color	..	..	0 4	0 7
fine spinners scarce	..	..	..	..
good middling ditto	..	..	..	..
ordinary to middling	..	..	..	..
fine shag and part spinners for common ditto	..	..	0 7	0 11
fine black sweet scot	..	..	..	..
good stout rich wool leaf	..	..	..	..
middling ditto	..	..	..	..
ordinary short and part leaf	..	..	..	..
straw leaf or fine spinning	..	..	0 11	1 0
ordinary to middling	..	..	0 6	0 9
Kenya 433 stemmed fine old	..	..	0 11	1 1
..	..	..	0 9	0 10
..	..	..	0 7	0 8
..	..	..	0 1	0 8
..	..	..	2 10	2 11
..	..	..	..	..
..	..	..	3 0	3 2
..	..	..	2 8	2 9
..	..	..	0 9	0 10
..	0 4	1 0	..	..
..	0 6	1 1	0 5	1 0
..	0 5	1 6	0 5	1 0
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..	0 1	1 1	0 6	1 1
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..	..	..	0 8	0 9
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Rates of Duty	
100 cigars, 2s. 1.4.5d. per lb.	May 15,
100 cigars, 2s. 3.2.5d. per lb.	1859, and
ditto	July 31,
ditto	1857
100 cigars, 2s. 1.4.5d. per lb.	March 27,
100 cigars, 2s. 3.2.5d. per lb.	1863
100 cigars, 2s. 1.4.5d. per lb.	ditto
100 cigars, 2s. 3.2.5d. per lb.	ditto
100 cigars, 2s. 1.4.5d. per lb.	ditto
100 cigars, 2s. 3.2.5d. per lb.	ditto

her manufactured or not, and

ed except under the following co and snuff from the East from the Turkish dominions, less direct from any of those containing not less than 100 lb.

co, and also snuff being the United States of America, unless in chests, or cases containing lb. nett weight each, or unless United States in packages containing 150 lb. nett weight each. Malta, and tobacco the produce of Mexico, and South America, St. Domingo, and other British possessions in America west of Africa, unless in hogheads, cases containing not less than 100 lb. nett weight each, or unless direct from the United States of America containing not less than 80 lb. nett

snuff, the produce of the Philippines in hogheads, chests, or cases, containing not less than 200 lb. nett weight each, or unless such tobacco or snuff be direct, in bales or packages containing 200 lb. nett weight each.

snuff, or of any country or manufacture, unless in hogheads, cases containing not less than 100 lb. nett weight each.

in packages containing not less than 200 lb. nett weight each.

cigarettes, unless in packages containing not less than 75 lb. nett weight each. being cigars, cigarillos, or cigarettes, separated or divided in any package in which the same are enumerated, or in any package being imported, except from the dominions of the Turkish empire, in outer packages containing not less than 100 lb. nett weight each.

if, cigars, cigarillos, or cigarettes, from any country or place whatsoever, hereinafter enumerated as excepted, or not, unless in ships of not less than 200 tons burthen, and into such ports only as are approved of by the Commissioners

which are at present (1869) authorized to receive tobacco and snuff are London, Bristol, Lancaster, Cowes, Falmouth, Southampton, Whitehaven, Hull, Newcastle, Liverpool, Whitehaven, Hull, Newcastle, Cardiff, Portsmouth, Ramsey, Glasgow, Greenock, Aberdeen, Plymouth, Southampton, Belfast, Cork, Drogheda, Dublin, Wick, Londonderry, Newry, Sligo, and Wexford. A rent of 4s. is charged

upon every hoghead, cask, chest, or case of tobacco warehoused in every warehouse provided by the Crown; 2s. being paid immediately upon depositing the tobacco in the warehouse, and 2s. more before the tobacco is taken out for home consumption, or exportation; it may remain for five years in the warehouse without any additional charge for rent. No abatement is made from the tobacco duties on account of damage. The duty is to be charged on the quantity found on delivery. The allowance of duty-free tobacco for each sailor on board her Majesty's navy, and for each soldier on foreign service, is fixed at 2 lb. per lunar month.

TON. An English weight, containing 20 cwt. TONNAGE. In Commercial Navigation, the number of tons burden that a ship will carry.

The mode in which the tonnage of British ships was formerly ascertained may be seen in the Registry Act, 3 & 4 Wm. IV. c. 55 ss. 16 and 17. This mode, however, led to very inaccurate conclusions; and as most shipping charges depend on the tonnage, it occasioned the building of ships of an improper form for the purposes of navigation, in order that, by measuring less than their real burden, they might evade part of the duties. It was, therefore, long felt to be desirable that some change should be made in the plan of measuring ships; but the practical obstacles in the way of the change were greater than might have been supposed. The accurate estimation of the tonnage of a ship is a difficult problem; and it is indispensable that any system to be adopted in practice be not very complex; or for if so, it will either be wholly inapplicable, or it will be sure to be inaccurately applied. In this case, as in most others, *summa virtus est simplicitas*. At best, therefore, only an approximate measurement can be obtained. A committee of scientific and practical gentlemen having been appointed in 1831 to consider the subject, a bill was introduced into Parliament, at their recommendation, embodying a plan for the more correct measurement of ships, and was subsequently passed into a law, the 5 & 6 Wm. IV. c. 56. The rules it laid down were not so simple or easily applied as those that were previously used; but they gave the tonnage of all ships, however built, with tolerable accuracy, and consequently took away the temptation, that till then existed, to build ships of such a form that they might measure less than their true burden. But these rules have been again considerably modified. Those which at present (1869) exist are embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 101, amended by the 25 & 26 Vict. c. 63, and are subjoined. And whatever may be their merit in other respects, they do not certainly seem to have much of that perspicuity and simplicity which appear to be essential to such rules.

**Tonnage Deck; Feet; Decimals.**—Throughout the following rules the tonnage deck shall be taken to be the upper deck in ships which have less than three decks, and to be the second deck from below in all other ships; and in carrying such rules into effect all measurements shall be taken in feet and fractions of feet, and all fractions of feet shall be expressed in decimals. (Sec. 20.)

**For Ships to be registered of which the Hull is clear.**—The tonnage of every ship to be registered, with the exceptions mentioned in the next section, shall previously to her being registered, be ascertained by the following Rule 1; and the tonnage of every ship to which such rule can be applied, whether she is about to be registered or not, shall be ascertained by the same rule.

1. Measure the length of the ship in a straight line along the upper side or the tonnage deck from the inside of the inner plank (average thickness) at the side of the stem to the inside of the midship stern timber or plank there, as the case may be (average thickness), deducting from this length what is due to the rake of the bow in the thickness of the deck, and what is due to the rake of the stern timber in the thickness of the deck, and also what is due to the rake of the stern timber in  $\frac{1}{4}$  of the round of the beam; divide the length so taken into the number of equal parts required by the following table, according to the class in such table to which the ship belongs:

- TABLE.—Class 1. Ships of which the tonnage deck is according to the above measurement 50 feet long or under, into 4 equal parts;  
 Class 2. Ships of which the tonnage deck is according to the above measurement above 50 feet long, and not exceeding 120, into 6 equal parts;  
 Class 3. Ships of which the tonnage deck is according to the above measurement above 120 feet long, and not exceeding 180, into 8 equal parts;  
 Class 4. Ships of which the tonnage deck is according to the above measurement above 180 feet long, and not exceeding 225, into 10 equal parts;  
 Class 5. Ships of which the tonnage deck is according to the above measurement above 225 feet long, into 12 equal parts.

2. Then, the hold being first sufficiently cleared to admit of the required depths and breadths being properly taken, find the transverse area of such ship at each point of division of the length as follows: Measure the depth at each point of division, from a point at a distance of  $\frac{1}{4}$  of the round of the beam below such deck, or, in case of a break, below a line stretched in continuation thereof, to the upper side of the floor timber at the inside of the huller strake, after deducting the average thickness of the ceiling which is between the bilge planks and huller strake; then, if the depth at the midship division of the length do not exceed 16 feet, divide each depth into 4 equal parts; then measure the inside horizontal breadth at each of the 3 points of division, and also at the upper and lower points of the depth, extending each measurement to the average thickness of that part of the ceiling which is between the points of measurement; number these breadths from above (i.e. numbering the upper breadth 1, and so on down to the lowest breadth); multiply the second and fourth by 4, and the third by 2; add these products together, and to the sum add the first breadth and the fifth; multiply the quantity thus obtained by  $\frac{1}{4}$  of the common interval between the breadths, and the product shall be deemed the transverse area; but if the midship depth exceed 16 feet, divide each depth into 6 equal parts instead of 4, and measure as before directed the horizontal breadths at the 5 points of division, and also at the upper and lower points of the depth; number them from above as before; multiply the second, fourth, and sixth by 4, and the third and fifth by 2; add these products together, and to the sum add the first breadth and the seventh; multiply the quantity thus obtained by  $\frac{1}{4}$  of the common interval between the breadths, and the product shall be deemed the transverse area.

3. Having thus ascertained the transverse area at each point of division of the length of the ship as required by the above table, proceed to ascertain the register tonnage of the ship in the

following manner: Number the areas successively 1, 2, 3 &c., No. 1, being at the extreme limit of the length at the bow, and the last number at the extreme limit of the length at the stern; then, whether the length be divided according to the table into 4 or 12 parts as in Classes 1 and 5, or any intermediate number as in Classes 2, 3, and 4, multiply the second and every even numbered area by 4, and the third and every odd numbered area (except the first and last) by 2; add these products together, and to the sum add the first and last if they yield anything; multiply the quantity thus obtained by 4 of the common interval between the areas, and the product will be the cubical contents of the space under the tonnage deck; divide this product by 100, and the quotient being the tonnage under the tonnage deck shall be deemed to be the register tonnage of the ship, subject to the additions and deductions hereinafter mentioned.

4. If there be a break, a poop, or any other permanent closed-in space on the upper deck, available for cargo or stores, or for the berthing or accommodation of passengers or crew, the tonnage of such space shall be ascertained as follows: Measure the internal mean length of such space in feet, and divide it into two equal parts: measure at the middle of its height three inside breadths, namely, one at each end and the other at the middle of the length; then to the sum of the end breadths add 4 times the middle breadth, and multiply the whole sum by one-third of the common interval between the breadths; the product will give the mean horizontal area of such space; then measure the mean height, and multiply by it the mean horizontal area; divide the product by 100, and the quotient shall be deemed to be the tonnage of such space, and shall be added to the tonnage under the tonnage deck, ascertained as aforesaid, subject to the following provisos; 1st, that nothing shall be added for a closed-in space solely appropriated to the berthing of the crew, unless such space exceeds  $\frac{1}{20}$  of the remaining tonnage of the ship, and in case of such excess the excess only shall be added; and 2ndly, that nothing shall be added in respect of any building erected for the shelter of deck passengers, and approved by the Board of Trade.

5. If the ship has a third deck, commonly called a spar deck, the tonnage of the space between it and the tonnage deck shall be ascertained as follows: Measure in feet the inside length of the space at the middle of its height from the plank at the side of the stem to the lining on the timbers at the stern, and divide the length into the same number of equal parts into which the length of the tonnage deck is divided as above directed; measure (also at the middle of its height) the inside breadth of the space at each of the points of division, also the breadth of the stem and the breadth at the stern; number them successively 1, 2, 3 &c., commencing at the stem; multiply the second and all the other even numbered breadths by 4, and the third and all other odd numbered breadths (except the first and last) by 2; to the sum of these products add the first and last breadths; multiply the whole sum by one-third of the common interval between the breadths, and the result will give in superficial feet the mean horizontal area of such space; measure the mean height of such space, and multiply by it the mean horizontal area, and the product will be the cubical contents of the space; divide this product by 100, and the quotient shall be deemed to be the tonnage of such space, and shall be added to the other tonnage of the ship ascertained as aforesaid; and if the ship has more

than 3 decks, the tonnage of each space between decks above the tonnage deck shall severally be ascertained in manner above described, and shall be added to the tonnage of the ship ascertained as aforesaid. (Sec. 21.)

*Rules for Ships not requiring Registry or Cargo on Board.*—Ships which, requiring to be measured for any purpose other than register tonnage, have cargo on board, and ships which, requiring to be measured for the purpose of registry, can be measured by the rule above given, shall be measured by the following Rule 2;

1. Measure the length on the upper deck from the outside of the outer plank at the stem to the outside of the stern post, deducting therefrom the distance between the outside of the stern post and the rabbet of the stern post at the point where the counter plank crosses it; measure also the greatest breadth of the ship to the outside of the outer planking or wales, and then, having first marked on the outside of the ship on both sides the height of the upper deck at the ship's side, draw the ship at the greatest breadth in a direct perpendicular to the keel from the height marked on the outside of the ship on the one side to the height so marked on the other side, passing a chain under the keel; to half the girth thus taken add half the main breadth; square the sum; multiply the result by the length of the ship taken as aforesaid; then multiply this product by the factor '0018 (18-10,000ths) in the case of ships built of wood, and by '0021 (21-10,000ths) in the case of ships built of iron, and the product shall be deemed the register tonnage of the ship, subject to the additions and deductions hereinafter mentioned.

2. If there be a break, a poop, or other closed-in space on the upper deck, the tonnage of such space shall be ascertained by multiplying together the mean length, breadth, and depth of such space, and dividing the product by 100, and the quotient so obtained shall be deemed to be the tonnage of such space, and shall, subject to the deductions for a closed-in space appropriated to the crew as mentioned in Rule 1, be added to the tonnage of the ship ascertained as aforesaid. (Sec. 22.)

*Allowance for Engine Room in Steamers.*—In every ship propelled by steam or other power requiring engine room, an allowance shall be made for the space occupied by the propelling power, and the amount so allowed shall be deducted from the gross tonnage of the ship ascertained as aforesaid, and the remainder shall be deemed to be the register tonnage of such ship, and such deduction shall be estimated as follows:—

a. As regards ships propelled by paddle-wheel, in which the tonnage of the space solely occupied by and necessary for the proper working of the boilers and machinery is above 20 per cent. and under 30 per cent. of the gross tonnage of the ship, such deduction shall be 37-100ths of such gross tonnage; and in ships propelled by screw in which the tonnage of such space is above 10 per cent. and under 20 per cent. of such gross tonnage, such deduction shall be 32-100ths of such gross tonnage;

b. As regards all other ships, the deduction shall, if the Commissioners of Customs and the owner both agree thereto, be estimated in the same manner; but either they or he may in their or his discretion require the space to be measured, and the deduction estimated accordingly; and whenever such measurement is so required the deduction shall consist of the tonnage of the space actually occupied by or required to be enclosed for the proper working of the boilers and machinery.

tonnage of each space be-  
the tonnage deck shall be  
in manner above described,  
to the tonnage of the ship  
said. (Sec. 21.)

not requiring Registry with  
ships which, requiring to be  
purpose other than registry,  
and ships which, requiring  
the purpose of registry, cannot  
the rule above given, shall be  
following Rule 2:

length on the upper deck from  
outer plank at the stem to the  
post, deducting therefrom the  
the aftside of the stern post and  
tern post at the point where the  
see it; measure also the greatest  
to the outside of the outer  
and then, having first marked  
of the ship on both sides thereof  
upper deck at the ship's sides,  
the greatest breadth in a direction  
the keel from the height so  
astide of the ship on the one side  
marked on the other side by  
under the keel; to half the girth  
half the main breadth; square the  
the result by the length of the  
said; then multiply this product  
118 (18-10,000ths) in the case of  
wood, and by .0021 (21-10,000ths)  
ships built of iron, and the product  
the register tonnage of the ship.  
additions and deductions herein-

a break, a poop, or other closed-in  
upper deck, the tonnage of such  
ascertained by multiplying together  
breadth, and depth of such space,  
the product by 100, and the quotient  
shall be deemed to be the tonnage of  
shall, subject to the deductions  
space appropriated to the crew a-  
rule 1, be added to the tonnage of  
lined as aforesaid. (Sec. 22.)

for Engine Room in Steamers.—In  
propelled by steam or other power  
the room, an allowance shall be de-  
space occupied by the propelling  
amount so allowed shall be de-  
gross tonnage of the ship a-  
aforesaid, and the remainder shall be  
the register tonnage of such ship.  
tion shall be estimated as follows:

ships propelled by paddle-wheels  
tonnage of the space solely occupied  
ary for the proper working of the  
machinery is above 20 per cent, and  
cent, of the gross tonnage of such  
tion shall be 37-100ths of such  
and in ships propelled by screws  
tonnage of such space is above 13  
under 20 per cent, of such gross  
deduction shall be 32-100ths of such

all other ships, the deduction  
Commissioners of Customs and the  
agree thereto, be estimated in that  
but either they or he may in their  
require the space to be measured  
tion estimated accordingly; and  
measurement is so required the  
l consist of the tonnage of the space  
ed by or required to be enclosed for  
rking of the boilers and machinery.

with the addition in the case of ships propelled by  
paddle-wheels of one-half, and in the case of ships  
propelled by screws of three-fourths of the tonnage  
of such space; and the measurement and use of  
such space shall be governed by the following  
rules, viz:—

1. Measure the mean depth of the space from  
its crown to the ceiling at the timber strake,  
measure also three, or, if necessary, more, than  
three breadths of the space at the middle of its  
depth, taking one of such measurements at each  
end, and another at the middle of the length;  
take the mean of such breadths; measure also the  
mean length of the space between the foremost  
and aftermost bulkheads or limits of its length,  
excluding such parts, if any, as are not actually  
occupied by or required for the proper working  
of the machinery; multiply together these three  
dimensions of length, breadth, and depth, and the  
product will be the cubical contents of the space  
below the crown; then find the cubical contents  
of the space or spaces, if any, above the crown  
aforesaid, which are framed in for the machinery  
or for the admission of light and air, by multi-  
plying together the length, depth, and breadth  
thereof; add such contents to the cubical contents  
of the space below the crown; divide the sum by  
100; and the result shall be deemed to be the  
tonnage of the said space:

2. If in any ship in which the space aforesaid  
is to be measured the engines and boilers are fitted  
in separate compartments, the contents of each  
shall be measured severally in like manner, ac-  
cording to the above rules, and the sum of their  
several results shall be deemed to be the tonnage  
of the said space:

3. In the case of screw steamers in which the  
space aforesaid is to be measured, the contents of  
the shaft trunk shall be added to and deemed to  
form part of such space, and shall be ascertained  
by multiplying together the main length, breadth,  
and depth of the trunk, and dividing the product  
by 100:

4. If in any ship in which the space aforesaid  
is to be measured any alteration be made in the  
length or capacity of such space, or if any  
cabins be fitted in such space, such ship shall be  
deemed to be a ship not registered until re-  
measurement:

5. If in any ship in which the space aforesaid  
is to be measured any goods or stores are stowed  
or carried in such space, the master and owner  
shall each be liable to a penalty not exceeding  
100l. (Sec. 23.)

*Open Ships, how Measured.*—In ascertaining the  
tonnage of open ships, the upper edge of the upper  
strake is to form the boundary line of measurement,  
and the depths shall be taken from an athwart-  
ship line, extending from upper edge to upper  
edge of the said strake at each division of the  
length. (Sec. 24.)

*Tonnage and Number of Certificate to be carried  
on Main Beam.*—In every registered British ship  
the number denoting the register tonnage, as-  
certained as herein-before directed, and the number  
of her certificate of registry, shall be deeply carved  
or otherwise permanently marked on her main  
beam, and shall be so continued; and if it at any  
time cease to be so continued, such ship shall no  
longer be recognised as a British ship. (Sec. 25.)

*Tonnage when once ascertained to be ever after  
deemed the Tonnage.*—Whenever the tonnage of  
any ship has been ascertained and registered in  
accordance with the provisions of this Act, the  
same shall thenceforth be deemed to be the tonnage  
of such ship, and be repeated in every subsequent  
registry thereof, unless any alteration is made in

the form or capacity of such ship, or unless it is  
discovered that the tonnage of such ship has been  
erroneously computed; and in either of such  
cases such ship shall be remeasured, and her  
tonnage determined and registered according to  
the rules herein contained. (Sec. 26.)

*Remeasurement of Ships already registered.*—  
The rules for the measurement of tonnage herein  
contained shall not make it necessary to alter the  
present registered tonnage of any British ship  
registered before this Act came into operation;  
but if the owner of any such ship desires to have  
the same remeasured according to such rules, he  
may apply to the Commissioners of Customs for the  
purpose, and such Commissioners shall thereupon,  
and on payment of such reasonable charge for  
the expenses of remeasurement, not exceeding  
the sum of 7s. 6d. for each transverse section, as  
they may authorise, direct such remeasurement  
to be made, and such ship shall thereupon be  
remeasured according to such rules as aforesaid,  
or according to such of them as may be applicable;  
and the number denoting the register tonnage  
shall be altered accordingly. (Sec. 27.)

*Power to remeasure Engine Rooms improperly  
extended.*—If it appears to the Commissioners of  
Customs that in any steam ship measured before  
this Act came into operation store rooms or coal  
bunkers have been introduced into or thrown  
across the engine room, so that the deduction  
from the tonnage on account of the engine room  
is larger than it ought to be, the said commis-  
sioners may, if they think fit, direct such engine  
room to be measured according to the rules in  
force before this Act comes into operation, ex-  
cluding the space occupied by such store rooms or  
coal bunkers, or may, if the owners so desire,  
cause the ship to be remeasured according to the  
rules hereinbefore contained, and subject to the  
conditions contained in the last preceding section;  
and after remeasurement the said Commissioners  
shall cause the ship to be registered anew, or the  
registry thereof to be altered, as the case may  
require. (Sec. 28.)

*Officers may be appointed and Regulations made  
for Measurement of Ships.*—The Commissioners of  
Customs may, with the sanction of the Treasury,  
appoint such persons to superintend the survey  
and admeasurement of ships as they think fit;  
and may, with the approval of the Board of  
Trade, make such regulations for that purpose as  
may be necessary; and also, with the like ap-  
proval, make such modifications and alterations  
as from time to time become necessary, in the  
tonnage rules hereby prescribed, in order to the  
more accurate and uniform application thereof,  
and the effectual carrying out of the principle of  
admeasurement therein adopted. (Sec. 29.)

*TOOLS AND MACHINES.* Under this de-  
signation are comprised all sorts of instruments  
employed to assist in the performance of any  
undertaking, from the rudest and simplest to the  
most improved and complex. But we only men-  
tion them here for the purpose of making one or  
two remarks on the restrictions to which the  
trade in them was till a comparatively recent  
period subjected.

*Importation and Exportation of Tools and Ma-  
chines.*—Tools and machines being instruments of  
production, it is obviously of the utmost im-  
portance that they should be as much improved  
as possible; and hence the expediency of allowing  
their free importation. Their exclusion, or the  
exclusion of the articles of which they are made,  
would obviously lay every branch of industry  
carried on in a nation less advanced than others  
in their manufacture, under the most serious

disadvantages. And supposing the implements it employed to be superior to those of other countries when the exclusion took place, the absence of foreign competition, and of the emulation which it inspires, would most probably, in a very short time, occasion the loss of this superiority. The injury arising from the prohibition of most other articles is comparatively limited, affecting only the producers and consumers of those that are prohibited. But a prohibition of machines strikes at the root of every species of industry: it is not injurious to one, or a few branches, but to all.

The question whether the exportation of machinery ought to be free, is not so easy of solution. It is the duty of a nation to avail itself of every fair means for its own aggrandisement; and supposing the machinery belonging to any particular people were decidedly superior to that employed by their neighbours, and that they had it in their power to preserve this advantage, their generosity would certainly outrun their sense, were they to communicate their improved machinery to others. We do not, however, believe that it is possible, whatever measures may be adopted in that view, for one country to monopolise, for any considerable period, any material improvement in machinery or the arts: and on this ground we think that the former restraints on the exportation of machinery were wisely abolished. Drawings and models of all sorts of machines used in Manchester, Glasgow, and Birmingham, were always to be found in most parts of the Continent; and at Rouen, Paris, &c., numbers of the best English workmen were employed in the manufacture of prohibited machines. And it did certainly appear not a little preposterous to prevent the exportation of a machine, at the same time that we allowed (it could not, indeed, be prevented) the free egress of the workmen by whom it was made. The effect of this policy was not to secure a monopoly of improved machines for the manufactures of England; but to occasion the emigration of English artificers to the Continent, and the establishment there of machine manufactories under their superintendance. The prejudice that arose from this state of things to the interests of England, is too obvious to require being pointed out. It is plain, therefore, that sound policy dictated that the exportation of all sorts of machinery should be allowed on payment of a moderate duty. And this policy was at length adopted in the Act 6 & 7 Vict. c. 84, which repealed the restraints previously imposed on the exportation of machinery. A policy of this sort affords a much more efficient encouragement to our manufactures than they hitherto enjoyed; for while it lessens the temptation to our artificers to emigrate, it helps to make England the grand seat of the tool as well as of the cotton manufacture. The total declared value of the machinery and mill-work exported in 1867 amounted to 2,737,057*l.*, and that of tools and implements of industry, including agricultural (154,403*l.*), to 208,067*l.*

**TOPAZ** (Ger. topas; Fr. topaze; Ital. topazio; Span. topacio; Russ. topas). The name topaz has been restricted by M. Henry to the stones called by mineralogists Occidental ruby, topaz, and sapphire; which, agreeing in their crystallisation and most of their properties, were arranged under one species by M. Romé de Lisle.

The word topaz, derived from an island in the Red Sea, where the ancients used to find topazes, was applied by them to a mineral very different from ours. One variety of our topaz they denominated Chrysolite. Colour, wine yellow. From

pale wine yellow it passes into yellowish white, greenish white, mountain green, sky blue; from deep wine yellow into flesh red and crimson red. Specific gravity from 3.464 to 3.611. (Thomson *Chemistry*.)

**Yellow Topaz**.—In speaking of the topaz, gem of a beautiful yellow colour is always understood; it is wine yellow of different degrees of intensity; and the fuller and deeper the tinge the more the stone is esteemed. In hardness it yields to the spinelle. (Mawe *On Diamonds*.)

The yellow sapphire or oriental topaz is of very little value in commerce. (Emanuel *On Diamonds &c.*)

There are few gems more universal favourites than the yellow topaz, when perfect: the rich warm tone of its colour, the vivacity of its lustre (which it retains even by the side of the diamond) and its large size, compared with many others, are characters which deservedly entitle it to distinction; it bears accordingly a high price when of good quality.

It is chiefly employed for necklaces, ear-drops, bracelets &c. in suit. No little skill and taste are required in cutting and duly proportioning this gem; the table should be perfectly symmetrical, and not too large; the bezel of sufficient depth, and the collet side should be formed in delicate steps. It works easily on the mill, and the lapidaries are in general tolerably well acquainted with it; yet it is uncommon to meet with one well cut.

The yellow topaz varies in price according to its beauty and perfection. A superlatively fine stone, perfect in colour and workmanship, sufficiently large for an armlet, or any other ornament, weighing nearly 80 carats, was sold for 100*l.*

Topazes have become more common since our intercourse with Brazil; consequently they are less in demand, and lower in price. (Mawe *On Diamonds*.)

They are not now in vogue as they were 50 years ago, and a fine stone can at present be had for a few shillings. (Emanuel *On Diamonds*.)

**Pink Topaz**.—This is made from the brownish yellow, which, when of intense colour, is put into the bowl of a tobacco pipe or small encaible, covered with ashes or sand; on the application of a low degree of heat, it changes its colour from a yellow to a beautiful pink. This is performed with little hazard; and if the colour produced happens to be fine, the price is much augmented.

**Red Topaz**.—This beautiful gem, which very seldom occurs naturally, is of a fine crimson colour, tinged with a rich brown; it is extremely rare, and generally taken to be a variety of ruby, for which I have seen it offered for sale. Its price, from its scarcity, is quite capricious; it has an exquisite pleasing colour, very different from the glare of the artificial pink topaz.

**Blue Topaz**.—It is also a beautiful gem, of a fine celestial blue colour. It has occurred of considerable magnitude; the finest specimen known, I brought in the rough from Brazil; when cut and polished, it weighed about 14 oz. Smaller specimens are not uncommon, and when light-coloured are often taken for aqua-marinas, from which they may always be distinguished by their greater weight and hardness &c.

**White Topaz**.—is familiarly called *Minas Nova*. It is a beautiful pellucid gem, and is used for bracelets, necklaces &c. It possesses greater brilliancy than crystal; and from its hardness, has been used to cover paste &c., and to form doublets. (Mawe *On Diamonds &c.*, 2nd ed. p. 108-112.)

passes into yellowish white, faint green, sky blue; from into, flesh red and crimson red. n 3464 to 3641. (Thomson's

In speaking of the topaz a yellow colour is always understood of different degrees of fuller and deeper the tinge is esteemed. In hardness it is. (Mawe On Diamonds)

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employed for necklaces, ear-drops, &c. No little skill and taste are required and duly proportioning this would be perfectly symmetrical; the bezel of sufficient depth, the should be formed in delicate easily on the mill, and the general tolerably well acquainted is uncommon to meet with one

topaz varies in price according to perfection. A superlatively fine colour and workmanship, sufficient armlet, or any other ornament, 80 carats, was sold for 1000.

become more common since our Brazil; consequently they are and lower in price. (Mawe On

now in vogue as they were fine stone can at present be had. (Emanuel On Diamonds)

This is made from the brownish when of intense colour, is put into tobacco pipe or small crucibles, of sand; on the application of heat, it changes its colour to a beautiful pink. This is per- tle hazard; and if the colour is to be fine, the price is much

This beautiful gem, which very naturally, is of a fine crimson with a rich brown; it is extremely light taken to be a variety of ruby, is seen it offered for sale. Its price is quite capricious; it has an colour, very different from the pink topaz.

It is also a beautiful gem, of a colour. It has occurred of con- tude; the finest specimen known, rough from Brazil; when cut and weighed about 14 oz. Smaller specimens, and when light-coloured for aqua-marinas, from which they are distinguished by their greater dness &c.

is familiarly called *Minus Nord*, pellucid gem, and is used for lace &c. It possesses greater crystal; and from its hardness, to cover paste &c., and to form Mawe On Diamonds &c., 2nd ed.

TORTOISESHELL (Fr. écaillé de tortue; Ital. scaglia di tartaruga; Ger. schildpatt; Malay, sisik kuala, &c.). The brown and yellow scales of the *Testudo imbricata*, or tortoise, a native of the tropical seas. It is extensively used in the manufacture of combs, snuff-boxes &c., and in inlaying and other ornamental work.

The best tortoiseshell is that of the Indian Archipelago; and the finest of this quarter is obtained on the shores of the Spice Islands and New Guinea. Under the name East Indian, a great deal of inferior shell is imported, brought from various parts of the East Indies. The goodness of tortoiseshell depends mainly on the thickness and size of the scales, and in a smaller degree on the clearness and brilliancy of the colours. Before the opening of the British intercourse with India, the greater part of the tortoiseshell which eventually found its way to Europe, was first carried to Canton, which then formed the principal mart for the commodity. It is still an article of trade from that city; but the imports and exports are inconsiderable, Singapore being now the chief mart for this article. Its price at the latter varies from 750 and 900 from 1,000 to 1,600 dollars per picul, according to quality. (Crawford's *Indian Archipelago*; *Singapore Chronicle*; *Canton Register*.)

Exclusive of 4,507 lb. of tortoiseshell, the imports of tortoiseshell in 1867 amounted to 34,825 lb., valued at 21,257*l.*; and the re-exports to 25,576 lb., of the value of 15,559*l.* Duty repealed in 1843.

TOYS (Ger. spielzeug, spielsachen; Dutch, speelgoed; Fr. jouets, bimbelots; Ital. trastulli; Span. dijes, juguetes de niños; Russ. igraushki) include every trifling article made expressly for the amusement of children.

How frivolous soever these articles may appear in the estimation of superficial observers, their manufacture employs hundreds of hands, and gives bread to many families in London, Birmingham &c. The greatness of the demand for them may be inferred from the fact, that a manufacturer of glass beads, and articles of that description, has received a single order for 500*l.* worth of dolls' eyes. (*Fourth Report, Artisans and Machinery*, p. 34.) Considerable quantities are also imported from Holland; which supplies us with several sorts of wooden toys on more reasonable terms than we can afford to produce them. But of late years these have been made in greater abundance in England than formerly.

In 1866, the value of the foreign toys imported was 196,551*l.*, and the value of the toys exported was 74,770*l.* In 1853 the duty of 10 per cent. ad valorem was repealed, and subsequently the duty was repealed.

TRADE. Under this head we annex two tables, the information in which was not available at the time the article COMMERCE passed through the press.

Account showing the Value of the Imports and Exports of the United States of America in 1867.

	UNITED STATES.	1867
		Dollars.
Value of imports	- - -	367,915,411
Bullion and specie	- - -	107,16,501
Total	- - -	378,629,943
Of which—		
Entered for home consumption	- - -	215,151,079
in warehouse	- - -	165,198,359
Value of exports	- - -	397,107,885
Bullion and specie	- - -	62,991,978
Total	- - -	465,398,867

Account of the Total Value of Imports for Home Consumption into France and of Exports of Domestic Produce of France in 1867 and 1868, and of the Value of Imports into and Exports of Bullion and Specie from Austria in 1867 and 1868.

	1867	1868
FRANCE.		
Value of imports entered for home consumption, ex specie	- - -	frances 3,798,372,000
Bullion and specie	- - -	818,102,913
Total	- - -	5,871,616,915
Value of exports of domestic produce	- - -	frances 2,966,790,000
Bullion and specie	- - -	219,693,810
Total	- - -	5,075,999,810
AUSTRIA.		
Value of Imports of Bullion and specie	- - -	florins 24,145,610
Value of exports of do.	- - -	19,955,676

[COMMERCE; IMPORTS AND EXPORTS.]

TRADE MARKS. In consequence of the fraudulent use of names of well-known manufacturers or their recognised marks of merchandise for the purpose of vending spurious and inferior articles, the Act 25 & 26 Vict. c. 88 was passed in 1862. For its provisions, see COPYRIGHT.

TRAGACANTH. A species of gum the produce of the *Astragalus Truqueanthus*, a thorny shrub growing in Persia, Crete, and the islands of the Levant.

It exudes about the end of June from the stem and larger branches, and soon dries in the sun. It is inodorous; impressing a very slightly bitter taste as it softens in the mouth. It has a whitish colour; is semitransparent; and in very thin, wrinkled, vermiform pieces; it is brittle, but not easily pulverised, except in frosty weather, or in a warmed mortar. It should be chosen in long twisted pieces, white, very clear, and free from all other colours; the brown, and particularly the black pieces, should be wholly rejected. (Dr. A. T. Thomson's *Dispensary*; Milburn's *Oriental Com.*) In 1866, 698 cwt. tragacanth were imported. Duty repealed in 1846.

TRANSIT. The following are our existing customs regulations as to the treatment of goods in transit:—

Goods for exportation in transit must be imported as merchandise, in packages of legal size and in vessels of legal tonnage; and must be so reported in the ship's inward report, which must also specify the description of the goods.

The exporter is to enter into transhipment bond and pass a shipping bill, which should contain full particulars of the goods; he will then obtain an order for the delivery of the goods from the importing vessel, and a pricking note for the shipment on board the export vessel.

The goods, on delivery from the importing vessel, must be conveyed to the exporting vessel by licensed lightermen (unless the vessels be alongside, to the searcher on the station where the export vessel is lying, within 24 hours in London, and 12 hours at the outports; otherwise the goods to be subject to a more extended examination), and in charge of an officer at the exporter's expense.

Transhipments are not allowed to proceed after dark (excepting by permission of the inspector-general, in cases of real necessity), nor to take place in the river below Deptford Creek.

In order that lighters may not be made floating warehouses, spirits, wines, tea, and tobacco must be shipped within three days, and other goods within six days from the time of delivery

from the importing vessel, but this time may be extended in case they have been unavoidably shut out.

The officers of customs may make an examination sufficient to satisfy themselves of the integrity of the transaction.

Goods which have been landed from the import ship, except they have been landed in the transit sheds, cannot be exported under the transshipment regulations. At ports where lighters are not in use, and goods in transit are necessarily conveyed by cart or van, a cart-follower must be sent in charge of the goods, at the exporter's expense.

Samples of such goods as are usually sold by sample, in transit may be drawn by permission of the surveyor, and under the supervision of the examining officer, either on board the import ship or alongside the import or export vessel, on payment (if dutiable goods) of the duty, if it exceed 1s. in amount, but one sample only of each mark is allowed to be taken.

Corn may be transhipped at ports to which the general transshipment regulations do not extend, under similar regulations.

Transhipment of arms and ammunition, not allowed to the British possessions in America, the Mauritius, or Cape of Good Hope.

A duplicate shipping bill is to be furnished to the proper officer at the port at which goods may be entered for exportation, in transit to the British possessions.

These regulations are at present applicable only to the ports of London, Liverpool, Hull, Southampton, Glasgow, Goole, Grimsby, Newhaven, Poole, and Newcastle, but at the latter place it is restricted to vessels lying alongside each other.

The total value of the articles transhipped in 1867 is estimated in the Board of Trade returns at 6,655,527l.

The following extract of a letter of March 7, 1867, of the Director-General of Customs &c., with relative statement, shows the regulation adopted by France with regard to direct transit.

The obligation of direct transit, stipulated in our various treaties of commerce, has lost much of its importance since the advantages of the Conventional Tariff have been extended to the majority of the European Powers, and we are able at this moment to depart, without real inconvenience, from the rigour of the laws established in this respect. Commencing from the time of the receipt of this letter, the obligation of direct transit shall be applied, in the case of merchandise mentioned in the Conventional Tariff, only in the case of those articles designated by name in the statement below.

This special category of goods will also be freed from the above restriction, whenever they have been brought by land, or by means of internal navigation from the place of their origin to the place of their arrival in France, and have not been carried by sea during any part of their transit.

\*Statement of the articles which remain subject to the obligation of direct transit, with the exception of importations from the country of origin into France by land or by means of internal navigation without any sea transit.

Sugar.

Molasses, not intended for distillation.

Skins, unprepared.

Wool in mass.

Horse-hair, unprepared, prepared, or crimped.

Wax, unprepared.

Grease, other than of fish.

## TREATIES (COMMERCIAL)

Scouring from skins.

Bones and hoofs of cattle, unprepared and calcinated.

Horns of cattle, unprepared.

Rice with the straw.

Paste of Italy (maecroni, vermicelli &c.)

Fruits for making oil.

Resins.

Anise, unripe.

Grains for making oil.

Oil of every kind, not denominated.

Roots, herbs, flowers, leaves, and bark, for medicine, not denominated.

Cork of every kind.

Dyeing wood grounded.

Rushes and osiers.

Cotton plant.

Oleic acid.

Potash.

Tartar, unprepared.

Carbonate of potash.

Oil of schist, or petroleum, refined.

Silk crape, plain, embroidered, or worked.

TREATIES (COMMERCIAL). By a commercial treaty is meant a treaty between two independent nations, for facilitating, and most commonly, also, regulating the commerce carried on between them.

*Origin, Objects, and Policy of modern Commercial Treaties.*—During the middle ages, and down, indeed, to a comparatively recent period, foreigners resident in a country, whether for commercial or other purposes, were, for the most part, subject to very harsh treatment. At one time, it was usual in England to make aliens liable for the debts and crimes of each other; and the practice, formerly so common, of laying heavier duties on the goods imported and exported by aliens than by British subjects, is not even yet, we grieve to say, altogether abandoned. In France, and some other countries, during the 14th and 15th centuries, a stranger was incapable of bequeathing property by will; and the whole of his personal as well as real estate, fell, at his death, to the king or the lord of the barony. This barbarous law was known by the name of *Droit d'Aubaine*, and was not completely abolished in France till a very late period. (Robertson's *Charles V.* vol. i. note 22.) Previously to last century, the laws with respect to shipwreck, though infinitely more humane than they had been at a more remote period, were calculated rather to promote the interest of the sovereign of the country, or the feudal lords on whose territories shipwrecked vessels might be thrown, than those of the unfortunate owners or survivors. [WRECK.] The practice of confiscating shipwrecked property continued in France till 1681, when it was abolished by an edict of Louis XIV. It was at one time common in Germany, to use the words of M. Boucheaud, 'pour les prédateurs de prier Dieu en chaire, qu'il se fiasse bien des naufrages sur leurs côtes!' (*Théorie des Traités de Commerce*, p. 118.) And the fact, that the celebrated jurist Thomasius wrote a dissertation in defence of such prayers, affords, if possible, a still more striking proof of the spirit of the period. The most serious obstacles were then, also, opposed, by the prevalent insecurity, and the arbitrary nature of the tolls which the lords were in the habit of exacting, to the transit of commodities through the territories of one state to those of another.

Under such circumstances, it became of much importance for commercial states to endeavour to obtain, by means of treaties, that protection and security for the persons and properties of their subjects, when abroad, against unjust treatment

and vexatious exactions, which they could not have obtained from the laws of the countries in which they might happen to reside. Thus, it was stipulated by Edward II., in 1325, that the merchants and mariners of Venice should have power to come to England for 10 years, with liberty to sell their merchandise and to return home in safety, 'without having either their persons or goods stopped on account of other people's crimes or debts.' (Anderson, anno 1325.) The commercial treaties negotiated during the 15th, 16th, and 17th centuries, are full of similar conditions; and there can be no doubt that by providing for the security of merchants and seamen when abroad, and suspending, with respect to them, the barbarous laws and practices then in force, they contributed materially to accelerate the progress of commerce and civilisation.

Commercial treaties were also negotiated at a very early period for the regulation of neutral commerce during war; and for defining the articles that should be deemed contraband, or which it should not be lawful for neutral ships to convey or carry to either belligerent. These are obviously points that can only be decided by express stipulations. There is a good collection of treaties as to this point, in the appendix to the excellent work of Lampredi, *Del Commercio de' Popoli Neutrali*. [CONTRABAND.]

Instead, however, of confining commercial treaties to their legitimate and proper purposes—the security of merchants and navigators, and the facility of commercial transactions—they very soon began to be employed as engines for promoting the commerce of one country at the expense of another. For more than two centuries, those engaged in framing commercial treaties have principally employed themselves to secure, either by force or address, some exclusive advantage in favour of the ships and products of their particular countries. Hence these compacts are full of regulations as to the duties to be charged on certain articles, and the privileges to be enjoyed by certain ships, according as they were either produced by or belonged to particular countries. It was in the adjustment of these duties and regulations that the skill of the negotiator was chiefly put to the test. It was expected that he should be thoroughly acquainted with the state of every branch of industry, both in his own country and in the country with which he was negotiating; and he was to endeavour so to adjust the tariff of duties, that those branches in which his own country was deficient might be benefited, and those in which the other was superior might be depressed. The idea of conducting a negotiation of this sort on a fair principle of reciprocity is of very late origin: success in circumventing, in over-reaching, or in extorting from fear or ignorance some oppressive, but at the same time worthless privilege, was long esteemed the only proof of superior talent in negotiators.

In an able tract, attributed to Mr. Eden, afterwards Lord Auckland, published in 1787 (*Historical and Political Remarks on the Tariff of the French Treaty*), there is the following outline of the qualifications necessary to the negotiator of a commercial treaty: 'Besides a general knowledge of the trade and reciprocal interests of the contracting parties, he ought to be precisely acquainted with their several kinds of industry and skill, to discover their wants, to calculate their resources, and to weigh with nicety the state of their finances, and the proportionate interest of their money; nay, further, he should be able to ascertain the comparative population and strength of each country, together with the price and

quality both of first materials, and also of the labour bestowed upon them: for this purpose he should enquire into the operations of every class of merchants and manufacturers concerned in the trade; should consult their expectations on each of its several branches; and collect their hopes and fears on the effect of such a commercial revolution on the competition of rival nations. A good treaty of commerce, independent of the art of negotiation, is pronounced, by one who well knew the extent and difficulty of the subject, to be a "masterpiece of skill." (P. 10.)

Had Mr. Eden concluding by stating, that no individual, or number of individuals, ever possessed, or ever would possess, the various qualifications which in his estimation were required in negotiating a 'good commercial treaty,' he would only have affirmed what is most certainly true. We believe, however, that he had formed a totally false estimate, not only of the qualifications of a negotiator, but of the objects he ought to have in view. It was the opinion of the Abbé Mably (*Droit public de l'Europe*, tome ii. p. 561), an opinion in which we are disposed, with very little modification, to concur, that when a few general rules are agreed upon for the effectual security of trade and navigation, including the importation and exportation of all commodities not prohibited by law; the speedy adjustment of disputes; the regulations of pilotage, harbour and lighthouse duties; the protection of the property and effects of merchants in the event of a rupture &c.; all is done that ought to be attempted in a commercial treaty. It may, indeed, be properly stipulated that the goods of the contracting powers shall be admitted into each other's ports on the same terms as 'those of the most favoured nations,' that is, that no higher duties shall be charged upon them than on those of others. But here stipulation ought to cease. It is an abuse and a perversion of commercial treaties, to make them instruments for regulating duties or prescribing custom-house regulations.

We admit, indeed, that occasions may occur, in which it may be expedient to stipulate for a reduction of duties or an abolition of prohibitions on the one side, in return for similar concessions on the other. But all arrangements of this sort should be determined by a convention limited to that particular object; and a fixed and not very distant term should be specified, when the obligation in the convention should expire, and both parties be at liberty to continue or abandon the regulations agreed upon. Generally speaking, all treaties which determine what the duties on importation or exportation shall be, or which stipulate for preferences, are radically objectionable. Nations ought to regulate their tariffs in whatever mode they judge best for the promotion of their own interests, without being shackled by engagements with others. If foreign powers be all treated alike, none of them has just grounds of complaint; and it can rarely be for the interest of any people to show preferences to one over another. Those, for example, by whom we may be most advantageously supplied with foreign products, require no preferences; and if we exclude them, or give a preference to others, we incontestably injure ourselves: and yet 19 out of 20 of the regulations as to duties in commercial treaties have been founded on this preposterous principle. They have been employed to divert trade into channels where it would not naturally flow; that is, to render it less secure and less profitable than it would otherwise have been.

A great deal of stress has usually been laid upon the advantages supposed to be derived from the

(COMMERCIAL)

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(COMMERCIAL). By a com-

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privileges sometimes concealed in commercial treaties. But we believe that those who enquire into the subject will find that such concessions have, in every case, been not only injurious to the party making them, but also to the party in whose favour they have been made. The famous commercial treaty with Portugal, negotiated by Mr. Metanen in 1703, was almost universally regarded, for a very long period, as admirably calculated to promote the interests of this country; but it is now generally admitted, by every one who has reflected upon such subjects, that few transactions have taken place by which these interests have been more deeply injured. It stipulated for the free admission of British woollens into Portugal, from which they happened, at the time, to be excluded; but in return for this concession—a concession far more advantageous to the Portuguese than to us—we bound ourselves 'for ever hereafter' to admit wines of the growth of Portugal into Great Britain at  $\frac{1}{3}$  of the duty payable on the wines of France. Thus, in order to open an access for our woollens to the limited market of Portugal, we consented, in all time to come, to drink inferior wine, bought at a comparatively high price. [WINE.] This, however, was not all. By excluding one of the principal equivalents the French had to offer for our commodities, we necessarily lessened their ability to deal with us; at the same time that we provoked them to adopt retaliatory measures against our trade. It is owing more to the stipulations in the Methuen treaty than to anything else, that the trade between England and France—a trade that would naturally be of vast extent and importance—has so long been confined within comparatively narrow limits.

It is visionary to imagine that any nation will ever continue to grant to another any exclusive advantage in her markets, unless she obtain what she reckons an equivalent advantage in the markets of the other. And if a commercial treaty stipulating for an exclusive privilege be really and bonâ fide observed by the country granting the privilege, we may be sure that the concessions made by the country in whose favour it is granted are sufficient fully to countervail it. Those who grasp at exclusive privileges in matters of this sort, or who attempt to extort valuable concessions from the weakness or ignorance of their neighbours, are uniformly defeated in their object. All really beneficial commercial transactions are bottomed on a fair principle of reciprocity; and that nation will always flourish most, and have the foundations of her prosperity best secured, who is a universal merchant, and deals with all the world on the same fair and liberal principles.

The justness of these principles, we are glad to observe, is now beginning to be very generally admitted. Stipulations as to duties and Custom-house regulations are disappearing from commercial treaties; and it is to be hoped that at no distant period every trace of them may have vanished.

A good work on the principles, style, and history of commercial treaties is a desideratum. The best we have seen are Mascovius *De Fœderibus Commercialium*, 4to. Leipzig, 1735; and Bouchaud, *Théorie des Traités de Commerce*. 12mo. Paris, 1777. But these are principally works of erudition, and were written before the sound principles of commercial policy had been unfolded. There is no good collection of commercial treaties in the English language; but Mr. Hertlet's work is valuable, as containing the recent treaties in an accessible form.

We subjoin copies of or references to the principal

commercial treaties and conventions existing at this moment between Great Britain and other powers, viz. ARGENTINE REPUBLIC, AUSTRIA, BELGIUM, CHINA, DENMARK, FRANCE, GREECE, HANSE TOWNS, ITALY, MEXICO, MOROCCO, NETHERLANDS, PERSIA, PERU, PORTUGAL, PRUSSIA &C., RUSSIA, SIAM, TURKEY, UNITED STATES, URUGUAY, AND ZOLLVEREIN.

#### ARGENTINE REPUBLIC.

*Treaty of Amity, Commerce, and Navigation between his Majesty and the United Provinces of Rio de la Plata.* (Feb. 2, 1825.)

Article 1. There shall be perpetual amity between the dominions and subjects of his Majesty the King of the United Kingdom of Great Britain and Ireland, and the United Provinces of Rio de la Plata and their inhabitants.

2. There shall be, between all the territories of his Britannic Majesty in Europe and the territories of the United Provinces of Rio de la Plata, a reciprocal freedom of commerce; the inhabitants of the two countries, respectively, shall have liberty, freely and securely to come, with their ships and cargoes, to all such places, ports, and rivers in the territories aforesaid, to which other foreigners are or may be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce; and generally, the merchants and traders of each nation respectively shall enjoy the most complete protection and security for their commerce, subject always to the laws and statutes of the two countries respectively.

3. His Majesty the King of the United Kingdom of Great Britain and Ireland engages further, that in all his dominions situated out of Europe, the inhabitants of the United Provinces of Rio de la Plata shall have the like liberty of commerce and navigation stipulated for in the preceding article, to the full extent in which the same is permitted at present, or shall be permitted hereafter, to any other nation.

4. No higher or other duties shall be imposed on the importation into the territories of his Britannic Majesty, of any articles of the growth, produce, or manufacture of the United Provinces of Rio de la Plata, and no higher or other duties shall be imposed on the importation into the said United Provinces, of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed, in the territories or dominions of either of the contracting parties, on the exportation of any articles to the territories or dominions of the other, than such as are or may be payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation or importation of any articles the growth, produce, or manufacture of his Britannic Majesty's dominions, or of the said United Provinces, which shall not equally extend to all other nations.

5. No higher or other duties or charges on account of tonnage, light, or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed, in any of the ports of the said United Provinces, on British vessels of the burden of above 120 tons, than those payable in the same ports by vessels of the said United Provinces of the same burden, nor in the ports of any of his Britannic Majesty's territories on the vessels of the United Provinces of



15. The present treaty shall be ratified, and the ratification shall be exchanged in London within 4 months, or sooner, if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed their seals thereunto.

Done at Buenos Ayres, the 2nd day of February, in the year of our Lord 1825.

WOODRINE PARISH, H. M. Consul-General.  
MANU. J. GARCIA.

An order in council, dated September 3, 1827, orders that vessels of the United Provinces of Rio de la Plata entering the ports of the United Kingdom of Great Britain and Ireland, in ballast, or laden direct from any of the ports of Rio de la Plata, or departing from the ports of the said United Kingdom, together with the cargoes on board the same, such cargoes consisting of articles which may be legally imported or exported, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports; or on similar articles when imported into or exported from such ports in British vessels; and also such articles, when exported from the said ports in vessels of the United Provinces of Rio de la Plata, respectively, shall be entitled to the same bounties, drawbacks, and allowances that are granted on similar articles when exported in British vessels.

*Local Dues.*—Provided nevertheless, that nothing herein shall extend to any duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges to which any vessels of the United Provinces of Rio de la Plata, of the burden of 120 tons, or of any less burden, are now by law liable in the ports of any of his Majesty's dominions; it appearing to his Majesty and his privy council, that British vessels of the burden of 120 tons, or of any less burden, are subject in the ports of the said United Provinces to higher duties and charges than are levied in those ports on vessels of the said United Provinces of the burden of 120 tons, or of any less burden.

#### AUSTRIA.

*Treaty of Amity, Commerce, and Navigation between her Britannic Majesty and the Emperor of Austria. Signed at Vienna, July 3, 1838.*

Article 1. From the date of the ratification of this present treaty, British vessels arriving in or departing from the ports of his Majesty the Emperor of Austria, and Austrian vessels arriving in or departing from the ports of the United Kingdom of Great Britain and Ireland, and those of all the possessions of her Britannic Majesty, shall be subject to no other or higher duties or charges, of whatsoever nature they may be, than those which are actually or may hereafter be imposed on national vessels, on their entering into or departing from such ports respectively.

2. All productions of the soil, industry, and art of the states and possessions of his Majesty the Emperor of Austria, including the said productions which may be exported through the northern outlet of the Elbe, and the eastern outlet of the Danube, and which may be imported into the ports of the United Kingdom and the possessions of her Britannic Majesty; and also all the productions of the soil, industry, and art of the United Kingdom and possessions of her Britannic Majesty, which may be imported into the ports of his Majesty the Emperor of Austria, shall enjoy reciprocally, in all respects, the same privi-

leges and immunities, and may be imported and exported exactly in the same manner, in vessels of the one as in vessels of the other of the high contracting parties.

3. All commodities which are not the productions of the soil, industry, and art of the two respective states or their possessions, and which may be legally imported from the ports of Austria, including those of the Danube, into the ports of the United Kingdom of Great Britain and Ireland, of Malta, and Gibraltar, and other possessions of her Britannic Majesty, in Austrian vessels, shall be subject to the same duties only which would be paid on the same articles, if they were imported in British vessels.

Her Britannic Majesty extends by this treaty to Austrian navigation and trade, the full benefits of the two British Acts of Parliament passed on the 28th of August, 1833, regulating the trade and navigation of the United Kingdom and British possessions, as well as all other privileges of commerce and navigation now enjoyed, or to be hereafter granted, by existing laws, by orders in council, or by treaties to the most favoured nations.

4. All Austrian vessels arriving from the ports of the Danube, as far as Galatz inclusively, shall, together with cargoes, be admitted into the ports of the United Kingdom of Great Britain and Ireland, and of all the possessions of her Britannic Majesty exactly in the same manner as if such vessels came direct from Austrian ports, with all the privileges and immunities stipulated by the present treaty of navigation and commerce. In like manner, all British vessels, with their cargoes, shall continue to be placed upon the same footing as Austrian vessels, whenever such British vessels shall enter into or depart from the same ports.

5. In consideration of British vessels, arriving direct from other countries than those belonging to the high contracting parties, being admitted with their cargoes into Austrian ports, without paying any other duties whatever than those paid by Austrian vessels, so also the productions of the soil and industry of the parts of Asia or Africa situated within the Straits of Gibraltar, which shall have been brought into the ports of Austria, may be re-exported from thence in Austrian vessels directly into British ports, in the same manner, and with the same privileges, as to all manner of duties and immunities, as if these productions were imported from Austrian ports in British vessels.

6. All commodities and articles of commerce which, according to the stipulations of the present treaty, or by the existing laws and ordinances of the respective states, may be legally imported into or exported from the states and possessions of the two high contracting parties, whether under the British or the Austrian flag, shall in like manner be subject to the same duties, whether imported by national vessels or by those of the other state; and upon all commodities and articles of commerce which may be legally exported from ports of either state, the same premiums, drawbacks, and advantages shall be accorded, whether they are exported by the vessels of the one or by those of the other state.

7. All commodities and articles of commerce which shall be imported, placed in depôt, or warehoused in the ports of the states and possessions of the two high contracting parties, so long as they shall remain in depôt or warehouse, and shall not be used for internal consumption, shall be subject, upon re-exportation, to the same treatment and duties, whether that re-exportation



Her Britannic Majesty's ratification of the aforesaid treaty of commerce and navigation is exchanged under the explicit declarations and understandings above mentioned.

Done at Milan, the 14th day of September, 1838.  
FREDERIC JAMES LAMB.

*Counter-Declaration made by the Austrian Plenipotentiary.*

In consequence of the declaration presented this day by his Excellency Sir Frederic Lamb, Ambassador of her Britannic Majesty to his Imperial and Royal Apostolic Majesty, on the occasion of the exchange of the ratifications of the treaty of commerce and navigation concluded and signed at Vienna on the 3rd of July, between the plenipotentiaries of his Imperial and Royal Apostolic Majesty and of her Britannic Majesty, which declaration is conceived in the following terms—

1. That in the preamble of the said treaty the words 'the commercial relations of their respective states and possessions' shall be understood to mean 'the commercial relations between their respective states and possessions,' the latter form of words being that adopted in the preamble of the convention of commerce signed at London on the 21st of December, 1829, between Austria and Great Britain.

2. That the stipulations of the 3rd article of the aforesaid treaty of the 3rd of July, 1838, relating to goods not the produce of the respective states, shall be understood to be mutual.

3. That by the 7th article of the treaty of the 3rd of July, 1838, it is understood that goods placed in warehouse shall not be liable to duty unless entered for consumption; and may be exported on the same terms in the ships of the one as in those of the other country.

The undersigned, Chancellor of Court and State, is authorised by his Majesty the Emperor, his august master, to accede, in every particular, to this declaration presented by his Excellency the Ambassador of her Britannic Majesty.

Done at Milan, the 14th of September, 1838.  
METTERNICH.

*Treaty of Commerce between her Majesty and the Emperor of Austria, with the final Protocol. Signed at Vienna, December 16, 1865.*

Article 1. During the continuance of the present treaty, the subjects and commerce of Austria shall enjoy within all the dominions and possessions of her Britannic Majesty, including her Majesty's colonies and foreign possessions, the same advantages which have been conceded to French subjects and commerce by the treaty between her Majesty and the Emperor of the French, signed at Paris on the 23rd of January, 1860, and to the subjects and commerce of the States of the Zollverein by the treaty between her Majesty and his Majesty the King of Prussia, representing the sovereign states and territories united to the Prussian system of customs and contributions, signed at Berlin on the 30th of May, 1865; and further, Austrian subjects and commerce shall be placed in all other respects on the footing of the subjects and commerce of the most favoured nation.

2. From and after the 1st of January, 1867, British subjects and commerce shall, within the dominions of his Imperial and Royal Majesty, be placed in every respect upon the footing of the most favoured nation, and share in all the advantages and favours which are enjoyed by the commerce and subjects of any third power.

From this rule are excepted:—

a. Advantages such as those which, for the

sole purpose of facilitating frontier traffic, are present conceded, or may hereafter be conceded to the States of the German Zollverein, or other neighbouring States; and also those reductions of, or exemptions from, customs duties which are valid only at certain parts of the frontier, or for the inhabitants of particular localities.

b. Those advantages which belong, or may hereafter be conceded, to the subjects of the German Confederation in virtue of Federal treaties and Federal laws.

c. Those special and ancient privileges which are enjoyed by Turkish subjects, as such, for Turkish commerce in Austria.

3. The Austrian Customs Tariff (the present system of calculating customs duties by weight being maintained) shall be so regulated that the duty to be levied upon articles the produce or manufacture of the dominions of her Britannic Majesty, upon their importation into the Austrian States, shall, from the 1st of January, 1867, not exceed 25 per cent. of the value, with the addition of the cost of transport, insurance, and commission necessary for the importation into Austria as far as the Austrian Customs frontier; and for this purpose there shall serve as basis the average value of the articles included under one and the same denomination in each position of the future Austrian Tariff.

From and after the 1st of January, 1870, the maximum of these duties shall not exceed 20 per cent. of the value, with the additions above defined.

The articles of State monopolies (tobacco, salt, gunpowder), and further, the goods comprised in Classes 1 and 7 of the present Austrian tariff, are excepted from these maxima.

4. Commissioners from both Governments shall meet, not later than the month of March, 1866, for the purpose of ascertaining and determining the values and additional charges, and they shall take as the basis of their calculations the average prices at the principal centres of production and commerce of the United Kingdom for the year 1865.

Three years after the duties fixed by treaty shall have come into operation, each of the contracting parties shall have the right to claim a revision of the values.

5. Those duties of the future Austrian tariff to come into operation on the 1st of January, 1867, to which England attaches a special interest, shall form the subject of a supplementary convention to be concluded between the two contracting parties.

The articles of State monopoly, as also the goods subject to fiscal duties included in Classes 1 and 7 of the present tariff, remain also here excepted.

6. Internal imposts which are levied in the territory of one party on the production, preparation, or use of any article, whether on account of the state or on account of municipalities and corporations, shall under no pretext affect the productions of the other party in a higher or more onerous degree than the same productions of native origin.

7. The contracting parties agree that every reduction in their tariffs of import or export duties, and every privilege, favour, or immunity which either contracting party may hereafter grant to the subjects and commerce of a third power, shall be extended immediately and unconditionally to the other contracting party, with a reserve, however, of the exceptions enumerated in Article 2, a and b.

8. The subjects of one of the contracting parties shall enjoy, in the dominions and possessions of the other, equality of treatment with native subjects in regard to charges on loading and unloading, to warehousing, and to the transit trade, as also in regard to bounties, facilities, and drawbacks.

9. The subjects of one of the two high contracting powers shall, in the dominions of the other, enjoy the same protection as native subjects in regard to the rights of property in trade marks, and other distinctive marks, as well as in patterns and designs for manufacture.

10. The high contracting parties reserve to themselves to determine hereafter, by a special convention, the means of reciprocally protecting copyright in works of literature and the fine arts within their respective dominions.

11. The present treaty shall remain in force for the space of ten years, to date from the 1st of January, 1867; and in case neither of the high contracting powers shall have notified to the other, twelve months before the expiration of the said period of ten years, the intention to put an end to its operation, the treaty shall continue in force for another year, and so on from year to year, until the expiration of a year counting from the day on which one or other of the high contracting parties shall have announced its intention to put an end to it.

The high contracting parties reserve to themselves the right to introduce, by common consent, into this treaty, any modification which is not opposed to its spirit and principles, and the utility of which shall have been shown by experience.

12. The present treaty shall be ratified, and the ratifications shall be exchanged in Vienna, in three weeks or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Vienna, this 16th day of December, 1865.

BLOOMFIELD,  
ALEXANDER GRAF MENSENDORFF-  
POUILLY, *F.M.L.*  
BERNHARD-BARON WÜLLERSTORF,  
*C. Admiral.*

#### Final Protocol.

Upon proceeding to the signature of the treaty of commerce concluded this day between Great Britain and Austria, the plenipotentiaries of the two powers made the following declarations:—

1. The plenipotentiaries of his Majesty the Emperor of Austria declared that in virtue of Article XIII. of the treaty of customs and contributions union of the 23rd December, 1863, between Austria and Liechtenstein, the treaty of commerce concluded this day would apply equally to the principality of Liechtenstein, and the British plenipotentiary accepted this declaration.

2. In order to avoid any future doubt as to the intention of Article III., the plenipotentiaries of the two powers agreed to the following explanation:—

In the construction of a tariff of specific duties by weight within fixed ad valorem rates, it is necessary to determine what shall be the unit of value to which each specific duty shall be applied.

In adopting the basis of value established by Article III., it is understood that it is not intended to depart from the general principle of the article, viz., the application of certain maximum ad valorem rates of duty to all articles of British produce and manufacture, but to guard against

the necessity of making separate provision for every variety of each article, thereby creating minute and inconvenient subdivisions in the tariff.

With this view it becomes necessary to group together those different qualities and descriptions of the same article or of similar articles which, from their approximation in value and general resemblance in character, it is found possible to include under one and the same denomination in one position of the tariff.

But it is understood that in fixing the denominations in each position of the future Austrian tariff, they shall be so arranged that the duty affixed to any one position shall not exceed the 'maximum' rates fixed by Article III. of the treaty upon the average value of any kind of goods of commercial importance included under any one denomination in such position, unless by common consent it is considered expedient or necessary.

3. With reference to title IV., the plenipotentiaries likewise agreed that if it shall be found that the prices of any kinds of goods have been essentially disturbed by exceptional causes during the twelve months of the year 1865, the Commissioners of the two Governments shall endeavour to find such a basis of value as shall be considered to correspond to a fair average value for future years.

In the case of textile manufactures (the prices of which have been seriously deranged during the late war in the United States of America) it is agreed that if the average prices of the year 1865 be taken as a basis of value, either contracting party may claim a revision of such valuation after the 1st of January, 1868.

4. The British plenipotentiary then declared that:

Her Britannic Majesty engages to recommend to Parliament the abolition of the duties payable on the importation of wood and timber into the United Kingdom, and also the reduction of the duties payable on wine in bottle to the amount of those payable on wine in wood upon importation into the United Kingdom.

5. The Imperial Austrian plenipotentiaries on their part declared that:

The duty upon the export of rags from the states and possessions of his Imperial and Royal Majesty shall, from and after the 1st of July, 1866, be reduced to 2 florins the Zollcentner; and that:

The duty upon the importation of salted herrings into the states and possessions of his Imperial and Royal Majesty shall, from the 1st of February, 1866, be reduced to 50 kreutzers per Zollcentner; gross weight.

In witness whereof the undersigned plenipotentiaries have drawn up the present protocol in duplicate form, to which, after it had been duly read, they affixed their signatures.

Vienna, this 16th day of December, 1865.

BLOOMFIELD,  
ALEXANDER GRAF MENSENDORFF-  
POUILLY, *F.M.L.*  
BERNHARD-BARON WÜLLERSTORF,  
*C. Admiral.*

*Treaty of Navigation between her Majesty and his Majesty the Emperor of Austria. Signed at Vienna, April 30, 1868. Ratifications exchanged at Vienna, June 26, 1868.*

Article 1. British ships and their cargoes in all the dominions of his Imperial and Royal Apostolic Majesty, and ships belonging to the citizens

of the Imperial and Royal States and their cargoes in all the dominions of her Majesty the Queen of the United Kingdom of Great Britain and Ireland, from whatever place arriving and whatever may be their place of destination, and whatever may be the place of origin or destination of their cargoes, shall be treated in every respect as national ships and their cargoes.

Every favour or exemption in these respects, or any other privilege in matters of navigation, which either of the contracting parties shall grant to a third power, shall be extended immediately and unconditionally to the other party.

It is, however, agreed that this stipulation shall not be applicable to the national fisheries of either of the two countries.

2. The stipulations contained in the preceding article are also to be applied to the colonies and foreign possessions of her Britannic Majesty, as well as to the ships and cargoes of the same; but, as regards the coasting trade, only in those colonies and foreign possessions the coasting trade of which shall have been, or shall be hereafter, opened to foreign ships in conformity with the Acts of Parliament which govern this matter.

The foreign possessions and colonies of her Britannic Majesty, the coasting trade of which has been already so opened to foreign ships, and in which the refore ships belonging to the citizens of the Imperial and Royal States are placed on the national footing, are—

British India,  
Ceylon,  
Cape of Good Hope,  
Victoria,  
St. Lucia.

3. If any ship of war or merchant-vessel of one of the contracting parties should run aground or be wrecked, or meet with any casualty upon the coasts of the other, the same aid and assistance shall be rendered to it, and to the cargo, apparel, and furniture thereof, as to a national vessel; and in such case no other expenses shall be paid by the owners or their agents and representatives for the preservation of the property or of the lives of the persons on board the ship, than would be payable in the like case of a wreck of or casualty to a national vessel.

In case the master of a merchant-vessel should be under the necessity of disposing of a part of his merchandise in order to defray any salvage expenses, no impediment shall be opposed by the authorities, the master being bound, however, to conform to the existing regulations and tariffs.

The goods and merchandise saved from the wreck shall be exempt from all duties of customs, unless cleared for consumption.

The respective consuls-general, consuls, vice-consuls, and consular agents shall, if the owner or master, or other agent of the owner, is not present, or is present and requires it, or is bound by the laws of his country to accept consular assistance, be authorised to interpose in order to afford the necessary assistance to those concerned.

4. The consuls-general, consuls, vice-consuls, and consular agents of each of the contracting parties residing in the dominions and possessions of the other, shall receive from the local authorities such assistance as can by law be given to them for the recovery of deserters from the vessels of their respective countries.

5. All vessels which according to British law are to be deemed British vessels, and all vessels which, according to the laws prevailing in the States of his Imperial and Royal Apostolic Majesty, are to be deemed vessels belonging to the subjects of his Imperial and Royal Apostolic Ma-

esty, shall, for the purposes of this treaty, be respectively deemed British vessels, and vessels belonging to the citizens of the Imperial and Royal States.

6. The present treaty shall remain in force from the exchange of the ratifications thereof until the 31st of December, 1877; and in case neither of the high contracting powers shall have notified to the other, twelve months before the expiration of the said period, the intention to put an end to its operation, the treaty shall continue in force for another year, and so on from year to year, until the expiration of a year, counting from the day on which one or other of the high contracting parties shall have announced its intention to put an end to it.

7. The present treaty shall be ratified, and the ratifications shall be exchanged at Vienna, within eight weeks, or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Vienna, this 30th day of April, in the year of our Lord 1862.

BLOOMFIELD,  
LOUIS MALLEE,

BELGIUM.

*Treaty of Commerce and Navigation between her Majesty and the King of the Belgians. Signed at London, July 23, 1862. Ratifications exchanged at London, August 30, 1862.*

Article 1. There shall be reciprocal liberty of commerce between all the dominions and possessions of the two high contracting parties; and the subjects of each of them shall, throughout the whole extent of the territories and possessions of the other, enjoy the same rights, privileges, liberties, favours, immunities, and exemptions, in matters of commerce and navigation, which are or may be enjoyed by native subjects.

2. The subjects of one of the two high contracting parties residing in the dominions of the other, shall have the same liberty as native subjects to manage their own affairs themselves, or to commit them to the management of any other persons as brokers, factors, agents, or interpreters. They shall not be restrained in their choice, and shall not be obliged to pay any salary or remuneration to any person whom they shall not choose to employ in those capacities; buyers and sellers being at perfect liberty to bargain together, and to fix the price of any goods or merchandise imported or destined for exportation, on condition of observing the regulations and the customs laws of the country.

3. In all that relates to navigation and commerce, the high contracting parties shall not grant any privilege, favour, or immunity to any other country, which shall not be also and immediately extended to their respective subjects.

4. All vessels which according to the laws of Great Britain are to be deemed British vessels, and all vessels which according to the laws of Belgium are to be deemed Belgian vessels, are declared to be British and Belgian vessels respectively.

5. No duties of tonnage, harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature or under whatever denomination, levied for the profit or in the name of the Government, public functionaries, communes, corporations, or establishments of whatever kind, shall be imposed in the ports of either country, upon the vessels of the other country, from whatever port or place arriving, which



claim in Great Britain exclusive property in a mark, model, or pattern, unless they shall have previously complied with the regulations, if any, which are or may be in force for the deposit at London, by British subjects, of marks, models, or patterns.

Reciprocally, British subjects shall not have the right to claim in Belgium exclusive property in a mark, model, or pattern, unless they shall have previously complied with the laws and regulations on those subjects which are or may be in force in Belgium.

18. Each of the high contracting parties shall have the right to name consuls for the protection of trade in the dominions and territories of the other party; and the consuls who may be so appointed shall enjoy, within the territories of each party, all the privileges, exemptions, and immunities which are or may be granted in those territories to agents of the same rank and character appointed by or authorised to act for the Government of the most favoured nation.

Before any consul can act as such, he must, however, in the usual form be approved and admitted by the Government of the country to which he is sent; and each of the two high contracting parties shall have the right to except from the residence of consuls any particular places which either of them may judge proper to be excepted.

19. If any vessel of war or merchant-vessel of either of the two countries should be wrecked upon the coasts of the other, such vessel, or any parts thereof, and all furniture and appurtenances belonging thereto, as well as all goods and merchandise which shall be saved therefrom, or the proceeds thereof, if sold, shall be restored to the proprietors or to their agents, on being claimed by them. In case there should be no such proprietors or agents upon the spot, the said articles and goods, or the proceeds thereof, as well as all the papers found on board of any such vessel, shall be delivered to the British or Belgian consul in whose district the wreck shall have taken place; and such consul, proprietors, or agents shall not be called upon to pay any charge but the expenses incurred in the preservation of the property, and the same rate of salvage which would be equally payable, under the like circumstances, by a national vessel. The goods and merchandise saved from the wreck shall not be subject to the established duties, unless cleared for consumption.

20. The British flag shall continue to enjoy in Belgium the repayment of the Scheldt toll so long as the Belgian flag shall enjoy the same.

21. From and after, at latest, the day on which the capitalisation of the Scheldt toll shall be effected by a general arrangement—

(1) The tonnage duty imposed in Belgian ports shall cease to be levied;

(2) The pilotage duties in Belgian ports and in the Scheldt, so far as depends upon Belgium, shall undergo a reduction

Of 20 per cent. for sailing vessels;

Of 25 per cent. for vessels towed;

Of 30 per cent. for steam-vessels.

(3) The system of local taxes imposed by the city of Antwerp shall be throughout diminished.

22. As a temporary exception to the stipulations of Article 14, and for the space of 2 years from the 1st of October, 1862, the new system shall be applied in the following manner to certain articles of British origin hereinafter enumerated:—

Cotton yarns twisted, warped, or dyed, shall pay the duties imposed upon single yarns, un-

bleached or bleached, with an addition of 5 centimes for twisted yarns, 10 centimes for warped yarns, and 15 centimes for dyed yarns, per kilogramme.

The duty on stuff of wool mixed with cotton shall be 22½ per cent. until the 1st of October, 1863, and 20 per cent. until the 1st of October, 1864. During the continuance of the transitory system the importer may, at his choice, pay either 180 francs the 100 kilogrammes, or the duties stipulated above.

The duty upon printed cotton tissues shall be 150 francs the 100 kilogrammes.

23. It is understood that in case the present duty on the importation of foreign spirits should be maintained in the British tariff, the article relative to spirits which is contained in the treaty concluded between Belgium and France on the 1st of May, 1861, shall not be applied to British spirits, so far as regards the reductions therein stipulated, until the 1st of October, 1865.

24. The Ionian Islands being under the protection of her Britannic Majesty, the subjects and vessels of those islands shall enjoy, in the dominions of his Majesty the King of the Belgians, all the advantages which are granted to the subjects and vessels of Great Britain by the present treaty, as soon as the Government of the Ionian Islands shall have agreed to grant to the subjects and vessels of his Majesty the King of the Belgians the same advantages which are granted in those islands to the subjects and vessels of her Britannic Majesty; it being understood, that in order to prevent abuses, every Ionian vessel claiming the benefits of that treaty, shall be furnished with a patent signed by the Lord High Commissioner of her Britannic Majesty, or by his representative.

25. The present treaty shall continue in force for 10 years, dating from the 10th day after the exchange of the ratifications. In case neither of the two high contracting parties should have notified, 12 months before the end of the said period, its intention to terminate the treaty, it shall remain in force until the expiration of 1 year dating from the day on which either of the high contracting parties shall have given notice for its termination.

The high contracting parties reserve to themselves the right to introduce into the treaty, by common consent, any modifications which may not be at variance with its spirit or principles, and the utility of which may be shown by experience.

26. From and after the date fixed by the preceding article, the treaty of commerce and navigation of the 27th of October, 1851, shall cease to be in force.

27. The present treaty shall be ratified, and the ratifications shall be exchanged at London before the 1st day of September, 1862.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done in duplicate at London, the 23rd day of July, in the year of our Lord 1862.

RUSSELL,  
THOMAS MILNER GIBSON,  
SYLVAIN VAN DE WEYER.

*Protocol of Conference held at the Foreign Office, July 23, 1862, between the Plenipotentiaries of Great Britain and of Belgium.*

The plenipotentiaries of her Britannic Majesty and of his Majesty the King of the Belgians, in proceeding to the signature of the treaty of commerce and navigation between their august

with an addition of 5 yarns, 10 centimes for centimes for dyed yarns,

of wool mixed with cotton until the 1st of October, until the 1st of October, in consequence of the transitory may, at his choice, pay 100 kilogrammes, or the

ated cotton tissues shall be grammes.

and that in case the present on of foreign spirits should British tariff, the article is contained in the treaty Belgium and France on the will not be applied to British the reductions therein 1st of October, 1865.

lands being under the protee Majesty, the subjects and nds shall enjoy, in the domi- King of the Belgians, all n are granted to the subjects Britain by the present treaty, ment of the Ionian Islands o grant to the subjects and y the King of the Belgians which are gra d in those ts and vessels of her Britan- understood, that in order every Ionian vessel claiming at treaty, shall be furnished y the Lord High Commis- nian Majesty, or by his repre-

treaty shall continue in force from the 10th day after the ratifications. In case neither of the parties should have notified the end of the said period, the expiration of 1 year dating from the expiration of the high com- shall have given notice for its

the parties reserve to them- introduce into the treaty, by any modifications which may with its spirit or principles, which may be shown by exper-

ter the date fixed by the pre- treaty of commerce and naviga- October, 1851, shall cease to be

treaty shall be ratified, and the e exchanged at London before umber, 1862.

of the respective plenipoten- of the same, and have affixed their arms.

te at London, the 23rd day of our Lord 1862.

RUSSELL,  
THOMAS MILNER GIBSON,  
SYLVAIN VAN DE WEYER.

ence held at the Foreign Office, etween the Plenipotentiaries of nd of Belgium.

aries of her Britannic Majesty y the King of the Belgians, in signature of the treaty of com- ation between their august

sovereigns, place upon record that they have agreed upon the following points:—

(1) That the declarations relative to the arrest of seamen deserters, dated the 4th of January, 1853, and the order in council bearing date the 8th of February, 1853, and published in the *London Gazette*, of the 13th of February, shall continue in force and validity, as if they had been inserted in the said treaty.

(2) That although the fishery convention concluded on the 22nd of March, 1852, between her Britannic Majesty and his Majesty the King of the Belgians, is provisionally maintained, it is under the reservation made by the Government of his Majesty the King of the Belgians, that they will again bring forward, in a future negotiation, the proposition relative to the reciprocal permission to fish within the marine territorial limit.

In maintaining the said convention concluded on the 22nd of March, 1852, an exception to the stipulations of the treaty of commerce and navigation signed this day, is made in so far as regards the advantages which are or may be given in either country to the produce of national fishery.

(3) With regard to sugar, the Government of his Majesty the King of the Belgians reserve to themselves to renew their proposition that an agreement should be come to between Great Britain, Belgium, France, the Zollverein, and the Netherlands, for respectively bringing the duties upon raw and refined sugars imported from any one of those countries into the others to an equality with the taxes imposed upon the same productions of national origin, and for terminating simultaneously in those 5 countries the system of bounties on the exportation of sugar.

The Belgian Government rely upon the support and co-operation of the Government of her Britannic Majesty for this purpose.

RUSSELL,

THOMAS MILNER GIBSON.

SYLVAIN VAN DE WEYER.

*Protocol of Conference held at the Foreign Office, August 30, 1862, between the Plenipotentiaries of Great Britain and of Belgium.*

The undersigned, in proceeding to the exchange of the ratifications of the treaty of commerce and navigation concluded on the 23rd of July, 1862, between her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the King of the Belgians, have agreed to record in the present protocol the modifications in the said treaty arranged this day between them; and in consequence of which the following tariff is adopted:—

Cotton Yarns.		1st Year	2nd Year
No.	in	ct.	ct.
20,000 and under	-	22	20
2,000 to 20,000	-	30	25
20,000 to 40,000	-	15	35
40,000 to 65,000	-	60	50

Above 65,000 free entry (weighing charge of 10 centimes) during the whole duration of the treaty.

These modifications shall have the same force and effect as if they were textually inserted in the said treaty, and they shall come into operation from the 1st of October, 1862, the old duties continuing to be applied to the above-mentioned articles, as well as the mixed tissues (Article 22 of the treaty), up to that date.

In testimony whereof the plenipotentiaries have signed the present protocol, and have thereto affixed their seals.

Done in London the 30th of August, 1862.

RUSSELL,

THOMAS MILNER GIBSON.

SYLVAIN VAN DE WEYER.

CHINA.

*Treaty of Peace, Friendship, and Commerce, between her Majesty and the Emperor of China, Signed in the English and Chinese languages, at Tien-tsin, June 26, 1858. Ratifications exchanged at Peking, October 24, 1860.*

Article 1. The treaty of peace and amity between the two nations, signed at Nanking on the 29th day of August, in the year 1842, is hereby renewed and confirmed. [CANONS.]

The supplementary treaty and general regulations of trade having been amended and improved, and the substance of their provisions having been incorporated in this treaty, the said supplementary treaty and general regulations of trade are hereby abrogated.

2. For the better preservation of harmony in future, her Majesty the Queen of Great Britain and his Majesty the Emperor of China mutually agree that, in accordance with the universal practice of great and friendly nations, her Majesty the Queen may, if she see fit, appoint ambassadors, ministers, or other diplomatic agents to the Court of Peking; and his Majesty the Emperor of China may, in like manner, if he see fit, appoint ambassadors, ministers, or other diplomatic agents to the Court of St. James'.

3. His Majesty the Emperor of China hereby agrees, that the ambassador, minister, or other diplomatic agent, so appointed by her Majesty the Queen of Great Britain, may reside, with his family and establishment, permanently at the capital, or may visit it occasionally, at the option of the British Government. He shall not be called upon to perform any ceremony derogatory to him as representing the sovereign of an independent nation on a footing of equality with that of China. On the other hand, he shall use the same forms of ceremony and respect to his Majesty the Emperor as are employed by the ambassadors, ministers, or diplomatic agents of her Majesty towards the sovereigns of independent and equal European nations.

It is further agreed, that her Majesty's Government may acquire at Peking a site for building, or may hire houses for the accommodation of her Majesty's mission, and that the Chinese Government will assist it in so doing.

Her Majesty's representative shall be at liberty to choose his own servants and attendants, who shall not be subjected to any kind of molestation whatever.

Any person guilty of disrespect or violence to her Majesty's representative, or to any member of his family or establishment, in deed or word, shall be severely punished.

4. It is further agreed, that no obstacle or difficulty shall be made to the free movements of her Majesty's representative, and that he, and the persons of his suite, may come and go, and travel at their pleasure. He shall, moreover, have full liberty to send and receive his correspondence, to and from any point on the sea-coast that he may select; and his letters and effects shall be held sacred and inviolable. He may employ, for their transmission, special couriers, who shall meet with the same protection and facilities for travelling as the persons employed in carrying despatches for the Imperial Government; and, generally, he shall enjoy the same privileges as are accorded to officers of the same rank by the usage and consent of Western nations.

All expenses attending the diplomatic mission of Great Britain in China shall be borne by the British Government.

5. His Majesty the Emperor of China agrees to

nominate one of the secretaries of state, or a president of one of the boards, as the high officer with whom the ambassador, minister, or other diplomatic agent of her Majesty the Queen shall transact business, either personally or in writing, on a footing of perfect equality.

6. Her Majesty the Queen of Great Britain agrees that the privileges hereby secured shall be enjoyed in her dominions by the ambassadors, ministers, or diplomatic agents of the Emperor of China, accredited to the court of her Majesty.

7. Her Majesty the Queen may appoint one or more consuls in the dominions of the Emperor of China; and such consul or consuls shall be at liberty to reside in any of the open ports or cities of China, as her Majesty the Queen may consider most expedient for the interests of British commerce. They shall be treated with due respect by the Chinese authorities, and enjoy the same privileges and immunities as the consular officers of the most favoured nation.

Consuls and vice-consuls in charge shall rank with intendents of circuits; vice-consuls, acting vice-consuls, and interpreters, with prefects. They shall have access to the official residences of these officers, and communicate with them, either personally or in writing, on a footing of equality, as the interests of the public service may require.

8. The Christian religion, as professed by Protestants or Roman Catholics, inculcates the practice of virtue, and teaches man to do as he would be done by. Persons teaching or professing it, therefore, shall alike be entitled to the protection of the Chinese authorities, nor shall any such, peaceably pursuing their calling, and not offending against the law, be persecuted or interfered with.

9. British subjects are hereby authorised to travel, for their pleasure or for purposes of trade, to all parts of the interior, under passports which will be issued by their consuls, and countersigned by the local authorities. These passports, if demanded, must be produced for examination in the localities passed through. If the passport be not irregular, the bearer will be allowed to proceed, and no opposition shall be offered to his hiring persons or hiring vessels for the carriage of his baggage or merchandise. If he be without a passport, or if he commit any offence against the law, he shall be handed over to the nearest consul for punishment, but he must not be subjected to any ill-usage in excess of necessary restraint. No passport need be applied for by persons going on excursions from the ports open to trade to a distance not exceeding 100 li, and for a period not exceeding 5 days.

The provisions of this article do not apply to crews of ships, for the due restraint of whom regulations will be drawn up by the consul and the local authorities.

To Nanking, and other cities disturbed by persons in arms against the Government, no pass shall be given, until they shall have been recaptured.

10. British merchant-ships shall have authority to trade upon the great river (Yang-tsze). The upper and lower valley of the river being, however, disturbed by out-laws, no port shall be for the present opened to trade, with the exception of Chin-kiang, which shall be opened in a year from the date of the signing of this treaty.

As soon as peace shall have been restored, British vessels shall also be admitted to trade at such ports as far as Han-kow, not exceeding 3 in number, as the British minister, after consultation with the Chinese Secretary of State, may determine shall be ports of entry and discharge.

11. In addition to the cities and towns of Canton, Amoy, Fuchow, Ningpo, and Shanghai,

opened by the treaty of Nanking, it is agreed that British subjects may frequent the cities and port of New-Chwang, Tang-Chow, Tai-Wan (Formosa), Chuan-Chow (Swatow), and Kiung-Chow (Hainan).

They are permitted to carry on trade with whomsoever they please, and to proceed to and from at pleasure with their vessels and merchandise.

They shall enjoy the same privileges, advantages, and immunities at the said towns and ports, as they enjoy at the ports already opened to trade, including the right of residence, of buying or renting houses, of leasing land therein, and of building churches, hospitals, and cemeteries.

12. British subjects, whether at the ports or at other places, desiring to build or open houses, warehouses, churches, hospitals, or burial-grounds, shall make their agreement for the land or buildings they require, at the rates prevailing among the people, equitably, and without exactions on either side.

13. The Chinese Government will place no restrictions whatever upon the employment, by British subjects, of Chinese subjects in any lawful capacity.

14. British subjects may hire whatever boats they please for the transport of goods or passengers, and the sum to be paid for such boats shall be settled between the parties themselves, without the interference of the Chinese Government. The number of these boats shall not be limited, nor shall a monopoly in respect either of the boats, or of the porters or coolies engaged in carrying the goods, be granted to any parties. If any smuggling takes place in them, the offenders will, of course, be punished according to law.

15. All questions in regard to rights, whether of property or person, arising between British subjects, shall be subject to the jurisdiction of the British authorities.

16. Chinese subjects who may be guilty of any criminal act towards British subjects shall be arrested and punished by the Chinese authorities, according to the laws of China.

British subjects who may commit any crime in China shall be tried and punished by the consul, or other public functionary authorised therein, according to the laws of Great Britain.

Justice shall be equitably and impartially administered on both sides.

17. A British subject having reason to complain of a Chinese, must proceed to the consulate, and state his grievance. The consul will enquire into the merits of the case, and do his utmost to arrange it amicably. In like manner, if a Chinese have reason to complain of a British subject, the consul shall no less listen to his complaint, and endeavour to settle it in a friendly manner. If disputes take place of such a nature that the consul cannot arrange them amicably, then he shall request the assistance of the Chinese authorities, that they may together examine into the merits of the case, and decide it equitably.

18. The Chinese authorities shall at all times afford the fullest protection to the persons and property of British subjects, whenever these shall have been subjected to insult or violence. In all cases of incendiarism or robbery, the local authorities shall at once take the necessary steps for the recovery of the stolen property, the suppression of disorder, and the arrest of the guilty parties, whom they will punish according to law.

19. If any British merchant-vessel, while within Chinese waters, be plundered by robbers or pirates, it shall be the duty of the Chinese authorities to use every endeavour to capture and punish the said robbers or pirates, and to recover the stolen

Nanking, it is agreed that the cities and ports of Che-w, Tai-Wan (Formosa), and Kiang-Chow (Hainan)

to carry on trade with vessels, and to proceed to and from the same ports, and to enjoy the same privileges, advantages, and facilities, as are granted at the said towns and ports already opened to trade, of residence, of buying or selling land therein, and of opening hospitals, and of erecting hospitals, or burial-grounds, for the use of the British subjects, at the rates prevailing among the natives, and without exactions on

Government will place no restriction upon the employment of Chinese subjects in any lawful

trading may hire whatever boats or vessels for the transport of goods or passengers, and to be paid for such boats shall be the parties themselves, without the intervention of the Chinese Government. The amount of such hire shall not be limited, nor shall it be levied either of the boats, or of the crews, or of the passengers, or of the cargo, or of the parties. If any smuggling or other offence be committed, the offenders will, of course, be liable to law.

in regard to rights, whether arising between British subjects, or between British subjects and Chinese subjects, shall be subject to the jurisdiction of the

British subjects who may be guilty of any offence, shall be subject to the laws of China.

who may commit any crime in the said ports, shall be punished by the consular authorities, or by the consular officers, or by the consular functionaries, or by the consular police, or by the consular courts, or by the consular tribunals, or by the consular courts of Great Britain.

shall be equitably and impartially treated on both sides.

subject having reason to complain, shall proceed to the consulate, and there to state the case, and do his utmost to settle it. The consul will enquire into the case, and do his utmost to settle it. In like manner, if a Chinese subject complain of a British subject, the consul shall listen to his complaint, and do his utmost to settle it in a friendly manner. If the case be of such a nature that the parties cannot be settled amicably, then he shall refer the case to the Chinese authorities, who shall examine into the merits of the case, and do it equitably.

consular authorities shall at all times afford protection to the persons and property of British subjects, whenever these shall be exposed to insult or violence. In all cases of robbery, or of any other offence, the local authorities shall take the necessary steps for the recovery of the stolen property, the suppression of the crime, the arrest of the guilty parties, and the punishment according to law.

British merchant-vessels, while within the said ports, shall not be plundered by robbers or pirates, nor shall the property of the Chinese authorities be so plundered. It is agreed that the British authorities shall endeavour to capture and punish the robbers and pirates, and to recover the stolen

property, that it may be handed over to the consul for restoration to the owner.

20. If any British vessel be at any time wrecked or stranded on the coast of China, or be compelled to take refuge in any port within the dominions of the Emperor of China, the Chinese authorities, on being apprised of the fact, shall immediately adopt measures for its relief and security; the persons on board shall receive friendly treatment, and shall be furnished, if necessary, with the means of conveyance to the nearest consular station.

21. If criminals, subjects of China, shall take refuge in Hong Kong, or on board the British ships there, they shall, upon due requisition by the Chinese authorities, be searched for, and, on proof of their guilt, be delivered up.

In like manner, if Chinese offenders take refuge in the houses or on board the vessels of British subjects at the open ports, they shall not be harboured or concealed, but shall be delivered up, on due requisition by the Chinese authorities, addressed to the British consul.

22. Should any Chinese subject fail to discharge debts incurred to a British subject, or should he fraudulently abscond, the Chinese authorities will do their utmost to effect his arrest, and enforce recovery of the debts. The British authorities will likewise do their utmost to bring to justice any British subject fraudulently absconding or failing to discharge debts incurred by him to a Chinese subject.

23. Should natives of China who may repair to Hong Kong to trade incur debts there, the recovery of such debts must be arranged for by the English courts of justice on the spot; but should the Chinese debtor abscond, and be known to have property, real or personal, within the Chinese territory, it shall be the duty of the Chinese authorities, on application by, and in concert with, the British consul, to do their utmost to see justice done between the parties.

24. It is agreed that British subjects shall pay, on all merchandise imported or exported by them, the duties described by the tariff; but in no case shall they be called upon to pay other or higher duties than are required of the subjects of any other foreign nation.

25. Import duties shall be considered payable on the landing of the goods, and duties of export on the shipment of the same.

26. Whereas the tariff fixed by Article 10 of the treaty of Nanking, and which was estimated so as to impose on imports and exports a duty at about the rate of 5 per cent. ad valorem, has been found, by reason of the fall in value of various articles of merchandise, therein enumerated, to impose a duty upon these considerably in excess of the rate originally assumed as above to be a fair rate, it is agreed that the said tariff shall be revised, and that as soon as the treaty shall have been signed, application shall be made to the Emperor of China to depute a high officer of the Board of Revenue to meet, at Shanghai, officers to be deputed on behalf of the British Government, to consider its revision together, so that the tariff, as revised, may come into operation immediately after the ratification of this treaty.

27. It is agreed that either of the high contracting parties to this treaty may demand a further revision of the tariff, and of the commercial articles of this treaty, at the end of 10 years; but if no demand be made on either side within 6 months after the end of the first 10 years, then the tariff shall remain in force for 10 years more, reckoned from the end of the preceding 10 years; and so it shall be, at the end of each successive period of 10 years.

28. Whereas it was agreed in Article 10 of the treaty of Nanking, that British imports, having paid the tariff duties, should be conveyed into the interior free of all further charges, except a transit duty, the amount whereof was not to exceed a certain percentage on tariff value; and whereas no accurate information having been furnished of the amount of such duty, British merchants have constantly complained that charges are suddenly and arbitrarily imposed by the provincial authorities as transit duties upon produce on its way to the foreign market, and on imports on their way into the interior, to the detriment of trade; it is agreed that within 4 months from the signing of this treaty, at all ports now open to British trade, and within a similar period at all ports that may hereafter be opened, the authority appointed to superintend the collection of duties shall be obliged, upon application of the consul, to declare the amount of duties leviable on produce between the place of production and the port of shipment, and upon imports between the consular port in question and the inland markets named by the consul; and that a notification thereof shall be published in English and Chinese for general information.

But it shall be at the option of any British subject, desiring to convey produce purchased inland to a port, or to convey imports from a port to an inland market, to clear his goods of all transit duties, by payment of a single charge. The amount of this charge shall be leviable on exports at the first barrier they may have to pass, or, on imports, at the port at which they are landed; and on payment thereof, a certificate shall be issued, which shall exempt the goods from all further inland charges whatsoever.

It is further agreed, that the amount of this charge shall be calculated, as nearly as possible, at the rate of 2½ per cent., ad valorem, and that it shall be fixed for each article at the conference to be held at Shanghai for the revision of the tariff.

It is distinctly understood that the payment of transit dues, by commutation or otherwise, shall in no way affect the tariff duties on imports or exports, which will continue to be levied separately and in full.

29. British merchant-vessels, of more than 150 tons burden, shall be charged tonnage-dues at the rate of 4 mace per ton; if of 150 tons and under, they shall be charged at the rate of 1 mace per ton.

Any vessel clearing from any of the open ports of China for any other of the open ports, or for Hong Kong, shall be entitled, on application of the master, to a special certificate from the customs, on exhibition of which she shall be exempted from all further payment of tonnage-dues in any open port of China, for a period of 4 months, to be reckoned from the date of her port clearance.

30. The master of any British merchant-vessel may, within 48 hours after the arrival of his vessel, but not later, decide to depart without breaking bulk, in which case he will not be subject to pay tonnage-dues. But tonnage-dues shall be held due after the expiration of the said 48 hours. No other fees or charges upon entry or departure shall be levied.

31. No tonnage-dues shall be payable on boats employed by British subjects in the conveyance of passengers, baggage, letters, articles of provision, or other articles not subject to duty, between any of the open ports. All cargo boats, however, conveying merchandise subject to duty shall pay tonnage-dues once in 6 months, at the rate of 4 mace per register ton.

32. The consuls and superintendents of customs shall consult together regarding the erection of beacons and lighthouses, and the distribution of buoys and light-ships, as occasion may demand.

33. Duties shall be paid to the bankers, authorised by the Chinese Government to receive the same in its behalf, either in sycee or in foreign money, according to the assay made at Canton on the 13th day of July, 1843.

34. Sets of standard weights and measures, prepared according to the standard issue to the Canton Custom-house by the Board of Revenue, shall be delivered by the superintendent of customs to the consul at each port, to secure uniformity and prevent confusion.

35. Any British merchant-vessel arriving at one of the open ports, shall be at liberty to engage the services of a pilot to take her into port. In like manner, after she has discharged all legal dues and duties, and is ready to take her departure, she shall be allowed to select a pilot, to conduct her out of port.

36. Whenever a British merchant-vessel shall arrive off one of the open ports, the superintendent of customs shall depute one or more customs officers to guard the ship. They shall either live in a boat of their own, or stay on board the ship, as may best suit their convenience. Their food and expenses shall be supplied them from the custom-house, and they shall not be entitled to any fees whatever from the master or consignee. Should they violate this regulation, they shall be punished proportionately to the amount exacted.

37. Within 24 hours after arrival, the ship's papers, bills of lading, &c., shall be lodged in the hands of the consul, who will, within a further period of 24 hours, report to the superintendent of customs the name of the ship, her register tonnage, and the nature of her cargo. If, owing to neglect on the part of the master, the above rule is not complied with, within 48 hours after the ship's arrival, he shall be liable to a fine of 50 taels for every day's delay; the total amount of penalty, however, shall not exceed 260 taels.

The master will be responsible for the correctness of the manifest, which shall contain a full and true account of the particulars of the cargo on board. For presenting a false manifest, he will subject himself to a fine of 500 taels; but he will be allowed to correct, within 24 hours after delivery of it to the customs officers, any mistake he may discover in his manifest, without incurring this penalty.

38. After receiving from the consul the report in due form, the superintendent of customs shall grant the vessel a permit to open hatches. If the master shall open hatches and begin to discharge any goods without such permission, he shall be fined 500 taels, and the goods discharged shall be confiscated wholly.

39. Any British merchant who has cargo to land or ship, must apply to the superintendent of customs for a special permit. Cargo landed or shipped without such permit, will be liable to confiscation.

40. No transshipment from one vessel to another can be made without special permission, under pain of confiscation of the goods so transhipped.

41. When all dues and duties shall have been paid, the superintendent of customs shall give a port-clearance, and the consul shall then return the ship's papers, so that she may depart on her voyage.

42. With respect to articles subject, according to the tariff, to an ad valorem duty, if the British merchant cannot agree with the Chinese officer in

fixing a value, then each party shall call two or three merchants to look at the goods, and the highest price at which any of these merchants would be willing to purchase them, shall be assumed as the value of the goods.

43. Duties shall be charged upon the nett weight of each article, making a deduction for the weight of coohee, &c. To fix the tare on an article such as tea, if the British merchant cannot agree with the custom-house officer, then each party shall choose so many chests out of every 100, which being first weighed in gross, shall afterwards be tared, and the average tare upon these chests shall be assumed as the tare upon the whole; and upon this principle shall the tare be fixed upon all other goods in packages. There should be any other points in dispute which cannot be settled, the British merchant may appeal to his consul, who will communicate the particulars of the case to the superintendent of customs, that it may be equitably arranged. But the appeal must be made within 24 hours, or it will not be attended to. While such points are still unsettled, the superintendent of customs shall postpone the issue of the same in his books.

44. Upon all damaged goods a fair reduction of duty shall be allowed, proportionate to their deterioration. If any disputes arise, they shall be settled in the manner pointed out in the clause of this treaty having reference to articles which pay duty ad valorem.

45. British merchants who may have imported merchandise into any of the open ports and paid the duty thereon, if they desire to re-export the same, shall be entitled to make application to the superintendent of customs, who, in order to prevent fraud on the revenue, shall cause examination to be made by suitable officers, to see that the duties paid on such goods, as entered in the custom-house books, correspond with the representation made, and that the goods remain with their original marks unchanged. He shall also make a memorandum on the port-clearance of the goods and of the amount of duties paid, and shall deliver the same to the merchant; and shall also certify the facts to the officers of customs of the other ports. All which being done, on the arrival in port of the vessel in which the goods are to be re-exported, everything being found on examination there to correspond, she shall be permitted to break bulk and land the said goods, without being subject to the payment of any additional duty thereon. But if, on such examination, the superintendent of customs shall detect any fraud on the revenue in the case, then the goods shall be subject to confiscation by the Chinese Government.

British merchants desiring to re-export duty-paid imports to a foreign country, shall be entitled, on complying with the same conditions as in the case of re-exportation to another port in China, to a drawback-certificate, which shall be valid tender to the customs in payment of import or export duties.

Foreign grain brought into any port of China in a British ship, if no part thereof has been landed, may be re-exported without hindrance.

46. The Chinese authorities at each port shall adopt the means they may judge most proper to prevent the revenue suffering from fraud or smuggling.

47. British merchant-vessels are not entitled to resort to other than the ports of trade declared open by this treaty. They are not unlawfully to enter other ports in China, or to carry on clandestine trade along the coasts thereof. Any vessel violating this provision shall, with her cargo, be

each party shall call two or look at the goods, and the which any of these merchants o purchase them, shall be as- of the goods.

be charged upon the nett weight taking a deduction for the tare, &c. To fix the tare on any if the British merchant cannot custom-house officer, then each so many chests out of every first weighed in gross, shall and the average tare upon be assumed as the tare upon the this principle shall the tare other goods in packages. If any other points in dispute settled, the British merchant is consul, who will communi- sultors of the case to the su- customs, that it may be equi- But the appeal must be made or it will not be attended to. ts are still unsettled, the super- omms shall postpone the in sertion is books.

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subject to confiscation by the Chinese Govern- ment.

48. If any British merchant-vessel be concerned in smuggling, the goods, whatever their value or nature, shall be subject to confiscation by the Chinese authorities, and the ship may be prohibited from trading further, and sent away as soon as her accounts shall have been adjusted and paid.

49. All penalties enforced, or confiscations made, under this treaty, shall belong and be appropriated to the public service of the Government of China.

50. All official communications addressed by the diplomatic and consular agents of her Majesty the Queen to the Chinese authorities shall, henceforth, be written in English. They will for the present be accompanied by a Chinese version, but it is understood that, in the event of there being any difference of meaning between the English and Chinese texts, the English Government will hold the sense as expressed in the English text to be the correct sense. This provision is to apply to the treaty now negotiated, the Chinese text of which has been carefully corrected by the English original.

51. It is agreed, that henceforward the character barbarian shall not be applied to the Government or subjects of her Britannic Majesty, in any Chinese official document issued by the Chinese authorities, either in the capital or in the provinces.

52. British ships of war coming for no hostile purpose, or being engaged in the pursuit of pirates, shall be at liberty to visit all ports within the dominions of the Emperor of China, and shall receive every facility for the purchase of provisions, procuring water, and, if occasion require, for the making of repairs. The commanders of such ships shall hold intercourse with the Chinese authorities on terms of equality and courtesy.

53. In consideration of the injury sustained by native and foreign commerce from the prevalence of piracy in the seas of China, the high contracting parties agree to concert measures for its suppression.

54. The British Government and its subjects are hereby confirmed in all privileges, immunities, and advantages conferred on them by previous treaties; and it is hereby expressly stipulated, that the British Government and its subjects will be allowed free and equal participation in all privileges, immunities, and advantages that may have been, or may be hereafter, granted by his Majesty the Emperor of China to the Government or subjects of any other nation.

55. In evidence of her desire for the continuance of a friendly understanding, her Majesty the Queen of Great Britain consents to include in a separate article, which shall be in every respect of equal validity with the articles of this treaty, the conditions affecting indemnity for expenses incurred and losses sustained in the matter of the Canton question.

56. The ratifications of this treaty, under the hand of her Majesty the Queen of Great Britain and Ireland, and his Majesty the Emperor of China, respectively, shall be exchanged at Peking, within a year from this day of signature.

In token whereof, the respective plenipotentiaries have signed and sealed this treaty.

Done at Tien-tsin, this 26th day of June, in the year of our Lord 1858; corresponding with the Chinese date the 16th day 5th moon of the 8th year of Hien-Fung.

ELGIN AND KINCARDINE.

Signature of first Chinese Plenipotentiary.

Signature of second Chinese Plenipotentiary.

Seal of the Chinese Plenipotentiaries.

Agreement made in pursuance of Article XXVI. of the Treaty. Signed November 8, 1858.

Whereas it was provided by the treaty of Tien-tsin that a conference should be held at Shanghai between officers deputed by the British Government on the one part, and by the Chinese Government on the other part, for the purpose of determining the amount of tariff-duties and transit-dues to be henceforth levied, a conference has been held accordingly; and its proceedings having been submitted to the Right Honourable the Earl of Elgin and Kincardine, high commissioner and plenipotentiary of her Britannic Majesty the Queen, on the one part; and to Kwelliang, Hwashana, Ho Kweitsing, Mingshen, and Twau Ching-Shih, high commissioners and plenipotentiaries of his Imperial Majesty the Emperor, on the other part; these high officers have agreed and determined upon the revised tariff hereto appended, the rate of transit-dues therewith declared, together with other rules and regulations for the better explanation of the treaty aforesaid; and do hereby agree that the said tariff and rules—the latter being in ten articles thereto appended—shall be equally binding on the Governments and subjects of both countries with the treaty itself.

In witness whereof, they hereto affix their seals and signatures.

**Rule 1.—Unenumerated Goods.**—Articles not enumerated in the list of exports, but enumerated in the list of imports, when exported will pay the amount of duty set against them in the list of imports; and similarly, articles not enumerated in the list of imports, but enumerated in the list of exports, when imported will pay the amount of duty set against them in the list of exports.

Articles not enumerated in either list, nor in the list of duty-free goods, will pay an ad valorem duty of 5 per cent., calculated on their market value.

**Rule 2.—Duty-free Goods.**—Gold and silver bullion, foreign coins, flour, Indian meal, sago, biscuit, preserved meats and vegetables, cheese, butter, confectionery, foreign clothing, jewellery, plated ware, perfumery, soap of all kinds, charcoal, fire-wood, candles (foreign), tobacco (foreign), cigars (foreign), wine, beer, spirits, household stores, ship's stores, personal baggage, stationery, carpeting, druggeting, cutlery, foreign medicine, and glass and crystal ware.

The above pay no import or export duty; but, if transported into the interior, will, with the exception of personal baggage, gold and silver bullion, and foreign coins, pay a transit duty at the rate of 2½ per cent. ad valorem.

A freight or part-freight of duty-free commodities (personal baggage, gold and silver bullion and foreign coins excepted) will render the vessel carrying them, though no other cargo be on board, liable to tonnage dues.

**Rule 3.—Contraband Goods.**—Import and export trade is alike prohibited in the following articles: Gunpowder, shot, cannon, fowling-pieces, rifles, muskets, pistols, and all other munitions and implements of war; and salt.

**Rule 4.—Weights and Measures.**—In the calculations of the tariff, the weight of a peul of 100 catties is held to be equal to 133¼ lb. avoirdupois; and the length of a *chang* of ten Chinese feet, to be equal to 14½ English inches.

One Chinese *chih* is held to equal 14½ inches English; and 4 yards English, less 3 inches, to equal 1 *chang*.

**Rule 5.—Regarding certain Commodities heretofore Contraband.**—The restrictions affecting trade in opium, cash, grain, pulse, sulphur, brimstone,

sulphur, and spelter, are relaxed, under the following conditions:—

1. Opium will henceforth pay 30 taels per pecul import duty. The importer will sell it only at the port. It will be carried into the interior by Chinese only, and only as Chinese property; the foreign trader will not be allowed to accompany it. The provisions of Article 9 of the Treaty of Tien-tsin, by which British subjects are authorised to proceed into the interior with passports to trade, will not extend to it, nor will those of Article 28 of the same treaty, by which the transit-dues are regulated; the transit-dues on it will be arranged as the Chinese Government see fit: nor, in future revisions of the tariff, is the same rule of revision to be applied to opium as to other goods.

2. *Copper Cash.*—The export of cash to any foreign port is prohibited; but it shall be lawful for British subjects to ship it at one of the open ports of China to another, on compliance with the following regulation:—The shipper shall give notice of the amount of cash he desires to ship, and the port of its destination, and shall bind himself, either by a bond with two sufficient sureties, or by depositing such other security as may be deemed by the customs satisfactory, to return, within six months from the date of clearance, to the collector at the port of shipment, the certificate issued by him, with an acknowledgment thereon of the receipt of the cash at the port of destination, by the collector at that port, who shall thereto affix his seal; or, failing the production of the certificate, to forfeit a sum equal in value to the cash shipped. Cash will pay no duty inwards or outwards; but a freight or part-freight of cash, though no other cargo be on board, will render the vessel carrying it liable to pay tonnage-dues.

3. The export of rice and all other grain whatsoever, native or foreign, no matter where grown or whence imported, to any foreign port, is prohibited; but these commodities may be carried by British merchants from one of the open ports of China to another, under the same conditions in respect of security as cash, on payment at the port of shipment of the duty specified in the tariff.

No import duty will be leviable upon rice or grain; but a freight or part-freight of rice or grain, though no other cargo be on board, will render the vessel importing it liable to tonnage-dues.

4. *Pulse.*—The export of pulse and bean-cake from Tung-chau and Niu-chwang, under the British flag, is prohibited. From any other of the open ports, they may be shipped on payment of the tariff-duty, either to other ports of China or to foreign countries.

5. Sulphur, sulphur, brimstone, and spelter, being munitions of war, shall not be imported by British subjects, save at the requisition of the Chinese Government, or for sale to Chinese duly authorised to purchase them. No permit to land them will be issued until the customs have proof that the necessary authority has been given to the purchaser. It shall not be lawful for British subjects to carry these commodities up the Yangtze-kiang, or into any port other than those open on the seaboard, nor to accompany them into the interior on behalf of Chinese. They must be sold at the ports only; and except at the ports they will be regarded as Chinese property.

Infractions of the conditions, as above set forth, under which trade in opium, cash, grain, pulse, sulphur, brimstone, sulphur, and spelter may be henceforward carried on, will be punishable by confiscation of all the goods concerned.

*Rule 6.—Liability of Vessels entering Port.*—To the prevention of misunderstanding, it is agreed that the term of 24 hours, within which British

vessels must be reported to the consul under Article 37 of the treaty of Tien-tsin, shall be understood to commence from the time a British vessel comes within the limits of the port; and as the term of 24 hours allowed her by Article 36 of the same treaty to remain in port without payment of tonnage-dues.

The limits of the port shall be defined by the customs, with all consideration for the convenience of trade, compatible with due protection of revenue; also the limits of the anchorages within which lading and discharging is permitted by the customs; and the same shall be notified to the consuls for public information.

*Rule 7.—Transit Dues.*—It is agreed that Article 28 of the treaty of Tien-tsin shall be interpreted to declare the amount of transit-dues leviable upon merchandise imported or exported by British subjects, to be 1/2 per cent. of the duties, except in the case of the duty-free goods liable to a transit-duty of 2 1/2 per cent. ad valorem as provided in Article 2 of these rules. Merchandise shall be cleared of its transit-dues under the following conditions:—

*In the case of Imports.*—Notice being given at the port of entry from which the imports are to be forwarded inland, of the nature and quantity of the goods, the ship from which they have been landed, and the place inland to which they are bound, with all other necessary particulars; the collector of customs will, on due inspection made, and on receipt of the transit-duty due, issue a transit-duty certificate. This must be produced at every barrier station, and *viséd*. No further duty will be leviable upon imports so certificated, no matter how distant the place of their destination.

*In the case of Exports.*—Produce purchased by a British subject in the interior will be inspected and taken account of at the first barrier it passes on its way to the port of shipment. A memorandum, showing the amount of the produce and the port at which it is to be shipped, will be deposited there by the person in charge of the produce; he will then receive a certificate, which must be exhibited and *viséd* at every barrier on his way to the port of shipment. On the arrival of the produce at the barrier nearest the port, notice must be given to the customs at the port, and the transit-dues due thereon being paid, it will be passed. On exportation the produce will pay the tariff-duty.

Any attempt to pass goods inward or outward otherwise than in compliance with the *visé* here laid down, will render them liable to confiscation.

Unauthorised sale, *in transitu*, of goods that have been entered as above for a port, will render them liable to confiscation. Any attempt to pass goods in excess of the quantity specified in the certificate, will render all the goods of the same denomination named in the certificate liable to confiscation. Permission to export produce which cannot be proved to have paid its transit-dues will be refused by the customs until the transit-dues shall have been paid.

The above being the arrangement agreed to regarding the transit-dues, which will thus be levied once and for all, the notification required under Article 28 of the treaty of Tien-tsin, for the information of British and Chinese subjects, is hereby dispensed with.

*Rule 8.—Foreign Trade under Passports.*—It is agreed that Article 9 of the treaty of Tien-tsin shall not be interpreted as authorising British subjects to enter the capital city of Peking for purposes of trade.

*Rule 9.—Abolition of the Meltage Fee.*—It is agreed that the percentage of 1 tael 2 mace hitherto charged in excess of duty-payments

ported to the consul under treaty of Tien-tsin, shall be free from the time a British vessel enters the limits of the port; as also allowed her by Article 30 of the same in port without pay.

port shall be defined by the consideration for the convenience with due protection of the limits of the anchorages within which anchoring is permitted by the same shall be notified to the information.

It is agreed that the treaty of Tien-tsin shall be in force the amount of transit-dues upon merchandise imported or exported as subjects, to be 1/2 of the tariff in case of the duty-free goods (Article 2) per cent. ad valorem, and 2 of these rules. Merchandise of its transit-dues under the

Imports.—Notice being given at the port from which the imports are to be made, of the nature and quantity of the goods from which they have been placed inland to which they are subject, the necessary particulars; the collector, on due inspection made, and on transit-duty due, issue a transit-due certificate, to be produced at every port. No further duty will be levied on imports so certificated, no matter what the place of their destination.

Exports.—Produce purchased by the importer in the interior will be inspected at the first barrier it passes beyond the port of shipment. A memorandum amount of the produce and the person in charge of the produce; he will receive a certificate, which must be produced at every barrier on his way to the port. On the arrival of the produce nearest the port, notice must be given to the customs, and the produce being paid, it will be passed, and the produce will pay the tariff-duty, to pass goods inward or outward, in compliance with the rules here rendered them liable to confiscation. The goods, in transit, of goods that are to be exported as above for a port, will render them liable to confiscation. Any attempt to pass the goods of the quantity specified in the certificate named in the same. Permission to export produce which has been paid its transit-dues, and which has been paid by the customs until the transit-dues have been paid.

Foreign Trade under Passports.—It is agreed that the arrangement agreed to in Article 9 of the treaty of Tien-tsin, interpreted as authorising British vessels to trade in the capital city of Peking under the same.

Abolition of the Melloge Fee.—It is agreed that the percentage of 1 tael 2 mace, levied in excess of duty-payments, to

defray the expenses of melting; by the Chinese Government, shall be no longer levied on British subjects.

Rule 10.—Collection of Duties under one System at all Ports.—It being, by treaty, at the option of the Chinese Government to adopt what means appear to it best suited to protect its revenue, accruing on British trade, it is agreed that one uniform system shall be enforced at every port.

The high officer appointed by the Chinese Government to superintend foreign trade, will accordingly, from time to time, either himself visit, or will send a deputy to visit, the different ports. The said high officer will be at liberty, of his own choice, and independently of the suggestion or nomination of any British authority, to select any British subject he may see fit to aid him in the administration of the customs revenue; in the

prevention of smuggling; in the definition of port boundaries; or in discharging the duties of harbour-master; also in the distribution of lights, buoys, beacons, and the like, the maintenance of which shall be provided for out of the tonnage-dues.

The Chinese Government will adopt what measures it shall find requisite to prevent smuggling up the Yang-tze-kiang, when that river shall be opened to trade.

Done at Shanghai, in the province of Kiang-su, this 8th day of November, in the year of our Lord 1858, being the 3rd day of the 10th moon of the 8th year of the reign of Hien-Fung.

ELGIN AND KINCARDINE.

Signatures and Seal of the Five Chinese High Commissioners and Plenipotentiaries.

Tariff on Imports.

Articles	Quantities	Duty	Articles	Quantities	Duty
Agar-seed	per 100 catties	0 1 5 0	Cotton thread	per 100 catties	4 m. c. c. 0 7 2 0
Asiatic wax	"	0 6 5 0	" "	" "	0 7 0 0
Bee-wax, yellow	"	1 0 0 0	" "	" "	1 5 0 0
Betel nut	"	0 1 5 0	Cow bezoar, Indian	per catty	0 1 8 0
" "	"	0 0 7 5	Cutch	100 catties	0 1 8 0
Birds' nests, 1st quality	per catty	0 7 5 0	Elephants' teeth, whole	"	4 0 0 0
" 2nd	"	0 4 5 0	" broken	"	3 0 0 0
" 3rd, or uncleaned	"	0 3 5 0	Feathers, kingfisher's, peacock's	per 100	0 4 0 0
Batons, brass	gross	0 5 5 0	" "	100 catties	1 0 0 0
Camphor, baron, clean	catty	1 5 0 0	Flints	"	0 0 5 0
" refuse	"	0 7 2 0	Flint-stone	"	0 1 5 0
Cannas and cotton duck, not exceeding 50 yds. long	piece	0 4 0 0	Gamboge	"	1 0 0 0
Cardamoms, superior	100 catties	1 0 0 0	Ginseng, American, crude	"	6 0 0 0
Interior, or grains of Paradise	"	1 5 0 0	Glass, window clarified	box of 100 sq. ft.	8 0 0 0
Cinnamon	ad val.	5 per cent.	Titium	100 catties	0 1 5 0
Cloves	100 catties	0 5 0 0	Gold thread, real	per catty	1 6 0 0
" nutmeg	"	0 1 8 0	" imitation	"	0 0 5 0
Coal, foreign	ton	0 0 5 0	Gum benjamin	100 catties	0 6 0 0
Cochineal	100 catties	5 0 0 0	" oil of	"	0 6 0 0
Coral	catty	0 1 0 0	Gum aragon's blood	"	0 4 5 0
Cardamoms, Manila	100 catties	0 5 5 0	Myrrh	"	0 3 5 0
Cornelian	100 stones	0 5 0 0	Oilbalm	"	0 3 5 0
" beads	100 catties	7 0 0 0	Oils, buffalo and cow	"	0 4 2 0
Cotton, raw	"	0 3 5 0	Rhinoceros	"	0 2 5 0
Cotton piece goods:			" rhinoceros	"	0 2 5 0
Grey, white, plain, and twisted, exceeding 24 in. wide, and not exceeding 40 yds. long	piece	0 0 8 0	Indigo, liquid	"	0 1 8 0
Blue, exceeding 24 in. wide, and not exceeding 40 yds. long	piece	0 0 8 0	" dry	"	0 0 5 0
Drills and jans, not exceeding 30 in. wide, and not exceeding 40 yds. long	every 12 yards	0 0 2 0	Lacquered-ware	"	1 0 0 0
Drills and jans, not exceeding 30 in. wide, and not exceeding 30 yds. long	piece	0 1 0 0	Lead	"	0 1 2 0
T-cloths, not exceeding 51 in. wide, and not exceeding 48 yds. long	"	0 0 8 0	Lead, as Irish or Scotch, not exceeding 50 yds. long	piece	0 5 0 0
" not exceeding 51 in. wide, and not exceeding 21 yds. long	"	0 0 4 0	coarse, as linen and cotton, or silk and linen mixtures, not exceeding 50 yds. long	"	0 2 0 0
Cotton, dyed, figured and plain, not exceeding 56 in. wide, and not exceeding 40 yds. long	"	0 1 5 0	Lucratan dyed	100 catties	0 0 5 0
Fancy, white brocades and white spotted shirtings, not exceeding 56 in. wide, and not exceeding 40 yds. long	"	0 1 0 0	Macoe	"	1 0 0 0
Printed, chintzes and figures, not exceeding 51 in. wide, and not exceeding 30 yds. long	"	0 0 7 0	Mangrove bark	"	0 0 5 0
Cambric, not exceeding 46 in. wide, and not exceeding 21 yds. long	"	0 0 7 0	Metals:		
" not exceeding 46 in. wide, and not exceeding 12 yds. long	"	0 0 7 5	Copper, manufactured, as in sheets, rolls, nails	"	1 5 0 0
Mullin, not exceeding 46 in. wide, and not exceeding 21 yds. long	"	0 0 7 5	unmanufactured, as in slabs	"	1 0 0 0
" not exceeding 46 in. wide, and not exceeding 12 yds. long	"	0 0 5 5	yellow metal, sheathing	"	0 9 0 0
Damask, not exceeding 56 in. wide, and not exceeding 40 yds. long	"	0 2 0 0	and nails	"	0 6 0 0
Dimities or quiltings, not exceeding 40 in. wide, and not exceeding 12 yds. long	"	0 0 6 5	Japan	"	0 1 2 5
Printed, not exceeding 53 yds. long	"	0 0 3 5	Iron, manufactured, as in sheets, rolls, bars, hoops	"	0 0 7 5
Handkerchiefs, not exceeding 1 yd. square	do. ea	0 0 2 5	unmanufactured, as in pieces	"	0 0 7 5
Fustians, not exceeding 35 yds. long	piece	0 2 0 0	knit-ware	"	0 2 5 0
Vivereens, not exceeding 71 yds. long	"	0 1 5 0	Lead, in pigs	"	0 2 5 0
			" in sheets	"	0 5 5 0
			Quicksilver	"	2 0 0 0
			Spelter (saleable only under regulation appended)	"	0 2 5 0
			Steel	"	0 2 5 0
			Tin	"	1 2 5 0
			Mother of pearl shell	"	0 1 0 0
			Musical boxes	"	0 2 0 0
			Mussels, dried	"	5 per cent. ad val.
			Nutmegs	"	0 2 0 0
			Oives, unpickled, salted, or pickled	"	0 1 8 0
			Opium	"	30 0 0
			Pepper, black	"	0 5 6 0
			" white	"	0 5 6 0
			Pearls, dried	"	0 3 6 0
			Pitchbark	"	0 6 0 0
			Rattans	"	0 1 5 0
			Roe-molluscs	"	1 0 0 0
			Salt fish	"	0 1 8 0
			Salt-petre (saleable only under regulation appended)	"	0 5 0 0
			Sandal-wood	"	0 4 0 0
			Sappan-wood	"	0 1 0 0
			Seahorse teeth	"	0 2 0 0
			Sharks' fins, black	"	0 5 0 0
			" white	"	1 5 0 0
			Sharks' skins	"	2 0 0 0
			Silver thread, real	"	1 5 0 0
			" imitation	"	0 0 5 0

Tariff on Imports—continued.

Articles	Quantities	Duty	Articles	Quantities	Duty
Sinews, buffalo and deer	per 100 catties	1. m. c. c. 0 5 5 0	Tinder	per 100 catties	1. m. c. c. 0 3 5 0
Skins, fox, large	each	0 1 5 0	Tortoiseshell	catty	0 2 6 0
small	"	0 0 7 5	broken	"	0 0 7 0
martens	"	0 1 5 0	each	"	0 0 3 0
sea-otter	"	1 5 0 0	Umbrellas	piece	0 1 8 0
tiger and leopard	"	0 1 5 0	Valises, not exceeding 34 yds. long	pair	1 0 0 0
beaver	100	5 0 0 0	Watches	piece	4 0 0 0
dog, hare, and rabbit	"	0 5 0 0	Woolen manufactures, viz.:		
squirrel	"	0 5 0 0	Wan, Japan	100 catties	0 6 5 0
land otter	"	2 0 0 0	Woods, camagon	"	0 0 3 0
raccoon	"	1 5 0 0	chong	"	0 1 0 0
Smalls	100 catties	7 2 0 0	fragon	"	2 0 0 0
Snuff, foreign	"	0 5 0 0	Kranjee, 35 in. long, 1 in. wide, and 1 ft. thick	each	0 8 0 0
Sticknash	"	0 5 0 0	Laks	100 catties	0 1 4 0
Stockfish	"	0 5 0 0	red	"	0 1 1 0
Sulphur and brimstone (saleable only under regulation appended)	"	0 2 0 0	Woolen manufactures, viz.:		
Telescopes, spy and opera glasses, looking-glasses and mirrors	5 per cent.	ad val.	Blankets	pair	0 2 0 0
Tigers' bones	100 catties	1 5 5 0	broadeloth and Spanish stripes, habit and medium cloth, 51 to 64 in. wide	chang	0 1 2 0
Timber:			long etc., 31 in. wide	"	0 0 5 0
Matts and spars, hard wood, not exceeding 60 ft.	each	4 0 0 0	camlets, English, 31 in. wide	"	0 1 0 0
ditto, not exceeding 60 ft.	"	6 0 0 0	Dutch, 35 in. wide	"	0 1 0 0
ditto, exceeding 60 ft.	"	10 0 0 0	imitation and bombazines	"	0 0 3 0
soft wood, not exceeding 40 ft.	"	2 0 0 0	cashmere, flannel and narrow	"	0 0 4 0
ditto, not exceeding 60 ft.	"	4 5 0 0	lastings, 31 in. wide	"	0 0 5 0
ditto, exceeding 60 ft.	"	6 5 0 0	imitation and Orleans, 31 in. wide	"	0 0 5 0
Beams, hard wood, not exceeding 26 ft. long, and under 12 in. square	"	0 1 5 0	bunting, not exceeding 24 in. wide, 40 yds. long	piece	0 2 0 0
Planks, hard wood, not exceeding 24 ft. long, 12 in. wide, and 3 in. thick	100	3 5 0 0	and cotton mixtures, viz.:		
ditto, not exceeding 16 ft. long, 12 in. wide, and 3 in. thick	"	2 0 0 0	lustrous plain and broadcated, not exceeding 31 yds. long	"	0 2 0 0
soft wood	1,000 sq. ft. cubic foot	0 7 0 0	inferior Spanish stripes	chang	0 1 0 0
teak	"	0 0 3 5	varn	100 catties	3 0 0 0

Tariff on Exports.

Articles	Quantities	Duty	Articles	Quantities	Duty
Alum	per 100 catties	1. m. c. c. 0 1 0 0	Glass beads	per 100 catties	1. m. c. c. 0 5 0 0
green or copperas	"	0 1 0 0	or vitrified ware	"	0 5 0 0
Antised, star	"	0 5 0 0	Grass cloth, fine	"	2 5 0 0
broken	"	0 2 5 0	coarse	"	0 7 5 0
oil	"	5 0 0 0	Ground-nuts	"	0 1 0 0
Apricot seeds, or almonds	"	0 4 5 0	"	"	0 0 3 0
Arsenic	"	0 4 5 0	Gypsum, ground, or plaster of Paris	"	0 0 3 0
Artificial flowers	"	1 5 0 0	Hair, camels'	"	1 0 0 0
Bamboo ware	"	0 7 5 0	goats'	"	1 8 0 0
Bangles, or glass armlets	"	0 5 0 0	Hama	"	0 5 0 0
Bees and peas (except from New-chwang and Tang-chow)	"	0 0 6 0	flannel, or orpiment	"	0 5 0 0
Bean cake (except from New-chwang and Tang-chow)	"	0 0 3 5	Hemp	"	0 3 5 0
Bone and horn ware	"	1 0 0 0	Honey	"	0 6 0 0
Brass buttons	"	3 0 0 0	Horns, deer's, young	pair	0 9 0 0
fuel	"	1 5 0 0	old	100 catties	1 3 5 0
wire	"	1 0 0 0	Indian ink	"	0 2 0 0
Camphor	"	0 7 5 0	Indigo, dry	"	1 0 0 0
Canes	1,000	0 5 0 0	Joss-sticks	"	0 5 0 0
Cantharides	100 catties	2 0 0 0	Kittysols, or paper umbrellas	100	1 0 0 0
Capoor catcherry	"	0 3 0 0	Lacquered ware	100 catties	1 0 0 0
Carpets and druggets	100	3 5 0 0	Lamp-wicks	"	0 6 0 0
Cassia lignea	100 catties	0 6 0 0	Lead, red (minium)	"	0 5 0 0
buds	"	0 8 0 0	white (ceruse)	"	0 3 5 0
twigs	"	0 1 5 0	yellow (massicot)	"	0 5 0 0
oil	"	0 0 0 0	Leather articles, as pouches, purses	"	1 5 0 0
Castor oil	"	0 2 0 0	green	"	1 5 0 0
Chestnuts	"	0 1 0 0	Liches	"	0 2 0 0
China root	"	0 3 0 0	Lilly flower, dried	"	2 7 0 0
China ware, fine	"	0 9 0 0	Indro seeds, or lotus nuts	"	0 5 0 0
coarse	"	0 4 5 0	Liquorice	"	0 1 3 0
Cinnabar	"	0 7 5 0	Loung-ngan	"	0 2 5 0
Clothing, cotton	"	1 3 0 0	without the stone	"	0 3 5 0
silk	10 0 0 0	0 0 0 0	Manne cake, or poudrette	"	0 2 0 0
Coal	"	0 0 4 0	Mas of all kinds	100	0 2 0 0
Coin	"	0 1 0 0	Mastic	roll of 40 yds.	0 2 0 0
Copper ore	"	0 5 0 0	Melton seeds	100 catties	0 1 0 0
sheathing, old	"	0 5 0 0	Mother-of-pearl ware	catty	0 1 0 0
Copper and pewter ware	"	1 5 0 0	Mushrooms	100 catties	1 5 0 0
crystals, false	"	0 3 5 0	Blush	"	1 9 0 0
Cotton, raw	"	0 3 5 0	Naukeen and native cotton cloths	100 catties	1 5 0 0
rag	"	0 0 4 5	Nutgalls	"	0 5 0 0
Cow, Betour	catty	0 3 6 0	and hemp seed	"	0 3 0 0
Crackers, fireworks	100 catties	1 5 0 0	Oiled paper	"	0 4 5 0
Cubels	"	0 5 0 0	Olive seed	"	0 0 0 0
Crossbills, antiques	5 per cent.	ad val.	Oyster-shells, sea-shells	"	0 0 9 0
Dates, black	100 catties	0 1 5 0	Paint (green)	"	0 4 5 0
red	"	0 0 9 0	Pelampores, or cotton bed-quits	100	2 7 5 0
Dye, green	"	0 8 0 0	Paper, 1st quality	100 catties	0 7 0 0
Edgs, preserved	1,000	0 3 5 0	2nd quality	"	0 4 0 0
Fans, feather	100	0 0 4 5	Peas, false	"	2 0 0 0
paper	"	0 3 6 0	Peel, orange	"	0 3 0 0
palm-leaf, trimmed	1,000	0 2 0 0	pumela, 1st quality	"	0 4 5 0
untimmed	"	0 1 0 0	2nd quality	"	0 3 0 0
Felt cutlugs	100 catties	1 2 5 0	Peppermint leaf	"	0 1 0 0
cups	100	0 6 0 0	oil	"	3 5 0 0
Fungus, or agaric	100 catties	0 0 0 0	Pictures and paintings	each	0 1 0 0
Gabanga	"	0 0 0 0	on silk or rice-paper	100	0 0 0 0
Galic	"	0 0 0 0	Pottery, earth-ware	100 catties	0 0 5 0
Ginseng, native	5 per cent.	ad val.	Preserves, comits, and sweetmeats	"	0 5 0 0
Corean or Japan, 1st quality	catty	0 5 0 0			
2nd quality	"	0 3 5 0			

Tariff on Exports—continued.

	Quantities	Duty
per	t. m. c. c.	
100 catties	0 5 0 0	
catty	0 2 5 0	
each	0 0 7 2	
each	0 0 5 5	
piece	0 1 8 0	
pair	1 0 0 0	
100 catties	4 5 0 0	
each	0 6 5 0	
each	0 0 3 0	
each	0 1 5 0	
each	2 0 0 0	
each	0 4 5 0	
each	0 8 0 0	
100 catties	0 1 4 5	
each	0 1 1 5	
pair	0 2 0 0	
chang	0 1 2 0	
each	0 0 4 5	
n. wide	0 0 5 0	
bomba-	0 0 5 5	
each	0 0 4 0	
each	0 0 5 0	
each	0 0 3 5	
piece	0 2 0 0	
each	0 2 0 0	
100 catties	0 1 0 0	
100 catties	3 0 0 0	

Articles	Quantities	Duty	Articles	Quantities	Duty
Rattans, split	per 100 catties	t. m. c. c. 0 2 5 0	Silk caps	per 100	0 9 0 0
Rattan-ware	per 100 catties	0 5 0 0	and cotton mixtures	per 100 catties	5 5 0 0
Rhubarb	per 100 catties	1 2 5 0	Silver and gold-ware	per 100	10 0 0 0
Rice or paddy, wheat, millet, and other grains	per each	0 1 0 0	Snuff	per 100	0 8 0 0
Rugs, of hair or skin	per each	0 0 2 0	Soy	per 100	0 4 0 0
Sambao	per 100 catties	0 1 5 0	Straw, braid	per 100	0 7 0 0
Sandalwood ware	per catty	0 1 0 0	Sugar, brown	per 100	0 1 2 0
Seaweed	per 100 catties	0 1 5 0	white	per 100	0 2 0 0
Sesamum seed	per 100 catties	0 1 5 5	sandy	per 100	0 2 5 0
Shoes and boots, leather or satin	per 100 pairs	3 0 0 0	Tallow, animal	per 100	0 2 0 0
straw	per 100 catties	0 1 8 0	vegetable	per 100	0 3 0 0
Silk, raw and thrown	per 100 catties	10 0 0 0	Tea	per 100	2 5 0 0
yellow, from Szechuen	per 100 catties	0 1 8 0	Tinfil	per 100	1 2 5 0
red, from Dupons	per 100 catties	5 0 0 0	Tobacco, prepared	per 100	0 4 5 0
wild raw	per 100 catties	5 0 0 0	leaf	per 100	0 1 5 0
reoue	per 100 catties	2 5 0 0	Tortoiseshell ware	per catty	0 2 0 0
cocoons	per 100 catties	1 0 0 0	Trunks, leather	per 100 catties	1 5 0 0
dots, Canton	per 100 catties	4 3 0 0	Turmeric	per 100	0 1 0 0
from other provinces	per 100 catties	10 0 0 0	Twine, hemp, Canton	per 100	0 1 5 0
ribbons and thread	per 100 catties	10 0 0 0	Soo-chow	per 100	0 5 0 0
Silk piece-goods:			Turpins, salted	per 100	0 1 8 0
ponges, shawls, scarfs,			Varnish, or crude lacquer	per 100	0 5 0 0
crepe, satins, gauzes, veils,			Vermicelli	per 100	0 1 8 0
and embroidered goods,			Vermilion	per 100	2 5 0 0
Szechuen and Shantung			Wax, white or insect	per 100	1 5 0 0
Silk, towels			Wood, piles, poles, and joists	per each	0 0 7 0
			ware	per 100 catties	1 1 5 0
			Wool	per 100	0 5 5 0

ELGIN AND KINCARDINE.  
Signatures and Seal of the Five Chinese High Commissioners and Plenipotentiaries.

Convention between her Majesty and the Emperor of China. Signed in the English and Chinese Languages, at Peking, October 24, 1860.

Article 1. A breach of friendly relations having been occasioned by the Act of the garrison of Ta-ku, which obstructed her Britannic Majesty's representative when on his way to Peking for the purpose of exchanging the ratifications of the treaty of peace concluded at Tien-tsin in the month of June, 1858, his Imperial Majesty the Emperor of China expresses his deep regret at the misunderstanding so occasioned.

2. It is further expressly declared, that the arrangement entered into at Shanghai in the month of October, 1858, between her Britannic Majesty's ambassador the Earl of Elgin and Kincardine, and his Imperial Majesty's commissioners Kweiliang and Hwahshang, regarding the residence of her Britannic Majesty's representative in China, is hereby cancelled, and that, in accordance with Article 3 of the treaty of 1858, her Britannic Majesty's representative will henceforward reside permanently or occasionally at Peking, as her Britannic Majesty shall be pleased to decide.

3. It is agreed that the separate article of the treaty of 1858 is hereby annulled; and that in lieu of the amount of indemnity therein specified, his Imperial Majesty the Emperor of China shall pay the sum of 8,000,000 of taels in the following proportions or instalments, namely: At Tien-tsin, on or before the 30th day of November, the sum of 300,000 taels; at Canton, and on or before the 1st day of December, 1860, 333,333 taels, less the sum which shall have been advanced by the Canton authorities towards the completion of the British factory site at Shamen; and the remainder at the ports open to foreign trade, in quarterly payments, which shall consist of 1/3 of the gross revenue from customs there collected. The first of the said payments being due on the 31st day of December, 1860, for the quarter terminating on that day.

It is further agreed that these moneys shall be paid into the hands of an officer whom her Britannic Majesty's representative shall specially appoint to receive them, and that the accuracy of the amounts shall, before payment, be duly ascertained by British and Chinese officers appointed to discharge this duty.

In order to prevent future discussion, it is moreover declared, that of the 8,000,000 of taels herein guaranteed, 2,000,000 will be appropriated to the indemnification of the British mercantile community at Canton, for losses sustained by them, and the remaining 6,000,000 to the liquidation of war expenses.

4. It is agreed that on the day on which this convention is signed, his Imperial Majesty the Emperor of China shall open the port of Tien-tsin to trade, and that it shall be thereafter competent to British subjects to reside and trade there under the same conditions as at any other port of China by treaty open to trade.

5. As soon as the ratifications of the treaty of 1858 shall have been exchanged, his Imperial Majesty the Emperor of China will, by decree, command the high authorities of every province to proclaim throughout their jurisdictions, that Chinese choosing to take service in the British colonies, or other parts beyond sea, are at perfect liberty to enter into engagements with British subjects for that purpose, and to ship themselves and their families on board any British vessel at any of the open ports of China; also that the high authorities aforesaid shall, in concert with her Britannic Majesty's representative in China, frame such regulations for the protection of Chinese emigrating, as above, as the circumstances of the different open ports may demand.

6. With a view to the maintenance of law and order in and about the harbour of Hong Kong, his Imperial Majesty the Emperor of China agrees to cede to her Majesty the Queen of Great Britain and Ireland, and to her heirs and successors, to have and to hold as a dependency of her Britannic Majesty's colony of Hong Kong, that portion of the township of Cowloon, in the province of Kwang-tung, of which a lease was granted in perpetuity to Harry Smith Parkes, Esquire, Companion of the Bath, a member of the allied commission at Canton, on behalf of her Britannic Majesty's Government, by Lan Tsung Kwang, governor-general of the Two Kwang.

It is further declared that the lease in question is hereby cancelled; that the claims of any Chinese to property on the said portion of Cowloon shall be duly investigated by a mixed commission of British and Chinese officers; and that compensation shall be awarded by the British Government

	Quantities	Duty
per	t. m. c. c.	
100 catties	0 5 0 0	
each	0 2 5 0	
each	0 0 7 2	
each	0 0 5 5	
piece	0 1 8 0	
pair	1 0 0 0	
100 catties	4 5 0 0	
each	0 6 5 0	
each	0 0 3 0	
each	0 1 5 0	
each	2 0 0 0	
each	0 4 5 0	
each	0 8 0 0	
100 catties	0 1 4 5	
each	0 1 1 5	
pair	0 2 0 0	
chang	0 1 2 0	
each	0 0 4 5	
n. wide	0 0 5 0	
bomba-	0 0 5 5	
each	0 0 4 0	
each	0 0 5 0	
each	0 0 3 5	
piece	0 2 0 0	
each	0 2 0 0	
100 catties	0 1 0 0	
100 catties	3 0 0 0	
each	0 0 3 0	
each	0 0 4 0	
each	0 0 5 0	
each	0 0 7 0	
each	0 0 8 0	
each	0 0 9 0	
each	0 1 0 0	
each	0 1 1 0	
each	0 1 2 0	
each	0 1 3 0	
each	0 1 4 0	
each	0 1 5 0	
each	0 1 6 0	
each	0 1 7 0	
each	0 1 8 0	
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each	0 2 0 0	
each	0 2 1 0	
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to any Chinese whose claim shall be by the said commission established, should his removal be deemed necessary by the British Government.

7. It is agreed that the provisions of the treaty of 1858, except in so far as these are modified by the present convention, shall without delay come into operation as soon as the ratifications of the treaty aforesaid shall have been exchanged.

It is further agreed that no separate ratification of the present convention shall be necessary, but that it shall take effect from the date of its signature, and be equally binding, with the treaty above mentioned, on the high contracting parties.

8. It is agreed that as soon as the ratifications of the treaty of the year 1858 shall have been exchanged, his Imperial Majesty the Emperor of China shall, by decree, command the high authorities in the capital and in the provinces to print and publish the aforesaid treaty and the present convention, for general information.

9. It is agreed that as soon as this convention shall have been signed, the ratifications of the treaty of the year 1858 shall have been exchanged, and an imperial decree respecting the publication of the said convention and treaty shall have been promulgated, as provided for by Article 8 of this convention, Chusan shall be evacuated by her Britannic Majesty's troops there stationed, and her Britannic Majesty's force now before Peking shall commence its march towards the city of Tientsin, the forts of Taku, the north coast of Shungtung, and the city of Canton, at each or all of which places it shall be at the option of her Majesty the Queen of Great Britain and Ireland to retain a force until the indemnity of 8,000,000 of taels, guaranteed in Article 3, shall have been paid.

Done at Peking, in the Court of the Board of Ceremonies, on the 24th day of October, in the year of our Lord 1860.

ELGIN AND KINCAIDINE.  
Signature and Seal of the Chinese Plenipotentiary.

#### DENMARK.

*Convention of Commerce between Great Britain and Denmark, signed at London, the 16th of June, 1824.*

Article 1. From and after the 1st day of July next, Danish vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, and British vessels entering or departing from the ports of his Danish Majesty's dominions, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on national vessels entering or departing from such ports respectively.

2. All articles of the growth, produce, or manufacture of any of the dominions of either of the high contracting parties, which are or shall be permitted to be imported into or exported from the ports of the United Kingdom and of Denmark respectively, in vessels of the one country, shall, in like manner, be imported into and exported from those ports in vessels of the other.

3. All articles not of the growth, produce, or manufacture of the dominions of his Britannic Majesty, which can legally be imported from the United Kingdom of Great Britain and Ireland into the ports and dominions of the King of Denmark, in British ships, shall be subject only to the same duties as are payable upon the like articles if imported in Danish ships; and the same reciprocity shall be observed with regard to Danish vessels in the ports of the said United Kingdom of Great Britain and Ireland in respect to all articles not the growth, produce, or manufacture of the dominions of his Danish

Majesty, which can legally be imported into ports of the United Kingdom in Danish ships.

4. All goods which can legally be imported the ports of either country shall be admitted the same rate of duty, whether imported in vessels of the other country or in national vessels; all goods which can be legally exported from ports of either country shall be entitled to the same bounties, drawbacks, and allowances, when exported in vessels of the other country or in national vessels.

5. No priority or preference shall be given directly or indirectly, by the Government of either country, or by any company, corporation, or agent acting on its behalf or under its authority, in the purchase of any article the growth, produce, manufacture of either country imported into the other, on account of or in reference to the character of the vessel in which such article was imported, it being the true intent and meaning of the high contracting parties, that no distinction or difference whatever shall be made in this respect.

6. The high contracting parties having mutual territories determined not to include in the present convention their respective colonies, in which are comprehended, on the part of Denmark, Greenland, Iceland, and the islands of Ferroe; it is expressly agreed that the intercourse which may at present legally be carried on by the subjects or ships of either of the said high contracting parties with the colonies of the other, shall remain upon the same footing as if this convention had never been concluded.

7. The present convention shall be in force for the term of 10 years from the date hereof; and, further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other, at the end of the said term of 10 years; and it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

8. The present convention shall be ratified, and the ratifications shall be exchanged at London within 1 month from the date hereof, or soon after, if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 16th of June, 1824.

GEORGE CANNING,  
W. HUSKISSON,  
C. E. MOLTKE.

#### Separate Articles.

The high contracting parties reserve to themselves the right to enter upon additional stipulations for the purpose of facilitating and extending, beyond what is comprehended in the convention of this date, the commercial regulations of the respective subjects and dominions, upon the principle either of reciprocal or equivalent advantage as the case may be. And in the event of any articles or article being concluded between the said high contracting parties for giving effect to such stipulations, it is hereby agreed that such article or articles which may hereafter be so concluded shall be considered as forming part of the aforesaid convention.

#### Additional Articles.

Their Britannic and Danish Majesties mutually agree that no higher or other duties shall be levied

legally be imported into the Kingdom in Danish ships. Such can legally be imported into any country shall be admitted at any port, whether imported in vessels of any country or in national vessels; and no goods shall be legally exported from the Kingdom shall be entitled to the drawback, and allowances, whether in favour of the other country or in

or preference shall be given. It shall be the duty of either party, by the Government of either country, company, corporation, or agent, to execute, or to cause to be executed, all or under its authority, in the article the growth, produce, or manufacture of either country imported into the Kingdom, or of or in reference to the character of which such article was imported, the intent and meaning of the high contracting parties, that no distinction or difference shall be made in this respect.

The high contracting parties having mutually agreed to include in the present convention the colonies, in which are comprised the part of Denmark, Greenland, the islands of Ferroe; it is expressly agreed that the intercourse which may at present exist between the high contracting parties with the said colonies, shall remain upon the same footing as if this convention had never been

The present convention shall be in force for a term of ten years from the date hereof; and at the end of 12 months after either of the high contracting parties shall have given notice of its intention to terminate the same, the right of giving such notice shall be reserved to the other of the high contracting parties, and the same shall be in force for a term of 12 months after such notice shall be given, and the provisions of the convention shall be in force until they are otherwise terminated.

The present convention shall be ratified, and the ratifications shall be exchanged at London, on or before the 16th day of June, 1824.

GEORGE CANNING.  
W. HUSKISSON.  
C. E. MOLTKER.

#### Separate Articles.

The high contracting parties reserve to themselves the right of making such stipulations as may be necessary for facilitating and extending, even to the most distant parts of the world, the commercial regulations of their respective countries, upon the principle of mutual advantage, reciprocal or equivalent advantages, as they may be. And in the event of any stipulation being concluded between the high contracting parties for giving effect to the same, it is hereby agreed that the same shall be considered as forming part of the present convention.

#### Additional Articles.

The Danish and British Majesties mutually agreed that no higher or other duties shall be levied

in either of their dominions (their respective colonies being excepted from the convention of this date), upon any personal property of their respective subjects, on the removal of same from the dominions of their said Majesties reciprocally, either upon the inheritance of such property, or otherwise, than as or shall be payable in each state upon the like property when removed by a subject of such state respectively.

For treaty as to abolition of sound dues, see ELSINEUR.

#### FRANCE.

*Convention of Navigation between his Britannic Majesty and the Most Christian King, together with two additional Articles thereto annexed. Signed at London, January 26, 1826.*

Article 1. French vessels coming from or departing for the ports of France, or, if in ballast, coming from or departing for any place, shall not be subject, in the ports of the United Kingdom, either on entering into or departing from the same, to any higher duties of tonnage, harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, than those to which British vessels, in respect of the same voyages, are or may be subject on entering into or departing from such ports; and, reciprocally, from and after the same period, British vessels coming from or departing for the ports of the United Kingdom, or, if in ballast, coming from or departing for any place, shall not be subject, in the ports of France, either in entering into or departing from the same, to any higher duties of tonnage, harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, than those to which French vessels, in respect of the same voyages, are or may be subject, on entering into or departing from such ports; whether such duties are collected separately, or are consolidated in one and the same duty—his Most Christian Majesty reserving to himself to regulate the amount of such duty or duties in France, according to the rate at which they are or may be established in the United Kingdom: at the same time, with a view of diminishing the burdens imposed upon the navigation of the two countries, his Most Christian Majesty will always be disposed to reduce the amount of the said burdens in France, in proportion to any reduction which may hereafter be made of those now levied in the ports of the United Kingdom.

2. Goods which can or may be legally imported into the ports of the United Kingdom, from the ports of France, if so imported in French vessels, shall be subject to no higher duties than if imported in British vessels; and, reciprocally, goods which can or may be legally imported into the ports of France, from the ports of the United Kingdom, if so imported in British vessels, shall be subject to no higher duties than if imported in French vessels. The produce of Asia, Africa, and America, not being allowed to be imported from the said countries, nor from any other, in French vessels, nor from France in French, British, or any other vessels, into the ports of the United Kingdom, for home consumption, but only for warehousing and re-exportation, his Most Christian Majesty reserves to himself to direct that, in like manner, the produce of Asia, Africa, and America shall not be imported from the said countries, nor from any other, in British vessels, nor from the United Kingdom in British, French, or any other vessels, into the ports of France, for the consumption of that kingdom, but only for warehousing and re-exportation.

With regard to the productions of the countries of Europe, it is understood between the high contracting parties, that such productions shall not be imported, in British ships, into France, for the consumption of that kingdom, unless such ships shall have been laden therewith in some port of the United Kingdom; and that his Britannic Majesty may adopt, if he shall think fit, some corresponding restrictive measure, with regard to the productions of the countries of Europe imported into the ports of the United Kingdom in French vessels: the high contracting parties reserving, however, to themselves the power of making, by mutual consent, such relaxations in the strict execution of the present article as they may think useful to the respective interests of the two countries upon the principle of mutual concessions, affording each to the other reciprocal or equivalent advantages.

3. All goods which can or may be legally exported from the ports of either of the two countries shall, on their export, pay the same duties of exportation, whether the exportation of such goods be made in British or in French vessels, provided the said vessels proceed, respectively, direct from the ports of the one country to those of the other. And all the said goods so exported in British or French vessels shall be reciprocally entitled to the same bounties, drawbacks, and other allowances of the same nature, which are granted by the regulations of each country, respectively.

4. It is mutually agreed between the high contracting parties, that in the intercourse of navigation between their two countries, the vessels of any third power shall in no case obtain more favourable conditions than those stipulated, in the present convention, in favour of British and French vessels.

5. The fishing-boats of either of the two countries, which may be forced by stress of weather to seek shelter in the ports or on the coast of the other country, shall not be subject to any duties or port charges of any description whatsoever; provided the said boats, when so driven in by stress of weather, shall not discharge or receive on board any cargo, or portion of cargo, in the ports or on the parts of the coast where they shall have sought shelter.

6. It is agreed that the provisions of the present convention between the high contracting parties shall be reciprocally extended and in force in all the possessions subject to their respective dominions in Europe.

7. The present convention shall be in force for the term of 10 years from the 5th of April of the present year; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate its operation; each of the high contracting parties reserving to itself the right of giving such notice to the other, at the end of the said term of 10 years; and it is agreed between them, that, at the end of 12 months' extension agreed to on both sides, this convention, and all the stipulations thereof, shall altogether cease and determine.

8. The present convention shall be ratified, and the ratifications shall be exchanged in London, within the space of 1 month, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 26th day of January, in the year of our Lord 1826.

GEORGE CANNING.  
WILLIAM HUSKISSON.  
LE PRINCE DE POLIGNAC.

*Additional Articles.*

Article 1. French vessels shall be allowed to sail from any port whatever of the countries under the dominion of his Most Christian Majesty, to all the colonies of the United Kingdom (except those possessed by the East India Company), and to import into the said colonies all kinds of merchandise (being productions the growth or manufacture of France, or of any country under the dominion of France), with the exception of such as are prohibited to be imported into the said colonies, or are permitted to be imported only from countries under the British dominion; and the said French vessels, as well as the merchandise imported in the same, shall not be subject, in the colonies of the United Kingdom, to other or higher duties than those to which British vessels may be subject on importing the same merchandise from any foreign country, or which are imposed upon the merchandise itself.

The same facilities shall be granted, reciprocally, in the colonies of France, with regard to the importation in British vessels of all kinds of merchandise (being productions the growth and manufacture of the United Kingdom, or any country under the British dominion), with the exception of such as are prohibited to be imported into the said colonies, or are permitted to be imported only from countries under the dominion of France. And whereas all goods, the produce of any foreign country, may now be imported into the colonies of the United Kingdom, in the ships of that country, with the exception of a limited list of specified articles which can only be imported into the said colonies in British ships, his Majesty the King of the United Kingdom reserves to himself the power of adding to the said list of excepted articles any other the produce of the French dominions, the addition whereof may appear to his Majesty to be necessary for placing the commerce and navigation to be permitted to the subjects of each of the high contracting parties with the colonies of the other upon a footing of fair reciprocity.

2. French vessels shall be allowed to export from all the colonies of the United Kingdom (except those possessed by the East India Company) all kinds of merchandise which are not prohibited to be exported from such colonies in vessels other than those of Great Britain; and the said vessels, as well as the merchandise exported in the same, shall not be subject to other or higher duties than those to which British vessels may be subject on exporting the said merchandise, or which are imposed upon the merchandise itself; and they shall be entitled to the same bounties, drawbacks, and other allowances of the same nature, to which British vessels would be entitled, on such exportation.

The same facilities and privileges shall be granted, reciprocally, in all the colonies of France, for the exportation in British vessels of all kinds of merchandise which are not prohibited to be exported from such colonies in vessels other than those of France.

These 2 additional articles shall have the same force and validity as if they were inserted, word for word, in the convention signed this day. They shall be ratified, and the ratifications shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, Jan. 26, 1826.

GEORGE CANNING.  
WILLIAM HUSKISSON.  
LE PRINCE DE POLIGNAC.

A Treasury letter, dated 28th of March, 1826, directs that French vessels, and their cargoes legally imported or exported on board the same according to the terms of the convention in the preceding pages, are from the 5th of April, 1826, to be charged with such and the like duties only of whatever kind they may be, that are charged on British vessels, and similar cargoes laden on board thereof; and in like manner the same bounties, drawbacks, and allowances are to be paid on articles exported in French vessels, that are paid, granted, or allowed on similar articles exported in British vessels. And the necessary instructions are to be transmitted to the officers in the colonies for carrying into effect the stipulations contained in the 2 additional articles of the said convention, respecting French vessels and their cargoes, from the 1st of October, 1826.

A convention regulating the respective limits of the British and French oyster and other fisheries was signed at Paris on the 2nd of August, 1839, and another in 1868.

*Treaty of Commerce between her Majesty and the Emperor of the French. Signed at Paris, January 23, 1860. Ratifications exchanged at Paris, February 4, 1860.*

Article 1. His Majesty the Emperor of the French engages that on the following articles of British production and manufacture, imported from the United Kingdom into France, the duties shall in no case exceed 30 per cent. ad valorem, the two additional decimes included.

The articles are as follows:—  
Refined sugar;  
Turmeric in powder;  
Rock crystal worked;  
Iron forged in lumps or prisms;  
Brass wire (copper alloyed with zinc), polished or unpolished, of every description;  
Chemical productions, enumerated or non-enumerated;  
Extracts of dye-woods;  
Garancine;  
Common soap of every description, and perfumed soap;  
Stone-ware and earthen-ware, fine and common;  
China and porcelain-ware;  
Glass, crystal, mirrors, and plate-glass;  
Cotton yarn;  
Worsted and woollen yarn of every description;  
Yarns of flax and hemp;  
Yarns of hair, enumerated or non-enumerated;  
Cotton manufactures;  
Horse-hair manufactures, enumerated or non-enumerated;  
Worsted and woollen manufactures, enumerated or non-enumerated;  
Cloth list;  
Manufactures of hair;  
Silk manufactures;  
Manufactures of waste and floss-silk;  
Manufactures of bark and all other vegetable fibres, enumerated or non-enumerated;  
Manufactures of flax and hemp;  
Mixed manufactures of every description;  
Hosiery;  
Haberdashery, and small wares;  
Manufactures of caoutchouc and gutta percha, pure or mixed;  
Articles of clothing, wholly or in part made up;  
Prepared skins;  
Articles of every sort, manufactured from leather or skins, included or not under the denomination of small wares, fine or common;  
Plated articles of every description;  
Cutlery;

dated 28th of March, 1826, vessels, and their cargoes ported on board the same, of the convention in the of the 6th of April, 1826, and the like duties only, y may be, that are charged and similar cargoes laden in in like manner the same and allowances are to be erted in French vessels, that allowed on similar articles vessels. And the necessary e transmitted to the officers rrying into effect the stipu- the 2 additional articles of respecting French vessels and the 1st of October, 1826, ulating the respective limits rench oyster and other fisheries on the 2nd of August, 1830,

etween her Majesty and the French. Signed at Paris, Ratifications exchanged at 1, 1860.

Majesty the Emperor of the at on the following articles of and manufacture, imported into France, the duties exceed 30 per cent. ad valorem, decimes included, as follows:—

ver;   
orked;   
umps or prisms;   
per alloyed with zinc), polished every description;   
uctions, enumerated or non-en-   
-woods;   
every description, and perfumed   
earthen-ware, fine and common;   
celain-ware;   
mirrors, and plate-glass;   
woollen yarn of every description;   
and hemp;   
enumerated or non-enumerated;   
ctures;   
manufactures, enumerated or non-   
woollen manufactures, enumerated   
ed;   
of hair;   
ures;   
of waste and floss-silk;   
of bark and all other vegetable   
ed or non-enumerated;   
of flax and hemp;   
ctures of every description;   
and small wares;   
of caoutchouc and gutta percha,   
thing, wholly or in part made up;   
;   
every sort, manufactured from   
included or not under the deo-   
ll wares, fine or common;   
of every description;

Metal wares, whether enumerated or not;   
Pig and cast-iron of every description, without distinction of weight;   
Bar and wrought-iron, with the exception of the kinds specified in Article 17;   
Steel;   
Machinery, tools, and mechanical instruments of every description;   
Carriages on springs, lined and painted;   
Cabinet ware, carved work, and turnery of every description; worked ivory and wood;   
Brandy, spirits, including those not distilled from wine, carries, molasses, or rice;   
Ships and boats;   
With respect to refined sugar and chemical productions of which salt is the basis, the excise or inland duties shall be added to the amount of the above specified duties.

2. His Imperial Majesty engages to reduce the import duties in France on British coal and coke to the amount of 15 centimes for the 100 kilogrammes, with the addition of the 2 decimes.

His Majesty the Emperor also engages, within 4 years from the date of the ratification of the present treaty, to establish upon the importation of coal and coke by land and by sea, a uniform duty, which shall not exceed that which is fixed by the preceding paragraph.

3. It is understood that the rates of duty mentioned in the preceding articles are independent of the differential duties in favour of French shipping, with which duties they shall not interfere.

4. The duties ad valorem stipulated in the present treaty shall be calculated on the value at the place of production or fabrication of the object imported, with the addition of the cost of transport, insurance, and commission necessary for the importation into France as far as the port of discharge.

For the levying of these duties, the importer shall make a written declaration at the custom-house, stating the value and description of the goods imported. If the custom-house authorities shall be of opinion that the declared value is insufficient, they shall be at liberty to take the goods on paying to the importer the price declared, with an addition of 5 per cent.

This payment, together with the restitution of any duty which may have been levied upon such goods, shall be made within the 15 days following the declaration.

5. Her Britannic Majesty engages to recommend to Parliament to enable her to abolish the duties of importation on the following articles:—

Sulphuric acid, and other mineral acids;   
Agates and cornelians, set;   
Lucifers of every description;   
Peterson caps;   
Arms of every description;   
Jewels, set;   
Toys;   
Corks;   
Brocade of gold and silver;   
Embroideries and needle-work of every description;   
Brass and bronze manufactures, and bronzed metal;   
Canes, walking canes or sticks, umbrella or parasol sticks, mounted, painted, or otherwise ornamented;   
Hats, of whatever substance they may be made;   
Gloves, stockings, socks, and other articles of cotton or linen, wholly or in part made up;   
Leather manufactures;   
Lace manufactured of cotton, wool, silk, or linen;

Manufactures of iron and steel;   
Machinery and mechanical instruments; tools, and other instruments;   
Cutlery, and other articles of steel, iron, or cast-iron;

Fancy ornaments of steel and iron;   
Articles covered with copper by galvanic process;

Millinery and artificial flowers;   
Raw fruits;   
Gloves, and other leather articles of clothing;   
Manufactures of caoutchouc and gutta percha;   
Oils;   
Musical instruments;   
Worsted and woollen shawls, plain, printed, or patterned;

Coverlids, woollen gloves, and other worsted and woollen manufactures, not enumerated;   
Handkerchiefs, and other manufactures not enumerated, of linen and hemp;

Perfumery; cabinet ware, carved work, and turnery of every description;   
Clocks, watches, and opera glasses;   
Manufactures of lead, enumerated or not enumerated;

Feathers, dressed or not;   
Gout's, and other hair manufactures;   
China and porcelain ware;   
Stone and earthenware;   
Grapes;   
Sulphate of quinine;   
Salts of morphine;

Manufactures of silk, or of silk mixed with any other materials, of whatever description they may be;

Articles not enumerated in the tariff, now paying an ad valorem duty of 10 per cent.; subject, however, to such measures of precaution as the protection of the public revenue may require, against the introduction of materials liable to custom or excise duties, in the composition of articles admitted duty free in virtue of the present paragraph.

6. Her Britannic Majesty engages also to propose to Parliament that the duties on the importation of French wine be at once reduced to a rate not exceeding 3s. per gallon, and that from the 1st April, 1861, the duties on importation shall be regulated as follows:—

(1) On wine containing less than 15 degrees of proof spirit, verified by Sykes's hydrometer, the duty shall not exceed 1s. per gallon.

(2) On wine containing from 15 to 26 degrees, the duty shall not exceed 1s. 6d. per gallon.

(3) On wine containing from 26 to 40 degrees, the duty shall not exceed 2s. per gallon.

(4) On wine in bottles, the duty shall not exceed 2s. per gallon.

(5) Wine shall not be imported at any other ports than those which shall be named for that purpose before the present treaty shall come into force; her Britannic Majesty reserving to herself the right of substituting other ports for those which shall have been originally named, or of increasing the number of them.

The duty fixed upon the importation of wine at ports other than those named, shall be 2s. per gallon.

(6) Her Britannic Majesty reserves to herself the power, notwithstanding the provisions of this article, to fix the maximum amount of proof spirit which may be contained in liquor declared as wine, without, however, the maximum being lower than 37 degrees.

7. Her Britannic Majesty promises to recommend to Parliament to admit into the United Kingdom merchandise imported from France, at

a rate of duty equal to the excise duty which is or shall be imposed upon articles of the same description in the United Kingdom. At the same time the duty chargeable upon the importation of such merchandise may be augmented by such a sum as shall be an equivalent for the expenses which the system of excise may entail upon the British producer.

8. In accordance with the preceding article, her Britannic Majesty undertakes to recommend to Parliament the admission into the United Kingdom of brandies and spirits imported from France, at a duty exactly equal to the excise duty levied upon home-made spirits, with the addition of a surtax of 2*d.* per gallon, which shall make the actual duty payable on French brandies and spirits 8*s.* 2*d.* the gallon.

Her Britannic Majesty also undertakes to recommend to Parliament the admission of rum and tafia imported from the French colonies, at the same duty which is or shall be levied on these same articles imported from the British colonies.

Her Britannic Majesty undertakes to recommend to Parliament the admission of paper-hangings imported from France, at a duty equal to the excise tax, that is to say, at 14*s.* per cwt.; and cardboard of the same origin, at a duty which shall not exceed 15*s.* per cwt.

Her Britannic Majesty further undertakes to recommend to Parliament the admission of gold and silver plate imported from France, at a duty equal to the stamp or excise duty which is charged on British gold and silver plate.

9. It is understood between the two high contracting powers, that if one of them thinks it necessary to establish an excise tax or inland duty upon any article of home production or manufacture which is comprised among the preceding enumerated articles, the foreign imported article of the same description may be immediately liable to an equivalent duty on importation.

It is equally understood between the high contracting powers, that in case the British Government should deem it necessary to increase the excise duties levied upon home-made spirits, the duties on the importation of wines may be modified in the following manner:—

For every increase of 1*s.* per gallon of spirits on the excise duty, there may be, on wines which pay 1*s.* 6*d.* duty, an augmentation not exceeding 1½*d.* per gallon; and on wines which pay 2*s.*, an augmentation not exceeding 2½*d.* per gallon.

10. The two high contracting powers reserve to themselves the power of levying upon all articles mentioned in the present treaty, or upon any other article, landing or shipping dues, in order to pay the expenses of all necessary establishments at the ports of importation and exportation.

But in all that relates to local treatment, the dues and charges in the ports, basins, docks, roadsteads, harbours, and rivers of the two countries, the privileges, favours, or advantages which are or shall be granted to national vessels generally, or to the goods imported or exported in them, shall be equally granted to the vessels of the other country, and to the goods imported or exported in them.

11. The two high contracting powers engage not to prohibit the exportation of coal, and to levy no duty upon such exportation.

12. The subjects of one of the two high contracting powers shall, in the dominions of the other, enjoy the same protection as native subjects in regard to the rights of property in trade-marks and in patterns of every description.

13. The ad valorem duties established within

the limits fixed by the preceding articles shall be converted into specific duties by a supplement convention, which shall be concluded before the 1st of July, 1860. The medium prices during the twelve months preceding the date of the present treaty shall be taken as the basis for this conversion.

Duties shall, however, be levied in conformity with the bases above established:—

(1) In the event of this supplementary convention not having come into force before the expiration of the period fixed for the execution of France of the present treaty;

(2) Upon those articles the specific duties which shall not have been settled by common consent.

14. The present treaty shall be binding for the United Kingdom of Great Britain and Ireland, as soon as the necessary legislative sanction shall have been given by Parliament, with the reserve made in Article 6 respecting wines.

Further, her Britannic Majesty reserves to herself the power of retaining, upon special grounds, and by way of exception, during a period not exceeding 2 years, dating from the 1st of April, 1860, half of the duties on those articles the free admission of which is stipulated by the present treaty.

This reserve, however, does not apply to articles of silk manufacture.

15. The engagements contracted by his Majesty the Emperor of the French shall be fulfilled, as to the tariffs previously indicated as payable on British goods and manufactures shall be applicable within the following periods:—

(1) For coal and coke, from the 1st of July, 1860.

(2) For bar and pig iron, and for steel of the kinds which are not subject to prohibition, from the 1st of October, 1860.

(3) For worked metals, machines, tools, and mechanical instruments of all sorts, within a period which shall not exceed the 31st of December, 1860.

(4) For yarns and manufactures in flax and hemp, from the 1st of June, 1861.

(5) And for all other articles from the 1st of October, 1861.

16. His Majesty the Emperor of the French engages that the ad valorem duties payable on the importation into France of merchandise of British production and manufacture, shall not exceed a maximum of 25 per cent. from the 1st of October, 1864.

17. It is understood between the two high contracting powers, as an element of the conversion of the ad valorem duties into specific duties, that for the kinds of bar iron which are at present subjected on importation into France to a duty of 10 francs not including the 2 additional decimes the duty shall be 7 francs on every 100 kilogrammes until the 1st of October, 1861, and 5 francs from that period, including in both cases the two additional decimes.

18. The arrangements of the present treaty of commerce are applicable to Algeria, both for the exportation of her produce, and for the importation of British goods.

19. Each of the two high contracting powers engages to confer on the other any favour, privilege, or reduction in the tariff of duties of importation on the articles mentioned in the present treaty, which the said power may concede to any third power. They further engage not to enter into one against the other any prohibition of importation or exportation, which shall not at the same time be applicable to all other nations.

20. The present treaty shall not be valid until her Britannic Majesty shall be authorised by the assent of her Parliament to execute the engagements

the preceding articles shall be the duties by a supplementary shall be concluded before the medium prices during the date of the present treaty be basis for this conversion.

ever, be levied in conformity established— of this supplementary convention into force before the period fixed for the execution of the present treaty.

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treaty shall be binding for the of Great Britain and Ireland. nary legislative sanction shall by Parliament, with the reserve respecting wines.

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however, does not apply to articles ure.

ements contracted by his Majesty the French shall be fulfilled, and ously indicated as payable and manufactures shall be applied, wing periods:—

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They further engage not to enforce he other any prohibition of importa- tion, which shall not at the same scable to all other nations.

esent treaty shall not be valid unless e Majesty shall be authorised by the Parliament to execute the engage-

ments contracted by her in the articles of the Present treaty.

21. The present treaty shall remain in force for the space of 10 years, to date from the day of the exchange of ratifications; and in case neither of the high contracting powers shall have notified to the other, 12 months before the expiration of the said period of 10 years, the intention to put an end to its operation, the treaty shall continue in force for another year, and so on from year to year, until the expiration of a year, counting from the day on which one or other of the high contracting powers shall have announced its intention to put an end to it.

The high contracting powers reserve to themselves the right to introduce by common consent into this treaty any modification which is not opposed to its spirit and principles, and the utility of which shall have been shown by experience.

22. The present treaty shall be ratified, and the ratifications shall be exchanged at Paris within the period of 15 days, or sooner if possible.

In faith whereof, the respective plenipotentiaries have signed it, and affixed thereto the seal of their arms.

Done in duplicate at Paris, the 23rd day of January, in the year of our Lord 1860.

COWLEY.

RICHARD CORDEN.

V. HARCOURT.

F. ROCHER.

*Additional Article to the Treaty of Commerce concluded at Paris, January 23, 1860, between her Majesty and the Emperor of the French. Signed at Paris, February 25, 1860. Ratifications exchanged at Paris, February 28, 1860.*

By Article 8 of the treaty of commerce between her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the Emperor of the French, signed at Paris on the 23rd of January last, her Britannic Majesty undertook to recommend to Parliament the admission into the United Kingdom of brandies and spirits imported from France, at a duty exactly equal to the excise duty levied upon home-made spirits, with the addition of a surtax of 2*l.* per gallon, which would make the actual duty payable on French brandies and spirits 8*s.* 2*d.* per gallon.

Since the ratification of the said treaty the Government of her Britannic Majesty have ascertained that the surtax of 2*l.* per gallon is not sufficient to countervail the charges with which, in consequence of the operation of the laws of customs and excise, home-made British spirits have now to contend; and that a surtax limited to the rate of 2*l.* per gallon would still leave home-made British spirits subject to a differential duty in favour of foreign brandies and spirits.

Consequently the Government of her Britannic Majesty having represented these circumstances to the Government of his Majesty the Emperor of the French, and his Imperial Majesty having consented that the amount of the said surtax shall be increased, the two high contracting parties to the said treaty of commerce do, by the present additional article, agree that the amount of such surtax shall be 5*l.* per gallon; and her Britannic Majesty engages to recommend to Parliament the admission into the United Kingdom of brandies and spirits imported from France at a duty exactly equal to the excise duty levied upon home-made spirits, with the addition of a surtax of 5*l.* per gallon.

The present additional article shall have the same force and validity as if it had been inserted in the treaty of commerce of the 23rd of January last.

It shall be ratified, and the ratifications thereof shall be exchanged at Paris within 5 days from the date of its signature.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at Paris, this 25th day of February, in the year of our Lord 1860.

COWLEY.

L. BAROQUE.

F. ROCHER.

*Second Additional Article to the Treaty of Commerce concluded at Paris, January 23, 1860, between her Majesty and the Emperor of the French. Signed at Paris, June 25, 1860. Ratifications exchanged at Paris, July 1, 1860.*

It having been found impossible to conclude the negotiation of the arrangement which is to fix, according to paragraph 1 of Article 13 of the treaty of commerce concluded between Great Britain and France, the 23rd of January last, the rate of the specific duties to be levied on British merchandise imported into France, within the period stipulated by the said article, the high contracting parties have considered it advisable, in the interest of the respective commerce of the two countries, to make a fresh arrangement with a view to ensure the gradual execution of the aforesaid treaty within the periods fixed by the same.

In consequence whereof, the undersigned, invested with full powers on the part of her Majesty the Queen of the United Kingdom of Great Britain and Ireland, on one side, and of his Majesty the Emperor of the French on the other, have agreed upon the following articles:—

1. Instead of a single convention establishing the specific duties to be paid by British merchandise imported into France, three separate conventions shall be successively concluded; the first of which shall comprise bar and pig iron, steel and worked metals, machines, tools, and mechanical instruments of all sorts; the second, yarns and manufactures in flax and hemp; the third, all other articles of British production and manufacture enumerated in Article 1 of the treaty of the 23rd of January.

2. These conventions shall be negotiated, concluded, and ratified in such a manner as to come into force with respect to the articles to which they apply, at each of the periods fixed by Article 15, of the treaty of which they will form the complement. Nevertheless, the last of these conventions shall be concluded and ratified before the 1st of November next.

The present additional article shall have the same force and validity as if it had been inserted in the treaty of commerce of the 23rd of January last. It shall be ratified, and the ratifications thereof shall be exchanged at Paris within four days at latest from the date of its signature.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Paris, this 25th day of June, in the year of our Lord 1860.

COWLEY.

E. THOUVENEL.

*Convention between her Majesty and the Emperor of the French, supplementary to the Treaty of Commerce of January 23, 1860, with a Tariff annexed thereto. Signed at Paris, October 12, 1860. Ratifications exchanged at Paris, October 25, 1860.*

Article 1. The articles of British origin or manufacture enumerated in the tariff annexed to

the present convention, shall, when imported direct from the United Kingdom, under the French or the British flag, be admitted into France at the duties specified by the said tariff.

2. In order to establish the fact that the goods are of British origin or manufacture, the importer must present at the French Custom-house either an official declaration made before a British magistrate exercising jurisdiction at the place of despatch, or a certificate granted by the chief officer of the customs at the port of embarkation, or a certificate granted by the consuls or consular agents of France at the places of despatch or at the ports of embarkation. The above-mentioned consuls or consular agents of France shall legalise the signatures of the British authorities.

3. The importer of machines and mechanical instruments, complete or in detached pieces, of British origin or manufacture, shall be exempt from the obligation of producing at the French customs any model or drawing of the imported article.

4. The importer of any goods of British origin or manufacture taxed ad valorem, must attach to the declaration verifying the value of that article, and to the certificate of origin, an invoice emanating from the manufacturer or from the seller, which shall show the real price, and shall be *visé* by a consul or consular agent of France in the United Kingdom.

5. When articles upon which an ad valorem duty is levied have been previously warehoused, the duty shall be levied according to the value of those articles at the time of their actual entry into France.

6. The importer against whom the French customs may desire to exercise the right of pre-emption stipulated in the treaty of the 23rd of January, 1860, may, if he prefers to do so, demand a valuation of his goods by experts.

The same demand may be made by the French customs when they may not think fit to have immediate recourse to pre-emption.

7. If the result of such valuation by experts should prove that the goods have not a value of 5 per cent. above that which has been declared by the importer, the duty shall be levied upon the amount of the declaration.

If the proved value is 5 per cent. above the value declared, the French customs shall be entitled, at their choice, either to exercise the right of pre-emption, or to levy the duty on the value determined by the experts.

This duty shall be increased by 50 per cent., as a fine, if the valuation of the experts is 10 per cent. above the declared value.

If the value, as determined by the arbitration, exceeds the declared value by 5 per cent., the cost of the enquiry by the experts shall be defrayed by the declarant. In the contrary case, they shall be defrayed by the French Custom-house.

8. In the cases contemplated by Article 6 the two arbitrating experts shall be named, one by the declarant, the other by the local chief of the French Custom Service. If there be difference of opinion between them, or if at the time of appointing the experts the declarant shall require it, the experts shall choose an umpire. In default of agreement, this umpire shall be appointed by the president of the tribunal of commerce at the port of importation, or, in his default, by the president of the tribunal of commerce at the nearest place.

The decision of the arbitrators shall be given within the 15 days which follow their nomination.

9. Independently of the duties of customs, articles of goldsmith's work and of jewellery of British manufacture in gold, silver, platinum, or other metals, imported into France, shall be subject to the system of control established in that country for similar articles of domestic manufacture, and shall pay, if it becomes necessary, on the same basis as those, the duties of marking and guarantee.

10. The tariff annexed to the present convention shall, independently of the articles already admissible under the treaty of the 23rd of January last, be immediately applicable to refined sugars, to works in metal, to machines, to detached pieces of machines, to tools, and to mechanical instruments of every description.

11. The present convention shall have the same duration as the treaty concluded between the high contracting parties on the 23rd of January last, of which it is a complement.

12. The present convention shall be ratified, and the ratifications shall be exchanged at Paris within 15 days, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed it, and have affixed thereto the seal of their arms.

Done in duplicate, at Paris, the 12th day of October, 1860.

COWLEY.  
RICHARD COXEND.  
E. THOUVENEL.  
F. ROUHER.

*Tariff annexed to the Convention concluded on October 12, 1860, between Great Britain and France.*

Description of Articles	Rates of Import Duties		Description of Articles	Rates of Import Duties	
	1860	1864		1860	1864
<b>Metals.</b>					
<b>Iron—</b>	Per 100 kil. fr. cent.	Per 100 kil. fr. cent.	<b>Iron—</b>	Per 100 kil. fr. cent.	Per 100 kil. fr. cent.
Orn of			Sheet, thin, and black iron, in plates of 1 millimètre or less in thickness - (N.B. Thin sheet and black iron in flat plates, cut out or trimmed in any way, to pay one-tenth more than rectangular plates.)	15 00	10 00
Fillings, slag and dross, from the forge - Pig and fragments of old cast iron - Purified cast, called "maise," and old broken wrought iron - Crude, in lumps or prisms, not freed from the dross - Bars, square, round, or flat; rails of all shapes and dimensions; angle and T iron; and wire, with the exceptions hereinafter mentioned - Hoops, of the thickness of 1 millimètre or less - Sheet, rolled or hammered, exceeding 1 millimètre in thickness - In plates weighing 200 kilos, or less, and of which the breadth does not exceed 1 mètre 20 centimètres, nor the length 4 mètres 50 centimètres - In plates exceeding 200 kilos, in weight, or 1 mètre 20 centimètres in breadth, or 4 mètres 50 centimètres in length -	2 50 3 25 5 00 7 00 8 50 9 50	2 00 2 75 4 50 6 00 7 50 7 50	Wire, not exceeding 5-10th millimètres in diameter, whether tinned, coppered, or covered with zinc - Steel:— In bars of all kinds - Sheet, exceeding 2 millimètres in thickness - Sheets, not exceeding 2 millimètres in thickness, and wire, including bright wire for instruments - Copper:— Ore, filings and old broken articles - and brass melted, in pigs, bars, or plates - Rolled or beaten into bars or sheets - Wire of all sizes, whether polished or not	16 00 14 00 15 00 22 00 30 00 free 15 00 15 00	13 00 10 00 13 00 18 00 23 00 free 10 00 10 00

Tariff annexed to the Convention—continued.

reased by 50 per cent., as of the experts is 10 per value. mined by the arbitration, ne by 5 per cent., the cost- ers shall be delayed by ontrary case, they shall be Custom-house. mpleted by Article 6 the shall be named, one by r by the local chief of e. If there be difference or if at the time of appoint- clarant shall require it, the an umpire. In default of e shall be appointed by the al of commerce at the port sine default, by the president merce at the nearest place. r arbitrators shall be given hich follow their nomination, of the duties of customs, 'a work and of jewellery of in gold, silver, platinum, or ed into France, shall be sub- of control established in the articles of domestic manufac- if it becomes necessary, on, the duties of marking and

annexed to the present conven- ily of the articles already e treaty of the 23rd of January y applicable to refined sugars, to machines, to detached pieces, and to mechanical instru- rption. onvention shall have the same eaty concluded between the parties on the 23rd of January a complement. onvention shall be ratified, and shall be exchanged at Paris sooner if possible. eaf, the respective plenipoten- it, and have affixed thereto

ate, at Paris, the 12th day of

COWLEY.  
RICHARD COMDEN.  
E. THOUVENEL.  
F. ROUIER.

ween Great Britain and France.

Articles	Rates of Import Duties	
	1860	1861
Cast iron, in plates of less than thickness and black iron in cut or trimmed in by one-tenth more (welded, covered with zinc)	15 00	10 00
Cast iron, in plates of less than thickness and black iron in cut or trimmed in by one-tenth more (welded, covered with zinc)	16 00	15 00
Cast iron, in plates of less than thickness and black iron in cut or trimmed in by one-tenth more (welded, covered with zinc)	14 00	10 00
Cast iron, in plates of less than thickness and black iron in cut or trimmed in by one-tenth more (welded, covered with zinc)	15 00	15 00
Cast iron, in plates of less than thickness and black iron in cut or trimmed in by one-tenth more (welded, covered with zinc)	22 00	18 00
Cast iron, in plates of less than thickness and black iron in cut or trimmed in by one-tenth more (welded, covered with zinc)	30 00	25 00
Cast iron, in plates of less than thickness and black iron in cut or trimmed in by one-tenth more (welded, covered with zinc)	free	free
Cast iron, in plates of less than thickness and black iron in cut or trimmed in by one-tenth more (welded, covered with zinc)	15 00	10 00
Cast iron, in plates of less than thickness and black iron in cut or trimmed in by one-tenth more (welded, covered with zinc)	15 00	10 00

Description of Articles	Rates of Import Duties		Description of Articles	Rates of Import Duties	
	1860	1861		1860	1861
<b>Copper</b> Sheet or silvered, beaten, drawn, or rolled, and wire laid on thread or silk	100 00	100 00	<b>METAL MANUFACTURES</b> Steel wares:— Metallic pens (other than gold or silver)	100 00	100 00
Zinc: Ore, crude, calcined, or pounded, filings and old broken articles	free	free	Small articles of ornament, such as brooches, pincettes, brooches, and thimbles	25 00	20 00
In pigs, bars, or plates	0 10	0 10	Household articles and other wares unenumerated	40 06	32 00
Rolled	6 00	4 00	Cutlery:— Of every description	10 per cent. ad valorem, reduced to 15 per cent. ad valorem on January 1, 1856	10 per cent. ad valorem
Lead: Ore and dross of all sorts, filings and old broken articles	free	free	Instruments, surgical, optical, and philosophical	10 per cent. ad valorem	10 per cent. ad valorem
In pipes, bars, or plates	5 00	3 00	Arms, not being implements of war:— Sole arms	40 00	40 00
Rolled or sheet, alloyed with antimony, in pig and type, old	5 00	3 00	Fire-arms	210 00	210 00
Iron: Ore and metal in pigs, bars, or plates, filings and old broken articles	free	free	<b>SUNDRY METALS</b> Tools of iron tipped with steel, with or without handles	18 00	15 00
Alloyed with antimony (Britannia metal), in ingots	5 00	5 00	Articles made partly of cast and partly of wrought iron, not polished, if the weight of wrought iron is less than half the total weight	5 00	4 50
Pure metal or alloyed, beaten or rolled	6 00	6 00	Iditto, if half or more than half the total weight	10 00	8 00
<b>Bismuth</b> Crude	free	free	Iditto, polished, enamelled or japanned, and with ornamental adjuncts in iron, copper, brass, or steel	15 00	12 00
Antimony:— Ore and sulphurated	free	free	Wire gauze of iron or steel	15 00	10 00
Metal or regulus	8 00	6 00	Cylinders of copper or brass for printing, whether engraved or not	15 00	15 00
Nickel: Ore and spels	free	free	Copper wares, metal gauze of copper or brass, works of art and ornaments, and all other manufactured articles of copper, pure or alloyed with zinc or tin	25 00	20 00
Pure and alloyed with other metals, especially copper or zinc (argentine or German silver), in ingots or pigs	15 00	10 00	Manufactures of zinc of all kinds	10 00	8 00
Iditto, ditto, rolled or drawn	15 00	10 00	Lead pipes, and all other manufactures of lead	5 00	3 00
<b>Manganese</b> Ore	free	free	Printing type, new	10 00	8 00
Not enumerated	free	free	In pots and pans and other manufactures of tin, whether pure or alloyed with stannum	50 00	30 00
<b>Cast Iron</b> Not turned nor polished:— 1st Class. Chairs for railways, plates, and other castings from the open mould	5 50	5 00	Manufactures of nickel allied with copper or zinc (argentine)	100 00	100 00
2nd Class. Cylindrical pipes (straight), rafters, solid columns, and gas retorts	4 25	3 75	Manufactures of every description	100 00	100 00
3rd Class. Pots and all other manufactures not included in the preceding classes	5 00	4 50	Manufactures of metal gilt or silvered by the mercurial or electro plate processes	100 00	100 00
Polished or turned	9 00	6 00	Plate and jewellery of gold, of silver, platinum, or other metals	500 00	500 00
Tinned, enamelled, or varnished	12 00	10 00	Clocks and watches	5 per cent. ad valorem	5 per cent. ad valorem
<b>Wrought Iron</b> Ironwares (heavy), including frames, work, pieces of frames, hinges and girders for ships, ironwork for carts and waggons	9 00	8 00	Clock and watch movements	100 00	100 00
Hinges; clamps; large bolts, braces, and other fastenings of doors and windows, not polished nor turned	9 00	8 00	<b>MACHINES AND MACHINERY</b> With apparatus complete:— Steam-engines, stationary, with or without boilers or fly-wheels	10 00	6 00
Gratings (solid); beds; seats and furniture for gardens and other kinds, with or without ornaments or adjuncts in cast iron, steel, or copper	9 00	6 00	Iditto, marine, with or without boilers	20 00	12 00
N.B.—Axe, springs, and tires for wheels, are not included in the above category, but are classed among detached pieces of machinery	12 00	10 00	Locomotives and portable engines	15 00	10 00
Small ironwares ("serrurerie") including: locks and padlocks of all sorts, bolts and hinges, in sheet iron, brass, and flat bolts, and all other articles in wrought or sheet iron for fastenings of doors or windows, and furniture, polished, filed, or turned	15 00	12 00	Engines for locomotive engines, complete	10 00	8 00
Nails, forged by machinery	10 00	8 00	Spinning machines	15 00	10 00
by hand	15 00	12 00	For weaving	10 00	8 00
Wood screws, screw-bolts, and nuts	10 00	8 00	For paper-making	9 00	6 00
Anchor	10 00	8 00	For printing	9 00	6 00
Chains and chain cables	10 00	8 00	For agricultural machines, and machines for making sheets and fillets of cards	15 00	10 00
Tools, in pure iron, with or without handles	12 00	10 00	Lace-making machines	15 00	10 00
Tubes of wrought-iron, simply welded, of 9 millimetres interior diameter or more	15 00	11 00	Distilling apparatus, sugar pans and boilers made of copper	15 00	10 00
Iditto, ditto, less than 9 millimetres, and fittings of tubes	25 00	20 00	Carding machines, not furnished	15 00	10 00
Tubes in wrought iron, welded on a mandril, or lap-welded	25 00	20 00	Steam-boilers, of sheet-iron, of cylindrical or spherical shape, with or without boiler-pipes or heating pipes	10 00	8 00
Fish-hooks (for sea-fishing), tinned or not	50 00	50 00	Iditto, tubular, of sheet iron, with tubes of wrought iron, copper, or brass, or of sheet iron rivetted, with interior furnaces, and all other boilers not of cylindrical or spherical shape	15 00	12 00
Household articles and other wares unenumerated:— In wrought or sheet iron, polished or painted	17 00	14 00	Iditto, ditto, of sheet steel of every shape	30 00	25 00
Iditto, ditto, enamelled, varnished, or tinned	20 00	16 00	Gasometers, open boilers, furnaces and stoves in sheet iron, or in cast and sheet iron	10 00	8 00
<b>Steel Wares</b> Tools in pure steel; files; saws, circular or straight, axes, and other unenumerated	40 00	32 00	Machines for making machines ("machines outilles") and machines not enumerated:— Containing 75 per cent. or more of their weight in cast iron	9 00	6 00
Needles for sewing, less than 5 centim. width in length	200 00	200 00	Containing 50 per cent. and less than 75 per cent. of cast iron	15 00	10 00
Ditto, of 5 and more centimetres in length	100 00	100 00	Containing less than 50 per cent. of cast iron	20 00	15 00
Fish-hooks (for river fishing), blued or not	100 0	100 00	Detached parts of machines:— Sheets and fillets of cards on leather, bulks, rubbers, or other materials	30 00	50 00

Articles  
Per 100 kil. fr. cent.  
Per 100 kil. fr. cent.

## Tariff annexed to the Convention—continued.

Description of Articles	Rates of Import Duties		Description of Articles	Rates of Import Duties	
	1870	1864		1860	1861
<b>MACHINES AND MACHINERY</b>	Per 100 kil.	Per 100 kil.	<b>MACHINES AND MACHINERY</b>	Per 100 kil.	Per 100 kil.
With apparatus complete:	fr. cent.	fr. cent.	With apparatus complete:—	fr. cent.	fr. cent.
Steel springs for carriages, waggon, or locomotives - - - - -	17 00	15 00	Wooden wares: empty casks, new or old, not hooped, or hooped with wooden hoops - - - - -	free	free
Pieces in steel, polished, filed, adjusted or not, weighing more than 1 kilogramme - - - - -	30 00	25 00	Ditto, ditto, iron hoops - - - - -	10 per cent. ad valorem	10 per cent. ad valorem
Ditto, 1 kilogramme and less - - - - -	40 00	35 00	Shovels, forks, rakes, handles of tools, of wood, with or without ferrules - - - - -	free	free
Pieces in copper, pure or mixed with any other metals - - - - -	25 00	20 00	Car - - - - -	"	"
Sheets and filets for cards of leather, caoutchouc, or other materials - - - - -	20 00	20 00	Plates, spoons, porringers, and other household articles - - - - -	"	"
Gold leaf - - - - -	100 00	100 00	Pieces of carpenters' work, dressed or not - - - - -	"	"
Refined sugar - - - - -	41 00	41 00	Parts of cartwrights' work, dressed or not - - - - -	"	"
Carriages - - - - -	10 per cent. ad valorem	10 per cent. ad valorem	Other articles of wood, not enamelled - - - - -	10 per cent. ad valorem	10 per cent. ad valorem
Cabinet makers' and turners' small wares, and wares in ivory or carved wood ('tabletterie') - - - - -	"	"	Household furniture - - - - -	"	"
Leather: prepared skins, varnished, dyed, and Morocco leather - - - - -	250 00	250 00	Ships and boats, built in the United Kingdom, not registered or sailing under British flag, in wood - - - - -	25 00	20 00
Ditto, all other kinds - - - - -	30 00	30 00	Ditto, ditto, in iron - - - - -	70 00	60 00
Leather manufactures of all kinds - - - - -	10 per cent. ad valorem	10 per cent. ad valorem	Rails of ships, in wood - - - - -	15 00	10 00
			in iron - - - - -	50 00	40 00

N.B.—The machines and machinery on board such ships shall be charged separately, according to the rates fixed by the Tariff for 'Machines and Machinery.'

The present tariff is approved and annexed to the convention concluded on the 12th October, 1860, between Great Britain and France.

COWLEY,  
RICHARD COBDEN,  
E. THOUVENEL,  
F. ROUJER.

Paris, October 12, 1860.

*Convention between her Majesty and the Emperor of the French, supplementary to the Treaty of Commerce of January 23, 1860; with a Tariff annexed thereto. Signed at Paris, November 16, 1860. Ratifications exchanged at Paris, November 30, 1860.*

Article 1. The articles of British origin or manufacture enumerated in the tariff annexed to the present convention shall, when imported direct from the United Kingdom under the British or the French flag, be admitted into France at the duties specified by the said tariff.

2. The rules established by Articles 2, 4, 5, 6, 7, and 8, of the convention concluded on the 12th of October last between the high contracting powers, for the proofs of origin, the declarations of importation, and the valuation by experts of the productions taxed ad valorem, shall equally apply to the various articles of British origin or manufacture enumerated in the tariff annexed to the present convention.

Article 3 of the convention of the 12th of October last, which exempts the importers of British origin or manufacture, from the obligation of producing models or drawings, is declared to be applicable to all the goods the importation whereof was subject to that formality, and which are comprised either in the present convention or in that of the 12th of October last.

3. Independently of the duties of customs stipulated in the tariff annexed to the present convention, and by application of Articles 1 and 9 of the treaty concluded between the high contracting powers on the 23rd of January last, the under-mentioned articles of British origin or manufacture shall, on their importation into France, and by way of compensation for equivalent duties paid by French manufacturers, be subjected to the supplementary duties hereinafter prescribed:—

	fr. c.	per 100 kil.
Raw soda - - - - -	4 55	"
Crystals of soda - - - - -	4 55	"
Sulphate of soda:		
Pure anhydrous - - - - -	6 0	"
Crystallised or hydrate - - - - -	2 40	"
Impure anhydrous - - - - -	5 40	"
Crystallised or hydrate - - - - -	2 10	"

	fr. c.	per 100 kil.
Sulphite of soda - - - - -	6 0	"
Salt of soda - - - - -	11 0	"
Hydrochloric acid - - - - -	10 0	"
Chloride of lime - - - - -	10 0	"
Chlorate of potash - - - - -	66 0	"
Chloride of magnesium - - - - -	4 0	"
Plate glass or large mirrors - - - - -	1 0	super. metre
Glass wares, window glass, and other white glass - - - - -	3 30	100 kil.
Bottles - - - - -	1 25	"
Artificial ultramarine - - - - -	11 0	"
Sulphur ammoniac - - - - -	16 0	"
Soap - - - - -	1 50	"
Salt or raw residue of the calcination of beet-root refuse - - - - -	1 25	"
Salt of tin - - - - -	3 0	"
Soap, white or marbled, composed of alkalis and oil of olives, or oleaginous seeds, pure or mixed with animal fat:		
The oil composing at least half of the mixture of oleaginous bodies - - - - -	8 20	"
The oil composing less than half of the mixture of oleaginous bodies - - - - -	6 0	"
Of animal fat:		
Pure - - - - -	6 0	"
Mixed with resin - - - - -	6 0	"
Of palm or cocoa-nut oil mixed with animal fat - - - - -	4 0	"
Colours, composed of oils from seeds or of animal fat - - - - -	6 0	"
Pure alcohol - - - - -	90 0	hectolitre
Beer - - - - -	2 40	"
Spirits of wine varnish, per hectolitre of pure alcohol contained in the varnish - - - - -	90 0	"

It is understood that refined sugar is not comprised in this list, because the duty of 41 francs per 100 kilogrammes, fixed on the importation of that article, includes the duty on consumption with which it is now charged in France.

It is equally agreed between the high contracting powers that, in the event of the modification or the suppression of the duties of excise now imposed upon French manufacturers, goods of British origin and manufacture shall, with regard to such duties of excise, be subjected to the same conditions as similar French goods. If, however, in consequence of the suppression of any of such duties the Government should establish a supervision or control, or an administrative system over certain articles of French manufacture, the direct or indirect charges which may be borne by the French manufacturer shall be counter-balanced by an equivalent surtax imposed upon similar British articles. It is further understood that if drawbacks are granted to other articles of French manufacture, the duties of customs which



Tariff referred to in Treaty with France—continued.

Description of Articles	Rate of Duty In		Description of Articles	Rate of Duty In	
	1860	1861		1860	1861
<b>TEXTILE FABRICS.</b>					
Cotton yarn, twisted in two strands—			Woolens—1-128 shews - - - -		10 p.c. ad val.
Unbleached - - - - -	50 p.c. above the		Articles not enumerated - - - -		15 p.c.   10 p.c.
Bleached - - - - -	duties on single		Cloth list of all kinds, in pieces or not - - - -		Free.
Dyed - - - - -	yarn unbleached,		Ready-made clothes—		15 p.c.   10 p.c.
Wapped yarn—	15 per cent. above		New - - - - -		ad val.   ad val.
Unbleached - - - - -	twisted un-		Old - - - - -		20 0 per 100 kilo.
Bleached - - - - -	bleached.		Yarns and tissues of alpaca, llama, or vicuña		
Dyed - - - - -	25 cents. per kilo.		pure or mixed with wool, will pay the same		
Wapped yarn—	above twisted		duties as yarns and tissues of wool in what-		
Unbleached - - - - -	unbleached.		ever proportions they may be mixed.		
Bleached - - - - -	50 p.c. above the		Yarns and tissues of wool, or of other ma-		
Dyed - - - - -	duties on single		terials above mentioned, mixed with cotton,		
Yarns of three threads, grey, bleached, or	15 p.c. above the		or with any other filaments whatever, shall		
single twist - - - - -	duties on un-		pay the same duties as yarns and tissues of		
Double or cable twist - - - - -	bleached warp-		pure wool, provided that the wool predomi-		
Cotton tissues, plain, twilled, and un-	ped yarns.		nates in weight.		
bleached:—	25 cents. per kilo.		Yarns of goat's hair will continue to pay		
1st Class, weighing 11 kilogrammes or more	above the duties		the duties at present in force.		
Of 35 threads and less to the 5 square	on unbleached		Tissues of goat's hair, other than Indian		
millimètres - - - - -	wapped yarns.		eshmere shawls and scarfs, will pay as		
36 threads and above - - - - -	per 1,000 mètres		tissues of pure wool.		
2nd Class, weighing 7 to 11 kilogrammes	0 54		Silk—		Free.
exclusively the 100 mètres square—	0 12		Silk in cocoons - - - - -		Free.
Of 35 threads and less - - - - -	0 80		Raw or thrown - - - - -		Free.
36 to 43 threads - - - - -	0 60		Dyed - - - - -		3 0   Free.
44 threads and above - - - - -	1 0		For sewing, embroidery, or lace - - - -		Free.
3rd Class, weighing 5 to 7 kilogrammes ex-	2 0		Others - - - - -		Free.
clusively the 100 mètres square—	0 80		Waste silk—		Free.
Of 27 threads and less - - - - -	1 20		In mass - - - - -		per kilo.
28 to 35 threads - - - - -	1 90		Combed - - - - -		0 10
36 43 threads and above - - - - -	3 0		In thread, single and twisted, unbleached,		0 75
Cotton tissues—	15 p.c. above the		bleached, blue or dyed—		1 20
Bleached - - - - -	duty on un-		Of 80,000 mètres single, or less, to the kilo.		1 20
Dyed - - - - -	bleached.		81,000 " or more, " - - - - -		Free
Printed - - - - -	25 cents. per kilo.		Tissues of pure silk - - - - -		Free
Velvets and fustians—	above the duty		Hosiery - - - - -		Free
Made as silk velvet—	on unbleached.		Lace - - - - -		Free
Unbleached - - - - -	15 p.c. ad val.		Crapes, called English, unbleached, black,		per kilo.   Free
Dyed or printed - - - - -			or coloured - - - - -		10 0   from
Other kinds—corda, mackins &c.—			Net—		1860
Unbleached - - - - -			Plain, unbleached - - - - -		20 0 do.
Dyed or printed - - - - -			Dressed - - - - -		15 p.c. } do.
Cotton tissues, unbleached, plain or twilled,			Figured, unbleached, or dressed - - - -		10 p.c. } Free
weighing less than 3 kilogrammes per 100			Tissues of pure waste silk, of silk and of		ad val. } from
square mètres - - - - -			waste silk, unbleached, bleached, dyed,		1861
Quiltings, dimities, stripes and checks,			or printed - - - - -		2 0
damaaks and brilliants - - - - -			Tissues, haberdashery, and lace of silk or of		
Counterspanes and handkerchiefs - - - -			waste silk—		
Net, plain or embroidered - - - - -			With fine gold or silver - - - - -		12 0
Gauzes and muslins, embroidered or figured			With semi-fine or false gold or silver - - -		3 50
in the loom, for furniture or hangings - -			Tissues of silk or of waste silk, mixed		
Articles wholly or in part made up - - - -			with other materials, in which the silk or		
not denominated - - - - -			waste silk predominates in weight - - - -		3 0
Laces and blonds - - - - -			Ribbons of silk or of waste silk—		
Embroidery by hand - - - - -			1/2 velvet - - - - -		5 0
Laces and blonds - - - - -			Others - - - - -		4 0
Cotton yarns and tissues mixed with other			Mixed with other materials, silk or waste		10 per cent. ad
materials will pay the same duties as			silk predominating in weight - - - - -		valorem
yarns and tissues of pure cotton, provided			<b>CHEMICAL PRODUCTS AND DYE STUFFS.</b>		
that the cotton predominates in weight.			Iodine - - - - -		
Woolens—			Bromine - - - - -		
Wool, raw, Australian, imported direct or			Acids—		
from British entrepôts in British or French			Sulphuric - - - - -		
vessels - - - - -	Free.		Nitric - - - - -		
Wool dyed in masses - - - - -	per 100 kilos.		Tartaric - - - - -		
combed (dyed or not) - - - - -	25 0		Benzoic - - - - -		
Single yarn of pure wool, bleached or not,	25 0		Hydrochloric - - - - -		
containing in the kilogramme—			Citric - - - - -		
Of 1 to 20,000 mètres - - - - -	0 25		Arsenic - - - - -		
31,000 40,000 " - - - - -	0 45		Limon, julca - - - - -		
41,000 50,000 " - - - - -	0 55		Oxides of—		
51,000 60,000 " - - - - -	0 65		Iron - - - - -		
61,000 70,000 " - - - - -	0 75		Zinc, grey - - - - -		
71,000 80,000 " - - - - -	0 85		Tin - - - - -		
81,000 90,000 " - - - - -	1 0		Francium - - - - -		
91,000 100,000 " - - - - -			Copper - - - - -		
101,000 and above - - - - -			Zaffre and other combinations of cobalt		
Double yarn for weaving, bleached or not			Sulphuret of arsenic - - - - -		
for embroidery - - - - -			Chloride of potassium - - - - -		
Dyed yarns, single or double - - - - -			Iodine - - - - -		
Tissues of wool, pure - - - - -			Salts of hroctrot - - - - -		
Felt of all kinds - - - - -			Carbonates of potash - - - - -		Free
Blankets of pure wool - - - - -			Nitrate - - - - -		
Carpets of all kinds - - - - -			Sulphate - - - - -		
Hosiery of pure wool - - - - -			Tartrates - - - - -		
Haberdashery of pure wool - - - - -			Vegetable ashes, quick end hydrated		
Ribbons of wool - - - - -			Lees of wine - - - - -		
Laces, woollen - - - - -			Horax, raw - - - - -		
			Nitrate of soda - - - - -		
			Kelp - - - - -		
			Hone black - - - - -		
			Bones, calcined, white - - - - -		
			Phosphates, natural - - - - -		
			Citrates of lime - - - - -		
			Sulphate of magnesia - - - - -		
			Carbonate - - - - -		
			Chloride of magnesium - - - - -		
			Acetate of iron, liquid - - - - -		
			Garrancene - - - - -		
			Sugar of milk - - - - -		
			Albumen - - - - -		
			Phosphorus, white - - - - -		

Tarif referren to in Treaty with France—continued.

	Rate of Duty in	
	1860	1861
	10 p.c. ad val.	
	15 p.c. ad val.	
	Free.	
	15 p.c. ad val.	
	20 p.c. ad val.	
	Free.	
	3 p.c. Free.	
	Free.	
	Free.	
	0 10	
	0 75	
	1 20	
	Free.	
	per kilo. (Free from 1860)	
	10 0	
	20 0	
	15 p.c. ad val.	
	Free from (Oct. 1, 1861)	
	10 p.c. ad val.	
	2 0	
	12 0	
	3 50	
	3 0	
	5 0	
	8 0	
	10 per cent. ad valorem	
	per 100 kilos.	
	40 0	

Description of Articles	Rate of Duty in		Description of Articles	Rate of duty in	
	1860	1861		1860	1861
CHEMICAL PRODUCTS AND DYE STUFFS.			EARTHENWARE AND POTTERY.		
Oxide of zinc (white of zinc)	7 0	0	Common ware (glazed or not, with decorations in relief, of one or more colours, flat or hollow)	per 100 kilos.	5 0
Carbonates of lead	15 0	1 10 0	Stoneware—	Free	
Hydrochloric acid	20 0		Utensils and apparatus for the manufacture of chemical products	per 100 kilos.	4 0
Sulphuric acid	30 0		Common of all sorts, flat and hollow, including bottles, flasks, household articles, kitchen utensils, &c.	Free	
Yellow prussiate	20 0		Earthenware—	Free	
Red	30 0		With tin glaze—coloured paste, white glaze—	20 p.c. ad val.	15 p.c. ad val.
Extracts of dye woods	20 0		With iron glaze—coloured paste, white glaze—	10 p.c. ad val.	
For black and violet	30 0		With iron glaze—coloured paste, white glaze—	Free	
Reds and yellows	30 0		With iron glaze—coloured paste, white glaze—	Free	
Turnerie, in powder	5 0		With iron glaze—coloured paste, white glaze—	Free	
Hydrochloric acid (muriatic acid)	5 0		With iron glaze—coloured paste, white glaze—	Free	
Caustic soda	8 0	5 0	With iron glaze—coloured paste, white glaze—	Free	
Sulphate of soda (salt of soda) of all degrees	4 50	3 0	With iron glaze—coloured paste, white glaze—	Free	
Artificial soda (saw)	2 30	1 50	With iron glaze—coloured paste, white glaze—	Free	
Carbonate of soda, crystallized (crystals of soda)	2 50	1 50	With iron glaze—coloured paste, white glaze—	Free	
Sulphate of soda and sulphite of soda	1 20	1 0	With iron glaze—coloured paste, white glaze—	Free	
of soda, crystallized (crystals of soda)	1 0	0 70	With iron glaze—coloured paste, white glaze—	Free	
Bicarbonates of soda, and other salts of soda, not specified	5 25	3 50	With iron glaze—coloured paste, white glaze—	Free	
Chloride of lime	4 25	2 50	With iron glaze—coloured paste, white glaze—	Free	
Chlorate of potash	38 00	25 75	With iron glaze—coloured paste, white glaze—	Free	
Soap, ordinary, and for perfumery	6 0		With iron glaze—coloured paste, white glaze—	Free	
Artificial ultramarine	15 0		With iron glaze—coloured paste, white glaze—	Free	
Red phosphorus			With iron glaze—coloured paste, white glaze—	Free	
Aluminium			With iron glaze—coloured paste, white glaze—	Free	
Aluminate of soda			With iron glaze—coloured paste, white glaze—	Free	
Fluoride of aluminium			With iron glaze—coloured paste, white glaze—	Free	
Chromates of potash			With iron glaze—coloured paste, white glaze—	Free	
Lead			With iron glaze—coloured paste, white glaze—	Free	
Colours not specified, dry, in paste and liquid	10 p.c. ad val.		With iron glaze—coloured paste, white glaze—	Free	
Stearic acid			With iron glaze—coloured paste, white glaze—	Free	
Gum and gelatine			With iron glaze—coloured paste, white glaze—	Free	
Various—			With iron glaze—coloured paste, white glaze—	Free	
Oil			With iron glaze—coloured paste, white glaze—	Free	
Kerosene oil			With iron glaze—coloured paste, white glaze—	Free	
Whipped wine			With iron glaze—coloured paste, white glaze—	Free	
Orchilla dyes of all kinds	5 p.c. ad val.		With iron glaze—coloured paste, white glaze—	Free	
Chemicals not specified			With iron glaze—coloured paste, white glaze—	Free	
GLASS AND CRYSTAL WARE.			VARIOUS ARTICLES.		
Mirrors of less than 1 metre square	10 p.c. ad val.		Artificial flowers	Free	
Plate-glass and mirrors—	per metre superficial		Models	"	
Unpolished	1 50		Mercury, all kinds	"	
Sifted or polished	4 0		Buttons, pins or common, other than haberdashery	10 p.c. ad val.	
Bottles of all shapes	per 100 kilos.		Brushes of all kinds	"	
Window-glass, plain	1 30		Musical instruments and parts of instruments	"	
Glass, coloured, polished, or engraved, and for watches and optical purposes	3 50		Pots of all kinds	per 100 kilos. (from December 1, 1860)	
Glass ware, and table glass, white or coloured	10 p.c. ad val.		India-rubber manufactures—	per 100 kilos.	
Vitrifications			Pure or mixed	20 0	
Enamelled glass			Applied upon tissues in pieces or upon other materials	100 0	
Articles of glass not enumerated			Make-up wearing apparel	120 0	
Broken glass and cullet	Free		In elastic tissues of any dimensions	200 0	
Rock crystal, rough or worked	"		Boots and shoes	60 0	
N.B.—Rock crystal mounted will pay as jewelry	"		N.B.—Articles of gutta-percha pay the same duties as India-rubber.		
EARTHENWARE AND POTTERY.			Oil and floor cloth—		
Common ware—			For packing	5 0	
Tiles of all kinds, bricks, and fire-bricks			Furniture, hangings, and other purposes	15 0	
Flux reots, drainage pipes, and others			Sealing wax	30 0	
Cerubles of all sorts, including those of plumbago, or blacklead			Blacking of all kinds	4 0	
Clay pipes			Ink, writing, drawing, and printing	20 0	
Glazed or not, of all shapes			Fooding, cables, and fishing-gears	30 0	
			Fish, fresh water—	Free	
			Fresh	per 100 kilos.	10 0
			Prepared	per 100 kilos.	10 0
			Fish, sea—	per 100 kilos.	10 0
			Fresh, dry, salted, or smoked (except cod)	25 0	
			Sauces and pickles	10 0	
			Cheese, hard	per hectolitre, in addition to the internal tax.	5 0
			Beer	5 0	
			Molasses—	per 100 kilos.	11 0
			Containing less than 50 per cent. of saccharine matter	per 100 kilos.	11 0
			Containing more than 50 per cent.	Same as raw sugar	
			Alcohol, per 100 deg.	per hectolitre, in addition to the internal tax.	15 0
			Slates—	per 1,000 kilos.	4 0
			For roofing	per 100 kilos.	10
			In squares or slabs	per 100 kilos.	10

GREECE.

Convention of Commerce and Navigation between her Britannic Majesty and the King of Greece. Signed at London, October 4, 1837.

Article 1. From and after the exchange of the ratifications of the present convention, Greek vessels entering into or departing from the ports of the United Kingdom of Great Britain and Ireland, and British vessels entering into or departing from the ports of the kingdom of Greece, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on national vessels entering into or departing from such ports, respectively.

2. All articles, the growth, produce, or manufacture of the dominions of either of the high contracting parties, which are or shall be permitted to be imported into, or exported from the ports of the United Kingdom of Great Britain and Ireland, and of the kingdom of Greece, respectively, in vessels of the one country, shall, in like manner, be permitted to be imported into and exported from those ports, in vessels of the other country.

3. All articles not the growth, produce, or manufacture of the dominions of her Britannic Majesty, which can legally be imported from the United Kingdom of Great Britain and Ireland into the ports of the kingdom of Greece in British ships, shall be subject only to the same duties as are payable upon the like articles if imported in Greek vessels. And, reciprocally, a similar rule shall be observed in the ports of the United Kingdom, in respect of all articles not the growth, produce, or manufacture of the dominions of his Majesty the King of Greece, which can legally be imported into the ports of the United Kingdom in Greek vessels.

4. All goods, wares, and merchandise, which can legally be imported into the ports of either country, shall be admitted at the same rate of duty, whether imported in national vessels or in vessels of the other country; and all goods, wares, and merchandise which can legally be exported from the ports of either country, shall be entitled to the same bounties, drawbacks, and allowances, whether exported in vessels of the one country or in those of the other.

5. Neither of the two Governments, and no company, corporation, or agent acting on behalf of, or under the authority of either Government, shall, in the purchase of any article which is the growth, produce, or manufacture of one country, and is imported into the other, give, either directly or indirectly, any priority or preference on account of or in reference to the national character of the vessel in which such article may be imported; it being the true intent and meaning of the high contracting parties, that no distinction or difference whatever shall be made in this respect.

6. In order to avoid any misunderstanding with regard to the regulations which may determine the conditions which constitute a British or Greek vessel, it is hereby agreed that all vessels built in the dominions of her Britannic Majesty, and all vessels which, having been captured from an enemy by her Majesty's ships of war, or by the subjects of her said Majesty, furnished with letters of marque by the Lords Commissioners of the Admiralty, shall have been regularly condemned in one of her said Majesty's prize courts as lawful prize; and all vessels which shall have been condemned in any competent court for a breach of the laws made for the prevention of the slave trade; and which shall be owned, navigated, and registered according to the laws of Great Britain, shall be considered as British vessels; and that all vessels built in the territories of Greece, or which shall have been captured from an enemy by the ships of war of the Greek Government, or by Greek subjects furnished with letters of marque, and shall have been regularly condemned in one of the prize courts of the kingdom of Greece as a lawful prize, and which shall be wholly owned by any subject or subjects of Greece, and whereof the master and three-fourths of the crew are subjects of Greece, shall be considered as Greek vessels.

7. If any ships of war or merchantmen of the one nation should be wrecked on the coasts of the other, all such parts of the said ships of war or merchantmen, or of the furniture or appurtenances thereof, as also all goods and merchandise which shall be saved, or the produce thereof, and likewise the papers found on board the vessel, shall be carefully preserved until they are claimed by the proprietors, or their agents duly authorised, or by the respective consuls in whose district such wreck may have taken place, if such claim be preferred within the period fixed by the laws in force in the states of the high contracting parties; and such consul, proprietor, or agent shall pay only the expenses incurred in the preservation of the property, and the rate of salvage which would have been payable, in the like case, upon a national vessel; and the said goods and merchandise saved from the wreck shall not be liable to pay duties, unless cleared for local consumption.

8. Her Britannic Majesty and his Majesty the King of Greece have agreed that each of the high contracting parties shall have the right to nominate and appoint consuls-general, consuls, and vice-consuls, in all the ports of the dominions of the other contracting party wherein such consular officers are or may be necessary for the advancement of commerce and for the protection of the trade of the subjects of either crown; and it is expressly stipulated that such consuls, of whatever class, shall, in the country in which they are stationed, be placed upon the footing of the consuls of the most favoured nation.

9. Her Britannic Majesty consents to grant to the subjects of his Majesty the King of Greece the same facilities and privileges, with respect to

the commerce to be carried on in Greek vessels with the British dominions in the East Indies, as are or may be enjoyed under any treaty or Act of Parliament, by the subjects or citizens of the most favoured nation; it being always understood that the laws, rules, regulations, and restrictions which are or may be applicable to the ships and subjects of any other foreign country, enjoying the same facilities and privileges of trading with the dominions, shall be equally applicable to the subjects of the King of Greece.

10. All subjects of her Britannic Majesty shall, within the dominions of the King of Greece, be free as native Greeks to manage their own affairs themselves, or to commit the management of those affairs to any other person whom they may please to appoint, as broker, factor, agent, interpreter; nor shall British subjects be restrained in their choice of persons to act in such capacities, nor be called upon to pay any salary or remuneration to any person whom they shall not choose to employ. Absolute freedom shall also be allowed, in all cases, to the buyer and seller to bargain together, and to fix, as to them may seem meet, the price of any goods, wares, or merchandise imported into, or to be exported from, the dominions of the King of Greece, observing the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of her Britannic Majesty by the subjects of his Majesty the King of Greece, under the same conditions.

11. In all that relates to the police of ports, the lading and unlading of vessels, and to the safety of merchandises, goods, and effects, the laws and police regulations of each country shall be applied to the subjects of both, without discrimination or distinction; and throughout the whole extent of the territories of each contracting party, the subjects of both shall enjoy full and entire protection for their persons and property. They shall have free and easy access to the courts of justice in the prosecution and defence of their rights, and shall be at liberty to employ the lawyers, attorneys, or agents, of whatever denomination, whom they may deem the best qualified to maintain and defend their interests; it being understood that they shall conform, in this respect, to the obligations imposed upon native subjects by the laws of the country. In all that concerns the administration of justice, they shall enjoy the same privileges, rights, and franchises that belong to natives; and in none of these shall they be subject to any other duty or tax than that imposed upon natives. They shall be exempt from all compulsory military service, either by sea or by land; no forced loan shall be imposed upon them; and their property shall be subject to no other charge, requisition, or tax, than that to which the property of natives shall be liable.

12. Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the King of Greece, agree that the subjects of the respective countries shall enjoy, within the dominions of the other, the full benefit of the complete toleration and protection for the profession of all religious opinions, which at present exist in both countries by law.

13. It shall be free for the subjects of her Britannic Majesty residing in the dominions of the King of Greece, and for the subjects of his Majesty the King of Greece residing in the dominions of her Britannic Majesty, to dispose of their property, of every description, by will or testament, as they may judge fit; and if any British subject shall die in the territories of the King of Greece, or any Greek subject shall die

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the territories of the Queen of Great Britain,  
without will or testament, the respective consuls  
or vice-consuls shall exercise the right of admi-  
nistering to the property of subjects of their nation  
so dying, intestate, for the benefit of the legitimate  
heirs to such property, and of the creditors upon  
the estate, so far as the laws of the respective  
countries shall admit.

11. The high contracting parties agree that  
the stipulations of the present convention shall  
be applicable to Gibraltar and to the island of  
Malta.

12. The present convention shall be in force for  
10 years from the date of the exchange of the  
ratifications thereof; and further, until the end of  
12 months after either of the high contracting  
parties shall have given notice to the other of its  
intention to terminate the same; each of the high  
contracting parties reserving to itself the right of  
giving such notice to the other at the end of the  
10 years above mentioned, or at any other period  
after that time; and it is hereby agreed between  
them, that at the expiration of 12 months after  
such notice shall have been received by either  
party from the other, this convention, and all the  
provisions thereof, shall altogether cease and deter-  
mine.

13. The present convention shall be rati-  
fied, and the ratifications shall be exchanged  
at London, within 3 months from the date  
hereof.

In witness whereof, the respective plenipoten-  
taries have signed the same, and have affixed  
thereto the seals of their arms.

Done at London, the 4th day of October, in the  
year of our Lord 1837.

PALMERSTON.  
TRICOURT.

An order in council, dated July 5, 1838, directs  
that Greek vessels, entering or departing from the  
ports of the United Kingdom of Great Britain  
and Ireland, together with the cargoes on board  
the same (such cargoes consisting of articles  
which may be legally imported or exported),  
shall not be subject to any other or higher duties  
or charges whatever than are or shall be levied  
on British vessels entering or departing from such  
ports, or on similar articles, when imported into  
or exported from such ports in such vessels; and,  
also, such articles, when exported from the said  
ports in Greek vessels, shall be entitled to the  
same bounties, drawbacks, and allowances that  
are granted on similar articles when exported in  
British vessels.

#### HANSE TOWNS.

*Convention of Commerce between his Britannic  
Majesty and the Free Hanseatic Republics of  
Lubeck, Bremen, and Hamburg. Signed at Lon-  
don, September 29, 1825.*

Article 1. From and after the date hereof, Brit-  
ish vessels entering or departing from the ports  
of the free Hanseatic republics of Lubeck, Bremen,  
or Hamburg; and Lubeck, Bremen, or Hamburg  
vessels entering or departing from the ports of  
the United Kingdom of Great Britain and Ire-  
land, shall not be subject to any other or higher  
ship duties or charges than are or shall be levied  
on national vessels entering or departing from  
such ports respectively.

2. All goods, whether the production of the  
territories of the free Hanseatic republics of Lu-  
beck, Bremen, or Hamburg, or of any other coun-  
try, which may be legally imported from any of  
the ports of the said republics into the United  
Kingdom of Great Britain and Ireland in British

vessels, shall, in like manner, be permitted to be  
imported in Lubeck, Bremen, or Hamburg vessels;  
and all goods, whether the productions of any of  
the dominions of his Britannic Majesty, or of any  
other country, which may be legally exported  
from the ports of the United Kingdom in British  
vessels, shall, in like manner, be permitted to  
be exported from the said ports in Lubeck, Bre-  
men, or Hamburg vessels. And all goods, which  
may be legally imported into or exported from  
the ports of Lubeck, Bremen, or Hamburg, in  
national vessels, shall, in like manner, be per-  
mitted to be imported into or exported from the  
ports of Lubeck, Bremen, or Hamburg, in British  
vessels.

3. All goods which can be legally imported into  
the ports of the United Kingdom directly from the  
ports of Lubeck, Bremen, or Hamburg, or either of  
them, shall be admitted at the same rate of duty,  
whether imported in British vessels, or in vessels  
belonging to either of the said republics; and all  
goods which can be legally exported from the  
United Kingdom, shall be entitled to the same  
bounties, drawbacks, and allowances, whether ex-  
ported in British or Hanseatic vessels. And the  
like reciprocity shall be observed in the ports of  
the said republics, in respect to all goods which  
can be legally imported into or exported from any  
or either of the said ports in vessels belonging to  
the United Kingdom.

4. No priority or preference shall be given, di-  
rectly or indirectly, by any or either of the con-  
tracting parties, nor by any company, corporation,  
or agent, acting on their behalf or under their  
authority, in the purchase of any article, the  
growth, produce, or manufacture of their states  
respectively, imported into the other, on account  
of or in reference to the character of the vessel in  
which such article was imported; it being the  
true intent and meaning of the high contracting  
parties that no distinction or difference whatever  
shall be made in this respect.

5. In consideration of the limited extent of the  
territories belonging to the republics of Lubeck,  
Bremen, and Hamburg, and the intimate connec-  
tion of trade and navigation subsisting between  
these republics, it is hereby stipulated and agreed,  
that any vessel which shall have been built in  
any or either of the ports of the said republics,  
and which shall be owned exclusively by a citi-  
zen or citizens of any or either of them, and of  
which the master shall also be a citizen of either  
of them, and provided  $\frac{3}{4}$  of the crew shall be sub-  
jects or citizens of any or either of the said re-  
publics, or of any or either of the states comprised  
in the Germanic Confederation, such vessel, so  
built, owned, and navigated, shall, for all the pur-  
poses of this convention, be taken to be and be  
considered as a vessel belonging to Lubeck, Bre-  
men, or Hamburg.

6. Any vessel, together with her cargo, belong-  
ing to either of the three free Hanseatic republics  
of Lubeck, Bremen, or Hamburg, and coming from  
either of the said ports to the United Kingdom,  
shall, for all the purposes of this convention, be  
deemed to come from the country to which such  
vessel belongs; and any British vessel and her  
cargo trading to the ports of Lubeck, Bremen,  
or Hamburg, directly or in succession, shall,  
for the like purposes, be on the footing of a Han-  
seatic vessel and her cargo making the same  
voyage.

7. It is further mutually agreed that no higher  
or other duties shall be levied, in any or either of  
the states of the high contracting parties, upon  
any personal property of the subjects and citizens  
of each respectively, or the removal of the same

from the dominions or territory of such states (either upon the inheritance of such property, or otherwise), than are or shall be payable, in each state, upon the like property when removed by a subject or citizen of such state respectively.

8. The high contracting parties reserve to themselves to enter upon additional stipulations for the purpose of facilitating and extending, even beyond what is comprehended in the convention of this date, the commercial relations of their respective subjects and dominions, citizens, and territories, upon the principle either of reciprocal or equivalent advantages, as the case may be; and, in the event of any article or articles being concluded between the said high contracting parties, for giving effect to such stipulations, it is hereby agreed that the article or articles which may hereafter be so concluded shall be considered as forming part of the present convention.

9. The present convention shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after the King of the United Kingdom of Great Britain and Ireland, on the one part, or the Governments of the free Hanseatic republics of Lubeck, Bremen, or Hamburg, or either of them, on the other part, shall have given notice of their intention to terminate the same; each of the said high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years; and it is hereby agreed between them, that, at the expiration of 12 months after such notice shall have been received by either of the parties from the other, this convention, and all the provisions thereof, shall altogether cease and determine, as far as regards the states giving and receiving such notice; it being always understood and agreed, that, if one or more of the Hanseatic republics aforesaid shall, at the expiration of 10 years from the date hereof, give or receive notice of the proposed termination of this convention, such convention shall, nevertheless, remain in full force and operation, as far as regards the remaining Hanseatic republics or republic which may not have given or received such notice.

10. The present convention shall be ratified, and the ratification shall be exchanged at London, within one month from the date hereof, or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, September 29, 1825.

GEORGE CANNING.  
W. HUSKISSON.  
JAMES COLQUHOUN.

*Supplementary Convention to the Treaty of Commerce and Navigation of September 29, 1825, between the Senates of the Free Hanseatic Cities of Lubeck, Bremen, and Hamburg, and her Majesty the Queen of Great Britain and Ireland. Signed at London, August 3, 1841.*

Article I. The senate of the free Hanseatic cities of Lubeck, Bremen, and Hamburg, hereby agree that British vessels coming from countries not being part of the dominions of her Britannic Majesty, shall henceforward, together with their cargoes, be admitted into the ports of Lubeck, Bremen, and Hamburg, and all vessels shall on their admission pay dues not higher nor other than those which shall be paid in similar circumstances by vessels belonging to Lubeck, Bremen, or Hamburg, and the duties to be paid upon the cargoes of such British vessels shall not be higher nor other than if such cargoes had been imported

in vessels belonging to Lubeck, Bremen, or Hamburg. And in consideration thereof, her Britannic Majesty agrees that from and after the date of the exchange of the ratification of this present convention, the vessels of the said free Hanseatic republics of Lubeck, Bremen, and Hamburg, when coming from Hanseatic ports shall, together with their cargoes, be admitted into the ports of all her Britannic Majesty's possessions; and such vessels shall, on their admission, pay dues not higher nor other than those which shall be paid in similar circumstances by British vessels; and the duties to be paid upon the cargoes of such Hanseatic vessels shall not be higher nor other than if such cargoes had been imported in British vessels.

2. In consideration of the privileges extended to British trade and navigation by the first article of the present convention, her Britannic Majesty further agrees that all goods, being the produce of the states of the free Hanseatic cities of Lubeck, Bremen, and Hamburg, or of the other states of the Germanic Confederation, or of the states comprised in the Germanic Union of Customs, and which may be imported in any foreign vessels from the ports of Lubeck, Bremen, and Hamburg, or from any port situated on the Elbe or Weser, into the ports of the British possessions abroad, including Gibraltar and Malta, shall also be permitted to be imported from the said ports of the free cities of Lubeck, Bremen, and Hamburg, into the ports of the said British possessions abroad, including Gibraltar and Malta, in vessels belonging to Lubeck, Bremen, and Hamburg, built, owned, and navigated as stipulated in the fifth article of the convention of commerce and navigation, concluded on the 29th of September, 1825, between Great Britain on the one part, and the free Hanseatic cities of Lubeck, Bremen, and Hamburg, on the other part; and such goods, wares, and merchandise being the produce of the free Hanseatic republics, or of the other states of the Germanic Confederation, or of the states of the Germanic Union of Customs, and so imported in Hanseatic vessels into the ports of the said British possessions abroad, including Gibraltar and Malta; and all goods, wares, and merchandise exported in Hanseatic vessels, built, owned, and navigated as aforesaid, from the ports of the British possessions abroad, including Gibraltar and Malta, to any foreign country whatever, shall pay no other or higher duties than if the same were imported or exported in British vessels.

3. The present convention, which shall be considered as supplementary to the convention concluded between Great Britain and the free Hanseatic republics on the 29th of September, 1825, shall be ratified, and the ratifications shall be exchanged at London as soon as possible within the space of six weeks.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed the seals of their arms.

Done at London, on the 3rd day of August, in the year of our Lord 1841.

PALMERSTON.  
BANKS.

By an order in council dated September 11, 1841, her Majesty is pleased to order that all goods being the produce of the states of the free Hanseatic cities of Lubeck, Bremen, and Hamburg, or of the other states of the Germanic Confederation, or of the states comprised in the Germanic Union of Customs, and which may be imported in any foreign vessels from the ports of Lubeck, Bremen, and Hamburg, or from any port situated on the Elbe or Weser into the

to Lubeck, Bremen, or consideration thereof, her vessels that from and after the date of the ratification of this Convention the vessels of the said free ports of Lubeck, Bremen, and Hamburg, being admitted to the ports of the said free ports, their cargoes, as admitted to the ports of the said free ports, shall, on their arrival, be not higher nor other than in similar circumstances and the duties to be paid on such cargoes shall not be higher than if such cargoes had been imported in British vessels.

of the privileges extended to the said free ports by the first article of the Convention, her Britannic Majesty shall, in respect of the produce of the said free ports, be not higher nor other than in similar circumstances and the duties to be paid on such cargoes shall not be higher than if such cargoes had been imported in British vessels.

of the privileges extended to the said free ports by the first article of the Convention, her Britannic Majesty shall, in respect of the produce of the said free ports, be not higher nor other than in similar circumstances and the duties to be paid on such cargoes shall not be higher than if such cargoes had been imported in British vessels.

of the privileges extended to the said free ports by the first article of the Convention, her Britannic Majesty shall, in respect of the produce of the said free ports, be not higher nor other than in similar circumstances and the duties to be paid on such cargoes shall not be higher than if such cargoes had been imported in British vessels.

of the privileges extended to the said free ports by the first article of the Convention, her Britannic Majesty shall, in respect of the produce of the said free ports, be not higher nor other than in similar circumstances and the duties to be paid on such cargoes shall not be higher than if such cargoes had been imported in British vessels.

#### PALMERSTON BANKS.

in council dated September 11, 1841, her Britannic Majesty is pleased to order that all the produce of the states of the said free ports of Lubeck, Bremen, and Hamburg, being admitted to the ports of the said free ports, shall, on their arrival, be not higher nor other than in similar circumstances and the duties to be paid on such cargoes shall not be higher than if such cargoes had been imported in British vessels.

ports of the British possessions abroad, including Gibraltar and Malta, shall also be permitted to be imported from the said ports of the free cities of Lubeck, Bremen, and Hamburg, into the ports of the said British possessions abroad, including Gibraltar and Malta, in vessels belonging to Lubeck, Bremen, and Hamburg, built, owned, and navigated as stipulated in the fifth article of the convention of commerce and navigation, concluded on the 29th of September, 1825, between Great Britain on the one part, and the free Hanseatic cities of Lubeck, Bremen, and Hamburg on the other part; and such goods, being the produce of the free Hanseatic republics, or of the other states of the Germanic Confederation, or of the states of the Germanic Union of Customs, and so imported in Hanseatic vessels into the ports of the said British possessions abroad, including Gibraltar and Malta, and all goods exported in Hanseatic vessels, built, owned, and navigated as aforesaid, from the ports of the British possessions abroad, including Gibraltar and Malta, to any foreign country whatever, shall pay no other or higher duties than if the same were imported or exported in British vessels.

#### ITALY.

*Treaty of Commerce and Navigation between her Majesty and the King of Italy. Signed at Turin, August 6, 1863. Ratifications exchanged at London, October 29, 1863.*

Article 1. There shall be between all the dominions and possessions of the two high contracting parties reciprocal freedom of commerce and navigation. The subjects of each of the two contracting parties, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places, ports, and rivers in the dominions and possessions of the other, to which other foreigners are or may be permitted to come; and shall, throughout the whole extent of the dominions and possessions of the other, enjoy the same rights, privileges, liberties, favours, immunities, and exemptions in matters of commerce and navigation, which are or may be enjoyed by native subjects generally.

2. No other or higher duties shall be imposed on the importation into the dominions and possessions of her Britannic Majesty, of any article the produce or manufacture of the dominions and possessions of his Majesty the King of Italy, from whatever place arriving, and no other or higher duties shall be imposed on the importation into the dominions and possessions of his Majesty the King of Italy, of any article the produce or manufacture of her Britannic Majesty's dominions and possessions, from whatever place arriving, than are or may be payable on the like article, the produce or manufacture of any other foreign country; nor shall any prohibition be maintained or imposed on the importation of any article the produce or manufacture of the dominions and possessions of either of the contracting parties into the dominions and possessions of the other, which shall not equally extend to the importation of the like articles being the produce or manufacture of any other country.

His Majesty the King of Italy further engages that he will not prohibit the importation into his dominions and possessions of any article the produce or manufacture of the dominions and possessions of her Britannic Majesty, from whatever place arriving.

3. No other or higher duties or charges shall be imposed in the dominions and possessions of

either of the contracting parties, on the exportation of any article to the dominions and possessions of the other, than such as are, or may be, payable on the exportation of the like article to any other foreign country; nor shall any prohibition be imposed on the exportation of any article from the dominions and possessions of either of the two contracting parties to the dominions and possessions of the other, which shall not equally extend to the exportation of the like article to any other country.

4. The subjects of one of the contracting parties shall enjoy, in the dominions and possessions of the other, equality of treatment with native subjects in all that relates to the transit trade; and also in regard to warehousing, bounties, facilities, and drawbacks.

5. All articles which are or may be legally importable into the ports of the dominions and possessions of her Britannic Majesty in British vessels, may likewise be imported into those ports in Italian vessels, without being liable to any other or higher duties or charges, of whatever denomination, than if such articles were imported in British vessels; and reciprocally, all articles which are or may be legally importable into the ports of the dominions and possessions of his Majesty the King of Italy in Italian vessels, may likewise be imported into those ports in British vessels, without being liable to any other or higher duties or charges, of whatever denomination, than if such articles were imported in Italian vessels. Such reciprocal equality of treatment shall take effect without distinction, whether such articles come directly from the place of origin, or from any other place.

In the same manner there shall be perfect equality of treatment in regard to exportation, so that the same export duties shall be paid, and the same bounties and drawbacks allowed, in the dominions and possessions of either of the contracting parties, on the exportation of any article which is or may be legally exportable therefrom, whether such exportation shall take place in Italian or in British vessels, and whatever may be the place of destination, whether a port of either of the contracting parties or of any third Power.

6. No duties of tonnage, harbour, pilotage, light-house, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, levied in the name or for the profit of Government, public functionaries, private individuals, corporations, or establishments of any kind, shall be imposed in the ports of the dominions and possessions of either country upon the vessels of the other country, which shall not equally and under the same conditions be imposed in the like cases on national vessels in general. Such equality of treatment shall apply reciprocally to the respective vessels, from whatever port or place they may arrive, and whatever may be their place of destination.

7. In all that regards the stationing, loading, and unloading of vessels in the ports, basins, docks, roadsteads, harbours, or rivers of the dominions and possessions of the two countries, no privilege shall be granted to national vessels which shall not be equally granted to vessels of the other country; the intention of the contracting parties being that in this respect also the respective vessels shall be treated on the footing of perfect equality.

8. The contracting parties agree that, in regard to the coasting trade, the vessels and subjects of each contracting party shall enjoy, in the dominions and possessions of the other, the same privi-

luges, and shall be treated in all respects in the same manner, as national vessels and native subjects.

The provisions of this Article shall, however, as respects the colonial coasting trade, be deemed to extend only to the coasting trade of such of the colonial possessions of her Britannic Majesty as may have petitioned or may hereafter petition her Majesty, under the provisions of the Act relating thereto, to throw open their coasting trade to foreign vessels.

9. All vessels which according to British law are to be deemed British vessels, and all vessels which according to Italian law are to be deemed Italian vessels, shall for the purposes of this treaty be deemed British and Italian vessels respectively.

10. The contracting parties agree that in all matters relating to commerce and navigation, any privilege, favour, or immunity whatever, which either contracting party has actually granted, or may hereafter grant, to the subjects or citizens of any other State, shall be extended immediately and unconditionally to the subjects or citizens of the other contracting party; it being their intention that the trade and navigation of each country shall be placed, in all respects, by the other on the footing of the most favoured nation.

11. Any import duty levied *ad valorem* in the territories of his Majesty the King of Italy shall be calculated on the value at the place of production or fabrication of the object imported, with the addition of the cost of transport, insurance, and commission necessary for the importation into Italy, its dominions and possessions, as far as the port of discharge.

For the levying of these duties, the importer shall make a written declaration at the custom-house, stating the value and description of the goods imported, with the addition aforesaid. If the custom-house authorities shall be of opinion that the declared value is insufficient, they shall be at liberty to take the goods on paying to the importer the price declared, with an addition of 5 per cent.

This payment, together with the restitution of any duty which may have been levied upon such goods, shall be made within the 15 days following the declaration.

12. The subjects of each of the contracting parties shall have, in the dominions and possessions of the other, the same rights as native subjects in regard to trade-marks and designs of every description applicable to articles of manufacture.

13. It shall be free for each of the contracting parties to appoint consuls-general, consuls, vice-consuls, and consular agents, to reside in the towns and ports of the dominions and possessions of the other. Such consuls-general, consuls, vice-consuls, and consular agents, however, shall not enter upon their functions until after they shall have been approved and admitted, in the usual form, by the Government to which they are sent. They shall exercise whatever functions, and enjoy whatever privileges, exemptions, and immunities are or shall be granted there to consuls of the most favoured nation.

14. The subjects of each of the contracting parties, confining themselves to the laws of the country:—

1. Shall have full liberty, with their families, to enter, travel, or reside in any part of the dominions and possessions of the other contracting party.

2. They shall be permitted to hire or possess the houses, manufactories, warehouses, shops, and premises, which may be necessary for them.

3. They may carry on their commerce, either in person or by any agents whom they may think fit to employ.

4. They shall not be subject, in respect of their persons or property, or in respect of passports, licenses for residence or establishment, nor in respect of their commerce or industry, to any tax, whether general or local, nor to imposts or obligations of any kind whatever, other or greater than those which are or may be imposed upon native subjects.

15. The subjects of each of the contracting parties in the dominions and possessions of the other shall be exempted from all compulsory military service whatever, whether in the army, navy, or national guard or militia. They shall be equally exempted from all judicial and municipal functions whatever, as well as from all contributions, whether pecuniary or in kind, imposed as a compensation for personal service; and, finally, from forced loans and military exactions or requisitions.

16. The subjects of each of the contracting parties in the dominions and possessions of the other shall be at full liberty to acquire, possess, and dispose of every description of property which the laws of the country may permit any foreigners, whatsoever nation, to acquire and possess. They may acquire and dispose of the same, whether by purchase, sale, donation, exchange, marriage, testament, succession *ab intestato*, or in any other manner, under the same conditions as are established by the laws of the country for all foreigners. Their heirs and representatives may succeed to and take possession of such property, either in person or by agents acting on their behalf, in the same manner and in the same legal forms as subjects of the country. In the absence of heirs and representatives the property shall be treated in the same manner as the like property belonging to a subject of the country under similar circumstances.

In none of these respects shall they pay upon the value of such property any other or higher impost, duty, or charge, than is payable by subjects of the country. In every case the subjects of the contracting parties shall be permitted to export their property, or the proceeds thereof if sold, freely, and without being subjected on such exportation to pay any duty as foreigners, or any other or higher duties than those to which subjects of the country are liable under similar circumstances.

17. The dwellings, manufactories, warehouses and shops of the subjects of each of the contracting parties in the dominions and possessions of the other, and all premises appertaining thereto, destined for purposes of residence or commerce, shall be respected. If there should be occasion to make a search of, or a domiciliary visit to such dwellings and premises, or to examine or inspect books, papers, or accounts, such measure shall be executed only in conformity with the legal warrant or order in writing of a tribunal, or of the competent authority.

The subjects of each of the two contracting parties in the dominions and possessions of the other shall have free access to the courts of justice for the prosecution and defence of their rights. They shall enjoy in this respect the same rights and privileges as subjects of the country, and shall, like them, be at liberty to employ, in all causes, their advocates, attorneys, or agents, from among the persons admitted to the exercise of those professions according to the laws of the country.

18. Any ship of war or merchant-vessel of either

of the contracting parties which may be compelled by stress of weather, or by accident, to take shelter in a port of the other, shall be at liberty to reft therein, to procure all necessary stores, and to put to sea again, without paying any dues other than such as would be payable in a similar case by a national vessel. In case, however, the master of a merchant-vessel should be under the necessity of disposing of a part of his merchandise in order to defray his expenses, he shall be bound to conform to the regulations and tariffs of the place to which he may have come.

If any ship of war or merchant-vessel of one of the contracting parties should run aground or be wrecked upon the coasts of the other, such ship or vessel, and all parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise saved therefrom, including any which may have been cast into the sea, or the proceeds thereof if sold, as well as all papers found on board such stranded or wrecked ship or vessel, shall be given up to the owners or their agents when claimed by them. If there are no such owners or agents on the spot, then the same shall be delivered to the British or Italian consul-general, consul, or vice-consul, in whose district the wreck or stranding may have taken place, upon being claimed by him within the period fixed by the laws of the country; and such consuls, owners, or agents, shall pay only the expenses incurred in the preservation of the property, together with the salvage or other expenses which would have been payable in the like case of a wreck of a national vessel.

The goods and merchandise saved from the wreck shall be exempt from all duties of customs, unless cleared for consumption, in which case they shall pay the same rate of duty as if they had been imported in a national vessel.

In the case either of a vessel being driven in by stress of weather, run aground, or wrecked, the respective consuls-general, consuls, vice-consuls, and consular agents shall, if the owner or master or other agent of the owner is not present, or is present and requires it, be authorised to interpose in order to afford the necessary assistance to their fellow-countrymen.

19. The consuls-general, consuls, vice-consuls, and consular agents of each of the contracting parties, residing in the dominions and possessions of the other, shall receive from the local authorities such assistance as can by law be given to them for the recovery of deserters from the vessels of their respective countries.

20. The present treaty of commerce and navigation, when ratified, shall be substituted for the treaties in force between the high contracting parties, namely, those concluded on the 5th of April, 1847, and 30th of December, 1854, between Great Britain and Tuscany; and on the 29th of April, 1845, between Great Britain and the Two Sicilies; and on the 27th of February, 1851, and 9th of August, 1854, between Great Britain and Sardinia; and shall remain in force for 10 years from the date of the exchange of the ratifications, and further until the expiration of 12 months after either of the contracting parties shall have given notice to the other of its intention to terminate the same; each of the contracting parties being at liberty to give such notice to the other at the expiration of the first 9 years, or at any time afterwards.

21. The present treaty shall be ratified, and the ratifications shall be exchanged at London, in six weeks, or sooner if possible.

In witness whereof the respective plenipoten-

tiaries have signed the same, and have affixed thereto the seal of their arms.

Turin, August 6, 1863.

JAMES HUDSON,  
GIOVANNI MANNA.

## MEXICO.

*Treaty of Amity, Commerce, and Navigation, between Great Britain and Mexico. Signed at London, December 26, 1826.*

Article 1. There shall be perpetual amity between the dominions and subjects of His Majesty the King of the United Kingdom of Great Britain and Ireland, and the United States of Mexico, and their citizens.

2. There shall be, between all the territories of His Britannic Majesty in Europe and the territories of Mexico, a reciprocal freedom of commerce. The inhabitants of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places and rivers in the territories aforesaid, saving only such particular ports to which other foreigners shall not be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce; and, generally, the merchants and traders of each nation, respectively, shall enjoy the most complete protection and security for their commerce.

In like manner, the respective ships of war and post-office packets of the two countries shall have liberty freely and securely to come to all harbours, rivers, and places, saving only such particular ports (if any) to which other foreign ships of war and packets shall not be permitted to come, to enter into the same, to anchor, and to remain there and reft; subject always to the laws and statutes of the two countries respectively.

By the right of entering the places, ports, and rivers mentioned in this article, the privilege of carrying on the coasting trade is not understood, in which national vessels only are permitted to engage.

3. His Majesty the King of the United Kingdom of Great Britain and Ireland engages further, that the inhabitants of Mexico shall have the like liberty of commerce and navigation stipulated for in the preceding article, in all his dominions situated out of Europe, to the full extent in which the same is permitted at present, or shall be permitted hereafter, to any other nation.

4. No higher or other duties shall be imposed on the importation into the dominions of his Britannic Majesty, of any article of the growth, produce, or manufacture of Mexico, and no higher or other duties shall be imposed on the importation into the territories of Mexico, of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed in the territories or dominions of either of the contracting parties, on the exportation of any articles to the territories of the other, than such as are or may be payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation of any articles, the growth, produce, or manufacture of his Britannic Majesty's dominions, or of the said territories of Mexico, to or from the said dominions of his Britannic Majesty, or to or from the said territories of Mexico,

which shall not equally extend to all other nations.

5. No higher or other duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed, in any of the ports of Mexico, on British vessels, than those payable in the same ports by Mexican vessels (see additional articles at the end of this treaty); nor, in the ports of his Britannic Majesty's territories, on Mexican vessels, than shall be payable, in the same ports, on British vessels.

6. The same duties shall be paid on the importation into the territories of Mexico of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such importation shall be in Mexican (see additional articles at the end of this treaty) or in British vessels; and the same duties shall be paid on the importation into the dominions of his Britannic Majesty, of any article the growth, produce, or manufacture of Mexico, whether such importation shall be in British or in Mexican vessels. The same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation to Mexico of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such exportation shall be in Mexican or in British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any articles the growth, produce, or manufacture of Mexico, to his Britannic Majesty's dominions, whether such exportation shall be in British or in Mexican vessels.

7. In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British or Mexican vessel, it is hereby agreed that all vessels built in the dominions of his Britannic Majesty, or vessels which shall have been captured from an enemy by his Britannic Majesty's ships of war or by subjects of his said Majesty, furnished with letters of marque by the Lords Commissioners of the Admiralty, and regularly condemned in one of his said Majesty's prize courts as a lawful prize, or which shall have been condemned in any competent court for the breach of the laws made for the prevention of the slave trade, and owned, navigated, and registered according to the laws of Great Britain, shall be considered as British vessels; and that all vessels built in the territories of Mexico, or captured from the enemy by the ships of Mexico, and condemned under similar circumstances, and which shall be owned by any citizen or citizens thereof, and whereof the master and  $\frac{2}{3}$  of the mariners are citizens of Mexico, excepting where the laws provide for any extreme cases, shall be considered as Mexican vessels.

And it is further agreed, that every vessel, qualified to trade as above described under the provisions of this treaty, shall be furnished with a register, passport, or sea letter, under the signature of the proper person authorised to grant the same, according to the laws of the respective countries (the form of which shall be communicated), certifying the name, occupation, and residence of the owner or owners, in the dominions of his Britannic Majesty, or in the territories of Mexico, as the case may be; and that he or they is or are the sole owner or owners, in the proportion to be specified; together with the name, burden, and description of the vessel as to build and measurement, and the several particulars constituting the national character of the vessel, as the case may be.

8. All merchants, commanders of ships, and

others, the subjects of his Britannic Majesty, shall have full liberty, in all the territories of Mexico, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter; nor shall they be obliged to employ any other persons for those purposes than those employed by Mexicans, nor to pay them any other salary or remuneration than such as is paid, in like cases, by Mexican citizens; and absolute freedom shall be allowed, in all cases, to the buyer and seller, to bargain and fix the prices of any goods, imported into or exported from Mexico, as they shall see good, observing the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of his Britannic Majesty, by the citizens of Mexico, under the same conditions.

The citizens and subjects of the contracting parties, in the territories of each other, shall receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries, respectively, for the prosecution and defence of their just rights; and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents of whatever description, whom they may think proper; and they shall enjoy, in this respect, the same rights and privileges therein as native citizens.

9. In whatever relates to the succession to personal estates, by will or otherwise, and the disposal of personal property of every sort and denomination, by sale, donation, exchange, or testament, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the two contracting parties shall enjoy, in their respective dominions and territories, the same privileges, liberties, and rights, as native subjects; and shall not be charged, in these respects, with any higher imposts than those which are paid, or may be paid, by the native subjects or citizens of the power in whose dominions or territories they may be resident.

10. In all that relates to the police of the ports, the lading and unlading of ships, the safety of merchandise, goods, and effects, the subjects of his Britannic Majesty, and the citizens of Mexico, respectively, shall be subject to the local laws and regulations of the dominions and territories in which they may reside. They shall be exempted from all compulsory military service, whether by sea or land. No forced loans shall be levied upon them; nor shall their property be subject to any other charges, requisitions, or taxes than such as are paid by the native subjects or citizens of the contracting parties in their respective dominions.

11. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but, before any consul shall act as such, he shall, in the usual form, be approved and admitted by the Government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be excepted. The Mexican diplomatic agents and consuls shall enjoy, in the dominions of his Britannic Majesty, whatever privilege, exceptions, and immunities are or shall be granted to agents of the same rank belonging to the most favoured nation; and, in like manner, the diplomatic agents and consuls of his Britannic Majesty in the Mexican territories shall enjoy, according to the strictest reciprocity, whatever

privileges, exceptions, and immunities are or may be granted to the Mexican diplomatic agents and consuls in the dominions of his Britannic Majesty.

12. For the better security of commerce between the subjects of his Britannic Majesty and the citizens of the Mexican States, it is agreed that if, at any time, any interruption of friendly intercourse, or any rupture, should unfortunately take place between the two contracting parties, the merchants residing upon the coast shall be allowed 6 months, and those of the interior a whole year, to wind up their accounts, and dispose of their property; and a safe conduct shall be given them to embark at the port which they shall themselves select. All those who are established in the respective dominions and territories of the two contracting parties, in the exercise of any trade or special employment, shall have the privilege of remaining and continuing such trade and employment therein, without any manner of interruption, in full enjoyment of their liberty and property, as long as they behave peaceably, and commit no offence against the laws; and their goods and effects, of whatever description they may be, shall not be liable to seizure or sequestration, or to any other charges or demands than those which may be made upon the like effects or property belonging to the native subjects or citizens of the respective dominions or territories in which such subjects or citizens may reside. In the same case, debts between individuals, public funds, and the shares of companies, shall never be confiscated, sequestrated, or detained.

13. The subjects of his Britannic Majesty residing in the Mexican territories shall enjoy, in their houses, persons, and properties, the protection of the Government; and continuing in possession of what they now enjoy, they shall not be disturbed, molested, or annoyed, in any manner, on account of their religion, provided they respect that of the nation in which they reside, as well as the constitution, laws, and customs of the country. They shall continue to enjoy, to the full, the privilege already granted to them of burying, in the places already assigned for that purpose, such subjects of his Britannic Majesty as may die within the Mexican territories; nor shall the funerals and sepulchres of the dead be disturbed in any way, or upon any account. The citizens of Mexico shall enjoy, in all the dominions of his Britannic Majesty, the same protection, and shall be allowed the free exercise of their religion, in public or private, either within their own houses, or in the chapels and places of worship set apart for that purpose.

14. The subjects of his Britannic Majesty shall on no account or pretext whatsoever be disturbed or molested in the peaceable possession and exercise of whatever rights, privileges, and immunities they have at any time enjoyed within the limits described and laid down in a convention signed between his said Majesty and the King of Spain, on the 14th of July, 1786; whether such rights, privileges, and immunities shall be derived from the stipulations of the said convention, or from any other concession which may at any time have been made by the King of Spain, or his predecessors, to British subjects and settlers residing and following their lawful occupations within the limits aforesaid; the two contracting parties reserving, however, for some more fitting opportunity, the further arrangements on this article.

15. The Government of Mexico engages to cooperate with his Britannic Majesty for the total abolition of the slave trade, and to prohibit

all persons inhabiting within the territories of Mexico, in the most effectual manner, from taking any share in such trade.

16. The two contracting parties reserve to themselves the right of treating and agreeing hereafter, from time to time, upon such other articles as may appear to them to contribute still further to the improvement of their mutual intercourse, and the advancement of the general interests of their respective subjects and citizens; and such articles as may be so agreed upon, shall, when duly ratified, be regarded as forming a part of the present treaty, and shall have the same force as those now contained in it.

17. The present treaty shall be ratified, and the ratifications shall be exchanged at London within the space of 6 months, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 25th day of December, in the year of our Lord 1826.

SEBASTIAN CAMACHO,  
WILLIAM HENKINSON,  
JAMES J. MORIER.

#### Additional Articles.

1. Whereas, in the present state of Mexican shipping, it would not be possible for Mexico to receive the full advantage of the reciprocity established by the Articles 5, 6, 7 of the treaty signed this day, if that part of the 7th Article which stipulates that, in order to be considered as a Mexican ship, a ship shall actually have been built in Mexico, should be strictly and literally observed, and immediately brought into operation; it is agreed that, for the space of 10 years, to be reckoned from the date of the exchange of the ratifications of this treaty, any ships, *wherever built*, being *bonâ fide* the property of and wholly owned by one or more citizens of Mexico, and whereof the master and  $\frac{3}{4}$  of the mariners, at least, are also natural-born citizens of Mexico, or persons domiciliated in Mexico, by act of the Government, as lawful subjects of Mexico, to be certified according to the laws of that country, shall be considered as Mexican ships; his Majesty the King of the United Kingdom of Great Britain and Ireland reserving to himself the right, at the end of the said term of 10 years, to claim the principle of reciprocal restriction stipulated for in the Article 7 above referred to, if the interests of British navigation shall be found to be prejudiced by the present exception to that reciprocity in favour of Mexican shipping.

2. It is further agreed that, for the like term of 10 years, the stipulations contained in Articles 5 and 6 of the present treaty shall be suspended; and in lieu thereof, it is hereby agreed that, until the expiration of the said term of 10 years, British ships entering into the ports of Mexico from the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, and all articles the growth, produce, or manufacture of the United Kingdom, or of any of the said dominions, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and reciprocally, it is agreed, that Mexican ships entering into the ports of the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, from any port of the States of Mexico, and all articles the growth, produce, or manufacture of the said States, imported in such ships, shall pay no other or higher duties than are

or may hereafter be payable in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and that no higher duties shall be paid, or bounties or drawbacks allowed, on the exportation of any article, the growth, produce, or manufacture of the dominions of either country, in the ships of the other, than upon the exportation of the like articles in the ships of any other foreign country.

It being understood that, at the end of the said term of 10 years, the stipulations of the said 5th and 6th Articles shall, from thenceforward, be in full force between the two countries.

The present additional articles shall have the same force and validity as if they were inserted, word for word, in the treaty signed this day. They shall be ratified, and the ratifications shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of December, in the year of our Lord 1826.

SEBASTIAN CAMACHO.  
WILLIAM HUSKISSON.  
JAMES J. MORIER.

An order in council, dated September 3, 1827, orders that vessels of the United States of Mexico, entering the ports of the United Kingdom of Great Britain and Ireland in ballast, or laden direct from any of the ports of Mexico, or departing from the ports of the said United Kingdom, together with the cargoes on board the same, such cargoes consisting of articles which may be legally imported or exported, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports, or on similar articles when imported into or exported from such ports in British vessels; and also such articles, when exported from the said ports in vessels of the United States of Mexico respectively, shall be entitled to the same bounties, drawbacks, and allowances that are granted on similar articles when exported in British vessels.

N.B.—Treatises similar to the above have been negotiated with Columbia, Buenos Ayres &c.

#### Morocco.

##### *Convention of Commerce and Navigation between her Britannic Majesty and the Sultan of Morocco.*

Article 1. There shall be reciprocal freedom of commerce between the British dominions and the dominions of the Sultan of Morocco. The subjects of her Britannic Majesty may reside in and trade to any part of the territories of the Sultan of Morocco to which any other foreigners are or shall be admitted.

They shall be permitted to hire houses, and to build houses, stores, or warehouses, as stipulated in Article 4 of the general treaty of this date.

They shall enjoy full protection for their persons and properties, as specified in Article 4 of the general treaty; they shall be allowed to buy from, and to sell to, whom they like, all articles not prohibited in Article 2 of this convention, either by wholesale or retail, at all places in the Moorish dominions, without being restrained or prejudiced by any monopoly, contract, or exclusive privilege of purchase or sale whatever, except the articles of export and those of import enumerated in Article 2; and they shall, moreover, enjoy all other rights and privileges which

hereafter may be granted to any other foreign subjects, or citizens of the most favoured nation.

The subjects of the Sultan of Morocco shall, return, enjoy in the dominions of her Britannic Majesty the same protection and privileges which are or may be enjoyed by the subjects or citizens of the most favoured nation.

2. The Sultan of Morocco engages to abolish all monopolies or prohibitions on imported goods except tobacco, pipes of all kinds used for smoking, opium, sulphur, powder, saltpetre, lead, arms of all kinds, and ammunition of war; and further to abolish all monopolies of agricultural produce or of any other article whatsoever in the dominions of the Sultan, except leeches, bark, tobacco and other herbs used for smoking in pipes.

3. No tax, toll, duty, or charge whatsoever, beside the export duty hereinafter mentioned, shall, under any pretext or on any account, be imposed by any person whatsoever, in any part of the dominions of Morocco, upon or in respect of any goods or produce whatsoever which may have been purchased for exportation by or on behalf of any British subject; but the said goods or produce, when so purchased, shall be conveyed from any place in Morocco to, and embark from, any port therein, absolutely free and exempted from all other taxes, tolls, duties, or charges whatsoever. No permit, or any similar document, shall be requisite to enable them to be so conveyed or embarked, nor shall any officer or subject of the Sultan offer any impediment to, or lay any restriction on, the conveyance or embarkation of such goods (except those goods or produce which the Sultan of Morocco shall prohibit from being exported, as arranged in Article 5), or on any pretext demand or receive any money in respect or on account of such goods; and should any such officer or subject act contrary to this stipulation, the Sultan shall immediately punish with severity the governor, officer, or other subject who shall have been guilty of such misconduct, and render full justice to British subjects for all injuries or losses which they may duly prove themselves to have suffered thereby.

4. The subjects of her Britannic Majesty, within the dominions of his Majesty the Sultan, shall be free to manage their own affairs themselves, or to commit those affairs to the management of any persons whom they may appoint as their broker, factor, or agent; nor shall such British subjects be restrained in their choice of persons to act in such capacities; nor shall they be called upon to pay any salary or remuneration to any person whom they shall not choose to employ; but those persons who shall be thus employed, and who are subjects of the Sultan of Morocco, shall be treated and regarded as other subjects of the Moorish dominions. Absolute freedom shall be given in all cases to the buyer and seller to bargain together, and no interference on the part of the Sultan's officers shall be permitted. Should any governor or other officer interfere in the bargains between British and Moorish subjects, or place any impediments in the lawful purchase or sale of goods or merchandise imported into, or to be exported from the Sultan's dominions, his Sheriffian Majesty shall severely punish the said officer for such misconduct.

5. Should the Sultan of Morocco at any time think proper to exhibit the exportation of any kind of grain or other article of commerce from his dominions, British subjects shall in no manner be prevented from embarking all the grain or other articles which they may have in their magazines, or which may have been bought previously to the said prohibition; but they shall be

ed to any other foreigners, the most favoured nation. Sultan of Morocco shall, in dominions of her Britannic Majesty and privileges which by the subjects or citizens of that nation.

Morocco engages to abolish prohibitions on imported goods of all kinds used for smoking powder, saltpetre, lead, arms and munition of war; and further to allow the importation of all articles of agricultural produce, and of whatever in the dominions of her Britannic Majesty, except leeches, bark, tobacco, or for smoking in pipes.

Duty, or charge whatsoever, on any account, be levied on any article, in any port of Morocco, upon or in respect of Morocco whatsoever which may be imported for exportation by or on behalf of any subject; but the said goods, when purchased, shall be conveyed to Morocco to, and embark from, absolutely free and exempt from all duties, tolls, or charges.

Permit, or any similar document, to enable them to be so conveyed, nor shall any officer or subordinate, offer any impediment to, or lay any obstacle to, the conveyance or embarkation of such goods or produce of Morocco shall prohibit from being arranged in Article 5), or on board or receive any money in payment of such goods; and should any subject act contrary to this, the Sultan shall immediately punish the same, and any officer or subordinate, who shall be guilty of such misconduct, shall be punished with justice to British subjects for the same, which they may duly prove to have suffered thereby.

of her Britannic Majesty, without the consent of the Sultan, shall be in their own affairs themselves, or in the affairs of the management of any other subject of his Majesty; nor shall such British subjects, in their choice of persons to employ, or remuneration to any person, be subject to any interference on the part of the Sultan of Morocco, still less on the part of any other subjects of his Majesty. Absolute freedom shall be given to the buyer and seller to bargain and to interfere on the part of any other officer interfere in the barter of British and Moorish subjects, or in the lawful purchase or sale of merchandise imported into, or from the Sultan's dominions, his Majesty shall severely punish the said subjects for any such misconduct.

The Sultan of Morocco at any time may exhibit the exportation of any article of commerce from the Sultan's dominions, in which British subjects shall in no manner be prohibited from embarking all the grain or other articles which they may have in their possession, which may have been bought or sold, or which may have been prohibited; but they shall be

allowed to continue to export all they may have in their possession, during the term of 6 months from the time the prohibition was publicly made known; but on the day when the order of the Sultan of Morocco regarding the prohibition shall arrive, and shall be published to the merchants, British subjects shall, within the term of 2 days, declare and give proofs of the amount of produce they shall possess in their stores, on which the prohibition is imposed, and they shall also present legal certificates regarding the amount of the said produce which they shall have bought in the interior or elsewhere, previously to the promulgation of the order for the prohibition. No prohibition, either as to the exportation, or importation of any article, shall apply to British subjects, unless such prohibition shall apply to subjects of every other nation.

6. Merchandise or goods, except the articles enumerated in Article 2, imported by British subjects in any vessel, or from any country, shall not be prohibited in the territories of the Sultan of Morocco, nor be subject to higher duties than are levied on the same kind of merchandise or goods imported by the subjects of any other foreign power, or by native subjects, after the date of this convention.

All articles, except those enumerated in Article 2, the produce of Morocco, may be exported therefrom by British subjects in any vessels, on as favourable terms as by the subjects of any other foreign country, or by native subjects.

7. In consideration of the favourable terms upon which the produce of Morocco is admitted into the territories of her Britannic Majesty, and with a view to the extension of commercial intercourse between Great Britain and Morocco, for their mutual advantage, his Majesty the Sultan of Morocco hereby agrees that the duties to be levied on all articles imported into the territories of his Majesty by British subjects, shall not exceed 10 per cent. in cash on their value, at the port of their disembarkation; and that the duties to be levied on all articles exported from the territories of his Majesty by British subjects, shall not exceed in amount the duties marked in the following tariff:—

Articles	Dollars	Ounces
Wheat - strike fanega	1	—
Maze and dura - full "	1	—
Barley - strike "	1	—
All other grain - cantar	9	—
Flour - "	—	70
Bread - "	—	12
Dates - "	—	40
Almonds - "	—	35
Oranges, lemons, and limes - 1,000	—	12
Wild marjoram - cantar	10	—
Cammin seed - "	20	—
Oil - "	50	—
Gums - "	15	—
Henna - "	—	120
Wax - "	—	16
Rice - "	—	30
Wool, washed - "	—	36
in grease - "	—	85
Hides, sheep and goat skins - "	—	100
Tanned skins called felaly, zaway, and cochinne - "	—	20
Horns - 1,000	—	50
Tallow - cantar	—	25
Mutton - head	1	—
Butter - "	—	1
Sheep - "	—	15
Goats - "	—	24
Eggs - dozen	—	51
Eggs - 1,000	—	70
Slippers - 100	—	5
Porcupine quills - 1,000	—	15
Grass - cantar	—	36
Stretch feathers - lb.	—	50
Baskets - 100	—	20
Caraway seed - cantar	—	5
Cones of wood - lb.	—	20
Resins - cantar	—	20
Resins - "	—	20
Woolen shawls, called karray - 100	—	100
Tarweed (dye) - cantar	—	20
Tanned leeches - "	—	50
Hemp and flax - "	—	30

The Sultan of Morocco has the right of prohibiting any article of exportation; but when a prohibition on any article shall be imposed, it shall be in conformity with what is arranged in Article 5; but upon the exportation of articles the prohibition of which shall be taken off, the duties noted in the tariff shall alone be paid. With regard to wheat and barley, should the Sultan think proper to prohibit the exportation of these articles, but should desire to sell to merchants the grain which belongs to Government, it shall be sold at the price the Sultan thinks proper to impose. Should the Sultan augment or diminish the price of the grain, there shall be granted to the purchaser for exporting that which he shall have bought, the term stated in Article 5; but should the grain be free for exportation, the duties imposed thereon shall be in conformity with what is stated in the tariff.

Should the Sultan of Morocco think proper to reduce the duties on articles of exportation, his Majesty shall have the right of doing so, on condition that British subjects shall pay the lowest duty that shall be paid by any other foreign or native subjects.

8. Should a British subject, or his agent, desire to convey by sea, from one port to another in the dominions of the Sultan of Morocco, goods upon which the 10 per cent. duty has been paid, such goods shall be subject to no further duty, either on their embarkation, or disembarkation, provided they be accompanied by a certificate from a Moorish administrator of customs.

9. If any article of Morocquine produce, growth, or manufacture, except the articles enumerated in Article 2, be purchased for exportation, the same shall be conveyed by the British merchant, or by his agent, free of any kind of charge or duty whatsoever, to a convenient place of shipment. Subsequently, on exportation, the export duty according to the tariff in Article 7 shall alone be paid on it.

10. No anchorage, tonnage, import, or other duty or charge, shall be levied in the dominions of the Sultan of Morocco on British vessels, or on goods imported or exported in British vessels, beyond what is, or may be, levied on national vessels, or on the like goods imported or exported in national vessels; they shall not, however, exceed in amount the rates of the following scale, viz.:— Six moozoonats per ton shall be levied upon every British vessel (except steam-vessels) that does not exceed 200 tons in measurement. Upon every vessel (not a steam-vessel) measuring more than 200 tons, the following charge shall be made, viz. 6 moozoonats per ton shall be paid for 200 of her tons, and 2 moozoonats per ton for the remainder. Should the administrator of customs have any doubt regarding the tonnage of a British vessel, as declared by the master, the British consul or vice-consul shall, on appeal being made to him, cause the ship's papers, wherein the tonnage is formally stated, to be exhibited. The same charges shall be made in all the ports of Morocco except Rabat and Larache, at which ports 4 moozoonats per ton shall be paid for pilotage into the river, should the vessel enter the river, and 4 moozoonats per ton for pilotage out of the river; 3 moozoonats per ton shall also be levied upon each vessel entering the river, on account of anchorage. Should a vessel, however, not enter the river, the same charges shall be levied upon her as those which are paid at the other ports. At Mogadore, 4 moozoonats per ton shall be paid on British vessels for pilotage on their entering the port only, and 6 moozoonats per ton for anchorage.

Should the master of a British vessel require, at any other port, a pilot, he shall pay for him at the rate of 2 moozoonats per ton; but this charge shall not be exacted except when the master of a vessel requires a pilot.

The sum of 16 dollars shall be levied, on account of anchorage, on a steam-vessel entering a port in the Moorish dominions for the purpose of discharging or embarking cargo. If, afterwards, the said steam-vessel proceed from that port to any other port or ports in the Moorish dominions, and on her arrival at the latter embark or discharge cargo, the aforesaid charge of 16 dollars for anchorage shall again be levied; but if the said steam-vessel, on her return voyage, should enter a Moorish port at which the said anchorage dues shall have already been paid, no further charge on account of anchorage shall be levied upon her unless the said steam-vessel depart on a second voyage to a Moorish port, or unless during her return voyage she shall have touched at any port other than a port of the Moorish dominions, in which case the aforesaid charge of 16 dollars shall again be levied. The charge, however, for anchorage on a steamer of 150 tons burden, or less, shall not exceed what is due from a sailing-vessel of the same size.

The masters of all vessels shall pay, in addition to the aforesaid charges, the following sums to officers of the ports, but no other payments shall be demanded of them; viz.:-

A vessel measuring 25 tons or less, 20 ounces; a vessel exceeding 25 and not over 50 tons, 40 ounces; a vessel exceeding 50 and not over 100 tons, 60 ounces; a vessel exceeding 100 and not over 200 tons, 80 ounces; a vessel exceeding 200 tons, 100 ounces.

In addition to these charges, the master of every British vessel visiting the port of Tetuan shall pay 10 ounces for the messenger who shall convey the ship's papers from the port of Marteen to Tetuan; 5 ounces to the trumpeter who shall announce the arrival of the vessel; and 3 ounces to the public crier; but no other payments shall be demanded at the port of Tetuan. No charge for anchorage shall be levied on account of British vessels which may enter the ports of Morocco for the purpose of seeking shelter from the weather, and which do not embark or discharge cargo, nor shall any charge for anchorage be levied upon fishing-vessels.

And, in like manner, no anchorage, tonnage, import, or other duty or charge, shall be levied in the British dominions on Moorish vessels, or on goods imported or exported in Moorish vessels, beyond what is or may be levied on national vessels, or on the like goods imported or exported in national vessels.

11. Should British subjects desire to embark in or discharge goods from vessels arriving in the ports of Morocco, they shall employ the Moorish Government boats for that purpose; but if within two days after the arrival of a vessel the Moorish Government boats are not placed at their disposal for the aforesaid purpose, the British subjects shall have the right of employing private boats, and shall not pay, in such case, to the port authorities more than one half of what would have been paid, had they employed the Government boats. This regulation shall not be applicable to the ports of Tangier and Tetuan, inasmuch as there is a sufficient number of Government lighters at those two ports.

The charges now paid for lighters at the different ports of Morocco shall not be augmented, and the administrator of customs at each port of Morocco shall deliver to the British vice-consul

a tariff of the charges now demanded for lighters.

12. The articles of this convention shall be applicable to all the ports in the empire of Morocco and should his Majesty the Sultan of Morocco open the ports of Mehedea, Agadceer, or Wadnoon or any other ports within the limits of his Majesty's dominions, no difference shall be made in the levying of duties, or anchorage, between the said ports and other ports in the Sultan's dominions.

13. If a British subject be detected in smuggling into the Moroccan territories goods of any description, the goods shall be confiscated to the Sultan; and such British subject shall, on conviction before the British consul-general, consul-vice-consul, or consular agent, be liable to be fined in an amount not exceeding treble the amount of duties leviable on such goods, or in case of goods not admitted to importation, treble the value of the goods at the current price of the day; and failing payment of such fines, such British subject shall, on conviction before the British consul-general, consul, vice-consul, or consular agent, be liable to be imprisoned; or, without being fined, any British subject on conviction as aforesaid may be imprisoned, but in either case for a time not exceeding one year, in such place as the consul-general, consul, vice-consul, or consular agent may determine.

14. In order that the two high contracting parties may have the opportunity of hereafter treating and agreeing upon such other arrangements as may tend still further to the improvement of their mutual intercourse, and to the advancement of the interests of their respective subjects, it is agreed that at any time after the expiration of five years from the date of the exchange of the ratifications of the present convention of commerce and navigation, either of the high contracting parties shall have the right to call upon the other to enter upon a revision of the same; but until such revision shall have been accomplished by common consent, and a new convention shall have been concluded and ratified, the present convention shall continue and remain in full force and effect.

Done at Tangier, the 9th of December, in the year 1856, corresponding to the Moorish date of the 10th of Rabea the second, in the year 1273.

J. H. DRUMMOND HAY.

(Arabic signature of)

SEED MOHAMED KHATEEB.

#### NETHERLANDS.

*Treaty between his Britannic Majesty and the King of the Netherlands, respecting Territories and Commerce in the East Indies. Signed at London, March 17, 1824.*

Article 1. The high contracting parties engage to admit the subjects of each other to trade with their respective possessions in the Eastern Archipelago, and on the continent of India and in Ceylon, upon the footing of the most favoured nation; their respective subjects conforming themselves to the local regulations of each settlement.

2. The subjects and vessels of one nation shall not pay upon importation or exportation, at the ports of the other in the Eastern seas, any duty at a rate beyond the double of that at which the subjects and vessels of the nation to which the port belongs are charged.

The duties paid on exports or imports at a British port, on the continent of India, or in Ceylon, on Dutch bottoms, shall be arranged so as in no case to be charged at more than double the

now demanded for lighter-

this convention shall be in the empire of Morocco; by the Sultan of Morocco, Agadeer, or Wadnooa, within the limits of his jurisdiction, no difference shall be made in duties, or anchorage, between their ports in the Sultan's

subject be detected in smuggling territories goods of any description shall be confiscated to the British subject shall, on conviction, be liable to be fined exceeding treble the amount of such goods, or in case of goods of no value, treble the value of the goods at the current price of the day; and such fines, such British consular agent, or consular agent, before the British consul-general, or consul, or without being fined, or on conviction as aforesaid, but in either case for a term not exceeding one year, in such place as the consul, vice-consul, or consular agent.

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J. H. DRUMMOND HAY.  
(Arabic signature of)  
SEED MOHAMED KHATEEB.

#### NETHERLANDS.

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paid on exports or imports at the ports of the continent of India, or in Ceylon, shall be arranged so as to be charged at more than double the

amount of the duties paid by British subjects, and on British bottoms.

In regard to any article upon which no duty is imposed when imported or exported by the subjects or on the vessels of the nation to which the port belongs, the duty charged upon the subjects or vessels of the other shall in no case exceed 6 per cent.

3. The high contracting parties engage that no treaty hereafter made by either, with any native power in the Eastern seas, shall contain any article tending, either expressly, or by the imposition of unequal duties, to exclude the trade of the other party from the ports of such native power; and that if, in any treaty now existing on either part, any article to that effect has been admitted, such article shall be abrogated upon the conclusion of the present treaty.

It is understood that, before the conclusion of the present treaty, communication has been made by each of the contracting parties to the other, of all treaties or engagements subsisting between each of them, respectively, and any native powers in the Eastern seas; and that the like communication shall be made of all such treaties concluded by them, respectively, hereafter.

4. Their Britannic and Netherland Majesties engage to give strict orders, as well to their civil and military authorities, as to their ships of war, to respect the freedom of trade, established by Articles 1, 2, and 3; and in no case to impede a free communication of the natives in the Eastern Archipelago, with the ports of the two Governments, respectively, or of the subjects of the two Governments with the ports belonging to native powers.

5. Their Britannic and Netherland Majesties, in like manner, engage to concur effectually in repressing piracy in those seas: they will not grant either asylum or protection to vessels engaged in piracy, and they will in no case permit the ships or merchandise captured by such vessels to be introduced, deposited, or sold in any of their possessions.

6. It is agreed that orders shall be given by the two Governments, to their officers and agents in the East, not to form any new settlement on any of the islands in the Eastern seas, without previous authority from their respective Governments in Europe.

7. The Molucca Islands, and especially Amboyna, Banda, Ternate, and their immediate dependencies, are excepted from the operation of the 1st, 2nd, 3rd, and 4th Articles, until the Netherland Government shall think fit to abandon the monopoly of spices; but if the said Government shall, at any time previous to such abandonment of the monopoly, allow the subjects of any power, other than the Asiatic native power, to carry on any commercial intercourse with the said islands, the subjects of his Britannic Majesty shall be admitted to such intercourse upon a footing precisely similar.

8. His Netherland Majesty cedes to his Britannic Majesty all his establishment on the continent of India; and renounces all privileges and exemptions enjoyed or claimed in virtue of those establishments.

9. The factory of Fort Marlborough, and all the English possessions on the island of Sumatra, are hereby ceded to his Netherland Majesty: and his Britannic Majesty further engages that no British settlement shall be formed on that island, nor any treaty concluded, by British authority, with any native prince, chief, or state therein.

10. The town and fort of Malacca, and its dependencies, are hereby ceded to his Britannic Majesty; and his Netherland Majesty engages, for himself and his subjects, never to form any

establishment on any part of the peninsula of Malacca, or to conclude any treaty with any native prince, chief, or state therein.

13. All the colonies, possessions, and establishments which are ceded by the preceding articles, shall be delivered up to the officers of the respective sovereigns on the 1st of March, 1825. The fortifications shall remain in the state in which they shall be at the period of the notification of this treaty in India; but no claim shall be made, on either side, for ordnance, or stores of any description, either left or removed by the ceding power, nor for any arrears of revenue, or any charge of administration whatsoever.

16. It is agreed that all accounts and reclamations, arising out of the restoration of Java, and other possessions, to the officers of his Netherland Majesty in the East Indies—as well as those which were the subject of a convention made at Java on the 24th of June, 1817, between the commissioners of the two nations, as all others—shall be finally and completely closed and satisfied, on the payment of the sum of 100,000*l.* sterling money, to be made in London on the part of the Netherlands, before the expiration of the year 1825.

17. The present treaty shall be ratified and the ratifications exchanged at London, within 3 months from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and affixed thereto the seals of their arms.

Done at London, the 17th day of March, in the year of our Lord 1824.

GEORGE CANNING.

CHARLES WATKINS WILLIAMS WYNN.

H. FAGEL.

A. R. FALCK.

*Treaty of Commerce and Navigation between her Majesty and the King of the Netherlands. Signed at the Hague, October 27, 1837.*

Article 1. There shall be reciprocal liberty of commerce and navigation between and amongst the subjects of the two high contracting parties; and the subjects of the two sovereigns respectively shall not pay in the ports, harbours, roads, cities, towns, or places whatsoever in either kingdom, any other or higher duties, taxes, or imposts, under whatsoever names designated or included, than those which are there paid by the subjects of the most favoured nation: and the subjects of each of the high contracting parties shall enjoy the same rights, privileges, liberties, favours, immunities, and exemptions, in matters of commerce and navigation, that are granted, or may hereafter be granted, in either kingdom, to the subjects of the most favoured nation. No duty of customs or other impost shall be charged upon any goods the produce of one country, upon importation, by sea or by land, from such country into the other, higher than the duty or impost charged upon goods of the same kind, the produce of or imported from any other country; and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the King of the Netherlands, do hereby bind and engage themselves not to grant any favour, privilege, or immunity, in matters of commerce and navigation, to the subjects of any other state, which shall not be also, and at the same time, extended to the subjects of the other high contracting party; gratuitously, if the concession in favour of that other state shall have been gratuitous; and on giving as nearly as possible the same compensation or equivalent, in case the concession shall have been conditional.

2. No duties of tonnage, harbour, lighthouses, pilotage, quarantine, or other similar or corresponding duties, of whatever nature or under whatever denomination, shall be imposed in either country upon the vessels of the other, in respect of voyages between the two countries, if laden, or in respect of any voyage if in ballast, which shall not be equally imposed, in the like cases, on national vessels; and in neither country shall any duty, charge, restriction, or prohibition be imposed upon, nor any drawback, bounty, or allowance be withheld from, any goods imported from or exported to the other country, in the vessel of that other country, which shall not be equally imposed upon or withheld from such goods when so imported or exported in national vessels.

3. In order to avoid any misunderstanding with regard to the regulations that determine the conditions which constitute a British or a Dutch vessel, it is hereby agreed that all vessels built in the dominions of her Britannic Majesty, and all vessels which, having been captured from an enemy by her Majesty's ships of war, or by the subjects of her said Majesty, furnished by the lords commissioners of the Admiralty with letters of marque, shall have been regularly condemned in one of her said Majesty's prize courts as a lawful prize; and all vessels which shall have been condemned in any competent court, for a breach of the laws made for the prevention of the slave trade; shall, provided they are owned, navigated, and registered according to the laws of Great Britain, be considered as British vessels; and that all vessels built in the territories of the King of the Netherlands, or which, having been captured from an enemy by his Majesty's ships of war, or by the subjects of his said Majesty furnished with letters of marque, shall have been regularly condemned in one of the prize courts of the kingdom of the Netherlands as a lawful prize; and all vessels which shall have been condemned in any competent court, for a breach of the laws made for the prevention of the slave trade, shall, provided they are wholly owned by any subject or subjects of the King of the Netherlands, and provided that the master and three-fourths of the crew are Netherlands subjects, be considered as Netherlands vessels.

4. It is further agreed, that in all cases where, in either kingdom, the duty to be levied upon any goods imported, shall be, not a fixed rate, but a proportion of the value of the goods, such ad valorem duty shall be ascertained and secured in the following manner; that is to say, the importer shall, on making his entry for the payment of duty at the custom-house of either country, sign a declaration, stating the value of the goods at such amount as he shall deem proper; and in case the officers of customs should be of opinion that such valuation is insufficient, he or they shall be at liberty to take the goods, on paying to the importer the value according to his declaration, together with the addition of 10 per cent., and on returning the duty paid.

The amount of these sums to be paid by the officers on the delivery of the goods to them, which must be within 15 days from the first detention of the goods.

5. Forasmuch as all merchandise, of whatever origin, whether admissible for home consumption or not, may be received and warehoused in all the ports of the United Kingdom of Great Britain and Ireland, which are by law appointed to be warehousing ports for such articles, pending the entry of the same either for home consumption or for re-exportation, as the case may be, under the regulations appointed for this purpose, and with-

out such articles being liable, in the meantime, to the payment of any of the duties with which they would be charged, if upon arrival they were entered for consumption within the United Kingdom; in like manner, the King of the Netherlands consents and agrees, that all the ports of his Netherland Majesty's dominions, which are now or which shall hereafter become warehousing ports by law, shall be free ports for the reception and warehousing of all merchandise imported in British ships, and of all articles whatever, the produce or manufacture of the British dominions, in whatever ships imported, either for home consumption or for re-exportation, as the case may be; and the articles thus received and warehoused, subject to due regulations, shall not be liable, in the meantime, to any of the duties with which they would be charged, if they were entered for consumption on their arrival in the Netherlands.

6. If any ships of war or merchant vessels should be wrecked on the coasts of either of the high contracting parties, such ships or vessels, or all parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise which shall be saved therefrom, or the produce thereof, if sold, shall be faithfully restored to the proprietors, upon being claimed by them or by their duly authorised factors; and if there are no such proprietors or factors on the spot, then the said goods and merchandise, or the proceeds thereof, as well as all the papers found on board such wrecked vessels, shall be delivered to the British or Netherland consul in whose district the wreck may have taken place; and such consul, proprietors, or factors shall pay only the expenses incurred in the preservation of the property, together with the rate of salvage which would have been payable in the like case of a wreck of a national vessel; and the goods and merchandise saved from the wreck shall not be subject to duties, unless cleared for home consumption.

7. The present treaty shall be in force for the term of 10 years from the date hereof, and farther, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same: each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years.

And it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this treaty, and all the provisions thereof, shall altogether cease and determine.

8. The present treaty shall be ratified, and the ratifications shall be exchanged at the Hague within 1 month from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at the Hague, this 27th day of October, in the year of our Lord 1837.

VERSTOLK DE SOULEN.  
EDWARD CROMWELL DISBROWE.

*Declaration made by the Plenipotentiary of her Britannic Majesty, on the exchange of the Ratification of the preceding Treaty.*

In proceeding to the exchange of the ratifications of the treaty of commerce and navigation between her Majesty the Queen of the United Kingdom of Great Britain and Ireland and his Majesty the King of the Netherlands, concluded and signed at the Hague on the 27th of October,

liable, in the meantime, to the duties with which they are charged upon arrival they were entered within the United Kingdom, the King of the Netherlands, that all the ports of his Majesty's dominions, which are to be hereafter become warehousing free ports for the reception of all merchandise imported in all articles whatever, the ports of the British dominions, whether for home consumption, or for exportation, as the case may be, thus received and warehoused, shall not be subject to any of the duties which are now charged, if they were entered upon their arrival in the

of war or merchant vessels on the coasts of either of the said territories, such ships or vessels, or the contents thereof, or the furniture and apparatus on board, and all goods and articles thereon, shall be saved therefrom, or if sold, shall be faithfully preserved, upon being claimed by the duly authorised factors; and the proprietors or factors on the goods and merchandise, or the owners of the vessels, shall be delivered up to the British consul in whose district they have taken place; and such owners or factors shall pay only the amount of the preservation of the goods, and the rate of salvage which is payable in the like case of a wrecked vessel; and the goods and articles from the wreck shall not be liable to be cleared for home consumption.

These provisions shall be in force for the term of ten years, and further, for a period of 12 months after either of the said parties shall have given notice in writing of its intention to terminate the present high contracting parties respectively, of giving such notice to the other party, of the said term of 10 years, and if not agreed between them, that at the expiration of 12 months after such notice shall be given by either party from the other, the provisions thereof, shall be determined.

The present treaty shall be ratified, and the ratifications exchanged at the Hague on the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed their arms.

Done at the Hague, this 27th day of October, 1837.

POLK DE SOELEN,  
EDWARD CROMWELL DISBROWE.

By the Plenipotentiary of her Majesty, on the exchange of the Ratifying Treaty.

The exchange of the ratifications of commerce and navigation between the Queen of the United Kingdom of Great Britain and Ireland and his Majesty the King of the Netherlands, concluded at the Hague on the 27th of October,

1837, the undersigned, plenipotentiary of her Britannic Majesty, is commanded by her Majesty to explain and declare that her Majesty has ratified the said treaty, notwithstanding that the preamble contains the words 'in Europe,' which her Majesty's Government had objected to as redundant; but that her Majesty considers those words to be without meaning, so far as her Majesty's dominions are concerned; because those words appear to establish a distinction between a kingdom in Europe and a kingdom out of Europe, whereas, by the word 'kingdom,' in the said treaty, her Majesty, as far as regards her own territories, means only the United Kingdom of Great Britain and Ireland, which is well known to be in Europe, and does not mean any of the possessions of her Majesty's crown beyond sea. Her Majesty's ratification of the said treaty is exchanged under the explicit declaration and understanding above mentioned.

Done at the Hague, the 22nd day of November, 1837.

EDWARD CROMWELL DISBROWE.

*Counter-Declaration of the Plenipotentiary of his Majesty the King of the Netherlands.*

The plenipotentiary of her Britannic Majesty having, previously to the exchange of the ratifications of the treaty of commerce and navigation, concluded on the 27th of October, 1837, between his Majesty the King of the Netherlands and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, delivered to the undersigned, plenipotentiary of his Majesty the King of the Netherlands, a declaration stating that her Britannic Majesty had not in view in the said treaty the possessions of her crown beyond sea; the undersigned is charged by his Majesty the King of the Netherlands to declare that his said Majesty accepts the above-mentioned declaration, and that he likewise, on his part, has not meant to comprise in the said treaty the possessions of his crown beyond sea.

With regard to the observations made as to the use of the words 'in Europe,' the Cabinet of the Netherlands is of opinion, that their interpretation is to be found in the circumstance, that the phrase 'in Europe' applies to the word 'ports,' and not to the word 'kingdom.'

The Hague, the 22nd of November, 1837.

VERSTOLK DE SOELEN.

#### PERSIA.

*Treaty of Commerce between her Majesty and the Shah of Persia. Signed at Tehran, October 28, 1841.*

Article 1. The merchants of the two mighty states are reciprocally permitted and allowed to carry into each other's territories their goods and manufactures of every description, and to sell or exchange them in any part of their respective countries; and on the goods which they import or export, custom duties shall be levied; that is to say, on entering the country, the same amount of custom duties shall be levied, once for all, that is levied on merchandise imported by the merchants of the most favoured European nations; and at the time of going out of the country, the same amount of custom duties which is levied on the merchandise of merchants of the most favoured European nations shall be levied from the merchants, subjects of the high contracting parties; and except this, no claim shall be made upon the merchants of the two states in each other's dominions on any pretext or under any denomination; and the merchants or persons connected with

or dependent upon the high contracting parties in each other's dominions, mutually, shall receive the same aid and support, and the same respect, which are received by the subjects of the most favoured nations.

2. As it is necessary, for the purpose of attending to the affairs of the merchants of the two parties respectively, that from both Governments commercial agents should be appointed to reside in stated places; it is therefore proposed that two commercial agents on the part of the British Government shall reside, one in the capital, and one in Tabreez, and in those places only, and on this condition, that he who shall reside at Tabreez, and he alone, shall be honoured with the privileges of consul-general; and as for a series of years a resident of the British Government has resided at Bushire, the Persian Government grants permission that the said resident shall reside there as heretofore. And, in like manner, two commercial agents shall reside on the part of the Persian Government, one in the capital of London, and one in the port of Bombay, and shall enjoy the same rank and privileges which the commercial agents of the British Government shall enjoy in Persia.

3. This commercial treaty, we, the plenipotentiaries of the high contracting parties, have agreed to; and in witness thereof, have set thereto our hands and seals, at the capital city of Tehran, this 28th day of October, in the year of our Lord 1841, corresponding to the 12th day of the month Ramazan, in the year of the Hejira 1257.

JOHN M'NEILL,

MEERZA ABUL HASSAN KHAN.

#### PERU-BOLIVIAN CONFEDERATION.

*Treaty of Amity, Commerce, and Navigation between His Majesty and the Peru-Bolivian Confederation, together with 2 additional Articles thereunto annexed, of June 5, 1837.*

Article 1. There shall be perpetual amity between the dominions and subjects of his Majesty the King of the United Kingdom of Great Britain and Ireland, his heirs and successors, and the Peru-Bolivian confederation and its citizens.

2. There shall be, between all the territories of his Britannic Majesty in Europe, and the territories of the Peru-Bolivian confederation, a reciprocal freedom of commerce. The subjects and citizens of the two countries respectively shall have liberty freely and securely to come with their ships and cargoes to all places, ports, and rivers in the territories aforesaid, to which other foreigners are or may be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purpose of their commerce; and generally, the merchants and traders of each nation, respectively, shall enjoy the most complete protection and security for their commerce; subject always to the laws and statutes of the two countries respectively.

In like manner, the respective ships of war and post-office packets of the two countries shall have liberty freely and securely to come to all harbours, rivers, and places to which other foreign ships of war and packets are or may be permitted to come, to enter into the same, to anchor, and to remain there and rest; subject always to the laws and statutes of the two countries respectively.

By the right of entering the places, ports, and rivers mentioned in this article, the privilege of carrying on the coasting trade is not understood,

in which national vessels only are permitted to engage.

3. His Majesty the King of the United Kingdom of Great Britain and Ireland engages further, that the inhabitants of the Peru-Bolivian confederation shall have the like liberty of commerce and navigation stipulated for in the preceding article, in all his dominions situated out of Europe, to the full extent in which the same is permitted at present, or may be permitted hereafter, to any other nation.

4. No higher or other duties shall be imposed on the importation into the dominions of his Britannic Majesty of any article of the growth, produce, or manufacture of the Peru-Bolivian confederation, and no higher or other duties shall be imposed on the importation into the territories of the Peru-Bolivian confederation of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed in the territories or dominions of either of the contracting parties, on the exportation of any articles to the territories or dominions of the other, than such as are or may be payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation or importation of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, or of the said territories of the Peru-Bolivian confederation, to or from the said dominions of his Britannic Majesty, or to or from the said territories of the Peru-Bolivian confederation, which shall not equally extend to all other nations.

5. No higher or other duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed in any of the ports of the Peru-Bolivian confederation, on British vessels, than those payable in the same ports, by Peru-Bolivian vessels; nor in the ports of his Britannic Majesty's territories, on Peru-Bolivian vessels, than shall be payable in the same ports on British vessels.

6. The same duties shall be paid on the importation into the territories of the Peru-Bolivian confederation of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such importation shall be in Peru-Bolivian or in British vessels; and the same duties shall be paid on the importation into the dominions of his Britannic Majesty, of any article the growth, produce, or manufacture of the territories of the Peru-Bolivian confederation, whether such importation shall be in British or in Peru-Bolivian vessels. The same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation to the ports of the Peru-Bolivian confederation, of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such exportation shall be in Peru-Bolivian or British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any articles the growth, produce, or manufacture of the Peru-Bolivian confederation, to his Britannic Majesty's dominions, whether such exportation shall be in British or in Peru-Bolivian vessels.

7. In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British or Peru-Bolivian vessel, it is hereby agreed that no ship shall be admitted to be a ship of either country, unless she shall be

of the built of such country, or have been made prize of war to such country, and condemned a such; or have been forfeited to such country under any law of the same made for the prevention of the slave trade, and condemned in any competent court as forfeiture for a breach of such law; nor unless she be navigated by a master who is a subject of such country, and by a crew, of whom at least are subjects of such country; nor unless she be wholly owned by subjects of such country, usually residing therein, or under the dominion thereof; excepting where the laws provide for any extreme cases. And it is further agreed, that no ship, admitted to be a ship of either country, shall be qualified to trade as above described, under the provisions of this treaty, unless furnished with a register, passport, or sea-letter, under the signature of the proper person authorised to grant the same, according to the laws of the respective countries (the form of which shall be communicated), certifying the name, occupation, and residence of the owner or owners, in the dominions of his Britannic Majesty, or in the territories of the Peru-Bolivian confederation, as the case may be, and that he or they is or are the sole owner or owners, in the proportion to be specified; together with the name, burden, and description of the vessel, as to build and measurement, and the several particulars constituting the national character of the vessel, as the case may be.

8. All merchants, commanders of ships, and others, the subjects of his Britannic Majesty, shall have full liberty, in all the territories of the Peru-Bolivian confederation, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter; nor shall they be obliged to employ any other persons for those purposes than those employed by Peru-Bolivians; nor to pay them any other salary or remuneration than such as is paid, in like cases, by Peru-Bolivian citizens; and absolute freedom shall be allowed, in all cases, to the buyer and seller to bargain and fix the price of any goods, wares, or merchandise imported into or exported from the Peru-Bolivian confederation, as they shall see good, observing the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of his Britannic Majesty, by the citizens of the Peru-Bolivian confederation, under the same conditions.

The citizens and subjects of the contracting parties, in the territories of each other, shall receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries respectively, for the prosecution and defence of their just rights; and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents, of whatever description, whom they may think proper; and they shall enjoy, in this respect, the same rights and privileges therein as native citizens.

9. In whatever relates to the police of the ports, the lading and unlading of ships, the safety of merchandise, goods, and effects, the succession to personal estates by will or otherwise, and the disposal of personal property of every sort and denomination, by sale, donation, exchange, or testament, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the two contracting parties shall enjoy, in their respective dominions and territories, the same privileges, liberties, and rights, as native subjects; and shall not be charged, in any of these respects, with any higher imposts or



advantage of the reciprocity established by the Articles 5, 6, and 7 of the treaty signed this day, if that part of the 7th Article which stipulates that, in order to be considered as a Peru-Bolivian ship, a ship shall actually have been built in the Peru-Bolivian confederation, should be strictly and literally observed, and immediately brought into operation; it is agreed that, for the space of 15 years, to be reckoned from the date of the exchange of the ratifications of this treaty, any ships, wheresoever built, being bona fide the property of and wholly owned by one or more citizens of the Peru-Bolivian confederation, and whereof the masters and three-fourths of the mariners, at least, are also natural-born citizens of the Peru-Bolivian confederation, or persons domiciliated in the Peru-Bolivian confederation by act of the Government, as lawful subjects of Peru-Bolivian confederation, to be certified according to the laws of that country, shall be considered as Peru-Bolivian ships; his Majesty the King of the United Kingdom of Great Britain and Ireland reserving to himself the right, at the end of the said term of 15 years, to claim the principle of reciprocal restriction stipulated for in the Article 7 above referred to, if the interests of British navigation shall be found to be prejudiced by the present exception to that reciprocity in favour of Peru-Bolivian shipping.

2. It is further agreed that, for the like term of 15 years, the stipulations contained in the Articles 5 and 6 of the present treaty shall be suspended; and, in lieu thereof, it is hereby agreed that, until the expiration of the said term of 15 years, British ships entering into the ports of the Peru-Bolivian confederation, from the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, and all articles, the growth, produce, or manufacture of the United Kingdom, or of any of the said dominions, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and reciprocally, it is agreed that Peru-Bolivian ships entering into the ports of the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, from any port of the Peru-Bolivian confederation, and all articles, the growth, produce, or manufacture of the said confederation, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and that no higher duties shall be paid, or bounties or drawbacks allowed, on the exportation of any article, the growth, produce, or manufacture of the dominions of either country, in the ships of the other, than upon the exportation of the like articles in the ships of any other foreign country.

It being understood that, at the end of the said term of 15 years, the stipulations of the said 5th and 6th Articles shall from thenceforward be in full force between the two countries.

The present additional articles shall have the same force and validity as if they were inserted, word for word, in the treaty signed this day. They shall be ratified, and the ratification shall be exchanged at the same time.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at Lima, 5th of June, 1837.

BELFOID HINTON WILSON.  
LORENZO BAZO.

*Treaty of Friendship, Commerce, and Navigation between her Majesty and the Republic of Peru Signed at London, April 10, 1850. Ratifications exchanged at London, October 15, 1852.*

Article 1. There shall be perpetual friendship between her Majesty the Queen of the United Kingdom of Great Britain and Ireland, her heirs and successors, and the Republic of Peru, and between their respective subjects and citizens.

2. There shall be, between all the dominions of her Britannic Majesty and the territories of the Republic of Peru, a reciprocal freedom of commerce. The subjects and citizens of each of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places, ports, and rivers in the territories of the other, where trade with other nations is permitted. They may remain and reside in any part of the said territories respectively; and hire and occupy the houses and warehouses which they may require; and may trade by wholesale or retail in all kinds of produce, manufactures, and merchandise of lawful commerce, enjoying the same exemptions and privileges as native subjects or citizens, and subject always to the same laws, decrees, and established customs as native subjects or citizens.

In like manner, the ships of war and post-office packets of each country, respectively, shall have liberty to enter into all harbours, rivers, and places, within the territories of the other, to which the ships of war and packets of other nations are or may be permitted to come, to anchor there, and to remain and relit; subject always to the laws and regulations of each country respectively.

The stipulations of this article do not apply to the coasting trade, which each country reserves to itself respectively, and shall regulate according to its own laws.

3. The two high contracting parties hereby agree that any favour, privilege, or immunity whatever, in matters of commerce or navigation, which either contracting party has actually granted, or may hereafter grant, to the subjects or citizens of any other State, shall be extended to the subjects or citizens of the other contracting party, gratuitously, if the concession in favour of that other State shall have been gratuitous, or in return for an equivalent compensation if the concession shall have been conditional.

4. No other or higher duties shall be imposed on the importation into the dominions of her Britannic Majesty, of any article of the growth, produce, or manufacture of the Republic of Peru; and no other or higher duties shall be imposed on the importation into the Republic of Peru, of any article of the growth, produce, or manufacture of her Britannic Majesty's dominions, than are or shall be payable on the like article, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed in the dominions or territories of either of the contracting parties, on the exportation of any article to the dominions or territories of the other, than such as are or may be payable on the exportation of the like article to any other foreign country. No prohibition shall be imposed upon the importation of any article the growth, produce, or manufacture of the territories of either of the two contracting parties into the territories of the other, which shall not equally extend to the importation of the like article, being the growth, produce, or manufacture of any other country. Nor shall any prohibition be imposed upon the exportation of any article from the territories of either of the two contracting parties to the territories of the other, which shall not equally extend to the exportation

of the like article to the territories of all other nations.

5. No other or higher duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed, in any of the ports of the Republic of Peru, on British vessels of the burden of above 200 tons, than those payable in the same ports by Peruvian vessels of the same burden; nor, in the ports of her Britannic Majesty's territories on Peruvian vessels of the burden of above 200 tons, than shall be payable in the same ports by British vessels of the same burden.

6. The same duties shall be paid on the importation of any article which is or may be legally importable into the Republic of Peru, whether such importation shall be in Peruvian or in British vessels; and the same duties shall be paid on the importation of any article which is or may be legally importable into the dominions of her Britannic Majesty, whether such importation shall be in British or in Peruvian vessels. The same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any article which is or may be legally exportable from the Republic of Peru, whether such exportation shall be in Peruvian or in British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any article which is or may be legally exportable from her Britannic Majesty's dominions, whether such exportation shall be in British or in Peruvian vessels.

7. All merchants, commanders of ships and others, the subjects or citizens of each country respectively, shall have full liberty, in all the territories of the other, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as agent, broker, factor, or interpreter; and they shall not be obliged to employ any other persons than those employed by natives, nor to pay to such persons as they shall think fit to employ, any higher salary or remuneration than such as is paid, in like cases, by natives.

The subjects of her Britannic Majesty in Peru, and the citizens of Peru, in the dominions of her Britannic Majesty, shall enjoy the same full liberty which is now or may hereafter be enjoyed by natives of each country respectively, to buy from and sell to whom they like, all articles of lawful commerce, and to fix the prices thereof as they shall see good, without being prejudiced by any privilege granted to other individuals to buy or sell; subject, however, to the general contributions or imposts established by law.

The subjects and citizens of either of the contracting parties, in the territories of the other, shall enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice for the prosecution and defence of their just rights: and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents, of whatever description, whom they may think proper; and they shall enjoy in this respect the same rights and privileges as native subjects or citizens.

8. In whatever relates to the police of the ports, the lading and unlading of ships, the warehousing and safety of merchandise, goods, and effects, the succession to personal estates by will or otherwise, and the disposal of personal property of every sort and denomination by sale, donation, exchange, or testament, or in any other manner whatsoever, as also with regard to the administration of justice, the subjects and citizens of each contracting party

shall enjoy, in the dominions or territories of the other, the same privileges, liberties, and rights, as native subjects or citizens; and shall not be charged, in any of these respects, with any other or higher imposts or duties than those which are or may be paid by native subjects or citizens; subject always to the local laws and regulations of such dominions or territories.

In the event of any subject or citizen of either of the two contracting parties dying without will or testament, in the dominions or territories of the other contracting party, the consul-general, consul, or vice-consul of the nation to which the deceased may belong shall, so far as the laws of each country will permit, take charge of the property which the deceased may have left, for the benefit of his lawful heirs and creditors, until an executor or administrator be named according to the laws of the country in which the deceased shall have taken place.

9. The subjects of her Britannic Majesty residing in the Republic of Peru, and the citizens of the Republic of Peru residing in the dominions of her Britannic Majesty, shall be exempted from all compulsory military service whatsoever, whether by sea or land, and from all forced loans or military exactions or requisitions; and they shall not be compelled, under any pretext whatsoever, to pay any ordinary charges, requisitions, or taxes, other or higher than those that are or may be paid by native subjects or citizens.

10. Each of the two contracting parties agrees that it will not knowingly receive into, or retain in, its service, any subjects or citizens of the other party who have deserted from the naval or military service of that other party; but that, on the contrary, each shall respectively discharge from its service any such deserters, upon being required by the other party so to do.

And it is further agreed, that if any of the crew shall desert from the vessels of war or merchant-vessels of either contracting party, while such vessels are within any port in the territory of the other party, the authorities of such port and territory shall be bound to give every assistance in their power for the apprehension of such deserters, on application to that effect being made by the consul of the party concerned, or by the deputy or representative of the consul; and no public body whatever shall protect or harbour such deserters.

It is further agreed and declared, that any other favour or facility with respect to the recovery of deserters, which either of the contracting parties has granted, or may hereafter grant, to any other State, shall be granted also to the other contracting party, in the same manner as if such favour or facility had been expressly stipulated by the present treaty.

11. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but before any consul shall act as such, he shall, in the usual form, be approved and admitted by the Government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be excepted.

The diplomatic agents and consuls of her Britannic Majesty in the Republic of Peru shall enjoy whatever privileges, exemptions, and immunities, are or may be there granted to the diplomatic agents and consuls of the same rank of the most favoured nation; and in like manner, the diplomatic agents and consuls of the Republic of Peru in the dominions of her Britannic Majesty shall enjoy whatever privileges, exemptions, and im-

Commerce, and Navigation  
and the Republic of Peru.  
April 10, 1850. Ratified  
London, October 15, 1852.

shall be perpetual friendship  
by the Queen of the United  
Britain and Ireland, her heirs  
and the Republic of Peru, and  
their native subjects and citizens.

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nunities, are or may be there granted to agents of the same rank of the most favoured nation.

12. For the better security of commerce between the subjects of her Britannic Majesty and the citizens of the Republic of Peru, it is agreed that if, at any time, any interruption of friendly intercourse, or any rupture should unfortunately take place between the two contracting parties, the subjects or citizens of either the two contracting parties, residing upon the coasts, shall be allowed 6 months, and those residing in the interior a year, to wind up their accounts, and dispose of their property; and a safe-conduct shall be given them to embark at the port which they shall themselves select. All subjects or citizens of either of the two contracting parties who may be established in the dominions or territories of the other, in the exercise of any trade or special employment, shall have the privilege of remaining and continuing such trade or employment therein, without any manner of interruption, in full enjoyment of their liberty and property, as long as they behave peaceably, and commit no offence against the laws; and their goods and effects, of whatever description they may be, whether in their own custody, or entrusted to individuals or to the State, shall not be liable to seizure or sequestration, or to any other charges or demands than those which may be made upon the like effects or property belonging to native subjects or citizens. In the same case, debts between individuals, public funds, and the shares of companies, shall never be confiscated, sequestered, or detained.

13. The subjects or citizens of either of the two contracting parties, residing in the dominions or territories of the other, shall continue to enjoy, as hitherto, in regard to their houses, persons, and properties, the protection of the Government.

In like manner, the subjects and citizens of each contracting party shall enjoy, in the dominions or territories of the other, full liberty of conscience, and shall not be molested on account of their religious belief, provided they respect the established laws and customs; and such of those subjects and citizens as may die in the territories of the other party, shall be buried in the public cemeteries or accustomed places, with suitable decorum and respect.

14. If any ship of war or merchant-vessel of either of the contracting parties should be wrecked on the coasts of the other, such ship or vessel, or any parts thereof, and all furniture and appurtenances belonging thereunto, and all goods, and merchandise which shall be saved therefrom, or the produce thereof, if sold, shall be faithfully restored to the proprietors, upon being claimed by them or by their duly authorised agents; and if there are no such proprietors or agents on the spot, then the said goods and merchandise, or the proceeds thereof, as well as all the papers found on board such wrecked ship or vessel, shall be delivered to the British or Peruvian consul in whose district the wreck may have taken place; and such consul, proprietors, or agents, shall pay only the expenses incurred in the preservation of the property, together with the rate of salvage which would have been payable in the like case of a wreck of a national vessel. The goods and merchandise saved from the wreck shall not be subject to duties, unless cleared for consumption.

15. The Republic of Peru engages to co-operate with her Britannic Majesty for the total abolition of the slave trade, and to prohibit all persons inhabiting the territories of the Republic, or subject to its jurisdiction, in the most effectual manner, and by penal laws, from taking any share in such trade.

16. In order that the two contracting parties may have the opportunity of hereafter treating and agreeing upon such other arrangements as may tend still further to the improvement of the mutual intercourse, and to the advancement of the interests of their respective subjects and citizens, it is agreed that, at any time after the expiration of seven years from the date of the exchange of the ratifications of the present treaty, either of the contracting parties shall have the right of giving to the other party notice of its intention to terminate Articles 3, 4, 5, and 6, of the present treaty; and that at the expiration of 12 months after such notice shall have been received by either party from the other, the said Articles, and all the stipulations contained therein, shall cease to be binding on the two contracting parties.

17. The present treaty shall be ratified by her Britannic Majesty the Queen of the United Kingdom of Great Britain and Ireland, and by the President of the Republic of Peru, with the authority of the congress; and the ratifications shall be exchanged at London in 2 years, or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London the 10th day of April, in the year of our Lord 1850.

PALMERSTON.  
H. LANOUCHERE.  
JOAQUIN J. DE OSMO.

*Declaration made by the British Plenipotentiary on the exchange of the Ratifications of the preceding Treaty.*

Whereas by the second paragraph of Article 10 of the treaty of friendship, commerce, and navigation, between her Majesty the Queen of the United Kingdom of Great Britain and Ireland and the Republic of Peru, concluded and signed at London on the 10th of April, 1850, it was stipulated, that if any of the crew shall desert from the vessels of war or merchant-vessels of either contracting party, while such vessels are within any port in the territory of the other party, the authorities of such port and territory shall be bound to give every assistance in their power for the apprehension of such deserters, on application to that effect being made by the consul of the party concerned, or by the deputy or representative of the consul; and that no public body whatever shall protect or harbour such deserters:

And whereas the power of apprehending such deserters in the British dominions is by law confined to seamen, not being slaves, who may desert from merchant ships belonging to the subjects of a foreign Power:

The undersigned, plenipotentiary of her Britannic Majesty, in proceeding to the exchange of the ratifications of the treaty above mentioned, therefore declares, that the ratifications are exchanged on the understanding that the above quoted stipulations of Article 10 thereof shall, in the British dominions, be held to be applicable only to seamen, not being slaves, who may desert from merchant-ships belonging to citizens of the Republic of Peru.

London, October 15, 1852.

MALMESBURY.

PORTUGAL.

*Treaty of Commerce between Great Britain and Portugal. Signed at Lisbon, December 27, 1763.*

Article 1. His Sacred Royal Majesty of Portugal promises, both in his own name and that of his

the two contracting parties mutually of hereafter treating such other arrangements as may be to the improvement of their and to the advancement of their respective subjects and that, at any time after the years from the date of the ratifications of the present treaty, the contracting parties shall have the other party notice of its Articles 3, 4, 5, and 6, and that at the expiration of which notice shall have been given from the other, the said stipulations contained therein, binding on the two contracting

treaty shall be ratified by her Majesty the Queen of the United Kingdom and Ireland, and by the Republic of Peru, with the assent; and the ratifications shall be made in 2 years, or sooner if

of the respective plenipotentiaries the same, and have affixed their seals.  
the 10th day of April, in the year 1850.

PALMERSTON.  
H. LABOUCHÈRE.  
JOAQUÍN J. DE OSMÁ.

by the British Plenipotentiary on the Ratifications of the preceding

second paragraph of Article 10 of the treaty of friendship, commerce, and navigation between Her Majesty the Queen of the United Kingdom and Ireland and the Republic of Peru, concluded and signed at Lisbon, on the 27th of April, 1850, it was stipulated that the crew shall desert from any merchant-vessels of either party, while such vessels are within the territorial waters of the other party, the port and territory shall be free to the other party, and they shall be free to give any assistance in their power for the apprehension of such deserters, on application made by the consul of the other party, or by the deputy or representative of the consul, and that no public body whatever shall be allowed to harbour such deserters:

the power of apprehending such deserters in the British dominions is by law confined to those who may desert from any vessel belonging to the subjects of the

British plenipotentiary of her Majesty the Queen of the United Kingdom and Ireland, proceeding to the exchange of the ratifications of the treaty above mentioned, and that the ratifications are exchanged, understanding that the above stipulations of Article 10 thereof shall, in all cases, be held to be applicable to those who may desert from any vessel belonging to citizens of the

the 15th, 1852.

MALMESBURY.

PORTUGAL.  
Treaty of Commerce and Navigation between Great Britain and Portugal, signed at Lisbon, December 27, 1703.  
Sacred Royal Majesty of Portugal in his own name and that of his

successors, to admit, for ever hereafter, into Portugal, the woollen cloths, and the rest of the woollen manufactures of the Britons, as was accustomed till they were prohibited by the laws; nevertheless, upon this condition:

2. That is to say, that her Sacred Royal Majesty of Great Britain shall, in her own name and that of her successors, be obliged for ever hereafter to admit the wines of the growth of Portugal into Britain; so that at no time, whether there shall be peace or war between the kingdoms of Britain and France, anything more shall be demanded for these wines, by the name of custom or duty, or by whatsoever other title, directly or indirectly, whether they shall be imported into Great Britain in pipes or hogsheds, or other casks, than what shall be demanded from the like quantity or measure of French wine, deducting or abating a third part of the custom or duty: but if at any time this deduction or abatement of customs which is to be made as aforesaid, shall in any manner be attempted and prejudicial, it shall be just and lawful for his Sacred Royal Majesty of Portugal again to prohibit the woollen cloths, and the rest of the British woollen manufactures.

3. The most excellent lords the plenipotentiaries promise, and take upon themselves, that their above-named masters shall ratify this treaty, and that within the space of 2 months the ratifications shall be exchanged.

Given at Lisbon, the 27th of December, 1703.

JOHN METUEN.  
MARCHIS ALLEGRENTENSIS.

Treaty of Commerce and Navigation between Her Majesty and the Queen of Portugal. Signed at Lisbon, July 3, 1842.

Article 1. The subjects of each of the high contracting parties shall, in the dominions of the other, enjoy all the privileges, immunities, and protection enjoyed by the subjects of the most favoured nation. They shall be entitled to travel, to reside, to occupy dwellings and warehouses, and to dispose of their personal, leasehold, and all other property lawfully held by them, by sale, gift, exchange, or will, or in any other way whatever, without the smallest let, and without any hindrance whatever.

They shall be exempt from forced loans, or any other extraordinary contributions not general, or not by law established, and from all military service by sea or by land. Their dwellings, warehouses, and everything belonging thereto, shall be respected, and shall not be subjected to any arbitrary visit or search. No examination or inspection shall be made of their books, papers, or accounts, without the legal sentence of a competent court or judge.

The assessment of the amount to be paid by the British subjects in Portugal and its dominions for *manco* or *decima industrial*, and from which they have hitherto enjoyed special exemption, shall in all cases in future be made, if so claimed by them, according to the rate to be given by *informadores*, of whom two shall be Portuguese and two British merchants, to be named by the *Concilio de Districto*; and in case any objection should be made by the parties assessed to the amount of the said assessment (which shall in all cases bear a just proportion to the rate at which the native subjects of Portugal are assessed), they shall have a right to appeal to the tribunal of the Treasury, and to appear in person, or to be heard by counsel, before the said tribunal; and in the meantime no execution shall be made on their property, until an

ultimate decision shall have been pronounced by the said tribunal.

It is, however, understood that British subjects resident in Portugal and its dominions, not carrying on trade, or exercising any branch of industry therein, but deriving their incomes from other sources, shall, in like manner with Portuguese subjects, be wholly exempt from the operation of the said *manco* or *decima industrial* tax.

The subjects of each of the high contracting parties shall also, within the dominions of the other, be allowed the free use and exercise of their religion, without being in any manner disturbed on account of their religious opinions: they shall be allowed to assemble together for the purposes of public worship, and to celebrate the rites of their religion in their own dwelling-houses, or in the chapels and places of worship appointed for that purpose, without any the smallest hindrance or interruption whatever, either now or hereafter; and her Most Faithful Majesty does now and for ever graciously grant to the subjects of her Britannic Majesty permission to build and maintain such chapels and places of worship within her dominions. It being always understood that the said chapels and places of worship are not to have steeples and bells.

Her Britannic Majesty's subjects shall likewise have full liberty to bury their dead, after the manner and with the ceremonies usual in their respective countries, and in the grounds and cemeteries which they shall have purchased and prepared for that purpose; and the sepulchres of the dead, in conformity to ancient and existing practice, shall in no way or on any account be disturbed.

2. The subjects of either of the contracting parties may freely dispose by will of the personal effects which they shall possess in the territories of the other; and their heirs, though subjects of the other contracting party, may succeed to their personal effects, either by will or ab intestato, and may obtain possession of the same in due course of law, either in person, or by other persons appointed by them to act on their behalf. In the event of the absence of heirs, or of persons duly appointed to act for them, the consul may be authorised to take charge, in due course of law, of the said effects, until the owner shall have made the necessary arrangements for obtaining possession of the property. If disputes shall arise between several claimants with respect to the title which each may have to the property, such disputes shall be decided by the courts of the country in which the property is situated; and if hereafter any favour as regards the possession or inheritance of landed or funded property (*biens fonds*) shall be granted, in the dominions of either of the high contracting parties, to the subjects of any other nation, the same favour shall extend reciprocally to their respective subjects, as the case may be, either in Portugal or Great Britain.

3. The subjects of either contracting party residing within the dominions of the other, shall be free to manage their own affairs themselves, or to commit those affairs to the management of any persons whom they may appoint as their broker, factor, agent, or interpreter; nor shall any such British subjects be restrained in their choice of persons to act in such capacities, nor shall they be called upon to pay any salary or remuneration to any person whom they shall not choose to employ. Absolute freedom shall be given, in all cases, to the buyer and seller to bargain together, and to fix the price of any goods, wares, or merchandise, imported into, or to be exported from, the

dominions of either contracting party, the laws and established customs of the country being duly observed.

The subjects of either of the high contracting parties residing within the dominions of the other shall be at liberty to open retail stores and shops, under the same municipal and police regulations as native subjects; and they shall not, in this respect, be liable to any other or higher taxes or imposts than those which are or may be paid by native subjects.

4. There shall be reciprocal liberty of commerce and navigation between the subjects of the two high contracting parties; and the subjects of the two sovereigns respectively shall not pay, in the ports, harbours, roads, cities, towns, or places whatsoever in either kingdom, any other or higher duties, taxes, rates, or imposts, under whatsoever names designated or included, than those which are there paid by the subjects or citizens of the most favoured nation.

No duty of customs or other impost shall be charged upon any goods, the produce of the one country, upon importation by sea or by land from that country into the other, higher than the duty or impost charged upon goods of the same kind, the produce of and imported from any other country; and no duty, restriction, or prohibition shall be imposed upon the importation and exportation from one country to the other, of the goods and produce of each, which shall not be imposed upon goods of the same kind, when imported from or exported to any other country: and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and her Majesty the Queen of Portugal, do hereby bind and engage themselves, their heirs and successors, not to grant any favour, privilege, or immunity, in matters of commerce and navigation, to the subjects or citizens of any other State, which shall not also and at the same time be extended to the subjects of the other high contracting party, gratuitously, if the concession in favour of that other State shall have been gratuitous; and on giving, as nearly as possible, the same compensation or equivalent, if the concession shall have been conditional.

5. No duties of tonnage, and no harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, shall be imposed in either country upon the vessels of the other, in respect of voyages between the two countries, if laden; or in respect of any voyage, if in ballast, which shall not be equally imposed, in the like cases, on national vessels.

6. All goods, the growth, produce, or manufacture of their respective possessions, which can legally be imported into either country from the other, in ships of that other country, shall, when so imported, be subject to the same duties, whether they be imported in ships of the one country or in ships of the other; and in like manner, all goods which can legally be exported from either country to the other, in ships of that other country, shall, when so exported, be subject to the same duties, and be entitled to the same drawbacks, bounties, and allowances, whether they be exported in ships of the one country or in ships of the other.

7. In order to promote and encourage the commercial intercourse between the dominions of the high contracting parties, for the mutual benefit of their respective subjects, her Britannic Majesty and her Most Faithful Majesty agree to take into consideration the duties now levied upon articles the produce or manufacture of either country, with a view to make such reductions in those duties as

may be consistent with the interest of the high contracting parties respectively.

This matter shall without delay be made the subject of a special negotiation between the two Governments.

8. British ships shall be allowed to proceed direct from any port of her Britannic Majesty's dominions to any colony of her Most Faithful Majesty, and to import into such colony any goods the growth, produce, or manufacture of the United Kingdom, or of any of the British dominions, except such goods as are prohibited to be imported into such colony, or which are admitted into it only from the dominions of her Most Faithful Majesty; and such British ships and such goods so imported in them, shall be liable in such colony of her Most Faithful Majesty to no higher or other duties and charges than would be there payable on Portuguese ships importing the like sort of goods, or on the like goods, the growth, produce, or manufacture of any foreign country, and allowed to be imported into the said colony in Portuguese ships.

In like manner, Portuguese ships shall be allowed to proceed direct from any port of her Most Faithful Majesty's dominions to any colony of her Britannic Majesty, and to import into such colony any goods the growth, produce, or manufacture of Portugal, or of any of the Portuguese dominions, except such goods as are prohibited to be imported into such colony, or which are admitted into it only from the dominions of her Britannic Majesty; and such Portuguese ships, and such goods so imported in them, shall be liable, in such colony of her Britannic Majesty, to no higher or other duties and charges than would be there payable on British ships importing the like sort of goods, or on the like goods, the growth, produce, or manufacture of any foreign country, and allowed to be imported into the said colony in British ships.

9. British ships shall be allowed to export from any colony of her Most Faithful Majesty to any place not under the dominion of her said Majesty, any goods not generally prohibited to be exported from such colony; and such British ships, and such goods so exported in them, shall be liable in such colony, to no other or higher charges than would be payable by, and shall be entitled to the same drawbacks or bounties as would be there allowable on, Portuguese ships exporting such goods, or on such goods exported in Portuguese ships.

In like manner Portuguese ships shall be allowed to export from any colony of her Britannic Majesty to any place not under the dominion of her said Majesty, any goods not generally prohibited to be exported from such colony; and such Portuguese ships, and such goods so exported in them, shall be liable in such colony to no other or higher charges than would be payable by, and shall be entitled to the same drawbacks or bounties as would be there allowable on, British ships exporting such goods, or on such goods exported in British ships.

10. It is hereby declared that the stipulations of the present treaty are not to be understood as applying to the navigation and carrying trade between one port and another, situated in the dominions of either contracting party, if such navigation and trade should in those dominions be reserved by law exclusively to national vessels. Vessels of either country shall, however, be permitted to discharge part of their cargoes at one port in the dominions of either of the high contracting parties, and then to proceed, with the remainder of their cargo, to any other port or ports

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in the same dominions, without paying any higher  
or other duties in such cases, than national vessels  
would pay in like circumstances; and they shall  
be permitted to land, in like manner, at different  
ports in the same voyage onwards.

11. The reciprocal liberty of commerce and  
navigation declared and stipulated for by the  
present treaty, shall not extend to contraband of  
war, or to articles the property of the enemies of  
either party.

The power granted by former treaties to carry,  
in the ships of either country, goods and merchan-  
dise of any description whatever, the property of  
the enemies of the other country, is now mutually  
renounced.

12. In all cases in which, in either kingdom, the  
duty to be levied upon any goods imported from  
the other kingdom shall be not a fixed rate, but a  
proportion of the value of the goods, such ad va-  
lorem duty shall be ascertained and secured in the  
following manner; that is to say, the importer  
shall, on making his entry for the payment of  
duty at the custom-house, sign a declaration, stat-  
ing the description and value of the goods at such  
amount as he shall deem proper; and in case the  
officer or officers of the customs shall be of opinion  
that such valuation is insufficient, he or they shall  
be at liberty to take the goods, on paying to the  
importer the value thereof according to the decla-  
ration of the importer, together with an addition  
of 10 per cent.; and the custom-house officer shall,  
at the same time, return to the importer any duty  
which the importer may have paid upon such  
goods; and the amount of these sums shall be  
paid to the importer on the delivery of the goods  
to the said officer or officers, which must not be  
later than 15 days from the first detention of the  
goods.

13. Inasmuch as all merchandise, of whatever  
origin, whether admissible for home consump-  
tion or not, may be received and warehoused in  
all those ports of the United Kingdom of Great  
Britain and Ireland which are by law appointed to  
be warehousing ports for such articles, pending  
the entry of the same, either for home consump-  
tion or for re-exportation, as the case may be,  
under the regulations appointed for this purpose,  
and without such articles being liable, in the  
meantime, to the payment of any of the duties  
with which they would be charged, if upon arrival  
they were entered for consumption within the  
United Kingdom;—in like manner the Queen of  
Portugal consents and agrees that the ports of her  
Most Faithful Majesty's dominions, which now  
are or which shall hereafter become by law, ware-  
housing ports, shall be free ports for receiving and  
warehousing, either for home consumption or for  
re-exportation, as the case may be, all merchan-  
dise imported in British ships, and all articles  
whatever, the produce or manufacture of the  
British dominions, imported by Portuguese ships;  
and the articles thus received and warehoused,  
subject to due regulations, shall not be liable, in  
the meantime, to any of the duties with which  
they would be charged, if they were entered for  
consumption on their arrival in the dominions of  
her Most Faithful Majesty.

14. All goods or merchandise found on board  
of, or which shall have formed the cargo or part  
of the cargo of a vessel of the one country, which  
shall be wrecked, or left derelict, on or near the  
coast of the other country, unless the importation  
of such goods or merchandise shall be absolutely  
prohibited by law, shall be admitted for home  
consumption in the country on or near the coast  
of which such vessel shall be wrecked, or left  
derelict, or such goods or merchandise may be

found, on payment of the same duty, as if the said  
goods or merchandise had been imported in a  
national vessel, even though such goods or mer-  
chandise could not by law be imported into the  
said country in any other than national vessels;  
and in fixing the amount of duty to be paid on  
such goods or merchandise, regard shall be had to  
any damage which the said goods or merchandise  
may have sustained.

To prevent frauds, the Board of Customs of each  
nation shall exercise their judgment as to the  
causes of wrecks; and when they are satisfied  
that the said wrecks were the result of accident  
or misfortune, and free from suspicion of collusion,  
they shall authorise, at the option of the proprie-  
tor or agent, if present, or otherwise of the consul,  
the transhipment, or the sale for home consump-  
tion, of the goods or merchandise, provided that  
such goods and merchandise could have been  
legally imported by the ships of the one country  
into the ports of the other country.

If any ships of war or merchant vessels should  
be wrecked on the coasts of either of the high  
contracting parties, such ships or vessels, or any  
parts thereof, and all furniture and appurtenances  
belonging thereunto, and all goods or merchandise  
which shall be saved therefrom, or the produce  
thereof if sold, shall be faithfully restored to the  
proprietors, upon being duly claimed by them, or  
by their agents duly authorised; or if there are  
no such proprietors or agents on the spot, by the  
respective consuls of the nation to which the pro-  
prietors of the said ships, vessels, or goods may  
belong, and in whose district such wreck may  
have taken place, provided such claim be preferred  
within a year and a day from the time of such  
wreck; and such consul, proprietor, or agent shall  
pay only the expenses incurred in the preservation  
of the property, together with the rate of salvage  
which would have been payable in the like case  
of a wreck of a national vessel; and the goods  
and merchandise saved from the wreck shall not  
be subject to duties, unless cleared for local con-  
sumption.

15. If any merchant vessel of either country  
should be driven into the ports of the other by  
stress of weather, for the purpose of effecting ne-  
cessary repairs, every facility shall be afforded to  
such vessel for obtaining the assistance it may be  
in need of.

The strictest reciprocity shall be observed, in  
the most favourable sense, as to the relief to be  
afforded to such vessel from the duties, charges,  
and expenses in the ports of either nation, to  
which vessels, entering solely for the purposes of  
trade, are subjected. Sufficient time shall be  
allowed for the completion of repairs; and while  
the vessel shall be undergoing repair, its cargo  
shall not unnecessarily be required to be landed,  
either in whole or in part; and any difference of  
opinion which may arise between the custom-  
house authorities and the masters of the said  
vessel, as to the necessity of landing all or any  
part of the cargo, shall be referred to two sworn or  
public surveyors, one to be named by the chief  
custom-house authority of the port, and the other  
by the consul of the nation to which the vessel  
belongs.

Her Majesty the Queen of Portugal engages  
that the commerce of British subjects within the  
Portuguese dominions shall not be restrained,  
interrupted, or otherwise affected by the operation  
of any monopoly, contract, or exclusive privilege  
of sale or purchase whatsoever; but that the  
subjects of the United Kingdom shall have free  
and unrestrained permission to buy from and sell  
to whomsoever they please, and in whatever form

and manner may be agreed upon between the purchaser and seller, without being obliged to give any preference or favour in consequence of any such monopoly, contract, or exclusive privilege of sale and purchase. And her Britannic Majesty engages that a like exemption from restraint in respect to purchases or sales, shall be enjoyed by the subjects of her Most Faithful Majesty trading to or residing in the United Kingdom. But it is distinctly to be understood, that the present article shall not be interpreted as affecting the special regulations now in force, or which may hereafter be enacted, with a view solely to the encouragement and amelioration of the Donro wine trade (it being always understood that British subjects shall in respect of the said trade be placed on the same footing as Portuguese subjects), or with regard to the exportation of the salt of St. Ubes.

This article does not invalidate the exclusive right possessed by the crown of Portugal, within its own dominions, to the farm for the sale of ivory, urzela, gold dust, soap, gunpowder, and tobacco for home consumption: provided, however, that should the above-mentioned articles, generally or separately, ever become articles of free commerce within the dominions of her Most Faithful Majesty, the subjects of her Britannic Majesty shall be permitted to traffic in them as freely and on the same footing as the subjects or citizens of the most favoured nation.

16. It is agreed and covenanted, that neither of the high contracting parties shall knowingly receive into, or retain in its service, any subjects of the other party who have deserted from the naval or military service of that other party; but that, on the contrary, each of the contracting parties shall respectively discharge from its service any such deserters, upon being required by the other party to do so.

It is further agreed and declared, that if either of the high contracting parties shall grant to any State any new favour or facility, with respect to the recovery of deserters, such favour or facility shall be considered as granted also to the other contracting party, in the same manner as if the said favour or facility had been expressly stipulated by the present treaty.

And it is further agreed, that if any apprentices or sailors shall desert from vessels belonging to the subjects of either of the high contracting parties, while such vessels are within any port in the territory of the other party, the magistrates of such port and territory shall be bound to give every assistance in their power for the apprehension of such deserters, on application to that effect being made by the consul of the party concerned, or by the deputy or representative of the consul; and no public body, civil or religious, shall protect or harbour such deserters.

17. Her Britannic Majesty, on the representation of her Most Faithful Majesty, and in contemplation of the improving system of law and justice in Portugal, hereby consents to give up the exercise of the rights connected with the Conservatorial Court, so soon and so long as British subjects are admitted in Portugal to the benefit of securities similar or equivalent to those enjoyed by the subjects of her Most Faithful Majesty in Great Britain, as regards trial by jury, protection from arrest without a warrant from a magistrate, and examination within 24 hours after apprehension, *in flagrante delicto*, and admission to bail. It being always understood, that in other respects the subjects of her Britannic Majesty in Portugal shall be placed on the same footing as Portuguese subjects, in all causes, whether civil or criminal;

and that they shall not, except in cases *flagrantia delicti*, be liable to imprisonment without formal commitment (*culpa formada*) under a warrant signed by legal authority.

18. It is hereby agreed, that her Britannic Majesty, relying upon the guarantees which are or may be afforded to British subjects by the law of Portugal under the present constitutional system, henceforward claims for British subjects in Portugal no privileges which are not enjoyed by Portuguese subjects in the Portuguese or British dominions. It being, however, understood, that her Britannic Majesty will be entitled, in the event (which God forbid) of political troubles affecting the operation of the above-mentioned guarantees, to claim the re-establishment and observance of the privileges surrendered by the present and preceding Article.

19. The present treaty shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years, or at any subsequent time.

And it is hereby agreed between them, that, at the expiration of 12 months after such notice shall have been received by either party from the other, this treaty, and all the provisions thereof, shall altogether cease and determine.

It is agreed, nevertheless, that either of the two high contracting parties shall have the right, at the end of 5 years, to require a revision of any articles not affecting the principle of the treaty, on giving 6 months' notice of a desire to make such revision: provided, however, that it be distinctly understood that the power of giving such notice shall not extend beyond, nor be recognised after, the termination of the fifth year.

The present treaty shall be ratified, and the ratifications shall be exchanged at Lisbon at the expiration of 2 months from the date of its signature, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Lisbon, the 3rd of July, in the year of our Lord 1842.

HOWARD DE WALDEN.  
DUQUE DE PALMELLA.

*True Intent and Spirit of certain Points of Treaty.*

Lisbon, July 3, 1842.

The undersigned, her Britannic Majesty's plenipotentiary for the negotiation of a treaty of commerce and navigation between Great Britain and Portugal, has the honour to declare to his Excellency the Duke of Palmella, that with reference to Article 5, all vessels built in the territory of her most faithful Majesty, or which shall be British built, or which shall have been captured from the enemy by the ships of the Portuguese Government, and slave vessels condemned under similar circumstances, and which shall be wholly owned by any subject or subjects of her Most Faithful Majesty, and whereof the master and three-fourths of the mariners are subjects of her Most Faithful Majesty, will be considered as Portuguese, and will be entitled to be placed on the footing of national vessels, and to be treated on an equality with the vessels of the most favoured nation, in the ports of her Britannic Majesty, i.e., in Great Britain and Ireland and the colonies hereinafter enumerated.

With reference to Article 8, in the words

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of giving such notice  
or be recognised after  
year.

It be ratified, and the  
signed at Lisbon at the  
on the date of its sig-

respective plenipoten-  
taries, and have affixed  
their seals.

Done at London, the 2nd day of April, in the  
year of our Lord 1824.

HOWARD DE WALDEN.  
DUKE DE PALMELLA.

*Certain Points of Treaty.*

Lisbon, July 3, 1842.

Her Britannic Majesty's plenipotentiary, and three-fourths of the plenipotentiaries of Great Britain and Ireland, do hereby declare to his Excellency the Governor-General, that with reference to the territory of her Majesty which shall be British, and which shall be British, when captured from the Portuguese Government, and under similar circumstances, shall be wholly owned by her Majesty, and three-fourths of the plenipotentiaries of Great Britain and Ireland, and will be the footing of national equality with the said nation, in the ports of the United Kingdom, in Great Britain and Ireland, hereinafter enumerated, in article 8, in the words

'growth, produce, and manufacture,' the wines and brandies of Portugal are comprehended.

With reference to Article 14, the jurisdiction of the Cinque Ports does not interfere with the stipulations of this article.

With reference to Article 17, in respect to the declaration of her Britannic Majesty regarding the conditional surrender of the rights connected with the Conservatorial Court, whenever the Portuguese Government shall have officially communicated to her Majesty's Government any law or laws establishing the guarantees in question, her Majesty will recognise the right of the Portuguese Government to declare the further jurisdiction and authority of the British Conservatorial Court to have ceased by consent of her Majesty.

The colonies referred to are Canada, Newfoundland, Nova Scotia, Cape Breton, New Brunswick, Prince Edward Island, and all other British possessions in North America, British West Indies, including the islands and possessions on the continent of South America, Cape of Good Hope, and other possessions in Africa; the Mauritius, the Island of Ceylon, Van Diemen's Land, New South Wales, New Zealand.

HOWARD DE WALDEN.

Lisbon, July 3, 1842.

The undersigned, her Most Faithful Majesty's plenipotentiary, has the honour to declare, by order of the Government, to Lord Howard de Walden, in reference to the Article 1 of the treaty of commerce and navigation, by both concluded and signed to-day, between Portugal and Great Britain, that the maximo that can be collected from any British subject for *mancio* or *decima industrial*, will be 20 per cent. upon the rent of their shops, dwellings, and warehouses, which will serve as an invariable rule to the tribunal of the treasury for deciding the appeals made by British subjects.

DUKE OF PALMELLA.

Lisbon, July 3, 1842.

#### PRUSSIA.

*Convention of Commerce between his Britannic Majesty and the King of Prussia. Signed at London, April 2, 1824.*

Article 1. From and after the 1st of May next, Prussian vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, and British vessels entering or departing from the ports of his Prussian Majesty's dominions, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on national vessels entering or departing from such ports respectively.

2. All articles of the growth, produce, or manufacture of any of the dominions of either of the high contracting parties, which are or shall be permitted to be imported into or exported from the ports of the United Kingdom and of Prussia, respectively, in vessels of the one country, shall, in like manner, be permitted to be imported into and exported from those ports in vessels of the other.

3. All articles not of the growth, produce, or manufacture of the dominions of his Britannic Majesty, which can legally be imported from the United Kingdom of Great Britain and Ireland, into the ports of Prussia, in British ships, shall be subject only to the same duties as are payable upon the like articles if imported in Prussian ships; and the same reciprocity shall be observed in the ports of the United Kingdom, in respect to all articles not the growth, produce, or manufac-

ture of the dominions of his Prussian Majesty, which can legally be imported into the ports of the United Kingdom in Prussian ships.

4. All goods, which can legally be imported into the ports of either country, shall be admitted at the same rate of duty, whether imported in vessels of the other country, or in national vessels; and all goods which can be legally exported from the ports of either country, shall be entitled to the same bounties, drawbacks, and allowances, whether exported in vessels of the other country, or in national vessels.

5. No priority or preference shall be given, directly or indirectly, by the Government of either country, or by any company, corporation, or agent, acting on its behalf or under its authority, in the purchase of any article, the growth, produce, or manufacture of either country, imported into the other, on account of or in reference to the character of the vessel in which such article was imported; it being the true intent and meaning of the high contracting parties that no distinction or difference whatever shall be made in this respect.

6. The present convention shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intent to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other, at the end of the said term of 10 years: and it is hereby agreed between them, that, at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

7. The present convention shall be ratified, and the ratifications shall be exchanged at London, within 1 month from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 2nd day of April, in the year of our Lord 1824.

GEORGE CANNING.  
W. HUSKISSON.  
WERTHER.

An order in council, dated May 25, 1824, directs that, from May 1, 1824, Prussian vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports; that all articles of the growth, produce, or manufacture of any of the dominions of his Prussian Majesty, which are or shall be permitted to be imported into or exported from the ports of the United Kingdom of Great Britain and Ireland in British vessels, shall, in like manner, be permitted to be imported into and exported from the said ports in Prussian vessels; that all articles not of the growth, produce, or manufacture of the dominions of his Prussian Majesty, which can legally be imported from Prussia into the ports of the United Kingdom in Prussian vessels, shall be subject only to the same duties as are payable upon the like articles if imported in British ships; that all goods which can legally be imported into the ports of the United Kingdom shall be admitted at the same rate of duty, when imported in Prussian vessels, that is charged on similar articles imported in British vessels; and that all goods which can be legally exported from the ports of the United Kingdom, shall be entitled to the same bounties,

drawbacks, and allowances, when exported in Prussian vessels, that are granted, paid, or allowed on similar articles when exported in British vessels.

A Treasury letter, dated October 13, 1824, directs, that with respect to pilotage and all other duties charged on vessels belonging to Prussia, Sweden, and Norway, Denmark, Hanover, and Hamburg, which have entered or which may enter the ports of the United Kingdom, either from stress of weather or from any other causes, it was the intention of the lords of the committee of Privy Council for Trade, that such dues should not be higher than are charged upon British vessels, and that it is only to the case of goods imported into this country, and not brought direct from the country to which the vessel belongs, that the equality of duty does not apply.

An order in council, dated May 3, 1823, states, that his Majesty is pleased to declare, that the ships of and belonging to the dominions of his Majesty the King of Prussia are entitled to the privileges granted by the law of navigation, and may import from the dominions of his Majesty the King of Prussia, into any of the British possessions abroad, goods the produce of such dominions, and may export goods from such British possessions abroad, to be carried to any foreign country whatever.

PRUSSIA, BAVARIA &c.

*Convention of Commerce and Navigation between Great Britain, on the one part; and Prussia, Bavaria, Saxony, Wurtemberg, Baden, the Electorate of Hesse, the Grand Duchy of Hesse, the States forming the Commercial Union of Thuringia, Nassau, and Frankfort, on the other part. March 2, 1841.*

Article I. In consideration of the circumstance that British vessels are admitted, together with their cargoes, to entry in the ports of Prussia, and of the other states of the aforementioned Union of Customs, when coming from the ports of all countries, and in consideration of the concessions stipulated in this present convention for British trade with all the states of this Union of Customs; in consideration also of the facility which the application of steam power to inland navigation affords for the conveyance of produce and merchandise of all kinds up and down rivers; and in consideration of the new opening which may by these means be given to the trade and navigation between the United Kingdom and the British possessions abroad on the one hand, and the states now composing the Union of Customs on the other; some of which states use as the natural outlet of their commerce ports not within their own dominions; it is agreed that, from and after the date of the exchange of the ratifications of this present convention, Prussian vessels, and the vessels of the other states forming the said Union of Customs, together with their cargoes, consisting of all such goods as can be legally imported into the United Kingdom and the British possessions abroad, by the said vessels from the ports of the countries to which they respectively belong, shall, when coming from the mouths of the Meuse, of the Ems, of the Weser, and of the Elbe, or from the mouths of any navigable river lying between the Elbe and the Meuse, and forming the means of communication between the sea and the territory of any of the German states which are parties to this treaty, be admitted into the ports of the United Kingdom, and of the British possessions abroad, in as full and ample a manner, as if the ports from which such vessels may have come, as

aforsaid, were within the dominions of Prussia, or of any other of the states aforsaid; and such vessels shall be permitted to import the goods above mentioned upon the same terms on which the said goods might be imported if coming from the national ports of such vessels; and also that, in like manner, such vessels proceeding from Great Britain and her colonial possessions abroad to the places thus referred to, shall be treated as if returning to a Prussian Baltic port: it being understood that these privileges are to extend to the vessels of Prussia and of the states aforsaid, and to their cargoes, only in respect to each of the said ports in which British vessels and their cargoes shall, upon their arrival thereat, and departure therefrom, continue to be placed on the same footing as the vessels of Prussia and of the other states of the union.

2. The King of Prussia, in his own name, and in the name of the states aforsaid, agrees to place, always and in every way, the trade and navigation of the subjects of her Britannic Majesty, in respect to the importation of sugar and rice, upon the same footing as that of the most favoured nation.

3. In the event of other German states joining the Germanic Union of Customs, it is hereby agreed that such other states shall be included in all the stipulations of the present convention.

4. The present convention shall be in force until the 1st of January, 1842, and further for the term of 5 years, provided neither of the high contracting parties shall have given to the other 6 months' previous notice that the same shall cease to be in force on the said 1st of January, 1842; and if neither party shall have given to the other 6 months' previous notice that the present convention shall cease on the first day of January, 1848, then the present convention shall further remain in force until the 1st of January, 1854, and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same, each of the high contracting parties reserving to itself the right of giving such notice to the other; and it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

The present convention shall be ratified, and the ratifications thereof shall be exchanged at London, at the expiration of 2 months, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 2nd day of March, in the year of our Lord 1841.

PALMERSTON.  
H. LADOUCHÈRE.

By an order in council, dated August 28, 1841, it is ordered, that Prussian vessels, and the vessels of the other states forming the German Union of Customs, together with their cargoes, consisting of all such goods as can be legally imported into the United Kingdom and the British possessions abroad, by the said vessels, from the ports of the countries to which they respectively belong, shall, when coming from the mouths of the Meuse, of the Ems, of the Weser, and of the Elbe, or from the mouths of any navigable river, lying between the Elbe and the Meuse, and forming the means of communication between the sea and the territory of any of the German states, which are

dominions of Prussia, and such ed to import the goods the same terms on which imported if coming from a vessels; and also that, vessels proceeding from colonial possessions abroad ed to, shall be treated as if in Baltic port: it being privileges are to extend to and of the states aforesaid, ly in respect to each of the British vessels and their arrival thereat, and to be placed on the vessels of Prussia and of the

in, in his own name, and es aforesaid, agrees to place, away, the trade and navi- of her Britannic Majesty, ortation of sugar and rice, g as that of the most fa-

Other German states joining of Customs, it is hereby states shall be included in the present convention.

vention shall be in force ary, 1842, and further for provided neither of the high all have given to the other notice that the same shall on the said 1st of January.

party shall have given to previous notice that the shall cease on the first day e the present convention in force until the 1st of further, until the end of 12 of the high contracting ven notice to the other of its e the same, each of the high serving to itself the right of o the other; and it is hereby b, that at the expiration of 12 ice shall have been received in the other, this convention, ons thereof, shall altogether

ention shall be ratified, and ereof shall be exchanged at ration of 2 months, or sooner

of, the respective plenipoten- the same, and have affixed their arms.

the 2nd day of March, in the 11.

PALMERSTON.  
H. LABOUCHÈRE.

ouncil, dated August 28, 1811, russian vessels, and the vessels forming the German Union of with their cargoes, consist- s can be legally imported into and the British possessions d vessels, from the ports of the they respectively belong, shall, the mouths of the Meuse, of eser, and of the Elbe, or from navigable river, lying betwee n Meuse, and forming the means between the sea and the ter- the German states, which are

parties to this treaty, be admitted into the ports of the United Kingdom and of the British posses- sions abroad, in as full and ample a manner as if ports from which such vessels may have come as aforesaid, and such vessels shall be permitted to import the goods above-mentioned upon the same terms on which the said goods might be imported from the national ports of such vessels; and also that in like manner such vessels proceed- ing from Great Britain and her colonial posses- sions abroad, to the ports or places thus referred to, shall be treated as if returning to a Prussian Baltic port; it being understood that these privi- leges are to extend to the vessels or Prussia, and the states aforesaid, and to their cargoes only in respect to each of the said states, which British vessels and their cargoes shall, upon their arrival thereat and departure therefrom, continue to be placed upon the same footing as the vessels of Prussia and of the other states of the union.

*Treaty of Commerce between her Majesty and the Zollverein. Signed at Berlin, May 30, 1865. Ratifications exchanged at Berlin, June 30, 1865.*

Article 1. The subjects of her Britannic Majesty who dwell either temporarily or perma- nently in the States of the Zollverein, and the subjects of the States of the Zollverein who dwell either temporarily or permanently in the dominions or possessions of her Britannic Majesty, shall enjoy therein, in respect to the exercise of commerce and trades, the same rights as, and be subjected to no higher or other taxes than, the subjects of any third country the most favoured in those respects.

2. The produce and manufactures of the do- minions and possessions of her Britannic Majesty which may be imported into the Zollverein, and the produce and manufactures of the States of the Zollverein which may be imported into the United Kingdom of Great Britain and Ireland, whether intended for consumption, warehousing, re-exportation, or transit, shall therein be treated in the same manner as, and in particular shall be subject to no higher or other duties than, the produce and manufactures of any third country the most favoured in those respects.

3. No other or higher duties shall be levied in the Zollverein on the exportation of any goods to the dominions and possessions of her Britannic Majesty, nor in the dominions and possessions of her Britannic Majesty on the exportation of any goods to the Zollverein, than are or may be levied on the exportation of the like goods to any third country the most favoured in that respect.

4. The transit of goods to and from the United Kingdom of Great Britain and Ireland shall be free from all transit duties in the Zollverein, and the transit of goods to and from the Zollverein shall be free from all transit duties in the United Kingdom of Great Britain and Ireland.

5. Any favour, privilege, or reduction in the tariff of duties of importation or exportation, which either of the contracting parties may concede to any third Power, shall be extended immediately and unconditionally to the other.

No prohibition of importation or exportation shall be established by either of them against the other, which shall not at the same time be applicable to all other nations.

The contracting parties engage not to prohibit the exportation of coal, and to levy no duty upon such exportation.

The preceding provisions respecting the pro- hibition of exportation shall not invalidate the

obligations which the constitution of the Ger- manic Confederation imposes on the German States which compose the Zollverein.

6. With regard to the marks or labels of goods, or of their packages, and also with regard to patterns and marks of manufacture and trade, the subjects of the States of the Zollverein shall enjoy in the United Kingdom of Great Britain and Ireland, and the subjects of her Britannic Majesty shall enjoy in the States of the Zollverein, the same protection as native subjects.

7. The stipulations of the preceding Articles 1 to 6 shall also be applied to the colonies and foreign possessions of her Britannic Majesty. In those colonies and possessions the produce of the States of the Zollverein shall not be subject to any higher or other import duties than the pro- duce of the United Kingdom of Great Britain and Ireland, or of any other country, of the like kind; nor shall the exportation from those colonies or possessions to the Zollverein be subject to any higher or other duties than the exportation to the United Kingdom of Great Britain and Ireland.

8. The present treaty shall come into force on the 1st of July, 1865, and shall remain in force until the 30th of June, 1877. In case neither of the contracting parties shall, 12 months before the last-mentioned day, have given notice to the other of the intention to terminate the operation of the treaty, then the same shall continue in force until the expiration of one year from the day upon which either of the contracting parties shall have given notice to the other to terminate the same.

9. The present treaty shall be ratified, and the ratifications thereof shall be exchanged at Berlin in three weeks (this term was subsequently ex- tended by protocol to the 30th of June), or sooner if possible.

In witness whereof, the respective plenipoten- tiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Berlin, the 30th day of May, in the year of our Lord 1865.

NAPIER.  
JOHN WARD.  
BISMARCK.  
V. POMMER-ESCHE.  
PHILIPSBORN.  
DELBRÜCK.

#### RUSSIA.

*Treaty of Commerce and Navigation between her Majesty and the Emperor of all the Russias; with three Separate Articles thereunto annexed. Signed at St. Petersburg, January 12, 1859.*

Article 1. There shall be between all the dominions and possessions of the two high contracting parties, reciprocal freedom of commerce and navigation. The subjects of each of the two contracting parties, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places, ports, and rivers in the dominions and possessions of the other, to which other foreigners are or may be permitted to come; and shall, throughout the whole extent of the dominions and possessions of the other, enjoy the same rights, privileges, liberties, favours, immunities, and exemptions in matters of commerce and navigation, which are or may be enjoyed by native subjects generally.

It is understood, however, that the preceding stipulations in no wise affect the laws, decrees, and special regulations regarding commerce, industry, and police, in vigour in each of the

two countries, and generally applicable to all foreigners.

2. No other or higher duties shall be imposed on the importation into the dominion and possessions of her Britannic Majesty, of any article the growth, produce, or manufacture of the dominions and possessions of his Majesty the Emperor of all the Russias, from whatever place arriving, and no other or higher duties shall be imposed on the importation into the dominions and possessions of his Majesty the Emperor of all the Russias, of any article the growth, produce, or manufacture of her Britannic Majesty's dominions and possessions, from whatever place arriving, than are or shall be payable on the like article, the growth, produce, or manufacture of any other foreign country; nor shall any prohibition be imposed on the importation of any article the growth, produce, or manufacture of the dominions and possessions of either of the two contracting parties into the dominions and possessions of the other, which shall not equally extend to the importation of the like articles being the growth, produce, or manufacture of any other country.

3. No other or higher duties or charges shall be imposed in the dominions and possessions of either of the contracting parties, on the exportation of any article to the dominions and possessions of the other, than such as are, or may be, payable on the exportation of the like article to any other foreign country; nor shall any prohibition be imposed on the exportation of any article from the dominions and possessions of either of the two contracting parties to the dominions and possessions of the other, which shall not equally extend to the exportation of the like article to any other country.

4. The same reciprocal equality of treatment shall take effect in regard to warehousing, and to the transit trade, and also in regard to bounties, facilities, and drawbacks, which are or may be hereafter granted by the legislation of either country.

5. All merchandise and articles of commerce, the produce or manufacture either of the dominions and possessions of his Majesty the Emperor of all the Russias, or of any other country, which are or may be legally importable into the ports of the United Kingdom of Great Britain and Ireland, its dominions and possessions, in British vessels, may likewise be imported into those ports in Russian vessels, without being liable to any other or higher duties, of whatever denomination, than if such merchandise and articles were imported in British vessels; and reciprocally, all merchandise and articles of commerce, the produce or manufacture either of the United Kingdom of Great Britain and Ireland, its dominions and possessions, or of any other country, which are or may be legally importable into the ports of the dominions and possessions of his Majesty the Emperor of all the Russias, in Russian vessels, may likewise be imported into those ports in British vessels, without being liable to any other or higher duties, of whatever denomination, than if such merchandise and articles were imported in Russian vessels. Such reciprocal equality of treatment shall take effect without distinction, whether such merchandise and articles come directly from the place of origin, or from any other place.

In the same manner, there shall be perfect equality of treatment in regard to exportation, so that the same export duties shall be paid, and the same bounties and drawbacks allowed, in the dominions and possessions of either of the high contracting parties, on the exportation of any

article which is or may be legally exportable therefrom, without distinction, whether such exportation shall take place in Russian or in British vessels, and whatever may be the place of destination, whether a port of the other contracting party, or of any third power.

6. No duties of tonnage, harbour, pilotage, lighthouse, quarantine, or other similar or corresponding duties of whatever nature, or under whatever denomination, levied in the name or for the profit of Government, public functionaries, private individuals, corporations, or establishments of any kind, shall be imposed in the ports of either country upon the vessels of the other country, which shall not equally and under the same conditions be imposed in the like cases on national vessels in general; the intention of the two high contracting parties being that, save certain exemptions which the shipping of some ports of the United Kingdom of Great Britain and Ireland enjoys from old times, in this respect there shall not exist in their respective dominions and possessions, in regard to the above-mentioned duties, any privilege or preference whatever favouring the national flag to the prejudice of the flag of the other party. Such equality of treatment shall apply reciprocally to the respective vessels, from whatever port or place they may arrive, and whatever may be their place of destination.

7. In all that regards the stationing, loading, and unloading of vessels in the ports, basins, docks, roadsteads, harbours, or rivers of the two countries, no privilege shall be granted to national vessels which shall not be equally granted to vessels of the other country; the intention of the contracting parties being that in this respect also the respective vessels shall be treated on the footing of perfect equality.

8. The stipulations of the preceding articles shall not apply to the coasting trade, which each of the high contracting parties shall regulate according to its own laws.

The vessels of each of the two contracting parties shall, however, be at liberty, according as the captain, proprietor, or other person duly authorised to act as agent for the vessel or cargo, shall consider advisable, to proceed from one port of one of the two States to one or several ports of the same State, in order to discharge the whole or part of their cargo brought from abroad, or in order to take in or complete their cargo, without paying other duties than those to which national vessels are, or may hereafter be liable in similar cases.

9. All vessels which according to the laws of Great Britain are to be deemed British vessels, and all vessels which according to the laws of the Empire of Russia are to be deemed Russian vessels, shall for the purposes of this treaty be deemed British and Russian vessels respectively.

10. Her Britannic Majesty engages that in all matters relating to commerce and navigation, the subjects of his Majesty the Emperor of all the Russias shall, in the British dominions, be entitled to every privilege, favour, and immunity which is actually granted, or may hereafter be granted, by her Britannic Majesty to the subjects or citizens of any other power; and his Majesty the Emperor of all the Russias, actuated by a desire to foster and extend the commercial relations of the two countries, engages that any privilege, favour, or immunity whatever, in regard to commerce and navigation which his Imperial Majesty has actually granted, or may hereafter grant, to the subjects or citizens of any other state, shall be extended to the subjects of her Britannic Majesty.

11. The subjects of either of the two high contracting parties, conforming themselves to the laws of the country, shall have—

(1) Full liberty, with their families, to enter, travel, or reside in any part of the dominions and possessions of the other contracting party.

(2) They shall be permitted, in the towns and parts, to hire or possess the houses, warehouses, shops, and premises, which may be necessary for them.

(3) They may carry on their commerce, either in person or by any agents whom they may think fit to employ.

(4) They shall not be subject, in respect of their persons or property, or in respect of passports, licenses for residence or establishment, nor in respect of their commerce or industry, to any taxes, whether general or local, nor to imposts or obligations of any kind whatever, other or greater than those which are or may be imposed upon native subjects.

12. The dwellings and warehouses of the subjects of either of the two high contracting parties in the dominions and possessions of the other, and all premises appertaining thereto, destined for purposes of residence or commerce, shall be respected. If there should be occasion to make a search of, or a domiciliary visit to, such dwellings and premises, or to examine or inspect books, papers, or accounts, such measure shall be executed only in conformity with the legal warrant or order in writing of a tribunal, or of the competent authority.

The subjects of either of the two contracting parties in the dominions and possessions of the other shall have free access to the courts of justice for the prosecution and defence of their rights. They shall enjoy in this respect the same rights and privileges as subjects of the country, and shall, like them, be at liberty to employ, in all causes, their advocates, attorneys, or agents from among the persons admitted to the exercise of those professions according to the laws of the country.

13. The subjects of either of the two contracting parties in the dominions and possessions of the other shall be at full liberty to acquire, possess, and dispose of every description of property which the laws of the country may permit any foreigners, of whatsoever nation, to acquire and possess. They may acquire and dispose of the same, whether by purchase, sale, donation, exchange, marriage, testament, succession *ab intestato*, or in any other manner, under the same conditions as are established by the laws of the country for all foreigners. Their heirs and representatives may succeed to and take possession of such property, either in person or by agents acting on their behalf, in the same manner and in the same legal forms as subjects of the country. In the absence of heirs and representatives, the property shall be treated in the same manner as the like property belonging to a subject of the country under similar circumstances.

In none of these respects shall they pay upon the value of such property any other or higher impost, duty, or charge, than is payable by subjects of the country. In every case the subjects of the contracting parties shall be permitted to export their property, or the proceeds thereof if sold, freely, and without being subjected on such exportation to pay any duty as foreigners, or any other or higher duties than those to which subjects of the country are liable under similar circumstances.

14. The subjects of either of the two high contracting parties in the dominions and possessions of

the other, shall be exempted from all compulsory military service whatever, whether in the army, navy, or national guard or militia. They shall be equally exempted from all judicial and municipal charges and functions whatever, as well as from all contributions, whether pecuniary or in kind, imposed as a compensation for personal service; and, finally, from forced loans and military exactions or requisitions.

In regard, however, to judicial and municipal charges and functions, those shall be excepted which are consequent upon the possession of real property or of a lease; and in regard to military exactions and requisitions, those which all subjects of the country may be required to furnish as landed proprietors or as farmers.

15. It shall be free for each of the two high contracting parties to appoint consuls-general, consuls, vice-consuls, and consular agents, to reside in the towns and ports of the dominions and possessions of the other. Such consuls-general, consuls, vice-consuls, and consular agents, however, shall not enter upon their functions until after they shall have been approved and admitted in the usual form by the Government to which they are sent. They shall exercise whatever functions, and enjoy whatever privileges, exemptions, and immunities are or shall be granted there to consuls of the most favoured nation.

16. Any ship of war or merchant-vessel of either of the high contracting parties which may be compelled by stress of weather or by accident to take shelter in a port of the other, shall be at liberty to reit therein, to procure all necessary stores, and to put to sea again, without paying any dues other than such as would be payable in a similar case by a national vessel. In case, however, the master of a merchant vessel should be under the necessity of disposing of a part of his merchandise in order to defray his expenses, he shall be bound to conform to the regulations and tariffs of the place to which he may have come.

If any ship of war or merchant vessel of one of the high contracting parties should run aground or be wrecked upon the coasts of the other, such ship or vessel, and all parts thereof, and all furniture and appurtenances belonging thereto, and all goods and merchandise saved therefrom, including any which may have been cast into the sea, or the proceeds thereof if sold, as well as all papers found on board such stranded or wrecked ship or vessel, shall be given up to the owners or their agents when claimed by them. If there are no such owners or agents on the spot, then the same shall be delivered to the British or Russian consul-general, consul, or vice-consul in whose district the wreck or stranding may have taken place, upon being claimed by him within the period fixed by the laws of the country; and such consuls, owners, or agents, shall pay only the expenses incurred in the preservation of the property, together with the salvage, or other expenses, which would have been payable in the like case of a wreck of a national vessel.

The goods and merchandise saved from the wreck shall be exempt from all duties of customs, unless cleared for consumption, in which case they shall pay the same rate of duty as if they had been imported in a national vessel.

In the case either of a vessel being driven in by stress of weather, run aground, or wrecked, the respective consuls-general, consuls, vice-consuls, and consular agents shall, if the owner or master or other agent of the owner is not present, or is present and requires it, be authorised to interpose in order to afford the necessary assistance to their fellow-countrymen.

17. The consuls-general, consuls, vice-consuls, and consular agents of either of the high contracting parties, residing in the dominions and possessions of the other, shall receive from the local authorities such assistance as can by law be given to them for the recovery of deserters from ships of war or merchant vessels of their respective countries.

18. The Ionian Islands being under the protection of her Britannic Majesty, the subjects and vessels of those Islands shall enjoy, in the dominions and possessions of his Majesty the Emperor of Russia, all the advantages which are granted by the present treaty to the subjects and vessels of Great Britain, as soon as the Government of the Ionian Islands shall have agreed to grant the same reciprocal advantages in those Islands to Russian subjects and vessels; it being understood that, in order to prevent abuses, every Ionian vessel claiming the benefits of the present treaty shall be furnished with a patent signed by the lord high commissioner or his representative.

19. The stipulations of the present treaty shall be applicable to all vessels navigating under the Russian flag, without any distinction between the Russian Mercantile Marine, properly so called, and that which belongs more particularly to the Grand Duchy of Finland, which forms an integral part of the empire of Russia.

In regard to commerce and navigation in the Russian possessions on the north-west coast of America, the convention concluded at St. Petersburg on the 16<sup>th</sup> of February, 1825, shall continue in force.

20. The high contracting parties being desirous to secure, each within its own dominions, complete and effectual protection against fraud for the manufactures of the other, have agreed that any piracy, or fraudulent imitation in one of the two countries of the manufacturers' or tradesmen's marks originally affixed, bonâ fide, to goods produced in the other, in attestation of their origin and quality, shall be strictly prohibited and repressed. Her Britannic Majesty engages to recommend to her Parliament to adopt such measures as may be required to enable her to give the more complete execution to the stipulations of this article.

21. The high contracting parties reserve to themselves to determine hereafter, by a special convention, the means of reciprocally protecting copyright in works of literature and of the fine arts, within their respective dominions.

22. The present treaty of commerce and navigation shall remain in force for ten years from the date of the exchange of the ratifications; and further, until the expiration of twelve months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other at the expiration of the first nine years, or at any time afterwards.

The present treaty shall be ratified, and the ratification shall be exchanged at London in six weeks or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at St. Petersburg, this 12th day of January, in the year of our Lord 1859  
December, 1858

JOHN F. CRAMPTON.  
PRINCE A. GORTCHACOW.

1. The commercial intercourse of Russia with the kingdoms of Sweden and Norway being regulated by special stipulations, which may hereafter be renewed, and which do not form part of the regulations applicable to foreign commerce in general, the two high contracting parties, being desirous of removing from their commercial relations every kind of doubt or cause for discussion, have agreed that those special stipulations granted in favour of the commerce of Sweden and Norway, in consideration of equivalent advantages granted in those countries to the commerce of the Grand Duchy of Finland, shall in no case apply to the relations of commerce and navigation established between the two high contracting parties by the present treaty.

11. It is equally understood that the exemptions, immunities, and privileges hereinafter mentioned, shall not be considered as at variance with the principle of reciprocity which forms the basis of the treaty of this date, that is to say:—

1. The exemption from navigation dues during the first three years, which is enjoyed by vessels built in Russia, and belonging to Russian subjects;

2. The permission granted to the inhabitants of the coast of the Government of Archangel, to import duty free, or on payment of moderate duties, into the ports of the said Government, dried or salted fish, as likewise certain kinds of furs, and to export therefrom, in the same manner, corn, rope, and cordage, pitch, and raven-duck;

3. The privilege of the Russian American Company;

4. The immunities granted in Russia to certain English and Netherland Companies, called 'Yacht Clubs.'

111. The present separate articles shall have the same force and validity as if they were inserted, word for word, in the treaty signed this day. They shall be ratified, and the ratifications thereof exchanged at the same time.

In witness whereof &c.

SIAM.

*Treaty of Friendship and Commerce between her Majesty the Queen of the United Kingdom and the Kings of Siam.*

Article 1. There shall henceforward be perpetual peace and friendship between her Majesty and her successors, and their Majesties the Kings of Siam and their successors. All British subjects coming to Siam shall receive from the Siamese Government full protection and assistance to enable them to reside in Siam in all security, and trade with every facility, free from oppression or injury on the part of the Siamese; and all Siamese subjects going to an English country shall receive from the British Government the same complete protection and assistance that shall be granted to British subjects by the Government of Siam.

2. The interests of all British subjects coming to Siam shall be placed under the regulation and control of a consul, who will be appointed to reside at Bangkok; he will himself conform to, and will enforce the observance by British subjects of, all the provisions of this treaty, and such of the former treaty negotiated by Captain Bumeo in 1826, as shall still remain in operation. He shall also give effect to all rules or regulations that are now or may hereafter be enacted for the government of British subjects in Siam, the conduct of their trade, and for the prevention of violations of the laws of Siam. Any disputes

intercourse of Russia with Sweden and Norway being stipulations, which may and which do not form applicable to foreign commerce two high contracting powers, and the necessity of removing from their every kind of doubt or cause of disagreement that those special provisions in favour of the commerce of the said countries, in consideration of the special arrangements granted in those countries by the Grand Duchy of Finland, and in relation to the relations of commerce established between the two countries by the present treaty, are understood that the exemption and privileges hereinafter mentioned are considered as at variance with reciprocity which forms the basis of the said treaty, and from this date, that is to say:—from navigation does during which is enjoyed by vessels belonging to Russian sub-

jects, and the inhabitants of the Government of Archangel, to be on payment of moderate duties of the said Government, and as likewise certain kinds of duties therefrom, in the same manner as codage, pitch, and ravens-

of the Russian American Company, granted in Russia to certain Dutch Companies, called the "Netherlands East India Company," and the ratifications of the said articles shall have the same validity as if they were made in the treaty signed this day, and the ratifications of the said articles shall be made at the same time.

#### SIAM.

*Treaty of Commerce between her Majesty and the United Kingdom and the Kingdom of Siam.*

It shall henceforward be understood that the friendship between her Majesty and their Majesties the King and Queen of Siam shall receive from the British Government full protection and assistance in Siam in all security, and every facility, free from any tax or duty on the part of the Siamese Government, to the British subjects going to an English vessel from the British Government, and complete protection and assistance granted to British subjects by the Government of Siam.

All British subjects coming to Siam shall be placed under the regulation and control of the British Consul, who will be appointed to Siam; he will himself conform to the laws and the observance by British subjects of this treaty, and such regulations as may be negotiated by Captain Burney, and shall remain in operation. The present Act to all rules or regulations which may hereafter be enacted for the British subjects in Siam, the said Act, and for the prevention of the laws of Siam. Any disputes

arising between British and Siamese subjects shall be heard and determined by the consul, in conjunction with the proper Siamese officers; and criminal offences will be punished, in the case of English offenders, by the consul, according to English laws, and in the case of Siamese offenders, by their own laws, through the Siamese authorities. But the consul shall not interfere in any matters referring solely to Siamese, neither will the Siamese authorities interfere in questions which only concern the subjects of her Britannic Majesty.

It is understood, however, that the arrival of the British consul at Bangkok shall not take place before the ratification of this treaty, nor until 10 vessels owned by British subjects, sailing under British colours and with British papers, shall have entered the port of Bangkok for purposes of trade, subsequent to the signing of this treaty.

3. If Siamese in the employ of British subjects offend against the laws of their country, or if any Siamese having so offended, or desiring to desert, take refuge with a British subject in Siam, they shall be searched for, and, upon proof of their guilt or desertion, shall be delivered up by the consul to the Siamese authorities. In like manner, any British offenders resident or trading in Siam, who may desert, escape to, or hide themselves in, Siamese territory, shall be apprehended and delivered over to the British consul on his requisition. Chinese, not able to prove themselves to be British subjects, shall not be considered as such by the British consul, nor be entitled to his protection.

4. British subjects are permitted to trade freely in all the seaports of Siam, but may reside permanently only at Bangkok, or within the limits assigned by this treaty. British subjects coming to reside at Bangkok may rent land, and buy or build house, but cannot purchase lands within a circuit of 200 *sen* (not more than four miles English) from the city walls, until they shall have lived in Siam for ten years, or shall obtain special authority from the Siamese Government to enable them to do so. But with the exception of this limitation, British residents in Siam may at any time buy or rent houses, lands, or plantations, situated anywhere within a distance of twenty-four hours' journey from the city of Bangkok, to be computed by the rate at which boats of the country can travel. In order to obtain possession of such lands or houses, it will be necessary that the British subjects shall, in the first place, make application through the consul to the proper Siamese officer; and the Siamese officer and the consul having satisfied themselves of the honest intentions of the applicant, will assist him in settling, upon equitable terms, the amount of the purchase-money, will mark out and fix the boundaries of the property, and will convey the same to the British purchaser under sealed deeds. Whereupon he and his property shall be placed under the protection of the Governor of the district and that of the particular local authorities; he shall conform, in ordinary matters, to any just directions given him by them, and will be subject to the same taxation that is levied on Siamese subjects. But if through negligence, the want of capital, or other cause, a British subject should fail to commence the cultivation or improvement of the lands so acquired within a term of three years from the date of receiving possession thereof, the Siamese Government shall have the power of resuming the property, upon returning to the British subject the purchase-money paid by him for the same.

5. All British subjects intending to reside in Siam shall be registered at the British consulate. They shall not go out to sea, nor proceed beyond the limits assigned by this treaty for the residence of British subjects, without a passport from the Siamese authorities, to be applied for by the British consul; nor shall they leave Siam, if the Siamese authorities show to the British consul that legitimate objections exist to their quitting the country. But within the limits appointed under the preceding article, British subjects are at liberty to travel to and fro under the protection of a pass, to be furnished them by the British consul, and counter-sealed by the proper Siamese officer, stating, in the Siamese character, their names, calling, and description. The Siamese officers at the Government stations in the interior may, at any time, call for the production of this pass, and immediately on its being exhibited, they must allow the parties to proceed; but it will be their duty to detain those persons who, by travelling without a pass from the consul, render themselves liable to the suspicion of their being deserters; and such detention shall be immediately reported to the consul.

6. All British subjects visiting or residing in Siam shall be allowed the free exercise of the Christian religion, and liberty to build churches in such localities as shall be consented to by the Siamese authorities. The Siamese Government will place no restrictions upon the employment by the English of Siamese subjects as servants, or in any other capacity. But wherever a Siamese subject belongs or owes service to some particular master, the servant who engages himself to a British subject without the consent of his master may be reclaimed by him; and the Siamese Government will not enforce an agreement between a British subject and any Siamese in his employ, unless made with the knowledge and consent of the master, who has a right to dispose of the services of the person engaged.

7. British ships of war may enter the river, and anchor at Paknam, but they shall not proceed above Paknam, unless with the consent of the Siamese authorities, which shall be given where it is necessary that a ship shall go into dock for repairs. Any British ship of war conveying to Siam a public consular agent accredited by her Majesty's Government to the Court of Bangkok, shall be allowed to come up to Bangkok, but shall not pass the forts called Pong Phrachumit and Pit-patch-nuck, unless expressly permitted to do so by the Siamese Government; but in the absence of a British ship of war, the Siamese authorities engage to furnish the consul with a force sufficient to enable him to give effect to his authority over British subjects, and to enforce discipline among British shipping.

8. The measurement duty hitherto paid by British vessels trading to Bangkok under the treaty of 1826 shall be abolished from the date of this treaty coming into operation, and British shipping and trade will henceforth be only subject to the payment of import and export duties on the goods landed or shipped. On all articles of import the duties shall be 3 per cent, payable at the option of the importer, either in kind or money, calculated upon the market value of the goods. Drawback of the full amount of duty shall be allowed upon goods found unsaleable and re-exported. Should the British merchant and the Custom-house officers disagree as to the value to be set upon imported articles, such disputes shall be referred to the consul and proper Siamese officer, who shall each have the power to call in an equal number of merchants as assessors,



der which British Trade is  
acted in Siam.

Every English ship coming to  
Siam, either before or after  
it may be found convenient,  
at the vessel at the custom-house  
with the number of his crew  
from whence he comes.  
If a vessel at Paknam, he will  
carry the body of the custom-house  
ammunition; and a custom-  
house officer will be appointed to the vessel,  
or to Bangkok.

A Paknam without discharge  
ammunition as directed in the  
will be sent back to Paknam  
provisions, and will be fined  
or disobeyed. After delivery  
ammunition she will be permitted  
to trade.

A vessel shall have cast anchor  
at Paknam, unless a Sunday should  
be observed, and four-and-twenty hours after  
the British consulate, and de-  
posit papers, bills of lading &c.  
manifest of his import cargo;  
and reporting these particulars  
to the British consulate, and de-  
positing a permission to break bulk  
by the latter.

When a vessel reports her arrival, or for  
manifest, the master will subject  
himself to a penalty of 400 Ticals,  
if he does not correct, within twenty-  
four hours of it to the consul, any  
error in his manifest, without  
the mentioned penalty.

When a vessel is breaking bulk, and com-  
ing before due permission shall  
be granted, either when in the river  
shall be subject to the penalty  
of confiscation of the goods so  
imported.

When a British vessel shall have dis-  
charged and completed her outward  
duties, and delivered a true  
manifest of her cargo to the British  
consulate, clearance shall be granted  
from the consul, who, in the  
absence of any impediment to her departure,  
will deliver the master his ship's papers,  
and permit her to leave. A custom-house  
officer will be appointed to the vessel at Paknam,  
and he will be inspected by the  
British officers of that station, and will  
carry the guns and ammunition pro-  
vided for their charge.

On Inland Duties to be levied on  
Articles of Trade.

Articles shall be entirely  
exempt from other taxes, on production of  
any export duties as follows:—

	Tical	Satang	Fuang	Hun	
21. Bird's nests, uncleaned	-	10	0	0	0 per 100
22. Kingfisher's feathers	-	0	2	0	0 per pecul
23. Catfish	-	0	2	0	0 "
24. Bayche seed (Nua vomica)	-	0	2	0	0 "
25. Pandan seed	-	0	2	0	0 "
26. Ginn Benjamin	-	4	0	0	0 "
27. Anarat bark	-	0	2	0	0 "
28. Aquila wood	-	2	0	0	0 "
29. Hay skin	-	3	0	0	0 "
30. 100 deer's horns	-	0	1	0	0 "
31. Soft, or coarse do.	-	10	0	0	0 per 100 hides
32. Best hides, fine	-	8	0	0	0 "
33. common	-	5	0	0	0 "
34. Deer claws	-	3	0	0	0 per pecul
35. Bull, to and cow hides	-	1	0	0	0 "
36. Elephant's bones	-	1	0	0	0 "
37. Tiger's bones	-	1	0	0	0 "
38. Bull's horns	-	0	1	0	0 "
39. Elephant's hides	-	0	1	0	0 "
40. Tiger's skins	-	0	1	0	0 per skin
41. Armadillo skins	-	4	0	0	0 per pecul
42. Sialac	-	1	1	0	0 "
43. Hemp	-	0	2	0	0 "
44. Dried fish. Phobeng	-	1	2	0	0 "
45. Plastic	-	1	0	0	0 "
46. Sapan wood	-	0	2	1	0 "
47. Salt meat	-	2	0	0	0 "
48. Mangrove bark	-	0	1	0	0 "
49. Rosewood	-	0	2	0	0 "
50. Ebony	-	1	1	0	0 "
51. Kise	-	4	0	0	0 per koyan

II. The undermentioned articles being subject  
to the inland or transit duties herein named, and  
which shall not be increased, shall be exempt from  
export duty.

	Tical	Satang	Fuang	Hun	
52. Sugar, white	-	0	1	0	0 per pecul
53. red	-	0	1	0	0 "
54. Cotton, clean and un- cleaned	-	10	0	0	0 per cent
55. Pepper	-	1	0	0	0 per pecul
56. Salt fish, Phita	-	1	0	0	0 per 10,000 fish
57. Beans and Peas	-	One-tweifth			
58. Dried Prawns	-	One-tweifth			
59. Thsical	-	One-tweifth			
60. Silk, raw	-	One-tweifth			
61. Bee's-wax	-	One-fiftenth			
62. Tallow	-	1	0	0	0 per pecul
63. Salt	-	4	0	0	0 per koyan
64. Tobacco	-	1	2	0	0 per 1,000 lbs.

III. All goods or produce unenumerated in this  
tariff shall be free of export duty, and shall only  
be subject to one inland tax or transit duty, not  
exceeding the rate now paid.

TURKEY.

*Capitulations and Articles of Peace between Great  
Britain and the Ottoman Empire, as agreed upon,  
augmented, and altered, at different Periods,  
and, finally, confirmed by the Treaty of Peace  
concluded at the Dardanelles, in 1809.*

SULTAN MEHEMED,  
MAY HE LIVE FOR EVER.

'Let everything be done in conformity to these  
capitulations, and contrary thereto let nothing be  
done.'

Article 1. The English nation and merchants,  
and all other merchants sailing under the English  
flag, with their vessels and merchandise of all de-  
scriptions, may pass safely by sea, and go and come  
into dominions, without any the least prejudice  
or molestation being given to their persons, prop-  
erty, or effects, by any person whatsoever; but  
they shall be left in the undisturbed enjoyment  
of their privileges, and be at liberty to attend to  
their affairs.

2. If any of the English coming into our  
dominions by land be molested or detained, such  
persons shall be instantly released, without any  
further obstruction being given to them.

3. English vessels entering the ports and har-  
bours of our dominions shall and may at all times  
safely and securely abide and remain therein, and  
at their free will and pleasure depart therefrom,  
without any opposition or hindrance from anyone.

4. If it shall happen that any of their ships  
suffer by stress of weather, and not be provided  
with necessary stores and requisites, they shall be  
assisted by all who happen to be present, whether

the crews of our Imperial ships, or others, both by  
sea and land.

5. Being come into the ports and harbours of  
our dominions, they shall and may be at liberty to  
purchase at their pleasure, with their own money,  
provisions and all other necessary articles, and to  
provide themselves with water, without interrup-  
tion or hindrance from anyone.

6. If any of their ships be wrecked upon any of  
the coasts of our dominions, all beys, cadis, govern-  
ors, commandants, and others our servants, who  
may be near or present, shall give them all help,  
protection, and assistance, and restore to them  
whatsoever goods and effects may be driven  
ashore; and in the event of any plunder being  
committed they shall make diligent search and  
enquiry to find out the property, which, when  
recovered, shall be wholly restored to them.

7. The merchants, interpreters, bankers, and  
others of the said nation, shall and may, both by  
sea and land, come into our dominions, and there  
trade with the most perfect security; and in coming  
and going, neither they nor their attendants shall  
receive any the least obstruction, molestation, or  
injury, either in their persons or property, from  
the beys, cadis, sea captains, soldiers, and others  
our slaves.

17. Our ships and galleys, and all other vessels,  
which may fall in with any English ships in the  
seas of our dominions, shall not give them any  
molestation, nor detain them by demanding any-  
thing, but shall show good and mutual friend-  
ship the one to the other, without occasioning  
them any prejudice.

19. If the corsairs or galliots of the Levant  
be found to have taken any English vessels, or  
robbed or plundered them of their goods and  
effects, also if anyone shall have forcibly taken  
anything from the English, all possible diligence  
and exertion shall be used and employed for the  
discovery of the property, and inflicting condign  
punishment on those who may have committed  
such depredations; and their ships, goods, and  
effects shall be restored to them without delay  
or intrigue.

21. Duties shall not be demanded or taken of  
the English or of the merchants sailing under the  
flag of that nation, on any piastres and sequins they  
may import into our sacred dominions, or on those  
they may transport to any other place.

26. English merchants, and all others sailing  
under their flag, may freely and unrestrictedly,  
trade and purchase all sorts of merchandise (pro-  
hibited commodities alone excepted), and convey  
them, either by land or sea, or by the way of the  
river Tanais, to the countries of Muscovy or  
Russia, and bring back thence other merchandise  
into our sacred dominions, for the purposes of  
traffic, and also transport others to Persia and  
other conquered countries.

38. Should the ships bound for Constantinople  
be forced by contrary winds to put into Caffa, or  
any other place of those parts, and not be disposed  
to buy or sell anything, no one shall presume  
forcibly to take out or seize any part of their  
merchandise, or give to the ships or crews any  
molestation, or obstruct the vessels that are bound  
to these parts.

40. On their ships arriving at any port, and  
landing their goods, they may, after having paid  
their duties, safely and securely depart, without  
experiencing any molestation.

41. English ships bound to Constantinople,  
Alexandria, Tripoli of Syria, Scanderoon, or other  
ports of our sacred dominions, shall in future be  
bound to pay duties, according to custom, on  
such goods only as they shall, of their own free

Tical	Satang	Fuang	Hun	
- 10	0	0	0	0 per cent
- 6	0	0	0	"
- 50	0	0	0	"
- 11	0	0	0	"
- 6	0	0	0	"
- 1	0	0	0	"
- 2	2	0	0	"
- 1	0	0	0	"
- 0	2	0	0	"
- 3	0	0	0	"
- 0	2	0	0	"
- 10	0	0	0	0 per 100
- 0	0	0	0	5 per pecul
- 0	2	0	0	"
- 0	0	0	0	"
- 1	0	0	0	"
- 1	0	0	0	"
- 3	0	0	0	"
- 3	0	0	0	"

will, land with a view to sale; and for such merchandise as they shall not discharge, no duty shall be demanded, neither shall the least molestation or hindrance be given to them.

44. English and other merchants navigating under their flags, who trade to Aleppo, shall pay such duties on the silks, brought and laden by them on board their ships, as are paid by the French and Venetians, and not one asper more.

55. The Imperial fleet, galleys, and other vessels, departing from our sacred dominions, and falling in with English ships at sea, shall in no wise molest or detain them, nor take from them anything whatsoever. English ships shall no longer be liable to any further search, or exaction at sea, under colour of search or examination.

70. English ships coming to the ports of Constantinople, Alexandria, Smyrna, Cyprus, and other ports of our sacred dominions, shall pay 300 aspers for anchorage duty, without an asper more being demanded of them.

72. No molestation shall be given to any of the aforesaid nation buying camlets, molairs, or program yarn, at Angora and Haghbazar, and desirous of exporting the same from thence, after having paid the duty of 3 per cent., by any demand of customs for the exportation thereof, neither shall one asper more be demanded of them.

75. That it being represented to us that English merchants have been accustomed hitherto to pay no custom or scale duty, either on the silks bought by them at Brussa and Constantinople or on those which come from Persia and Georgia, and are purchased by them at Smyrna from the Armenians; if such usage or custom really exists, and the same be not prejudicial to the empire, such duty shall not be paid in future.

(N.B.—These capitulations may be found entire in Hertzel's *Treaties*; and in Chitty's *Commercial Law*, vol. ii. pp. 290-511. Appen.)

*Treaty between Great Britain and the Sublime Porte, concluded at the Dardanelles, the 5th of January, 1809.*

Article I. From the moment of signing the present treaty, every act of hostility between England and Turkey shall cease.

5. In return for the indulgence and good treatment afforded by the Sublime Porte to English merchants, with respect to their goods and property as well as in all matters tending to facilitate their commerce, England shall reciprocally extend every indulgence and friendly treatment to the flags, subjects, and merchants of the Sublime Porte, which may hereafter frequent the dominions of his Britannic Majesty for the purpose of commerce.

The last Custom-house tariff established at Constantinople, at the ancient rate of 3 per cent., and particularly the article relating to the interior commerce, shall continue to be observed, as they are at present regulated, and to which England promises to conform.

English patents of protection shall not be granted to dependents, or merchants who are subjects of the Sublime Porte, nor shall any passport be delivered to such persons, on the part of ambassadors or consuls, without permission previously obtained from the Sublime Porte.

Done near the Castles of the Dardanelles, the 5th of January, 1809, which corresponds with the year of the Hegira 1223, the 19th day of the moon Zilkade.

SEYD MEHEMMED EMIN VAAID EFFENDI.  
ROBERT ADAIR.

*Treaty of Commerce and Navigation between her Majesty and the Sultan. Signed at Kauldja, April 29, 1861. Ratifications exchanged at Constantinople, July 9, 1861.*

Article I. All rights, privileges, and immunities which have been conferred on the subjects or ships of Great Britain by the existing capitulations and treaties, are confirmed now and for ever, with the exception of those clauses of the said capitulations which it is the object of the present treaty to modify; and it is moreover expressly stipulated, that all rights, privileges, or immunities which the Sublime Porte now grants or may hereafter grant to, or suffer to be enjoyed by, the subjects, ships, commerce, or navigation of any other foreign Power, shall be equally granted to, and exercised and enjoyed by, the subjects, ships, commerce, and navigation of Great Britain.

2. The subjects of her Britannic Majesty, or their agents, shall be permitted to purchase, at all places in the Ottoman dominions and possessions (whether for the purposes of internal trade or of exportation) all articles, without any exception whatsoever, the produce or manufacture of the said dominions and possessions; and the Sublime Porte having, in virtue of the second Article of the convention of commerce of August 16, 1838, formally engaged to abolish all monopolies of agricultural produce or of any other articles whatsoever, as well as all permits (*tesheres*) from the local governors, either for the purchase of any article, or for its removal from one place to another, when purchased, any attempt to compel the subjects of her Britannic Majesty to receive such permits from the local governors shall be considered as an infraction of treaties, and the Sublime Porte shall immediately punish with severity any viziers or other officers who shall have been guilty of such misconduct, and shall render full justice to British subjects for all injuries or losses which they may duly prove themselves to have suffered thereby.

3. If any article of Turkish produce or manufacture be purchased by British merchants or their agents, for the purpose of selling the same for internal consumption in Turkey, the said British merchants or their agents shall pay, at the purchase and sale of such articles, and in any manner of trade therein, the same duties that are paid in similar circumstances by the most favoured class of Ottoman subjects, or of foreigners engaged in the internal trade of Turkey.

4. No other or higher duties or charges shall be imposed in the dominions and possessions of either of the contracting parties, on the exportation of any article to the dominions and possessions of the other, than such as are or may be payable on the exportation of the like article to any other foreign country; nor shall any prohibition be imposed on the exportation of any article from the dominions and possessions of either of the two contracting parties to the dominions and possessions of the other, which shall not equally extend to the exportation of the like article to any other country.

No charge or duty whatsoever will be demanded on any article of Turkish produce or manufacture purchased by British subjects or their agents, either at the place where such article is purchased, or in its transit from that place to the place whither it is exported, at which it will be subject to an export duty not exceeding eight per cent. calculated on the value at the place of shipment, and payable on exportation; and all articles which shall once have paid this duty shall not again be

liable to the same duty, however they may have changed hands, within any part of the Ottoman dominions.

It is furthermore agreed that the duty of eight per cent. above mentioned will be annually reduced by one (1) per cent., until it shall be in this manner finally reduced to a fixed duty of one (1) per cent. ad valorem, destined to cover the general expenses of administration and control.

5. No other or higher duties shall be imposed on the importation into the dominions and possessions of her Britannic Majesty, of any article the produce or manufacture of the dominions and possessions of his Imperial Majesty the Sultan, from whatever place arriving, whether by sea or by land, and no other or higher duties shall be imposed on the importation into the dominions and possessions of his Imperial Majesty, of any article the produce or manufacture of her Britannic Majesty's dominions and possessions, from whatever place arriving, than are or may be payable on the like article the produce or manufacture of any other foreign country; nor shall any prohibition be maintained or imposed on the importation of any article the produce or manufacture of the dominions and possessions of either of the contracting parties into the dominions and possessions of the other, which shall not equally extend to the importation of the like articles being the produce or manufacture of any other country.

His Imperial Majesty further engages that, save as hereinafter excepted, he will not prohibit the importation into his dominions and possessions of any article the produce or manufacture of the dominions and possessions of her Britannic Majesty, from whatever place arriving; and that the duties to be imposed on any article the produce or manufacture of the dominions or possessions of her Britannic Majesty imported into the dominions or possessions of his Imperial Majesty, shall in no case exceed one fixed rate of eight (8) per cent. ad valorem, or a specific duty, fixed by common assent, equivalent thereto.

Such rate shall be calculated upon the value of such articles at the wharf, and shall be payable at the time of their being landed, if brought by sea, or at the first custom-house they may reach, if brought by land.

If these articles, after having paid the import duty of eight (8) per cent., are sold either at the place of their arrival or in the interior of the country, neither the buyer nor the seller shall be charged with any further duty in respect to them; and if such articles should not be sold for consumption in Turkey, but should be re-exported within the space of six months, the same shall be considered as merchandise in transit by land, and be treated as is stated in Article XII.; the administration of the customs being bound to restore at the time of their re-exportation to the merchant, who shall be required to furnish proof that the goods in question have paid the import duty of eight (8) per cent., the difference between that duty and the duty levied on goods in transit by land, as set forth in the Article above cited.

6. It is understood that any article the produce or manufacture of a foreign country, intended for importation into the united principalities of Moldo-Wallachia, or into the principality of Servia, which shall pass through any other part of the Ottoman dominions, will not be liable to the payment of customs duty until it reaches those principalities; and on the other hand, that any article of foreign produce or manufacture passing through those principalities, but destined for some other part of the Ottoman dominions,

will not be liable to the payment of customs duty until such article reaches the first custom-house under the direct administration of the Sublime Porte.

The same course shall be followed with respect to any article the produce or manufacture of those principalities, as well as with respect to any article the produce or manufacture of any other portion of the Ottoman dominions, intended for exportation: such articles will be liable to the payment of customs duties, the former to the custom-house of the aforesaid principalities, and the latter to the Ottoman custom-house, the object being, that neither import nor export duties shall in any case be payable more than once.

7. The subjects of one of the contracting parties shall enjoy, in the dominions and possessions of the other, equality of treatment with native subjects in regard to warehousing, and also in regard to bounties, facilities, and drawbacks.

8. All articles which are or may be legally importable into the dominions and possessions of her Britannic Majesty, in British vessels, may likewise be imported in Ottoman vessels without being liable to any other or higher duties, or charges, of whatever denomination, than it such articles were imported in British vessels; and reciprocally, all articles which are or may be legally importable into the dominions and possessions of his Imperial Majesty the Sultan in Ottoman vessels, may likewise be imported in British vessels, without being liable to any other or higher duties or charges, of whatever denomination, than if such articles were imported in Ottoman vessels. Such reciprocal equality of treatment shall take effect without distinction, whether such articles come directly from the place of origin or from any other country.

In the same manner, there shall be perfect equality of treatment in regard to exportation, so that the same export duties shall be paid, and the same bounties and drawbacks allowed, in the dominions and possessions of either of the contracting parties, on the exportation of any article which is or may be legally exportable therefrom, whether such exportation shall take place in Ottoman or in British vessels, and whatever may be the place of destination, whether a port of either of the contracting parties or of any third power.

9. No duties of tonnage, harbour, pilotage, lighthouse, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, levied in the name or for the profit of Government, public functionaries, private individuals, corporations, or establishments of any kind, shall be imposed in the ports of the dominions and possessions of either country upon the vessels of the other country, which shall not equally and under the same conditions be imposed in the like cases on national vessels in general. Such equality of treatment shall apply reciprocally to the respective vessels, from whatever port or place they may arrive, and whatever may be their place of destination.

10. All vessels which according to British law are to be deemed British vessels, and all vessels which according to Ottoman law are to be deemed Ottoman vessels, shall for the purposes of this treaty be deemed British and Ottoman vessels respectively.

11. No charge whatsoever shall be made upon British goods being the produce or manufacture of the British dominions or possessions, whether in British or other ships, nor upon any goods the produce or manufacture of any other foreign country carried in British ships, when the same

Navigation between her  
Signed at Kautidja,  
ratifications exchanged at  
G1.

ileges, and immunities  
on the subjects or  
the existing capitula-  
tioned now and for  
those clauses of the  
t is the object of the  
; and it is moreover  
all rights, privileges, or  
the Porte now grants  
or suffer to be enjoyed  
commerce, or navigation  
power, shall be equally  
and enjoyed by, the  
and navigation of Great

er Britannic Majesty,  
be permitted to pur-  
the Ottoman dominions  
or for the purposes of  
(exportation) all articles,  
Furthermore, the produce or  
of the dominions and posses-  
sions of the Sultan, in virtue of  
a convention of commerce  
originally engaged to abolish  
the produce or of any  
other, as well as all permis-  
sions, either for the  
removal from  
the purchase, any attempt  
of her Britannic Majesty  
from the local governors  
an infraction of treaties,  
shall immediately punish  
ers or other officers who  
of such misconduct, and  
to British subjects for all  
which they may duly prove  
thereby.

Turkish produce or manu-  
facture by British merchants  
for the purpose of selling the same  
in Turkey, the said  
agents shall pay, at  
the time of such articles, and in any  
other instance, the same duties that are  
imposed by the most fa-  
vourable subjects, or of foreigners  
in the trade of Turkey.

Such duties or charges shall  
be imposed on the dominions and  
possessions of the contracting parties,  
on the exportation of the like article  
into the other country; nor shall any  
prohibition be maintained or imposed  
on the exportation of any article the  
produce or manufacture of the dominions  
and possessions of either of the  
contracting parties into the dominions  
and possessions of the other, which  
shall not equally extend to the  
exportation of the like articles being  
the produce or manufacture of any  
other country.

Whatever will be demanded  
of the produce or manufacture  
of the subjects or their agents,  
where such article is purchased,  
that place to the place whence  
it is to be shipped, it will be subject to  
a fixed duty of eight per cent. calcu-  
lated on the value of the goods at  
the place of shipment, and  
all articles which shall not again be

shall pass through the straits of the Dardanelles or of the Bosphorus, whether such goods shall pass through those straits in the ships that brought them, or shall have been transhipped to other vessels; or whether, after having been sold for exportation, they shall, for a certain limited time, be landed in order to be placed in other vessels for the continuance of their voyage.

In the latter case the goods in question shall be deposited at Constantinople in the magazines of the custom-house, called *transit* magazines; and in any other places where there is no entrepôt, they shall be placed under the charge of the administration of the customs.

12. The Sublime Porte desiring to grant by means of gradual concessions all facilities in its power to transit by land, it is stipulated and agreed that the duty of three (3) per cent. levied up to this time on articles imported into Turkey in their passage through Turkey to other countries, shall be reduced to two (2) per cent., payable, as the duty of three per cent. has been paid hitherto, on arriving in the Ottoman dominions; and at the end of eight years, to be reckoned from the day of the exchange of the ratifications of the present treaty, to a fixed and definite tax of one (1) per cent., which shall be levied, as is to be the case with respect to Turkish produce exported, to defray the expense of registration.

The Sublime Porte at the same time declares that it reserves to itself the right to establish, by a special enactment, the measures to be adopted for the prevention of fraud.

13. Her Britannic Majesty's subjects, or their agents, trading in goods the produce or manufacture of foreign countries, shall be subject to the same taxes, and enjoy the same rights, privileges, and immunities as foreign subjects dealing in goods, the produce or manufacture of their own country.

14. An exception to the stipulations laid down in the fifth article shall be made in regard to tobacco, in any shape whatsoever, and also in regard to salt, which two articles shall cease to be included among those which the subjects of her Britannic Majesty are permitted to import into the Ottoman dominions.

British subjects, however, or their agents, buying or selling tobacco or salt for consumption in Turkey, shall be subject to the same regulations, and shall pay the same duties, as the most favoured Ottoman subjects trading in the two articles aforesaid; and furthermore, as a compensation for the prohibition of the two articles above mentioned, no duty whatsoever shall in future be levied on those articles when exported from Turkey by the subjects of her Britannic Majesty.

British subjects shall, nevertheless, be bound to declare the quantity of tobacco and salt thus exported, to the proper custom-house authorities, who shall, as heretofore, have the right to watch over the export of these articles, without thereby being entitled to levy any tax thereon on any pretence whatsoever.

15. It is understood between the two high contracting parties, that the Sublime Porte reserves to itself the faculty and right of issuing a general prohibition against the importation into the Ottoman dominions of gunpowder, cannon, arms of war, or military stores; but such prohibition will not come into operation until it shall have been officially notified, and will apply only to the articles mentioned in the decree enacting the prohibition. Any of these articles which have not been so specifically prohibited, shall, on being imported into the Ottoman dominions, be subject

to the local regulations, unless her Britannic Majesty's embassy shall think fit to apply for a special license, which license will in that case be granted, provided no valid objection thereto can be alleged.

Gunpowder, in particular, when allowed to be imported, will be liable to the following stipulations:—

1st. It shall not be sold by subjects of her Britannic Majesty in quantities exceeding the quantities prescribed by the local regulations.

2ndly. When a cargo or a large quantity of gunpowder arrives in an Ottoman port on board a British vessel, such vessel shall be anchored at a particular spot to be designated by the local authorities, and the gunpowder shall thence be conveyed, under the inspection of such authorities, to depôts or fitting places designated by the Government, to which the parties interested shall have access under due regulations.

Fowling-pieces, pistols, and ornamental or fancy weapons, as also small quantities of gunpowder for sporting, reserved for private use, shall not be subject to the stipulations of the present article.

16. The firmans required for British merchant-vessels, on passing through the Dardanelles and the Bosphorus, shall always be delivered in such manner as to occasion to such vessels the least possible delay.

17. The captains of British merchant-vessels, with goods on board destined for the Ottoman empire, shall be obliged, immediately on their arrival at the port to which they are bound, to deposit in the custom-house of the said port a true copy of their manifest.

18. Contraband goods will be liable to confiscation by the Ottoman treasury; but a report or procès-verbal of the alleged act of contraband must, as soon as the said goods are seized by the authorities, be drawn up and communicated to the consular authority of the foreign subject to whom the goods said to be contraband shall belong; and no goods can be confiscated as contraband, unless the fraud with regard to them shall be duly and legally proved.

19. All merchandise, the produce or manufacture of the Ottoman dominions and possessions, imported into the dominions and possessions of Her Britannic Majesty, shall be treated in the same manner as the like merchandise the produce or manufacture of the most favoured nation.

All rights, privileges, or immunities which are now or may hereafter be granted to, or suffered to be enjoyed by, the subjects, ships, commerce, or navigation of any foreign Power in the British dominions or possessions, shall be equally granted to, and exercised and enjoyed by, the subjects, ships, commerce, and navigation of the Ottoman Porte.

20. The present treaty, when ratified, shall be substituted for the convention concluded between the two high contracting parties on the 16th of August, 1838, and shall remain in force for twenty-eight years from the day of the exchange of the ratifications; each of the high contracting parties being, however, at liberty to give to the other, at the end of fourteen years (that time being fixed, as the provisions of this treaty will then have come into full force), notice for its revision, or for its determination at the expiration of a year from the date of that notice, and so again at the end of twenty-one years.

The present treaty shall receive its execution in all and every one of the provinces of the Ottoman empire, that is to say, in all the possessions of his Imperial Majesty the Sultan situated in Europe

unless her Britannic Majesty think fit to apply for a concession in that case her objection thereto can

ar, when allowed to be to the following stipu

shall by subjects of her Majesty exceeding the local regulations,

or a large quantity of Ottoman port on board shall be anchored at a designated by the local powder shall thence be portion of such unthe places designated by the parties interested shall regulations.

and ornamental or small quantities of gunpowder for private use, shall regulations of the present

ed for British merchant-ugh the Dardanelles and s may be delivered in such to such vessels the least

British merchant-vessels, destined for the Ottoman t, immediately on their hich they are bound, to house of the said port a est.

will be liable to confiscation; but a report or alleged net of contraband goods are seized by the up and communicated to of the foreign subject to be contraband shall belong; confiscated as contraband, regard to them shall be

the produce or manufacture tions and possessions, imons and possessions of her all be treated in the same erchandise the produce or t favoured nation.

or immunities which are granted to, or suffered to ects, ships, commerce, or eign Power in the British s, shall be equally granted enjoyed by, the subjects, vigation of the Ottoman

ty, when ratified, shall be vention concluded between g parties on the 16th of 1 remain in force for twenty- of the exchange of the ly the high contracting parties e to give to the other, at ars (that time being fixed, his treaty will then have notice for its revision, or for e expiration of a year from y, and so again at the end of

shall receive its execution in e provinces of the Ottoman in all the possessions of his Sultan situated in Europe

or in Asia, in Egypt and in the other parts of Africa belonging to the Sublime Porte, in Servia, and in the united principalities of Moldavia and Wallachia.

The Sublime Porte declares that she is ready to grant to other foreign Powers who may seek to obtain them, the commercial advantages contained in the stipulations of the present treaty.

21. It is always understood that her Britannic Majesty does not pretend, by any Article in the present treaty, to stipulate for more than the plain and fair construction of the terms employed, nor to preclude in any manner the Ottoman Government from the exercise of its rights of internal administration, where the exercise of those rights does not evidently infringe upon the privileges accorded by ancient treaties, or by the present treaty, to British subjects or British merchandise.

22. The high contracting parties have agreed to appoint, jointly, commissioners for the settlement of a tariff of custom-house duties, to be levied in conformity with the stipulations of the present treaty, as well upon merchandise of every description being the produce or manufacture of the British dominions and possessions imported into the Sultan's dominions and possessions, as upon articles of every description the produce or manufacture of the dominions and possessions of the Sultan, which British subjects or their agents are free to purchase in any part of the Ottoman dominions and possessions for exportation to Great Britain or to any other country.

The new tariff to be so concluded shall remain in force during seven years, dating from the first of October, one thousand eight hundred and sixty-one.

Each of the contracting parties shall have the right, a year before the expiration of that term, to demand the revision of the tariff. But if, during the seventh year, neither the one nor the other of the contracting parties shall avail itself of this right, the tariff then existing shall continue to have the force of law for seven more years, dating from the day of the expiration of the seven preceding years; and the same shall be the case with respect to every successive period of seven years.

23. The present treaty shall be ratified, and the ratifications shall be exchanged at Constantinople in two calendar months, or sooner if possible, and shall be carried into execution from the first of October, one thousand eight hundred and sixty-one.

Done at Kaulidja, on the twenty-ninth day of April, one thousand eight hundred and sixty-one.

HENRY L. BULWER.  
AALI.

#### UNITED STATES.

*Convention of Commerce between Great Britain and the United States of America. Signed at London, the 3rd of July, 1815.*

Article 1. There shall be between all the territories of his Britannic Majesty in Europe, and the territories of the United States, a reciprocal liberty of commerce. The inhabitants of the two countries respectively shall have liberty freely and securely to come with their ships and cargoes to all such places, ports, and rivers in the territories aforesaid, to which other foreigners are permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; and also to hire and occupy houses and warehouses for the purpose of their commerce; and generally the merchants and traders of each nation respec-

tively shall enjoy the most complete protection and security for their commerce; but subject always to the laws and statutes of the two countries respectively.

2. No higher or other duties shall be imposed on the importation into the territories of his Britannic Majesty in Europe, of any articles, the growth, produce, or manufacture of the United States, and no higher or other duties shall be imposed on the importation into the United States, of any articles, the growth, produce, or manufacture of his Britannic Majesty's territories in Europe, than they are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any higher or other duties or charges be imposed in either of the two countries on the exportation of any articles to his Britannic Majesty's territories in Europe, or to the United States, respectively, than such as are payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation or importation of any articles, the growth, produce, or manufacture of the United States, or of his Britannic Majesty's territories in Europe, to or from the said territories of his Britannic Majesty in Europe, or to or from the said United States, which shall not equally extend to all other nations.

No higher or other duties or charges shall be imposed in any of the ports of the United States on British vessels, than those payable in the same ports by vessels of the United States; nor in the ports of any of his Britannic Majesty's territories in Europe on the vessels of the United States, than shall be payable in the same ports on British vessels.

The same duties shall be paid on the importation into the United States of any articles, the growth, produce, or manufacture of his Britannic Majesty's territories in Europe, whether such importation shall be in the vessels of the United States, or in British vessels; and the same duties shall be paid on the importation into the ports of any of his Britannic Majesty's territories in Europe of any articles, the growth, produce, or manufacture of the United States, whether such importation shall be in British vessels, or in vessels of the United States.

The same duties shall be paid, and the same bounties allowed, on the exportation of any articles, the growth, produce, or manufacture of his Britannic Majesty's territories in Europe, to the United States, whether such exportation shall be in vessels of the United States, or in British vessels; and the same duties shall be paid, and the same bounties allowed, on the exportation of any articles, the growth, produce, or manufacture of the United States, to his Britannic Majesty's territories in Europe, whether such exportation shall be in British vessels, or in vessels of the United States.

It is further agreed, that in all cases where drawbacks are or may be allowed upon the re-exportation of any goods, the growth, produce, or manufacture of either country respectively, the amount of the said drawbacks shall be the same, whether the said goods shall have been originally imported in a British or American vessel; but when such re-exportation shall take place from the United States in a British vessel, or from the territories of his Britannic Majesty in Europe in an American vessel, to any other foreign nation, the two contracting parties reserve to themselves, respectively, the right of regulating or diminishing, in such case, the amount of the said drawback.

The intercourse between the United States and his Britannic Majesty's possessions in the West Indies, and on the continent of North America, shall not be affected by any of the provisions of this article, but each party shall remain in the complete possession of its rights with respect to such an intercourse.

3. His Britannic Majesty agrees that the vessels of the United States of America shall be admitted and hospitably received at the principal settlements of the British dominions in the East Indies, viz. *Calcutta, Madras, Bombay, and Prince of Wales' Island*, and that the citizens of the said United States may freely carry on trade between the said principal settlements and the said United States, in all articles of which the importation and exportation respectively, to and from the said territories, shall not be entirely prohibited; provided only, that it shall not be lawful for them, in any time of war between the British Government and any state or power whatever, to export from the said territories, without the special permission of the British Government, any military stores, or naval stores, or rice. The citizens of the United States shall pay for their vessels, when admitted, no higher or other duty or charge than shall be payable on the vessels of the most favoured European nations, and they shall pay no higher or other duties or charges on the importation or exportation of the cargoes of the said vessels, than shall be payable on the same articles when imported or exported in the vessels of the most favoured European nations.

But it is expressly agreed, that the vessels of the United States shall not carry any articles from the said principal settlements to any port or place, except to some port or place in the United States of America, where the same shall be unladen.

It is also understood, that the permission granted by this article is not to extend to allow the vessels of the United States to carry on any part of the coasting trade of the said British territories; but the vessels of the United States, having in the first instance proceeded to one of the said principal settlements of the British dominions in the East Indies, and then going with their original cargoes, or any part thereof, from one of the said principal settlements to another, shall not be considered as carrying on the coasting trade. The vessels of the United States may also touch for refreshments, but not for commerce, in the course of their voyage to or from the British territories in India, or to or from the dominions of the Emperor of China, at the Cape of Good Hope, the island of St. Helena, or such other places as may be in the possession of Great Britain, in the African or Indian seas; it being well understood, that in all that regards this article, the citizens of the United States shall be subject in all respects to the laws and regulations of the British Government from time to time established.

4. It shall be free for each of the two contracting parties respectively to appoint consuls, for the protection of trade, to reside in the dominions and territories of the other party; but before any consul shall act as such, he shall in the usual form be approved and admitted by the Government to which he is sent; and it is hereby declared, that in case of illegal and improper conduct towards the laws or Government of the country to which he is sent, such consul may either be punished according to law, if the laws will reach the case, or be sent back, the offended Government assigning to the other the reasons for the same.

It is hereby declared, that either of the con-

tracting parties may except from the residence of consuls such particular places as such party shall judge fit to be so excepted.

5. This convention, when the same shall have been duly ratified by his Britannic Majesty and by the President of the United States, by and with the advice and consent of their Senate, and the respective ratifications mutually exchanged, shall be binding and obligatory on his Majesty and on the said United States for 4 years from the date of its signature; and the ratifications shall be exchanged in 6 months from this time, or sooner if possible.

Done at London, the 3rd of July, 1815.

FRED. J. ROBINSON,  
HENRY GOULBURN,  
WILLIAM ADAMS,  
JOHN Q. ADAMS,  
H. CLAY.

ALBERT GALATIN.

This convention was subsequently prolonged by conventions for that purpose in 1818 and 1827.

*Convention between Great Britain and the United States of America. Signed at London, October 20, 1818.*

Article I. Whereas differences have arisen respecting the liberty claimed by the United States for the inhabitants thereof, to take, dry, and cure fish, on certain coasts, bays, harbours, and creeks, of his Britannic Majesty's dominions in America, it is agreed between the high contracting parties, that the inhabitants of the said United States shall have for ever, in common with the subjects of his Britannic Majesty, the liberty to take fish of every kind on that part of the coast of Newfoundland which extends from Cape Ray to the Rameau Islands, on the western and northern coasts of Newfoundland, from the said Cape Ray to the Quirpon Islands, on the shores of the Magdalen Islands, and also on the coasts, bays, harbours, and creeks, from Mount Joly, on the southern coast of Labrador, to and through the Straits of Belleisle, and thence northwardly indefinitely along the coast, without prejudice, however, to any of the exclusive rights of the Hudson Bay Company; and that the American fishermen shall also have liberty, for ever, to dry and cure fish in any of the unsettled bays, harbours, and creeks of the southern part of the coast of Newfoundland, and of the coast of Labrador; but so soon as the same, or any portion thereof, shall be settled, it shall not be lawful for the said fishermen to dry or cure fish, without previous agreement for such purpose with the inhabitants, proprietors, or possessors of the ground. And the United States hereby renounce for ever any liberty heretofore enjoyed or claimed by the inhabitants thereof to take, dry, or cure fish on or within 3 marine miles of any of the coasts, bays, creeks, or harbours of his Britannic Majesty's dominions in America, not included within the above-mentioned limits; provided, however, that the American fishermen shall be admitted to enter such bays or harbours for the purpose of shelter and of repairing damages therein, of purchasing wood, and of obtaining water, and for no other purpose whatever; but they shall be under such restrictions as may be necessary to prevent their taking, drying, or curing fish therein, or in any other manner abusing the privileges hereby reserved to them.

2. It is agreed that a line drawn from the most north-western point of the Lake of the Woods, along the 49th parallel of north latitude, or if the said point shall not be in the 49th parallel of north latitude, then that a line drawn from the said point due north or south, as the case may be, until

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r places as such party shall  
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when the same shall have  
his Britannic Majesty and  
the United States, by and  
consent of their Senate, and  
nations mutually exchanged,  
and obligations exchanged,  
and obligatory on his Majesty  
the United States for 4 years from  
signature; and the ratifications  
in 6 months from this time, or

the 3rd of July, 1815.

FRED. J. ROBINSON.  
HENRY GOULBURN.  
WILLIAM ADAMS.  
JOHN Q. ADAMS.  
H. CLAY.

ALBERT GALATIN.  
was subsequently prolonged  
that purpose in 1818 and 1827.

*Treaty Britain and the United  
States, Signed at London, October*

as differences have arisen re-  
lained by the United States  
thereof, to take, dry, and cure  
fish, bays, harbours, and creeks,  
and the high contracting parties,  
of the said United States  
in common with the subjects  
of the said United States, the  
liberty to take fish off  
part of the coast of Newfound-  
land from Cape Ray to the Ramen-  
ster and northern coasts of  
the said Cape Ray to the  
shores of the Magdalen  
on the coasts, bays, harbours,  
Mount Joly, on the southern  
to and through the Straits of  
and northwardly indefinitely  
without prejudice, however, to  
the rights of the Hudson Bay  
at the American fishermen shall  
ever, to dry and cure fish in  
all bays, harbours, and creeks of  
the coast of Newfoundland,  
Labrador; but so soon as the  
on thereof, shall be settled, it  
for the said fishermen to dry  
at previous agreement for such  
inhabitants, proprietors, or pos-  
sessed. And the United States  
or over any liberty heretofore  
by the inhabitants thereof to  
fish on or within 3 marine miles  
of the coasts, bays, creeks, or harbours of  
the said United States in America,  
in the above-mentioned limits;  
that the American fishermen  
to enter such bays or harbours  
shelter and of repairing damages  
using wool, and of obtaining  
for other purpose whatever; but  
under such restrictions as may be  
at their taking, drying, or curing  
in any other manner abusing the  
reserved to them.

that a line drawn from the most  
point of the Lake of the Woods,  
parallel of north latitude, or if the  
it be in the 49th parallel of north  
latitude, a line drawn from the said  
point south, as the case may be, until

the said line shall intersect the said parallel of  
north latitude, and from the point of such inter-  
section due west along and with the said parallel,  
shall be the line of demarcation between the ter-  
ritories of the United States and those of his  
Britannic Majesty, and that the said line shall  
form the northern boundary of the said territories  
of the United States, and the southern boundary  
of the territories of his Britannic Majesty, from  
the Lake of the Woods to the Stony Mountains.

3. It is agreed that any country that may be  
claimed by either party on the north-west coast  
of America, westward of the Stony Mountains,  
shall, together with its harbours, bays, and creeks,  
and the navigation of all rivers within the same,  
be free and open, for the term of 10 years from the  
date of the signature of the present convention, to  
the vessels, citizens, and subjects of the two  
Powers: it being well understood that this agree-  
ment is not to be construed to the prejudice of any  
claim which either of the two high contracting  
parties may have to any part of the said country,  
nor shall it be taken to affect the claims of any  
other Power or State to any part of the said  
country, the only object of the high contracting  
parties, in that respect, being to prevent disputes  
and differences among themselves.

4. All the provisions of the convention to re-  
gulate the commerce between the territories of  
the United States and of his Britannic Majesty,  
concluded at London, on July 3, in the year of  
our Lord 1815, with the exception of the clause  
which limited its duration to 4 years, and except-  
ing, also, so far as the same was affected by the  
declaration of his Majesty, respecting the island  
of St. Helena, are hereby extended and continued  
in force for the term of 10 years from the date  
of the signature of the present convention, in the  
same manner as if all the provisions of the said  
convention were herein specially recited.

5. Whereas it was agreed by the first article of  
the treaty of Ghent, that 'all territory, places, and  
possessions whatever, taken by either party from  
the other during the war, or which may be taken  
after the signing of this treaty, excepting only  
the islands hereinafter mentioned, shall be restored  
without delay, and without causing any destruc-  
tion, or carrying away any of the artillery, or  
other public property originally captured in the  
said forts or places, which shall remain therein  
upon the exchange of the ratifications of this  
treaty; or any slaves, or other private property;'  
and whereas, under the aforesaid article, the  
United States claim for their citizens, and as their  
private property, the restitution of, or full com-  
pensation for, all slaves who at the date of the  
exchange of the ratifications of the said treaty  
were in any territory, place, or possessions what-  
soever, directed by the said treaty to be restored  
to the United States, but then still occupied by  
the British forces, whether such slaves were, at  
the date aforesaid, on shore, or on board any  
British vessel lying in waters within the territory  
or jurisdiction of the United States; and whereas  
differences have arisen, whether by the true intent  
and meaning of the aforesaid Article of the treaty  
of Ghent, the United States are entitled to the  
restoration of, or full compensation for, all or any  
slaves as above described, the high contracting  
parties hereby agree to refer the said differences  
to some friendly sovereign or state to be named  
for that purpose: and the high contracting parties  
further engage to consider the decision of such  
friendly sovereign or state to be final and conclu-  
sive on all the matters referred.

6. This convention, when the same shall have  
been duly ratified by the President of the United

States, by and with the advice and consent of  
their senate, and by his Britannic Majesty, and  
the respective ratifications mutually, shall be  
binding and obligatory on the said United States  
and on his Majesty; and the ratifications shall be  
exchanged in 6 months from this date, or sooner  
if possible.

In witness whereof, the respective plenipoten-  
taries have signed the same, and have thereunto  
affixed the seal of their arms.

Done at London, October 20, 1818.

ALBERT GALATIN.  
RICHARD RUSH.  
FREDERICK JOHN ROBINSON.  
HENRY GOULBURN.

#### URUGUAY.

*Treaty of Amity, Commerce, and Navigation be-  
tween her Majesty and the Oriental Republic of  
the Uruguay. Signed at London, August 26,  
1842.*

Article 1. There shall be perpetual peace and  
amity between the dominions and subjects of her  
Majesty the Queen of the United Kingdom of  
Great Britain and Ireland, her heirs and suc-  
cessors, and the Oriental Republic of the Uruguay  
and its citizens.

2. There shall be between all the territories of  
her Britannic Majesty in Europe, and the terri-  
tories of the Oriental Republic of the Uruguay, a  
reciprocal freedom of commerce. The subjects  
and citizens of the two countries, respectively,  
shall have liberty freely and securely to come,  
with their ships and cargoes, to all places, ports,  
and rivers in the territories aforesaid, to which  
other foreigners are or may be permitted to come;  
to enter into the same, and to remain and reside  
in any part of the said territories respectively;  
also to hire and occupy houses and warehouses  
for the purposes of their commerce; and, gene-  
rally, the merchants and traders of each nation  
shall enjoy, within the territories of the other, the  
most complete protection and security for their  
commerce; subject always to the laws and  
statutes of the land.

In like manner the respective ships of war and  
post-office packets of the two countries shall  
have liberty freely and securely to come to all  
harbours, rivers, and places, in either country, to  
which other foreign ships of war and packets are  
or may be permitted to come; and they shall be  
allowed to enter into the same, to anchor and to  
remain there and reef; subject always to the  
laws and statutes of the two countries respectively.

It is hereby declared, that the stipulations of  
the present article are not to be understood as  
applying to the navigation and carrying trade  
between one port and another, situated in the  
dominions of either contracting party; such  
navigation and trade being reserved exclusively  
to national vessels.

3. There shall be reciprocal liberty of commerce  
and navigation between and amongst the subjects  
and citizens of the two high contracting parties;  
and the subjects and citizens of the two countries  
respectively shall not pay in the ports, harbours,  
roads, cities, towns, or places whatsoever in either  
country, any other or higher duties, taxes, or  
imposts, under whatsoever names designated or  
included, than those which are there paid by the  
subjects or citizens of the most favoured nation;  
and the subjects and citizens of each of the high  
contracting parties shall enjoy the same rights,  
privileges, liberties, favours, immunities, and ex-  
emptions, in matters of commerce and navigation,  
that are granted or may hereafter be granted in

either country to the subjects or citizens of the most favoured nation.

No duty of customs or other impost shall be charged upon any goods the produce of one country, upon importation by sea or by land from such country into the other, higher than the duty or impost charged upon goods of the same kind, the produce of or imported from any other country. And her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and the Oriental Republic of the Uruguay, do hereby bind and engage themselves not to grant any favour, privilege, or immunity, in matters of commerce and navigation, to the subjects or citizens of any other state, which shall not be also and at the same time extended to the subjects or citizens of the other high contracting party; gratuitously, if the concession in favour of that other state shall have been gratuitous; and on giving as nearly as possible the same compensation or equivalent, in case the concession shall have been conditional.

4. No higher or other duties or payments on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any local charges, shall be imposed in any of the ports of the one country upon the vessels of the other, than are payable in those ports upon national vessels.

5. The same duties shall be paid on all articles, the growth, produce, or manufacture of her Britannic Majesty's dominions, when imported into the territories of the Oriental Republic of the Uruguay, whether such article be imported in vessels of the said republic, or in British vessels; and the same duties shall be paid on all articles the growth, produce, or manufacture of the said republic, when imported into the dominions of her Britannic Majesty, whether such article be imported in British vessels or in vessels of the said republic. The same duties shall be paid, and the same bounties and drawbacks allowed, on all articles the growth, produce, or manufacture of her Britannic Majesty's dominions, when exported to the said republic of the Uruguay, whether such articles be exported in vessels of the said republic, or in British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on all articles the growth, produce, or manufacture of the said republic, when exported to the dominions of her Britannic Majesty, whether such articles be exported in British vessels, or in vessels of the said republic.

6. In order to avoid any misunderstanding with respect to the regulations which may respectively determine what shall be considered a British vessel, or a vessel of the Oriental Republic of the Uruguay, when engaged in commerce between the two countries, it is hereby agreed, that all vessels built in the dominions of her Britannic Majesty, or having been made prize of war and condemned as such, or having been forfeited under any law made for the prevention of the slave trade, and condemned in any competent court for a breach of such law, and which shall be owned and navigated by subjects of her Majesty, and whereof the master and three-fourths at least of the mariners shall be subjects of her Britannic Majesty, and which shall be registered according to the laws of Great Britain, shall be considered as British vessels; and that all vessels built within the territory of the said Oriental Republic of the Uruguay, or having been made prize of war and condemned as such, or having been forfeited under any law made for the prevention of the slave trade, and condemned in any competent court for a breach of such law, or

being of bona fide British construction, built in any port of her Britannic Majesty's dominions, and acquired by purchase; and which shall be owned and navigated by citizens of the said republic, and whereof the master and three-fourths at least of the mariners shall be citizens of the said republic, or matriculated subjects of her Britannic Majesty, and which shall be registered according to the laws of the said republic, shall be considered as vessels of the said Oriental Republic of the Uruguay, so far as shall relate to any commercial rights or privileges in the several ports of her Britannic Majesty's dominions.

And it is further agreed, that no ship considered as being the ship of either country shall be qualified to trade as above described under the provisions of this treaty, unless she be furnished with a register, passport, or sea-letter, under the signature of the proper person authorised to grant the same, according to the laws of the respective countries, and in a form to be reciprocally communicated by the two Governments to each other. Such register, passport, or sea-letter shall certify the name, occupation, and residence of the owner or owners in the dominions of her Britannic Majesty, or in the territories of the Oriental Republic of the Uruguay, as the case may be; shall declare that he or they is or are the sole owner of the ship, or owners in the proportion to be specified; and shall state the name, burden, and description of the vessel, as to build and measurement; and if the vessel is of foreign build, of what country, and, as far as may be possible, when and from whom purchased, and all other particulars constituting the national character of the vessel, as the case may be.

7. The subjects of her Britannic Majesty shall have full liberty, in all the territories of the Oriental Republic of the Uruguay, to manage their own affairs themselves, or to commit them to the manage- ment of whomsoever they please, as broker, factor, agent, or interpreter; and they shall not be obliged to employ any other persons in those capacities than those employed by the citizens of the Oriental Republic of the Uruguay; and they shall not be restrained in their choice of persons to act in such capacities, nor be obliged to pay them any other salary or remuneration, than such as is paid in like cases by the citizens of the said republic; and absolute freedom shall be allowed in all cases to the buyer and seller to bargain and fix the price of any goods, wares, or merchandise imported into and exported from the Oriental Republic of the Uruguay, as they shall see fit, provided they observe the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of her Britannic Majesty by the citizens of the Oriental Republic of the Uruguay, under the same conditions.

The subjects and citizens of each of the contracting parties respectively shall, in the territories of the other, receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries respectively, for the prosecution and defence of their just rights; and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents of whatever description, whom they may think proper; and they shall enjoy, in this respect, the same rights and privileges therein as native citizens.

8. In whatever relates to the police of ports; the lading and unlading of ships; the safety of merchandise, goods, and effects; the succession to personal estates by will or otherwise; and the disposal of personal property of every sort and

British construction, built in Her Majesty's dominions, and which shall be by citizens of the said re- master and three-fourths bers shall be citizens of the rculated subjects of her d which shall be registered of the said republic, shall be of the said Oriental Republic ar as shall relate to any privileges in the several Majesty's dominions.

And, that no ship considered rther country shall be qualie described under the provi- unless she be furnished with e, or sea-letter, under the r person authorised to grant to the laws of the respective orm to be reciprocally com- Governments to each other, rt, or sea-letter shall certify a, and residence of the owner dominions of her Britannic territories of the Oriental guay, as the case may be; e, or they is or are the sole owners in the proportion to shall state the name, burden, the vessel, as to build and if the vessel is of foreign ntry, and, as far as may be from whom purchased, and rs constituting the national sel, as the case may be.

Her Britannic Majesty shall in all the territories of the of the Uruguay, to manage themselves, or to commit them of-whomsoever they please, as out, or interpreter; and they l to employ any other persons than those employed by the tal Republic of the Uruguay; be restrained in their choice of such capacities, nor be obliged other salary or remuneration, d in like cases by the citizens ic; and absolute freedom shall es to the buyer and seller to price of any goods, wares, or ted into and exported from the of the Uruguay, as they shall ey observe the laws and esta- the country. The same privi- oyed in the dominions of her y the citizens of the Oriental rguay, under the same con-

citizens of each of the con- spectively shall, in the terri- receive and enjoy full and e for their persons and property, e and open access to the courts id countries respectively, for the efence of their just rights; and liberty to employ, in all cases, orneys, or agents of whatever y they may think proper; and in this respect, the same rights ein as native citizens. relates to the police of ports; mading of ships; the safety of is, and effects; the succession to y will or otherwise; and the al property of every sort and

denomination by sale, donation, exchange, or in any other manner whatsoever; and to the administration of justice; the subjects and citizens of each of the two contracting parties shall enjoy, in the dominions and territories of the other, the same privileges, liberties, and rights, as native subjects or citizens; and they shall not be charged in any of these respects with any higher imposts or duties than those which are or may be paid by natives; conforming, of course, to the local laws and regulations of such dominions or territories.

And it is further agreed, that the subjects and citizens of the two contracting parties shall have and enjoy, in the dominions or territories of each other, the most full and perfect liberty to devise or dispose of their property and effects of every kind and denomination, and whosoever situate, by will or testament, to such person or persons, and in such proportions, as their own free will may dictate.

If any subject or citizen of either of the two contracting parties should die without will or testament in the dominions or territories of the other, the consul-general or consul, or, in his absence, the representative of such consul-general or consul, shall have the right to nominate curators to take charge of the property of the deceased, so far as the laws of the country will permit, for the benefit of the lawful heirs and creditors of the deceased, without being interfered with by the authorities of the country, but giving to those authorities due and proper notice.

9. The subjects of her Britannic Majesty residing in the territories of the Oriental Republic of the Uruguay, and the citizens of the said republic residing in the dominions of her Britannic Majesty, shall be exempted from all compulsory military service whatsoever, either by sea or land, and from all forced loans or military exactions or requisitions.

Neither shall they be compelled, under any pretext whatsoever, to pay any charges, requisitions, or taxes, greater than those which are or may be paid by native subjects or citizens of the territories in which they reside.

10. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but no consul shall act as such until he shall in the usual form be approved and admitted by the Government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as they may judge fit to be excepted. The diplomatic agents and consuls of the Oriental Republic of the Uruguay, in the dominions of her Britannic Majesty, shall enjoy whatever privileges, exemptions, and immunities are or may there be granted to agents of the same rank belonging to the most favoured nation; and in like manner the diplomatic agents and consuls of her Britannic Majesty, in the territories of the Oriental Republic of the Uruguay, shall enjoy, according to the strictest reciprocity, whatever privileges, exemptions, and immunities are or may there be granted to the diplomatic agents and consuls of the most favoured nation.

11. For the better security of commerce between the subjects of her Britannic Majesty and the citizens of the Oriental Republic of the Uruguay, it is agreed, that if at any time any interruption of friendly intercourse or any rupture should unfortunately take place between the two countries, the subjects or citizens of either of the two contracting parties who may be within the territories of the other, shall, if residing upon the coasts, be

allowed 4 months, and if residing in the interior, 9 months, to wind up their accounts and to dispose of their property; and a safe conduct shall be given to all such of the aforesaid persons as may choose to quit the country, to enable them to embark unmolested at the port which the Government of the country shall select. It is, moreover, further agreed, that all subjects or citizens of either of the two contracting parties who, at the time of any such interruption of friendly relations between the two countries, shall be established in the exercise of any trade or special employment in the dominions or territories of the other, shall have the privilege of remaining and of continuing such trade and employment therein, without any manner of interruption, in full enjoyment of their liberty and property, so long as they conduct themselves peaceably, and commit no offence against the laws; and their goods and effects, of whatever description, whether in their own custody or entrusted to individuals or to the state, shall not be liable to seizure or sequestration, or to any other charges or demands than those to which like effects or property belonging to native subjects or citizens may be liable. Debts between individuals, property in the public funds, and shares of companies shall never be confiscated, sequestrated, or detained.

12. The subjects of her Britannic Majesty, and the citizens of the Oriental Republic of the Uruguay, respectively, residing in the territories of the other party, shall enjoy, in their houses, persons, and properties, the protection of the Government, and continue in possession of the privileges which they now legally enjoy. They shall not be disturbed, molested, or annoyed in any manner on account of their religion, but they shall have perfect liberty of conscience, provided they respect the religion of the country in which they reside, as well as the constitution, laws, and customs of the land. They shall also have permission to celebrate divine service, according to the rites and ceremonies of their own church, either within their own private houses, or in their own particular churches or chapels, which they shall be at liberty to build and maintain in convenient places, approved of by the Government. Liberty shall also be granted to the subjects or citizens of either of the two contracting parties resident in the territories of the other, to bury, in burial-places of their own, such of their fellow-subjects or fellow-citizens who may die in such territories. Such burial-places may be freely established and maintained; and the funerals and sepulchres of the dead shall not be disturbed in any way, or upon any account.

13. The present treaty shall be in force for the term of 10 years from the date thereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years, or at any subsequent time.

And it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this treaty, and all the provisions thereof, shall altogether cease and determine.

14. The present treaty shall be ratified, and the ratifications shall be exchanged at London, as soon as possible within the period of 18 months from the date thereof.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of August, in the year of our Lord 1842.

AMERDEEN.  
RIFOX.  
JOSE ELLAURI.

*Additional Article.*

Whereas by Article 9 of the treaty of amity, commerce, and navigation, concluded and signed this day between her Britannic Majesty and the Oriental Republic of the Uruguay, it is stipulated that the subjects of her Britannic Majesty residing in the said republic shall not be compelled, under any pretext whatsoever, to pay any charges, requisitions, or taxes, greater than those which are or may be paid by native citizens; and whereas, by a law of the Oriental Republic of the Uruguay, a foreigner pays for the license to open a shop, or other establishment included in the provisions of the said law, a sum greater than that which is paid by a native citizen; her Britannic Majesty engages, notwithstanding the provisions of the above-mentioned article, not to insist upon the abolition of this distinction, so long as it exists impartially with regard to the subjects or citizens of every other foreign nation.

And his Excellency the President of the Oriental Republic of the Uruguay engages, on his part, that if at any future time the amount payable by British subjects for such license should be increased, a corresponding increase shall at the same time be made in the sum payable by native citizens of the republic; so that the proportion between the sum payable by British subjects and the sum payable by citizens of the Oriental Republic of the Uruguay, respectively, shall never be altered to the prejudice of British subjects.

The present additional article shall have the same force and validity as if it were inserted, word for word, in the treaty signed this day. It shall be ratified, and the ratifications shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of August, in the year of our Lord 1842.

AMERDEEN.  
RIFOX.  
JOSE ELLAURI.

*Second Additional Article.*

Whereas a strict and immediate execution of that part of Article 6 of the treaty of amity, commerce, and navigation, signed at London on the 26th of August, 1842, between her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and the Oriental Republic of the Uruguay, which stipulates that a ship must have been actually built within the territory of the Oriental Republic of the Uruguay, to be considered a ship of that republic, would, in the present state of Uruguay shipping, deprive the republic of the full advantage of the reciprocity intended to be established by the treaty; it is agreed that, for the space of 7 years from the date of the exchange of the ratifications of the said treaty, any ships, whosoever built, being owned, navigated, and registered in conformity with the provisions of Article 6 of the treaty, shall be considered as ships of the Oriental Republic of the Uruguay; her Majesty the Queen of the United Kingdom of Great Britain and Ireland reserving to herself the right to claim, at the end of the said term of 7 years, the strict enforcement of all the stipulations contained in the said article of the treaty,

relative to the conditions which are to determine the national character of vessels of the Oriental Republic of the Uruguay.

The present additional article shall have the same force and validity as if it had been inserted, word for word, in the aforesaid treaty of the 26th of August, 1842. It shall be ratified, and the ratifications shall be exchanged at the same time and place as those of the treaty.

In witness whereof, the undersigned plenipotentiaries of her Britannic Majesty, and of the Oriental Republic of the Uruguay, have signed the same, and have affixed thereto the seals of their arms.

Done at Montevideo, the 8th day of March, in the year of our Lord 1843.

J. H. MANDEVILLE.  
SANTIAGO VASQUEZ.

ZOLLVEREIN.

See treaty under Prussia in this article.

TREBIZOND (anciently Trapezus, from its resemblance to a trapezium). A town of Asia Minor, on the south-east coast of the Black Sea, lat. 41° 1' N., long. 39° 45' 48" E. Population estimated by Mr. Consul W. G. Palgrave, in his very instructive *Report on the Provinces of Trebizond &c.*, presented to Parliament in 1869, at 33,301. The old town is built on a rock rising rapidly from the sea. It is a place of great antiquity; and from the year 1203 to the final subversion of the Eastern empire by Mohammed II., in the 15th century was the seat of a dukedom, or, as it was sometimes called, an empire, comprising the country between the Phasis and the Halys. Its fortifications are still of some strength, at least for a Turkish city. The space included within the walls is not of great extent; but the chief part of the western town lies without these walls. The houses are mean in their outward appearance, and comfortless within. (Tournefort, *Voyage du Levant*, tome ii. pp. 231-9; Kinnier's *Journey through Asia Minor* &c. p. 338; Mr. Consul Palgrave's *Report on Anatolian Provinces*, vol. for August to December 1868, pp. 338, 339.)

The increase in the commerce of Trebizond, in consequence of its becoming the entrepôt for the transit trade with Persia as well as for the trade with the adjacent countries, led to its extension and improvement; and the stimulus so given was greatly increased by circumstances growing out of the late war with Russia.

*Harbour.*—Trebizond has two ports, one on the W. and one on the E. side of a small peninsula, or point of land, projecting a short way into the sea. That on the E. is the best sheltered, and is the place of anchorage for the largest ships. It is, however, exposed to all but the southerly gales; but it does not appear that, with ordinary precaution, any danger need be apprehended. The ground, from  $\frac{1}{4}$  to  $\frac{1}{2}$  mile E. from the point, is good sand and clay, and holds extremely well. Ships moor with open hawse to the north, and a good hawser and stream anchor on shore, as a sternfast. At night, the wind always comes off the land. There is a fixed light on the point, and there is a second light at Platana, about 6 miles west. Captain Middleton says that the only bad weather is from the N.W.; but that, though the swell be considerable, it does not cause any heavy strain upon the cables. (*Nautical Magazine*, vol. ii. p. 181.) At Platana, near Trebizond, and quite as exposed, Turkish vessels have from time immemorial rode in safety the whole winter; a satisfactory proof that the danger supposed to be incident to the Black Sea coast are wholly visionary. (*Id.* p. 211. *Id.*)

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J. H. MANDEVILLE.  
SANTIAGO VASQUEZ.

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is visionary. (N.W. p. 25.)

Palgrave says that only one vessel within living  
memory has been lost in this harbour.

**Trade.**—In antiquity, and in more modern  
times, previously to the conquest of Constanti-  
nople by the Turks, and the exclusion of all  
foreign vessels from the Black Sea, Trebizond was  
the seat of an extensive trade. Anyone, indeed,  
who casts his eye over a map of W. Asia, must be  
satisfied that this city is the natural emporium of  
all the countries to the S.E. of the Black Sea,  
from Kars on the east, round by Diarbekor to  
Amasia on the west. Erzeroum, the principal  
city of Armenia, is only about 135 miles S.E.  
from Trebizond. Its merchants are distinguished  
by their superior attainments, and by their enter-  
prise and activity. For a lengthened period they  
derived most part of their supplies of European  
commodities by way of Smyrna or Constantinople;  
nothing, however, but the impossibility of obtaining  
them at so convenient a port as Trebizond, could  
have made them resort to such distant markets  
as those now mentioned; and it may well excite  
surprise, considering the period during which the  
Black Sea has been open, that efforts were not  
sooner made to establish an intercourse with

Armenia, Georgia, and the north-western parts of  
Persia, through this channel. We are glad, how-  
ever, to have to state, that within these few years  
this has been done; and, notwithstanding the  
difficulties that necessarily attach to every at-  
tempt to open new channels of commerce with  
semi-civilised nations, the experiment has proved  
more than ordinarily successful.

The transit trade of Trebizond with Persia em-  
ploys, according to Mr. Palgrave, about 60,000  
pack horses, carrying yearly 120,000 loads, each  
about 3 1/2 cwt., or 21,000 tons in all, 3,000 camels,  
3,000 oxen, and 6,000 asses, and is valued at about  
1,300,000*l.* yearly. There are no road dues, but  
a fixed 2 per cent. is charged as customs. Besides  
the East Anatolian inland traffic, valued at  
595,000*l.*, Trebizond has an extensive trade with  
Batoum, Ridont Kalé, and other ports on the  
Black Sea; and sometimes, when the crops in the  
adjacent territory are deficient, it imports large  
quantities of corn from the Danube and Odessa.  
The imports from England principally consist of  
cotton stuffs and twist; iron, hardware, machi-  
nery, and coal; tin and tin-plates; sugar, tea,  
and other articles of colonial produce &c.

Account of the Nationalities, Number, Tonnage, and Crews of the Steamers that Entered and Cleared from Trebizond in 1867, with the Values of the Imports and Exports.

Nationality	ARRIVED					
	Number	Tonnage	Crews	Values in Turkish Money	Values in English Money	In Ballast
Russian	101	56,014	4,015	31,530,010	287,217 0 0	..
French	86	43,565	5,106	79,917,740	666,729 10 0	..
Turkish	40	11,622	1,274	21,055,180	301,329 0 0	..
Austrian	75	16,862	1,223	50,451,212	417,927 0 0	..
Italian	20	8,760	662	32,935,430	271,162 10 0	..
British	2	1,032	50	5,437,419	28,617 0 0	..
Total	287	110,855	10,292	228,237,392	1,876,812 2 0	..
				DEPARTED		
Russian	101	56,014	4,015	59,192,360	231,665 0 0	..
French	86	43,565	5,106	67,886,000	561,053 0 0	..
Turkish	40	11,622	1,274	19,892,010	132,268 0 0	..
Austrian	75	16,862	1,223	47,553,890	399,261 0 0	..
Italian	20	8,760	662	18,018,410	129,107 0 0	..
British	2	1,032	50	3,095,229	25,116 0 0	..
Total	287	110,855	10,292	187,638,810	1,019,801 0 0	..

Account of British and Foreign Sailing Ships which Entered and Cleared at Trebizond in 1867.

Nationality	Entered				Cleared			
	With Cargo		In Ballast		With Cargo		In Ballast	
	No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage
British	4	2,309	2	529	6	2,758	..	..
Turkish	62	8,993	43	4,201	104	12,781	5	412
Russian	18	719	11	423	25	927	4	205
Greek	3	374	..	..	3	374	..	..
Italian	..	4,115	..	..	9	5,615	2	810
Austrian	..	..	1	419	1	419	..	..
Prussian	..	..	1	268	1	268	..	..
Mexicoburg	1	88	..	..	1	88	..	..
Total	99	16,834	58	5,837	118	21,213	9	1,425

Account of the Vessels Engaged in the Coasting Trade at Trebizond in 1867.

Nationality	Entered				Cleared			
	With Cargo		In Ballast		With Cargo		In Ballast	
	No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage
Turkish	851	16,335	41	298	870	16,186	22	115
Russian	5	390	..	..	5	390	..	..
Total	856	16,725	41	298	875	16,576	22	115

Of the exports, silk is the most important;  
and next to it are raisins, nuts, saffron, tobacco,  
oppor, wax, shawls, beans, galls, leeches &c.

**Money, Weights, and Measures,** same as at  
CONSTANTINOPLE.

**Port Regulations.**—When a vessel arrives at  
Trebizond, the master comes ashore to the Health  
Office, to exhibit his bill of health, and, after  
undergoing a short interrogation, is admitted to

pratique, unless his bill of health happens to be a  
foul one. Sometimes the Health Office sends a  
boat off to the vessel, and thus saves the master  
the trouble.

**Mode of Landing Cargo.**—After a vessel re-  
ceives pratique, the master may begin to dis-  
charge, at his pleasure, into lighters provided by  
the consignees of the goods at their expense.  
Each of these lighters takes from 6 to 7 tons goods.

**Custom-house.**—There are no forms to undergo at the custom-house prior to discharging, nor even after the vessel has landed her cargo. The goods from the vessel are taken to the custom-house, and claimed thence by the owners, the captain's consignee sending a person to superintend the delivery.

**Ballast,** consisting of sand and shingle, may be had, on application to the harbour-master, for about 10s. (50 piastres) the lighter of 6 or 7 tons. The captain may, however, send his own boat to the beach, abreast of his ship, and, by the aid of his crew, load his own ballast, without paying any fee for it.

**Water** is to be obtained from the Mariamama river, E. of the anchorage. Masters of vessels may send their own boat and men for it; but it is advisable to employ a native boat, the latter being better acquainted with the entrance of the river, and better adapted to the service. English boats are liable to be swamped if there be any swell at the mouth of the stream. The expense of a native boat is moderate, say 5s. to 7s. 6d.

**Labourers** may be hired to assist at the loading or discharge of vessels at 2s. (10 piastres) per diem each.

**Provisions** are abundant, and moderate in price. The following are about the average rates of the articles generally required by shipping:—

Bread	-	-	1	piastre or 2½d.	per oke
Beef	-	-	1½	"	5½d. "
Mutton	-	-	1½	"	5½d. "
Vegetables	-	-	2	"	14d. "
Wine	-	-	1½	"	2½d. to 5½d. per oke
Eggs	-	-	1½	"	2½d. per dozen
Tobacco	-	-	12	"	2s. 6d. per oke

**Weights and Measures.**—Everything excepting linen, silken, and cotton stuffs, is sold by weight. Stuffs are sold by measure. The following will serve as a guide to the shipmaster:—

1 kintal,	41	okes =	121	lb.
1 barman	6	" =	16½	"
1 oke		" =	2½	"

The measure of length is called a pike, and is equal to 25 inches English.

**Quarantine Dues.**—A fee, not exceeding 2 dollars (9s. 6d.), is exacted by the Health Office for every bill of health granted to a vessel; but its cost depends upon the tonnage of the vessel.

No light dues or port dues are exacted; but the harbour-master, who, on seeing the vessel approaching the port, goes off and pilots her to her anchorage, is entitled to 20 piastres = 1s. (Mr. Consul Palgrave's *Report*, and *private information*.)

**TRIESTE.** A city and sea-port of the Austrian dominions, the capital of a district of Illyria, situated near the N.E. extremity of the Gulf of Venice, lat. of lighthouse on Santa Teresa mole, 45° 38' 49" N., long. 13° 40' 15" E. Population, in 1864, of the city district comprised within the limits of the free port, 105,000. It is divided into the old and new towns. The former is built upon elevated ground; the latter, which is lower down, is laid out with greater regularity, and is partly intersected by a canal, into which vessels not drawing more than 9 or 10 feet water enter to land and unload.

**Harbour.**—The harbour of Trieste, though rather limited in size, is easy of access and convenient. It is protected from southerly gales by the *Molo Santa Teresa*, so called from the Empress Maria Theresa, at the extremity of which the lighthouse, already mentioned, has been constructed. The port, with the mole, forms a crescent 1½ mile in length, being a continued quay, faced with hewn stones, with stairs and jetties for the convenience of embarkation. On the

north side of the port is a dock or harbour, appropriated exclusively for vessels performing quarantine. It is walled round; and is furnished with hotels, warehouses, and every sort of accommodation required for the use of passengers and goods. Ships under 300 tons but on lie close to the quays; those of greater size anchoring a little farther out.

The principal defects of the port are, its limited size, and its being exposed to the N.W. winds, which sometimes blow with much violence, and throw in a heavy sea. The gales, however, are seldom of long continuance; and the holding ground being good, when the anchors are backed and proper precautions taken, no accident occurs. The tide at Trieste is scarcely perceptible; but the depth of water is influenced by the wind, being increased by a long continued sirocco or S.E. wind, and diminished by the prevalence of the E.N.E. wind, known by the name of *Bura*. The access to the port is not obstructed by any bar or shallow; and there is good anchorage in the roads, in from 6 to 7 and 10 fathoms water. A good sailing vessel may beat in by night or by day, except it blow hard from the N.E. or E.N.E., when she had better anchor in the Bay of Rosos, or Pirano, where she will ride in perfect safety.

**Pilots.**—Ships bound for Trieste are under no obligation to take pilots; but those entering the port for the first time would do well to take one on making the coast of Istria. Boats are always hovering off Rovigno; they are not manned by regular pilots, but by fishermen, who, though unfit to be trusted with the management of the ship, know the bearings of the places and the depth of water. The fee usually paid them for pilotage is 20 dollars; in addition to which, they are supported at the ship's expense during the performance of quarantine.

**Lighthouses.**—The lighthouse at the extremity of the Santa Teresa mole is 106 feet (Eng.) high. The light is intermittent; and may be seen, supposing the eye of the observer to be elevated 12 feet above the level of the sea, about 15 nautical miles, or from Pirano on the side of Istria, and the shoals of Grado on the Italian coast. There are also fixed lights on Mole San Carlo and Mole Giuseppino. A lighthouse has also been erected on the point of Salvore, bearing from Trieste W. by S., distant about 18 miles. The lantern is elevated about 106 feet above the level of the sea, and is visible for 15 miles. From this point Pirano Bay opens, where vessels may anchor in safety in all sorts of weather.

**Money.**—Mercantile accounts are usually kept at Trieste in what is commonly called *convention money*, from an agreement entered into with respect to it by some of the German princes, in 1763. The current coins that are legal tender are dollars, ½ dollars or florins, zwanzigers, or pieces of 20 kreutzers. Ten dollars are coined out of the Cologne marc (3,608 gr. Eng.) of pure silver, so that the value of the dollar is 4s. 3d. sterling.

The florin (convention money) = 2s. sterling, and the florin (Austrian Standard) = about 1s. 10½d.; zwanzigers, or pieces of 20 kreutzers (50 to the marc), = 8½d. sterling. All contracts are either expressly declared, or are understood, to be in silver money; gold coins, not being legal tender, pass only as merchandise.

**Weights and Measures.**—Those chiefly in use at Trieste are those of Vienna. The commercial pound contains 4 quarters, 16 ounces, or 32 lobes; it is = 8,639 English grains. Thus, 100 lb. at Trieste = 123½ lb. avoirdupois; or 90½ lb. of Trieste = 112 lb. avoirdupois. The Zoll counter = 110½ lb. avoirdupois.

is a dock or harbour, ap- for vessels performing a round; and is furnished with every sort of accom- the use of passengers and 30 tons but can lie close to enter size allowing a little

of the port are, its limited posed to the N.W. winds, with much violence, and The gales, however, are nance; and the holding on the anchors are backed taken, no accident occurs, scarcely perceptible; but is influenced by the wind, long continued sirocco or ished by the prevalence of wn by the name of *Buro*. It is not obstructed by any there is good anchorage in to 7 and 10 fathoms water, may beat in by night or by nd from the N.E. or E.N.E., anchor in the Bay of Boves, will ride in perfect safety, and for Trieste are under no ate; but those entering the e would do well to take on of Istria. Boats are always; they are not manned by fishermen, who, though the management of the rings of the pieces and the fee usually paid them dollars, in addition to which, at the ship's expense during the voyage.

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le accounts are usually kept s commonly called *convention* agreement entered into with e of the German princes, in e florins, *zwanzigers*, or pieces n dollars are coined out of the 8 gr. Eng.) of pure silver, so e dollar is 4s. 3d. sterling. *Convention money* = 2s. sterling. (Austrian Standard) = about ers, or pieces of 20 kreutzers = 8d. sterling. All contracts e declared, or are understood, y; gold coins, not being legal merchandise.

asures.—Those chiefly in use e of Vienna. The commercial quarters, 16 ounces, or 32 halves a grains. Thus, 100 lb. of a avoirdupois; or 904 lb. of a avoirdupois. The Zoll center ois,

The principal dry measure is the *stajo* or *sturo* = 2.31 Winch. bushels. The Vienna *metzen*, which is sometimes used = 1.723 Winch. bushel. The *polonick* = 0.861 Winch. bushel.

The principal liquid measure is the *orna* or *cimer* = 40 *boccali* = 14.91 wine or 12½ imperial gallons very nearly. The *barile* = 173½ English wine gallons.

The *orna* of oil contains 5½ *cattisi*, and weighs about 107 commercial pounds. It is = 17 wine or 14.16 imperial gallons.

The *ell* woolen measure 26.6 English inches. The *ell* for silk = 25.2 English inches.

*Trade*.—Trieste has no command of internal navigation; but being the most convenient, or rather the only sea-port, not merely of the Illyrian provinces, but of the Duchy of Austria, and the greater part of Hungary, she possesses an extensive commerce. This has been increased by the facilities afforded to all sorts of mercantile transactions by the privilege of *porto franco* conferred on the town, and a considerable extent of contiguous country. Under this franchise, all goods, with but very few exceptions, may be imported into and exported from the city free of all duties whatever. Foreign products, when taken for consumption into the interior, are subject to duties.

*Exports*.—These are very various, consisting partly of the raw and partly of the manufactured products of Austria Proper, Illyria, Dalmatia, Hungary, and Italy; with foreign articles imported and warehoused. Among the principal articles of raw produce may be specified, corn, chiefly wheat, rye, and oats, with timber, rice, wine, oil, currants and raisins, shumac, tobacco, wax, &c.; silk, silk rags and waste, hemp, wool, flax, linen rags, hides, furs, skins &c.; the produce of the mines makes an important item, consisting of quicksilver, cinabar, iron, lead, copper, brass, litharge, alum, vitriol &c.; the forests of Carniola furnish timber, for ship building and other purposes, of excellent quality and in great abundance, with staves, corkwood, box, hoops &c.; marble also ranks under this head. Of manufactured articles, the most important are, thrown silk, silk stuffs, printed cottons from Austria and Switzerland, coarse and fine linens, glass, and all sorts of leather; under this head are also ranked soap, with jewellery, tools and utensils of all sorts, glass ware, and mirrors, refined sugar, and a host of other articles. Of foreign articles imported and re-shipped, the most important are sugar, coffee, and dye stuffs. Trieste is also a considerable depot for all sorts of produce from the Black Sea, Turkey, and Egypt.

It is not possible to obtain any very accurate account of the quantity and value of the exports; but Mr. Money, the late British consul at Trieste, who carefully enquired into the subject, supposed that they might have amounted in 1863, exclusive of those shipped for Venice, Fiume, and other Austrian ports, to about 1,800,000*l.* a-year.

There has, however, been a considerable increase in the *interval*; for the entire value of the exports from Trieste to foreign countries was estimated, in 1864, at 6,000,000*l.* a-year.

Mr. Bonar, in his *Report* of March 1, 1867, of the Commerce of Austria, states the value of her foreign commerce in 1865, at 601,300,000 *florins* (viz. 2,348,000,000 for imports, and 344,500,000 for exports). We extract from the same gentleman's *Report* of July 10, 1868, an account of the value of the exports and imports (exclusive of the precious metals) of the Austrian dominions in 1866 and 1867.

This table shows that the value of the

exports in 1867 from Trieste by sea alone was 10,122,610*l.*

Account of the Value of the Imports into and Exports from Trieste in 1866 and 1867.

	Imports		Exports	
	1866	1867	1866	1867
By sea	flor.	flor.	flor.	flor.
By land	73,807,562	85,149,690	103,093,547	101,226,107
	79,885,574	85,149,690	318,878,197	45,480,052
Total	155,600,936	172,197,579	13,971,514	147,706,159

Showing an excess of imports over the exports amounting to a value of 24,751,611 florins, or 2,475,161*l.*

Trieste being a free port, goods destined for its consumption, and that of the adjoining territory, pay no duties whatever, and are exported and imported without notice by the customs. Goods brought from the interior for export at Trieste are charged an export duty on passing the custom-house line. Goods imported at Trieste, to be conveyed through the Austrian dominions to those of any other Power, are charged a small transit duty.

Gunpowder, salt, and tobacco, being articles monopolised by Government, are not allowed to be imported into Trieste except for sale to the Government or its contractors. Vessels arriving with gunpowder on board deliver it at the arsenal, and on their clearing out it is returned to them free of expense. The utmost vigilance is exerted to prevent the introduction of tobacco; but with very little effect. The only articles the exportation of which from the Austrian dominions is at present prohibited are gold and silver in bars, and silk cocoons.

*Shipping*.—Since the loss of Flanders, the mercantile navy of Austria has been confined wholly to the ports on the Adriatic. But it is, notwithstanding, very considerable; and engrosses at this moment a large share of the trade of the Mediterranean and Black Sea. The oak timber of Carniola and the Dalmatian coast is reckoned about the very best in the world, so that the Austrian ships, being built of it, are very strong, at the same time that they are particularly handsome. They are also well manned and provided. The seamen are expert, temperate, and orderly; and the laws for the regulation of the merchant service are excellent.

Account of the Number and Tonnage of Vessels Entered at the Principal Ports of Austria, in the Years 1862, 1863, 1864.

Ports	Entered					
	1862		1863		1864	
	vessels	tons	vessels	tons	vessels	tons
Porto Levante	592	22,005	493	19,063	514	11,062
Venice	5,369	536,025	5,373	516,294	5,092	505,051
Grado	1,121	10,883	1,000	11,360	883	8,764
Trieste	377	3,393	318	8,102	308	7,313
Fiume	10,905	763,339	16,578	725,574	10,118	72,390
Capo d'Istria	1,343	20,583	1,267	17,124	1,119	19,376
Brindisi	2,310	17,350	2,780	125,127	2,650	114,517
Pola	1,179	29,434	1,260	24,332	1,209	40,854
Fiume	2,811	115,169	2,160	101,781	1,974	113,745
Fiume	6,136	151,926	6,611	121,910	6,539	115,579
Zadar	1,878	67,804	1,838	65,219	1,290	35,828
Zara	1,731	84,547	1,636	89,332	1,483	101,502
Schicauo	952	83,271	847	82,527	953	95,906
Soudal	2,322	71,827	2,501	75,347	1,901	75,981
Gravello	807	108,523	823	125,878	791	126,798

The number of vessels in 1866 and 1867, as shown by the second table on the next page, was no doubt affected by the events of the war with Prussia.

By far the greater number of vessels of large burden belong to Trieste. The rest belong to Fiume, Ragusa, and the Bocche di Cattaro. On

Number and Tonnage of Vessels of each Nation (Sailing and Steam) Entered at the Port of Trieste, in the Years 1863, 1864, 1865.

Nationality of Vessels	Entered					
	1863		1864		1865	
	Vessels	Tons	Vessels	Tons	Vessels	Tons
Austrian	7,311	97,275	7,575	298,590	7,381	318,739
(Sailing)	711	199,168	765	241,918	751	212,550
(Steam)	11	3,906	11	4,672	30	7,189
Italian	13	1,292	22	5,021	21	6,182
(Sailing and Norwegian)	19	3,510	12	1,313	11	1,608
(Sailing)	3	708	29	7,050	13	4,266
(Steam)	16	15,238	19	7,806	45	25,596
Dutch	8	2,937	6	5,118	1	2,069
(Sailing)	13	1,858	28	3,405	16	8,167
(Steam)	3	873	19	4,713	3	1,105
Hanoverian	8	2,036	7	1,505	5	811
(Sailing)	28	7,110	39	13,381	78	27,222
(Steam)	69	6,571	54	17,992	59	16,230
Mexicoburg	13	2,265	6	1,018	13	1,835
(Sailing)	1	1	1	895	69	58,851
(Steam)	63	13,886	51	40,366	29	10,371
Italian: Neapolitan	9	4,009	11	3,373	3	948
(Sailing)	2	250	1	83	1	75
(Steam)	7	3,759	10	3,290	2	873
(Sailing)	9	3,776	11	26,355	51	29,182
(Steam)	1	293	3	762	2	511
Portuguese	1	41,562	206	26,265	271	25,755
(Sailing)	74	3,819	45	3,872	49	6,918
(Steam)	110	10,391	51	8,393	410	41,599
(Steam)	1	1	1	1	1	1
Other countries	110	10,391	51	8,393	410	41,599
(Sailing)	9,751	131,911	9,279	374,171	9,630	317,011
(Steam)	821	379,653	869	390,825	811	339,101
Total	10,572	715,571	10,148	772,996	9,991	857,625

Account, showing the Number of Vessels and their Tonnage that Entered and Cleared from Trieste in 1866 and 1867.

	Entered				Cleared			
	1866		1867		1866		1867	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
Sailing vessels	10,591	6,91,274	9,268	501,756	10,165	6,10,206	9,561	5,66,821
Steamers	921	261,847	997	289,601	953	281,289	995	301,875
Total	11,512	953,121	10,265	791,357	11,118	8,91,495	10,556	8,68,696
Of which in ballast:								
Sailers	5,099	208,121	9,046	192,054	2,956	65,281	5,069	74,779
Steamers	61	28,613	32	8,285	58	24,175	10	1,912

the other hand, the smaller vessels employed in the coasting trade, which is very considerable, are more equally divided; Venice having, probably, as many as Trieste, while a good number belong to the ports of Istria, Hungary, and Dalmatia.

The foreign trade of this port comprises all voyages beyond the limits of the Adriatic; and may be divided as follows:—

1. The Levant trade, including the Ionian Islands, Greece, Constantinople, Smyrna, Odessa &c., the ports in Syria, Cyprus, Candia, and Egypt, more especially Alexandria.

2. The *ponente* or Mediterranean trade, in the west, comprising the coast of Barbary, Spain, France, and Italy; being principally carried on with Marseilles, Genoa, and Leghorn.

3. The commerce on the ocean, which the Austrian merchants have attempted with considerable success. Several ships sail for Brazil, the United States, England, Hamburg &c.

**Customs Regulations.**—The Custom-house at Trieste has nothing whatever to do with the entry, reporting &c. of vessels. When a ship arrives, she is reported to the Health Office; which publishes a list of arrivals and departures, with a statement of their cargoes, as they appear in the manifests. Ships are cleared by the same office; the masters being assisted by the consuls of the country to which they belong. As soon as a vessel has performed quarantine, she loads or unloads without any interference or inspection by the customs officers, or by anyone else. Goods unsusceptible of contagion may be landed during quarantine.

**Tariff.**—By the commercial treaties lately

concluded between Austria and this country [TREATIES, COMMERCIAL] and between Austria and the Zollverein, decided steps towards freedom of trade have been taken; and Mr. Secretary Bonar, in his *Report* of July 10, 1868, says that, since the introduction of the reduced tariff, an unusual commercial activity is observable throughout the empire. Annexed is a list of the import duties on some articles largely produced in this country.

Articles	Duties	
	per cent.	£ s. d.
Iron and steel wire	-	0 8 11
Zinc, in sheets	-	0 1 6
Cotton yarn	-	0 8 11
Flax and hemp	-	0 1 6
Woolen	-	0 1 6
Cotton goods	-	0 1 6
Linens of flax or hemp	-	0 1 6
Silk goods	-	0 1 6
Paper for writing and printing	-	0 2 0
Salt-fry	-	0 1 6
Glass wares	-	0 1 6
Earthenware	-	0 5 0
Needles (sewing)	-	1 10 5
Firearms	-	1 10 5

**Port Charges.**—These are paid at the office of the harbour master on clearing out. They are the same, whatever may be the ship's stay, and are, perhaps, the most moderate of any in Europe.

tered at the Port of

Port Charges paid by Austrian and Foreign Ships.

Austrian, and foreign privileged ships—	kr.
Anchorage, per ton admeasurement	4
Lighthouse	3
Cargo duty, per ton weight of goods	5
N.B.—If grain, per 20 stajns.	
Foreign ships not privileged—	
Anchorage, lighthouses, and cargo as above, per ton admeasure-	10
ment, and per ton weight of goods	16
New cargo duty, per ton admeasurement	10
Abolitions, payable by ships departing in ballast, or with less than half a cargo	9

Comparative Statement of the Port Charges paid at Trieste, respectively, by a native and privileged Foreign Ship, and a Foreign Ship not privileged, each of 300 Tons Burden, with mixed Cargoes.

Native and privileged—	d.
Anchorage and light, as above, 200 tons, at 7 kreutzers per	6
ton admeasurement	25
Cargo duty, 300 tons, at 5 kreutzers	15
Total	50
or about 4l. 18s. sterling	
Foreign, not privileged—	
Anchorage, light and cargo duty, as above	50
Tonnage duty, 300 tons, at 10 kreutzers	50
Total	100
or about 12l. 10s. sterling	

If the ship depart in ballast, or with less than ½ a cargo, there is a further charge of 9 kreutzers per ton, or 45 florins; making in all 175 florins.

Quarantine is strictly enforced at Trieste, and the establishments for facilitating its performance are complete and efficient. The Board of Health at this port is the central or principal one for the Austrian States; and maintains an active correspondence with all the principal ports, both in the Mediterranean and elsewhere. There are 2 lazarettos—that called St. Teresa, or Lazaretto Nuovo, is appropriated to vessels from the Levant and Egypt, which are, for the most part, subjected to the long or full quarantine of 40 days. It is spacious, and properly guarded; having a sufficient number of military and medical officers and assistants; with extensive quays and magazines for housing and airing goods, dwelling houses, and apartments for resident officers and passengers &c. It is, in fact, one of the most perfect establishments of the kind in existence. The other, or old (vecchio) lazaretto, contiguous to the great mole, is appropriated to ships and passengers performing a quarantine of not more than 28 days; and though inferior to the former, is sufficiently capacious and convenient. The sanitary offices, including that of harbour master, are near the centre of the port; where also are moored vessels under observation for a term not exceeding 8 days. There also are facilities for communicating vivâ voce with persons under quarantine; and spacious warehouses, with adequate guards and other officers. But, notwithstanding these conveniences, if a vessel arrive having an infectious malady on board, she is not allowed to enter either lazaretto at Trieste.

Quarantine Dues payable on Goods.—Non-susceptible goods pay ad valorem at the rate of 6 kreutzers per 100 florins or 1 mille. Susceptible goods pay an extra charge, according to tariff, or to circumstances. Besides the above ad valorem duty, goods not susceptible pay 4 kreutzers (1½d.) per every 1,000 lb. weight of Vienna. Grain is subject to an extra charge of about ½ per cent.

Brokers, Commission Merchants, Brokerage &c.—There are a few exceptions to the freedom generally enjoyed of settling and exercising any trade at Trieste. Brokers, for example, are limited in number, and appointed by the Chamber of Commerce. They are obliged to give security, are under various regulations, and may not themselves trade as principals. They are of 3 classes: 1st, brokers for the sale and purchase of merchandises, who are again subdivided into particular classes,

according to the articles they are conversant with, as grain, oil, cotton, drugs, hides and leather, colonial produce, manufactures &c.; 2nd, bill brokers, or exchange agents; and, 3rd, ship and insurance brokers. Such authorised brokers are alone allowed to extend contracts, certificates, surveys, or other documents; and they are considered as public functionaries, whose depositions are received as legal evidence.

Anyone may be a commission merchant or factor, but he may not issue printed circulars or lists of prices; nor will his books, however regularly kept, be considered as evidence in a court of justice, unless he is matriculated, for which the possession of a certain amount of capital is required. This, however, is little more than mere form, and a great deal of business is done by persons acting both as merchants and brokers, without being duly authorised.

The usual rate of a merchant's or factor's commission on the purchase of goods is 2 per cent.: on sales, ½ per cent. del credere is sometimes added.

A merchant's commission for collecting freight, and doing other shipping business, is 2 per cent. on the inward cargo; and by custom of the place, the house to which a ship is consigned or recommended by the charterers, is entitled to a commission of 2 per cent. on the outward cargo, whether it has or has not been instrumental in procuring the goods that are laden outwards.

A broker's commission for freightage a ship, or procuring a charter, is 2 per cent. This does not include the charge for writing charter, or for any other services performed in the clearance. In case of general cargoes, when the broker has to collect goods from different merchants, he charges 3 per cent. commission. A bill broker's commission (courtage) is sometimes 1 per mille, more commonly ½ per mille. Brokerage for the sale or purchase of merchandise varies from ½ per cent. to 1 per cent., according to circumstances, and the nature of the article.

Insurance.—The insurance of ships is carried on to a considerable extent at Trieste. The security is unexceptionable, the terms more moderate than in England, and losses are said to be adjusted promptly and liberally. The former oppressive duties on policies of insurance in England have been the cause that most insurances on ships for the Adriatic, that were at one time effected in London, Liverpool &c., are now effected at Trieste. The insurance of houses is universal; and that of lives is also, of late years, practised to a considerable extent. House insurance is carried on by joint-stock companies, of limited responsibility.

Bankruptcy is not of very frequent occurrence at Trieste. The laws with respect to it do not differ much from those in force in most other countries. Frauds are punishable by imprisonment; but here, as elsewhere, they are very difficult to detect. Honest bankrupts are discharged, on making a complete disclosure of their affairs, and a surrender of their assets. Property settled on a wife is not affected by the debts of the husband; a regulation which, it is evident, must lead to fraud.

Communications by Land.—The intercourse between Trieste and Austria, Hungary &c., is necessarily all carried on by land. The roads leading to the Austrian and Hungarian towns, particularly the first, are kept in good repair, and the tolls are moderate; but owing to the rugged nature of the country, the ascent is in some places very considerable. The draught horses employed on the roads are excellent; but, in some of the mountainous districts, bullocks are used.

Railways.—Despite the difficulties in the way, a

and Cleared from Trieste

Cleared		
	1867	
Vessels	Tons	
1868	9,704	546,821
1869	905	291,855
1870	10,294	241,673
1871	5,069	75,579
1872	10	1,514

and this country [Austria] and between Austria (aid steps towards freedom taken; and Mr. Secretary of July 10, 1868, says that the reduction of tariff activity is observable. Annexed is a list of the articles largely produced

	Duties
	per cent.
	2 ½
	8 11
	1 6
	4 11
Ammonium	0 14 5
Ammonium	0 1 6
Ammonium	0 12 2
Ammonium	0 1 6
Ammonium	0 12 2
Ammonium	1 10 5
Ammonium	8 7 6
Ammonium	0 12 2
Ammonium	7 2 1
Ammonium	6 2 0
Ammonium	2 4 0
Ammonium	0 2 0
Ammonium	0 12 2
Ammonium	0 12 2
Ammonium	1 1 4
Ammonium	0 1 6
Ammonium	0 12 2
Ammonium	0 5 0
Ammonium	0 12 2
Ammonium	1 10 5
Ammonium	1 10 5

are paid at the office on clearing out. They may be the ship's stay, most moderate of any in

railway has been constructed between Vienna and Trieste, a distance of more than 340 miles. This was a very great undertaking, and its completion reflects great credit on the Austrian Government and engineers. The whole length of Austrian railways now in activity amounts to upwards of 4,000 English miles, and thus Trieste and Vienna are connected with all the great towns of the empire, and with the rest of Europe.

**Careening, Stores &c.**—Timber at Trieste is excellent, workmen good, and their wages moderate; so that it is a very favourable place for careening and repairing. Water is very good, but rather scarce; so that, if a large supply be required, due notice must be given. Ships are served in regular rotation. Beef is very good, but rather high priced. Butter and cheese are dear; and fuel is excessively so. On the whole, therefore, Trieste cannot be considered as a favourable place for the provisioning of a ship.

**Banking.**—There are no public banks at Trieste. The bank of Vienna has an office here, but it is merely for the exchange of its notes for cash, or, more frequently, of large notes for small ones. These notes, being guaranteed by Government, are legal tender, and in general circulation, but no other company is allowed to issue notes to be used as a circulating medium. There is not, however, any deficiency of currency. Banking business is transacted by private companies, or by individuals, who are subject to certain regulations, and are obliged to lay before competent authority an attested statement of the capital embarked in their concerns. Their business principally consists in procuring bills of exchange from other places for the use of the merchants of Trieste, or in discounting (in which latter operation they have many private competitors), at the rate of from 4 to 6 per cent. per annum, according to the nature of the paper offered, and in proportion to the scarcity or abundance of cash.

The principal bankers of Trieste are of undoubted solidity, and do not indulge in dangerous speculations; and notwithstanding the apparent want of great banking establishments, the business of buying and selling, and of making payments and remittances, whether in bills or specie, is trans-

acted at this port with great facility; and there seldom arises any distress, pressure, or stagnation, from want of money or credit.

It is not usual for respectable bankers to give interest on deposits. The partners in joint-stock companies, banks &c. are, in general, responsible only to the extent of their declared capital; and the individuals composing them are only liable each to the extent of their share. The same individual is frequently a general merchant, a partner in a banking house, and a member of an insurance company. All these businesses may at present be said to be prosperous.

**Credit.**—Goods imported into Trieste are sometimes sold for ready money, a discount being usually understood, and allowed in such case, of 2 or 2½ per cent. But they are commonly sold at 3 months' credit, that is, by bills of that date; occasionally, but rarely, they are sold at 6 months.

Bills thus obtained, though offering no other guarantee than the signature of the drawer or acceptor, may be discounted or insured at a moderate rate by companies who dedicate themselves to this branch of business, and who, from their extensive dealings, are good judges of the risk. The practice has become almost universal; and it not only facilitates sales, but has a tendency to prevent bankruptcies, as it is difficult for a house long to conceal its insolvency; and its credit is, by this mode of trial, soon ascertained.

**Tares.**—Real tare is allowed on most articles of export; and on all articles of import, except cotton and sugar. The tare on Brazil sugar in chests depends on their length and size, but in general it amounts to from 15 to 18 per cent.; on Brazil sugar in bags the tare is 3 per cent.; on Havannah sugar a tare is allowed of 62 lb. English per box, being from 13 to 14 per cent.; on Jamaica sugar the tare is 14 per cent. Tare on American cotton, 4 per cent.

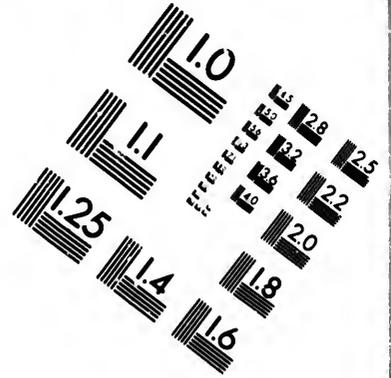
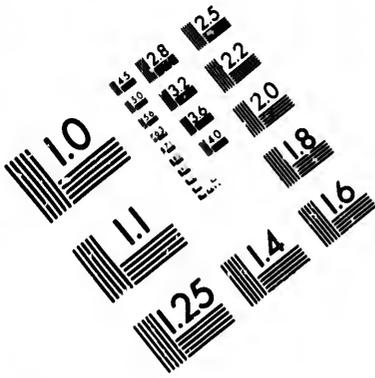
**Trade of Austria with the United Kingdom.**—The direct trade carried on with Austria by the ports on the Adriatic is not so great as might, perhaps, be expected; but it has increased of late years: the value of the exports of British produce to Austria having risen from 637,353*l.* in 1853, to 963,952*l.* in 1867. In addition to this, our indirect

Account of the Quantities and Values of the Principal Articles Imported into the United Kingdom (directly) from the Austrian Territories during the 4 Years ending with 1867.

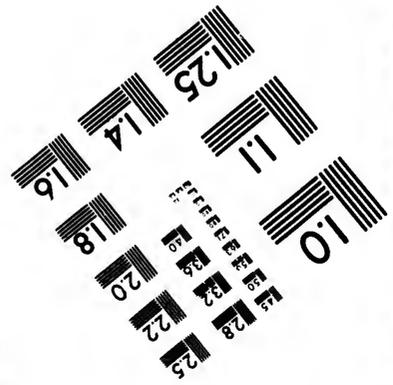
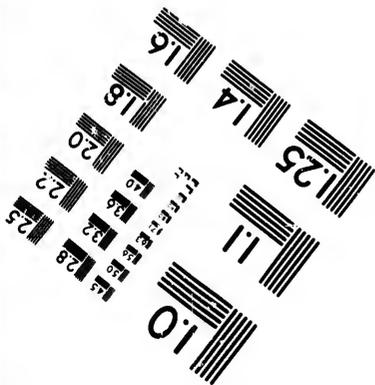
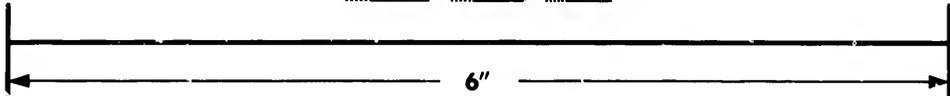
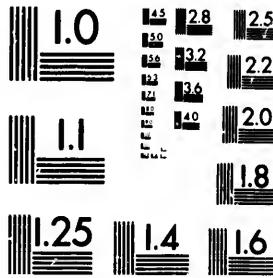
Articles	Quantities				Computed Real Value			
	1861	1865	1866	1867	1861	1865	1866	1867
Argol - - - - - cwt.	517	5	456	370	£ 1,201	£ 18	£ 1,670	£ 1,259
Bones of animals and fish (except whalefins) - - - - - tons	553	51	727	872	1,919	288	4,574	4,823
Bugsies and glass beads - - - - - lb.	47,979	115,169	295,604	59,661	4,599	5,739	14,781	2,993
Corn:								
Wheat - - - - - cwt.	11,011	579,280	1,306,529	519,635	4,687	239,872	676,915	3,808
Barley - - - - - " "			126,481	68,101			48,067	30,279
Oats - - - - - " "	420		158,886	91,415	157		65,231	41,207
Maize or Indian corn - - - - - "	79,538	26,617	45,803	326,265	23,586	7,760	14,009	23,676
Other kinds - - - - - "								
Wheat flour - - - - - "	26,179	26,756	51,525	131,347	16,575	17,225	40,615	126,719
Cotton, raw - - - - - "	651	1,558		1,630	8,569	11,916		8,941
Cream of tartar - - - - - "	1,450	1,895	1,261	512	7,510	9,101	5,527	1,957
Fruit:								
Currants - - - - - "	22,508	11,694	4,910	19,556	30,679	11,769	4,608	16,461
Raisins - - - - - "	808	19,059	617	1,767	1,415	1,555	819	2,077
Gum arabic - - - - - "	1,566	4,452	4,059	3,509	6,125	19,908	21,718	16,174
Hemp, dressed - - - - - "	1,186	1,757	1,039	800	3,168	5,066	2,052	2,513
Hemp, undressed - - - - - "	15,683	15,574	30,361	42,882	33,583	24,880	68,985	75,200
Lard - - - - - "		14,745	21,458	1,201		52,924	69,878	84
Madder root - - - - - "	941		3,021	366		1,156		4,258
Oil, olive - - - - - tons	45	65	8	38		2,567	431	1,626
Oil seed cake - - - - - tons	519	618	976	776	3,436	4,562	8,711	3,909
Paper and pasteboard - - - - - cwt.	7,516	6,505	7,188	16,295	19,178	16,250	18,265	41,429
Rags, and other materials for making paper - - - - - tons	953	544	1,139	1,017	17,669	11,416	25,799	17,271
Shumach - - - - - "	413	474	706	1,745	3,100	2,553	8,201	2,037
Skins, goat - - - - - no.	4,200	4,000	27,400			420	490	2,700
" lambs' - - - - - "	140,700	35,000	74,000	12,019	7,055	1,650	3,700	603
Sponge - - - - - lb.	32,002	99,110	85,478	45,341	4,245	20,760	12,022	6,653
Tallow - - - - - cwt.		110	2,974			270	6,685	
Wood staves - - - - - loads	12,227	16,672	20,224	9,803	101,216	117,070	159,921	75,500
Wool, sheep and lambs' - - - - - lb.	697,674	281,248	447,905	292,517	35,355	11,667	36,719	12,000
All other articles - - - - - value					41,967	26,958	43,215	31,391
Total - - - - -					369,225	677,421	1,569,851	1,056,669







**IMAGE EVALUATION  
TEST TARGET (MT-3)**



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*Account of the Values of the Principal Articles Exported from the Austrian Empire (ex Dalmatia) in 1862, 1863, and 1864.*

Articles	1862			1863			1864		
	Florins			Florins			Florins		
Animals:									
Oxen and bulls	2,306,000			2,128,000			2,618,000		
Cows	772,000			1,085,000			1,025,000		
Sheep	2,817,000			2,056,000			1,096,000		
Books &c.	2,451,000			2,571,000			2,773,000		
Butter	1,530,000			905,000			1,980,000		
Cheese	308,000			376,000			405,000		
Chemical produce and colours	2,066,003			2,017,000			2,327,000		
Clothes and millinery	7,829,000			6,391,000			6,593,000		
Coals	1,570,000			1,008,000			1,097,000		
Cotton manufactures	3,650,000			3,539,000			3,869,000		
Flax	2,710,000			2,543,000			2,057,000		
Fruit	1,500,000			1,508,000			1,125,000		
Glass and glass wares	12,637,000			12,129,000			12,291,000		
Grain:									
Wheat and spelt	17,682,000			6,376,000			8,561,007		
Rye, millet &c.	2,718,000			4,316,000			1,399,000		
Barley and malt	1,772,000			1,187,000			1,277,000		
Oats	2,061,000			779,000			678,000		
Malt	395,000			315,000			311,000		
Hair, bristles and feathers	2,521,000			3,779,000			2,833,000		
Hardware	28,671,000			32,801,000			36,739,000		
Hemp	2,392,000			2,055,000			1,651,000		
Hides, skins and peltry	1,728,000			3,905,000			5,045,000		
Instruments	1,544,000			1,625,000			1,670,000		
Iron and steel, raw	4,710,000			4,066,000			4,732,000		
Iron wares	10,211,000			7,711,000			8,924,000		
Linens manufactures	8,071,000			8,912,000			11,828,000		
Linens yarn	3,210,000			4,701,000			6,156,000		
Leather	9,539,000			9,245,000			10,367,000		
Machinery	17,300,000			860,000			755,000		
Metals, precious, and coin	32,593,000			30,519,000			27,910,000		
Metals, common	1,031,000			1,227,000			1,960,000		
Salt, kitchen	240,000			878,000			1,416,000		
Silk	8,623,000			9,738,000			8,221,000		
Manufactures	4,757,000			5,610,000			6,052,000		
Spirits	569,000			714,000			1,409,000		
Wine, all sorts	1,397,000			1,669,000			2,477,000		
Wood	29,458,000			28,129,000			23,865,000		
Wooden wares	4,227,000			4,311,000			5,093,000		
Wool, sheep's	42,536,000			46,353,000			47,914,000		
Woolen manufactures	17,151,000			17,648,000			19,158,000		

The great drawback under which Austria labours, is the situation of by far the larger portion of her provinces in the central parts of Europe; and separated from the great markets for their produce, either by a wide tract of intervening country, or by high mountain ridges. Austria is naturally an agricultural country; and, unless compelled by circumstances to devote a portion of her energies to manufactures, will, no doubt, continue such for a lengthened period: and hence, as the products of agricultural industry are at once heavy and bulky in proportion to their value, the advantage of opening improved channels of communication with other countries. In this respect, the free navigation of the Danube is of much importance, though a great deal more stress has been laid upon it in this country than it deserves. The expense of carrying corn and timber from Hungary to the Black Sea, and thence to the ports of Western Europe, will, we apprehend, always be found too heavy to admit of England or France ever supplying themselves, at least to any considerable extent, with the corn, flax, or timber of Hungary or Transylvania. The cost of conveying produce from the interior of the continent to the nearest shipping ports is a most important element, which is too generally lost sight of in this country. To show its influence we may mention that on various occasions when wheat was sold at Lemberg, one of the principal markets of Galicia, for 15s. or 16s. per quarter, its price at Dantzic at the same time has been 40s. and upwards; the difference being occasioned by the difficulty and expense of conveying corn down the Viattula from Lemberg to Dantzic.

The Austrian Government and people have long been alive to the many advantages that would result from opening a communication between Hungary and Fiume, and other ports on the Adriatic. And notwithstanding the obstacles opposed by the interposition of the Julian Alps, and other mountain ridges, an excellent road has

been carried from Carlstadt to Fiume. Still, however, the expenses of the carriage of bulky products are too great to make this route sufficiently available; and the advantage of further improving and cheapening the communication is too obvious to need being pointed out. See ante, under the head *Railways* in this article.

TRINITY HOUSE. This society was incorporated by Henry VIII. in 1514, for the promotion of commerce and navigation by licensing and regulating pilots, and ordering and erecting beacons, lighthouses, buoys &c. A similar society, for the like purposes, was afterwards established at Hull; and also another at Newcastle-upon-Tyne in 1537; which 3 establishments, says Hakluyt, were in imitation of that founded by the Emperor Charles V. at Seville, in Spain; who, observing the numerous shipwrecks in the voyages to and from the West Indies, occasioned by the ignorance of seamen, established, at the *Casa de Contratacion*, lectures on navigation, and a pilot-major for the examination of other pilots and mariners; having also directed books to be published on that subject for the use of navigators. But Hakluyt must surely have been in error, for, as Charles V. was not born till 1500, he could not well before 1514 have set up any institution to serve as a model for our Trinity House. It is much more likely that he copied the English example.

Henry VIII. by his charter, confirmed to the Deptford Trinity House Society all the ancient rights, privileges &c., of the shij men and mariners of England, and their several possessions at Deptford, from which it is plain that the Society had existed long previously. The corporation was confirmed, in 1685, in the enjoyment of its privileges and possessions, by letters patent of the 1st James II. by the name of the master, wardens, and assistants of the Guild or Fraternity of the most glorious and undivided Trinity and of St. Clement's in the parish of Deptford Strand, in the County of Kent. At first, the corporation appears to have consisted of seamen only; but since the charter of James II., noblemen and gentlemen have been enrolled among its elder brethren. It is governed by 31 elder brothers, of whom 1 is master, 4 wardens, and 8 assistants: but the inferior members of the fraternity, named younger brethren, are not limited in point of number; every master or mate, expert in navigation, being admissible as such. Besides the power of erecting lighthouses, and other sea-marks, on the several coasts of the kingdom, for the security of navigation—[LIGHTHOUSES], the master, wardens, assistants, and elder brethren, are invested by charter with the following powers; viz. the appointment of pilots to conduct ships into and out of the Thames; the settling of several rates of pilotage. They formerly, also, enjoyed several other powers, which have since fallen into disuse or been vested in other hands. The corporation is authorised to receive voluntary subscriptions, benefactions &c.; and to purchase, in mortmain, lands, tenements &c. to the amount of 3000. per annum. The ancient Hall of the Trinity House at Deptford, where the meetings of the brethren were formerly held, still exists, but is now only used as a Pay Hall for Pensioners. The corporation now meet in a handsome building erected for the purpose in London, near the Tower.

The revenue under the management of the Trinity House, which arose from dues payable to the corporation on account of lighthouses, buoys, and beaconage, and ballastage, and from the interest of money in the funds and the rent of freehold property, has been principally expended on pensions to poor disabled seamen, and on the

## Y HOUSE

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r the management of the arose from dues payable to punt of lighthouses, buoys, ballastage, and from the in- the funds and the rent of s been principally expended isabled seamen, and on the

maintenance of their widows, orphans &c. and it is admitted that it was both judiciously and economically administered. The duties for lights, buoys, and beacons henceforth, however, under the provisions of the 16 & 17 Vict. c. 131, form part of the 'Mercantile Marine Fund.' The Act provides that payments now chargeable on the 'fund' for pensions &c., may be commuted. The expenses of lighthouses, ballastage, and beacons, are also to be charged on the 'fund,' and the rates of toll are to be revised and fixed by her Majesty in council. The ballastage rates under the Trinity House, being a charge peculiar to the Thames, are to be made peculiarly applicable to services performed for the safety and convenience of the shipping frequenting that river. [BALLAST.]

TRINIDAD. [COLOMBUS.]

TRIPANG or SEA SLUG (*Biche de Mer*). A species of fish of the genus *Holothuria*, found chiefly on coral reefs in the Eastern seas, and highly esteemed in China, into which it is imported in large quantities. It is an unseemly looking substance, of a dirty brown colour, hard, rigid, scarcely possessing any power of locomotion, or appearance of animation. Sometimes the slug is as much as 2 feet in length, and from 7 to 8 inches in circumference. A span in length, and 2 or 3 inches in girth, is, however, the ordinary size. The quality and value of the fish, however, do not by any means depend upon its size, but upon properties in it neither obvious to nor discernible by those who have not been long and extensively engaged in the trade. In shallow water the animal is taken out by the hand, but in deeper water it is sometimes speared. When taken it is gutted, dried in the sun, and smoked over a wood fire; this being the only preparation it receives.

The fishery is carried on from the western shores of New Guinea, and the southern shores of Australia, to Ceylon inclusive. Indeed, within the last few years it has been successfully prosecuted on the shores of the Mauritius. The whole produce goes to China. In the market of Macassar, the great staple of this fishery, not less than thirty varieties are distinguished, varying in price from 5 Spanish dollars a *picul* (133½ lb.) to 14 times that price, each variety being distinguished by well-known names. The quantity of tripang sent annually to China from Macassar is about 7,000 piculs, or 8,333 cwt.; the price usually varying from 8 dollars a picul to 110 and 115, according to quality. (Crawford's *Indian Archipelago*, vol. iii. p. 441.) There is also a considerable export of tripang from Manila to Canton.

Besides tripang, *fish-maws* and *sharks' fins* are exported to China from every maritime country of India.

TROY WEIGHT. One of the most ancient of the different kinds used in Britain. The pound English troy contains 12 ounces, or 5,760 grains. It is used in the weighing of gold, silver, and jewels; the compounding of medicines; in experiments in natural philosophy; in comparing different weights with each other; and was (by 5 Geo. IV. c. 74) made the standard of weight.

TROY WEIGHT, *Scotch*, was established by James VI. in the year 1618, who enacted that only one weight should be used in Scotland, viz. the French troy stone of 16 pounds, and 16 ounces to the pound. The pound contains 7,609 grains, and is equal to 17 oz. 6 dr. avoirdupois. The cwt. or 112 lb. avoirdupois, contains only 103 lb. 2½ oz. of this weight, though generally reckoned equal to 104 lb. This weight is very nearly identical with that formerly used at Paris and Amsterdam; and is generally known by the name of Dutch weight. Though prohibited by the articles of Union, it has

been used in most parts of Scotland in weighing iron, hemp, flax, and other Dutch and Baltic goods, meal, butcher's meat, lead &c. [WEIGHTS AND MEASURES.]

TRUCK SYSTEM. A name given to a practice that has prevailed, particularly in the mining and manufacturing districts, of paying the wages of workmen in goods instead of money. The plan has been, for the masters to establish warehouses or shops; and the workmen in their employment have either got their wages accounted for to them by supplies of goods from such depôts, without receiving any money; or they have got the money, with a tacit or express understanding that they were to resort to the warehouses or shops of their masters for such articles as they were furnished with.

*Advantages and Disadvantages of the Truck System.*—A great deal of contradictory evidence has been given, and very opposite opinions have been held, as to the practical operation and real effect of this system on the workmen. Nor is this to be wondered at, seeing that everything depends on the mode in which it is administered, and that it may be either highly advantageous or highly injurious to the labourer. If a manufacturer of character establish a shop supplied with the principal articles required for the use of the workmen in his employment, and give them free liberty to resort to it or not as they please, it can, at all events, do them no harm, and will, most likely, render them material service. The manufacturer, having the command of capital, may, in general, lay in his goods to greater advantage than they can be laid in by the greater number of retail tradesmen in moderate-sized towns; and not being dependent on the profits of his shop for support, he is, even though he had no advantage in their purchase, able to sell his goods at a cheaper rate than they can be afforded by the majority of shopkeepers. Sometimes, also, a factory is established in a district where shops either do not exist at all, or are very deficient; and in such cases the master consults the interest and convenience of those dependent on him when he provides a supply of the principal articles required for their subsistence. It is easy, therefore, to see that the keeping of shops by masters for the use of their workmen may be very beneficial to the latter. But to insure its being so, it is indispensable that the masters should be above taking an advantage when it is within their reach, and that their conduct towards the workmen should not be in any degree influenced by the circumstance of the latter dealing or not dealing with their shops.

Such disinterestedness is, however, a great deal more than could be rationally expected from the generality of men; and hence, though many instances may be specified in which the truck system was advantageous to the workmen, those of a contrary description were unfortunately far more numerous. It is obvious, indeed, that a practice of this sort affords very great facilities for fraudulent dealings. Under the old law, a manufacturer who had a shop, had means, supposing he were inclined to use them, not possessed by any ordinary shopkeeper as respects his customers, for forcing upon his workmen inferior goods at an exorbitant price. They are at first supplied on liberal terms, and are readily accommodated with goods in anticipation of wages, till they get considerably into debt. The pernicious influence of this deceitful system then begins fully to disclose itself. The workmen cease to be free agents; they are compelled to take such goods and at such prices as the master pleases; for, were they to at-

tempt to emancipate themselves from this state of thralldom by leaving their employment, they would be exposed to the risk of prosecution and imprisonment for the debts they had incurred. It is not easy to imagine the extent to which these facilities for defrauding the labouring class were taken advantage of in various districts of the country. In many instances, indeed, the profits made by the shops exceeded those made by the business to which they were contingent; and thousands of workmen, whose wages were nominally 30s. a week, did not really receive, owing to the bad quality and high price of the goods supplied to them, more than 20s., and often not so much.

*Abolition of the Truck System.*—A system of dealing with the labouring classes, so very susceptible of abuse, and which, in point of fact, was very extensively abused, was loudly and justly complained of. A bill was in consequence introduced for its suppression by Mr. Littleton (now Lord Hatherton), which, after a great deal of opposition and discussion, was passed into a law, 1 & 2 Wm. IV. c. 32. (See abstract subjoined.)

Those who opposed this Act did so on two grounds: 1st, that it was improper to interfere at all in a matter of this sort; and 2nd, that the interference would not be effective. The first of these objections does not appear entitled to any weight. In suppressing the truck system, the Legislature did nothing that could in anywise regulate or fetter the fair employment of capital; it interfered merely to put down abuse; to carry, in fact, the contract of wages into full effect, by preventing the workman from being defrauded of a portion of the wages he had stipulated for. The presumption no doubt is, in questions between workmen and their employers, that Government had better abstain from all interference, and leave it to the parties to adjust their disputes on the principle of mutual interest and compromised advantage. Still, however, this is merely a presumption; and must not be viewed as an absolute rule. Instances have repeatedly occurred where the interference of the Legislature to prevent or suppress abuse, on occasions of the sort now alluded to, has been imperiously required, and been highly advantageous. Those who claim its interposition are, indeed, bound to show clearly that it is called for to obviate some gross abuse, or that it will materially redound to the public advantage; and this, we think, was done in the completest manner by the opponents of the truck system. Regard for the interests of the more respectable part of the masters, as well as for those of the workmen, required its abolition; for, while it continued, those who despised taking an advantage of their dependants were less favourably situated than those who did. It is ludicrous, therefore, in a case of this sort, to set up a cuckoo cry about the 'freedom of industry.' The good incident to the truck system was in practice found to be vastly overbalanced by the abuses that grew out of it; and as these could not, under the existing law of debtor and creditor, be separately destroyed, the Legislature did right in attempting to suppress it altogether.

It was said, indeed, that this would be found to be impracticable; and the manufacturers would enter underhand into partnerships with the keepers of shops, and that the system would really be continued, in another and, perhaps, more objectionable form. This anticipation has, we believe, been in some degree realised; but the system has notwithstanding been in many places abandoned, and is nowhere practised to anything like the extent to which it was carried previously to the passing of Lord Hatherton's Act. It will not,

however, be completely rooted out, till all small debts, however they originate, be put beyond the pale of the law. We have already vindicated the expediency of this measure on other grounds [CURET]; and the influence it would have in effectually destroying whatever is most pernicious in the truck system, is a weighty additional recommendation in its favour. Were all right of action upon debts for less than 50*l.* or 100*l.* taken away, no master would think of acquiring a control over the free agency of his workmen, by getting them in debt to him; and no workmen would, under such circumstances, submit to be directed in his choice of shops or goods. The case of the Scotch colliers affords a curious illustration of what is now stated. Down to 1774, these persons were really *adscripti glebae*, or pradial slaves; that is, they and their descendants were bound to perpetual service at the works to which they belong, a right to their labour being acquired by any new proprietor to whom the works were sold. The 15 Geo. III. c. 28 was passed for the emancipation of the colliers from this state of bondage. It, however, failed of practically accomplishing its object; for the masters speedily contrived, by making them advances in anticipation of their wages, to retain them as completely as ever under their control. To obviate this abuse, the 39 Geo. III. c. 56 was passed; which most properly took from the masters all title to pursue the colliers for loans, unless advanced for the support of the collier and his family during sickness. This Act had the desired effect; and the colliers have since been as free as any other class of labourers. (See edition of the *Wealth of Nations* by the author of this work, p. 172.) In fact, were small debts put beyond the pale of the law, it would not be necessary to interfere directly with the truck system; for it would not then be possible to pervert it to any very injurious purpose.

The following are the principal clauses in the Act 1 & 2 Wm. IV. c. 37, entitled 'An Act to prohibit the Payment in certain Trades, of Wages in Goods, or otherwise than in the Current Coin of the Realm':—

1. In all contracts hereafter to be made for the hiring of any artificer in any of the trades hereinafter enumerated, or for the performance by any artificer of any labour in any of the said trades, the wages of such artificer shall be made payable only in the current coin of this realm, and not otherwise; any contract to the contrary being illegal, null, and void.
2. If such contract contain any stipulations as to the manner in which the wages shall be expended, it is void.
3. Wages must be paid to the workman in coin only. Payment in goods illegal and void.
4. Artificers may recover wages, if not paid in the current coin.
5. In an action brought for wages, no set-off shall be allowed for goods supplied by the employer, or by any shop in which he is interested.
6. No employer shall have any action or suit in equity against his artificer, for goods supplied to him on account of wages, or supplied by any shop in which he has an interest.
7. If the artificer, or his wife or children, become chargeable to the parish, the overseers may recover any wages earned within the 3 preceding months, and not paid in cash.
8. Nothing in this Act is to invalidate the payment of wages in bank notes or drafts on any bankers within 15 miles, if artificer consents.
9. Any employer of any artificer in any of the

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trades hereinafter enumerated, who shall, by him-  
 self, or by the agency of any other person directly  
 or indirectly enter into any contract, or make any  
 payment: hereby declared illegal, shall, for the  
 first offence forfeit a sum not exceeding 10l. nor  
 less than 5l., and for the second offence any sum  
 not exceeding 20l. nor less than 10l., and for a  
 third offence he shall be guilty of a misdemeanor,  
 and be punished by fine only, at the discretion  
 of the court, so that the fines shall not in any  
 case exceed 100l.

10. Offences shall be enquired of and fines  
 recovered before 2 justices, and the amount of  
 the fines shall be in the discretion of such justices,  
 or in cases of misdemeanor, of the court before  
 which the offence may be tried; and in case of a  
 second offence, it shall be sufficient evidence of  
 the previous conviction, if a certificate, signed by  
 the officer having the custody of the record, be  
 produced, stating in a compendious form the  
 general nature of the offence. But a second or  
 third offence shall only be punished as a first  
 or second offence, if committed within 10 days  
 after the prior conviction; and a fourth or any  
 subsequent offence shall be punished as a third  
 offence. But no second or third offence shall be  
 prosecuted after more than 2 years from the com-  
 mission of the next preceding offence.

11. Justices may compel the attendance of  
 witnesses, on the request of the parties. Penalty  
 for non-attendance without excuse and after proof  
 of due service of summonses at the usual place of  
 abode for such persons, 24 hours at least before the  
 time appointed for appearance, a commitment to  
 some prison within the jurisdiction of the justices,  
 without bail or mainprize, for not exceeding 14  
 days, or until such person shall submit to be  
 examined.

Sections from 12 to 18 inclusive regulate pro-  
 ceedings.

19. Act only to apply to the following trades:  
 Making, casting, converting, or manufacturing  
 of iron or steel, or any parts, branches, or pro-  
 cesses thereof; working any mines of coal, iron-  
 stone, limestone, salt rock; or working or getting  
 stone, slate, or clay; or making or preparing salt,  
 bricks, tiles, or quarries; or making or manufac-  
 turing any kinds of nails, chains, rivets, anvils  
 &c. keys &c., or any other articles or hardwares  
 made of iron or steel, or of iron and steel combined,  
 or of any plated articles of cutlery, or of any goods  
 or wares made of brass, tin, lead, pewter, or other  
 metal, or of any japaned goods or wares whatso-  
 ever; or making, spinning, throwing, doubling,  
 winding, weaving, combing, knitting, bleaching,  
 dyeing, printing, or otherwise preparing any kinds  
 of woollen, worsted, yarn, stuff, kersey, linen,  
 bastian, cloth, serge, cotton, 'eather, fur, hemp,  
 hair, mohair, or silk manufactures whatsoever, or  
 any manufactures whatsoever made of the said  
 last-mentioned materials, whether the same be  
 or be not mixed one with another; or making or  
 otherwise preparing, ornamenting, or finishing any  
 glass, porcelain, china, or earthenware whatso-  
 ever, or any parts, branches, or processes thereof,  
 or any materials used in any of such last-men-  
 tioned trades; or making or preparing of bone,  
 thread, silk, or cotton lace, or of lace made of any  
 mixed materials.

20. Not to extend to any domestic servant, or  
 servant in husbandry.

21. No one engaged in any of the trades or  
 occupations enumerated, or his father, son, or  
 brother, shall act as a justice.

22. County magistrates to act in cases where  
 those of towns are disqualified as above.

23. Not to prevent any employer from supply-

ing or contracting to supply to any artificer any  
 medicine or medical attendance, or any fuel, or  
 any materials, tools, or implements to be by such  
 artificer employed in his trade or occupation, if  
 such artificers be employed in mining, or any hay,  
 corn, or other provender to be consumed by any  
 horse or other beast of burden employed by any  
 such artificer in his trade and occupation; nor  
 from demising to any artificer employed in any  
 of the trades and occupations enumerated the  
 whole or any part of any tenement at any rent:  
 nor from supplying or contracting to supply to  
 any such artificer any victuals dressed or prepared  
 under the roof of any such employer, and there  
 consumed by such artificer; nor from making or  
 contracting to make any deduction from the  
 wages of any artificer for any such rent, or  
 medicine or medical attendance, or fuel, materials,  
 tools, implements, hay, corn, or provender, or  
 such victuals, or for any money advanced to each  
 artificer for any such purpose; but such deduction  
 shall not exceed the true value of such fuel,  
 materials, tools, implements, hay, corn, and pro-  
 vender, and shall not be in any case made from  
 the wages of such artificer unless the agreement  
 for such deduction shall be in writing and signed  
 by such artificer.

24. Not to prevent any such employer from  
 advancing to any such artificer any money to be  
 by him contributed to any friendly society or  
 bank for savings, or for his relief in sickness, or  
 for the education of any child of such artificer,  
 nor from deducting or contracting to deduct any  
 money from the wages of such artificers for the  
 education of any such child, provided the agreement  
 for such deduction shall be in writing and  
 signed by such artificer.

25. Workmen, labourers, and other persons in  
 any manner engaged in any employment or ope-  
 ration, in or about the several trades and occu-  
 pations aforesaid, shall be deemed 'artificers;' and  
 all masters, bailiffs, foremen, managers,  
 clerks, and other persons engaged in the hiring,  
 employment, or superintendence of the labour of  
 any such artificers shall be deemed to be 'em-  
 ployers;' and any money or other thing had or  
 contracted to be paid, or given as a remuneration  
 for any labour done or to be done, whether within  
 a certain time or to a certain amount, or for a  
 time or an amount uncertain, shall be deemed to  
 be the 'wages' of such labour; and any agree-  
 ment, understanding, device, contrivance, collu-  
 sion, or arrangement whatsoever on the subject  
 of wages, whether written or oral, whether direct  
 or indirect, to which the employer and artificer  
 are parties, or are assenting, or by which they  
 are mutually bound to each other, or whereby  
 either of them shall have endeavoured to impose  
 an obligation on the other of them, shall be  
 deemed a 'contract.'

TRUFFLES. A sort of vegetable production,  
 like a mushroom, formed under ground. A few  
 have been found in Northamptonshire; they are  
 pretty abundant in Italy, the south of France,  
 and several other countries. The French are  
 black and warty externally, while the Piedmon-  
 tese are smooth. They are reckoned a great  
 delicacy. The *pâtés aux truffes d'Angoulême* are  
 highly esteemed, and are sent as presents to very  
 distant places. In 1867 he imported 33,003 lb.  
 of truffles, valued at 18,565*l.*, and exported 284  
 lb. (Brande and Cox's *Dictionary of Science*  
*and Art*; &c.)

TUNIS. The capital of the regency of the  
 same name, on the northern coast of Africa, the  
 Goletta fort being in lat. 36° 48' 30" N., long.  
 10° 25' 45" E. The bay of Tunis is somewhat in

the form of a horseshoe. Its western extremity, Cape Carthage, is situated about 4 miles N.E. from the Goletta; and its eastern extremity, Cape Zafran, bears from Cape Carthage E. by S., distant about 13 miles. The bay is about 16 miles deep, and has good anchorage all over, in from 10 to 4 fathoms water. It is exposed to the N. and N.E. gales; but they seldom occasion any damage. Tunis lies on the west side of the bay, being separated from it by a large lagoon, having, where deepest, about 7 feet water. The port is at the Goletta, or channel, passing through the narrow belt of land separating the lagoon from the sea; the entrance to it is by a canal, in which there is at all times 15 feet water; and ships may use it on paying a fee of 3 dollars a-day. It is not, however, much resorted to; all vessels of considerable burden loading and unloading from their moorings in the bay, by means of lighters. The population of Tunis has been variously estimated at from 100,000 to 150,000, being the most populous of any African city after Cairo. The streets are narrow, unpaved, and filthy. The buildings, though of stone, are mean and poor; and the inhabitants present the picture of poverty and oppression. There is a fort at the Goletta, of considerable strength.

*Trade.*—Notwithstanding the various drawbacks arising out of the nature of the government, and the ignorance and prejudices of the people, commerce and industry are in a more advanced state in Tunis than in any other part of Northern Africa, Egypt excepted. Though subject to droughts, the climate is, on the whole, excellent. The soil still preserves that exuberant fertility for which it was famous in antiquity.

Non quicquid Libyæi testis  
Fervens arena messibus. (Senec. in *Thyest.*)

It seldom receives any other manure than that of sometimes burning the weeds and stubble; and yet, in despite of its slovenly culture, the crops are luxuriant; and there is generally a considerable excess of wheat and barley for exportation. Corn is principally shipped at Biserta, about 50 miles west of Tunis. Olive oil is one of the principal articles of export. It is of various qualities; some good, and some very indifferent. Suse is said to be the best place for its shipment. Soap of an excellent quality is largely manufactured in the regency. It may be had either soft or in wedges. The soft is made of barilla and pure oil, and is much esteemed. The hard soap is made from the lees of oil, and is reckoned very strong. The principal soap-works are at Suse. Little, however, is prepared on a speculative anticipation of a demand for exportation; but any quantity may be had by contracting for it a few months before the period when it is wanted. A sort of woollen scull-caps are largely exported. They are in extensive demand all over the Levant, and are nowhere made in such perfection as here. Ivory and gold dust, hides, wax, morocco leather, sponge, barilla, coral, dates, ostrich feathers &c. are among the articles of export.

The imports from Europe consist of woollens, coarse German linens, cotton stuffs, hardware, sugar, coffee, spices, tin plates, gunpowder, lead, alum, dye stuffs, wine, silk, Spanish wool &c. There is very little direct trade between Tunis and England; but a good deal is indirectly carried on, through the intervention of Malta and Gibraltar. Marseilles has probably the largest share of the trade with the regency. The value of the exports to Tunis of British produce and manufactures, chiefly cotton, was in 1845, 102,077*l.*, and in 1867, 67,204*l.*, while the value of our imports sent thence in 1867 was 6,325*l.*

Exclusive of the trade by sea, a considerable trade is carried on between Tunis and the interior of Africa, by means of caravans. These import slaves, gold dust, ivory, feathers, drugs &c. They carry black cotton stuffs, linens, hardware, spices, coal,Neal &c.

Naval and military stores imported into Tunis pay no duty. Other articles pay a duty of 3 per cent, ad valorem on a rated tariff. Obstructions arising out of monopolies &c. are occasionally thrown in the way of exportation; and in general it is necessary, before proceeding to ship, to obtain a *tishery*, or license to that effect, from the bey. That, however, may be, for the most part, procured without much difficulty.

*Money.*—Accounts are kept in piastres of 40 carobas or 52 aspers. The piastre is worth about 1*s.* 1*d.* sterling. The asper is an imaginary money. The value of foreign coins depends on the state of the exchange.

*Weights.*—Gold, silver, and pearls are weighed by the ounce of 8 meticals; 16 of these ounces make the Tunis pound=7,773.5 Eng. grs. The principal commercial weight is the cantaro, containing 100 lb., or rotoli, being equivalent to 111.05 lb. avoird., or 50.36 kilogram.

*Measures.*—The principal corn measure is the caliz, divided into 16 whibas; and the whiba into 12 sahas. One caliz=14½ imperial bushels.

The wine measure is the millerolle of Marseilles=14.1 imp. gallons, or 64.33 litres. It is divided into 64 mitres. The principal oil measure is the metal or mettar=5.125 wine gallons, 19.39 litres; but it is of different dimensions in different parts of the country; and is larger at Suse, whence most of the oil is exported, than at Tunis.

The pic, or principal long measure, is of four sorts; viz. the pic woollen measure=26.5 English inches; the pic silk measure=24.8 do.; and the pic linen measure=18.6 do.

For further particulars see that chapter Shaw's *Travels in Barbary* &c. (one of the most learned and excellent works of the kind in the English language), that treats of the kingdom of Tunis; Macgill's *Account of Tunis*, passed Jackson's *Commerce of the Mediterranean*, 55-56; Kelly's *Amibist*; *Parl. Papers*; &c.

**RUINS OF CARTHAGE.**—The famous city of Carthage, one of the greatest emporiums of the ancient world, long the mistress of the sea, and the most formidable enemy of Rome, was situated near the cape which still bears her name, about 10 miles north-east from Tunis. Such, however, have been the alterations on the coast, that a part of the city, within whose ample expanse whole navies used to ride, is now wholly filled up by antiquaries differ as to its situation; and there has in some places receded from 2 to 3 miles into the ruins of the buildings by which it was formerly skirted. The common sewers are still in very perfect state, as are several cisterns, public reservoirs, and other remains of that sort, which the fragment of a noble aqueduct that supplies the city with water. But besides these and very few Punic inscriptions that have been discovered, there is nothing left to attest the ancient grandeur and magnificence of the city, or to identify it with the illustrious people by whom it was founded and occupied till its destruction by Scipio Nasica. There are no temples, no triumphal arches, no granite columns or obelisks covered with Phœnician characters, and no ancient engravings. These have all fallen a sacrifice to hostile attacks, or to the destroying hand of time.

Nunc passim, vix reliquis, vix nomina servans  
Obtrahitur, propolis non agnoscenda ruinis.

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ch mutilated fragments of buildings as still  
tain are evidently the work of a later age; of  
se who occupied the city between the period  
a colony was sent to it by Augustus, and  
final subversion by the Saracens in the seventh  
century.

TURBITH or TURPETH. The cortical part  
the root of a species of *Covvolulus*, brought  
from different parts of the East Indies. It is a  
single root about the thickness of the finger,  
smooth, heavy, of a brownish hue without and  
whitish within. It is imported cloven in the  
middle, lengthwise, and the heart or woolly  
part taken out. The best is ponderous, not  
cracked, easy to break, and discovers to the eye  
a large quantity of resinous matter. At first it  
makes an impression of sweetness on the taste;  
but, when chewed for some time, betrays a nausea-  
ous acrimony. It is used in medicine, but only  
to a small extent. (Lewiss's *Mat. Med.*)

TURBITH [MINERAL]. The name given by  
ancients to the subsulphate of mercury.

TURBOT (*Pleuronectes maximus*). A well-  
known and highly esteemed species of fish. Very  
considerable quantities of turbot are now taken on  
various parts of our coasts, from the Orkneys to  
the Land's End, yet a preference is given in the  
London markets to those caught by the Dutch.  
The latter arc said to have sometimes drawn as  
much as 80,000, in a single year, for turbots sold  
in London.

Fresh turbots, however taken, or in whatever  
state imported, may be imported free of duty.

TURKEY. [CONSTANTINOPLE; GALACZ;  
SMYRNA; TREBIZOND; &c.]

TURMERIC. The root of the *Curcuma longa*.  
It is externally greyish, and internally of a deep  
yellow or saffron colour; very hard; and  
resembles, either in figure or size, to ginger.  
It should be preferred which is large, new,  
smooth, difficult to break, and heavy. It is im-  
ported from Bengal, Java, China &c. Small  
quantities of it have also been grown in England.  
It has a somewhat aromatic, and not very agree-  
able, smell; and a bitterish, slightly acid, but  
rather warm taste. It used to be in considerable  
reputation as a medicine; and is extensively used  
in India for culinary purposes, entering into the  
composition of curry powder and other articles;  
in Europe, it is only used as a dye. It yields a  
beautiful bright yellow colour; which, however,  
is extremely fugitive, and no means have hitherto  
been discovered of fixing it. It is sometimes em-  
ployed to heighten the yellows made with weld,  
and to impart an orange tint to scarlet; but the  
whole imported by the turmeric soon disappears.  
(Lewiss's *Mat. Med.*; Bancroft's *On Colours*, vol. i.  
p. 576; *British Pharmacopœia*, 1867.)

The duties on turmeric, after being reduced in  
1852, were wholly repealed in 1845. The imports,  
which have been much augmented since 1850,  
amounted in 1867 to 1,841 tons, valued at 40,555*l.*;  
the re-exports during the same year being 1,397  
tons. The price of turmeric in London in 1867  
varied from 18*l.* 3*s.* to 22*l.* 7*s.* per ton. The  
Penang and Sindh bring the lowest, and the  
Bengal and Pegu the highest price.

TURPENTINE (Ger. *terpentia*; Fr. *térében-  
tine*; Ital. *trementina*; Russ. *skipidar*; Pol.  
*terpentyna*). There are several species of turpen-  
tine, but all of them possess the same general and  
chemical properties.

1. *Common Turpentine* is a resinous juice which  
exudes from the Scotch fir or wild pine (*Pinus  
sibirica*). The trees which are most exposed to  
the sun, and have the thickest barks, yield it in

the greatest abundance. They begin to produce  
it when about 40 years old. The bark of the tree  
is wounded and the turpentine flows out in drops,  
which fall into a hole, or sort of cup, previously  
dug at the foot of the tree, holding about 1½ pint.  
It is purified by being exposed to liquidity in the  
sun's rays, in barrels perforated in the bottom,  
through which it filters. In the United States,  
the collection of turpentine is conducted chiefly to  
negroes, each of whom has the charge of from  
3,000 to 4,000 trees. The process lasts all the  
year, although the incisions are not made in the  
trees till the middle of March, and the flow of the  
turpentine generally ceases about the end of Octo-  
ber. The boxes are emptied 5 or 6 times during  
the year; and it is estimated that 250 boxes will  
produce a barrel weighing 320 lb. Turpentine has  
a strong, somewhat fragrant odour, and a bitter,  
disagreeable taste; its consistence is greater than  
that of honey; its colour dirty yellow; and it is  
more opaque than the other sorts. We import it  
chiefly from the United States.

2. *Venice Turpentine* is the produce of the  
larch (*Pinus Larix*). It is obtained by boring a  
hole into the heart of the tree about 2 feet from  
the ground, and fitting into it a small tube  
through which the turpentine flows into vessels  
prepared for its reception. It is purified by strain-  
ing through cloths, or hair sieves. It is more  
fluid, having the consistence of new honey, a yel-  
lowish colour, and is less unpleasant to the smell  
and taste than the common turpentine. Genuine  
Venetian turpentine is principally obtained from  
the forests of Baye, in Provence; but much of  
that to be found in the shops comes from America,  
and is, perhaps, obtained from a different species  
of fir.

3. *Canadian Balsam, or Turpentine*, is obtained  
from incisions in the bark of the *Pinus balsamea*,  
a native of the coldest regions of North America.  
It is imported in casks, each containing about 1  
cwt. It has a strong, not disagreeable odour, and  
a bitterish taste; is transparent, whitish, and has  
the consistence of copivau balsam. [BALSAM.]

4. *Chian, or Cyprus Turpentine*, is obtained  
from the *Pistacia Terebinthus*, a native of the  
north of Africa and the south of Europe, and cul-  
tivated in Chios and Cyprus. It flows out of  
incisions made in the bark of the tree in the  
month of July; and is subsequently strained and  
purified. It has a fragrant odour, a moderately  
warm taste, devoid of acrimony or bitterness, and  
a white or very pale yellow colour; it is about as  
consistent as thick honey, is clear, transparent,  
and tenacious. From its comparative high price,  
Chian turpentine is seldom procured genuine,  
being for the most part adulterated either with  
Venetian or common turpentine. The different  
species of turpentine may be dissolved in rectified  
spirit, or pure alcohol; and, by distillation, they  
all give similar oils, which, from their being dis-  
tilled (and not from any resemblance to alcohol,  
or spirits properly so called), are vulgarly termed  
spirit of turpentine. If the distillation be per-  
formed with water, the produce is an essential oil,  
the common spirit of turpentine; and if the dis-  
tillation be carried on in a *retort*, without water,  
the product is more volatile and pungent—a con-  
centrated oil, as it were—and is called the ethe-  
real spirit of turpentine. The residuum that is  
left, in both cases, is a brownish resinous mass,  
brittle, capable of being melted, highly inflam-  
mable, insoluble in water, but mixing freely with  
oils: it is the common rosin of commerce. (*Lib.  
of Entert. Knowledge, Vegetable Substances*;  
Thomson's *Dispensatory*.)

In 1867 our imports of common turpentine were

5 C

5 C

5 C

5 C

5 C

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In 1867 our imports of common turpentine were

5 C

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5 C

5 C

5 C

5 C

40,085 cwt., valued at 19,419*l*. Over two-thirds of this quantity came from the United States.

**TURPENTINE, OIL OF** (Ger. *terpentinöl*; Fr. *eau de raze, huile de térébenthine*; Ital. *acqun di rassa*; Span. *aguarra*). The essential oil drawn from turpentine by distillation. There are two sorts of this oil: the best, red; and the second, white. It is very extensively used by house painters, and in the manufacture of varnish, in medicine &c. The distillers have been charged with using it in the preparation of gin. Oil of turpentine is very often adulterated. That used in medicine is limpid, colourless, with a strong peculiar odour, and pungent and bitter taste. In 1867 we exported 75,791 gallons, valued at 12,824*l*., chiefly to India and Australia. (*British Pharmacopæia*, 1867.)

**TURQUOISE** (Ger. *türkiss*; Fr. *turquoise*; Ital. *turchina*; Span. *turquesa*). A precious stone, in considerable estimation.

Its colour, which is its principal recommendation, is a beautiful celestial blue, which changes into pale blue, and is sometimes tinged with green. Specific gravity, 2.6. It possesses a somewhat waxy lustre, and is somewhat translucent, although generally opaque. It is much worn in necklaces, and every part of ornamental jewellery, from the size of a pin's head to that of an almond: it contrasts beautifully with brilliants, or pearls, set in fine gold, and appears to most advantage when cut spheroidal. (Mawe *On Diamonds*, 2nd ed. p. 129; Emanuel *On Diamonds*, pp. 179—190.)

Real turquoises are exclusively furnished by Persia. The mines whence they are obtained are situated near Nishapore. They are the property of the Crown, and are farmed to the highest bidder. They bring a rent of from 2,000*l*. to 2,700*l*. a-year. (Fraser's *Travels on the Shores of the Caspian*, pp. 343—347.)

**TURTLE SHELLS.** [*TORTOISE SHELLS.*] **TUTENAGUE.** The name given in commercial language to the zinc or spelter of China. [*ZINC.*]

But it is improperly applied; for the article to which the Portuguese originally gave the name of *tutenag*, is, in fact, the gong metal of the Chinese, that is, an alloy of copper and tin. It is harder than zinc, though less so than iron, sonorous, compact, and has some malleability. The fresh fracture is brilliant, but soon tarnishes. It is made by melting 100 cattie of the mineral called *hung-tung* or red copper, with 25 cattie of tin, and running it, when intended for gongs, into a thin plate. The sonorous quality of these instruments is owing chiefly to long-continued and expert hammering, and their price depends in great measure upon the sound. Other instruments are also made of this alloy, as well as wash-basins, dishes, and small bells. Notwithstanding the prohibition which formerly existed against exporting unwrought metals from China, it is supposed that previously to 1820 about 2,500 tons tutenague were annually sent to India and the Malay countries. But this exportation has been superseded by the supplies of zinc which India &c. now get from Europe, and which is better fitted for the purposes to which tutenague was applied. European zinc is, also, finding its way to China. The export price of tutenague varies from 14 to 40 dols. per picul. Large gongs sell at from 40 to 50 cts. per catty. Small ones at half that price. (*Chinese Commercial Guide*, p. 199.)

**TYPES.** The value of printing types and materials for printing exported from this country in 1867 (chiefly to India, Australia, and the United States) was 68,094*l*.

**TYRE.** The principal city of Phœnicia, and the most celebrated emporium of the ancient world. This famous city was situated on the S.E. coast of the Mediterranean, where the inconsiderable town of *Tsour* now stands, in lat. 33° 17' N., long. 35° 14' 35" E. The trade that is at present carried on at *Tsour* is too trifling to deserve notice; but as this work is intended to give some account, however imperfect, of the revolutions in the channels of commercial enterprise, we may, perhaps, be excused for submitting a few statements with respect to the commerce carried on by so renowned a people as the Tyrians.

Tyre was founded by a colony from Sidon, the most ancient of the Phœnician cities. The date of this event is not certainly known, but Larcher supposes it to have been 1,690 years before Christian era. (*Chronologie d'Hérodote*, cap. ii. p. 131.) It is singular, that while Homer mentions Sidon, he takes no notice of Tyre, whose glory speedily eclipsed that of the mother city; but this is no conclusive proof, that the latter was not in his time a considerable emporium. The prophets Isaiah, Jeremiah, and Ezekiel, who flourished from 700 to 600 years before Christ, represent Tyre as a city of unrivalled wealth, whose 'merchants were princes, and her traffickers the honourable of the earth.' Originally, the city was built on the main land; but having been besieged for a lengthened period by the Babylonian monarch Nebuchadnezzar, the inhabitants conveyed themselves and their goods to an island at a little distance, where a new city was founded which enjoyed an increased degree of celebrity and commercial prosperity. The old city was, on that account, entitled *Paletyre*, and the other simply Tyre. The new city continued to flourish, extending its colonies and its commerce on all sides, till it was attacked by Alexander the Great. The resistance made by the Tyrians to that conqueror showed that they had not been enervated by luxury, and that their martial virtues were no wise inferior to their commercial skill and enterprise. The overthrow of the Persian empire was effected with less difficulty than the capture of this single city. The victor had not the magnanimity to treat the vanquished as their heroic conduct deserved. In despite, however, of the cruelty inflicted on the city, she rose again to considerable eminence. But the foundation of Alexandria, by diverting the commerce that had formerly centred at Tyre into a new channel, gave her an irreparable blow; and she gradually declined till consistently with the denunciation of the prophets her palaces have been levelled with the dust, and she has become 'a place for the spreading of nets in the midst of the sea.'

*Commerce, Colonies &c. of Tyre.*—Phœnicia was one of the smallest countries of antiquity. It occupied that part of the Syrian coast which stretches from Aradus (the modern *Road*) on the north, to a little below Tyre on the south, a distance of about 50 leagues. Its breadth was much less considerable, being for the most part bounded by Mount Libanus to the east, and Mount Carmel on the south. The surface of this narrow tract was generally rugged and mountainous; and the soil in the valleys, though moderately fertile, did not afford sufficient supplies of food to feed the population. Libanus and its dependent ridges were, however, covered with timber suitable for ship-building; and besides Tyre and Sidon, Phœnicia possessed the ports of Tripoli, Byblos, Beirut &c. In this situation, occupying a country unable to supply them with sufficient quantities of corn, hemmed in by mountains, and by power

city of Phœnicia, and the port of Sidon, the emporium of the ancient Phœnicia, was situated on the coast of the Mediterranean, where the labour now stands, in lat. 35° E. The trade that is now carried on at Tyre is too trifling to be worth notice. This work is intended to be a history of the city, and is never imperfect, of the results of commercial enterprise excused for submitting to the respect to the commerce of the world, and owned a people as the

a colony from Sidon, the Phœnician cities. The date is mainly known, but Larcher says it was founded in 1,690 years before the Christian era. (*logie d'Hérodote*, cap. ii.) that while Homer mentions a notice of Tyre, whose name is that of the mother city; a proof, that the latter was a considerable emporium. The prophet Isaiah, and Ezekiel, who lived 600 years before Christ, mention the city of unrivalled wealth, and her princes, and her traffic to all parts of the earth. Originally, the main land; but having been destroyed in a period by the Babylonian king, the inhabitants carried their goods to an island at the mouth of a new city was founded, and it attained a degree of celebrity and importance.

The old city was, on that side of the sea, and the other simply continued to flourish, extending its commerce on all sides. Alexander the Great, the Tyrians to that conquered city had not been enervated by martial virtues were not commercial skill and enterprise of the Persian empire were more than the capture of Tyre. The victor had not the magnanimity to spare the city, but destroyed it as their heroic conduct.

however, of the crucifixion, she rose again to consider the foundation of Alexandria, commerce that had formerly been carried on, a new channel, gave her a new life, and she gradually declined till the foundation of the province, levelled with the dust, since the spreading of new cities.

of Tyre.—Phœnicia was the shortest of antiquity. It is the Syrian coast which is the modern route) on the coast of Tyre on the south, a distance of 100 miles. Its breadth was much greater for the most part bounded by the east, and Mount Carmel, the surface of this narrow tract is high and mountainous; and though moderately fertile, it supplies of food to feed the city, and its dependent villages, and with timber suitable for building. Besides Tyre and Sidon, Phœnicia has the cities of Tripoli, Byblos, Berytus, occupying a beautiful bay, with sufficient quantities of timber, mountains, and by power

ful and warlike neighbours, on the one hand, and having, on the other, the wide expanse of the Mediterranean, studded with islands, and surrounded by fertile countries, to invite the enterprise of her citizens, they were naturally led to engage in maritime and commercial adventures; and became the boldest and most experienced mariners, and the greatest discoverers, of ancient times.

From the remotest antiquity, a considerable trade seems to have been carried on between the Eastern and Western worlds. The spices, drugs, precious stones, and other valuable products of Arabia and India, have always been highly esteemed in Europe, and have been exchanged for the gold and silver, the tin, wines &c. of the latter. At the first dawn of authentic history, we find Phœnicia the principal centre of this commerce. Her inhabitants are designated in the early sacred writings by the name of Canaanites—a term which, in the language of the East, means merchants. The products of Arabia, India, Persia &c. were originally conveyed to her by companies of travelling merchants, or caravans; which seem to have been constituted in the same way, and to have performed exactly the same part in the commerce of the East, in the days of Jacob, that they do at present. (Gen. xxxvii. 25 &c.) At a later period, however, in the reigns of David and Solomon, the Phœnicians, having formed an alliance with the Hebrews, acquired the ports of Elath and Ezion-geber, at the north-east extremity of the Red Sea. Here they fitted out fleets, which traded with the ports on that sea, and probably with those of southern Arabia, the west coast of India, and Ethiopia. The ships are said to have visited Ophir; and a great deal of attention has been expended in attempting to determine the exact situation of that emporium or country. We agree, however, with Heeren, in thinking that it was not the name of any particular place; but that it was a sort of general designation given to the coasts of Arabia, India, and Africa, bordering on the Indian Ocean; somewhat in the same loose way as we now use the terms East and West Indies. (See the chapter on the *Navigation and Commerce of the Phœnicians*, in the translation of Heeren's work.)

The distance of the Red Sea from Tyre being very considerable, the conveyance of goods from the one to the other by land must have been tedious and expensive. To lessen this inconvenience, the Tyrians, shortly after they got possession of Elath and Ezion-geber, seized upon Rhinocourra, the port in the Mediterranean nearest to the Red Sea. The products of Arabia, India &c. being carried hither by the most expeditious route, were then put on board ships, and conveyed by a brief and easy voyage to Tyre. If we except the transit by Egypt, this was the shortest and most direct, and for that reason, no doubt, the cheapest, channel by which the commerce between Southern Asia and Europe could then be conducted. But it is not believed that the Phœnicians possessed any permanent footing on the Red Sea after the death of Solomon. The want of it does not, however, seem to have sensibly affected their trade; and Tyre continued, till the foundation of Alexandria, to be the grand emporium for Eastern products, with which it was abundantly supplied by caravans from Arabia, the bottom of the Persian Gulf and from Babylon, by way of Palmyra.

The commerce of the Phœnicians with the countries bordering on the Mediterranean was still more extensive and valuable. At an early period, they established settlements in Cyprus and

Rhodes. The former was a very valuable acquisition, from its proximity, the number of its ports, its fertility, and the variety of its vegetable and mineral productions. Having passed successively into Greece, Italy, and Sardinia, they proceeded to explore the southern shores of France and Spain, and the northern shores of Africa. They afterwards adventured upon the Atlantic; and were the first people whose flag was displayed beyond the pillars of Hercules. (Mons Calpe and Mons Abyla, the Gibraltar and Ceuta of modern times.)

Of the colonies of Tyre, Gades, now Cadiz, was one of the most ancient and important. It is supposed by M. de St. Croix to have originally been distinguished by the name of Tartessus or Tarshish, mentioned in the sacred writings. (*De l'état et du sort des anciennes Colonies*, p. 14.) Heeren, on the other hand, contends, as in the case of Ophir, that by Tarshish is to be understood the whole southern part of Spain, which was early occupied and settled by Phœnician colonists. (See also Huot, *Commerce des Anciens*, cap. 8.) At all events, it is certain that Cadiz early became the centre of a commerce that extended all along the coasts of Europe as far as Britain, and perhaps the Baltic. There can be no doubt that by the Cassiterides, or Tin Islands, visited by the Phœnicians, are to be understood the Scilly Islands and Cornwall. [Tin.] The navigation of the Phœnicians probably, also, extended a considerable way along the western coast of Africa; of this, however, no details have reached us.

But, of all the colonies founded by Tyre, Carthage has been by far the most celebrated. It was at first only a simple factory; but was materially increased by the arrival of a large body of colonists, forced by dissensions at home to leave their native land, about 883 years before Christ. (*St.-Croix*, p. 20.) Imbued with the enterprising mercantile spirit of their ancestors, the Carthaginians rose, in no very long period, to the highest eminence as a naval and commercial state. The settlements founded by the Phœnicians in Africa, Spain, Sicily &c. gradually fell into their hands; and after the destruction of Tyre by Alexander, Carthage engrossed a large share of the commerce of which it had previously been the centre. The subsequent history of Carthage, and the misfortunes by which she was overwhelmed, are well known. We shall only, therefore, observe, that commerce, instead of being, as some shallow theorists have imagined, the cause of her decline, was the real source of her power and greatness; the means by which she was enabled to wage a lengthened, doubtful, and desperate contest with Rome herself for the empire of the world.

The commerce and navigation of Tyre probably attained their maximum from 650 to 550 years before Christ. At that period the Tyrians were the factors and merchants of the civilised world; and they enjoyed an undisputed pre-eminence in maritime affairs. The prophet Ezekiel (chap. xxvii.) has described in magnificent terms the glory of Tyre; and has enumerated several of the most valuable productions found in her markets, and the countries whence they were brought. The fir trees of Senir (Hermon), the cedars of Lebanon, the oaks of Bashan (the country to the east of Galilee), the ivory of the Indies, the fine linen of Egypt, and the purple and hyacinth of the isles of Elishah (Peloponnesus), are specified among the articles used for her ships. The inhabitants of Sidon, Arvad (Aradus), Gebel (Byblos), served her as mariners and carpenters. Gold, silver, lead, tin, iron, and vessels of brass; slaves, horses,

miles, sheep, and goats; pearls, precious stones, and coral; wheat, balm, honey, oil, spices, and gums; wine, wool, and silk, are mentioned as being brought into the port of Tyre by sea, or to its markets by land, from Syria, Arabia, Damascus, Greece, Tarshish, and other places, the exact site of which it is difficult to determine. There is, in Dr. Vincent's *Commerce and Navigation of the Ancients in the Indian Ocean* (vol. ii, pp. 624—652), an elaborate and (like the other parts of that work) prolix commentary on this chapter of Ezekiel, in which most of the names of the things and places mentioned are satisfactorily explained. (Heeren *On the Phœnicians*, cap. iv.)

Such, according to the inspired writer, was Tyre, the 'Queen of the waters' before she was besieged by Nebuchadnezzar. But, as has been already remarked, the result of that siege did not affect her trade, which was as successfully and advantageously carried on from the new city as from the old. Inasmuch, however, as Carthage soon after began to rival her as a maritime and mercantile state, this may, perhaps, be considered as the era of her greatest celebrity.

It would not be easy to overrate the beneficial influence of that extensive commerce from which the Phœnicians derived such immense wealth. It inspired the people with whom they traded with new wants and desires, at the same time that it gave them the means of gratifying them. It everywhere gave fresh life to industry, and a new and powerful stimulus to invention. The rude uncivilised inhabitants of Greece, Spain, and Northern Africa acquired some knowledge of the arts and sciences practised by the Phœnicians; and the advantages of which they were found to be productive secured their gradual though slow advancement.

Nor were the Phœnicians celebrated only for their wealth, and the extent of their commerce and navigation. Their fame, and their right to be classed amongst those who have conferred the greatest benefits on mankind, rest on a still more unassailable foundation. Antiquity is unanimous in ascribing to them the invention and practice of all those arts, sciences, and contrivances that facilitate the prosecution of commercial undertakings. They are held to be the inventors of arithmetic, weights and measures, of money, of the art of keeping accounts, and, in short, of everything that belongs to the business of a counting-house. They were also famous for the invention of ship-building and navigation; for the discovery of glass [Glass]; for their manufactures of fine linen and tapestry; for their skill in architecture, and in the art of working metals and ivory; and still more for the incomparable splendour and beauty of their purple dye. (See the learned and invaluable work of the President de Goguet, *Sur l'Origine des Loix etc.* Eng. trans. vol. i. p. 296, and vol. ii. pp. 95—100; see also the chapter of Heeren on the *Manufactures and Land Commerce of the Phœnicians*.)

But the invention and dissemination of these highly useful arts form but a part of what the people of Europe owe to the Phœnicians. It is not possible to say in what degree the religion of the Greeks was borrowed from theirs; but that it was to a pretty large extent seems abundantly certain. Hercules, under the name of Melcarthus, was the tutelary deity of Tyre; and his expeditions along the shores of the Mediterranean, and to the straits connecting it with the ocean, seem to be merely a poetical representation of the progress of the Phœnician navigators, who introduced arts and civilisation, and established the worship of Hercules, wherever they went. The temple

erected in honour of the god at Gades was long regarded with peculiar veneration.

The Greeks were, however, indebted to the Phœnicians, not merely for the rudiments of civilisation, but for the great instrument of its future progress—the gift of letters. No fact in ancient history is better established than that a knowledge of alphabetic writing was first carried to Greece by Phœnician adventurers; and it may be safely affirmed that this was the greatest boon any people ever received at the hands of another.

Before quitting this subject, we may briefly advert to the statement of Herodotus with respect to the circumnavigation of Africa by Phœnician sailors. The venerable Father of History mentions, that a fleet fitted out by Necho king of Egypt, but manned and commanded by Phœnicians, took its departure from a port on the Red Sea, at an epoch which is believed to correspond with the year 604 before the Christian era, and that, keeping always to the right, they doubled the southern promontory of Africa; and returned, after a voyage of three years, to Egypt, by the Pillars of Hercules. (*Herod.* lib. iv. s. 42.) Herodotus further mentions, that they related that, in sailing round Africa, they had the sun on their right hand, or to the north—a circumstance which he frankly acknowledges seemed incredible to him, but which, as everyone is now aware, must have been the case if the voyage was actually performed.

Many learned and able writers, and particularly Gosselin (*Recherches sur la Géographie systématique et positive des Anciens*, tome i. pp. 204—217), have treated this account as fabulous. But the objections of Gosselin have been successfully answered in an elaborate note by Larcher (*Herodote*, tome iii. pp. 458—464, ed. 1802); and Major Rennel has sufficiently demonstrated the practicability of the voyage. (*Geography of Herodotus*, p. 682 &c.) Without entering upon this discussion, we may observe, that not one of those who question the authenticity of the account given by Herodotus, presumes to doubt that the Phœnicians braved the boisterous seas on the coasts of Spain, Gaul, and Britain; and that they had, partially at least, explored the Indian Ocean. But the ships and seamen that did this much, might, undoubtedly, under favourable circumstances, double the Cape of Good Hope. The relation of Herodotus has, besides, such an appearance of good faith; and the circumstance, which he doubts, of the navigators having the sun on the right, affords so strong a confirmation of its truth, that there really seems no reasonable ground for doubting that the Phœnicians preceded, by 2,000 years, Vasco de Gama in his perilous enterprise.

*Present State of Syria.*—The principal modern ports on the coast of Syria are Alexandretta, Latakia, Tripoli, Beyrout, Seyde, and Acre. The commerce which they carry on is but inconsiderable compared with the extent and fertility of the countries of which they are the inlets. This, however, is not owing to the badness of the ports, the unsuitableness of the country, or to any natural cause, but wholly to long continued oppression and misgovernment. There is a passage in the dedication to Sandys's *Travels* that describes the state of Syria, Asia Minor, Egypt &c., about 250 years ago, with a force and eloquence which it is not very likely will soon be surpassed:—

‘Those countries, once so glorious and famous for their happy estate, are now, through vice and ingratitude, become the most deplorable spectacles of extreme misery; the wild beasts of mankind having broken in upon them and rooted out all

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civilite, and the pride of a stern and barbarous  
tyrant possessing the thrones of ancient and just  
dominion; who, ryming only at the height of  
greatness and sensualitie, hath in t act of time  
reduced so great and goodly a part of the world,  
to that lamentable distresse and servitude under  
which (to the astonishment of the understanding  
beholders) it now fulfils and groneth. Those  
rich lands at this present remain waste and over-  
grown with bushes, receptacles of wild beasts,  
of thieves and murderers; large territories despoiled  
or thinly inhabited; goodly cities made desolate;  
sumptuous buildings become ruins; glorious  
temples either subverted, or prostituted to im-  
pictie; true religion discountenanced and op-

pressed; all nobilitie extinguished; no light of  
learning permitted, nor vertue cherished; violence  
and rapine insulting over all, and leaving no  
securitie save to an abject mind and imlook on  
povertie.

Those who compare this beautiful passage with  
the authentic statements of Volney—incom-  
parably the best of the modern travellers who  
have visited the countries referred to—will find  
that it continued down to a comparatively late  
period to be as accurate as it is eloquent. Lat-  
terly, however, thanks to the decay of the Turkish  
power, some improvement has taken place. And  
the trade of Beyrout, and the other ports referred  
to above, has considerably increased.

U

ULTRAMARINE (Ger. ultramarin; Fr. bleu  
d'outremer; Ital. ultramarino; Span. ultramar;  
Russ. ultramarin). A very the blue powder, made  
from the blue parts of *lapis lazuli*. It has the  
valuable property of never fading, nor becoming  
tarnished, on exposure to the air, or a moderate  
heat; and on this account is highly prized by  
painters. It was introduced about the end of the  
fifteenth century. Owing to its great price, artificial  
marine is now used, and the tint of this is  
now superior to that of the natural, while its cost  
is comparatively trifling. Under this general  
head we give the following extracts from various  
reports of the United States Government De-  
partment just received. (Brande and Cox's *Dictionary  
of Science and Art*; &c.)

UMBRELLAS. The value of the umbrellas  
and parasols of British manufacture exported in

1867, chiefly to India, the United States, Brazil,  
and Australia, was 187,111.

UNITED STATES. [ALBANY; BALTIMORE;  
BOSTON; CHALLENGTON; GALVESTON; MOBILE;  
NEW ORLEANS; NEW YORK; PHILADELPHIA;  
SAN FRANCISCO; &c.]

In the Report of the Secretary of the Interior,  
dated Washington, November 30, 1868, which has  
just reached this country, it is stated that during  
the last fiscal year public lands were disposed of  
as follows:—

Cash sales	acres
Located with military warrants	914,911-33
Taken for homesteads	5,809,260
Appropd to States as swamp lands to railroads	2,326,923-25
Located with college scrip	209,197-82
	437,437-57
	1,912,889-08
	6,555,744-50

A quantity less by 385,372 acres than that dis-  
posed of the previous year.

Table exhibiting the Number of Banks, with the Amount of Capital, Bonds Deposited, and Cir-  
culation, in each State and Territory, September 30, 1868. (From Report of the Comptroller  
of the Currency, December 7, 1868.)

States and Territories	Organisation			Capital paid in	Bonds on Deposit	Circulation issued	In actual circulation
	Organi- sed	Closed or closing	In op- eration				
Maine	61	..	61	9,085,000	00	8,407,250	7,510,066
New Hampshire	40	..	40	4,785,000	00	4,839,000	4,281,695
Vermont	39	..	40	6,260,012	50	5,517,000	5,237,560
Massachusetts	209	2	207	80,032,000	00	64,718,000	57,081,610
Rhode Island	62	..	62	30,364,000	00	14,185,500	12,676,530
Connecticut	85	2	81	24,084,220	00	19,784,000	17,008,025
New York	311	15	299	116,541,981	00	79,442,500	68,855,726
New Jersey	55	1	51	11,383,550	00	10,678,650	9,240,485
Pennsylvania	209	8	197	50,247,500	00	44,505,250	39,940,500
Maryland	32	2	34	11,390,202	50	10,065,200	9,180,000
Delaware	11	..	11	1,248,185	00	1,428,200	1,217,225
District of Columbia	6	2	4	1,550,000	00	1,398,000	1,274,000
Virginia	20	2	18	2,900,000	00	2,329,800	2,151,000
West Virginia	15	..	15	2,216,400	00	2,245,150	1,988,550
Ohio	137	4	133	24,004,700	00	20,765,500	18,410,425
Indiana	71	3	68	12,607,000	00	12,835,500	11,668,055
Illinois	83	..	83	13,070,000	00	11,017,950	9,777,650
Michigan	43	1	42	5,210,010	00	4,357,700	3,874,255
Wisconsin	27	5	34	3,661,000	00	2,769,000	2,541,410
Iowa	48	4	44	4,057,000	00	3,765,750	3,349,805
Minnesota	16	1	15	1,710,000	00	1,712,200	1,476,800
Kansas	5	..	5	400,000	00	292,000	354,000
Missouri	20	2	18	7,810,500	00	4,781,000	4,129,310
Kentucky	15	..	15	2,885,000	00	2,665,900	2,267,970
Tennessee	13	1	12	2,025,500	00	1,492,700	1,204,755
Louisiana	7	1	2	1,800,000	00	1,308,000	1,245,000
Mississippi	2	2	..	150,000	00	75,000	61,035
Alabama	4	..	4	350,000	00	235,000	170,000
Colorado	3	..	3	250,000	00	297,000	251,000
Georgia	9	1	8	1,000,000	00	1,283,800	1,254,000
North Carolina	6	..	6	685,500	00	399,500	317,600
South Carolina	5	..	5	685,000	00	504,000	355,000
Florida	3	1	2	370,000	00	305,000	301,900
Texas	1	..	1	155,000	00	155,000	131,700
Oregon	1	..	1	100,000	00	190,000	88,500
Idaho	1	..	1	525,000	00	474,100	407,535
Montana	2	..	2	200,000	00	200,000	179,500
Utah	1	..	1	150,000	00	150,000	155,000
Nebraska	1	..	1	100,000	00	40,000	36,000
Wyoming	1	..	1	100,000	00	75,000	65,500
Total*	1,685	56	1,629	326,189,111	00	342,019,950	309,215,166

\* 56 of these have never completed their organization, or have gone into liquidation.

The quantity of lands still undisposed of is 1,405,366,378 acres.

From among other remarks hostile to the existing tariff of the United States contained in the Report for 1868 of the Special Commissioner of the Revenue, we extract the following sentence: 'Another characteristic feature of the existing tariff is that it attempts indiscriminate or universal protection; an idea which, if fully carried out, would render all protection a nullity, and to the extent to which it is carried out does more for foreign, as compared with domestic, industry than almost any other one agency. [Tariff under New York.]

USANCE. A period of one, two, or three months, or of so many days, after the date of a bill of exchange, according to the custom of different places, before the bill becomes due. Double or treble usance is double or treble the usual time; and  $\frac{1}{2}$  usance is  $\frac{1}{2}$  the time. When a month is divided, the  $\frac{1}{2}$  usance, notwithstanding the difference, in the lengths of the months, is uniformly 15 days. Usances are calculated exclusively of the date of the bill. Bills of exchange drawn at usance are allowed the usual days of grace, and on the last of the 3 days the bill should be presented for payment. [EXCHANGE.]

USURY. [INTEREST AND ANNUITIES.]

## V

VALONIA. A species of acorn, forming a very considerable article of export from the Morea and the Levant. The more substance there is in the husk, or cup of the acorn, the better. It is of a bright drab colour, which it preserves so long as it is kept dry; any dampness injures it; as it then turns black, and loses both its strength and value. It is principally used by tanners, and is always in demand. Though a very bulky article, it is uniformly bought and sold by weight. A ship can only take a small proportion of her registered tonnage of valonia, so that its freight per ton is always high.

Of 19,547 tons of valonia imported in 1867, and valued at 331,264*l.*, 17,279 tons were brought from Turkey, and the residue almost entirely from Greece. The duty, after being reduced in 1842 from 20*s.* to 5*s.* per ton, was wholly repealed in 1845. The price of valonia in London in 1867 varied from 14*l.* to 17*l.* 6*s.* per ton.

VALPARAISO. The principal seaport of Chile, lat. (Fort St. Antonio) 33° 1' 9" S., long. 71° 37' 13" W. Population 70,438 in 1865. The water in the bay is deep, and it affords secure anchorage, except during northerly gales, to the violence of which it is exposed; but as the holding ground is good, and the pull of the anchor against a steep hill, accidents seldom occur to ships properly found in anchors and cables. The mole is neither strong nor extensive; but the water close to the shore is so deep, that it is customary for the smaller class of vessels to carry out an anchor to the northward, and to moor the ship with the stern ashore by another cable made fast to land. Large ships lie a little farther off, and load and unload by means of lighters. The best shelter is in that part called the Fisherman's Bay, lying between the castle and Fort St. Antonio, where, close to a clear shingle beach, there is 9 fathoms water. In the very worst weather, a landing may be effected in this part of the bay. There is a lighthouse with a fixed and flashing light on Angeles or Playa Ancha Point visible for 20 miles in clear weather. (Miers's *Chili and La Plata*, i. 440, and Admiralty list of lights 1868.) In 1866, 901 vessels of 354,123 tons entered the port.

The harbours of Valdivia and Concepcion are much superior to that of Valparaiso; the former being, indeed, not only the best in Chile, but second to few in any part of the world. But Valparaiso, being near the capital, Santiago, and being the central depot for the resources of the province, is most frequented. The town is conveniently situated, at the extremity of a mountainous ridge; most part of the houses being built either upon its acclivity or in its breaches.

Large quantities of corn and other articles of provision are shipped here for Callao and other ports along the Peruvian coast: the exports from San Francisco have nearly ceased. The principal articles of export are the precious metals, copper, tallow and hides, wheat and flour, wool, saltpetre &c. The produce of the Chilean mines of gold and silver has increased during the last few years, and their average produce may now be taken at about 4,000,000 dols., or 800,000*l.* a-year. But the increase in the production of copper has been much more considerable, having fully trebled since 1845. It would appear from a series of the Produce Reports of Messrs. W. P. Robertson & Co. of Valparaiso, ending with that of January 2, 1869, that, besides copper, considerable quantities of nitrate of soda and breadstuffs are regularly exported from this and adjacent ports. At that date freights were 2*l.* 15*s.* per ton for copper produce to Swansea, and 2*l.* 17*s.* 6*d.* for copper or wheat to Liverpool. In 1864 the entire value of the mineral products exported from Chile was estimated at 18,698,723 dols. The import and export trades of the republic have more than trebled since 1848, when their aggregate amount was 16,954,952 dols. The following were the principal articles of export, with their values, in 1866:—

Copper ore and copper	-	24,503,917
Corn, wheat, barley and flour	-	1,230,089
Silver	-	614,057

Total value of the exports in 1866, 5,817,978*l.* The total imports in 1866 were valued at 4,171,293*l.* Of these by far the largest portion is supplied by the United Kingdom, the United States, France, the Hanse Towns, Brazil, Peru &c.

The value of our exports of British produce to Chile amounted, in 1867, to 2,524,438*l.* Among other items they comprised, cottons worth 1,311,437*l.*, woollens 286,183*l.*, linens 141,995*l.*, hardware and cutlery 88,604*l.*, iron 125,378*l.*, apparel and haberdashery 45,875*l.*, empty bags 78,047*l.*, coal 44,790*l.* &c. Exclusive of gold and silver, we import from Chile considerable quantities of copper ore and copper, corn, silver ore, saltpetre, hides, wool &c. The value of the whole imports from Chile, chiefly copper and corn, into the United Kingdom in 1867, was 4,317,568*l.*

*Chilian Port Regulations. Export Duties.*—Chile Guano, 12½ cents per 1,000 lb.; 5 per cent. on the following articles: bar silver, on valuation of 9 dols. per marc; unmelted silver (pina), do; old plate (chafalonía), do.; copper, in bars, on valuation of 14 dols. per 100 lb.; do. retalla do., 9 dols. do.; do regulus ores, calcined ores, silver ores, mixed ores, and tailings not capable of amalgamation, and tailings, pay 5 per cent. on

two, or three months, the date of a bill of exchange of different places, e. Double or treble the usual time; and in a month is divided, and the difference in is uniformly 15 days, exclusively of the date of drawn at usance usance, and on the last could be presented for

#### AND ANNUITIES.]

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The import and export have more than trebled aggregate amount was owing were the principal their values, in 1866 —

1866	£2,503,917
1867	1,959,989
1868	614,957

ports in 1866, 5,817,978l. 1866 were valued at far the largest portion is Kingdom, the United Towns, Brazil, Peru &c. to 2,524,438l. Among rised, cottons worth 3,183l., linens 141,995l., 88,604l., iron 125,378l., ry 45,875l., empty bags

Exclusive of gold and Chile considerable quanti-copper, corn, silver ore, &c. The value of the whole fly copper and corn into 1867, was 4,117,568l.

Exports. *Export Duties.*—per 1,000 lb.; 5 per cent. : bar silver, on valuation melted silver (pina), do; do.; copper, in bars, on r 100 lb.; do. retalla do., ores, calcined ores, silver tailings not capable of ings, pay 5 per cent. on

proceeds of account sales when received from place of destination. The provincial contribution on export of copper ores is abolished, and in the Times of March 3, 1869, it is stated that the total receipts from customs at Valparaiso during the year 1868, amounted to 5,600,000 dols., of which 650,000 dols. appertains to December alone. Never before has the revenue from this source reached so high a figure.

*Port Charges.*—Tonnage dues, 25 cents per ton; light dues,  $\frac{3}{4}$  cents per ton; role and captain of the port's fees, 4 dols.; harbour master's fees, 3 dols. Whale ships, vessels in distress or in ballast, or discharging under 20 packages, are exempt from tonnage and light dues. Tonnage dues paid at one port are not levied in another.

The lading charges which are on account of the owner of the goods, may be calculated at from 125 dols. to 150 dols. per ton, according to the description of merchandise. Consignees charge generally 5 per cent. commission for sales, and 2½ guarantees.

*Foreign Flags.*—The only ports of entry for foreign flags are Ancud, Valdivia, Talcahuano, Concepcion, Valparaiso, Coquimbo, and Caldera, and Lota and Coronel in ballast; and vessels from abroad entering any other port are liable to seizure. Coasting trade is prohibited to foreign flags, but they may discharge portions of their original cargoes in one or more ports; and load Chilean produce for a foreign port.

All communication with the shore is prohibited until after the visit of the port and revenue officer, who will require a general manifest of the cargo, or the bill of lading, and a list of stores. 24 hours are allowed for correction of errors or omissions. For any mistake discovered afterward, the captain is subjected to fines or seizure. Passengers' luggage free.

In 1866 the ports of Chile were entered by 3,994 vessels (of which 1,496 were British), with a total tonnage of 1,416,816.

Perhaps no part of South America has proflted more than Chile by the establishment of independence. The contrast between her present state and that in which she was found by M. de la Perouse is most striking. 'The influence of the Government,' said that accomplished navigator, 'is in constant opposition to that of the climate. The system of prohibition exists at Chile in its fullest extent. This kingdom, of which the productions would, if increased to their maximum, supply all Europe; whose wool would be sufficient for the manufactures of France and England; and whose herds, converted into salt provisions, would yield a vast produce: this kingdom, alas! has no commerce. Four or five small vessels bring, every year, from Lima, tobacco, sugar, and some articles of European manufacture, which the miserable inhabitants can obtain only at second or third hand, after they have been charged with heavy customs duties at Calliz, at Lima, and lastly, at their arrival at Chile; in exchange they give their tallow, hides, some deals, and their wheat, which, however, is at so low a price, that the cultivator has no inducement to extend his tillage. Thus Chile, with all its gold, and articles of exchange, can scarcely procure sugars, tobacco, snuff, linens, cambrics, and hardware, necessary to the ordinary wants of life.' (Pérouse's *Voyage*, vol. i. p. 50, Eng. ed.)

Instead, however, of 4 or 5 small ships from Lima, Valparaiso is now annually visited by well-nigh a thousand ships of all nations, exclusive of those visiting the other ports. All sorts of European goods are carried direct to Chile, and are admitted at reasonable duties. The advantages resulting from this extensive intercourse with

foreigners, and from the settlement of English and American adventurers in the country, have been already immense, and will every day become more visible. It was impossible, considering the ignorance of the mass of the people, that the old system of tyranny and superstition could be pulled to pieces without a good deal of violence and mischief; but the foundations of a better order of things have been laid, and Chile is becoming an opulent and a flourishing country.

Its population in 1865 amounted to 1,819,223. And Rosalis states, in his excellent work on Chile (*Essai sur le Chile*, Hambourg 1857), that in 1855 the consumption of sugar amounted to 32,785,250 lb., being nearly 22 lb. to each individual (p. 428). As a further evidence of its prosperity, we may mention that the public revenue, which in 1817 amounted to 1,752,127 dols., had in 1846 increased to 3,623,918 dols., and in 1864 to 9,274,920 dols.

*Monies, Weights, and Measures.*—The quintal of 4 arrobas, or 100 lb., = 101.34 lb. avoirdupois. The fanega, or principal corn measure, contains 3,439 English cubic inches, and is therefore = 1.599 Winchester bushels. Hence 5 fanegas = 1 Winchester quarter very nearly. The vara, or measure of length, = 0.927 English yard.

VANCOUVER'S ISLAND, amalgamated with British Columbia in 1866 (29 & 30 Vict. c. 67), since which time Victoria, its capital, has ceased to be a free port. The latter has about 6,000 inhabitants, and the island about 10,000. [COLOMBIES.]

VANILLA or VANELLOES. The fruit of the *Epidendrum Vanilla*, a species of vine extensively cultivated in Mexico.

It has a trailing stem, not unlike the common ivy, but not so woody, which attaches itself to any tree that grows near it. The Indians propagate it by planting cuttings at the foot of trees selected for that purpose. It rises to the height of 18 or 20 feet; the flowers are of a greenish yellow colour, mixed with white; the fruit is about 8 or 10 inches long, of a yellow colour when gathered, but dark brown or black when imported into Europe; it is wrinkled on the outside, and full of a vast number of seeds like grains of sand, having, when properly prepared, a peculiar and delicious fragrance. It is principally used for mixing with and perfuming chocolate, and in confectionery; and is, on that account, largely imported into Spain; but as chocolate is little used in England, vanilla is not much known in this country. In 1867, 8,178 lb. of it were imported, of the value of 2,864l., and 5,551 lb. were re-exported.

Vanilla is principally gathered in the intendancy of Vera Cruz, in Mexico, at Misantla, Colipa, Yaenatla, and other places. It is collected by the Indians, who sell it to the whites (*gente de razón*), who prepare it for market. They spread it to dry in the sun for some hours, then wrap it in woollen cloths to sweat. Like pepper, it changes its colour in this operation, becoming almost black. It is finally dried by exposing it to the sun for a day. There are 4 varieties of vanilla, all differing in price and excellence; viz. the *vanilla fina*, the *zocate*, the *rezocate*, and the *vasura*. The best comes from the forests surrounding the village of Zentilla, in the intendancy of Oaxaca. According to Humboldt, the mean exportation of vanilla from Vera Cruz might, at the time he wrote, amount to from 900 to 1,000 millares, worth at Vera Cruz from 30,000 to 40,000 dollars. Vanilla is also imported from Brazil, but it is very inferior. The finest Mexican vanilla is extremely high priced. The British duty of 5s. 3d. per lb. formerly charged on

vanilla was repented in 1853. (Humboldt, *Nouvelle-Espagne*, 2nd edit. tome iii. pp. 37, 46; Poinsett's *Notes on Mexico*, p. 194 &c.; Braude and Cox's *Dictionary of Science and Art*; &c.)

**VEGETABLE WAX.** The produce of the berry of a tree (*Rhus succedaneum*) growing in Japan. The tree, which is well known to botanists, is said to be abundant; it varies in height from 15 to 25 feet, and the berries which it produces are found in clusters, not unlike bunches of grapes.

The native method of preparing the wax is of a very primitive description. The berries having been gathered, are washed and bruised after a rude fashion; and being then slowly boiled, the wax is extracted and thrown to the surface. Having been skimmed off, it is moulded into cakes of about 30 lb. each, which, being dried in the sun, are fit for use.

This beautiful wax, one parcel of which varies but little from another, has a bright cream colour, is nearly of the consistence of bees' wax, bears without softening a high degree of atmospheric heat; and as it contains a large percentage of stearine, it is highly suitable for the manufacture of candles, particularly of those known as 'composit,' as well as for other purposes.

Little is as yet known in this country of this valuable commodity. Small lots of it have occasionally been indirectly imported, but the first cargo brought hither direct, was imported into London in April 1859, by the American ship *Florence*, from Nagasaki, the principal seaport of Japan. In 1867, we imported 8,964 cwt., valued at 37,817.

**VEGETABLES.** In 1867, we imported vegetables (chiefly from France and Holland) of the value of 50,079*l.*

**VELLUM.** A species of fine parchment.

[PARCHMENT.]

**VENEERS.** Thin plating, or layers of superior wood for covering inferior material. They are chiefly of wood. In 1867 we imported, principally from France, 4,976 cwt. of veneers, valued at 44,878*l.*

**VENICE.** A famous city, now of the kingdom of Italy, formerly the capital of the republic of that name, and previous to 1866 belonging to the Austrian empire, on a cluster of small islands towards the northern extremity of the Adriatic, now joined to the mainland by a railway bridge, part of the line to Padua, in lat. 45° 25' 53" N., long. 12° 20' 31" E. Population 123,762 in 1862. The commerce of Venice, once the most extensive of any European city, is now comparatively trifling; and the population, down to 1866, gradually diminishing, both in numbers and wealth. Her imports consist of wheat and other sorts of grain, from the adjoining provinces of Lombardy and the Black Sea; olive oil, principally from the Ionian Islands; cotton stuffs and hardware from England; sugar, coffee, and other colonial products from England, the United States, Brazil &c.; dried fish, dye stuffs &c. The exports principally consist of grain, raw and wrought silk, paper, woollen manufactures, fruits, cheese &c., the products of the adjoining provinces of Italy, and of her own industry; but her manufactures, so famous in the middle ages, are now much decayed.

**Port.**—The islands on which Venice is built lie within a line of long, low, narrow islands, running N. and S., and enclosing what is termed the lagoon, or shallows, that surround the city, and separate it from the mainland. The principal entrance from the sea to the lagoon is at Malamocco, about 1½ league S. from the city; but there are other, though less frequented, entrances,

both to the S. and the N. of this one. There is a bar outside Malamocco, on which there are not more than 10 feet at high water at spring tides; but there is a channel between the western point of the bar and the village of San Pietro, which has 16 feet water at springs, and 14 at neaps. Merchant vessels usually moor off the ducal palace; but sometimes they come into the grand canal which intersects the city, and sometimes they moor in the wider channel of the Giudecca. Vessels coming from the south for the most part make Pirano or Rovigno on the coast of Istria, where they take on board pilots, who carry them to the bar opposite to Malamocco. But the employment of Istrian pilots is quite optional with the master, and is not, as is sometimes represented, a compulsory regulation. When one is taken, the usual fee from Pirano or Rovigno to the bar is 20 Austrian dollars, or about 4*l.* On arriving at the bar, ships are conducted across it and into port by pilots, whose duty it is to meet them outside, or on the bar, and of whose services they must avail themselves. (For the charges on account of pilotage, see post.)

**Money.**—Formerly there were various methods of accounting here; but now accounts are kept, as at Genoa, in lire Italiane, divided into centesimi, or 100th parts. The lira is supposed to be of the same weight, fineness, and, consequently, value as the franc. But the coins *actually in circulation*, denominated lire, are respectively equal in sterling value to about 5*d.* and 4*d.* The latter were coined by the Austrian Government.

**Weights and Measures.**—The commercial weights are here, as at Genoa, of two sorts; the *peso sottile* and the *peso grosso*. The French kilogramme, called the *libra Italiana*, is also sometimes introduced.

100 lb. peso grosso=	105.186 lb. avoirdupois
	127.830 lb. Troy
	47.638 kilogrammes
	99.485 lb. of Hamburg
	96.569 " Amsterdam
sottile	66.416 lb. avoirdupois
	80.721 lb. Troy
	30.123 kilogrammes
	62.186 lb. of Hamburg
	60.986 " Amsterdam

The *moggio*, or measure for corn, is divided into 4 staja, 16 quarte, or 64 quartarli. The staja = 2.27 Winchester bushels.

The measure for wine, anfora = 4 bigonzi, or 8 mastelli, or 48 sechii, or 192 bozze or 768 quartuzzi. It contains 137 English wine gallons.

The *botta* = 5 bigonzi. Oil is sold by weight or measure. The *botta* contains 2 mighiæ, or 80 miri of 25 lb. peso grosso. The *miro* = 4.028 English wine gallons.

The *braccio*, or long measure, for woollen = 26.6 English inches: the *braccio* for silks = 24.8 do. The foot of Venice = 13.68 English inches. (Neckenbrecher and Kelly.)

**Historical Notice.**—Venice was the earliest, and for a lengthened period the most considerable, commercial city of modern Europe. Her origin dates from the invasion of Italy by Attila in 452. A number of the inhabitants of Aquileia, and the neighbouring territory, flying from the ravages of the barbarians, found a poor but secure asylum in the cluster of small islands opposite the mouth of the Brenta, near the head of the Adriatic Gulf. In this situation they were forced to cultivate commerce and its subsidiary arts, as the only means by which they could maintain themselves. At a very early period they began to trade with Constantinople and the Levant; and notwithstanding the competition of the Genoese and Pisans, they continued to engross the principal trade in Eastern products, till the discovery of a

f this one. There is a which there are not water at spring tides; ven the western point of San Pietro, which mrs. and 1<sup>st</sup> at neaps. moor off the dncal y come into the grand city, and sometimes annel of the Giudiceca. outh for the most part on the coast of Istria, pilots, who carry them lamocco. But the em- is quite optional with s sometimes represented, When one is taken, the ovigno to the bar is 20 4l. On arriving at the across it and into port s to meet them outside, hose ser'ces they must the char' s on account

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—The commercial weights two sorts; the *peso sottile* The French kilogramme, is, also sometimes intro-

- 86 lb. avoirdupois
- 50 lb. Troy
- 39 kilogrammes
- 85 lb. of Hambur.
- 69 " Amsterdam
- 28 lb. avoirdupois
- 21 lb. Troy
- 23 kilogrammes
- 96 lb. of Hamburg
- 86 " Amsterdam

sure for corn, is divided e, or 64 quartaroli. The hels.

ne, anfora = 4 bonzoni, or ii, or 192 bozze or 768 137 English wine gal-

Oil is sold by weight or contains 2 mighaje, or 90 grosso. The mirò = 4028

measure, for woollen = 266 draccio for silks = 248 do. 68 English inches. (Nel-

Venice was the earliest, and od the most considerable, dern Europe. Her origin of Italy by Attila in 452, itants of Aquilein, and the flying from the ravages of prior but secure asylum in ands opposite the mouth of head of the Adriatic Gulf. were forced to cultivate ositary arts, as the only ould maintain themselves. they began to trade with he Levant; and notwith- tion of the Genoese and to engross the principal ets, till the discovery of a

route to India by the Cape of Good Hope turned this traffic into a totally new channel. The crusades contributed to increase the wealth and to extend the commerce and the possessions of Venice. Towards the middle of the fifteenth century, when the Turkish sultan, Mahomet II., entered Constantinople sword in hand, and placed himself on the throne of Constantine and Justinian, the power of the Venetians had attained its maximum. At that period, besides several extensive, populous, and well-cultivated provinces in Lombardy, the republic was mistress of Crete and Cyprus, of the greater part of the Morea, and most of the Isles in the Egean Sea. She had secured a chain of forts and factories that extended along the coasts of Greece from the Morea to Dalmatia; while she monopolised almost the whole foreign trade of Egypt. The preservation of this monopoly, of the absolute dominion she had early usurped over the Adriatic, and of the dependence of her colonies and distant establishments, were amongst the principal objects of the Venetian Government; and the measures it adopted in that view were skillfully devised, and prosecuted with inflexible constancy. With the single exception of Rome, Venice, in the fifteenth century was by far the richest and most magnificent of European cities; and her singular situation in the midst of the sea, on which she seems to float, contributed to impress those who visited her with still higher notions of her wealth and grandeur. Samnazarus is not the only one who has preferred Venice to the ancient capital of the world; but none have so beautifully expressed their preference.

Viderat Adriaciâ Venetam Neptunus in undis  
Nare urbem, et toto poverre jura mari.  
Nunc mihi Terephas quæ volentis, Jupiter, arces  
Objice, et ille tua intra Martia, ait:  
Si Tiberim pelago præfers, urbem aspice utramque,  
Illum nominis dicas, hanc postulare locos.

Though justly regarded as one of the principal bulwarks of Christendom against the Turks, Venice had to contend, in the early part of the sixteenth century, against a combination of the European Powers. The famous league of Cambray, of which Pope Julius II. was the real author, was formed for the avowed purpose of effecting the entire subjugation of the Venetians, and the partition of their territories. The emperor and the kings of France and Spain joined this powerful confederacy. But, owing less to the valour of the Venetians, than to dissensions amongst their enemies, the league was speedily dissolved without materially weakening the power of the republic. From that period the policy of Venice was comparatively pacific and cautious. But notwithstanding her efforts to keep on good terms with the Turks, the latter invaded Cyprus in 1570; and conquered it, after a gallant resistance, continued for 11 years. The Venetians had the principal share in the decisive victory gained over the Turks at Lepanto in 1571; but owing to the discordant views of the confederates, it was not properly followed up, and could not prevent the fall of Cyprus.

The war with the Turks in Candia commenced in 1645, and continued till 1670. The Venetians exerted all their energies in defence of this valuable island; and its acquisition cost the Turks above 200,000 men. The loss of Candia, and the rapid decline of the commerce of the republic, now almost wholly turned into other channels, reduced Venice, at the close of the seventeenth century, to a state of great exhaustion. She may be said, indeed, to have owed the last 100 years of her existence more to the forbearance and jealousies of others than to any strength of her own.

Nothing, however, could avert that fate she had seen overwhelm so many once powerful states. In 1797, the 'maiden city' submitted to the yoke of the conqueror: and the last surviving witness of antiquity—the link that united the ancient to the modern world—stripped of independence, of commerce, and of wealth, is now slowly sinking into the waves whence she arose.

The foundation of Venice is described by Gibbon, c. 35; and in his 60th chapter he has eloquently depicted her prosperity in the year 1200. Mr. Hallam, in his work on the *Middle Ages* (vol. i. pp. 470-87), has given a brief account of the changes of the Venetian Government. Her history occupies a considerable space in the voluminous work of M. Sismondi on the *Italian Republics*; but his details as to her trade and commercial policy are singularly meagre and uninteresting. All previous histories of Venice have, however, been thrown into the shade by the valuable work of M. Daru (*Histoire de la République de Venise*, 2nd ed. 8 vols. 8vo. Paris, 1821). Having had access to genuine sources of information, inaccessible to all his predecessors, M. Daru's work is as superior to theirs in accuracy, as it is in most other qualities required in a history.

*Trade, Navigation, and Manufactures of the Venetians in the Fifteenth Century.*—The Venetian ships of the largest class were denominated galleasses, and were fitted out for the double purpose of war and commerce. Some of them carried 50 pieces of cannon, and crews of 600 men. These vessels were sometimes, also, called argosers or argosies. They had early an intercourse with England; and argosies used to be common in our ports. In 1325, Edward II. entered into a commercial treaty with Venice, in which full liberty is given to the Venetians, for 10 years, to sell their merchandise in England, and to return home in safety, without being made answerable, as was the practice in those days, for the crimes or delicts of other strangers. (Anderson's *Chron. Deduction*, Anno 1325.) Sir William Monson mentions, that the last argosie that sailed from Venice for England was lost, with a rich cargo and many passengers, on the coast of the Isle of Wight, in 1587.

In the beginning of the fifteenth century, the annual value of the goods exported from Venice by sea, exclusive of those exported to the states adjoining her provinces in Lombardy, was estimated, by contemporary writers, at 10,000,000 ducats; the profits of the out and home voyage, including freight, being estimated at 4,000,000 ducats. At the period in question, the Venetian shipping consisted of 3,000 vessels of from 100 to 200 tons burden, carrying 17,000 sailors; 300 ships with 8,000 sailors; and 45 galleys of various size, kept afloat by the republic for the protection of her trade &c., having 11,000 men on board. In the dockyard, 16,000 labourers were usually employed. This is the statement of the native authorities; but there can be no doubt that it is greatly exaggerated—1,600 would be a more reasonable number. The trade to Syria and Egypt seems to have been conducted principally by ready money; for 500,000 ducats are said to have been annually exported to these countries; 100,000 were sent to England. (Daru, tome ii. p. 189 &c.) The vessels of Venice visited every port of the Mediterranean, and every coast of Europe; and her maritime commerce was, probably, not much inferior to that of all the rest of Christendom. So late as 1518, 5 Venetian galleasses arrived at Antwerp, laden with spices, drugs, silks &c. for the fair at that city.

The Venetians did not, however, confine them-

selves to the supply of Europe with the commodities of the East, and to the extension and improvement of navigation. They attempted new arts, and prosecuted them with vigour and success, at a period when they were entirely unknown in other European countries. The glass manufacture of Venice was the first, and for a long time the most celebrated, of any in Europe; and her manufactures of silk, cloth of gold, leather, refined sugar &c., were deservedly esteemed. The jealousy of the Government, and their intolerance of anything like free discussion, was unfavourable to the production of great literary works. Every scholar is, however, aware of the fame which Venice early acquired by the perfection to which she carried the art of printing. The classics that issued from the Aldine presses are still universally and justly admired for their beauty and correctness. The Bank of Venice was established in the twelfth century. It continued throughout a bank of deposit merely, and was skilfully conducted.

But the policy of Government, though favourable to the introduction and establishment of manufactures, was fatal to their progressive advancement. The importation of foreign manufactured commodities into the territories of the republic for domestic consumption was forbidden under the severest penalties. The processes to be followed in the manufacture of most articles were regulated by law. 'Dès l'année 1172, un tribunal avoit été créé pour la police des arts et métiers, la qualité et la quantité des matières furent soigneusement déterminées.' (Daru, iii. 153.) Having, in this way, little to fear from foreign competition, and being tied down to a system of routine, there was nothing left to stimulate invention and discovery; and during the last century the manufactures of Venice were chiefly remarkable as evincing the extraordinary perfection to which they had early arrived, and the absence of all recent improvements. An unexceptionable judge, M. Berthollet, employed by the French Government to report on the state of the arts of Venice, observed, 'que l'industrie des Vénitiens, comme celle des Chinois, avoit été précoce, mais étoit restée stationnaire.' (Daru, tome iii. p. 161.)

M. Daru has given the following extract from an article in the statutes of the State Inquisition, which strikingly displays the real character of the Venetian Government, and their jealousy of foreigners: 'If any workman or artisan carry his art to a foreign country, to the prejudice of the republic, he shall be ordered to return; if he do not obey, his nearest relations shall be imprisoned, that his regard for them may induce him to come back. If he return, the past shall be forgiven, and employment shall be provided for him in Venice. If, in despite of the imprisonment of his relations, he persevere in his absence, an emissary shall be employed to despatch him; and after his death his relations shall be set at liberty.' (Tom. iii. p. 150.)

The 19th book of M. Daru's history contains a comprehensive and well-digested account of the commerce, manufactures, and navigation of Venice. But it was not possible, in a work on the general history of the republic, to enter so fully into the details as to these subjects as their importance would have justified. The *Storia Civile e Politica del Commercio de' Veneziani*, da Carlo Antonio Marin, in 3 vols. 8vo., published at Venice at different periods, from 1798 to 1808, is unworthy of the title. It contains, indeed, a great many curious statements; but it is exceedingly prolix; and while the most unimportant and trivial subjects are frequently discussed at extreme length,

many of great interest are either entirely omitted, or are treated in a very brief and unsatisfactory manner. The commercial history of Venice remains to be written; and were it well executed, it would be a most valuable acquisition.

*Present Trade and Manufactures of Venice.*—From the period when Venice came into the possession of Austria, down to 1830, it seems to have been the policy of the Government to encourage Trieste in preference to Venice; and the circumstance of the former being a free port, gave her a very decided advantage over the latter. Latterly, however, a more equitable policy has prevailed. In 1830 Venice was made a free port, and down to 1866, when she became part of the kingdom of Italy, fully participated in every privilege conferred on Trieste. But, notwithstanding this circumstance, the latter continued to preserve the ascendancy; and the revival of trade that has taken place at Venice has not been so great as might have been anticipated. The truth is, that except in so far as she is the entrepôt of the adjoining provinces of Lombardy, Venice has no considerable natural advantage as a trading city; and her extraordinary prosperity during the middle ages is more to be ascribed to the comparative security enjoyed by the inhabitants, and to their success in engrossing the principal share of the commerce of the Levant, than to any other circumstance. Still, however, her trade is far from inconsiderable, though it was much depressed during 1866 in consequence of the war. The great articles of import are sugar, coffee, tobacco, and other colonial products; indigo and other dye stuffs, olive oil, oil seed, coal, iron, salted fish, various descriptions of cotton, woollen, and other manufactured goods; wheat and other grain, from the Black Sea; tin plates and hardware, raw cotton &c. The exports principally consist of silk and silk goods, wheat and other grain, paper, jewellery, glass, and glass wares, Venetian treacle, books, with a great variety of other articles, including portions of most of those that are imported.

*Account of Total Number of Vessels Entered and Cleared at Venice, including Custing Vessels, with Amount of Tonnage.*

	Vessels	Tons
1865	6,179	585,873
1866	5,699	601,643

*Total Imports and Exports united.*

		Ital. livres
1865	-	88,514,862
1866	-	86,667,324
Decrease	-	1,847,538 liv. = 267,017

The comparison of the trade by land and river navigation in 1865 and 1866 is as follows:—

	Total Imports	Total Exports
1865	Italian liv. 54,806,490	Italian liv. 38,156,448
1866	43,777,590	31,116,119
Decrease	11,028,900	7,040,329
Total decrease		18,068,539

From which it appears the decrease of trade by land and river navigation in 1866 was 18,068,539, which, added to the decrease in the amount of trade by sea, makes the total falling off (attributable entirely to the war, which ended in her transfer from Austria to Italy) 19,744,269 Italian livres, or 789,771 1/2 15s.

The following tables show the value of our trade with Venetia.

Table showing the Value, in Italian Livres, of Merchandise Imported and Exported by Sea at Venice, in the Year 1866, compared with 1865.

Countries	Imports		Exports	
	1866	1865	1866	1865
	Livres	Livres	Livres	Livres
Sicily	184,902	161,980	192,014	435,750
Naples, Puglia, Abruzzi, and Calabria	5,198,484	4,824,522	698,802	1,641,452
Roman States, Umbria, the Marches, and Emilia	858,921	990,852	814,657	1,176,090
Tuscany	45,365	216,570	..	..
Genoa and Savardinia	70,720	308,757	210	17,750
Venice	250,911	226,372	157,511	115,875
Italian ports	6,607,434	6,029,063	2,467,054	5,405,168
United States of America	496,621	955,990	..	..
Holy, St. Domingo	355,200	311,765	..	..
Barbary States	287,115	187,460	214,947	161,490
Egypt	199,615	116,952	586,722	746,870
Moldavia and Wallachia	65,920	81,300	..	..
Turkey	979,157	736,757	405,515	411,995
Russia	65,156	181,910	..	..
Sweden and Norway	440,400	1,836,800	..	..
Belgium	39,465	210,595	..	..
Holland	1,626,187	1,078,797	129,509	418,125
Prussia	46,722	11,000	38,515	627,652
Spain	7,709,896	7,956,102	15,151,205	12,341,835
Great Britain	20,000	17,100	..	..
France	719,539	1,092,527	155,095	227,452
Greece	39,320	50,910	531,504	178,408
Ionian Islands	610,185	900,725	821,511	877,270
Austria	35,176,562	54,147,898	14,513,990	14,170,318
Foreign Ports	46,851,143	49,861,198	28,758,501	28,447,145
Total	55,661,877	56,490,251	51,205,555	51,852,611

Account of the Quantities and Values of the Imports into the United Kingdom from Venetia during each of the 3 Years ending with 1867.

Principal Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
Bones of animals and fish (except whalefins)	tons 715	492	599	£ 3,975	£ 2,317	£ 3,665
Bells and glass beads	lb. 2,939,594	2,542,268	3,750,562	116,980	127,112	187,598
Com: wheat	cwt. 2,791	115,191	148,766	15,319	69,132	87,014
barley	" 5,600	7,100	955	255	4,536	5,538
millet or Indian corn	" 8,500	7,905	10,796	2,747	66	4,987
wheat four	" 88	1,302	6,769	65	1,023	6,807
Glass manuf: cut-cryst	value 7,550	11,621	4,151	21,450	35,302	12,856
Hemp, dressed	cwt. 147,808	141,026	133,785	274,100	270,216	243,561
un-dressed	" ..	..	5,000	..	472	11,200
Meat preserved otherwise than by salting	tons 150	369	117	2,914	5,452	2,917
Rags and other materials for making paper	cwt. ..	5,193	2,248	..	3,186	1,791
Raw, cotton &c.	value 210	334	969	1,378	690	4,392
Raw, wool	tons 565	592	297	3,730	3,535	2,692
Shumac	lb. 50,600	21,773	12,142	1,532	1,084	455
Wool, sheep and lambs'	value ..	..	..	19,856	22,865	23,885
All other articles	..	..	..	485,315	538,481	611,372
Total	..	..	..	..	..	..

Account of the Quantities and Values of the Exports to Venetia of the Produce and Manufacture of the United Kingdom in 1865, 1866, and 1867.

Principal Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
Alkali, soda	cwt. 4,459	521	4,506	£ 1,941	£ 985	£ 2,373
Asphalt and humberdasher	value ..	..	..	2,797	2,150	4,167
Atlas: cannon and mortars	cwt. ..	..	2,664	..	..	11,000
Calk, clinkers, and culm	tons 33,876	42,576	45,503	16,998	22,176	20,914
Copper, wrought and unwrought	cwt. 369	146	899	1,654	626	3,590
Cotton yarn	lb. 121,659	127,292	114,700	91,227	10,223	7,668
Cottons, entered by the yard	yd. 990,921	1,545,911	2,686,737	21,290	37,495	52,750
at value	..	..	..	830	2,127	2,487
Earthenware and porcelain	value ..	..	..	759	718	785
Fish: herrings	barl. 4,155	8,784	7,139	4,516	8,774	7,140
pickarut	hhds. 6,592	4,650	5,915	21,658	14,506	18,278
Hairbrush and cutlery, unenumerated	cwt. 92	55	197	473	301 </td <td>981</td>	981
Iron, wrought and unwrought	ton 1,391	1,115	2,282	9,664	7,413	15,725
Copper, wrought and unwrought	lb. 14,026	5,588	78,393	1,070	801	5,409
Linen yarn	yd. 61,945	59,825	41,147	2,575	2,084	1,856
Linen, entered by the yard	value ..	..	..	271	621	310
at value	..	..	..	170	90	656
Machinery: steam-engines	..	..	..	1,858	917	2,515
all other sorts	..	..	..	21,713	25,746	45,500
Oil, seed	gal. 179,921	135,129	279,040	3,714	1,555	4,615
Saltpetre	cwt. 2,431	1,095	5,970	963	5,100	2,296
Tin plates	value ..	..	..	21,051	18,138	17,497
Woolens, entered by the yard	yd. 415,542	319,140	264,656	360	307	425
at value	..	..	..	4,279	11,295	9,539
All other articles	..	..	..	..	..	..
Total	..	..	..	153,749	167,637	236,535

The Venetians may now look forward with hope to a new and more prosperous era in their commercial annals, resulting from the advantages they will derive from annexation to the kingdom of Italy under a liberal constitutional Government favourable to the system of free trade and moderate tariffs, and hostile to prohibitory duties. Tariff.—The Italian customs tariff is far more favourable than that of Austria formerly was to the importation of the following important articles of British commerce:—

	ITALIAN			AUSTRIAN		
	per cwt.	s. d.	per cwt.	per cwt.	s. d.	per cwt.
Fish: salmon, codfish, pickarut, herrings, and stockfish	1 7 1/2	..	3 6	..	..	..
Linen wet goods according to quality	9 3	to 46 0	20 4	to 53 10	..	..
Linen and serge yarn, (in twist and dyed yarns the Italian are much lower)	6 1	12 21	8 11	26 8	..	..
Cotton yarn, according to quality	29 4	81 3	73 2	53 10	..	..
Cotton wet goods	56 1	121 11	75 2	53 10	..	..
Woolen wet goods	..	..	..	..	..	..

either entirely omitted, brief and unsatisfactory history of Venice were it well executed, ble acquisition.

Manufactures of Venice.— Venice came into the light in 1830, it seems to have been the Government to encourage to Venice; and the latter being a free port, gave advantage over the latter. More equitable policy has since she became part of the Kingdom participated in every respect. Trieste. But, notwithstanding, the latter continued to flourish; and the revival of commerce at Venice has not been anticipated. The Kingdom in so far as she is the provinces of Lombardy, the natural advantage as an extraordinary prosperity is more to be ascribed to the industry enjoyed by the inhabitants in engrossing the commerce of the Levant, and, in consequence, still, however, considerable though it was in 1866 in consequence of the liberal import on sugar, other colonial products; stuffs, olive oil, oil seed, various descriptions of other manufactured goods; iron, from the Black Sea; raw cotton &c. The silk and silk goods, paper, jewellery, glass, and metals, with a great deal, including portions of imported.

Number of Vessels Entered Venice, including Coasting Tonnage.

Vessels	Tons
179	585,873
699	601,613

Imports and Exports united.

Italian Livres	58,542,862
..	86,667,152
..	1,675,430 liv. = £67,017

Trade by land and river in 1866 is as follows:—

Total Imports	Total Exports
Italian Liv. 1,028,510	Italian Liv. 7,010,589
.. 3,156,448	.. 31,116,119
.. 3,777,580	.. 37,126,708
18,008,339	

The decrease of trade by land in 1866 was 18,068,339, decrease in the amount of the total falling off (attributed to Italy) 19,744,269 Italian Livres.

show the value of our trade

**Leather.**—The Italian admits of the importation of tanned hides and leather, which was precluded by the Austrian tariff.

**Iron and Ironwares.**—The Italian duties on iron and all sorts of iron and steel, and on all descriptions of metal goods, afford facilities for their importation which the high duties of Austria impeded.

The manufactures of Venice are very various, and more extensive than is generally supposed. The famous glassworks produce magnificent mirrors, with every variety of artificial pearls and gems, coloured beads, enamel and Mosaic works &c. Jewellery, including gold chains, is also extensively produced; as are gold and silver stuffs, velvets, silks, laces, and other expensive goods; and leather, soap, earthenware, wax-lights &c., to a greater or less extent. Printing is more extensively carried on in this than in any other city of Italy, and books form a considerable article of export. Ship-building is also carried on to some extent, both here and at Chiozza. In 1836, the first steam-engine seen in Venice was set up for a sugar refinery.

From the circumstance of Venice being situated nearly opposite the mouth of the Brenta, which brings down large quantities of mud, the probability is that the lagoon, by which she is surrounded, will ultimately be filled up. Under the republic this was a subject of great apprehension, and every device was resorted to that seemed likely to avert a result so pregnant with danger to the independence of the city. But now that there is no particular motive for hindering the mud from accumulating in the lagoon, it is probable that, in the course of time, the shallow will be converted into terra firma, and Venice lose her insular position. The works projected and approved for deepening the entrance to the port of Malamocco, and for deepening and widening the channel from thence to the port and arsenal of Venice, will render the port easy of access to vessels of large tonnage, and afford important advantages to the foreign commerce of the port.

**Railway to Venice.**—Venice is connected with the mainland, and with the chief towns of Italy, and the rest of Europe, by railway. That part of this important work which passes through the lagoon is supported on arches. It may be expected that this new and easy channel of communication with some of the most fertile districts of Lombardy, will be of considerable service to Venice; and will tend, in some degree, to revive her decaying energies.

Many of the inhabitants depend for their subsistence on fishing in the lagoon, and the contiguous portions of the Adriatic.

**Italian Port Charges.**—These are considerably lower than those of Austria. Steam-ships, from whencesoever arrived: Health dues, 5 Italian cents per Italian ton; light dues, 50 cents per ton; total, 55 cents per ton, with liberty to touch at any Italian port within the month, on again paying the health dues only.

In steam-ships, the English ton has an advantage of about 10 per cent.; 40 per cent. instead of 30 per cent., being allowed for the engine and coal-room; the charges are, therefore, about 49 Italian cents, equal to 60 Austrian soldi (4  $\frac{2}{3}$  d.) per ton.

Steamers may also pay the charges for 1 year, on payment of 150 Italian livre for light dues, and 50 cents for health dues.

In sailing vessels, the English ton is equal to the Italian, and pays for health dues, 20 cents, and light dues, 50 cents; together 70 cents, or about 28  $\frac{1}{2}$  Austrian soldi (6  $\frac{1}{10}$  d.).

**Banking Establishments.**—The old bank of Venice was founded so far back as 1171, being the most ancient establishment of the kind in Europe. It was a bank of deposit; and such was the estimation in which it was held, that its paper continued to bear an agio as compared with coin down to 1797, when the bank fell with the Government by which it had been guaranteed. At present (1869) there are in Venice, besides private bankers, a discount bank, or 'Società Mercantile,' a branch of the 'Banca del Popolo' of Florence, and a new bank called 'Banca Popolare.' The legal and usual rate of interest and discount is 6 per cent. It is not the practice to allow interest on deposits. Bills on London are usually drawn at three months.

**Brokers, Commission &c.**—The number of brokers is limited, and they are licensed by Government; but the business of commission merchant and factor is open to everyone. Before, however, commencing any trade or profession at Venice, a petition must be presented for leave to the authorities: but this is more a matter of form than anything else; its prayer being rarely, if ever, refused.

The usual rate of commission and factorage on the purchase or sale of colonial produce is 2 per cent., and on manufactured goods 3 per cent., inclusive of broker's commission, 1 per cent. A shipbroker's commission on the freight of a whole cargo is 2 per cent., and on a general cargo 4 per cent. By the custom of the place, merchants charge 2 per cent. on the inward, and 2 per cent. on the outward freight of all ships consigned to them; and this, though they had done no more than recommend the master to a broker. A bill broker's commission is  $\frac{1}{2}$  per mille. Merchants and bankers charge a commission on internal bills of  $\frac{1}{2}$  per cent., and on foreign ditto of 1 per cent.

**Insurances** are effected by companies and individuals. The Government charges no duty on the policies.

**Communications with Lombardy** are effected by flat-bottomed vessels, which, passing through the lagoon, enter the canals and rivers, and make their way through most part of the country watered by the Po and its tributaries. The freight of goods from Milan to Venice, distant about 170 miles, is about 1l. per ton. The principal products they bring down are grain, silk, hemp, and flax, cheese, rhubarb &c. The country to the north of Venice affords large quantities of deals, which are shipped for Malta, Sicily, and the Levant.

**Quarantine.**—Ships coming from without the Straits of Gibraltar, provided there be no infectious disease on board, are admitted to pratique on performing a short quarantine of 7 days in a part of the lagoon, about 1 mile from the city. Long quarantine is performed a little farther off. The lazaretto, and establishments for passengers &c. performing quarantine, are among the best in Europe.

**Provisions, Ships' Stores &c.**—These articles may all be had at Venice of excellent quality but not cheap, with, perhaps, the exception of bread. Water is conveyed to the city by lighters, and is, consequently, rather dear; fuel is very scarce, and very high priced.

**Tares.**—Cases, casks, and other coverings go into the scale with their contents, and the duty is levied on the gross weight. Wine, spirits &c. consumed in this city, being liable to an excise duty to cover the municipal expenses, have an allowance, if in iron-bound casks, of 18 per cent. on the weight; and if not in iron-bound casks, of 12 per

cent. The tares allowed between merchants are as follow:—

	per cent.
Cotton wool, Pernambuco and Bahia	3
East India Ac.	4
Sugar, Brazil	15 to 18
Amalca, macovato	14
Barboun, brown and yellow, and East India of all colours	15
Refined, crushed	12
Manilla	10
Indian hemp	2
Sladder root	4
Black pepper	10

On other articles, real tares are usually taken.

(Exclusive of the authorities already referred to, see Howring's Report on the Statistics of Italy; Geog. Diet.; Consular Reports; Commercial Circulars; &c.)

**VERA CRUZ.** The principal seaport on the western coast of Mexico; lat. 19° 11' 52" N., long. 96° 8' 45" W. Population estimated at 10,000 in 1865. Opposite the town, at the distance of about 400 fathoms, is a small island, on which is built the strong castle of St. Juan d'Ulloa, which commands the town. The harbour lies between the town and the castle, and is exceedingly insecure; the anchorage being so very bad, that no vessel is considered safe unless made fast to rings fixed for the purpose in the castle wall; nor is this always a sufficient protection from the fury of the northerly winds (*las norotes*), which sometimes blow with tremendous violence. Humboldt mentions, in proof of what is now stated, that a saip of the line, moored by 9 cables to the castle, tore, during a tempest, the brass rings from the wall, and was dashed to pieces on the opposite shore. (*Nouvelle-Espagne*, 2me éd. iv. 55.) Its extreme unhealthiness is, however, a more serious drawback upon Vera Cruz than the badness of its port. It is said to be the original seat of the yellow fever. The city is well built, and the streets clear; but it is surrounded by sand hills and ponds of stagnant water, which, within the tropics, are quite enough to generate disease. The inhabitants, and those accustomed to the climate, are not subject to this formidable disorder; but all strangers, even those from the Havannah and the West India Islands, are liable to the infection. No precautions can prevent its attack; and many have died at Xalapa, on the road to Mexico, who merely passed through this pestilential spot. During the period that the foreign trade of Mexico was carried on exclusively by the *flota*, which sailed periodically from Cadiz, Vera Cruz was celebrated for its fair, held at the arrival of the ships. It was then crowded with dealers from Mexico and most parts of Spanish America; but the abolition of the system of regular fleets in 1778 proved fatal to this fair, as well as to the still more celebrated fair of Portobello.

A lighthouse has been erected on the north-west angle of the castle of St. Juan. The light, which is a revolving one of great power and brilliancy, is elevated 80 feet above the level of the sea, and is visible 15 miles off in clear weather.

**Commerce.**—An individual, looking at a map of the world, would be apt to conclude that Mexico is one of the most favourably situated countries for commerce; and, in some respects, this is true. But her trade labours, notwithstanding, under some serious disadvantages. Though washed by the Atlantic and Pacific Oceans, neither of her coasts is accessible for several months of the year. On the east coast, or that bordering on the Gulf of Mexico, there is not a single good harbour; and during the season when the coasts are accessible, they are extremely unhealthy. Owing also to the rapid ascent from the shores to the interior, the construction of roads, and the transport of commodities to and from the inner provinces, is

alike difficult and expensive. No doubt, however, an efficient Government and an industrious people would speedily, in a great measure, overcome these obstacles to an extensive intercourse with the foreigner. But Mexico has neither the one nor the other; and, at present, her trade is confined within the narrowest limits. Down to 1778, when the Spanish Government relaxed the old prohibitive system, the foreign goods legally imported into Mexico comprised only a few Chinese and European manufactures; the former brought annually in one gallon of about 1,400 tons, and the latter sent *once in three years* exclusively in ships chartered by Government from Seville or Cadiz. On the opening of the trade in 1779, private capitalists engaged in it; and after that period, at an average of 12 years before and after, the returns for exports alone rose from 11,000,000 to 19,000,000 dollars, the difference being chiefly in the quantity of specie, but the trade was fettered with vexatious duties at every step, from the merchant to the consumer. On the breaking out of the civil war, the ports of Tampico, Mazatlan, and San Blas were opened by the new Government; and soon afterwards foreign vessels were admitted into all the ports on the same terms as Spaniards. The Spanish capitalists retired to Cuba or Spain; and their places were supplied by British and American merchants, who established themselves in the interior, and supplied the inhabitants in return for dollars with manufactured goods: the superior quality and cheapness of which has, no doubt, had some influence in depressing native manufactures. The jealousy of the natives, however, and the absurd threats of the Government against foreign artificers and traders, tended to prevent their settling in the country, and engaging in any considerable undertaking, other than the mines; and the depressed state of the latter, which have always furnished the principal article of export, has extended still farther to depress and paralyse commerce. The roads, too, instead of being improved, have been suffered to fall into a state of almost irreparable decay. In this respect, the following extract from one of the letters of M. Chevalier is decisive. 'The splendid road which, during the domination of the Spaniards, was constructed across deserts and precipices, by the merchants of Vera Cruz, to the summit of the upper country, is a melancholy instance of the carelessness with which the public interests of the country are directed. During the war of independence, this road was cut up in various points; and, down to this day, the enfranchised Mexicans have not replaced a single stone, or filled up a single trench, nor even cut down one of the trees, which, in the absence of any considerable traffic, and under the influence of a tropical sun, are rapidly growing up to a magnificent size in the very middle of the road. In the upper country nothing would be more easy than to open noble means of communication. The soil is naturally level; the basaltic rocks, particularly adapted for the construction of roads, are found in great abundance. But even where there are roads, the Mexicans make little use of them. They carry to a yet more extravagant length the inconceivable predilection of the Spanish race in favour of transporting their goods on the backs of animals. You expect to meet with carts and waggons; no such thing; everything is conveyed on the backs of mules or Indians. Troops of little consumptive donkeys bring into the city, in parcels not much bigger than a man's two fists, the charcoal required for the culinary operations of the inhabitants. The price of every bulky article is thus increased to an enormous degree. The interior

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districts are as inaccessible as if they were cut off by an enemy's army, and famine frequently ensues.

In consequence of this wretched state of the roads, of the insecurity consequent to the prevalence of revolutions, and the torpor and indolence of the inhabitants (occasioned partly and principally by physical, but partly, also, by moral causes), industry of all kinds is at an extremely low ebb; and the commerce of the republic is far from being commensurate either with her population, or the number and value of her exportable products. Mr. Secretary of Legation Middleton, in his Report of November 29, 1867, states on the authority of an English gentleman employed on the projected railway between the capital and Vera Cruz, that if the line were completed, the deshecho or refuse, now thrown aside as worthless in the important mineral district of Pachuca, might be conveyed (all expenses by land and sea, freight included), at the rate of from 25 to 30 dollars per ton to Swansea, where it would be worth from 45 to 47 dollars per ton for smelting.

For a considerable period after the town of Vera Cruz had thrown off the Spanish yoke, the castle of St. Juan d'Ulloa continued in possession of the Spaniards. During this interval, the commerce of Vera Cruz was almost entirely transferred to the port of Alvarado, 12 leagues to the south-east. Alvarado is built upon the left bank of a river of the same name. The bar at the mouth of the river, about 1½ mile below the town, renders it inaccessible for vessels drawing above 10 or 12 feet water. Large ships are obliged to anchor in the roads, where they are exposed to all the violence of the north winds, loading and unloading by means of lighters. Alvarado is supposed, but probably without much foundation, to be a little healthier than Vera Cruz. The trade has now mostly reverted to its old channel.

For a few years, Tampico rose to considerable importance as a commercial seaport. Thus the value of its exports, which was 266,932*l.* in 1858, rose to 1,609,182*l.* in 1862, but fell to 235,473*l.* in 1864, but the value of its imports has increased steadily though less rapidly from 266,340*l.* in 1858 to 668,404*l.* in 1864. It is situated about 60 leagues N.N.W. of Vera Cruz, in lat. 20° 15' 30" N., long. 97° 52' W., being about 104 leagues from Mexico. Hitherto it is said to have been free from fever. The shifting of the bar at the mouth of the river, and the shallowness of the water on it, which is sometimes under 8, and rarely above 15 feet, are serious obstacles to the growth of the port. Vessels coming in sight are boarded by pilots, who conduct them, provided they do not draw too much water, over the bar. Those that cannot enter the port load and unload by means of lighters; mooring so that they may get readily to sea in the event of a gale coming on from the north.

**Exports and Imports.**—The precious metals have always formed the principal article of export from Mexico. During the 10 years ending with 1801, the average annual produce of the Mexican mines amounted, according to M. Humboldt, to 23,000,000 dollars (*Nouvelle-Espagne*, iv. 137); and in 1805 the produce was 27,165,888 dollars. (*Id.* iv. 83.) But during the revolutionary war, the old Spanish capitalists, to whom most of the mines belonged, being proscribed, emigrated with all the property they could scrape together: and this withdrawal of capital from the mines, added to the injury several of them sustained by the destruction of their works during the contest, the interruption of all regular pursuits which it occasioned, and the insecurity and anarchy that afterwards prevailed, caused an extraordinary

falling off in the produce of the mines. Within these few years, however, a considerable improvement has taken place. The efforts, and the lavish expenditure, of a few of the companies formed in this country for working the mines, assisted in bringing them into good order. Latterly, also, they have been conducted with greater skill and economy, and a considerable increase of produce has taken place. The coinage of gold and silver at the different Mexican mints in 1855 was as follows, viz:—

	Gold	Silver	Total
	dols.	dols.	dols.
Culliacan	144,208	237,968	892,176
Chihuahua	17,576	475,500	55,076
Durango	75,647	609,171	694,818
Mexico	155,265	4,013,359	4,168,624
Guajuquinto	555,200	4,698,800	5,254,000
Guadalupe	10,368	53,662	44,290
San Luis Potosi	..	1,849,795	1,849,795
Zacatecas	..	3,619,000	3,619,000
Total	..	..	17,595,177

But to this may be added from 8,000,000 to 10,000,000 dollars for those raised and exported without being brought to the mints, and for bullion assayed at the mints, and exported in bars.

And but for the prevalence of insecurity, a large increase of this produce might be expected.

We extract from the very interesting and instructive Report of Mr. Secretary of Legation Middleton, of July 10, 1866, a tabular statement, showing the amount of gold and silver coined at the various Mexican mints in the first three months of 1866:—

Mints	Gold	Silver	Total
	dols.	dols.	dols.
Mexico	80,024	1,082,202	1,162,226
Juanaquato	98,000	837,000	235,000
Zacatecas	16,000	1,064,000	1,080,000
Guadalupe	12,176	131,633	143,809
Durango	12,552	234,000	246,552
Catorce	..	167,860	167,860
San Luis Potosi	..	125,140	125,140
Oajaca	7,360	60,323	67,683
Chihuahua	..	..	..
Culliacan	..	..	..
Hermosillo	..	..	..
Alamos	..	..	..
Total	225,912	3,630,158	3,216,070

It would appear, too, from this Report, and from Mr. Middleton's Reports of Dec. 31, 1866, and Dec. 31, 1867, the former on the sulphur deposits and the latter on the soda and salt producing districts of Mexico, that she is rich in minerals of every description.

Besides the precious metals, cochineal, flour, indigo, provisions, leather, saraparilla, vanilla, jalap, soap, logwood, and pimento are the principal articles exported from Vera Cruz.

The imports consist principally of cotton, woollen linen, and silk goods, paper, brandy, quicksilver, iron, steel, wine, wax &c.

According to Humboldt, the imports at Vera Cruz, before the revolutionary struggles, might be estimated, at an average, at about 15,000,000 dollars, and the exports at about 22,000,000 do.

It must, however, be observed, that this statement refers only to the registered articles, or to those that paid the duties on importation and exportation. And exclusive of these, the value of the articles clandestinely imported by the ports of the Gulf, previously to the revolution, was estimated at 4,500,000 dollars a-year; and 2,500,000 dollars were supposed to be annually smuggled out of the country in plate and bars, and ingots of gold and silver. A regular contraband trade used to be carried on between Vera Cruz and Jamaica, and notwithstanding all the efforts of Government for their exclusion and the excessive severity of its laws against smuggling, the shops of Mexico

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were always pretty well supplied with the products of England and Germany. (Humboldt, *Nouvelle-Espagne*, iv. 125; Poinsett's *Notes on Mexico*, p. 183.)  
Humboldt states that the total population of Mexico, exclusive of Guatemala, might be estimated at the time he wrote at about 7,000,000. Of this number about  $\frac{1}{3}$  were Indians, the rest

being descendants of Europeans, and mixed races. In 1857, the population amounted to 8,137,853. But notwithstanding their large numbers, the intelligence and want of industry of the mass of the people is such that the trade we carry on with them is quite inconsiderable compared with what might be expected. We subjoin in illustration of this remark an

Account of the Quantities and Values of the Principal Articles, Imported into the United Kingdom from Mexico, in each of the 3 Years ending with 1866.

Principal and other Articles	Quantities			Computed Retail Value		
	1865	1866	1867	1865	1866	1867
				£	£	£
Brasil wood	1,661	361	280	20,430	10,220	8,401
Cochineal	1,369	1,979	1,782	45,347	36,327	32,473
Copper, unwrought and part wrought	72	12	29	5,973	1,991	1,241
Cotton, raw	327,565	3,148	29	2,834,187	84,591	21,531
Fustic	691	926	396	4,436	5,076	3,240
Hemp	3,310	2,132	15,296	5,436	1,766	11,121
Hides, not tanned	1,215	75	83	3,979	75	249
Indigo	955	587	1,222	25,319	15,413	50,249
Jalap	156,934	78,254	58,804	35,041	15,209	12,757
Logwood	1,368	1,540	1,012	17,276	17,276	10,655
Mahogany	21,446	18,900	21,218	201,366	170,536	177,112
Nicaragua wood	98	—	379	1,271	—	6,251
Silver ore	113	293	28	24,559	5,392	758
Tobacco, unmanufactured	14,980	8,222	—	551	308	—
Vanilles	3,162	—	—	849	—	—
All other articles	—	—	—	10,208	8,685	5,776
Total	—	—	—	3,216,924	313,478	315,168

Account of the Quantities and Values of the Principal Articles of British Produce Exported from the United Kingdom to Mexico during each of the 3 Years ending with 1866.

Principal and other Articles	Quantities			Computed Retail Value		
	1865	1866	1867	1865	1866	1867
				£	£	£
Apparel and haberdashery	—	—	—	22,286	14,595	9,194
Arms and ammunition	—	—	—	—	619	—
Fire-arms (small)	—	406	—	147	—	—
Gunpowder	211	—	—	2,593	—	—
Beer and ale	60,675	75	815	3,918	7,378	5,689
Casks, cinders, and cutlin	1,601	1,554	—	7,918	—	—
Cotton yarn	7,937	15,721	5,981	4,182	7,539	4,679
Cottons, entered by the yard	166,018	141,723	125,580	15,839	17,590	8,427
Cottons, entered by the yard	43,483,967	29,899,597	25,325,168	1,028,905	691,430	497,898
Drugs and chemical products	—	—	—	73,445	45,775	26,670
Barbary and porcelain	—	—	—	9,074	1,278	1,582
Hardware and cutlery, unenumerated	—	—	—	20,553	7,126	5,163
Iron, wrought and unwrought	13,355	6,789	3,511	60,929	31,607	14,496
Leather, wrought and unwrought	15,090	9,601	565	140,348	100,113	8,377
Linen, entered by the yard	5,351,191	3,755,564	3,279,518	1,500	546	601
Machinery; steam engines	—	—	—	215,869	144,198	106,483
Saltpetre	—	—	—	2,969	970	991
Woolens, entered by the yard	—	—	—	17,297	26,547	21,652
All other articles	—	—	—	47,880	35,431	38,501
Tin plates	350	1	—	280	—	—
Woolens, entered by the yard	1,492,959	1,146,999	457,764	28,468	16,009	8,990
All other articles	—	—	—	8,348	3,068	1,085
Total	—	—	—	1,896,895	1,883,213	812,918

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Gold	Silver	Total
1,024	895,125	896,149
475,500	50,036	525,536
609,171	682,818	1,291,989
4,015,359	4,168,622	8,183,981
4,698,000	5,254,000	9,952,000
632,662	744,030	1,376,692
1,849,795	1,849,795	3,699,590
5,619,000	3,619,000	9,238,000
—	17,953,177	17,953,177

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It should, however, be observed, that the imports of British goods at second hand into Mexico and Colombia from the West Indies is still far from inconsiderable; and a pretty large proportion of the British goods sent to Chili are conveyed thence to Acapulco and other Mexican ports on the Pacific. Formerly the imports into Mexico supplied most part of the demand of Peru and the West coast of South America.

The Mexican Republican Government issued a revised tariff, which came into operation on October 1, 1853. It did credit to those by whom it was prepared. Some of the more oppressive duties were largely reduced; and, on the whole, it must be considered as a great advance towards a liberal system of commercial policy. Much, however, depends on the way in which such a reform is carried out. In a Government so fluctuating as that of Mexico, a policy or tariff in favour to-day may be repudiated to-morrow. In January 1867, the unfortunate Emperor Maximilian issued a decree, reforming the scales of tonnage and light-house dues affecting ships in the coasting and foreign trade, but neither during the existence nor since the dissolution of the empire, has any

settled Government, down to 1869, existed capable of preserving order or enforcing its decrees.

VERDIGRIS (Ger. grüspan; Fr. vert-de-gris, verdet; Ital. verdegama; Span. cardenillo, verdin, verde-gris; Russ. jar). A kind of rust of copper, of a beautiful bluish-green colour, formed from the corrosion of copper by fermented vegetables.

Its specific gravity is 1.78. Its taste is disagreeably metallic; and, like all the compounds into which copper enters, it is poisonous. It was known to the ancients, and various ways of preparing it are described by Pliny. It is very extensively used by painters, and in dyeing; it is also used to some extent in medicine. The best verdigris is made at Montpellier; the wines of Languedoc being particularly well suited for corroding copper, and forming this substance. It is generally exported in cakes of about 25 lb. weight each. It is also manufactured in this country, by means of the refuse of cider &c. The goodness of verdigris is judged of from the deepness and brightness of its colour, its dryness, and its forming, when rubbed on the hand with a little water or saliva, smooth paste, free from grittiness. (Thomson's *Chemistry*; Rees's *Cyclopædia*.) In

1866 the imports and exports of verjuice were respectively 792 and 226 cwt. In 1853 the ad valorem duty of 10 per cent, with which it was previously burdened, was repealed.

**VERJUICE** (Ger. *agrest*; Fr. *verjus*; Ital. *agresto*; Span. *agraz*). A kind of harsh, austere vinegar, made of the expressed juice of the wild apple, or crab. The French give this name to unripe grapes, and to the sour liquor obtained from them.

**VERMICELLI** (Ger. *nudeln*; Dutch, *meelneepen*; proppen; Fr. *vermicelle*; Ital. *vermicelli*, *tagliolini*; Span. *aletrias*). A species of wheaten paste formed into long, slender, hollow tubes, or threads, used amongst us in soups, broths &c. [**MACCARONI**.] Mr. Lowe proposes to repeal the duty on vermicelli and macaroni this year, 1869.

**VERMILION**. [**CINNABAR**.] Our imports of vermilion in 1867 were 100,147 lb., valued at 12,867*l*.

**VICTORIA**. [**COLONIES**; MELBOURNE; VANCOUVER ISLAND.]

**VINEGAR** (Ger. *essig*; Dutch, *azijn*; Fr. *vinaigre*; Ital. *aceto*; Span. and Port. *vinagre*; Russ. *ukzus*; Lat. *acetum*). [See **ACID** (**ACETIC**), for a description of vinegar.] A duty of 2*l*. per gallon being formerly imposed on vinegar, its manufacture was placed under the control of the excise. A license, costing 5*l*., and renewable annually, has to be taken out by every maker of vinegar, or acetic acid. In 1812, the duty on vinegar produced 23,842*l*., showing that 2,861,000 gallons had been brought to the charge. The manufacture is almost confined to England; the quantities produced in Scotland and Ireland being quite inconsiderable. The duty was repealed in 1844, but in 1856 the present duty of 3*l*. per gallon was imposed on foreign vinegar, of which in 1867 we imported 51,097 gallons, chiefly from France, the price being from 1*s*. 6*d*. to 2*s*. per gallon.

**VITRIOL**. [**COPPERAS**.]

**VITRIOL, OIL OF**. [**ACID** (**SULPHURIC**).]

## W

**WALNUTS**. The fruit of the *Juglans*, or walnut-tree, of which there are several varieties. The walnut is a large handsome tree, with strong spreading branches. The fruit is a pretty large smooth, ovate nut, containing an oily kernel, divided into four lobes. The nut has been always held in high estimation: it was called by the Romans *Jovis glans*, the acorn or mast of Jove, and hence the name of the tree.

The walnut tree is indigenous to Persia and the countries bordering on the Caspian Sea. It has long been introduced into Great Britain; but the fruit seldom ripens in the more northerly parts of the island. Previously to the very general introduction of mahogany, the wood of the walnut tree was extensively used among us in making of furniture; and it continues to be largely employed for that purpose in many parts of the Continent. It is much used by turners; and is superior to every other sort of wood for the mounting of guns; a circumstance which caused great devastation among our walnut plantations during the latter years of the war. Great numbers of walnut trees are annually consumed in the Haute Vienne and other departments of France, in the manufacture of the wooden shoes or clogs used by the peasantry. The nuts are either gathered when ripe, being served up at desserts without any preparation; or they are plucked green and pickled. (Poiret, *Histoire philosophique des Plantes*, tome vii. p. 213; Rees's *Cyclopædia*; &c.) The duty of 2*s*. 1*d*. per bushel on walnuts was reduced in 1853 to 1*s*. per bushel, and has since been abolished. The imports in 1852 were only 32,521 bushels, but in 1867 they amounted to 160,129 bushels, coming chiefly from France and Belgium.

**WANGHEES**, sometimes called **JAPAN CANES**. A species of cane imported from China. They should be chosen pliable, tough, round, and taper; the knots at regular distances from each other; and the heavier the better. Such as are dark-coloured, badly glazed, and light, should be rejected. (Milburn's *Orient. Com.*)

**WAREHOUSING SYSTEM**. By this system is meant the provisions made for lodging imported articles in public warehouses, at a reasonable rent, without payment of the duties on importation till

they be withdrawn for home consumption. If re-exported, no duty is ever paid.

1. *Expediency and Origin of the Warehousing System*.—It is laid down by Adam Smith, in one of his justly celebrated maxims on the subject of taxation, that 'Every tax ought to be levied at the time and in the manner that is most likely to be convenient for the contributor to pay it.' (*Wealth of Nations*, p. 371.) No one can doubt the soundness of this maxim; and yet it was very strangely neglected, down to 1803, in the management of the customs. Previously to this period, the duties on most goods imported had either to be paid at the moment of their importation, or a *bond*, with sufficient security for their future payment, had to be given to the revenue officers. The hardship and inconvenience of such a system is obvious. It was often very difficult to find sureties; and the merchant, in order to raise funds to pay the duties, was frequently reduced to the ruinous necessity of selling his goods immediately on their arrival, when, perhaps, the market was already glutted. Neither was this the only inconvenience that grew out of this system; for the duties having to be paid all at once, and not by degrees as the goods were sold for consumption, their price was raised by the amount of the profit on the capital advanced in payment of the duties: competition, too, was diminished, in consequence of the greater command of funds required to carry on trade under such disadvantages; and a few rich individuals were enabled to monopolise the importation of those commodities on which heavy duties were payable. The system had, besides an obvious tendency to discourage the carrying trade. It prevented this country from becoming the entrepôt for foreign products, by hindering the importation of such as were not immediately wanted for home consumption; and thus tended to lessen the resort of foreigners to our markets, inasmuch as it rendered it difficult, or rather impossible, for them to complete an assorted cargo. And in addition to all these circumstances, the difficulty of granting a really equivalent drawback to the exporters of such commodities as had paid duty, opened a door for the commission of every species of fraud. But these disadvantages and drawbacks, obvious

sig; Dutch, azijn; Fr. vinagre; Span. and Port. vinagre; a. [See ACID (ACETIC), &c.] A duty of 2d. per gallon imposed on vinegar, its under the control of the King, and renewable in 1812, the duty on vinegar, of which 2,861,000 gallons were brought to the charge. The duty on vinegar, which was confined to England; Scotland and Ireland being the duty was repealed in 1842, the duty on foreign vinegar, of which 1,097 gallons, chiefly from France, was brought to the charge from 1s. 6d. to 2s. per gallon.

[ACID (SULPHURIC).]

for home consumption, if ever paid.

**Origin of the Warehousing System** by Adam Smith, in one of his maxims on the subject of tax ought to be levied at the inner that is most likely to be the contributor to pay it. (p. 371.) No one can doubt that a maxim; and yet it was not until 1803, in the Customs. Previously to this time most goods imported had the moment of their importation sufficient security for their duty to be given to the revenue and inconvenience of such a system was often very difficult for the merchant, in order to pay duties, was frequently necessary of selling his goods on arrival, when, perhaps, the price was glutted. Neither was this price that grew out of this system having to be paid all at once as the goods were sold at a price was raised by the on the capital advanced in the system; competition, too, was the cause of the greater command carry on trade under such few rich individuals were the importation of these heavy duties were payable. There is an obvious tendency to the free trade. It prevented this the entrepôt for foreign goods the importation of such as wanted for home consumption to lessen the resort of the ports, inasmuch as it rendered possible, for them to come to. And in addition to all the difficulty of granting a drawback to the exporters of had paid duty, opened a door for every species of fraud. Duties and drawbacks, obvious

as they may now appear, did not attract the public attention till a comparatively late period. Sir Robert Walpole seems to have been one of the first who had a clear perception of their injurious influence; and it was the principal object of the famous *Excise Scheme*, proposed by him in 1733, to oblige the importers of tobacco and wine to deposit them in public warehouses; relieving them, however, from the necessity of paying the duties chargeable on them till they were withdrawn for home consumption.

No doubt can now remain in the mind of any one, that the adoption of this scheme would have been of the greatest advantage to the commerce and industry of the country. But so powerful was the delusion generated in the public mind with respect to it, that its proposal well nigh caused a rebellion. Most of the merchants of the day had availed themselves of the facilities which the existing system afforded of defrauding the revenue; and they exerted every endeavour to thwart the success of a scheme which would have given a serious check to such practices, by making the public believe that it would be fatal to the commercial prosperity of the country. The efforts of the merchants were powerfully seconded by the spirit of party, which then ran very high. The political opponents of the ministry, anxious for an opportunity to prejudice them in the public estimation, contended that the scheme was only the first step towards the introduction of such a universal system of excise as would inevitably prove alike subversive of the comfort and liberty of the people. In consequence of these artful misrepresentations, the most violent clamours were everywhere excited against the scheme. On one occasion Sir Robert Walpole narrowly escaped falling a sacrifice to the ungovernable fury of the mob, which beset all the avenues to the House of Commons; and, after many violent and lengthened debates, the scheme was ultimately abandoned.

The disadvantages of the old plan, and the benefits to be derived from the establishment of a voluntary warehousing system, were most ably pointed out by Donn Tucker, in his *Essay on the Comparative Advantages and Disadvantages of Great Britain and France with respect to Trade*, published in 1750. But so powerful was the impression made by the violent opposition to Sir Robert Walpole's scheme, and such is the force of prejudice, that this obvious and signal improvement—the greatest, perhaps, that has been made in our commercial and financial system—could not be safely adopted till 1803.

**Regulations as to Warehousing.**—The statute 43 Geo. III. c. 132 laid the foundation of the system; but it was much improved and extended by subsequent statutes.

The existing regulations as to warehousing are embodied in the Customs Consolidation Act, the 16 & 17 Vict. c. 107, and subsequent Acts. They empower the Commissioners of the Customs, under the authority and direction of the lords of the Treasury, to nominate the ports at which goods may be warehoused without payment of duty, and the warehouses in which particular descriptions of goods may be deposited. The Act also fixes the time during which goods may be deposited and allowed to remain in the warehouse, the remission of the duties in case of loss by accident, the allowances for waste &c. But being of much importance, we have given a full abstract of the 16 & 17 Vict. c. 107, and subsequent modifications and alterations thereof, under **IMPORTATION and EXPORTATION.**

**Warehousing Ports &c.**—Certain ports only are warehousing ports; nor may all sorts of goods be warehoused in every warehousing port. We sub-

join a list of the warehousing ports and towns in Great Britain and Ireland. Goods of all sorts may, speaking generally, be warehoused in the principal ports; but the regulations as to those that may be warehoused in the lesser ports are perpetually varying.

*England.*

Aberystwith	Fenwy	Penzance
Almonkton	Gasalborough	Plymouth
Arundel	Gilchester	Poole
Barnstaple	Gisborne	Portsmouth
Berwick	Grimsby	Prason
Ridelford	Halifax	Rainey
Boston	Hartlepool	Lamcgate
Keafand	Harswich	Leicester
Bridgewater	Harle	Lincoln
Redport	Hull	Ilke
Hristol	Ilkewich	Scarborough
Carlisle	Lancaster	North Shields
Cardigan	Leeds	Shoreham
Carlisle	Litchington	Southampton
Corranon	Liverpool	South Shields
Chepstow	Llanely	Stockton
Chester	London	Swanland
Colchester	Lowestoft	Swansea
Cowes	Lyme	Tekmouth
Dartmouth	Lynn	Turo
Deal	Madon	Weymouth
Douglas	Manchester	Whitby
Dover	Maryport	Whitehaven
Easter	Middlesborough	Widisch
Edinburgh	Milford	Wardbridge
Faversham	Newcastle	Workington
Fleetwood	Newhaven	Yarmouth
Folkstone	Newport	

Manchester, Halifax, Leeds, and Bradford are warehousing towns under customs regulations.

*Scotland.*

Aberdeen	Dundee	Leith
Alles	Glasgow	Montrose
Arbroath	Grangemouth	Perth
Ardrrossan	Gtanton	Peterhead
Ayr	Greenock	Port Glasgow
Banff	Inverness	Trom
Bornostones	Kirkcaldy	Wick
Dumfries		

*Ireland.*

Bellin	Galway	Sligo
Belfast	Limerick	Tralee
Carrigrohane	Londonderry	Waterford
Cork	Newry	Wexford
Drogheda	New Ross	Wexford
Dublin	Skibbereen	Youghal
Dundalk		

WAREHOUSE RATES.

**Charges on Goods on Delivery from Warehouse for Home Consumption (23 & 24 Vict. c. 110).**

There shall be charged upon goods deposited in any warehouse for security of duties of customs, in addition to such duties and any other charges thereon, for every 100l. of such duties of customs payable thereon, the rates following, viz. :—

On delivery for home consumption from any warehouse approved under the 'Customs Consolidation Act, 1853,'

In respect of tobacco	-	-	2.	d.
other goods	-	-	4	6
			5	0

Whether such tobacco or other goods shall have been removed to such warehouse under bond or not.

On delivery for home consumption from any warehouse at any port or place not possessing the privileges of bonding at the time of the passing of this Act, or from any warehouse approved under any Act other than the 'Customs Consolidation Act, 1853,' viz. :—

In respect of tobacco	-	-	5s.
other goods	-	-	10s.

WAREHOUSE RENT.

**Rates for Warehouse Rent on Goods Deposited in the Queen's Warehouses.**

Packages of baggage, and small packages of presents, such as boxes, kegs, jars &c., empty casks, samples, and wines, spirits, or other liquids, not exceeding 1 gallon	-	-	2d. per pack.
Packages of wine, spirits, or other liquids, exceeding 1 gallon and not exceeding 30 gallons	-	-	4d. "
Exceeding 30 gallons	-	-	6d. "

The baggage of passengers and surplus stores are allowed to remain a week, exclusive of the

day of receipt and delivery, and other goods 3 days, free of rent, to give the parties time for their examination and clearance.

Stores of naval officers paid off, remain 12 months free. Stores of merchant vessels are charged a low rent according to size or contents. [Stores.]

*Abstract Statement showing the Total Quantities of the Principal Articles in the Customs Bonded Warehouses of the United Kingdom on December 31, 1866, and December 31, 1867.*

Articles	Quantities in Warehouse	
	Dec. 31, 1866	Dec. 31, 1867
Cocoa - lb.	5,653,296	5,298,517
Coffee - "	37,997,883	41,000,545
Curries - cwt.	31,100,66	139,595
Indies - "	81,739	90,972
Rum - gal.	7,762,992	6,819,676
Brandy - "	6,315,221	7,132,363
Geneva - "	137,658	128,792
Sugar, refined, and sugar family - cwt.	57,850	105,850
Sugar, raw - "	3,236,504	2,311,828
Molasses - "	115,573	15,273
Tea - lb.	100,570,658	81,091,138
Tobacco, unmanufactured - "	77,890,291	76,855,671
Tobacco, manufactured, cigars, and snuff - lb.	5,015,196	2,961,795
Wine - gal.	13,829,135	15,592,721

**WATCH.** A division of time on board ship, by which the duties of the crew are regulated. A ship's crew is divided into two watches, the starboard or captain's watch and the port or mate's watch. The first officer has the entire and independent charge of the port watch. The second officer attends to the starboard watch under the orders of the captain. Each watch is on deck for 4 hours or 8 bells, except from 4 to 8 P.M., which is divided into 4 bells each and is termed the dog watch. It is thus divided to equalise the time of the night duty, each watch taking eight hours, and four hours alternately.

**WATCHES** (Ger. uhren, taschenuhren; Fr. montres; Ital. orologi da tasca, o da sacceccia; Span. relojes de faltriquera; Russ. karmannto tschastil). Portable machines, generally of a small size and round flat shape, that measure and indicate the successive portions of time; having, for the most part, their motions regulated by a spiral spring. When constructed on the most approved principles, and executed in the best manner, a watch is not only an exceedingly useful, but a most admirable piece of mechanism. It has exercised the genius and invention of the most skilful mechanics, as well as of some of the ablest mathematicians, for nearly 3 centuries. And, considering the smallness of its size, its capacity of being carried about uninjured in every variety of position, the number and complexity of its movements, and the extraordinary accuracy with which it represents the successive portions of time as determined by the rotation of the earth on its axis, we need not wonder at Dr. Paley having referred to it as a striking specimen of human ingenuity.

Spring watches are constructed nearly on the same principle as pendulum clocks. Instead of the pendulum in the latter, a spring is used in the former, the isochronism of the vibrations of which corrects the unequal motions of the balance.

*Historical Notice.*—The invention of spring watches dates from about the middle of the seventeenth century, and has been warmly contested for Huygens and Hooke. The English writers generally incline in favour of the latter. Dr. Hutton says (*Mathematical Dictionary*, art. 'Watch') that the words 'Rob. Hooke invenit, 1658,' were inscribed on the dial plate of a watch presented to Charles II, in 1675. But Montucla

affirms (*Histoire des Mathématiques*, tom. ii. p. 413, ed. 1800) that Huygens made this 'belle découverte' in 1656, and presented a spring watch to the States of Holland in 1657. Comparing these statements, it certainly appears that the claim of Huygens to the priority of the discovery is the latter established of the two. We do not, however, believe that either of those distinguished persons owed, in this respect, anything to the other. The probability seems to be, that the happy idea of employing a spring to regulate the motion of watches occurred to them both nearly at the same time.

*Improvement of Watches.*—Owing to the facility with which the longitude may be determined by the aid of accurately going watches, it is of great importance to have them made as perfect as possible. In this view, liberal premiums have been given to the makers of the best marine watches, or chronometers, by the Governments of England, France, Spain &c. In the reign of Queen Anne, Parliament offered a reward of 20,000*l.* to anyone who should make a watch or other instrument, capable of determining the longitude at sea, within certain limits. This magnificent premium was awarded, in 1764, to the celebrated John Harrison, for a marine watch, which, being tried in a voyage to Barbadoes, determined its longitude with even more than the required accuracy. Other premiums, though of inferior amount, were subsequently given to Messrs. Mudge, Arnold, Earnshaw &c. Since 1822, two prizes, one of 300*l.* and one of 200*l.*, have been annually given to the makers of the two chronometers adjudged to be the best, after having been submitted to a twelvemonth's trial at the Royal Observatory at Greenwich. And to such perfection has the manufacture attained, that some of the chronometers employed by navigators, though carried into the most opposite climates, have not varied to the extent of two seconds in their mean rate of going throughout the year.

*Watch Manufacture.*—The watch-making business, though latterly a good deal depressed, is largely carried on in London; the artists of which have attained to a high degree of excellence in this department. In 1866, there were 26,988 gold, and 103,515 silver, and in 1867, 25,437 gold and 98,143 silver watch cases assayed at Goldsmiths' Hall, London, the aggregate value of those for 1867 being, probably, not much under 650,000*l.* The manufacture is also carried on to a considerable extent at Birmingham and Chester, 11,700 silver cases having been assayed and marked at Birmingham, and 12,507 gold and 18,505 silver at Chester, in 1866.

On the Continent, watches are principally manufactured in Paris, Geneva, and in Neuchâtel. Some of the French and Swiss watches, particularly the latter, are excellent; but, generally speaking, they are slight, and inferior to those made in London. Paris and Geneva watches are largely exported to foreign countries; and are everywhere in high estimation, particularly among the ladies. In 1867 we imported 24,380 gold and 95,817 silver watches, chiefly from France.

Watches impressed with any mark or stamp, appearing to be or to represent any legal British assay mark or stamp, or purporting by any mark or appearance to be of the manufacture of the United Kingdom, or not having the name and place of abode of some foreign maker abroad visible on the frame and also on the face, or not being in a complete state, with all the parts properly fixed in the case, may not be imported into the United Kingdom, even for the

*himatiques*, tom. ii. p. 10. The Germans made this 'belle' presented a spring watch in 1857. Comparing it, it appears that the priority of the discovery of the two. We do not, either of those distinct in this respect, anything of probability seems to be, employing a spring to watches occurred to them time.

—Owing to the facility may be determined by watches, it is of great value made as perfect as liberal premiums have been of the best marine watches, by the Governments of &c. In the reign of offered a reward of should make a watch or sole of determining the in certain limits. This was awarded, in 1764, to Harrison, for a marine clock in a voyage to far-magnitude with even more accuracy. Other premiums, sent, were subsequently to, Arnold, Earnshaw &c., one of 300*l.* and one of given to the makers of adjudged to be the best, awarded to a twelve-month's servatory at Greenwich. has the manufacture of the chronometers employed carried into the most not varied to the extent their mean rate of going

The watch-making business good deal depressed, in London; the artists of which degree of excellence in 1865, there were 26,988 and in 1867, 25,437 gold cases assayed at Goldsmiths' aggregate value of those not much under 650,000*l.* so carried on to a confirmingham and Chester, having been assayed and in, and 12,507 gold and in 1866.

Watches are principally manufactured, and in Neuchâtel, and Swiss watches, particularly excellent; but, generally light, and inferior to those of Geneva watches are foreign countries; and are particularly among imported 24,380 gold and chiefly from France. With any mark or stamp, present any legal British purporting by any mark the manufacture of the not having the name and the foreign maker abroad also on the face, or not date, with all the parts case, may not be im- Kingdom, even for the

purpose of being warehoused. (3 & 4 Wm. IV. c. 52 s. 58. See also Trade Marks Act, 25 & 26 Vict. c. 84.)

**Watches in China.**—Pretty considerable numbers of European watches are imported into China; and it may be worth mentioning, as a curious instance of the diversity of tastes, that the Chinese, as well as most other Eastern nations, who can afford it, uniformly wear watches in pairs! This sort of extravagance is not, however, confined to watches, but extends to a variety of other articles. Shawls, for example, are invariably worn in India in pairs of exactly the same pattern; and it is hardly possible, indeed, to find a native dealer who will sell a single shawl.

**WATER.** It may be thought unnecessary, perhaps, to say anything in a work of this sort with respect to a fluid so well known and so abundant.

But, besides being an indispensable necessary of life, water is, in most large cities, an important commercial article. It is in the latter point of view, principally, that we mean to consider it. Inasmuch, however, as the mode of supplying different places with water, and its price, necessarily vary in every possible way, we shall limit our remarks on these subjects to the metropolis only. The few remarks we intend to offer of a general nature will apply indifferently to any populous place, the supply of which with water occasions a considerable expense.

1. **Quality of Water.**—Dr. Ure has made the following statements with respect to the quality of water:—'Water,' says he, 'is a very transparent fluid, possessing a moderate degree of activity with regard to organised substances, which renders it friendly to animal and vegetable life, for both which it is, indeed, indispensably necessary. Hence it acts but slightly on the organs of sense, and is therefore said to have neither taste nor smell. It appears to possess considerable elasticity, and yields in a perceptible degree to the pressure of air in the condensing machine.'

'Natural water is seldom, if ever, found perfectly pure. The waters that flow within or upon the surface of the earth contain various earthy, saline, metallic, vegetable, or animal particles, according to the substances over or through which they pass. Rain and snow waters are much purer than these, although they also contain whatever floats in the air, or has been exhaled along with the watery vapours.'

'The purity of water may be known by the following marks or properties of pure water:—

'1. Pure water is lighter than water that is not pure.

'2. Pure water is more fluid than water that is not pure.

'3. It has no colour, smell, or taste.

'4. It wets more easily than the waters containing metallic and earthy salts, called hard waters, and feels softer when touched.

'5. Soap, or a solution of soap in alcohol, mixes easily and perfectly with it.

'6. It is not rendered turbid by adding to it a solution of gold in aqua regia; or a solution of silver, or of lead, or of mercury, in nitric acid; or a solution of acetate of lead in water.

'Water was, till modern times, considered as an elementary or simple substance; but it is now ascertained to be a compound of oxygen and hydrogen.'

2. **Supply of Water.**—London was very ill supplied with water previously to the early part of the seventeenth century, when the New River water was introduced into the city. This exceedingly useful work was planned and carried into effect by the famous Sir Hugh Myddelton, who expended his whole fortune on the project; having, like many other public benefactors, entailed poverty on himself and his posterity by embarking in an undertaking productive of vast wealth to others, and of great public utility. The New River has its principal source near Chadwell, between Hertford and Ware, about 20 miles from London; but the artificial channel in which the water is conveyed is about 40 miles in length. Sir Hugh Myddelton encountered innumerable difficulties during the progress of the undertaking, which it is probable would have been abandoned, at least for a time, but for the aid afforded by James I. The New River Company was incorporated in 1619, 6 years after the water had been brought to the reservoir at Islington. The undertaking yielded very little profit for a considerable number of years; but it has since become extremely profitable; so much so, that an original 500*l.* share has been sold for 16,000*l.*

The Chelsea Water-Works Company was formed in 1723, and (with the aid of 3 smaller companies, none of which are now in existence) it, and the New River, supplied all that part of the metropolis north of the Thames with water, down to the year

I.—Account of the Average Daily Quantity of Water supplied by each of the Metropolitan Companies in 1866.

Name of the Company	Gross Average Daily Quantity in 1866	Quantity for other than House Supply	Quantity for House Supply	Number of Houses	Quantity per Each House	Population Estimated at about	Quantity per head of Population
<b>RIVER LEA COMPANIES:</b>							
New River Company	22,898,769	4,761,965	18,556,801	109,198*	169.75	800,000	23.17
East London Waterworks Company	19,380,000	5,900,000	14,580,000	80,174	180	658,570	22 (nearly)
Total drawn from the River Lea and the wells of the New River Company	42,278,769						
<b>THAMES COMPANIES:</b>							
Chelsea Waterworks Company	8,000,000	1,193,000	6,807,000	26,900	255.7	201,000	33.86
West Middlesex	8,209,168	556,000	7,653,168	36,500	210	235,500	30 (nearly)
Grand Junction Waterworks Company (Michaelmas, 1866):							
Supplied to tenants	8,778,205	655,816	8,122,389	26,450	307	238,050	34
Used for sand-washing, condensing &c., at the Company's works	538,850	..	..	..	..	..	..
Southwark and Vauxhall Water Company (Michaelmas 1866).	12,502,000	3,076,712	9,125,288	66,550	139.2†	449,540	21†
					2,215		
					2,235		
					70,990		
Lambeth Waterworks Company	8,950,000	1,251,000	7,699,000	37,203	207	225,000	34.22
Total drawn from the Thames	46,977,225						
From Wells, Kent Waterworks	6,159,000	866,000	5,781,000	55,861	171	237,068	24.4

\* Excluding trade and business premises and public buildings.

† For domestic supplies only.

1810. In that year, however, 3 new companies, the East London, West Middlesex, and Grand Junction, were established under the authority of different Acts of Parliament. At present (1869) the metropolis is supplied with water by the following companies:—

New River,  
Chelsea,  
East London,  
West Middlesex,  
Grand Junction,  
Lambeth,  
Vauxhall, Southwark, and Kent Water Works.

The sources whence these companies draw their supplies are stated in Table No. I.

There have been several royal commissions appointed to enquire into the state of the supply of water in the metropolis. The report of that appointed in 1827 contains much useful information, and at present (1869) there is one commission turning its exclusive attention to the supply of London, while another on the pollution of rivers is carefully examining the quality of London water drawn from the Thames and other streams for human use.

*Monopoly of the Water Companies.*—The sanction of Parliament was given to the 3 new companies formed in 1810, not so much in the view of increasing the actual supply of water, as of checking monopoly, and reducing the rates by their competition. But these expectations have not been realised. For a while, indeed, the competition of the several companies was exceedingly injurious to their interests, and occasioned the total destruction of some of the inferior ones; but no sooner had this happened than the others dis-

covered that their interests were in reality the same, and that the true way to promote them was to concert measures together. In furtherance of this object, the 5 companies for the supply of that part of the metropolis north of the river proceeded to divide the town into as many districts, binding themselves, under heavy penalties, *not to encroach on each other's estates; and having in this way gone far to secure themselves against any new competitors, their next measure was to add five-and-twenty per cent. to the rates established in 1810; and these have, in several instances, been still further augmented.* The peculiar benefits that were expected to result from their multiplication have, therefore, proved quite imaginary; and though the supply of water has been increased, it might have been more abundant and cheaper under a different system.

We borrow Tables II. and III. from the evidence taken before the committee of the House of Commons in 1851 and in 1867 on the Metropolitan Water Bills:—

Table II.

Water Companies	Imperial Gallons supplied annually	Water Rents per Annum	Cost per Million Gallons to the Company
New River	5,531,000,000	129,453 17 5	23 8 3
Chelsea	1,135,158,000	25,917 9 5	31 3 1
Grand Junction and Southwark and Vauxhall	1,959,181,950	45,547 8 9	31 16 11
Lambeth	2,195,006,570	56,399 16 0	15 7 7
East London	1,123,890,000	22,416 17 9	28 18 6
West Middlesex	5,222,155,878	76,385 11 0	18 19 4
Hampstead	305,948,750	11,412 13 3	33 2 9
Total	16,869,694,258	325,035 12 9	

III.—Account of the Amount of Capital, Rate of Dividend, and Bonus (if any), of the several Metropolitan Water Companies, for the Years undermentioned, viz.:—

Name of the Company	1850	1851	1860	1861	1865	1865	Bonus (if any) between 1850 and 1866
New River— Capital	£ 1,491,671	£ 1,519,958	£ 1,519,958	£ 1,519,958	£ 1,519,958	£ 1,519,958	
Dividend	4 1-16	4	4 0 7½	4 1 1	5 8 11½	6 2 ½	In 1866 there was a bonus of 1,000, per share, or 16 11s. 6½d per cent. upon the capital.
East London— Capital	500,000	500,000	975,000	975,000	1,133,818	1,217,560	Three bonuses of 1 per cent. each on ordinary stock
Dividend	8	8	5 15 1	6 0 0	5 12 0	6 18 2	
Chelsea— Capital	300,000	300,000	570,000	570,000	610,000	615,600	
Dividend	2½	2½	3½	4½	5½	5½	
West Middlesex— Capital	566,500	506,500	704,901	722,098	785,716	794,367	
Dividend	6	6	5 0 0	5 0 0	5 12 6	5 18 0	
Grand Junction (Share Capital)— Capital	531,000	531,000	550,000	565,715	631,745	634,880	
Dividend	8	8	7½	7½	8½	8½	
Southwark and Vauxhall (Shares)— Capital	303,218	301,012	386,790	371,010	377,700	377,870	
Dividend	..	..	..	38,300	89,425	125,160	
Lambeth (Shares)— Capital	211,881	257,526	361,530	387,600	504,992	532,130	
Dividend	5	5	5½	5½	6	6	
Kent Waterworks— Capital	229,500	254,500	327,125	551,150	409,750	428,945	None
Dividend	3s. 15s.	4s.	5 0 0	5 0 0	6 0 0	6 0 0	
December	229,500	262,500	351,150	551,150	419,122	428,945	
Dividend	3s. 15s.	4s.	5 0 0	5 0 0	6 0 0	6 0 0	

The results of this Table tend to confirm the principle we endeavoured to enforce in the article COMPANIES, that certain restrictions should, in almost all cases, be imposed on companies for the supply of water to a large city. These are not undertakings that can be safely trusted to the free principles that may generally be relied upon. If there be only one set of springs adjacent to a town, or if there be certain springs more conveniently situated for supplying it with water

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1867 on the Metropoli

II.

Year	Water Rates per Annum		Cost per Million Gallons to the Company	
	£	s. d.	£	s. d.
1800	129,433	17 5	72	8 3
1800	35,917	9 5	31	3 1
1850	43,387	8 9	31	15 1
70	56,309	16 0	15	7 1
80	92,416	17 9	18	14 0
78	76,585	11 0	18	19 4
50	11,412	15 5	13	2 9
12	65,415	8 6	38	3 4
100	7,009	12 10	4	8 4
1858	425,055	17 9		

(if any), of the several  
ed, viz.:-

Year	£	s.	d.	Honus (if any) between 1850 and 1866
1865	9,958	0	0	In 1866 there was a bonus of 1,400 per share, or of 1s. 6s. per cent. upon the capital.
	7,560	0	0	Three bonuses of 1 per cent. each on ordinary stock
	5,600	0	0	
	4,367	0	0	
	1,250	0	0	
	7,870	0	0	
	5,300	0	0	
	5,160	0	0	
	2,150	0	0	
	8,945	0	0	None
	8,915	0	0	
	cent. per an.			

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supplying it with water

than any other, a company acquiring a right to such springs, and incorporated for the purpose of conveying the water to town, thereby gain an *exclusive advantage*; and if no limits be set to its dividends, its partners may make an enormous profit at the expense of the public, without its being possible materially to reduce them by means of competition. What has happened in the case of the New River Company sufficiently evinces the truth of what has now been stated. Had its dividends been limited to anything like a reasonable profit, the water that is at present supplied by its means might have been furnished for a small part of what it actually costs. But in cases of this sort, priority of occupation, even without any other peculiar advantage, goes far to exclude all regular and wholesome competition. A company that has got pipes laid down in the streets may, if threatened by the competition of another company, lower its rates so as to make the latter withdraw from the field; and as soon as this is done, it may revert to its old, or even to higher charges. It is not, in fact, possible, in cumbrous concerns of this sort, to have anything like competition, in the ordinary sense of the term; and experience shows that whenever it is attempted, it only continues for a limited period, and is sure to be in the end effectually suppressed. We are, therefore, clearly of opinion, that no company should ever be formed for the conveyance of water into a large city, without a maximum being set both to the rates and the dividends; giving the company an option, in the event of the maximum rate yielding more than the maximum dividend, either to reduce the rate, or to apply the surplus to the purchase of the company's stock; so that ultimately the charge on account of the dividends may be got rid of.

We are glad to have to add, that we were supported in what we now and in former editions of this work have stated on this subject by the Report of the Select Committee of the House of Commons on the supply of water for the metropolis, printed in 1821. It is there said—The public is at present without any protection even against a further indefinite extension of demand. In cases of dispute there is no tribunal but the boards of the companies themselves, to which individuals can appeal; there are no regulations but such as the companies may have voluntarily imposed upon themselves, and may therefore at any time revoke, for the continuance of the supply in its present state, or for defining the cases in which it may be withdrawn from the householder. All these points, and some others of the same nature, indispensably require legislative regulation, where the subject-matter is an article of the first necessity, and the supply has, from peculiar circumstances, got into such a course that it is not under the operation of those principles which govern supply and demand in other cases.

The principle of the Acts under which these companies were instituted, was to encourage competition; and certainly in this, as in other cases, it is only from competition, or the expectation of competition, that a perfect security can be had for a good supply. But your committee are satisfied, that, from the peculiar nature of these undertakings, the principle of competition requires to be guarded by particular checks and limits in its application to them, in order to render it effectual, without the risk of destruction to the competing parties, and thereby, ultimately, of a serious injury to the public. And the committee proceeds to remark—'The submission of their accounts annually to Parliament, for a few years, would

necessarily throw light on this part of the question.'

We think that it would be highly expedient to adopt the suggestions of the committee, by calling upon the companies to lay annually detailed statements of their affairs before Parliament. They should be obliged in these statements to give an account of the rates charged by them, and to make a special report as to every case in which they have withdrawn water from a householder. It is to no purpose to repeat, in opposition to this proposal, the common-places about competition securing for the citizens a sufficient supply of water at the lowest prices, in the same way that the competition of bakers and butchers secures them supplies of beef and bread. The statements already made show that there is no analogy whatever in the circumstances under which these articles are supplied. If a man be dissatisfied with any particular butcher or baker, he may go to another, but it is not possible for him to change his water merchant, unless he also change the place of his residence. No water company will encroach upon the district assigned to another; and supposing an individual unlucky enough to quarrel with those who have the absolute *monopoly* of the supply of the district in which he resides, he must either migrate to another, or be without water, unless he can get a supply upon his own premises. Such being the actual state of things, it is quite ludicrous to talk about competition affording any real security against extortion and abuse. Even the publication of the proceedings of the companies would be a very inadequate check on their conduct; but such as it is, it is perhaps the only one that can now be resorted to; and as it would have considerable influence, it ought not to be neglected.

3. *Quality of the London Water.*—All the companies, with the exception of the New River and East London Companies, derive their supplies of water from the Thames; and in consequence of their taking it up to some extent within the limits to which the tide flows, and of the discharge of the sewerage of Oxford, Reading, and other towns on its banks into the river, the water taken from it is necessarily, in the first instance, loaded with many impurities. But the reports that were formerly so very prevalent, with respect to the deleterious quality of the London water, have been shown to have been exaggerated. By far the greater part of the impurities complained of are not chemically combined with it; and they may be separated from it by filtration. Most of the companies have recently made very considerable efforts to improve their water, and the forthcoming Reports of the two commissions will show how far they have been successful. But though the companies may not have done in this respect as much, perhaps, as they might and should have done, a great improvement has, on the whole, been effected; and notwithstanding all that has been said to the contrary, it is quite certain that, though not so pure as it might be, there is not the slightest foundation for the notion that its impurities have been such as to affect, in any serious degree, the health of the inhabitants.

The returns of 1851 are taken from the report by the Government Commission on the chemical quality of the supply of water to the metropolis in 1851; and those of 1856 are taken from the Reports to the Right Hon. William Cowper, M.P., president of the General Board of Health on the metropolis water supply in 1856.

In 1851, the population of London was 2,362,236; consequently there were 19.4 gals. of water supplied per head of the whole population. In 1856,

IV.—Comparison of the Quality and Quantity of Water supplied by the Metropolitan Water Companies in the Years 1851, 1856, and 1867.

Companies	Solid Matter, per Gallon			Organic and other Volatile Matter, per Gallon			Degree of Hardness			Quantity supplied per Day		
	18	1856	1867	18	1856	1867	1851	1856	1867	1851	1856	1867
	gr.	gr.	gr.	gr.	gr.	gr.	deg.	deg.	deg.	gals.	gals.	gals.
New River	19.50	21.71	21.55	2.79	0.96	0.57	13.9	13.6	14.0	15,435,617	25,000,000	22,511,917
East London	25.51	21.43	21.56	1.12	1.14	0.50	15.0	14.5	14.5	2,036,049	16,000,000	19,321,988
Chelsea	21.28	21.85	18.91	2.38	1.21	0.75	13.1	13.5	13.5	3,101,735	5,325,000	7,018,375
Thames & Grand Junction	22.67	20.58	19.68	2.75	1.47	0.16	14.6	14.0	13.9	3,531,051	6,805,566	8,235,852
Southwark and Vauxhall	21.72	22.28	19.97	5.07	1.50	1.19	14.0	15.0	15.0	5,541,717	6,714,222	8,709,090
Companies	21.08	20.85	20.02	1.51	1.51	1.61	15.0	15.3	15.2	6,013,716	10,531,122	12,793,511
Lambeth	20.19	19.65	18.78	2.59	1.05	1.21	14.2	13.7	13.5	5,077,260	6,109,000	8,250,677
Kent	20.71	20.18	21.12	2.61	1.22	0.16	16.0	11.8	16.0	1,079,511	2,305,750	5,947,200
Total	..	..	..	..	..	..	..	..	..	19,967,177	36,019,782	36,491,223
Average of Thames Companies	21.15	21.31	19.48	2.16	1.31	0.98	14.1	13.5	13.5	..	..	..
Average of New River and East London	21.50	21.57	22.95	2.15	1.03	0.43	14.9	13.9	14.2	21,471,666	41,000,000	42,853,905
Average of all Companies	22.48	21.81	21.50	2.75	1.25	0.71	14.8	13.1	13.9	45,815,925*	78,292,842†	91,675,530

\* This total includes 427,168 gallons of water daily, supplied by the Hamstead Company in 1851, 663,000 in 1856, and 1,186 by the Hamstead Water Company, and 550,000 gallons supplied in the same year by the Plumstead, Woolwich, and Charlton Water Company.

the population was 2,583,112; and the supply 30.2 gals. In 1867, the population being 3,067,536, the supply was 30.9 gals.

We doubt whether there be at this moment many considerable towns in the empire, or, indeed, in Europe, better supplied with excellent water than London.

According to the return furnished by the several water companies in 1850, it appeared that 270,581 houses were then supplied with water, the gross daily quantity delivered having been 44,383,332 gallons.

It will be observed from the preceding table No. I. that the supply of water to the metropolis by the companies has now reached the enormous quantity of upwards of 95 million gallons per day. Thus the average daily supply of water for all purposes, which in 1850 was 164 gallons per house, was, in 1868, as furnished by the various companies, for domestic purposes alone, from 21 to

upwards of 34 gallons per head of the population. Before the passing of the Metropolis Water Act of 1852, considerably more than half the supply was not filtered; and subsiding reservoirs were in such ease the only means of clearing the water of impurities in suspension; but these are now for the most part employed as well as the filter beds, the cost of the entire water works of the metropolis having been considerably upwards of seven millions sterling. Even this amount, however, will fall short of the total expenditure; for the intermediate outlays between the former returns and the passing of the new Acts, and the cost of many works in hand, but not yet complete, are not included in this sum.

The subjoined table, No. V., illustrative of the quality of the water supplied to the chief towns of England and Scotland, is taken from the Report of the Commons' Committee of 1867. See also large table in Watts's Dictionary of Chemistry.

V.—Table, showing the Quality of the Water supplied to the following Towns in England and Scotland.

Name of Town	Appearance of the Water when examined in a Glass Tube 2 R. in Length	Solid Matter per Gallon	Organic and other Volatile Matter per Gallon	Oxygen required to Oxidise Organic and other Matter	Hardness		Population	Mortality of Population	
					Ammonia per Gallon	Degrees			
		gr.	gr.	gr.	deg.	deg.	1861		
Birmingham	Slightly turbid, and pale olive green	37.70	1.65	0.090	0.020	15.5	11.5	212,621	21.4
Leamington	Slightly turbid, and pale greenish yellow	26.79	1.98	0.185	0.045	18.5	9.0	18,768	18.8
Guildford	Bright and colourless	50.50	2.50	0.075	0.002	18.5	7.8	29,550	19.1
Norfolk and S. Shields	ditto ditto	29.75	1.10	0.020	0.001	12.6	8.0	135,375	19.7
Southport	ditto ditto	28.55	2.65	0.075	0.030	19.5	12.5	14,647	19.0
Newcastle and Gateshead	Slightly turbid, and pale greenish yellow	22.55	0.95	0.080	0.019	19.5	5.5	11,616	19.0
Wakefield	Turbid and olive green	22.35	1.31	0.140	0.015	16.0	12.0	5,409	19.3
Dover	Bright and nearly colourless	27.01	1.01	0.005	0.001	17.0	6.5	51,575	21.2
Canterbury	colourless	21.85	1.00	0.007	0.000	18.0	4.5	16,615	21.4
Norwich	nearly colourless	21.19	1.10	0.030	0.005	18.5	5.0	71,400	26.7
Cremon	ditto ditto	20.75	0.80	0.020	0.001	16.4	5.1	46,471	17.1
York	ditto ditto	19.08	0.80	0.080	0.020	14.5	7.0	59,309	21.5
Derby	ditto ditto	19.02	1.06	0.035	0.001	14.1	7.0	51,049	25.3
Lincoln	ditto pale olive green	18.34	1.35	0.078	0.008	11.0	7.5	47,063	20.9
Worcester	ditto pale peaty tint	16.89	1.55	0.106	0.035	10.0	6.0	30,969	20.0
Cheltenham	ditto nearly colourless	15.70	1.06	0.087	0.010	12.0	6.0	45,792	18.3
Liverpool and W. Derby	Slightly turbid and peaty	14.64	0.55	0.085	0.030	9.6	3.5	425,587	28.2
Durham	Bright and nearly colourless	13.58	1.01	0.103	0.050	7.5	6.0	70,274	29.7
Leeds	ditto pale olive green	13.57	0.58	0.110	0.040	7.5	6.5	112,566	26.0
Edinburgh	ditto nearly colourless	10.50	0.57	0.060	0.002	7.0	2.0	175,081	27.9
Preston	Turbid and slightly peaty	7.81	0.07	0.115	0.075	5.5	2.9	110,523	28.9
Dundee	Slightly turbid and peaty	7.00	0.50	0.171	0.102	4.5	1.5	..	..
Sheffield	Bright and peaty	5.90	0.50	0.080	0.033	4.0	2.0	128,551	22.2
Glasgow, south of Clyde (Gorbals)	Slightly turbid and peaty	5.91	0.63	0.155	0.028	4.9	1.0	..	..
Glasgow, north of Clyde (Loch Katrine)	ditto ditto	1.90	0.30	0.110	0.032	1.0	1.0	410,979	27.1
Plymouth	Bright and rather peaty	4.29	0.41	0.055	0.042	3.0	1.0	62,500	22.1
Manchester and Salford	ditto deep olive green	4.17	0.25	0.123	0.006	2.5	2.0	519,553	29.7
Towns with water over 10° hardness	Bright and nearly colourless	25.90	1.37	0.068	0.028	14.9	7.1	..	22.1
Towns with water under 10° hardness	Generally slightly turbid and peaty	8.53	0.49	0.102	0.021	4.9	2.6	..	20.1
Metropolitan water	Bright and slightly greenish yellow	20.17	1.18	0.072	0.002	15.0	4.5	..	23.1

The late Dr. Strang, of Glasgow, in a paper on the supply of water to great towns, read in 1858 before the British Association for the Advancement of Science, gave the following table:—

VI.—Water Supply to Great Towns.—Summary of Results.

Towns	Population within Bounds of Supply	Daily Supply	Daily Supply for each Inhabitant	Cost of Undertaking	Daily Supply for every £ expended	Prospective Supply daily in addition
London	2,666,917	81,495,812 gals.	30.5	7,102,823 £	11.4	
Paris	1,100,000	26,550,000	24	800,000	35	20,000,000
Hamburg	1,000,000	5,000,000	5	170,000	29.50	
New York	715,000	88,000,000	122.67	1,000,000	15.5	
Manchester	500,000	11,000,000	22	1,500,000	8.5	14,000,000
Liverpool	500,000	11,000,000	22	1,600,000	7	
Leeds	155,000	1,850,000	12	285,874	7	
Edinburgh	215,000	4,800,000	22.3	450,000	10.5	3,000,000
Aberdeen	65,000	1,200,000	18.4	50,000	21	
Dundee	95,000	1,750,000	18.2	150,000	12.5	
Greenock	40,000	2,112,500	52.8	90,000	25.4	
Paisley	38,150	1,021,152	27	60,000	17	
Glasgow	430,000	16,750,000	39.8	651,159	26	20,000,000

\* Independent of the cost of Canal de Caux.

Metropolitan Water

Quantity supplied per Day

	1856	1867
	gals.	gals.
617	2,500,000	32,331,917
109	16,000,000	12,321,008
730	5,325,000	7,918,375
054	6,895,568	8,256,882
717	6,714,292	8,750,000
716	10,531,122	14,79,511
209	6,100,000	8,656,551
511	2,365,750	5,847,200
477	36,019,782	16,491,225
	**	**
666	11,000,000	42,253,905
925*	78,202,842	91,675,530

Company, and 550,000 gallons

head of the population. Metropolitan Water Act more than half the supply of reservoirs were in such a manner as to impure the water of impure these are now for the filter beds, the works of the metropolis upwards of seven million amount, however, will expenditure; for the former returns water Acts, and the cost of not yet complete, are

Co. Y., illustrative of the chief towns is taken from the Report of 1867. See also large of Chemistry.

Towns in England and

Altitude	Population	Mortality
deg.		per 1,000 of Population
11.5	212,621	23.4
9.0	18,768	18.8
7.8	29,530	19.4
8.0	155,355	10.7
12.5	14,647	19.0
5.5	11,616	19.0
12.0	5,109	23.8
6.5	31,375	21.2
4.5	16,613	21.4
5.0	71,440	26.7
5.4	46,474	17.4
7.0	59,000	21.5
7.0	51,049	25.5
7.5	47,065	20.9
6.0	70,474	20.7
6.0	49,792	18.9
3.5	495,587	28.2
6.0	117,266	26.0
2.0	176,081	27.4
2.0	119,525	28.9
1.5	128,251	26.2
1.0	440,979	27.1
1.0	62,590	32.1
2.0	519,255	28.7
7.1	..	22.2
2.6	..	25.1
4.5	..	25.1

This is a very valuable table, and condenses a great deal of information within the narrowest compass.

But Dr. Strang appears to have underrated the supply of water to each inhabitant in London. A considerable portion of the immense population within the bills of mortality derive their supplies of water from other sources than those specified above.

4. Water for Ships.—Various improvements have been made in the art of preserving water on board ships. Of these, the principal are the charring the inside of the casks in which the water is kept, and the substitution of iron tanks for casks. The latter being made of the required shape, may be conveniently stowed into any part of the ship. In men-of-war, the iron tanks serve as ballast; the water being brought up by a forcing pump. Water is found to preserve better in them than in any other sort of vessel. Drip-stones may be employed with much advantage in the purification of water. When water is taken on board from a river into which the tide flows, it should, of course, be raised at low ebb.

WAX BEES' (Ger. wachs; Fr. cire; Ital. and Span. cera; Russ. воск). A vegetable product. Several plants contain wax in such abundance as to make it worth while to extract it from them. But all that was known in commerce, down to a comparatively recent period, consisted of bees' wax. The honey is first pressed from the comb, and the wax is then melted into cakes. It has a slight odour of honey, is insipid, and of a bright yellow hue. It is brittle, yet soft, and somewhat unctuous to the touch. It is often adulterated with earth, pea meal, resin &c. The presence of the former may be suspected when the cake is very brittle, or when its colour inclines more to grey than to yellow; and the presence of resin may be suspected when the fracture appears smooth and shining, instead of being granulated. Wax, when bleached or purified, is white, perfectly insipid, inodorous, and somewhat translucent; it is hard not unctuous to the touch, heavier and less fusible than yellow wax, and does not melt under 150°. It is sometimes adulterated with the white oxide of lead to increase its weight, with white tallow, and with potato starch. The first is detected by melting the wax in water, when the oxide falls to the bottom; the presence of tallow is indicated by the wax being of a dull opaque white, and wanting the transparency which distinguishes pure wax; and starch may be detected by applying sulphuric acid to the suspected wax, as the acid carbonises the starch, without acting on the wax. The yellow wax is firm, breaking with granular fracture, of an agreeable, honey-like odour, not unctuous to the touch, and does

not melt under 140°. (Thomson's *Chemistry*, and Dr. A. T. Thomson's *Dispensatory; British Pharmacopoeia* 1867.)

Notwithstanding the large supply of wax produced at home, a considerable quantity is also imported from abroad. The duties on wax, which were formerly quite oppressive, after being greatly reduced in 1842, were wholly repealed in 1845. In 1833 the foreign wax retained for consumption amounted to 1,310 cwt. In 1867 the imports and re-exports of wax were respectively 9,856 and 4,674 cwt. Of 9,856 cwt. wax imported in 1867, and valued at 77,868*l.*, 1,334 cwt. came from Portugal, 1,061 cwt. from Morocco, 1,162 cwt. from the West Coast of Africa, 1,795 cwt. from the United States &c.

WEIGHTS AND MEASURES. Weights are used to ascertain the gravity of bodies—a quality depending partly on their magnitude and partly on their density. Measures are used to determine the magnitude of bodies, or the space which they occupy.

(For an account of the weights and measures used in foreign countries, and their equivalents in English weights and measures, see the notices of the great seaport towns dispersed throughout this work. Thus, for the Russian weights and measures, see *PETERSBURG*; for those of China, see *CANTON*; &c.)

Neither the magnitude nor the weight of any one body can be determined, unless by comparing it with some other body selected as a standard. It is impossible, indeed, to form any idea in respect of magnitude or weight, except in relation to some definite space or weight with which we are acquainted. We say that one article weighs 1 pound, another 2 pounds, a third 3 pounds, and so on; meaning not only that these weights are to each other as 1, 2, 3 &c., but also that the weight or specific gravity of the first is equal to the known and determinate weight denominated a pound, that the second is equal to 2 pounds, and so on.

Standards of Weight and Measure.—Standards of linear measure must have been fixed upon at the earliest period, and appear to have consisted principally of parts of the human body—as the cubit, or length of the arm from the elbow to the tip of the middle finger; the foot; the *ulna*, arm, or yard; the span; the digit, or finger; the fathom, or space from the extremity of one hand to that of the other, when they are both extended in opposite directions; the pace &c. Large spaces were estimated by measures formed out of multiples of the smaller ones; and sometimes in day's journeys, or by the space which it was supposed an ordinary man might travel in a day, using a reasonable degree of diligence.

But lineal measures can only be used to determine the magnitude of solid bodies; the magnitude of bodies in a liquid or fluid state has to be determined by what are called measures of capacity. It is probable that, in the infancy of society, shells, or other hollow instruments afforded by nature, were used as standards. But the inaccuracy of the conclusion drawn from referring to them must soon have become obvious; and it early occurred, that to obtain an accurate measure of liquids nothing more was necessary than to constitute an artificial one, the dimensions, and consequently the capacity, of which should be determined by the lineal measures previously adopted.

The determination of the gravity or weight of different bodies supposes the invention of the balance. Nothing is known of the steps which led to its introduction; but it was used in the remotest antiquity. It seems probable that, at first, cubes of some common lineal measure, as a foot, or the fraction of a foot, formed of copper, iron, or some other metal, were used as standards of weight. When the standard was selected, if it was desired to ascertain the specific gravity or weight of any given article, all that was necessary was to put it into one of the scales of the balance, and as many cubes or parts of cubes on the other as might be necessary to counterpoise it.

Weights have, however, been frequently derived from grains of corn. Hence, in this, and in some other European countries, the lowest denomination of weight is a *grain*; and 32 of these grains are directed, by the ancient statute called *Compositio Mensurarum*, to compose a pennyweight, whereof 20 make an ounce, 12 ounces a pound, and so upwards.

In every country in which commercial transactions are extensively carried on, the importance of having weights and measures determined by some fixed standard becomes obvious to everyone. But as the size of different parts of the human body differs in different individuals, it is necessary to select some durable article—a metallic rod, for example—of the length of an ordinary cubit, foot &c., and to make it a standard with which all the other cubits, feet &c. used in mensuration shall correspond. These standards have always been preserved with the greatest care: at Rome, they were kept in the temple of Jupiter; and among the Jews, their custody was intrusted to the family of Aaron. (Pauetou, *Métrologie*, p. 223.)

The principal standards used in the ancient world were, the cubit of the Jews, from which their other measures of length, capacity, and weight were derived; and the foot of the Greeks and Romans.

In England, our ancient historians tell us that a new, or rather a revived, standard of lineal measure was introduced by Henry I., who ordered that the ulna, or ancient ell, which corresponds to the modern yard, should be made of the exact length of his own arm, and that the other measures of length should be raised upon it. This standard has been maintained, without any sensible variation. In 1742 the Royal Society had a yard made, from a very careful comparison of the standard ells or yards of the reigns of Henry VII. and Elizabeth kept at the Exchequer. In 1758 an exact copy was made of the Royal Society's yard; and this copy having been examined by a committee of the House of Commons, and reported by them to be equal to the standard yard, it was marked as such; and this identical yard is declared, by the Act 5 Geo. IV. c. 74, to be the standard of lineal measure in Great Britain. The clause in the Act is as follows:—

'From and after the 1st of May, 1825 (subsequently extended to the 1st of January, 1826), the straight line or distance between the centres of the 2 points in the gold studs in the straight brass rod, now in the custody of the clerk of the House of Commons, whereon the words and figures "STANDARD YARD, 1760," are engraved, shall be the original and genuine standard of that measure of length or lineal extension called a yard; and the same straight line or distance between the centres of the said 2 points in the said gold studs in the said brass rod, the brass being at the temperature of 62° by Fahrenheit's thermometer, shall be and is hereby denominated the "IMPERIAL STANDARD YARD," and shall be and is hereby declared to be the unit or only standard measure of extension, wherefrom or whereby all other measures of extension whatsoever, whether the same be lineal, superficial, or solid, shall be derived, computed, and ascertained; and that all measures of length shall be taken in parts or multiples or certain proportions of the said standard yard; and that  $\frac{1}{4}$  of the said standard yard shall be a foot, and  $\frac{1}{12}$  of such foot shall be an inch; and that the pole or perch in length shall contain 5 $\frac{1}{2}$  such yards, the furlong 220 such yards, and the mile 1,760 such yards.' (Sec. 1.)

The superficial measures are formed on the basis of the square of this standard; it being enacted, that

'The rood of land shall contain 1,210 square yards, according to the said standard yard; and that the acre of land shall contain 4,840 such square yards, being 160 square perches, poles, or rods.' (Sec. 2.)

*Uniformity of Weights and Measures.*—The confusion and inconvenience attending the use of weights and measures of the same denomination, but of different magnitudes, were early remarked; and there is hardly a country in which efforts have not been made to reduce them to the same uniform system. Numerous Acts of Parliament have been passed, having this object in view, and enjoining the use of the same weights and measures, under very severe penalties. But, owing to the inveteracy of ancient customs, and the difficulty of enforcing new regulations, these statutes have always had a very limited influence, and the greatest diversity has continued to prevail, except in lineal measures. The statute of 5 Geo. IV. c. 74 seems to have, at length, effected what former statutes failed of accomplishing. It is, perhaps, indebted for its success in this respect to the moderate nature of the changes which it introduced. We have already seen that it made no alteration in the lineal measures previously in use. Neither did it affect the previously existing system of weights; both the Troy and the Avoirdupois weights having been preserved.

'The Troy weight,' says Mr. Davies Gilbert, late President of the Royal Society, 'appeared to us (the commissioners of weights and measures) to be the ancient weight of this Kingdom, having, as we have reason to suppose, existed in the same state from the time of St. Edward the Confessor; and there are reasons, moreover, to believe that the word Troy has no reference to any town in France, but rather to the monkish name given to London, of Troy Novant, founded on the legend of Brute. Troy weight, therefore, according to this etymology, is, in fact, London weight. We were induced, moreover, to preserve the Troy weight, because all the coinage has been uniformly regulated by it; and all medical prescriptions or formulæ now are, and always have been, estimated by Troy weight, under a peculiar sub-

division which the College of Physicians have expressed themselves most anxious to preserve.'

It was resolved, therefore, to continue the use of Troy weight; and also, on account of the accuracy of the Troy standard, to raise the Avoirdupois weight from this basis.

'We found,' said Mr. Davies Gilbert, 'the Avoirdupois weight, by which all heavy goods have been for a long time weighed (probably derived from Avoirs (Averia), the ancient name for goods or chattels, and Poids, weight), to be universally used throughout the kingdom. This weight, however, seems not to have been preserved with such scrupulous accuracy as Troy weight, by which more precious articles have been weighed; but we had reason to believe that the pound cannot differ by more than 1, 2, or 3 grains, from 7,000 grains Troy; some being in excess, and others, though in a less degree, in defect, but in no case amounting to above 1, 2, or 3 grains. It therefore occurred to us, that we should be offering no violence to this system of weights, if we declared that 7,000 grains Troy should be hereafter considered as the pound Avoirdupois.'

In accordance with these views, it was enacted—'That from and after the 1st day of May, 1825, the standard brass weight of 1 pound Troy weight, made in the year 1758, now in the custody of the clerk of the House of Commons, shall be, and the same is hereby declared to be, the original and genuine standard measure of weight, and that such brass weight shall be, and is hereby denominated, the Imperial Standard Troy pound, and shall be, and the same is hereby declared to be, the unit or only standard measure of weight, from which all other weights shall be derived, computed, and ascertained; and that  $\frac{1}{12}$  of the said Troy pound shall be an ounce; and that  $\frac{1}{20}$  of such ounce shall be a pennyweight; and that  $\frac{1}{24}$  of such pennyweight shall be a grain; so that 7,000 such grains shall be a Troy pound; and that 7,000 such grains shall be, and they are hereby declared to be, a pound Avoirdupois, and that  $\frac{1}{10}$  of the said pound Avoirdupois shall be an ounce Avoirdupois, and that  $\frac{1}{16}$  of such ounce shall be a dram.'

At the period of passing the statute 5 Geo. IV. c. 74, the measures of capacity were found to be in the greatest confusion; and a considerable change has consequently been made in them. The wine gallon formerly amounted to 231 cubic inches, the corn gallon to 268 8, and the ale gallon to 282. But these are superseded by the Imperial gallon, which contains 277 274 cubic inches, or 277 274 very nearly. It is deduced as follows:—

'The standard measure of capacity, as well for liquids as for dry goods not measured by heaped measure, shall be the GALLON, containing 10 lb. Avoirdupois weight of distilled water weighed in air, at the temperature of 62° of Fahrenheit's thermometer, the barometer being at 30 inches; and a measure shall be forthwith made of brass, of such contents as aforesaid, under the directions of the Lord High Treasurer or the Commissioners of his Majesty's Treasury; and such brass measure shall be, and is hereby declared to be, the Imperial standard gallon, and shall be, and is hereby declared to be, the unit and only standard measure of capacity, from which all other measures of capacity to be used, as well for wine, beer, ale, spirits, and all sorts of liquids, as for dry goods not measured by heaped measure, shall be derived, computed, and ascertained; and all measures shall be taken in parts or multiples or certain

proportions of the said Imperial standard gallon; and the quart shall be  $\frac{1}{4}$  of such standard gallon, and the pint shall be  $\frac{1}{2}$  of such standard gallon, and 2 such gallons shall be a peck, and 8 such gallons shall be a bushel, and 8 such bushels a quarter of corn or other dry goods, not measured by heaped measure.' (Sec. 6.)

We subjoin a Table showing the contents of the different gallons, both in measure and weight.

	Cubic Inches	Avoirdupois Weight		Troy Weight	
		lb.	oz.	dr.	gr.
Imperial gallon	277 274	10	0	12	1 16
Corn gallon	268 8	9	10	12	11 9 7 12
Wine gallon	231	8	5	8 4	10 1 9 2 4
Ale gallon	282	10	2	11 1	12 4 6 8

**Heaped Measures.**—The greatest blemish, by far, in the Act 5 Geo. IV. c. 74 was the continuance and legitimization of the practice of selling by heaped measure. This practice has since, however, been abolished, along with the use of all local and customary measures, by the Act 5 & 6 Wm. IV. c. 63, which contains several important provisions.

This Act sets out with repealing the 4 & 5 of Wm. IV. c. 49, and the provisions in the Acts 5 Geo. IV. c. 74, and 6 Geo. IV. c. 12, which require that all weights and measures shall be exact models or copies in shape or form of the standards deposited in the exchequer; and those allowing the use of weights and measures, not in conformity with the Imperial standard, established by said Acts; or that allow goods or merchandise to be bought or sold by weights or measures established by local custom, or founded on special agreement. It then goes on to enact as follows:—

**Weights and Measures stamped at the Exchequer declared legal.**—Weights and measures verified and stamped at the exchequer as copies of standard weights and measures, shall be taken to be legal weights and measures, to be used for comparison as copies of the Imperial standard weights and measures, although not similar in shape to those required under the provisions of the said Acts; and the Comptroller-General, or other duly authorised officer of the exchequer, may compare and verify, and stamp as correct, standard measures of a yard, standard weights and standard measures of capacity, any weights and measures which correspond in length, weight, and capacity with the standards, or parts or multiples thereof, deposited in the exchequer, under the 5 Geo. IV. c. 74, although such weights and measures may not be models or copies in shape or form of the standards so deposited. (Sec. 4.)

**Copies of the Standard Weights and Measures worn to be re-verified.**—All copies of the Imperial standard weights and measures which have become defective, or have been mended, in consequence of wear or accident, shall forthwith be sent to the exchequer, for the purpose of being again compared and verified, and shall be stamped as re-verified copies of such standard weights and measures, provided the Comptroller-General, or other officer appointed for such verification, deem them fit for the purposes of standards; and every new comparison and verification shall be indorsed upon the original indenture of verification; and such weights and measures shall be stamped upon payment of fees of verification only; and the Comptroller-General, or other officer, shall keep an account of all copies of the Imperial standard weights and measures verified at the exchequer. (Sec. 5.)

**Local and Customary Measures abolished.**—From and after the passing of this Act, the Win-

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chester bushel, the Scotch ell, and all local or customary measures, shall be abolished; and every person who shall sell by any measure other than one of the Imperial measures, or some multiple or aliquot part thereof, shall be liable to a penalty not exceeding 40s. for every such sale; but nothing therein shall prevent the sale of any articles in any vessel, where such vessel is not represented as containing any amount of Imperial measure, or of any fixed, local, or customary measure heretofore in use. (Sec. 6.)

**Heaped Measure abolished.**—From and after the passing of this Act, so much of the said Acts as relates to heaped measure is hereby repealed, and the use of heaped measure shall be abolished, and all bargains, sales, and contracts made after the passing of this Act, by heaped measure, shall be null and void; and every person who shall sell any articles by heaped measure shall be liable to a penalty not exceeding 40s. for every such sale. (Sec. 7.)

**Articles sold by Heaped Measure, how to be sold.**—Whereas some articles heretofore sold by heaped measure are incapable of being stricken, and may not be conveniently sold by weight; it is enacted, that all such articles may henceforth be sold by a bushel measure, corresponding in shape with the bushel prescribed by the 5 Geo. IV. c. 74, for the sale of heaped measure, or by any multiple or aliquot part thereof, filled in all parts as nearly to the level of the brim as the size and shape of the articles will admit; but nothing herein shall prevent the sale by weight of any article heretofore sold by heaped measure. (Sec. 8.)

**Coals to be sold by Weight.**—From and after January 1, 1836, all coals, slack, culm, and cannel, of every description, shall be sold by weight and not by measure, under a penalty of 40s. for every sale. (Sec. 9.)

**All Articles to be sold by Avoirdupois, except &c.**—From and after the passing of this Act, all articles sold by weight shall be sold by Avoirdupois weight, except gold, silver, platina, diamonds, or other precious stones, which may be sold by Troy weight; and drugs, which, when sold by retail, may be sold by Apothecaries' weight. (Sec. 10.)

**The Stone, Hundred Weight &c.**—From and after the passing of this Act, the weight denominated a stone shall, in all cases, consist of 14 standard pounds Avoirdupois, the hundred weight of 8 such stones, and the ton of 20 such hundred weights; but nothing herein shall prevent any bargain, sale, or contract being made by any multiple or aliquot part of the pound weight. (Sec. 11.)

**Contents of Weights and Measures to be stamped on them.**—All weights made after the passing of this Act of the weight of 1 pound Avoirdupois, or more, shall have the number of pounds contained in them stamped or cast on the top or side thereof in legible figures and letters; and all measures of capacity made after the passing of this Act shall have their contents stamped or marked on the outside thereof in legible figures and letters. (Sec. 12.)

**Weights of Lead or Pewter not to be stamped.**—The stamping of weights of lead or pewter, or of any mixture thereof, is prohibited after January 1, 1836; but nothing herein shall prevent the use of lead or pewter, or any mixture thereof, in the manufacture of weights wholly and substantially cased with brass, copper, or iron, and legibly stamped or marked 'cased,' or prevent the insertion of such a plug of lead or pewter into weights as shall be bona fide necessary for adjusting them and affixing the stamp thereon. (Sec. 13.)

**Conversion of Rents, Tolls &c.**—Clauses 14 and

15 regulate the proceedings that are to take place in England, Ireland, and Scotland, for the conversion of rents, tolls &c. payable in weights or measures now abolished into Imperial standard weights and measures.

**Fair Prices.**—In Scotland, from and after the passing of this Act, the fair prices of all grain in every county shall be struck by the Imperial quarter, and all other returns of the prices of grain shall be set forth by the same, without any reference to any other measure whatsoever; and any sheriff clerk, clerk of a market, or other person offending against this provision, shall forfeit not exceeding 5*l.* (Sec. 16.)

**Copies of Standards, Inspectors &c.**—Clauses 17, 18, 19, and 20 prescribe the mode in which copies of the standard weights and measures shall be provided in counties, cities, boroughs &c., the appointment of inspectors of weights and measures &c. Clause 22 orders that the expense of providing copies of standard weights, with the remuneration to inspectors, be defrayed out of the county rate. Clause 23 prohibits any maker or seller of weights or measures from being appointed inspector, and orders all inspectors to enter into a bond of 200*l.* for the due performance of the duties of their office, and the safe custody of the stamps and standard weights and measures committed to their care. Clause 24 orders inspectors to attend at market towns when ordered by justices. The following clauses are of general importance.

**Magistrates to procure Stamps for Inspectors for Stamping all Weights &c.**—In England the justices in general or quarter sessions assembled, and in Scotland the justices and magistrates at a meeting called by the sheriff, and in Ireland the grand juries, shall provide the inspectors with good and sufficient stamps for stamping or sealing weights and measures; and all weights and measures whatsoever, except as herein excepted, used for buying and selling, or for the collecting of any tolls or duties, or for the making of any charges on the conveyance of any goods or merchandise, shall be examined and compared with one or more copies of the Imperial standard weights and measures provided under authority of this Act for such inspectors, who shall stamp, so as best to prevent fraud, such weights and measures, if they be found to correspond with the said copies; and the fees for such examination, comparison, and stamping shall be those in the schedule at the end of this Act; and every person using any weight or measure other than those authorised by this Act, or some aliquot part thereof, or which has not been stamped as aforesaid, except as herein excepted, or which shall be found light or otherwise unjust, shall forfeit not exceeding 5*l.*; and any coin, act, bargain, or sale made by such weights or measures shall be wholly null and void; and every light or unjust weight and measure shall, on being discovered by any inspector, be seized, and, on conviction, forfeited; but nothing herein shall require any single weight above 56 lb. to be inspected and stamped, nor any wooden or wicker measure used in the sale of lime, or other articles of the like nature, or any glass or earthenware jug or drinking cup, though represented as containing the amount of any Imperial measure, or of any multiple thereof; but any person buying by any vessel represented as containing the amount of an Imperial measure, or of any multiple thereof, is authorised to require the contents of such vessel to be ascertained by comparison with a stamped measure, such measure to be provided by the person using such wooden or wicker measure, glass, jug, or drinking cup; and in case the person using such last-mentioned mea-

sure or vessel refuse to make such comparison, or if, upon comparison being made, it be found to be deficient in quantity, the person using the same shall be subject to the forfeitures and penalties imposed on those using light or unjust weights or measures. (Sec. 21.)

**Weights and Measures once stamped need not be re-stamped.**—No weight or measure duly stamped by any inspector appointed under the 4 & 5 Wm. IV. c. 47, or this Act, or by any person or persons authorised to examine and stamp weights or measures, shall be liable to be re-stamped, although the same be used in any other place than that at which it was originally stamped, but shall be considered as a legal weight or measure throughout the United Kingdom, unless found to be defective or unjust. (Sec. 27.)

**Power to Justices &c. to enter Shops and inspect Weights and Measures.**—Justices, sheriffs, magistrates, and inspectors are authorised to examine weights and measures, and to order such as are light or otherwise unjust to be seized and forfeited; those using such weights and measures are subjected to a penalty of not more than 5*l.*; and a like penalty is imposed on those refusing to produce such weights and measures, or obstructing the magistrates. (Sec. 28.)

**Penalties on Inspectors counterfeiting Stamps &c.**—Inspectors or other persons authorised to inspect weights or measures, who shall stamp any weight or measure without verifying the same, or who shall otherwise misconduct themselves in their office, shall for every such offence forfeit not more than 5*l.*; persons forging or counterfeiting any stamp or mark used for stamping or marking weights or measures, forfeit for every offence not more than 50*l.*, and not less than 10*l.*; and persons knowingly using weights or measures marked with such counterfeited stamps, forfeit for every offence not more than 10*l.* nor less than 2*l.* (Secs. 29, 30.)

**Penalty on Price Lists &c.**—From and after January 1, 1836, any person printing, or clerk of any market or other person making any return, price list, price current, or any journal or other paper containing price list or price current, in which the weights and measures quoted or referred to denote or imply a greater or less weight or measure than is denoted or implied by the same denomination of Imperial weights and measures under the provisions of this Act, shall forfeit and pay not exceeding 10*s.* for every copy of every such return, price list, price current, journal, or other paper which they publish.

The remaining clauses relate to the recovery of penalties; and save the rights of the Founders' Company, and of the Universities of Oxford and Cambridge.

**Schedule of Fees to be taken by all Inspectors of Weights and Measures appointed under the Authority of this Act.**

For examining, comparing, and stamping all brass weights, within their respective jurisdictions—

Each half hundred weight	-	-	-	d.
quarter of a hundred weight	-	-	-	6
stone	-	-	-	4
weight under a stone to a pound inclusive	-	-	-	1
weight under a pound	-	-	-	0½
set of weights of a pound and under	-	-	-	2

For examining, comparing, and stamping all iron weights, or weights of other descriptions, not made of brass, within their respective jurisdictions—

Each half hundred weight	-	-	-	d.
quarter of a hundred weight	-	-	-	5
stone	-	-	-	2
weight under a stone	-	-	-	1
weight under a pound	-	-	-	0½
set of weights of a pound and under	-	-	-	2

For examining, comparing, and stamping all wooden measures, within their respective jurisdictions—

Each bu-she'l	-	-	-	d.
half bushel	-	-	-	5
peck, and all under	-	-	-	2
yard	-	-	-	0½

For examining, comparing, and stamping all measures of capacity of liquids, made of copper or other metal, within their respective jurisdictions—

Each five gallon	-	-	-	d.
four gallon	-	-	-	0
three gallon	-	-	-	6
two gallon	-	-	-	4
gallon	-	-	-	2
half gallon	-	-	-	0 1
quarter and under	-	-	-	0 0½

The propriety of allotting a separate office for the preservation and re-adjustment of standards having been considered by the Standard Commission of 1841, and various committees in 1854, 1862, and 1864, an Act was at length passed, 29 & 30 Vict. c. 82, called the Standard of Weights and Measures and Coinage Act of 1866. This Act—1st, transfers from the Exchequer to the Board of Trade all duties in connection with the custody and management of the Parliamentary and secondary standard of weights and measures; 2nd, establishes a standard department; 3rd, provides for the reverification of these standards, and for allowance of errors in the comparison of standards; 4th, abolishes stamp duty and fees taken at the Exchequer on the verification of standards; and 5th, directs an annual Report to the Board of Trade on the proceedings of the Government to be laid before Parliament. It would appear, from the first Report of Mr. Chisholm, Warden of the Standards, that from 1860 down to 1867, 5,542 standards have been verified for the first time, and 11,108 reverified.

The Acts 22 & 23 Vict. c. 56, and 23 & 24 Vict. c. 119 s. 15, provide that no copies of the standard weights shall be legal unless compared or reverified every 5 years, and copies of the standard measures to be compared every 10 years.

**Invariable or Natural Standards.**—As the standards adopted in most countries have been in a great degree arbitrary, it has long been the opinion of scientific men that to construct a more perfect system of weights and measures, some natural and unchangeable basis should be adopted. It has, indeed, been contended by Pauton and Bailly, that the measures of the ancients were deduced from a basis of this sort; and that the *stadium* always formed an aliquot part of the earth's circumference, that part differing amongst different nations and authors. But no learning or ingenuity can induce anyone to believe that is so obviously incredible. The ancients had no means of determining the earth's circumference with anything like the accuracy required to render it the great unit of a system of measures; and, what is equally decisive, no ancient author ever makes the slightest allusion to any such standard.

In more modern times, however, the idea of seeking for a unit of weight and measure in some unchanging natural object has been practically carried into effect. The standards that have been usually proposed for this object have been some aliquot part of the quadrant of the meridian, or the length of a pendulum vibrating seconds in some given latitude. The latter has been in so far adopted into the existing system of weights and measures established by the Act of 1823, that the length of the standard yard, as compared with that of a pendulum vibrating seconds in the latitude of London, is specified in the Act as follows:—

Whereas it has been ascertained by the commissioners appointed by his Majesty to enquire into the subject of weights and measures, that the said yard hereby declared to be the Imperial standard yard, when compared with a pendulum vibrating seconds of mean time in the latitude of London, in a vacuum at the level of the sea, is in the proportion of 36 inches to 39 inches and 1,393 ten-thousandth parts of an inch; be it therefore enacted and declared, that if at any time hereafter the said Imperial standard yard shall be lost, or shall be in any manner destroyed, defaced, or otherwise injured, it shall and may be restored by making, under the direction of the Lord High Treasurer, or the commissioners of his Majesty's Treasury of the United Kingdom of Great Britain and Ireland, or any three of them for the time being, a new standard yard, bearing the same proportion to such pendulum, as aforesaid, as the said Imperial standard yard bears to such pendulum.

TABLES OF ENGLISH WEIGHTS AND MEASURES, ACCORDING TO THE NEW OR IMPERIAL MEASURE.

*Imperial Troy Weight.*

The standard pound containing 5,760 gra.

		French Grammes.
24 Grains	= 1 Grain	= 0.0648
20 Pennyweights	= 1 Pennyweight	= 1.5552
32 Ounces	= 1 Ounce	= 31.1027
	= 1 Pound	= 373.2350

Troy weight is used in the weighing of gold, silver, jewels &c. It is also used in ascertaining the strength of spirituous liquors; in philosophical experiments; and in comparing different weights with each other.

*Apothecaries' Weight.*

		Fr. Gramm.
20 Grains	= 1 Grain	= 0.0648
3 Scruples	= 1 Scruple	= 1.2960
8 Drains	= 1 Dram	= 3.8880
12 Ounces	= 1 Ounce	= 31.1027
	= 1 Pound	= 373.2350

This weight is essentially the same as troy weight, but differently divided. It is chiefly used for medical prescriptions; but drugs are mostly bought and sold by avoirdupois weight.

*Diamond Weight.*—Diamonds and other precious stones are weighed by carats, the carat being divided into 4 grains, and the grain into 16 parts. The diamond carat weighs  $3\frac{1}{2}$  grains troy: thus,

Diamond Weight	Troy Weight	Decigrammes
16 Parts = 1 Grain	$\frac{0.8}{16}$ grains	= 51 $\frac{1}{2}$
4 Grains = 1 Carat	$3\frac{1}{2}$	= 205 $\frac{1}{2}$

*Imperial Avoirdupois Weight.*

		Fr. Grammes
16 Drains	= 1 Dram	= 1.771
16 Ounces	= 1 Ounce	= 28.346
28 Pounds	= 1 Pound	= 853.544
4 Quarters	= 1 Quarter	= 12,690 kil.
20 Hundredweights	= 1 Hundredwt.	= 50,796 "
	= 1 Ton	= 1015,920 "

The dram is subdivided into 3 scruples, and each scruple into 10 grains; the pound, or 7,680 grains avoirdupois, equals 7,000 grains troy, and hence 1 grain troy equals 1.097 grains avoirdupois.

Hence also 111 lb. avoirdupois = 175 lb. Troy and 192 oz. " = 175 oz. "

The stone is generally 14 lb. avoirdupois weight, but for butcher's meat or fish it is 8 lb. Hence the hundred weight (cwt.) equals 8 stone of 14 lb. or 14 stone of 8 lb.

A stone of glass is 5 lb. A seam of glass is 24 stone, or 120 lb.

Hay and straw are sold by the load of 36 trusses.

The truss of hay weighs 56 lb. and of straw 36

lb. The truss of new hay is 60 lb. until September 1.

The custom of allowing more than 16 ounces to the pound of butter used to be very general in several parts of the country.

*Cheese and Butter.*

8 Pounds	= 1 Cheese
72 Cloves	= 1 W. y in Essex
42 "	= 1 " Suffolk
56 Pounds	= 1 Firkin of butter

*Imperial Long Measure.*

		Fr. Metres
12 Inches	= 1 Foot	= 0.3048
3 Feet	= 1 Yard	= 0.9144
54 Yards	= 1 Pole or Rod	= 50.901
40 Poles	= 1 Furlong	= 201.1652
4 Furlongs	= 1 Mile	= 1609.3472
3 Miles	= 1 League	= 1827.3172
60 Geographical or 69 English Miles	1 Degree	= 11120.7112

Besides the above, there are the palm, which equals 3 inches; the haul, 4 inches; the span, 9 inches; and the fathom, 6 feet.

*Imperial Superficial Measure.*

		Fr. Sq. Metres
111 Inches	= 1 Square Foot	= 0.0929
9 Square Feet	= 1 Square Yard	= 0.8361
304 Square Yards	= 1 Square Pole	= 27.7061
40 Square Poles	= 1 Rood	= 1011.8562
4 Roods	= 1 Acre	= 10116.5448

The inch is generally divided, on scales, into 10ths, or decimal parts; but in squaring the dimensions of artificers' work, the duodecimal system is adopted; the inch being divided into 12 parts or lines, each part into 12 seconds, and each second into 12 thirds.

Land is usually measured by a chain of 4 poles, or 22 yards, which is divided into 100 links. Ten chains in length and 1 in breadth make an acre, which equals 160 square perches, or 4,840 square yards.

*Cubic or Solid Measure.*

		Fr. Cubic Metres
1,728 Cubic Inches	= 1 Cubic Foot	= 0.0274
27 Cubic Feet	= 1 Cubic Yard	= 2.7031
40 Feet of rough timber, or 50 Feet hewn do.	= 1 Load or Ton	= 11.156
12 Cubic Feet	= 1 Ton of shipping	= 1.1832

By cubic measure, marble, stone, timber, masonry, and all artificers' works of length, breadth, and thickness, are measured, and also the contents of all measures of capacity, both liquid and dry.

*Imperial Liquid and Dry Measure, deduced from the Standard Gallon, containing 10 lb. weight of Distilled Water, temperature 62°, barometer 30 inches.*

Weight of Water	Cubic Feet	Cubic Inches	Gills	Pints	Quarts	Pecks		Bushels	
						Winchester	London	Winchester	London
5 oz.		8.665	1						
lb. 14		31.659	4	1					
24		69.318	8	2					
5		138.637	16	4					
10		277.274	32	8					
20		554.548	64	16					
40		1109.096	128	32					
60		1663.644	192	48					
80		2218.192	256	64					
100		2772.740	320	80					
200		5545.480	640	160					
400		11090.960	1280	320					
600		16636.440	1920	480					

The dimensions of the Imperial standard bushel are as follows:—the outer diameter 19 $\frac{1}{2}$  inches, and the inner diameter 18 $\frac{1}{2}$ . The depth is 8 $\frac{1}{2}$ , and the height of the cone, for heaped measure, is 6 inches. The contents of the Imperial heaped bushel were 2815.4887 cubic inches. The subdivisions and multiples are in the same proportion.

*Wool Weight*

Like all other bulky articles, wool is weighed

hay is 60 lb. until Sep-  
ting more than '6 ounces  
used to be very general in  
entry.

**and Butter.**  
1 Clove = 1 Clove  
1 Way in Essex = 1 Way in Essex  
1 Saffron = 1 Saffron  
1 Firkin of butter = 1 Firkin of butter

**Long Measure.**  
Fr. Metres  
1 Foot = 0.3048  
1 Yard = 0.9144  
1 Pole or Rod = 5.0292  
1 Furlong = 201.1662  
1 Mile = 1609.344  
1 League = 1927.9129  
1 Degree = 11120.7112

here are the palm, which  
and, 4 inches; the span, 9  
1, 6 feet.

**Superficial Measure.**  
Fr. Sq. Metres  
1 Square Foot = 0.0929  
1 Square Yard = 0.8361  
1 Square Pole = 27.9993  
1 Rood = 1011.0662  
1 Acre = 10110.6604

ly divided, on scales, into  
parts; but in squaring the  
rs' work, the duodecimal  
e inch being divided into  
part into 12 seconds, and  
irds.

ured by a chain of 4 poles,  
divided into 100 links. Ten  
in breadth make an acre.  
re perches, or 4,840 square

**Solid Measure.**  
Fr. Cubic Metres  
1 Cubic Foot = 0.0283  
1 Cubic Yard = 0.7646  
1 Load or Ton = 1.3522  
1 Ton of shipping = 1.5927

marble, stone, timber, ma-  
s' works of length, breadth,  
asured, and also the contents  
eity, both liquid and dry.

**Dry Measure, deduced from  
m, containing 10 lb. weight  
temperature 62°, barometer**

Gills	Pints	Quarts	Pottles	Gallons	Pecks	Bushels	Chaldons	Measure
1	2	4	8	16	32	64	128	1
2	4	8	16	32	64	128	256	2
4	8	16	32	64	128	256	512	4
8	16	32	64	128	256	512	1024	8
16	32	64	128	256	512	1024	2048	16
32	64	128	256	512	1024	2048	4096	32
64	128	256	512	1024	2048	4096	8192	64
128	256	512	1024	2048	4096	8192	16384	128
256	512	1024	2048	4096	8192	16384	32768	256
512	1024	2048	4096	8192	16384	32768	65536	512
1024	2048	4096	8192	16384	32768	65536	131072	1024
2048	4096	8192	16384	32768	65536	131072	262144	2048
4096	8192	16384	32768	65536	131072	262144	524288	4096
8192	16384	32768	65536	131072	262144	524288	1048576	8192
16384	32768	65536	131072	262144	524288	1048576	2097152	16384
32768	65536	131072	262144	524288	1048576	2097152	4194304	32768
65536	131072	262144	524288	1048576	2097152	4194304	8388608	65536
131072	262144	524288	1048576	2097152	4194304	8388608	16777216	131072
262144	524288	1048576	2097152	4194304	8388608	16777216	33554432	262144
524288	1048576	2097152	4194304	8388608	16777216	33554432	67108864	524288
1048576	2097152	4194304	8388608	16777216	33554432	67108864	134217728	1048576
2097152	4194304	8388608	16777216	33554432	67108864	134217728	268435456	2097152
4194304	8388608	16777216	33554432	67108864	134217728	268435456	536870912	4194304
8388608	16777216	33554432	67108864	134217728	268435456	536870912	1073741824	8388608
16777216	33554432	67108864	134217728	268435456	536870912	1073741824	2147483648	16777216
33554432	67108864	134217728	268435456	536870912	1073741824	2147483648	4294967296	33554432
67108864	134217728	268435456	536870912	1073741824	2147483648	4294967296	8589934592	67108864
134217728	268435456	536870912	1073741824	2147483648	4294967296	8589934592	17179869184	134217728
268435456	536870912	1073741824	2147483648	4294967296	8589934592	17179869184	34359738368	268435456
536870912	1073741824	2147483648	4294967296	8589934592	17179869184	34359738368	68719476736	536870912
1073741824	2147483648	4294967296	8589934592	17179869184	34359738368	68719476736	137538953472	1073741824
2147483648	4294967296	8589934592	17179869184	34359738368	68719476736	137538953472	275077906944	2147483648
4294967296	8589934592	17179869184	34359738368	68719476736	137538953472	275077906944	550155813888	4294967296
8589934592	17179869184	34359738368	68719476736	137538953472	275077906944	550155813888	1100311627776	8589934592
17179869184	34359738368	68719476736	137538953472	275077906944	550155813888	1100311627776	2200623255552	17179869184
34359738368	68719476736	137538953472	275077906944	550155813888	1100311627776	2200623255552	4401246511104	34359738368
68719476736	137538953472	275077906944	550155813888	1100311627776	2200623255552	4401246511104	8802493022208	68719476736
137538953472	275077906944	550155813888	1100311627776	2200623255552	4401246511104	8802493022208	17604986044416	137538953472
275077906944	550155813888	1100311627776	2200623255552	4401246511104	8802493022208	17604986044416	35209972088832	275077906944
550155813888	1100311627776	2200623255552	4401246511104	8802493022208	17604986044416	35209972088832	70419944177664	550155813888
1100311627776	2200623255552	4401246511104	8802493022208	17604986044416	35209972088832	70419944177664	14083988235328	1100311627776
2200623255552	4401246511104	8802493022208	17604986044416	35209972088832	70419944177664	14083988235328	28167976470656	2200623255552
4401246511104	8802493022208	17604986044416	35209972088832	70419944177664	14083988235328	28167976470656	56335952941312	4401246511104
8802493022208	17604986044416	35209972088832	70419944177664	14083988235328	28167976470656	56335952941312	112671905882624	8802493022208
17604986044416	35209972088832	70419944177664	14083988235328	28167976470656	56335952941312	112671905882624	225343811765248	17604986044416
35209972088832	70419944177664	14083988235328	28167976470656	56335952941312	112671905882624	225343811765248	450687623530496	35209972088832
70419944177664	14083988235328	28167976470656	56335952941312	112671905882624	225343811765248	450687623530496	901375247060992	70419944177664
14083988235328	28167976470656	56335952941312	112671905882624	225343811765248	450687623530496	901375247060992	1802750494121984	14083988235328
28167976470656	56335952941312	112671905882624	225343811765248	450687623530496	901375247060992	1802750494121984	3605500988243968	28167976470656
56335952941312	112671905882624	225343811765248	450687623530496	901375247060992	1802750494121984	3605500988243968	7211001976487936	56335952941312
112671905882624	225343811765248	450687623530496	901375247060992	1802750494121984	3605500988243968	7211001976487936	14422003952975872	112671905882624
225343811765248	450687623530496	901375247060992	1802750494121984	3605500988243968	7211001976487936	14422003952975872	28844007905951744	225343811765248
450687623530496	901375247060992	1802750494121984	3605500988243968	7211001976487936	14422003952975872	28844007905951744	57688015811903488	450687623530496
901375247060992	1802750494121984	3605500988243968	7211001976487936	14422003952975872	28844007905951744	57688015811903488	115376031623807936	901375247060992
1802750494121984	3605500988243968	7211001976487936	14422003952975872	28844007905951744	57688015811903488	115376031623807936	230752063247615872	1802750494121984
3605500988243968	7211001976487936	14422003952975872	28844007905951744	57688015811903488	115376031623807936	230752063247615872	461504126495231744	3605500988243968
7211001976487936	14422003952975872	28844007905951744	57688015811903488	115376031623807936	230752063247615872	461504126495231744	923008252990463488	7211001976487936
14422003952975872	28844007905951744	57688015811903488	115376031623807936	230752063247615872	461504126495231744	923008252990463488	1846016505980926976	14422003952975872
28844007905951744	57688015811903488	115376031623807936	230752063247615872	461504126495231744	923008252990463488	1846016505980926976	3692033011961853952	28844007905951744
57688015811903488	115376031623807936	230752063247615872	461504126495231744	923008252990463488	1846016505980926976	3692033011961853952	7384066023923707904	57688015811903488
115376031623807936	230752063247615872	461504126495231744	923008252990463488	1846016505980926976	3692033011961853952	7384066023923707904	14768132047847415808	115376031623807936
230752063247615872	461504126495231744	923008252990463488	1846016505980926976	3692033011961853952	7384066023923707904	14768132047847415808	29536264095694831616	230752063247615872
461504126495231744	923008252990463488	1846016505980926976	3692033011961853952	7384066023923707904	14768132047847415808	29536264095694831616	59072528191389663232	461504126495231744
923008252990463488	1846016505980926976	3692033011961853952	7384066023923707904	14768132047847415808	29536264095694831616	59072528191389663232	118145056382779326464	923008252990463488
1846016505980926976	3692033011961853952	7384066023923707904	14768132047847415808	29536264095694831616	59072528191389663232	118145056382779326464	236290112765558652928	1846016505980926976
3692033011961853952	7384066023923707904	14768132047847415808	29536264095694831616	59072528191389663232	118145056382779326464	236290112765558652928	472580225531117305728	3692033011961853952
7384066023923707904	14768132047847415808	29536264095694831616	59072528191389663232	118145056382779326464	236290112765558652928	472580225531117305728	945160451062234611456	7384066023923707904
14768132047847415808	29536264095694831616	59072528191389663232	118145056382779326464	236290112765558652928	472580225531117305728	945160451062234611456	1890320902124469222912	14768132047847415808
29536264095694831616	59072528191389663232	118145056382779326464	236290112765558652928	472580225531117305728	945160451062234611456	1890320902124469222912	3780641804248938445824	29536264095694831616
59072528191389663232	118145056382779326464	236290112765558652928	472580225531117305728	945160451062234611456	1890320902124469222912	3780641804248938445824	7561283608497876891648	59072528191389663232
118145056382779326464	236290112765558652928	472580225531117305728	945160451062234611456	1890320902124469222912	3780641804248938445824	7561283608497876891648	15122567216995753783296	118145056382779326464
236290112765558652928	472580225531117305728	945160451062234611456	1890320902124469222912	3780641804248938445824	7561283608497876891648	15122567216995753783296	30245134433991515566592	236290112765558652928
472580225531117305728	945160451062234611456	189032090212446922291						

In some markets, corn is sold by weight, which is the fairest mode of dealing, though not the most convenient in practice. Even where measures are used, it is customary to weigh certain quantities or proportions, and to regulate the prices accordingly. The average bushel of wheat is generally reckoned at 60 lb.; of barley 47 lb.; of oats 38 lb.; peas 64 lb.; beans 63 lb.; clover 68 lb.; rye and canary 53 lb., and rape 48 lb. In some places a load of corn for a man is reckoned 5 bushels, and a cart load 40 bushels.

Table of Winchester Quarters, from 1 to 100, with their Equivalents in Imperial Quarters.

Winchester Qr.	Equivalents in Imperial Qr.						
1	0.96615	26	25.20562	51	49.41180	76	73.67767
2	1.93230	27	26.17607	52	50.38225	77	74.64812
3	2.89845	28	27.14652	53	51.35270	78	75.61857
4	3.86460	29	28.11697	54	52.32315	79	76.58902
5	4.83075	30	29.08742	55	53.29360	80	77.55947
6	5.79690	31	30.05787	56	54.26405	81	78.52992
7	6.76305	32	31.02832	57	55.23450	82	79.50037
8	7.72920	33	31.99877	58	56.20495	83	80.47082
9	8.69535	34	32.96922	59	57.17540	84	81.44127
10	9.66150	35	33.93967	60	58.14585	85	82.41172
11	10.62765	36	34.91012	61	59.11630	86	83.38217
12	11.59380	37	35.88057	62	60.08675	87	84.35262
13	12.56000	38	36.85102	63	61.05720	88	85.32307
14	13.52615	39	37.82147	64	62.02765	89	86.29352
15	14.49230	40	38.79192	65	62.99810	90	87.26397
16	15.45845	41	39.76237	66	63.96855	91	88.23442
17	16.42460	42	40.73282	67	64.93900	92	89.20487
18	17.39075	43	41.70327	68	65.90945	93	90.17532
19	18.35690	44	42.67372	69	66.87990	94	91.14577
20	19.32305	45	43.64417	70	67.85035	95	92.11622
21	20.28920	46	44.61462	71	68.82080	96	93.08667
22	21.25535	47	45.58507	72	69.79125	97	94.05712
23	22.22150	48	46.55552	73	70.76170	98	95.02757
24	23.18765	49	47.52597	74	71.73215	99	95.99802
25	24.15380	50	48.49642	75	72.70260	100	96.96847

Coal Measure.

- 4 Pecks = 1 Bushel
- 3 Bushels = 1 Sack
- 3 Sacks = 1 Vat
- 4 Vats = 1 Chaldron
- 21 Chaldrons = 1 Score

Coal Measure.—Coals were formerly sold by the chaldron, which bears a certain proportion to Winchester measure.

The coal bushel holds 1 Winchester bushel more than the Winchester bushel; its contents being 2217.62 cubic inches. It is 19½ inches wide from outside to outside, and 8 inches deep. In measuring coals it was heaped up in the form of a cone, to the height of at least 6 inches above the brim (according to a regulation passed at Guildhall in 1806), the outside of the bushel being the extremity of the cone, so that the bushel should contain at least 2814.9 cubic inches, nearly equal to the Imperial heaped bushel. Hence the chaldron should measure 58.64 cubic feet.

But the sale of coals by measure has, in consequence of the frauds to which it led [COAL], been abolished; and they are now sold by weight.

Of Wood Fuel English Measure.—Wood fuel is assized into shids, billets, faggots, fall wood, and cord wood. A shid is to be 4 feet long, and according as they are marked and notched, their proportion must be in the girth; viz. if they have but 1 notch, they must be 16 inches in the girth; if 2 notches, 23 inches; if 3 notches, 28 inches; if 4 notches, 33 inches; and if 5 notches, 38 inches about. Billets are to be 3 feet long, of which there should be 3 sorts; viz. a single cask, and a cask of 2; the 1st is 7 inches, the 2nd 10 inches, and the 3rd 14 inches about: they are sold by the 100 of 5 score. Faggots are to be 3 feet long, and at the band 24 inches about, besides the knot of such faggots; 60 go to the load. Bavins and spray wood are sold by the 100, which are

accounted a load. Cord wood is the bigger sort of firewood, and it is measured by a cord, or line, whereof there are 2 measures; that of 14 feet in length, 3 feet in breadth, and 3 feet in height. The other is 8 feet in length, 4 feet in height, and 4 feet in breadth.

Measures of Wood.

- 1,000 billets of wood = 1 Cord
- 10 w. = 1 Cord
- 1 Cord = 1 Chaldron of coals
- 100 lb. = 1 Quintal of wood

French System of Weights and Measures.—The new metrical system established in France subsequently to the Revolution is founded on the measurement of the quadrant of the meridian, or of the distance from the pole to the equator. This distance having been determined with the greatest care, its ten-millionth part was assumed as the *mètre*, or unit of length, all the other linear measures being multiples or submultiples of it, in decimal proportion. The *mètre* corresponds pretty nearly to the ancient French *aune*, or yard, being equal to 3.07844 French feet, or 3.281 English feet, or 39.3708 English inches.

The unit of weight is the *gramme*, which is a cubic centimetre, or the 100th part of a *mètre* of distilled water of the temperature of melting ice; it weighs 15.434 English troy grains.

In order to express the decimal proportion, the following vocabulary of names has been adopted, in which the terms for multiplying are Greek, and those for dividing Latin:—

- For multipliers, the word
- Deca prefixed means - 10 times
- Hecto " " - 100 "
- Kilo " " - 1,000 "
- Myria " " - 10,000 "

- On the contrary, for divisors,
- the word Deci expresses the - 10th part
- Centi " " - 100th "
- Milli " " - 1,000th "

- Thus, *Décamètre* means 10 *mètres*.
- Décimètre* " the 10th part of a *mètre*
- Milli* " " 1,000th "
- Kilogramme* " 1,000 grammes &c.

The *are* is the element of square measure, being a square decamètre, equal to 3.955 English perches.

The *stère* is the element of cubic measure, and contains 35.317 cubic feet English.

The *litre* is the element of all measures of capacity. It is a cubic decimetre, and equals 2.1135 English pints. 100 litres make the hectolitre, which equals 26.419 wine gallons, or 2.838 Winchester bushels.

*Système Usuel, or Binary System.*—This new system has the metrical standard for its basis, but their divisions are binary, that is, by 2, 4, 8 &c.; and instead of the new vocabulary, the names of the ancient weights and measures are used, annexing the term *usuel* to each. Thus the half kilogramme is called the *livre usuelle*, and the double metre the *toise usuelle*.

The following tables show the proportions between the new or metrical French system and the English system:—

Comparison of French and English Weights and Measures, containing the New or Metrical Weights and Measures of France, with their Proportion to those of England, both according to the Decimal System and the *Système usuel*.

DECIMAL SYSTEM.

Long Measures.

French	English
Millimètre	= 0.03937 in.
Centimètre	= 0.39371 "
Décimètre	= 3.93710 "
Mètre	= 39.37100 "
Décamètre	= 39.37106 ft.
Héctomètre	= 79.89167 "
Kilomètre	= 1093.63990 yds.
Myriamètre	= 10936.39900 "

or 6 miles 1 furlong, 43 poles

wood is the bigger sort measured by a cord, or line, sures; that of 14 feet in h, and 3 feet in height, length, 4 feet in height,

of Wood.

- = 1 Cord
- = 1 Cord
- = 1 Chaldron of coals
- = 1 Quintal of wood

**Weights and Measures.**—The established in France substitution is founded on the quadrant of the meridian, or the pole to the equator, been determined with the month part was assumed length, all the other lineal or submultiples of it, The mètre corresponds ancient French *aune*, or 3.07844 French feet, or 37.08 English inches.

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- 10 lines
- 100 "
- 1,000 "
- 10,000 "

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" - 100th "  
" - 1,000th "  
10 mètres  
the 10th part of a mètre  
1,000 grammes &c.

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ent of all measures of ca- ble decimètre, and equals 100 litres make the hecto- 19 wine gallons, of 2.838

**Binary System.**—This new standard for its basis, binary, that is, by 2, 4, 8 the new vocabulary, the weights and measures are in *usage* to each. Thus the led the livre usuelle, and use usuelle.

show the proportions be- cal French system and the

**and New Weights and of the New or Metrical res of France, with their of England, both according n and the Systeme usuel.**

L. SYSTEME.

- Measures.**
- = English
  - = 0.9597 in.
  - = 0.95971 "
  - = 3.33710 "
  - = 39.37101 "
  - = 39.8016 lb.
  - = 528.9167 "
  - = 1013.6700 yds.
  - = 109.36 38900 "
  - = 5 miles 1 furlong 25 poles

**Solid Measures.**

Decistère -	=	3.5517 cubic ft.
Mètre (a cubic mètre)	=	35.3174 "
Décastère	=	353.1741 "

**Measures of Capacity.**

Millitre -	=	0.06103 cubic in.
Centilitre -	=	0.61028 "
Déclilitre -	=	6.10280 "
Litre (a cubic)	=	61.02837 "
Decimètre } (decimètre) }	=	for 2.1135 wine pt.
Décalitre -	=	610.2837 cubic in.
Hectolitre -	=	6.1028 wine gal.
	or,	26.419 wine gal. 22 Imp. gal.
	or,	2.839 Winchester bush.
Kilolitre -	=	3.9517 cubic ft.
	or,	1 tun and 12 wine gal.
Myrialitre -	=	353.1746 cubic ft.

**Superficial Measures.**

Centiare -	=	1.1960 sq. yd.
Are (a square decimètre)	=	119.6016 "
Hectare -	=	11960.1600 "
Hectiare -	=	11960.1644 "
	or,	2 acres 1 rood 35 perches

**Weights.**

Milligramme -	=	0.0514 grains
Centigramme -	=	0.1515 "
Déigramme -	=	1.5151 "
Gramme -	=	15.1340 "
Déagramme -	=	151.5402 "
Hectogramme -	=	3.2154 oz. Troy,
	or	3.527 oz. avoirdupois
Kilogramme -	=	2 lbs. 8 oz. 3 dwt. 2 gr. Troy,
	or	2 lb. 3 oz. 45.2 drams avoirdupois
Myriagramme -	=	26.795 lb. Troy,
	or	22.0490 lb. avoirdupois
Quintal -	=	1 cent. 3 gr. 25 lb. nearly
Millier, or Bar -	=	9 tons 10 cwt. 3 gr. 12 lb.

**SYSTEME USUEL.**

**Comparison of Weight.**

Grammes	Troy Weight		Avoirdupois	
	lb. oz. dwt. gr.	lb. oz. dr.	lb. oz. dr.	lb. oz. dr.
1,000	= 2 8 3 2	= 2 5 44		
500	= 1 4 1 13	= 1 1 10 1/2		
250	= 8 0 18 5	= 8 1 13 1/2		
Quarter	= 4 0 9 25	= 4 6 3		
Eighth	= 2 0 4 5	= 2 5 3 1/2		
Ounce	= 1 0 2 25	= 1 1 1 1/2		
Half	= 10 1 125	= 8 1/2		
Quarter	= 5 0 5	= 4 1/4		
Grain	= 2 12 25	= 2 1/2		

**Comparison of Linear Measure.**

Mesures usuelles	English Measures		
	mètres	feet	inch part
Toise usuelle	= 6 6 9		
Foot, or foot	= 0 1 1 3/4		
Inch	= 0 1 1 3/4		
Aune	= 1 1 1 3/4		
Half	= 1 11 7 1/2		
Quarter	= 0 11 9 3/4		
Eighth	= 0 5 10 3/4		
Sixteenth	= 0 2 11 1/4		
One third of an aune	= 1 3 9		
Sixth	= 0 7 10 1/2		
Twelfth	= 0 3 10 1/2		

**Comparison of Measures of Capacity.**

Boisseau usuel	Litres		Eng. Winch. Bush.
	Litres	Eng. Winch. Bush.	
	= 12.5	= 0.5371	
With halves and quarters in proportion.			
	Paris Pinte		English Pint.
Litron usuel	= 1.074	= 1/2	
With halves and quarters in proportion.			

**Ancient Weights and Measures.**—This subject is involved in considerable difficulty; and to enter fully into it would be quite inconsistent with our objects and limits. But the following details, abstracted from the best authorities, may be useful to such of our readers as have occasion to look into the ancient authors.

**TABLE OF VARIOUS ANCIENT WEIGHTS (according to different Authorities).**

	English Troy Grains
Attic obolus -	87 Chaldran
	9 1 Arbutnot
	51 2 Chr.
Attic drachma -	316 Arb.
	63 Paucion
Lesser Mina -	3,892 Chr.
	5,189 Chr.
Greater Mina -	5,494 Arb.
	6,001 Pauc.
Medical Mina -	6,594 gr. Arb.
Talent = 60 minas = 1 cwt.	English
Old Greek drachm	180 5 Eng. Troy gr. Arb.
	67 5 = Roman denarius,
	Arb.
Old Greek mina -	6,423 Arb.
Egyptian mina -	5,326 Arb.
Ptolemaic mina of Cleopatra -	6,985 Arb.
Alexandrian mina of Dionysius -	9,992 Arb.
Roman denarius -	51.9 = 48 Rom. oz. Chr.
	62.5 = 1/2 Rom. oz. Arb.
Denarius of Nero	54 Pauc.
Papyrus	61.7 Pauc.
Ounce -	415.1 Chr.
	437.2 Arb.
	451.2 Pauc.
Pound of 10 oz. -	4,150 Chr.
	4,981 Chr.
	5,216 Arb.
12 oz. -	5,174.4 Pauc.

**SCRIPTURE MEASURES OF LENGTH. (Arbutnot and Hutton.)**

Digit	=	0.7125	Inches
Palms	=	2.97	
Span	=	9.91	
	=	Eng. Feet	
Lower cubit	=	1.485	
Sacred cubit	=	1.7325	
	=	Yards	
Fathom	=	6.31	
Ezekiel's reed	=	5.465	
Arabian pole	=	4.92	
Schekanus	=	46.2	
Stadium	=	351	
Sabbath day's journey	=	1,135	Miles
Eastern mile	=	1.846	
Parasang	=	3.658	
Day's journey	=	33.261	

**GREEK MEASURES OF LENGTH. (Arbutnot and Hutton.)**

Dactylus	=	0.73346	Inches
Dorum	=	3.02187	
Boehme	=	7.55168	
Dichas	=	83.1015	
Orthodaron	=	9.06362	
Sythame	=	12.1875	
Pous -	=	Eng. Feet	
Pous -	=	1.06729	
Pygme	=	1.13015	
Pyxon	=	1.25911	
Pechys	=	5.10913	
	=	Eng. Fms	
Orgelia	=	0.00729	
Stadion	=	100.72916	
Dioles	=	805.8353	

**ROMAN MEASURES OF LENGTH. (Arbutnot and Hutton.)**

Digitus transversus	=	Eng. Inches
Uncia, the ounce	=	0.72325
Palmus minor	=	0.967
Pes, the foot	=	2.901
	=	11.601
	=	Eng. Feet
Palmipes	=	1.20875
Cubitus	=	1.605
Gradus	=	2.4175
	=	Paces
Pactus	=	0.967
Stadium	=	120.875
Midiere	=	967

**ROMAN DRY MEASURES. (Arbutnot and Hutton.)**

Hemina	=	Eng. Pints
Sextarius	=	0.5074
	=	0.9483
Modius	=	Eng. Peck
	=	1.041

**ATTIC DRY MEASURES.**

Xestes	=	Eng. Pints
Chenix	=	0.9083
	=	1.486
Medimus	=	Winch. Bush.
	=	1.0906

## JEWISH DRY MEASURES (according to Josephus).

Garhal	.	.	.	Eng. pints	0.1919
Cab	.	.	.	Hbds.	3874
Omter	.	.	.	.	7.0152
Seah	.	.	.	Eng. peck	1.4615
Ephah	.	.	.	Winch. bush.	1.0961
Lateh	.	.	.	Quarter	5.1807
Coron }	.	.	.		
Chamer }	.	.	.		1.5702

## ROMAN MEASURES FOR LIQUIDS. (Arbutnot and Hutton.)

Hemina	.	.	.	Eng. pints	0.9250
Sextarius	.	.	.		1.1914
Congius	.	.	.		7.1712
Uena	.	.	.	Wine gal.	3.5857
Amphora	.	.	.		7.1712
Culeus	.	.	.	Hbds.	2760

## ATTIC MEASURES FOR LIQUIDS.

Cotylus	.	.	.	Eng. pints	0.5712
Nestes	.	.	.		1.1183
Chous	.	.	.		6.9000
Metretes	.	.	.	Wine gal.	10.5550

## JEWISH MEASURES FOR LIQUIDS.

Caph	.	.	.	Eng. pints	0.2612
Lag	.	.	.		1.1183
Cab	.	.	.		4.9533
Hin	.	.	.	Wine gal.	1.7225
Seah	.	.	.		3.1170
Bath	.	.	.		13.5550
Coron	.	.	.	Hbds.	14.105

WELD or DYER'S WEED (Ger. wau; Dutch, wouw, wonwe; Fr. gaude; Ital. gundarella; Lat. luteola). An imperfect biennial, with small fusiform roots, and a leafy stem from 1 to 3 feet in height. It is a native of Britain, Italy, and various parts of Europe, and is cultivated for the sake of its stalk, flowers, and leaves, which are employed in the dyeing of yellow, whence its botanical name *Reseda luteola*. Weld requires the growth of nearly two summers before it comes to maturity; and the crop is liable to fail from so many causes, and is besides so exhausting, that its cultivation is by no means profitable, and is only carried on, in this country at least, to a small extent, principally in Essex. Weld is preferred to all other substances in giving the lively green lemon yellow. It is, however, expensive; and it is found, when employed in topical dyeing, to degrade and interfere with madder colours more than other yellows, and to stain the parts wanted to be kept white. Hence quercitron bark is now employed in calico printing, to the almost total exclusion of weld. It is still employed in dyeing silk a golden yellow, and in paper staining. (Loudon's *Ency. of Agriculture*; Bancroft *On Colours*, vol. ii, pp. 95-100; Rees's *Cyclopaedia*.)

## WESTERN AUSTRALIA. [COLONIES.]

## WEST INDIES. [COLONIES.]

WHALEBONE. A substance of the nature of horn, adhering in thin parallel laminae to the upper jaw of the whale. These vary in size from 3 to 12 feet in length; the breadth of the largest at the thick end, where they are attached to the jaw, is about a foot. They are extremely elastic.

Whalebone bore anciently a very high price, when the rigid stays and the expanded hoops of our grandmothers produced an extensive demand for this commodity. The Dutch have occasionally obtained 700l. per ton, and were accustomed to draw 100,000l. annually from England for this article. Even in 1763 it brought 500l., but soon after fell, and has never risen again to the same

## WHALE FISHERY (NORTHERN)

value. During the present century the price has varied between 60l. and 300l., seldom falling to the lowest rate, and rarely exceeding 150l. Mr. Scoresby reckoned the price, in the five years ending with 1818, at 90l.; in 1834 it amounted to from 130l. to 145l.; and in 1844 it varied from 280l. for southern to 350l. for northern. This is for what is called *size bone*, or such pieces as measure 6 feet or upwards in length; those below this standard are usually sold at half price. It may appear singular that whalebone should rise, while oil has been so decidedly lowered; but the one change, it is obvious, causes the other. Oil, being the main product of the fishery, regulates its extent; which being diminished by the low price, the quantity of whalebone is lessened, while the demand for it continuing as great as before, the value consequently rises. It is, however, probable that the high price of bone may, in some degree, tend to revive the fishery. In 1867 whale thus alone appear in the list of imports, and of these 137 tons, of the value of 51,286l., came into the United Kingdom, chiefly from the northern ports of the United States; the price per ton of the whole varying from 335l. to 440l.

It may be worth while to remark, as evincing the ignorance that at one time prevailed with respect to the whale, that by an old feudal law, the tail of all whales belonged to the queen, as a perquisite to furnish her Majesty's wardrobe with whalebone. (Blackstone, vol. i, p. 233.)

WHALE (COMMON). The *Balaena mysticetus* of Linnaeus, a marine animal of the cetaceous species, and the largest of all those with which men are acquainted. The whale has sometimes, it is affirmed, been found 160 feet in length; but this is most probably an exaggeration. In the northern seas it is at present seldom found above 60 feet long, being now, however, generally killed before it arrives at its full growth; this is no proof that the animal may not formerly have attained to a much larger size. The bodies of whales are covered, immediately under the skin, with a layer of fat or *blubber*, which, in a large fish, is from 12 to 18 inches thick. In young whales this fatty matter resembles hog's lard, but in old ones it is of a reddish colour. This is the valuable part of the whale, and the desire to possess it has prompted man to attempt the capture of this mighty animal. The blubber yields, by expression, nearly its own weight of a thick viscid oil (train oil). The common whale is now rarely found except within the Arctic circle; but at a former period it was not unfrequently met with on our coasts. There is a good account of the common whale, and of the manner in which the fishery is carried on, in Mr. John Linnæus's *Voyage to Spitzbergen*, one of the shortest, cheapest, and best of the innumerable books published on this neglected subject.

The *Physeter macrocephalus*, or black-headed spermæct whale, is chiefly found in the Southern Ocean. It usually measures about 60 feet in length, and 30 in circumference at the thickest part. The valuable part of the fish is the spongy, oily mass dug from the cavity of the head; this is crude spermæct; and of it an ordinary sized whale will yield about 12 large barrels.

WHALE FISHERY (NORTHERN). We do not propose entering, in this article, into any details as to the mode in which the fishery is carried on, but mean to confine ourselves to a brief sketch of its history and value in a commercial point of view.

It is probably true, as has been sometimes conjectured, that the Norwegians occasionally captured the whale before any other European nation en-

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gaged in so perilous an enterprise. But the early  
 efforts of the Norwegians were not conducted on  
 any systematic plan, and should be regarded only  
 in the same point of view as the fishing expeditions  
 of the Esquimaux. The Biscayans were certainly  
 the first people who prosecuted the whale fishery  
 as a regular commercial pursuit. They carried it  
 on with vigour and success in the 12th, 13th, and  
 14th centuries. In 1388, Edward III. relinquished  
 to Peter de Puyname a duty of 6*l.* sterling a  
 whale, laid on those brought into the port of  
 Biarritz, to indemnify him for the extraordinary  
 expenses he had incurred in fitting out a fleet for  
 the service of his Majesty. This fact proves be-  
 yond dispute that the fishery carried on from  
 Biarritz at the period referred to must have been  
 very considerable indeed; and it was also pro-  
 ceeded to a greater or less extent from Gibourre,  
 Vieux Boucan, and subsequently from Rochelle  
 and other places. (*Mémoire sur l'Antiquité de la*  
*Pêche de la Baleine*, par Noël, 12mo. Paris,  
 1795.)

The whales captured by the Biscayans were not  
 so large as those that are taken in the Polar seas,  
 and are supposed to have been attracted south-  
 ward in pursuit of herrings. They were not very  
 productive of oil, but their flesh was used as an  
 article of food, and the whalebone was applied to  
 a variety of useful purposes, and brought a very  
 high price.

This branch of industry ceased long since, and  
 from the same cause that has occasioned the  
 cessation of the whale fishery in many other  
 places—the want of fish. Whether it were that  
 the whales, from a sense of the dangers to which  
 they exposed themselves in coming southwards,  
 no longer left the icy sea, or that the breed had  
 been nearly destroyed, certain it is that they  
 gradually became less numerous in the Bay of  
 Biscay, and at length ceased almost entirely to  
 frequent that sea; and the fishers being obliged  
 to pursue their prey upon the banks of Newfound-  
 land and the coasts of Iceland, the French fishery  
 rapidly fell off.

The voyages of the Dutch and English to the  
 Northern Ocean, in order, if possible, to discover  
 a passage through it to India, though they failed  
 of their main object, laid open the haunts of the  
 whale. The companions of Barentz, who dis-  
 covered Spitzbergen in 1596, and of Hudson, who  
 soon after explored the same seas, represented to  
 their countrymen the amazing number of whales  
 with which they were crowded. Vessels were in  
 consequence fitted out for the northern whale  
 fishery by the English and Dutch, the harpooners  
 and a part of the crew being Biscayans. They  
 did not, however, confine their efforts to a fair  
 competition with each other as fishers. The  
 Muscovy Company obtained a royal charter, pro-  
 hibiting the ships of all other nations from fish-  
 ing in the seas round Spitzbergen, on pretext of  
 its having been first discovered by Sir Hugh  
 Willoughby. There can, however, be no doubt  
 that Barentz, and not Sir Hugh, was its original  
 discoverer; though, supposing that the fact had  
 been otherwise, the attempt to exclude other  
 nations from the surrounding seas on such a  
 ground was not one that could be tolerated. The  
 Dutch, who were at the time prompt to embark  
 in every commercial pursuit that gave any hopes  
 of success, eagerly entered on this new career,  
 and sent out ships fitted out equally for the pur-  
 poses of fishing and of defence against the attacks  
 of others. The Muscovy Company having at-  
 tempted to vindicate its pretensions by force,  
 several encounters took place between their ships  
 and those of the Dutch. The conviction at length

became general that there was room enough for  
 all parties in the northern seas; and in order to  
 avoid the chance of coming into collision with  
 each other, they parcelled Spitzbergen and the  
 adjacent ocean into districts, which were respec-  
 tively assigned to the English, Dutch, Ham-  
 burghers, French, Danes &c.

The Dutch, being thus left to prosecute the  
 fishery without having their attention diverted  
 by hostile attacks, speedily acquired a decided  
 superiority over all their competitors.

When the Europeans first began to prosecute  
 the fishery on the coast of Spitzbergen, whales  
 were everywhere found in vast numbers. Ignorant  
 of the strength and stratagems of the formidable  
 foe by whom they were now assailed, instead of  
 betraying any symptoms of fear, they surrounded  
 the ships and crowded all the bays. Their capture  
 was in consequence a comparatively easy task,  
 and many were killed which it was afterwards  
 necessary to abandon, from the ships being al-  
 ready full.

While fish were thus easily obtained, it was the  
 practice to boil the blubber on shore in the North,  
 and to fetch home only the oil and whalebone.  
 And, perhaps, nothing can give a more vivid idea  
 of the extent and importance of the Dutch fishery  
 in the middle of the seventeenth century, than  
 the fact, that they constructed a considerable  
 village, the houses of which were all previously  
 prepared in Holland, on the Isle of Amsterdam,  
 on the northern shore of Spitzbergen, to which  
 they gave the appropriate name of *Smeerenberg*  
 (from *smeeren*, to melt, and *berg*, a mountain).  
 This was the grand rendezvous of the Dutch  
 whale ships, and was amply provided with boilers,  
 tanks, and every sort of apparatus required for  
 preparing the oil and the bone. But this was not  
 all. The whale fleets were attended with a num-  
 ber of provision ships, the cargoes of which were  
 landed at Smeerenberg; which abounded during  
 the busy season with well-furnished shops, good  
 inns &c.; so that many of the conveniences and  
 enjoyments of Amsterdam were found within  
 about 11 degrees of the Pole. It is particularly  
 mentioned, that the sailors and others were every  
 morning supplied with what a Dutchman regards as  
 a very great luxury—*hot rolls* for breakfast. Bata-  
 vin and Smeerenberg were founded nearly at the  
 same period, and it was for a considerable time  
 doubted whether the latter was not the more im-  
 portant establishment. (*De Rieste, Histoire des*  
*Pêches* &c. tome i. p. 42.)

During the flourishing period of the Dutch  
 fishery, the quantity of oil made in the north  
 was so great that it could not be carried home by  
 the whale ships; and every year vessels were  
 sent out in ballast to assist in importing the pro-  
 duce of the fishery.

But the same cause that had destroyed the  
 fishery of the Biscayans, ruined that which was  
 carried on in the immediate neighbourhood of  
 Spitzbergen. Whales became gradually less com-  
 mon, and more and more timid and difficult to  
 catch. They retreated first to the open seas, and  
 then to the great banks of ice on the eastern  
 coast of Greenland. When the site of the fishery  
 had been thus removed to a very great distance  
 from Spitzbergen, it was found most economical  
 to send the blubber direct to Holland. Smeeren-  
 berg was in consequence totally deserted, and its  
 position is now with difficulty discoverable.

But though very extensive, the Dutch whale  
 fishery was not, during the first 30 years of its  
 existence, very profitable. This arose from the  
 circumstance of the right to carry it on having  
 been conceded, in 1614, to an exclusive com-

pany. The expense inseparable from such great associations, the wastefulness and unfaithfulness of their servants, who were much more intent upon advancing their own interests than those of the company, increased the outlays so much, that the returns, great as they were, proved little more than adequate to defray them, and the fishery was confined within far narrower limits than it would otherwise have reached. But after various prolongations of the charter of the first company, and the formation of some new ones, the trade was finally thrown open in 1612. The effects of this measure were most salutary, and afforded one of the most striking examples to be met with of the advantages of free competition. Within a few years the fishery was vastly extended; and though it became progressively more and more difficult from the growing scarcity of fish, it proved, notwithstanding these disadvantages, more profitable to the private adventurers, than it had ever been to the company, and continued for above a century to be prosecuted with equal energy and success. The famous John de Witt has alluded as follows to this change in the mode of conducting the trade:—

'In this respect,' says he, 'it is worthy of observation, that the authorised Greenland Company made heretofore little profit by their fishery, because of the great charge of setting out their ships; and that the train oil, blubber, and whale fins were not well made, handled, or cured; and being brought hither and put into warehouses, were not sold soon enough, nor to the company's best advantage. Whereas now that everyone equips their vessels at the cheapest rate, follow their fishing diligently, and manage all carefully, the blubber, train oil, and whale fins are employed for so many uses in several countries that they can sell them with that conveniency, that though there are now 15 ships for 1 that formerly sailed out of Holland on that account, and consequently each of them could not take so many whales as heretofore, and notwithstanding the new prohibition of France and other countries to import these commodities, and though there is greater plenty of them imported by our fishers; yet those commodities are so much raised in the value above what they were whilst there was a company, that the common inhabitants do exercise that fishery with profit, to the much greater benefit of our country than when it was (under the management of a company), carried on but by a few.' (*True Interest of Holland*, p. 63, 8vo. ed. London, 1746.)

The private ships sent by the Dutch to the whale fishery were fitted out on a principle that secured the utmost economy and vigilance on the part of everyone connected with them. The hull of a vessel was furnished by an individual, who commonly took upon himself the office of captain; a sail-maker supplied the sails, a cooper the casks &c. The parties engaged as adventurers in the undertaking. The cargo being brought to Holland and disposed of, each person shared in the produce according to his proportion of the outfit. The crew was hired on the same principle; so that everyone had a motive to exert himself, to see that all unnecessary expenses were avoided, and that those that were necessary were confined within the narrowest limits. This practice has been imitated to some extent in this and some other countries, but in none has it been carried so far as in Holland. It appears to us, that it might be advantageously introduced into other adventures.

When in its most flourishing state, towards the

year 1680, the Dutch whale fishery employed about 260 ships, and 14,000 sailors.

The English whale fishery, like that of Holland, was originally carried on by an exclusive association. The Muscovy Company was, indeed, speedily driven from the field; but it was immediately succeeded by others, that did not prove more fortunate. In 1725, the South Sea Company embarked largely in the trade, and prosecuted it for 8 years; at the end of which, having lost a large sum, they gave it up. But the Legislature, having resolved to support the trade, granted, in 1732, a bounty of 20s. per ton to every ship of more than 200 tons burden engaged in it; but this premium being insufficient, it was raised, in 1749, to 40s. per ton, when a number of ships were fitted out, as much certainly in the intention of catching the bounty as of catching fish. Deceived by the prosperous appearance of the fishery, Parliament imagined that it was firmly established, and in 1777 the bounty was reduced to 30s. The effects of this reduction showed the factitious nature of the trade, the vessels engaged in it having fallen off in the course of the next 5 years from 105 to 39. To arrest this alarming decline, the bounty was raised to its old level in 1781, and of course the trade was soon restored to its previous state of apparent prosperity. The hostilities occasioned by the American war reduced the Dutch fishery to less than half its previous amount, and gave a proportional extension to that of England. The bounty, which had in consequence become very heavy, was reduced, in 1787, to 30s. per ton; in 1792 it was further reduced to 25s.; and in 1795 it was reduced to 20s., at which sum it continued till 1824, when it ceased.

It appears from accounts given in Macpherson's *Annals of Commerce* (vol. iii, p. 511, vol. iv, p. 139), that the total bounties paid for the encouragement of the whale fishery, in the interval between 1750 and 1788, amounted to no less than 1,577,935*l*. It will be seen from the official account which follows that there are no means of furnishing any accurate account of the sums paid as bounties from the year 1789 to 1813 inclusive; but it is, notwithstanding, abundantly certain that the total bounties paid during the period from 1789 to 1824 considerably exceeded 1,000,000*l*. Here, then, we have a sum upwards of two millions AND A HALF laid out since 1750 in promoting the whale fishery. Now we believe that if we estimate the entire average value of the gross produce of the northern whale fishery (and it is to it only that the preceding statements apply) during its latter years, at 100,000*l*. a-year, we shall be considerably beyond the mark. But had the 2,500,000*l*. expended in bolstering up this branch of industry been laid out as capital in ordinary employment, it would have produced 125,000*l*. a-year of net profit; being 25,000*l*. a-year more than the total value of the produce of the fishery, without allowing anything for the capital wasted, and ships lost in carrying it on. Whatever, therefore, may be the value of the whale fishery as a nursery for seamen, it is absurd to regard it as contributing anything to the public wealth. The remark of Dr. Franklin, that he who draws a fish out of the sea draws out a piece of silver is ever in the mouths of those who are clamouring for bounties and protection against competition. But we apprehend that even Franklin himself, sagacious as he was, would have found it rather difficult to show how the wealth of those is to be increased, who, in fishing up one piece of silver, are obliged to throw another of greater value into the sea. We subjoin

An Account of the Number of Ships annually fitted out in Great Britain for the Northern Whale Fishery, of the Tonnage and Crews of such Ships, and of the Bounties paid on their Account, from 1789 to 1811.

Years	Ships	Tons	Men	Bounties paid
1789	161	16,599		
1790	116	53,432	1,182	
1791	116	33,906	1,524	
1792	93	26,083	1,662	
1793	82	23,187	3,410	
1794	60	19,366	2,290	
1795	41	11,718	1,700 to 1800	
1796	51	17,833	1,910	
1797	60	16,371	2,025	
1798	66	18,751	2,533	
1799	67	13,369	2,683	
1800	61	17,729	2,499	
1801	61	15,568	2,514	
1802	79	23,339	3,129	
1803	95	28,608	3,806	
1804	92	28,031	3,997	
1805	91	27,570	3,756	
1806	91	27,697	3,715	
1807	There are no documents by which the accounts for these years can be rendered.			
1811	112	56,576	4,708	43,799 11 0

It is not even certain whether the expenditure of 2,500,000*l.* upon bounties would really have had the effect of making the whale fishery be carried on upon a considerable scale, but for the occupation of Holland by the French, and the consequent hostilities in which she was involved with this country. These did more to promote and consolidate the British fishery than anything else. The war entirely annihilated that of the Dutch; and our Government having wisely offered to the fishers of Holland all the immunities enjoyed by the citizens of Great Britain in the event of their settling amongst us, many availed themselves of the invitation, bringing with them their capital, industry, and skill. In consequence of this signal encouragement, the whale fishery of England was prosecuted with greater success than at any previous period; and at the termination of the war, in 1815, there were nearly 150 valuable ships and about 6,000 seamen engaged in the Northern fishery, and about 30 ships and 800 men in that to the South.

After peace was restored, the English capitalists and others became apprehensive lest the Dutch should engage anew with their ancient vigour and success in the whale fishery. But these apprehensions were without any real foundation. The Hollanders, during the 30 years they had been excluded from the sea, had lost all that practical acquaintance with the details of the fishery, for which they had long been so famous, and which is so essential to its success. The Government attempted to rouse their dormant energies by the offer of considerable premiums and other advantages to those who embarked in the trade. Three companies were in consequence formed for carrying it on; 1 at Rotte-dam, 1 at Harlingen, and 1 in South Hollar. But their efforts were limited, and altogether unfortunate. In 1826, the company of South Hollar was dissolved, while that of Harlingen despatched 4 ships, and that of Rotterdam 2. In 1827, Rotterdam sent only 1 ship, and Harlingen 2. In 1828, 1 solitary ship sailed from Holland—a feeble and last effort of the company of Harlingen; and since then a ship or two has been occasionally fitted out by private adventurers, but generally without success.

Such has been the fate of the Dutch whale fishery. The attempts to revive it failed, not because the ships sent out were ill calculated for the service, but because they were manned by unskilful seamen, and fish were deficient. In the early ages of the fishery, the former difficulty

would have been got over, because, owing to the fewness of competitors, and the scanty supply of oil and whalebone, even a small cargo brought a high price; but since the fishery has been prosecuted on a large scale and at a very low rate of profit by the English, Americans, and Hamburgers, no new competitor coming into the field could expect to maintain himself unless he had nearly equal advantages. The Dutch have, therefore, done wisely in withdrawing from the trade. Any attempt to establish it by the aid of bounties and other artificial encouragements would be one of which the ultimate success must be very doubtful, and which could lead to no really useful result. During the 20 years preceding the French war ended 1815, the fishery of Holland was gradually declining, and had, in a great measure, ceased to be profitable. It would be folly to endeavour to raise anew, and at a great expense, a branch of industry that had become unproductive at a former period, when there is no ground for supposing that it would be more productive at this moment.

We have already noticed several changes of the localities in which the whale fishery has been carried on at different periods; and within these few years others of the same kind have taken place. The Dutch fishers first began to frequent Davis's Straits in 1719; and as the whales had not hitherto been pursued into this vast recess, they were found in greater numbers than in the seas round Spitzbergen. From about this period it was usually resorted to by about three-tenths of the Dutch ships. It was not till a comparatively late period that Davis's Straits began to be frequented by English whalers; and down to 1820, when Captain Scoresby published his elaborate and valuable work on the whale fishery, that carried on in the Greenland seas was by far the most considerable. But it will be seen from the subjoined account, that from 1826 down to 1837 the Greenland seas were nearly abandoned. This was principally a consequence of the greater abundance of whales in Davis's Straits, but it was, also, in part owing to the various discoveries made by the expeditions fitted out by Government for exploring the seas and inlets to the westward of Davis's Straits and Baffin's Bay having made the fishers acquainted with several new and advantageous situations for the prosecution of their business. Since 1837, however, the few ships that have been sent out have gone mostly to the Greenland seas.

The sea in Davis's Straits is less incommoded with field ice than the Greenland and Spitzbergen sea, but it abounds with icebergs; and the fishery, when carried on in Baffin's Bay and Lancaster Sound, is more dangerous, perhaps, than any that has hitherto been attempted.

The Northern fishery declined rapidly down to 1842, from which period it continued nearly stationary down to 1846, when it revived a little.

It should, however, be observed that the fishery is now rather for seals than for whales; the value of the produce obtained from the former considerably exceeding the value of that obtained from the latter.

During 1867, we imported 3,226 tons spermaceti oil, valued at 373,367*l.* During the same year the imports of train oil were 11,901 tons, of the value of 478,723*l.*

For a long time past the whale fishery has been more allied to a gambling than to an industrious pursuit, so that its decline is not really to be regretted. The extensive use of gas, and the increased imports of vegetable and mineral oils, occasioned in part by the reduction of the oppressive

duties with which the former were formerly affected, have prevented the diminution in the supply of whale oil from having any bad effect.

There has been a singular change in the ports from which the Northern fishery has been carried on. In London were undertaken all the discoveries which led to its establishment; and the great companies formed in this city enjoyed for a lengthened period nearly a complete monopoly of the business. So late as 1780 and 1790, the metropolis sent out 4 times the number of vessels that sailed from any other port; but it was observed that her fishery was, on the whole, less fortunate than that of the new rivals which had sprung up; and her merchants were so much discouraged, that in Mr. Scoresby's time they equipped only 17 or 18 vessels. They have wholly abandoned the trade, and have not sent out a single ship since 1836.

Hull early became a rival to London, having sent out vessels at the very commencement of the fishery. Though checked at first by the monopoly of the great companies, as soon as the trade became free she prosecuted it with distinguished success. Towards the end of last century, she attained, and preserved down to 1837, the character of the first whale-fishing port in Great Britain. In 1819 she sent out 65 ships, and her imports of oil amounted in 1820 to 8,086 tons. But such and so rapid was the decline of the fishery in the interval, that from 1838 to 1845 she only sent out a solitary ship. In 1846, however, the business took a start; and from that year down to the present time, Hull has sent from 10 to 13 or 14 ships. But she is not supposed to have made anything by this pursuit. [Docks; HULL.] At present (1869), Peterhead is one of the ports principally engaged in the fishery.

**WHALE FISHERY (SOUTHERN).**—This consists of three distinct branches; viz. 1st, the catch of the spermaceti whale, which furnishes the valuable substance called SPERMACETI; 2nd, that of the common black whale of the Southern seas; and 3rd, that of the sea elephant, or southern walrus.

The spermaceti whale (*Physeter macrocephalus*) is found in all tropical climates, and especially on the coasts of New Zealand and the adjoining seas. The ordinary duration of the voyage of a ship from England, employed in this department of the fishery, is about 3 years.

The common black whale of the Southern seas (*Physeter microps*) is met with in various places, but principally on the coast of Brazil; in the bays on the west coast of Africa; and in some of the bays of New South Wales, Van Diemen's Land &c.

Sea elephants (intermediate between the walrus of the Northern seas and the seal) are principally met with in the seas round the Islands of Desolation, South Georgia, and South Shetland, the coast of California &c. Vast numbers of these animals are annually captured; vessels frequently load entirely with them; and they are believed to furnish more oil than the common South Sea whale. The oil of the black whale and that of the sea elephant are both known in the market by the name of southern oil, and they are so very similar that those most versed in the trade can with difficulty distinguish the one from the other. Hence ships commonly engage indifferently in either fishing as opportunity offers. The usual duration of the voyage of a ship from England in either of the last two departments, or in the two combined, varies from 12 to 18 months.

The South Sea fishery was not prosecuted by the English till about the beginning of the

American war; and as the Americans had already entered on it with vigour and success, the American harpooners were sent out in each vessel. In 1791, 75 whale ships were sent to the South Sea; but the number has not been so great since; and latterly it has been unprosperous and declining, in consequence partly of the competition of the colonists in Australia, who are incomparably better situated for the prosecution of this branch of industry, and partly of that of the Americans. The *Macrocephalus*, or spermaceti whale, is particularly abundant in the neighbourhood of the Spice Islands; and the late Mr. Crawford, in his valuable work on the *Eastern Archipelago* (iii. 447), entered into some details to show that the fishery carried on there was of greater importance than the spice trade. Unluckily, however, the statements on which Mr. Crawford founded his comparisons were entirely erroneous, neither the ships nor the men employed amounting to more than  $\frac{1}{2}$  or  $\frac{1}{3}$  of what he represented. And the trade has now become quite insignificant. It is sufficient to mention, in proof of this statement, that in 1857 the Southern fishery supplied us with only 291 tons oil, and in 1867 it is not mentioned as having yielded any.

*American Whale Fishery.*—For a lengthened period, the Americans have prosecuted the whale fishery with greater vigour and success than, perhaps, any other people. They commenced in 1690, and for about 50 years found an ample supply of fish on their own shores. But the whale having abandoned them, the American navigators entered with extraordinary ardour into the fisheries carried on in the Northern and Southern Oceans. From 1758 to 1775, Massachusetts employed annually 183 vessels, carrying 13,820 tons, in the former; and 121 vessels, carrying 14,026 tons, in the latter. Mr. Burke, in his famous speech on American affairs in 1774, adverted to this wonderful display of daring enterprise as follows:—

'As to the wealth,' said he, 'which the colonies have drawn from the sea by their fisheries, you had all that matter fully opened at your bar. You surely thought these acquisitions of value, for they seemed to excite your envy; and yet the spirit by which that enterprising employment has been exercised, ought rather, in my opinion, to have raised esteem and admiration. And pray, sir, what in the world is equal to it? Pass by the other parts, and look at the manner in which the New England people carry on the whale fishery. While we follow them among the trembling oceans of ice, and behold them penetrating into the deepest frozen recesses of Hudson's Bay and Davis's Straits; while we are looking for them beneath the Arctic circle, we hear that they have pierced into the opposite region of polar cold; that they are at the antipodes, and engaged under the frozen serpent of the South. Falkland Island, which seems too remote, and too romantic an object for the grasp of national ambition, is but a stage and resting-place for their victorious industry. Nor is the equinoctial heat more discouraging to them than the accumulated winter of both poles. We learn, that while some of them draw the line or strike the harpoon on the coast of Africa, others run the longitude and pursue their gigantic game along the coast of Brazil. No sea, but what is vexed with their fisheries; no climate that is not witness of their toils. Neither the perseverance of Holland, nor the activity of France, nor the dexterous and firm sagacity of English enterprise, ever carried this most perilous mode of hardy industry to the extent to which it has been pursued by this recent people; a people who are

still in the gristle, and not hardened into manhood.'

The unfortunate war that broke out soon after this speech was delivered, checked for a while the progress of the fishery; but it was resumed with renewed vigour as soon as peace was restored. The American fishery was principally carried on from Nantucket and New Bedford in Massachusetts; and for a considerable time past the whalers have mostly resorted to the Southern Seas. 'Although,' says Mr. Pitkin, 'Great Britain has, at various times, given large bounties to her ships employed in this fishery, yet the whalers of Nantucket and New Bedford, unprotected and unsupported by anything but their own industry and enterprise, have generally been able to meet their competitors in a foreign market.' (*Commerce of the United States*, 2nd ed p. 46).

In 1858 the American whale fishery was of very great extent and importance. It employed about 600 ships, of the aggregate burden (June 30) of 198,593 tons, principally belonging to New Bedford, Nantucket, and other ports in Massachusetts, Rhode Island, and Connecticut. A very large portion of this immense fleet was employed in the Pacific; and the possession of San Francisco affords facilities for the fitting out and repair of ships for this business. In 1857 there were imported into the United States 78,440 barrels of sperm, and 24,094 barrels of whale oil, and 2,058,580 lb. of whalebone. In 1861 the imports of fish oil into the United States were 1,324,134 gals., worth 1,459,013 dol., while in 1865 they declined to 706,171 gals. Yet in 1867 the whole fish oil exported from the States amounted to 1,526,287 gals., worth 2,277,655 dol. On the whole, it appears more than probable that the American whale fishery has passed its zenith. The same cause that led to the cessation of the Biscay and Spitzbergen fisheries is operating throughout the wide extent of the Pacific. The supply of whales is everywhere becoming exhausted. And the risks and losses that have always attended the trade, and given to it so much of a gambling character, are being constantly increased. Hence the probability seems to be that the fishery of the United States will eventually experience the fate of that of Holland and England, and no doubt its decline has been somewhat precipitated by the late civil war. However, the petroleum springs in her territory render the great American republic quite independent of whale oil. The Sandwich Islands are at present the resort of the ships engaged in the Southern fishery. And the accounts from thence confirm its decline. There is as much enterprise and energy as ever, but the 'gigantic game' is deficient.

*French Whale Fishery.*—France, which preceded the other nations of Europe in the whale fishery, can hardly be said, for many years past, to have had much share in it. In 1784, Louis XVI. endeavoured to revive the fishery. With this view he fitted out 6 ships at Dunkirk on his own account, which were furnished with harpooners and a number of experienced seamen brought at a great expense from Nantucket. The adventure was more successful than could have been reasonably expected, considering the auspices under which it was carried on. Several private individuals followed the example of his Majesty, and in 1790 France had about 40 ships employed in the fishery. The revolutionary war destroyed every vestige of this rising trade. But since the peace, Government has made great efforts for its renewal: and high bounties have been granted to all vessels fitted out for the whale fisheries, but

especially to those engaged in the sperm fishery. These, however, have not been so successful in forcing ships into this trade as might have been anticipated: for it appears from the official accounts that, in 1857, only 4 ships, of the aggregate burden of 1,867 tons, arrived in the ports of France from the whale fishery, bringing with them 933,388 kilog. of oil. (*Administration des Douanes*, 1857, p. 318.) In 1865, 1,183,487 kilog. of oil, the produce of the fisheries, were imported, and 1,663,018 were entered for home consumption.

WHARFHOUSES. [CANTON.]

**WHARF.** A sort of quay, constructed of wood or stone, on the margin of a roadstead or harbour, alongside of which ships or lighters are brought for the sake of being conveniently loaded or unloaded.

There are two denominations of wharves, viz. *legal quays* and *suffrance wharves*. The former are certain wharves in all sea-ports, at which all goods are required by the 1 Eliz. c. 11, to be landed and shipped, and they were set out for that purpose by commission from the Court of Exchequer, in the reign of Charles II. and subsequent sovereigns. Many others have been legalised by Act of Parliament. In some ports, as Chepstow, Gloucester &c., certain wharves are deemed legal quays by immemorial practice, though not set out by commission, or legalised by Act of Parliament.

Suffrance wharves are places where certain goods may be landed and shipped, such as hemp, flax, coal, and other bulky goods, by special suffrance granted by the crown for that purpose.

The goods that may be landed at the different wharves are specified by the Commissioners of Customs, and depend partly on their situation, and partly on the character and capability of the warehouses connected with them.

**WHARFAGE.** The fee paid for landing goods on a wharf, or for shipping them off. The stat. 22 Ch. II. c. 11 (modified by 1 & 2 Geo. IV. c. 89), after providing for the establishment of wharves and quays, makes it lawful for any person to land or unload goods, on paying wharfage and cramage at the rate appointed by the king in council.

**WHEAT** (Ger. weizen; Dutch, tarw; Dan. hvede; Swed. hvete; Fr. froment, blé; Ital. grano, formento; Span. and Port. trigo; Russ. pschenia; Pol. pszenica). A species of bread corn (*Triticum* Linn.), by far the most important of any cultivated in Europe. We are totally ignorant of the country whence this valuable grain was first derived; but it was very early cultivated in Sicily. It is raised in almost every part of the temperate zones, and in some places as high as 2,000 feet above the level of the sea.

The kinds of wheat sown are numerous, but they may be classed under 4 heads: viz. one or bearded wheat, which, however, is now little cultivated; white wheat, of which there are innumerable varieties, the *white Dantzic* being considered one of the best; red wheat, which is seldom seen where the climate is good and early, and the land in proper condition; and spring wheat. A greater number of people are nourished by rice than by wheat; but owing to the greater quantity of gluten which the later contains, it makes by far the best bread. Rye comes nearer to wheat in its bread-making qualities than any other sort of grain; still, however, it is very inferior to it. The finest samples of wheat are small in the berry, thin skinned, fresh, plump, and bright, slipping readily through the fingers.

Being very extensively cultivated on soils of very various qualities, and frequently with very imperfect preparation, the produce of wheat crops in Great Britain varies from about 12 to 56

bushels per acres. According to the agricultural returns for 1868, there were 3,951,018 acres in the United Kingdom devoted to the cultivation of wheat; while France had 17,850,258 acres in 1867; Spain 7,311,892 acres in 1857; Bavaria 1,011,035 in 1863; and Prussia 3,573,253, and the United States 12,304,891 acres in 1867, all growing wheat crops and spelt.

The counties most distinguished for the quantity and quality of their wheat are Kent, Essex, Suffolk, Rutland, Hertfordshire, Berkshire, Hampshire, and Herefordshire, in England; and Berwickshire, and the Lothians, in Scotland. In the northern counties it is, speaking generally, of an inferior quality; being cold to the feel, dark coloured, thick skinned, and yielding comparatively little flour. In the best wheat countries, and in good years, the weight of a Winchester bushel of wheat is from 60 to 62 lb. In the Isle of Sheppey, in Kent (where, perhaps, the best samples of wheat sent to the London market are produced), this grain, in some favourable seasons, weighs 64 lb. a bushel. Where the climate is colder, wetter, or more backward, or in bad seasons, the weight of the bushel of wheat is not more than 56 or 57 lb. It is calculated that the average weight of the bushel of good English wheat is 58½ lb.; and that the average yield of flour is 13 lb. of flour to 14 lb. of grain. (London's *Ency. of Agriculture &c.*) In 1867 we imported 34,615,569 cwt. of wheat, and 3,592,269 cwt. of wheat meal and flour, 31,418,741 cwt. of the first and 3,564,891 cwt. of the last having been entered for home consumption. The average price of British wheat for the week ended April 24, 1869, was 45s. 5d. per quarter.

For a view of the regulations with respect to the importation and exportation of wheat &c., see CORN LAWS AND CORN TRADE; but as the Chancellor of the Exchequer (Mr. Lowe) proposes this year (1869) to abolish the duties on all descriptions of corn, we have appended his resolutions on this subject with others to TARIFF, BRITISH.

**WHISKY.** A spirit obtained by distillation from corn, sugar, or molasses, though generally from the former. Whisky is the *national spirit*, if we may so term it, of Scotland and Ireland; but that distilled in the former is generally reckoned superior to that of the latter. [SPIRITS.]

**WINE** (Ger. *wein*; Fr. *vin*; Ital. and Span. *vin*; Port. *vinho*; Russ. *wino*, *winogradnoe winoe*; Lat. *vinum*; Gr. *oivos*; Arab. *klumr*). The fermented juice of the grape, or berries of the vine (*Vitis vinifera*).

The vine is indigenous to Persia and the Levant; but it is now found in most temperate regions. The limits within which it is cultivated in the northern hemisphere of the Old World vary from about 15° to 48° and 52°; but in North America, it is not cultivated farther north than 38° or 40°. It is rarely grown at a greater altitude than 3,000 feet. From Asia the vine was introduced into Greece, and thence into Italy. The Phœnicians, who founded Marseilles, carried the vine to the south of France; but it is doubtful whether it was introduced into Burgundy till the age of the Antonines. The ancient writers give the most contradictory accounts with respect to the introduction of the vine into Gaul. See the learned and excellent work of Le Grand d'Aussy, *Vie privée des Français*, tome ii. pp. 329—333.) The statement given above seems the most probable. The species of *Vitis* indigenous to North America is very different from the *Vitis vinifera*. In favourable seasons, the vine ripens in the open air in England; and in the eleventh and twelfth centuries, considerable

quantities of inferior wine were made from native grapes. Vineyards are now, however, unknown in this country; but the grapes raised in hot-houses, and used at desserts, are excellent.

The vine grows in every sort of soil; but that which is light and gravelly seems best suited for the production of fine wines. It succeeds extremely well in volcanic countries. The best wines of Italy are produced in the neighbourhood of Vesuvius; the famous Tokay wine is also made in a volcanic district, as are several of the best French wines; many parts of the south of France bearing evident marks of extinct volcanoes. Hermitage is grown among the débris of granite rocks. The most favourable situation for a vineyard is upon a rising ground or hill facing the south-east, and the situation should not be too confined;

—apertus  
Ilicibus amat colles.

The art of expressing and fermenting the juice of the grape appears to have been practised from the remotest antiquity. The sacred writings tell us that Noah planted a vineyard soon after the deluge (Gen. ix. 20); and a modern Latin poet ingeniously represents the vine as a gift from Heaven, to console mankind for the miseries entailed upon them by that grand catastrophe.

Omnia vastatis ergo quin ermeret arvis  
Desolata Deus, nohis fellea vin  
Dona dedit; tristes hoc iunon quo munere fovit  
Ilicibus, invidi solatus, vite riuonum.  
Vander Præd. Rusticum, lib. xi.

**Species of Wine.**—There are many varieties of wines; and this circumstance, combined with difference of soil, climate, mode of preparation &c., occasions an extreme variety in the species of wine. But between places immediately contiguous to each other, and where even a careful observer would hardly remark any difference, the qualities of the wines, though produced by the same species of grape, and treated in the same way, are often very different. A great deal evidently depends upon the aspect of the vineyard; and it is probable that a good deal depends on peculiarities of soil. But whatever may be the cause, it is certain that there are wines raised in a few limited districts, such as Tokay, Johannisberger, Consantia, the best Burgundy, Champagne, claret &c., that no art or care has hitherto succeeded in producing of equal goodness in other places.

**ANCIENT WINES.**—The wines of Lesbos and Chios among the Greeks, and the Falernian and Cœcian among the Romans, have acquired an immortality of renown. Great uncertainty, however, prevails as to the nature of these wines. Dr. Henderon thinks that the most celebrated of them all, the Falernian, approached, in its most essential characters, near to Madeira. In preparing their wines, the ancients often inspissated them till they became of the consistence of honey, or even thicker. These were diluted with water previously to their being drunk; and, indeed, the habit of mixing wine with water seems to have prevailed much more in antiquity than in modern times.

**MODERN WINES.**—The principal wines made use of in this country are Port, Sherry, Claret, Champagne, Madeira, Hock, Marsala &c.

**Port.**—The produce of a mountainous district situated on the banks of the river Douro, about 70 miles east of Oporto, whence it is shipped and its name derived. This district, not exceeding 30 miles in length and about 4½ in breadth, having been found peculiarly fitted for the production of exportable wine, was marked out in 1766 by the Marquis of Pombal, in a charter granted to the



vintages, when kept long in bottle, often deposit a crust on the glass, and the same may be said of all the red wines, particularly when bottled early.

In former times and before the use of claret became as general as it is, Bordeaux wines were rarely exported to the United Kingdom in a state of purity. But it is now quite the reverse, and experience has proved that the pure clarets of a good vintage will last, and keep their colour and flavour much longer when pure than when blended with hotter wines.

The price of claret varies from 12*l.* to 60*l.* and 80*l.* per hogshead, and sometimes as much as 100*l.* and 120*l.* per hogshead are paid for the superior growths of the very finest vintages. Cargo and ordinary clarets can be bought at from 6*l.* to 10*l.* per hogshead. Fine clarets in bottles sell from 36*s.* to 96*s.* per dozen, and there are instances of remarkably old and rare wines having brought in public sales above 50*l.* per dozen.

(See the valuable work of Dr. Henderson, *On Ancient and Modern Wines*, p. 184; and Jullien, *Typographie de Vignobles*, pp. 202—212. See also Mr. Beckwith 'On Fermented Drinks'—*Reports on Paris Exhibition*—who estimates the quantity of Bordeaux wine grown at 85,000,000 of gallons.)

*Champagne*, so called from the province of France of which it is the produce, is one of the most deservedly esteemed of the French wines.

The wines of Champagne are divided into white and red wines; these last, owing to the recent great extension of the trade in sparkling wines, are now made in but small quantities, and then only in such localities as cannot make good white wines, and these red wines are consumed in the country; the best of them, Bouzy, Clos St. Basle &c., greatly resemble in colour and aroma the wines of Burgundy, but have a peculiar character of Champagne.

The white wines are of two classes; those made of black, and those of white grapes. Of the first, the characteristics are 'elegance,' body and bouquet; the best are those of Ay, Verzenay, Bouzy &c. Of the second, noted for their lightness and exquisite flavour, the best are those of Cramant, Avize, Chouilly &c. In preparing the wines for sparkling, the different growths, such as Ay, Verzenay, and Cramant, are so mixed up as to form a wine possessing the different qualities appropriate to each, thus combining body with nerve, exquisite flavour and lightness &c.

All sparkling wines are thus made up of different growths, experience having shown that such wines are much more likely to keep in good condition and go on improving.

The still wines are made with the wines of Verzenay and Ay; they are much admired by connoisseurs, but the consumption of them is very limited. These wines are usually called 'Sillery sec' from the fact of all the wines of Verzenay having originally belonged to the 'marquis of Sillery,' who used to call these wines after his name. There are hardly any wines grown at Sillery, the locality being too much exposed, and the few that are there are annually frozen in the spring.

The annual exportation of Champagne amounts to 13,500,000 bottles, of which about 3,000,000 are consumed in France, and the greater part of the rest sent to England and its colonies.

The trade in wines is principally carried on in Reims, Epernay, Ay, and Avize.

The cellars in which the wines are stored are excavated from the rock of chalk, or from a calcareous tufa, the temperature of these being always about 48 degrees Fahrenheit.

In the last edition the produce of the province of Champagne was stated at about 1,000,000 hectolitres, or 22,000,000 of gallons. Mr. Beckwith (*Reports on Paris Exhibition of 1866*) estimates the average quantity of wine produced in the Champagne district at 52,000,000 of gallons, without, however, stating the data on which this estimate is founded.

*Burgundy*.—The best wines of this province, though not so popular in England as those of Champagne, probably because they are very apt to be injured by a sea-voyage, enjoy the highest reputation. 'In richness of flavour and perfume, and all the more delicate qualities of the juice of the grape, they unquestionably rank as the first in the world; and it was not without reason that the dukes of Burgundy, in former times, were designated as the *princes des bons vins*.' (Henderson, p. 161.) M. Jullien is not less decided:—'Les vins des premiers crus, lorsqu'ils proviennent d'une bonne année, réunissent, dans de justes proportions, toutes les qualités qui constituent les vins parfaits; ils n'ont besoin d'aucun mélange, d'aucune préparation pour atteindre leur plus haut degré de perfection. Ces opérations, que l'on qualifie dans certains pays de *soins qui aident à la qualité*, sont toujours nuisibles aux vins de Bourgogne' (p. 104).

Romané-Conti, Chambertin, the Clos Vougeot, and Richebourg are the most celebrated of the red wines of Burgundy. Chambertin was the favourite wine of Louis XIV. and of Napoleon. It is the produce of a vineyard of that name, situated 7 miles south from Dijon, and furnishing each year from 130 to 150 paucheons, from an extent of about 65 acres. It has a fuller body and colour, and greater durability, than the Romané, with an aroma nearly as fragrant.

The white wines of Burgundy are less numerous, and, consequently, less generally known, than the others; but they maintain the highest rank among French white wines, and are not inferior to the red either in aroma or flavour.

The entire annual produce of wine in Burgundy and Beaujolais may at present be estimated, at an average, at nearly 75,000,000 of gallons, of which about  $\frac{1}{2}$  suffices for the consumption of the inhabitants. Since the Revolution, the cultivation of the vine has been greatly extended in the province. Many of the new vineyards having necessarily been planted in comparatively unfavourable situations, a notion has been gaining ground that the wines of Burgundy are degenerating. This, however, is not the case. On the contrary, the quantity of *bons crus*, instead of being diminished, has increased considerably; though, as the supply of inferior wines has increased in a still greater degree, the fine wines bear a less proportion to the whole than they did previously to the Revolution. (Jullien, p. 90.)

The principal trade in Burgundy is carried on at Dijon, Gevrey, Châlons-sur-Saône &c.

Besides the above, France has a great variety of other excellent wines. Hermitage, Sauterne, St. Péry &c., are well known in England, and deservedly enjoy, particularly the first, a high degree of reputation.

This makes a total export of 2,868,398 hectolitres, worth 260,330,573 fr., or 10,847,107*l.* About 20 years ago the exports did not exceed 1,500,000 hectolitres, so that there has been a large increase in the interval. The average annual export from Bordeaux alone during the 5 years ending with 1864 was 13,361,976 gallons. And were France still further to liberalise her commercial policy, it is not easy to say to how great an extent her exports of wine, in the pro-

Account of the Quantities and Value of the Wines Exported from France in 1865; Distinguishing Between those of the Grande and those of other Departments, and between those Exported in Casks and Bottles; and Specifying the Quantities of those sent to each Country consuming largely, and their Total Value.

Countries to which Exported	Wine in Casks				Wine in Bottles			
	Of the Grande		Of other Departments		Of the Grande		Of other Departments	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	hect.	francs	hect.	francs	hect.	francs	hect.	francs
United States	121,576	..	..	..	15,700	..	9,314	..
Belgium	76,690	..	72,917	..	..	..	6,281	..
Han towns	128,406	..	..	..	..	..	..	..
Uruguay	65,585	..	..	..	..	..	..	..
Rio de la Plata	184,151	..	..	..	..	..	..	..
Italy	..	..	360,191	..	..	..	..	..
Switzerland	..	..	375,598	..	..	..	..	..
Algeria	..	95,181,711	58,176	..	..	17,518,517	..	21,711,804
United Kingdom	..	..	..	99,728,081	9,887	..	17,117	..
British East Indies	..	..	..	..	2,158	..	..	..
Spanish America	..	..	..	..	2,668	..	..	..
Mexico	..	..	..	..	8,952	..	..	..
Germany	..	..	..	..	..	6,555	..	..
Russia	..	..	..	..	..	7,149	..	..
Other parts	..	401,581	551,995	..	21,729	..	39,696	..
Total	978,830	95,481,711	1,662,515	99,728,081	58,194	17,518,517	68,611	21,711,804

duction of which she is immeasurably superior to every other country, might be increased.

Exclusive of wines, there were exported from France, in 1865, 1,829,122 litres of *vins de liqueurs*, valued at 4,390,613 francs, and in 1867 the total value of the wines exported from France was 195,788,220 francs.

The total average produce of the vineyards of France is estimated by Mr. Beckwith, in his *Essay on Fermented Drinks*, 1866-7, at 831,000,000 of gallons, exclusive of 165,000,000 of gallons annually distilled into brandy. See the article *BORDEAUX*, for an account of the influence of the improved French commercial policy on this great department of industry.

*Dispute as to the comparative Merit of Champagne and Burgundy.*—The question, whether the wines of Champagne or Burgundy were entitled to the preference, was agitated during the reign of Louis XIV. with extraordinary keenness. The celebrated Charles Coffin, rector of the University of Beauvais, published, during this controversy, a classical ode, in which Champagne is eulogised, and its superiority vindicated with a spirit, vivacity, and delicacy worthy of the theme. The citizens of Rheims were not ungrateful to the poet; but liberally rewarded him with an appropriate and munificent donation of the wine he had so happily panegyrised. Gréneau wrote an ode in praise of Burgundy; but, unlike its subject, it was flat and insipid, and failed to procure any recompense to its author. The different pieces in this amusing controversy were collected and published in 8vo. at Paris, in 1712. (Le Grand d'Aussy, *Vie privée des Français*, tom. iii. p. 39, and the *Biographie Universelle*, tom. ix. art. 'Coffin' (Charles). Erasmus attributes the restoration of his health to his having drunk liberally of Burgundy; and has eulogised it in the most extravagant terms. An epistle of his, quoted by Le Grand d'Aussy, shows that Falstaff and he would have spent an evening together more agreeably than might have been supposed:—'Le premier qui enseigna l'art de faire ce vin (de Bourgogne), ou qui nous en fit présent, ne doit-il point passer plutôt pour nous avoir donné la vie que pour nous avoir gratifié d'une liqueur?' (*Vie privée des Français*, tom. iii. p. 9.)

*Consumption of French Wine in England.*—Owing to the intimate connection subsisting between England and France for several centuries after the Conquest, the wines of the latter were long in almost exclusive possession of the English market; but the extension of commerce

gradually led to the introduction of other species; and in the reigns of Elizabeth and James I. the dry white wines of Spain seem to have been held in the highest estimation. This, however, was only a temporary preference. Subsequently to the Restoration, the wines of France regained their former ascendancy. In 1687 their importation amounted to 15,518; in 1688, to 14,218; and in 1689, to 11,106 tuns. It is exceedingly doubtful whether so much as a single pipe of port had ever found its way to England previously to this period (Henderson, p. 313); and it is most probable that the wines of France would have continued to preserve their ascendancy in our markets, had not their importation been artificially checked.

The trade with France had occasionally been prohibited previously to the accession of William III.; but it was not until 1693 that any distinction was made between the duties payable on French and other wines. But Louis XIV. having espoused the cause of the exiled family of Stuart, the British Government, in the irritation of the moment, and without reflecting that the blow aimed at the French would infallibly recoil upon themselves, imposed, at the period above mentioned, a discriminating duty of 8%, a tun on French wines, and in 1697 increased it to 33%. In consequence of this enormous augmentation of duty on French wines, the merchants began to import red wine from Oporto as a substitute for the red wines of Bordeaux, excluded by the high duties. It is probable, however, that these discriminating duties would have been repealed as soon as the excitement which produced them had subsided, and that the trade would have returned to its old channels, had not the stipulations in the famous commercial treaty with Portugal, negotiated by Mr. Methuen in 1703, given them permanence. Such, however, was unluckily the case; for, according to this treaty, we bound ourselves to charge in future 33% per cent. higher duties on the wines of France than on those of Portugal; the Portuguese, by way of compensation, binding themselves to admit our woollens into their markets in preference to those of other countries, at a fixed and invariable rate of duty.

Though very generally regarded at the time as the highest effort of diplomatic skill and address, the Methuen treaty was certainly founded on the narrowest views of national interest, and proved, in no common degree, injurious to both parties, but especially to England. By binding ourselves to receive Portuguese wines for two-thirds

produce of the province of about 1,000,000 of gallons. Mr. Beckwith's (1866) estimate of wine produced in 1865, 52,000,000 of gallons, the data on which this

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of the duty payable on those of France, we, in effect, gave the Portuguese growers a monopoly of the British market, and thereby attracted too great a proportion of the delicate capital of Portugal to the production of wine; while, on the other hand, we not only excluded one of the principal equivalents the French had to offer for our commodities, and proclaimed to the world that we considered it better to deal with two millions of poor beggarly customers, than with thirty millions of rich ones, but we also provoked the retaliation of the French, who forthwith excluded most part of our articles from their markets.

The injurious effect of the regulations in the Methuen treaty was distinctly pointed out by Dr. Davenant and Mr. Hume. The latter, in his *Essay on the Balance of Trade*, published in 1752, says, 'Our jealousy and hatred of France are without bounds. These passions have occasioned innumerable barriers and obstructions on commerce, where we are commonly accused of being the aggressors. But what have we gained by the bargain? We lost the French market for our woollen manufactures, and transferred the commerce of wine to Spain and Portugal, where we buy much worse liquor at a much higher price. There are few Englishmen who would not think their country absolutely ruined were French wine sold in England so cheap, and in such abundance, as to supplant ale and other home-brewed liquors. But, would we lay aside prejudice, it would not be difficult to prove that nothing could be more innocent, perhaps more advantageous. Each new acre of vineyard planted in France, in order to supply England with wine, would make it requisite for the French to take an equivalent in English goods, by the sale of which we should be equally benefited.'

In consequence of the preference so unwisely given to the wines of Portugal over those of France—a preference continued, in defiance of every principle of sound policy and common sense, down to 1831—the imports of French wine were for many years reduced to a mere trifle; and notwithstanding their increased consumption, occasioned by the reduction of the duties in 1825, the quantity of all sorts retained for consumption in 1852 did not exceed 475,948 gallons; while the consumption of Portuguese wines amounted in the same year to 2,489,350 gallons. This is the most striking example, perhaps, in the history of commerce, of the influence of customs duties in diverting trade into new channels, and altering the taste of a people. All but the most opulent classes having been compelled, for a long series of years, either to renounce red wine, or to use port, the taste for the latter had become apparently firmly rooted; the beverage that was originally forced upon us by necessity having for a time become congenial from habit. It was expected when the discriminating duty in favour of port was abolished in 1831, that the excellence of the French wines would speedily regain for them a large portion of that favour in the English market which they formerly enjoyed. And this, since our commercial treaty with France came into operation, has been fully realised. In 1867 there were entered for home consumption in the United Kingdom, 3,595,598 gallons of French wine, while but 2,828,098 gallons of Portuguese red wine were entered. (See post.)

*Madeira*, so called from the island of that name, is a wine that has long been in high estimation in this and other countries. Plants of the vine were conveyed from Crete to Madeira in 1421, and have succeeded extremely well. There is a considerable difference in the flavour and other

qualities of the wines of Madeira; the best are produced on the south side of the island. Though naturally strong, they receive an addition of brandy when racked from the vessels in which they have been fermented, and another portion is thrown in previously to their exportation. This is said to be required to sustain the wine in the high temperature to which it is subjected in its passage to and from India and China, to which large quantities of it are sent; it being found that it is mellowed, and its flavour materially improved by the voyage. It does not, however, necessarily follow that the wines which have made the longest voyages are always the best. Much must obviously depend on the original quality of the wine; and many of the parcels selected to be sent to India are so inferior, that the wine, when brought to London, does not rank so high as that which has been imported direct. But when the parcel sent out has been well chosen, it is very much matured and improved by the voyage; and it not only fetches a higher price, but is in all respects superior to the direct importations. Most of the adventitious spirit is dissipated in the course of the Indian voyage.

Madeira wines may be kept for a very long period. Like the ancient vintages of the Surrentine hills, they are truly *firmissima vin*, retaining their qualities unimpaired in both extremes of climate, suffering no decay, and constantly improving as they advance in age. Indeed, they cannot be pronounced in condition until they have been kept for 10 years in the wood, and afterwards allowed to mellow nearly twice that time in bottle; and even then they will hardly have reached the utmost perfection of which they are susceptible. When of good quality, and matured as above described, they lose all their original harshness, and acquire that agreeable pungency, that bitter sweetness, which was so highly prized in the choicest wines of antiquity; uniting great strength and richness of flavour with an exceedingly fragrant and diffusible aroma. The nutty taste, which is often very marked, is not communicated, as some have imagined, by means of bitter almonds, but is inherent in the wine. (Henderson, p. 253.)

The wines of Madeira have latterly fallen into disrepute in England. The growth of the island, when greatest, was very limited; not exceeding 20,000 pipes, of which a considerable quantity went to the West Indies and America. Hence, when Madeira was a fashionable wine in England, every sort of deception was practised with respect to it, and large quantities of spurious trash was disposed of for the genuine vintage of the island. This naturally brought the wine into discredit; so that sherry has been for several years the fashionable white wine. It is difficult, however, to imagine that adulteration was ever practised to a greater extent upon Madeira than it is now practised upon sherry. It is not, therefore, improbable, that a reversion might have taken place in favour of Madeira, had not its growth been nearly extinguished for several years by the vine disease. Hopes were, however, entertained in 1868 of the possibility of restoring it to its former productiveness. [MADEIRA.] The quantity entered for home consumption in 1827 amounted to 308,295 gallons, whereas the quantity entered for home consumption in 1867 amounted to only 19,538 gallons.

Malmsey, a very rich, luscious species of Madeira, is made from grapes grown on rocky grounds, exposed to the full influence of the sun's rays, and allowed to remain on the vine till they are over-ripe.

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The trade in Madeira wine is carried on at Funchal, the capital of the island, in lat. 32° 37' N., long. 17° 6' W. *Weights and Measures* same as at Lisbon. The island is said to have suffered very severely from the disease that recently attacked the vine.

*Teneriffe wine*—so called from the island of that name—resembles Madeira, and is not unfrequently substituted in its stead; but it wants the full body and rich flavour of the best growths of Madeira.

*German Wines*.—The wines of Germany imported into England are principally produced on the banks of the Rhine and Moselle. The Rhine wines constitute a distinct order by themselves. They are drier than the French white wines, and are characterised by a delicate flavour and aroma, which is quite peculiar to them, and of which it would, therefore, be in vain to attempt the description. A notion prevails, that they are naturally acid; and the inferior kinds, no doubt, are so; but this is not the constant character of the Rhine wines, which in good years have no perceptible acidity to the taste, at least not more than is common to them with the growths of warmer regions. Their chief distinction is their extreme durability. The wines made in warm dry years are always in great demand, and fetch very high prices.

The *Johannis-berger* stands at the head of the Rhine wines. It has a very choice flavour and perfume, and is characterised by an almost total want of acidity. The vineyard is the property of Prince Metternich. The *Steinberger* ranks next to the *Johannis-berger*. It is the strongest of all the Rhenish wines, and in favourable years has much flavour and delicacy.

The produce of cert- in vineyards on the banks of the Moselle is of superior quality. The better sorts are clear and dry, with a light pleasant flavour and high aroma; but they sometimes contract a stony taste from the strata on which they grow. They arrive at maturity in 5 or 6 years; though, when made in a favourable season, they will keep twice that time, without experiencing any deterioration. (Henderson, p. 226.) The importation of Rhenish wine has more than doubled in the 10 years down to 1867.

*Hungarian Wines*.—The finest of all the liquor wines is *Tokay*, so called from a town in Hungary, near which it is produced, on the Theiss, 44 miles N.N.W. Debreczin. It consists of three varieties: viz. the *Essence*, flowing spontaneously from the ripest grapes, and corresponding with the *Mustum sponte defluens antequam calcetur uve* of the ancients; the *Austrach*, obtained by pressing the grapes with the hand, a small quantity of good new wine, or must, being at the same time poured over them; and the *Maslas*, or inferior variety, produced by pouring a larger quantity of less choice must over the same berries, and subjecting them to the action of the press. Of these varieties the first, which is made only in very small quantities, is in the highest degree sweet and luscious, and is more sought for as a rarity than as being pleasant to the palate. It is on the *Austrach* that the reputation of Tokay depends. Mr. Paget says, 'It is sweet, rich, but not cloying; strong, full-bodied, but mild, bright, and clear; and has a peculiar flavour of most exquisite delicacy. I never tasted it in perfection but at private tables, and that only twice; I could then have willingly confessed it the finest wine in the world.' The *Maslas*, or inferior variety, is a much thinner wine, rather sweet, with a preponderating flavour of the dried grape. Mr. Paget estimates the entire produce of the Tokay vineyards in ordinary

years at about 250,000 eimers, of about 16 bottles each. The best *Austrach* is very dear; and but little that is genuine is seen in England. (Paget's *Travels in Hungary*, i. 481; Henderson, p. 228; Jullien, p. 446.)

Some other varieties of Hungarian wines are now (1869) sold in London; but they have not as yet displaced, to any appreciable extent, the wines to which the English have long been accustomed.

*Italian Wines*.—The Sicilian white wine called *Marsala*, from the town (the ancient Lilybæum) whence it is shipped, and near which it is made, is now pretty largely consumed in England; the entries for home consumption having increased from 79,686 gallons in 1823, to 387,750 in 1852; an extraordinary increase, particularly when it is considered that during the same period the consumption of most sorts of wine had been nearly stationary. Latterly, however, it has been rather declining, though 413,190 gallons of Sicilian wine were entered for consumption in the United Kingdom in 1867. *Marsala* is a dry wine; the best qualities closely resembling the lighter sorts of Madeira; but the increased demand for it seems to have been owing as much to its cheapness as to any peculiarity of quality. It is, however, when good, an agreeable dinner wine. *Marsala* has been brought to its present state of perfection and repute by the care and exertions of two Englishmen, the Messrs. Woodhouse, established in Sicily, who have an extensive factory in the neighbourhood of *Marsala*. The wine is shipped in large quantities for America; whence a considerable quantity is again conveyed to the West Indies, where it is not unfrequently disposed of as real Madeira.

With the exception of *Marsala*, very little wine either of Sicily or Italy is imported into England. The wines of those countries are, indeed, without, perhaps, a single exception, very inferior to those of France. The natives bestow no care upon the culture of the vine; and their ignorance, obstinacy, and want of skill in the preparation of wine, are said to be almost incredible. In some districts, as in Tuscany and parts of Naples, the art is, no doubt, better understood and practised than in others; the *Montepulciano* of the former, said, by Redi (*Bacco in Toscana*) to be *di ogni vino il re*, and the *Lacrima Christi* of the latter, being the most celebrated varieties. But the *lacrima* is better known by name than in reality, it being made in small quantities, and mostly reserved for royal cellars. (Henderson, p. 239.) And, despite the superior quality of those now mentioned, had not the *Falerian*, *Cecuban*, and other famous ancient wines, been incomparably better than the best of those that are at present produced, they never would have elicited the glowing panegyrics of Horace.

*Wines of Greece and Cyprus*.—The soil in most parts of Greece and of the Grecian islands is admirably fitted for the growth of the vine; and, in antiquity, they produced some of the choicest wines. But the rapacity of the Turks, and the insecurity of person and property that has always prevailed under their miserable Government, has effectually prevented the careful cultivation of the vine; and has occasioned, in many places, its total abandonment. It may, however, be fairly presumed, now that Greece has emancipated herself from the iron yoke of her oppressors, that the culture of the vine will attract some portion of that attention to which it is justly entitled; and that, at no distant period, wine will form an important article of export from Greece. At present (1869) Greek wines are sold in London, but have not as yet found much favour with the English.

Nowhere, perhaps, has the destructive influence of Turkish barbarism and misgovernment been so apparent as in Cindia and Cyprus. While these two renowned and noble islands were possessed by the Venetians, they supplied all Europe with the choicest dessert wines. Bacci allrms, that towards the end of the 16th century, Cindia sent annually 200,000 casks of malmscy to the Adriatic; whereas now-a-days it hardly produces sufficient to supply the wants of its few impoverished inhabitants. (Henderson, p. 213.) The wines of Cyprus, particularly those produced from the vineyard called the Commandery, from its having belonged to the Knights of Malta, were still more highly esteemed than those of Crete. In the earlier part of last century, the total produce of the vintage of the island was supposed to amount to above 2,000,000 gallons, of which nearly  $\frac{1}{2}$  was exported; but at present (1869) the wine grown and exported does not amount to  $\frac{1}{10}$  of these quantities. The oppression of which they have been the victims has reduced the peasantry to the extreme of indigence. At this time the population of the island is not supposed to exceed 200,000, and small as this number is, it is constantly diminishing by the inhabitants availing themselves of every opportunity of emigrating. (*Geog. Dict. art. 'Cyprus.'*)

*Cape Wines.*—Of the remaining wines imported into England, those of the Cape of Good Hope form the largest portion; the quantity entered for home consumption in 1867 being 25,890 imperial gallons. But the consumption of Cape wine was formerly more considerable, having amounted in 1827 to 698,434 gallons. The famous Constantia wine is the produce of two contiguous farms of that name, at the base of Table Mountain, between 8 and 9 miles from Cape Town. The wine is very rich and luscious; though, according to Henderson, it yields in point of flavour and aroma to the muscadine wines of Languedoc and Roussillon. But, with this exception, most part of the Cape wines brought to England have an earthy, disagreeable taste, are often acid, want flavour and aroma, and are, in fact, altogether execrable. And yet this trash, being the produce of a British possession, enjoyed till lately peculiar advantages in our markets; for while the duty on Cape wine was only 2s. 11d. per gallon, that on all other wines was 5s. 9d. The consequences of this unjust preference were doubly mischievous: in the first place, it forced the importation of an article of which little was directly consumed, but which was extensively employed as a convenient menstruum for adulterating and degrading sherry, Madeira, and other good wines; and, in the second place, it prevented the improvement of the wine; for, while the Legislature thought fit to give a bounty on the importation of so inferior an article, was it to be supposed that the colonists would exert themselves to produce anything better? It is not easy to imagine a more preposterous and absurd regulation. The Act enforcing it should have been entitled, an Act for the adulteration of wines in Great Britain, and for encouraging the growth of bad wine in the Cape Colony.

*Consumption of Wine in Great Britain. Duties.*—We have repeatedly had occasion, in the course of this work, to call the reader's attention to the injurious operation of unequal and exorbitant duties. Perhaps, however, the trade in wine has suffered more from this cause than any other department of commerce. We have already endeavoured to point out some of the effects resulting from the inequality of the duties, or from the preference so long given to the inferior wines of Portugal and Spain over the superior wines of

France. But the exorbitancy of the duties was, if possible, still more objectionable than the partial principle on which they were imposed. It appears from the subjoined table, that during the 9 years ending with 1794, when the duty on French wines was 4s. 10d., and on Portuguese 3s. 13d. per imperial gallon, the consumption in Great Britain amounted, at an average, to 7,921,770 gallons a-year, producing 900,000*l.* of revenue. It is probable, had the increase taken place *gradually*, that these duties might have been greatly increased without any material diminution of consumption. But in 1795 and 1796 they were raised to 10s. 6d. per gallon on French, and 6s. 1d. per gallon on Portuguese and Spanish wine; and the consequence of this sudden and inordinate increase, as exhibited in the table, was, that the consumption fell from above 7,000,000 gallons in 1795 to 4,189,710 gallons in 1796, and to 5,449,710 in 1797. But this unanswerable demonstration of the ruinous effect of heavy and sudden additions to the duties did not prevent them being raised, in 1804, to 13s. 9d. on French, and to 8s. 10d. on Portuguese and Spanish wine. They continued at this rate till 1825; and such was their influence, that notwithstanding the vast increase of wealth and population since 1790, and the general improvement in the style of living, the total consumption of wine, during the 3 years ending with 1824, amounted, at an average, to only 4,827,383 gallons a-year, being 697,507 gallons under the annual consumption of the 9 years ending with 1794. It may, therefore be truly said, making allowance for the increase of population, that the consumption of wine in Great Britain fell off full 50 per cent. between 1790 and 1824.

On Mr. Robinson (afterwards Lord Ripon) becoming Chancellor of the Exchequer, he resolved upon the effectual reduction of the wine duties; and took, in 1825, nearly 50 per cent. from their amount: and notwithstanding the spirit duties were at the same time reduced in a still greater degree, the consumption of wine in Great Britain increased in ordinary years from about 4,500,000 to about 6,300,000 imperial gallons, while there was no loss of revenue. We are, therefore, justified in affirming that this measure was very successful, and that it afforded a valuable example of the superior productiveness of low duties. An article in the *Edinburgh Review*, No. 80, contributed to bring about this measure. See also an excellent tract on the *Wine Trade*, by Mr. Warre, published in 1824.

The duties, as reduced by Mr. Robinson, were 7s. 3d. per imperial gallon on French wines, 4s. 10d. per ditto on all other foreign wines, and 2s. 5d. on those of the Cape of Good Hope. They continued on this footing till the Equalisation Act (1 & 2 Wm. IV. c. 30), which imposed a duty of 5s. 6d. per imperial gallon on all foreign wines, and 2s. 9d. on those of the Cape, to which 5 per cent. was added in 1840.

But the equalisation effected by this Act should not have been brought about by adding anything to the duties on port, sherry &c., but by reducing those on French wines to their level. The subjoined tables show that the consumption of wine in the United Kingdom was about stationary from 1826 to 1831; and the addition of 8d. per gallon, that was then made to the duties on all sorts of foreign wine, except French, from which 1s. 9d. was deducted, appears to have sensibly affected the consumption of 1832. Considering, indeed, the increasing wealth and population of the United Kingdom, and the more generally diffused use of wine, the stationary amount of the quantities retained for consumption is not a 1

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surprising. A good deal is, we believe, ascrib- able to adulteration, and more, probably, to a change of habits. The duties were, also, perhaps, too high. But they were more objectionable from the mode in which they were assessed than from their amount. It is against all principle to impose the same duty on inferior and cheap wines, worth only 10l. per hogshead, as on the choicest Burgundy and Champagne, worth 60l. or 70l. per hogshead. Its injustice would not be exceeded, were the same duty charged on small beer that is charged on gin. The effect of this apparently equal, but really most unequal duty, was to exclude low priced wines from the English markets. Commercially speaking, Bordeaux is nearer London than Paris; and but for this system, the cheap wines of the Gironde, Languedoc, and Provence might have been bought here at a less price than in most parts of France. But, how desirable soever, it would be all but impossible to assess an ad valorem duty on wine. It is frequently no easy matter to distinguish between different descriptions of wine, and it is still more difficult to distinguish between different varieties of the same wine, though they may differ greatly in value. There can, in truth, be little doubt that any attempt to lay an ad valorem duty on wine would occasion such an amount of fraud as would greatly overbalance any advantage of which it might be productive.

In the last edition of this work the author remarked as follows: 'A proposal has recently been made, which has met with considerable support, for reducing the duty on all wines to 1s. per gallon. It is contended that a reduction of this extent would not occasion any permanent loss of revenue, inasmuch as it would have the effect, in no very lengthened period, of increasing the consumption to 5 or 6 times its present amount. But we greatly doubt whether such would be the case. A reduction of the duty to the extent supposed would not have any considerable influence in reducing the price of the finer descriptions of wine; and it is very questionable whether the inferior and low-priced wines that are now excluded, would, though there were no duty, be very generally introduced into this country. The better opinion seems that beer would continue, as at present, to be preferred by the bulk of the population; and if so, the measure would have little other influence than to occasion a reduction of revenue.'

'Besides, if the wine duties were reduced to 1s. per gallon, and the consumption to increase to the extent that has been anticipated, there would certainly be a serious decline in the consumption of malt and spirit, and, consequently, in the revenue derived from them. And to do justice to all parties, to the growers of barley and the distillers, as well as the importers of wine, it would be necessary to make a corresponding reduction in the duties on malt and spirits. Unless this were done, a reduction of the wine duties to 1s. per gallon would be really equivalent to a bounty or premium on the consumption of wine. But there should be no favouritism in taxation; and, however desirable, the substitution of one sort of stimulus for another is not to be effected by encroaching on that equality of taxation which should be a fundamental principle in every sound system of finance.'

'Unless, therefore, some means be discovered of fairly and easily assessing the wine duties on an ad valorem principle, little probably would be gained by disturbing the present arrangement. A reduction of the duties to 3s. per gallon, that is, to about 6d. per bottle, has been suggested; and if they are to be interfered with, this would seem to

be the most judicious plan. A duty of this amount would not be felt on the superior wines; and while it would be no great check to the consumption of the secondary growths, it would not give an undue stimulus to the use of wine.' Since the above was written, the duties have been reduced, and in 1866 the present rates were regulated as follows, viz. :—

On wine containing less than 26 degrees of proof spirit, 1s. per gallon; 26 and less than 32 degrees of proof spirit, 2s. 6d. per gallon; and additional for every degree of strength beyond the highest above specified, 3d. per gallon.

*Consumption of Wine in Ireland.*—In 1790, the duties on wine consumed in Ireland were considerably below the level of those imposed in Great Britain, and the average annual quantity of all sorts retained for home consumption in that country amounted to about 1,160,000 imperial gallons, producing about 138,000l. a-year revenue. Had those to whom the government of Ireland was intrusted possessed any knowledge of the merest elements of finance, or of the condition of the Irish people, they would not have attempted to add to the public revenue by augmenting the duties on wine. Owing to the limited number of the middle classes in Ireland, an increase of duty could not be expected to be productive; and though it had yielded 50,000l., or even 100,000l., a-year additional revenue, that would have been no compensation for the injury it was sure to do in checking the diffusion of that taste for luxuries and enjoyments so essential to the improvement of the people. But those who had to administer the affairs of Ireland were insensible to such considerations, and never doubted that 2 and 2 make 4 in the arithmetic of the customs as well as of Cocker. Such, indeed, was their almost incredible rapacity, that in the interval between 1791 and 1814, they raised the duty on French wine from 33s. 7s. per tun to 141l. 7s. 6d.; and that on port from 22l. 4s. 8d. to 95l. 11s. This was a much more rapid increase than had taken place in England; and as the country was far less able to bear even the same increase, the consequences were proportionally mischievous. In 1815, the quantity of wine retained for home consumption in Ireland had declined, notwithstanding the population had doubled, to 608,000 imperial gallons, or to about half the quantity consumed in 1790; and in 1824, the consumption had fallen to 467,000 gallons, while the revenue only amounted to 185,000l.

The reduction of the duties in 1825 nearly doubled the consumption of wine directly imported into Ireland, and added considerably to the revenue; but since 1814, when the duties on wine in Great Britain and Ireland were equalised, it has not been possible to state the consumption of wine in either with accuracy, on account of the transshipments from the former to the latter. It is, however, quite certain that the consumption of wine in Ireland, partly in consequence of the high duties, and partly of a change in the mode of living, did not in 1853 amount, as compared with the population, to half its amount in 1790. In Thom's Irish Almanack for 1869 the consumption in 1790 is stated at 1,117,556 proof gallons, and that in 1853 at 512,693 gallons, while in 1865 it is estimated at 973,901 gallons.

*Adulteration of Wine.*—We have already alluded to this practice. It was prosecuted to a very great extent previously to the reduction of the duties in 1825, and is still very far from being suppressed. It has been affirmed, but we are inclined to suspect the statement of exaggeration, that at one time more than a third part of all the





sherry consumed in London was the produce of the *home presses*. Indeed, wines are every day offered for sale at prices at which everyone conversant with the trade knows they could not be afforded were they genuine. Mr. Fleetwood Williams, in his pamphlet on the *Wine Trade* (1823), gave some curious details on this subject.

The increase of the duties in the reigns of William and Anne first gave birth to this discreditable fraternity (see a paper by Addison in the *Tatler*, No. 310). But though adulteration be promoted by, it does not wholly depend on the duties, but will continue so long as the materials used in adulteration are cheaper than the wine, or article adulterated. See as to adulteration of port wine under *Geopigea*; and see also *Reports* of Mr. Secretary Lytton and Mr. Consul Cranford on the same subject, published by the Government in 1867.

The only security against being imposed upon is to deal with respectable houses largely engaged in the trade, to whom a reputation for selling good wine is of ten times more importance than anything they could expect to make by adulteration.

*Measures.*—According to the system of wine measures that prevailed down to 1826, the gallon contained 231 cubic inches; the tierce, 42 gallons; the puncheon, 81 gallons; the hogshhead, 63 gallons; the pipe or butt, 126 gallons; and the tun, 252 gallons. But in the system of measures introduced by the Act 5 Geo. IV. c. 74, the imperial standard gallon contains 277.274 cubic inches; so that the tierce=35 (very nearly) imperial gallons; the puncheon=70 (very nearly) ditto; the hogshhead=52½ (very nearly) ditto; the pipe or butt=105 (very nearly) ditto; and the tun=210 (very nearly) ditto. [WEIGHERS MEASURES.]

A very great quantity of wine is the consumer in dozens; much more, indeed, than is sold in any other way; and yet there is no regulation as to the size of bottles—a defect which has occasioned a great deal of abuse. No one doubts the propriety of making all gallons, bushels, &c. of the same capacity; and why should not similar regulations be enforced in the case of measures so universally used as bottles?

No abatement of duties made on account of any damage received by wine. (16 & 17 Vict. c. 107 s. 110.)

*Wine for Officers of Navy.*—For the quantity of duty-free wine to be allowed to officers of the navy, and the regulations under which it is to be allowed, see ante, *IMPORTATION AND EXPORTATION*, and for similar allowances for the merchant service, see *STONES*.

*Regulations as to Mixing, Bottling &c. in Warehouses.*—It shall be lawful, with the sanction of the commissioners of customs, and after notice given by the respective importers or proprietors, to draw off any wine or any spirits into reputed quart or pint bottles for exportation only; and to draw off and mix brandy with any wine, not exceeding the proportion of 10 gallons brandy to 100 gallons wine; and also to fill up any casks of wine or spirits from any other casks of the same respectively secured in the same warehouse; and also to rack off any wine from the lees, and mix any wines of the same sort, erasing from the cask all import brands, unless the whole of the wine so mixed be of the same brand; and also to take such samples as may be allowed by the commissioners of customs, with or without entry, and with or without payment of duty, except as the same may eventually become payable as on a deficiency of the original quantity. (16 & 17 Vict.

c. 107 s. 105.) *Geopigea* may be mixed with other wines under the same regulations, and in the same proportions as brandy.

We have borrowed the first part of the comprehensive Table No. 1. (p. 1531) from a valuable circular of Thomas George Shaw, Esq. The latter years are taken from parliamentary papers.

*Table showing the Quantities of Wine in the Bonded Warehouses of the United Kingdom on December 31, 1866 and 1867, and the Sources whence these Quantities were Imported.*

Countries	In Warehouses	
	Dec. 31, 1866	Dec. 31, 1867
British possessions in S. Africa	gals. 47,704	gals. 26,316
Other British possessions	19,719	18,917
Holland	113,338	115,589
France	1,731,670	1,999,046
Portugal	5,317,931	4,973,616
Madeira	35,390	38,196
Spain	6,608,301	6,531,122
Canaries	5,138	7,592
Italy, including Naples and Sicily	937,766	909,678
Other countries	490,781	503,598
Mixed in bond	741,598	741,531
Total	13,872,143	13,392,311

**WOAD** (Ger. waid; Dutch, weede; Fr. pastel, guède, vomède; Ital. gundone, gundo, gualstro; Span. pastel, gualto). The *Isatis tinctoria* of bot. ... is a biennial plant, with a fusiform fibrous root, and smooth branched stem, rising from 3 to 5 feet in height. Woad is indigenous to most parts of Europe; and was extensively used from a very remote period, down to the general introduction of indigo, in the dyeing of blue. It is still cultivated to a considerable extent in France; but in this country its cultivation is chiefly restricted to a few districts in Lincolnshire. After being bruised by machinery, to express the watery part, it is formed into balls, which ferment and fall into a dry powder, which is sold to the dyer. Woad is now seldom employed without a mixture of indigo. By itself, it is incapable of giving a bright and deep blue colour; but the colour which it does give is very durable. The best methods of conducting the fermentation and preparation of woad are still so very ill understood that the goodness of any parcel of it can never be ascertained till it be actually used; so that it has the disadvantage of being purchased under the greatest uncertainty as to its true value. At the proper age, indigo plants yield about 30 times as much colouring matter, and of a far superior quality, as an equal weight of woad; so that there is no prospect that any improvement that may be made in its preparation will ever render it either in goodness or cheapness, a rival of the former. (London's *Encyc. of Agriculture*; Bancroft *On Colours*, vol. 1. p. 167.) We have previously [1810] given some account of the efforts made by the woad growers to prevent the use of indigo.

**WOOL.** [WOLL.]

**WOOL** (Ger. wolle; Dutch, wol; Dan. uld; Swedish, ull; Fr. laine, lã; and Span. lana; Port. lãa; Russ. wolna, selherst; Pol. wlna; Lat. lana). A kind of soft hair or down. The term is not very well defined. It is applied both to the fine hair of animals, as sheep, rabbits, some species of goats, the vicuña &c., and to fine vegetable fibres, as cotton. In this article, however, we refer only to the wool of sheep—an article which has continued, from the earliest period down to the present day, to be of primary importance, having always formed the principal part of the clothing of mankind in most temperate regions.

*Species of Wool.*—It has been customary in

opiga may be mixed with the same regulations, and in some brands.

3. First part of the complete (p. 1534) from a valuable large Shaw, Esq. The latter quantity papers.

**Quantities of Wine in the Kingdom of the United Kingdom 1866 and 1867, and the Quantities were Imported**

In Warehouses	
Dec. 31, 1866	Dec. 31, 1867
gals.	gals.
12,391	26,416
19,719	18,917
13,734	115,581
1,233,670	1,199,036
4,312,930	4,023,546
33,399	38,496
6,208,301	6,511,127
5,134	7,509
232,760	309,674
490,541	503,598
173,598	171,534
13,874,100	13,307,721

Dutch, woad; Fr. pastel, gundome, guado, glastro; The *Isatis tinctoria* of plant, with a fusiform fibrous stem, rising from a root is indigenous to most was extensively used from down to the general introduction of dyeing of blue. It is still verberle extent in France; its cultivation is chiefly restricted in Lincolnshire. After machinery, to express the oil into balls, which ferment wader, which is sold to the shlow employed without a y itself, it is incapable of deep blue colour; but the give is very durable. The eting the fermentation and e still so very ill understood y parcel of it can never be ctually used; so that it has eing purchased under the to its true value. At the ats yield about 30 times er, and of a far superior weight of woad; so that at any improvement that paration will ever render it cheapness, a rival of the *key of Agriculture*; Bancroft (187.) We have previously account of the efforts made to prevent the use of indigo.

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It has been customary in

this country to divide wool into 2 great classes—long and short wools; and these again into subordinate classes, according to the fineness of the fibre.

Short wool is used in the cloth manufacture; and is, therefore, frequently called clothing wool; and may vary in length from 1 to 3 or 4 inches; if it be longer, it requires to be cut or broken to prepare it for the manufacture.

The *felting* property of wool is known to every one. The process of hat making, for example, depends entirely upon it. The wool of which hats are made is neither spun nor woven; but locks of it being thoroughly intermixed and compressed in warm water, cohere and form a solid tenacious substance.

Cloth and woollen goods are made from wool possessing this property; the wool is carded, spun, woven, and then, being put into the fulling mill, the process of felting takes place. The strokes of the mill make the fibres cohere; the piece subjected to the operation contracts in length and breadth, and its texture becomes more compact and uniform. This process is essential to the beauty and strength of woollen cloth. But the long wool of which stuffs and worsted goods are made is deprived of its felting properties. This is done by passing the wool through heated iron combs, which takes away the lamina or feathery part of the wool, and approximates it to the nature of silk or cotton.

Long or combing wool may vary in length from 3 to 8 inches. The shorter combing wools are principally used for hosiery, and are spun softer than the long combing wools; the former being made into what is called hard, and the latter into soft worsted yarn.

The fineness of the hair or fibre can rarely be estimated, at least for any useful purpose, except by the wool sorter or dealer, accustomed by long habit to discern those minute differences that are quite unappreciable by common observers. In sorting wools, there are frequently 8 or 10 different species in a single fleece; and if the best wool of one fleece be not equal to the finer sort, it is thrown to 2nd, 3rd, or 4th, or to a still lower sort, of an equal degree of fineness with it. The best English short native fleeces, such as the fine Norfolk and Southdown, are generally divided by the wool sorter into the following sorts, all varying in fineness from each other:—viz. 1, prime; 2, choice; 3, super; 4, head; 5, downrights; 6, seconds; 7, line abb; 8, coarse abb; 9, livery; 10, short coarse or breech wool. The relative value of each varies according to the greater demand for coarse, fine, or middle cloths.

The softness of the fibre is a quality of great importance. It is not dependent on the fineness of the fibre; and consists of a peculiar feel, approaching to that of silk or down. The difference in the value of 2 pieces of cloth made of 2 kinds of wool equally fine, but one distinguished for its softness and the other for the opposite quality, is such, that, with the same process and expense of manufacture, the one will be worth from 20 to 25 per cent. more than the other. Mr. Bakewell showed that the degree of softness depends principally on the nature of the soil on which sheep are fed; that sheep pastured on chalk districts, or light calcareous soils, usually produce hard wool; while the wool of those that are pastured on rich, loamy, argillaceous soils, is always distinguished by its softness. Of the foreign wools, the Saxon is generally softer than the Spanish. Hard wools are all defective in their *felting* properties.

In clothing wool, the colour of the fleece should

always approach as much as possible to the purest white; because such wool is not only necessary for cloths dressed white, but for all cloths that are to be dyed bright colours; for which a clear white ground is required to give a due degree of richness and lustre. Some of the English fine-woolled sheep, as the Norfolk and Southdown, have black or grey faces and legs. In all such sheep there is a tendency to grow grey wool on some part of the body, or to produce some grey fibres intermixed with the fleece, which renders the wool unfit for many kinds of white goods; for though the black hairs may be too few and minute to be detected by the wool sorter, yet when the cloth is stoved they become visible, forming reddish spots, by which its colour is much injured. The Herefordshire sheep, which have white faces, are entirely free from this defect, and yield a fleece without any admixture of grey hairs.

The cleanness of the wool is an important consideration. The Spanish wool, for example, is always scoured after it is shorn; whereas the English wool is only imperfectly washed on the sheep previous to its being shorn. In consequence, it is said that while a pack of English clothing wool of 210 lb. weight will waste about 70 lb. in the manufacture, the same quantity of Spanish will not waste more than 18 lb. Cleanliness, therefore, is an object of much importance to the buyer.

Before the recent improvements in the spinning of wool by machinery, great length and strength of staple was considered indispensable in most combing wools. The fleeces of the long-woolled sheep fed in the rich marshes of Kent and Lincoln used to be reckoned peculiarly suitable for the purposes of the wool comb; but the improvements alluded to have effected a very great change in this respect, and have enabled the manufacturer to substitute short wool of 3 inches staple, in the place of long combing wool, in the preparation of most worsted articles. A great alteration has, in consequence, taken place in the proportion of long to short wool since 1804; there having been in the interim, according to Mr. Hubbard's calculations (see post), an increase of 132,653 packs in the quantity of the former produced in England, and a decrease of 72,920 in the quantity of the latter.

Whiteness of fleece is of less importance in the long combing than in clothing wool, provided it be free from grey hairs. Sometimes, however, the fleece has a dingy brown colour, called a *winter stain*, which is a sure indication that the wool is not in a thoroughly sound state. Such fleeces are carefully thrown out by the wool sorter; being suitable only for goods that are to be dyed black. The fineness of heavy combing wool is not of so much consequence as its other qualities.

The Merino or Spanish breed of sheep was introduced into this country about the close of the last century. George III. was a great patron of this breed, which was for several years a very great favourite. But it has been ascertained that, though the fleece does not much degenerate here, the carcase, which is naturally ill formed, and affords comparatively little weight of meat, does not improve; and as the farmer, in the kind of sheep which he keeps, must look not only to the produce of wool, but also to the butcher market, he has found it his interest rather to return to the native breeds of his own country, and to give up the Spanish sheep. They have, however, been of considerable service to the flocks of England; having been judiciously crossed with the Southdown, Ryeland &c.

*Deterioration or Change in the Character of British Wool.*—It appears to be sufficiently es-

published, by the evidence taken before the House of Lords in 1828, and other authorities, that a considerable deterioration, or rather, perhaps, change, had taken place in the quality of British wool, particularly during the 30 preceding years. The great object of the agriculturist has been to increase the weight of the carcase and the quantity of the wool; and it seems very difficult, if not quite impossible, to accomplish this without injuring the fineness of the fleece. Mr. Culley said, that the Herefordshire sheep, that produce the finest wool, are kept lean, and yield 1½ lb. each; he added, 'if they be better kept, they grow large and produce more wool, but of an inferior quality.' This would seem to be universally true. The great extension of the turnip husbandry, and the general introduction of a larger breed of sheep, appear, in every instance, to have lessened the value of the fleece. Speaking of the Norfolk fleeces, Mr. Fison, a wool sorter, said, that 25 years ago the weight was 2½ lb. a fleece, and that now it is 3 lb. or 3½ lb. (*Report*, p. 356.) But according to a table furnished by the same gentleman, containing the results of his experience, it appeared that of 15 tods, or 420 lb., of clothing wool grown in Norfolk in 1790, 200 lb. were prime, while, in 1828, the same quantity of Norfolk wool only yielded 14 lb. prime. (*Ibid.* p. 207.) The statements of other witnesses were to the same effect. (*Ibid.* pp. 388, 640, and 644.) According to the estimate in Mr. Lucecock's *Treatise on English Wool*, which has always enjoyed the highest reputation, the produce of all sorts of wool in England, in 1800, was 384,000 packs, of 240 lb. a pack. But Mr. Hubbard, a very intelligent and extensive wool-stapler at Leeds, has shown that, supposing Mr. Lucecock's estimate of the number of sheep to be correct, the quantity of wool produced in 1828 could not, owing to the greater weight of the fleece, be estimated at less than 463,169 packs; and it is now (1869) believed to amount to more than 500,000 packs. It is, therefore, probable, notwithstanding the decline in the price of wool, that, taking into account the greater weight of the carcase, and the greater weight of the fleece, sheep produce more at present to the farmer than at any former period.

*Number of Sheep in Great Britain.*—It was not possible till the publication of the statistics of agriculture collected by Government to form any accurate estimate either of the number of sheep or of the quantity of wool annually produced. With the exception of Mr. Lucecock's, most of the statements put forth with respect to both these points were much exaggerated. But Mr. L.'s estimate, which was considerably under any that had previously appeared, was drawn up with great care; and, as will be seen, approached near to accuracy. According to Mr. Lucecock, the

Number of long-woolled sheep in England and Wales in 1800 was	-	4,157,508	
Number of short-woolled ditto	-	11,954,399	
Total number shorn	-		19,007,607

According to the Government returns, the number in England and Wales in 1868 was 23,595,289.

During the last half century a very decided increase has taken place in the number of sheep in Scotland, and a very great improvement in the breed, particularly in the Highlands. In this district, many of the proprietors have let their estates in large farms to *store farmers*, who have introduced the Cheviot breed of sheep, instead of the small black-faced heath breed that was formerly the only one to be met with. We may remark, by the way, that a good deal of unmerited odium has attached to the patrons of this system; for, though it be true that, in a few instances, the

peasantry were rudely ejected from their little possessions, there can be no doubt that it has, on the whole, been decidedly advantageous. Besides rendering large tracts of country more valuable to the proprietors and the public generally, the condition and habits of the peasantry have been materially improved. Instead of loitering away more than half their time, as was their former practice, they have now either become the servants of the large farmers, or have resorted to towns and villages, and been metamorphosed into industrious tradesmen, fishermen &c. A very small proportion of the whole has emigrated; and the country is more populous at present than before the sheep farming system began.

In the *General Report of Scotland*, 1814 (vol. iii. Appen. p. 6), the number of sheep is estimated at 2,850,000; but according to the census for 1868, the number was 7,112,112. And in consequence of the rapid extension of the practice of turnip-feeding, both the weight of the carcase and of the fleece have been largely increased.

According to Mr. Wakefield, there was not a single flock of breeding sheep in the whole province of Ulster. (*Account of Ireland*, 1812, vol. i. p. 341.) But according to the latest agricultural statistics, the whole number of sheep in Ireland in 1868 was 4,822,414.

The total number of sheep in Great Britain and Ireland, and including the Isle of Man and Channel Islands, in 1868, was 35,607,812. This number, though above the average, is more than 6,000,000 under that given by Dr. Colquhoun for 1812; but that learned person assigns no grounds whatever for his estimate, which is utterly inconsistent with all the really authentic information on the subject. It is curious enough to observe the German statistical writers referring to Colquhoun's statements, as if they were of standard authority. They would be about as near the mark, were they to quote the *Arabian Nights* in proof of any disputed historical fact.

1800—Short fleeces	-	-	193,175	
Long fleeces	-	-	131,791	
			525,269	
Short and long, skin and lambs' wool			58,705	
			583,974	
Part of Wales not included in the above tables			9,262	
Increase from 1800 to 1828			69,233	
			463,169	
1800—Packs of short wool	-	-	193,175	
1828—Ditto ditto	-	-	120,655	
			Decrease	72,520
1828—Short fleeces	-	-	120,655	
Long fleeces	-	-	463,817	
			584,472	
Short and long, skin and lambs' wool			69,405	
			653,877	
Wales, taken as before			9,262	
			463,169	
1800—Packs of long wool	-	-	131,791	
1828—Ditto ditto	-	-	263,847	
			Increase	132,056
1800—Total quantity of short wool			193,175	
long wool			131,791	
			525,269	
1828—Total quantity of short wool			120,655	
long wool			463,817	
			584,472	
Increase of wool			59,233	fleece
Increase of skin and lambs' wool			10,709	
Total increase			69,933	

N.B.—The wool from slaughtered sheep and carion not mentioned in this table; but allowed for above.

*British Trade in Wool.*—From 1660 down to 1825, the export of wool was strictly prohibited. A notion grew up towards the end of the 17th and continued to gain ground during the first half of last century, that the wool of England was superior to that of every other country; that long wool could not be produced anywhere else; and that if



effects, from which the manufacture suffered for a considerable period after it was repealed.

The evidence as to the absolute necessity of employing foreign wool, taken before the Lords' committee, was as decisive as can well be imagined. Mr. Gott of Leeds, one of the most extensive and best informed manufacturers in the empire, stated to the committee that, in his own works, he used only foreign wool. On being asked whether he could carry on an export trade to the same extent as at the then present time, if he manufactured his cloth of British wool, Mr. Gott replied that in certain descriptions of cloth 'he could not make an article that would be merchantable at all for the foreign market, or even for the home market, except of foreign wool.'

The view taken by Mr. Gott of the effect of the importation of foreign wool on the price of British wool was supported by the concurrent testimony of all the manufacturing witnesses examined by the committee. Blankets, flannels of all sorts, baizes, carpets, bearskins &c. are made principally of English wool; and the command of foreign wool enables the manufacturers to use a considerable quantity of English wool in the manufacture of certain descriptions of, cloth, which, if made entirely of it, would be quite unsaleable. On Mr. Goodman, a wool-stapler of Leeds, being asked whether, if a duty were laid on foreign wool, it would force the use of English wool in the manufacture of cloths, from which it was excluded, he answered, 'Certainly not; we could not get people to wear such a cloth; they want a better, finer cloth; it is so much handsomer in its wear, and so much more durable.' (Report, p. 211.) Mr. Francis, of Hoxtesbury, declared that there was no demand for cloth made wholly of British wool; that it was principally applicable to the manufacture of blankets, baizes &c.; and that the exclusion of foreign wool would only injure the manufacture without raising the price of British wool. (P. 268.) Statements to the same effect were made by Mr. Webb (p. 270), Mr. Sheppard (p. 294), Mr. Ireland (p. 319), and, in short, by every one of the witnesses conversant with the manufacture.

The history of the manufacture since 1828 has completely confirmed the accuracy of the statements made by Mr. Gott and the other witnesses. Very large quantities of foreign wool have been imported during the interval; but the price of British wool has, notwithstanding, maintained its proper level; and has, in fact, been at an average considerably higher since the reduction and abolition of the duty on foreign wool than previously.

**Foreign Wool imported into England.**—A very great change has taken place, within the course of the present century, both as respects the quantity of foreign wool imported, and the countries whence it is derived. Previously to 1800 our average imports of wool did not much exceed 3,000,000 lb., mostly brought from Spain, the wool of which long maintained a high character. In 1809 our

imports amounted to near 9,000,000 lb.; and they have since gone on gradually increasing, till in 1867 they amounted to 230,224,467 lb. Instead, however, of being principally derived from Spain, as was the case down to 1814, the greater part by far of this immense supply of foreign wool is at present furnished by our Australian and South African colonies, the South American States, and the East Indies. The late King of Saxony, when Elector, introduced the breed of Merino sheep into his dominions, and exerted himself to promote the growth of this valuable race of animals. His praiseworthy efforts have been crowned with the most signal success. The Merino sheep seem to succeed better in Saxony and other German states than in Spain, and have increased so rapidly that the Spanish wool trade has become insignificant compared with that of Germany. The importations of German wool were quite trifling during the war—amounting in 1812 to only 28 lb.; but since the peace they have increased beyond all precedent. In 1814 they amounted to 3,432,456 lb.; in 1820 they were 5,113,442 lb.; in 1825 they rose to 28,799,661 lb.; but this being a year of overtrading, they declined in 1826 to 10,345,232 lb. Subsequently they recovered from this depression, and in 1836 amounted to 31,766,194 lb. They have since, however, sunk very rapidly, principally in consequence of the quickly increasing imports of colonial wool.

The re-exports of foreign wool amounted in 1866 to 66,573,488 lb. In 1867 the re-exports amounted to 90,832,581 lb., but that was much above the average.

*The price of Colonial Wool in London in April 1865 was as follows, viz:—*

	per lb.	s.	d.	q.
Australian.		1	8	2
Clothing and combing, superior		1	8	2
Fair and good		1	1	6
Inferior		0	11	3
Secured		1	7	2
Hand-weighed		0	11	2
Lanús		1	0	2
Locks and pieces		0	7	1
Grease		0	6	0
Skin		1	0	1
Capes, average flecks		1	1	3
Lanús		1	0	1
Locks and pieces		0	7	0
Grease		0	5	0
East India		0	5	2
New Zealand		0	9	2
Grease		0	10	4

The breed of sheep that was carried out to New South Wales and Van Diemen's Land has succeeded remarkably well; and Australia is already, perhaps, the principal wool-growing country of the world. The imports into Great Britain have increased with extraordinary rapidity. In 1833 they amounted to 3,516,869 lb., in 1839 to 10,128,774 lb., in 1858 to 51,104,560 lb., and in 1867 to 133,108,176 lb. The imports of wool from India only began in 1833, when they amounted to the inconsiderable quantity of 3,721 lb.; but such has been their increase in the interval, that in 1858 they amounted to 17,333,507 lb., and in 1867 to 15,234,620 lb. Of late years Russia has

*Account of the Values of Woollen and Worsted Goods and Yarn Exported in different Years from 1718 to 1867. (Baines On Woollen Manufactures; and Parl. Papers.)*

Years	Manufactured Goods	Woollen and Worsted Yarn	Total Woollen and Worsted Exports	Years	Manufactured Goods	Woollen and Worsted Yarn	Total Woollen and Worsted Exports
1718 to 1721 } Yearly average }	£ Official value, 2,962,000	£ ..	£ Official value, 2,962,000	1810	£ 5,775,000	£ ..	£ 5,775,000
1740	5,056,000	..	5,056,000	Declared value	Declared value	Declared value	Declared value
1750	4,320,000	..	4,320,000	1820	5,880,000	..	5,880,000
1760	2,435,000	..	2,435,000	1850	4,728,000	129,450	4,857,450
1770	4,115,000	..	4,115,000	1840	5,327,000	452,000	5,779,000
1780	2,589,000	..	2,589,000	1849	8,588,000	1,451,000	10,039,000
1790	5,190,000	..	5,190,000	1861	12,156,058	5,815,450	17,971,508
1800	6,917,000	..	6,917,000	1867	50,151,080	5,824,227	55,975,307

*Return of the Rates of Duty Chargeable on Foreign and Colonial Wool from 1818 down to their Abolition, the Quantities Imported, and the Prices of Southdown and Kent Long Wool, in each Year from 1818 to 1815.*

Years	Rates of Duty	Foreign Wool Imported	Colonial Wool Imported	Price of Southdown		Years	Rates of Duty	Foreign Wool Imported	Colonial Wool Imported	Price of Kent Long	
				per lb.	per lb.					per lb.	per lb.
1818	2d. per lb.	21,720,159	..	2 6	2 0	1850	..	20,203,175	2,042,111	0 10	0 10
1819	6d. per lb.	6,904,559	..	1 7	1 5	1851	..	26,100,673	2,511,555	1 1	0 10
1820	..	9,946,353	12,223,9	1 5	1 1	1852	..	26,681,208	2,161,491	1 0	1 0
1821	..	16,116,809	20,761,1	1 5	1 1	1853	..	31,061,527	2,644,886	1 5	0 10
1822	..	18,539,265	19,815,1	1 5	1 1	1854	..	32,681,932	2,770,530	1 7	1 1
1823	..	18,363,886	26,259,1	1 5	1 0	1855	..	37,813,771	3,192,496	1 8	1 1
	Dec. 1821					1856	..	38,915,575	3,431,155	1 5	1 5
	1d. per lb. of 14 values	22,117,510	416,915	1 2	1 1	1857	..	34,435,404	3,010,245	1 4	1 5
	1d. per lb. of 14 values under 14					1858	..	41,901,811	3,285,112	1 4	1 5
	Colonial free.	15,165,292	551,681	1 4	1 4	1859	..	26,198,168	1,958,116	1 5	1 1
1825	..	13,747,005	1,242,099	0 10	0 11	1860	..	37,067,453	3,498,821	0 9	0 11
1826	..	28,552,472	3,552,92	0 9	0 10	1861	..	27,991,829	1,886,719	0 11	0 11
1827	..	26,623,121	1,602,878	8 1	0 9	1811	(From June 1st no free)	3,663,915	1,451,148	0 11	0 11
1828	..	19,639,629	1,077,020	0 6	0 9	1815		12,475,228	2,606,296	1 2	1 2
1829	..							11,979,795	3,315,763	1 4	1 3

*Prices of Southdown Fleeces in the Month of July in each Year from 1851 to 1868, both inclusive, per Pack of 240 lb.*

Years	Ewe and Wether Fleeces				Teg Fleeces				Years	Ewe and Wether Fleeces				Teg Fleeces			
	£	s.	d.	q.	£	s.	d.	q.		£	s.	d.	q.	£	s.	d.	q.
1851	11	0	12	0	12	0	12	0	1869	17	0	17	0	18	0		
1852	11	0	11	0	11	0	15	0	1865	19	1	21	0	20	10	2	0
1853	12	0	16	0	12	0	17	0	1866	20	0	21	0	20	0	10	0
1857	17	0	18	0	14	0	20	0	1867	20	10	21	0	20	10	2	0
1858	15	10	11	0	11	0	15	0	1868	17	0	17	0	18	0	20	0
1859	10	0	2	0	18	0	19	0	1868	15	0	0	0	15	0	10	0
1860	10	0	18	0	19	0	22	0									
1861	15	0	16	0	16	0	17	0									

*Account of the Quantities of Wool (Sheep, Lamb, and Alpaca) Imported into the United Kingdom from Various Countries during each Year from 1811 to 1867, specifying the Countries from which it came, and the Quantities brought from each.*

Years	Spain	Germany, viz. Mecklenburg, Hanover, Oldenburg, and Hanse Towns &c.	Other Countries of Europe	British Possessions in South Africa	British Possessions in the East Indies	British Settlements in Australia	South America		Other Countries	Total
							lb.	lb.		
1811	918,855	21,817,681	15,351,987	2,197,115	3,765,855	17,604,217	5,760,065	1,508,531	63,753,761	
1815	1,071,310	18,194,136	17,600,515	5,311,921	5,975,866	21,177,117	6,166,538	1,515,619	76,515,855	
1816	1,040,476	15,888,275	17,735,501	6,218,137	4,379,584	21,590,816	6,829,416	1,403,623	83,548,164	
1817	431,195	19,635,811	15,905,907	5,177,594	5,993,512	26,016,966	7,259,550	1,665,580	68,592,698	
1818	106,638	11,429,161	7,021,098	5,197,230	5,997,455	30,031,567	8,831,911	921,187	70,864,347	
1819	125,539	11,132,574	11,132,574	5,377,195	4,183,835	35,739,171	1,001,265	1,001,265	76,768,617	
1820	402,251	9,166,751	8,705,252	5,709,529	3,175,232	50,018,221	5,609,618	2,518,391	71,526,778	
1821	355,130	8,219,456	11,265,156	5,816,591	4,519,520	41,810,117	4,830,918	5,120,127	83,711,975	
1822	255,118	15,761,253	15,584,110	6,588,536	7,880,781	45,197,501	6,224,689	5,061,052	95,761,458	
1823	154,116	11,584,300	26,861,166	7,221,148	12,100,869	42,076,010	9,710,032	4,575,378	119,796,112	
1824	424,360	11,118,318	11,181,185	8,223,598	11,296,131	47,889,650	6,113,351	2,914,121	106,121,952	
1825	566,340	6,128,626	8,119,198	11,075,265	11,285,555	49,116,706	7,106,708	5,575,118	99,300,446	
1826	5,000	8,667,781	11,480,869	14,709,188	15,286,578	55,022,159	8,975,517	3,167,150	116,211,322	
1827	507,238	6,088,002	5,700,320	11,287,828	19,570,714	19,209,653	9,506,886	7,257,428	129,719,898	
1828	110,310	10,595,186	17,918,579	16,597,501	17,535,507	51,101,560	10,016,581	5,021,216	126,538,725	
1829	135,874	19,800,557	18,659,273	14,969,513	11,565,133	53,700,481	9,711,774	2,606,531	135,994,631	
1830	395,438	12,838,483	17,151,601	16,571,515	20,241,173	59,165,939	8,809,940	6,662,861	118,396,577	
1831	620,551	14,438,896	17,739,392	18,678,288	19,161,901	68,596,222	12,339,151	5,651,396	117,517,511	
1832	719,449	10,835,528	28,515,224	18,930,886	17,959,104	71,539,606	12,972,667	11,802,667	117,943,172	
1833	256,119	9,904,765	20,015,306	20,166,614	20,950,311	74,073,126	18,411,524	11,025,511	175,274,692	
1834	132,144	11,265,990	25,119,851	19,880,805	20,435,535	99,037,139	13,373,537	10,500,411	206,151,175	
1835	115,011	8,960,625	21,882,929	29,260,565	17,105,517	109,731,291	17,818,186	7,318,898	218,206,747	
1836	125,658	19,800,979	26,817,755	29,219,001	16,659,969	115,774,691	21,038,982	9,730,589	230,538,689	
1837	431,019	4,185,077	19,314,129	29,170,089	15,231,620	135,108,176	21,215,768	6,399,563	255,314,711	

The re-exports of foreign wool amounted in 1866 to 66,567,915 lb. In 1835 they amounted to 26,587,128 lb.

9,000,000 lb.; and they continually increasing, till in 230,224,167 lb. Instead, wholly derived from Spain, 1814, the greater part by wool of foreign wool is at present Australian and South American States, and the King of Saxony, when the Merino sheep imported itself to promote the breed of animals. His been crowned with the the Merino sheep seem to be other German states increased so rapidly trade has become insig- that of Germany. The wool were quite trifling until in 1812 to only 28 they have increased be- 1814 they amounted to they were 5,113,142 lb.; 28,799,661 lb.; but this and, they declined in Subsequently they re- depression, and in 1836 4 lb. They have since, idly, principally in con- sily increasing imports of foreign wool amounted in In 1867 the re-exports 1 lb., but that was much

*Wool in London in April follows, viz. —*

per lb.	l.	s.	d.
..	1	1	6
..	0	11	5
..	1	7	2
..	0	11	2
..	1	0	2
..	0	7	2
..	0	6	11
..	1	0	3
..	1	1	3
..	0	7	0
..	0	5	0
..	0	9	2
..	0	0	1

that was carried out to New Diemen's Land has suc- and Australia is already wool-growing country of parts into Great Britain have ordinary capability. In 1833 5,116,869 lb., in 1839 to 51,104,560 lb., and in 1837. The imports of wool in 1833, when they amounted quantity of 3,721 lb.; but increase in the interval, that to 17,333,507 lb., and in Of late years Russia has

*Exported in different Years (Parl. Papers.)*

Woolen and Worsted Yarn	Total Woolen and Worsted Exports
£	£
..	5,775,000
..	5,800,000
..	4,500,000
..	5,280,000
..	10,000,000
..	16,800,118
..	25,956,207

become of primary importance among the wool-exporting countries, especially from her ports on the Black Sea. We said in a previous edition that provided tranquillity were maintained in South Africa, the probability was that it would in no very lengthened period rival New South Wales as a wool-exporting country. This anticipation has been more than realised, the imports having increased from 2,197,143 lb., in 1811, to 36,170,099 lb. in 1867, while the imports of wool from New South Wales in 1867 were 32,080,437 lb. Alpaca, and other wools of that sort, chiefly come from Peru; goats' wool comes principally from Turkey, but the best is that of Thibet.

**WOOLLEN MANUFACTURE.** The art of forming wool into cloth and stuffs. This has always ranked as an important branch of national industry; and until surpassed by the cotton manufacture, was decidedly the most important of all the manufactures carried on in England.

*Rise and Progress of the British Woollen Manufacture, Exports.*—There can be no doubt that the arts of spinning wool, and manufacturing the yarn into cloth, were introduced into England by the Romans, the inhabitants being previously clothed only in skins. From the period of the Romans quitting England down to the tenth century there are no notices of the manu-

facture, and those relating to the period from the tenth to the thirteenth century are but few and imperfect. It is certain, however, that the manufacture of broad cloths was established soon after the year 1200, if not previously. (Smith's *Memoirs of Wool*, i, 17.) But the woollen manufactures of Flanders being at this period, and long afterwards, in a comparatively advanced state, English wool was exported in large quantities to Bruges and other Flemish cities, whence the cloths and other products were brought back in exchange. Edward III. took the most judicious measures for improving the English manufacture by inviting over Flemish weavers, fullers, dyers, and others, and protecting them from the assaults of the rabble. Shortly after the first immigration of Flemings, or in 1337, an Act was passed, prohibiting the wear of any cloths made beyond sea, and interdicting the export of English wool. (*Ibid.* i, 25.) But in these turbulent times such restraining Acts were little better than a dead letter; and this, indeed, was soon after repealed. (*Ibid.* i, 32, 39.) From this remote period the manufacture has always been regarded as of primary importance, and has been the object of the especial solicitude of the legislature. It may be doubted, however, whether it has derived any real advantage from the numberless statutes that have been passed in the view of contributing to its advancement. With the exception indeed of the prohibition of the export of English wool, which was finally put a stop to in 1660, the other Acts, being mostly intended for the regulation of the manufacture, could not be otherwise than mischievous; and the benefit derived by the manufacturers from the prohibition was more apparent than real; inasmuch as it occasioned a diminished growth of wool, at the same time that it was impossible to prevent its clandestine exportation. Mr. Smith has proved that the manufacture made a far more rapid progress during the reign of Elizabeth, when wool might be freely carried out of the kingdom, than it ever did during any equal period subsequent to the restriction on exportation. Foreign wool began to be imported in small quantities in the thirteenth century.

At first the manufacture seems to have been pretty equally distributed over the country. In an insurrection that took place in 1525, more than 4,000 weavers and other tradesmen are said to have assembled out of Lancham, Sudbury, and other towns in Suffolk. The manufacture had been previously introduced into Yorkshire. In 1533 an Act was passed (34 & 35 Hen. VIII. c. 10), reciting 'that the city of York afore this time had been upholden principally by making and weaving of coverlets, and the poor thereof daily set on work in spinning, carding, dyeing, weaving &c. ;' and the manufacture, having spread into other parts, was 'thereby debased and discredited; and enacting, as a remedy for this evil, that henceforth 'none shall make coverlets in Yorkshire but inhabitants of the city of York!' This may be taken as a fair specimen of the commercial legislation of the time. Indeed, it was enacted, nearly at the same period, that the manufacture should be restricted, in Worcestershire, to Worcester and 4 other towns. Worsteds goods, so called from Worsted, now an inconsiderable town in Norfolk, where the manufacture was first set on foot, were produced in the reign of Edward II., or perhaps earlier; but Norwich soon after became, and, notwithstanding the competition and superior advantages of Bradford, is still, a principal seat of this branch of the manufacture. In an Act of Henry VIII. (33 Hen. VIII. c. 16) worsted yarn is described as 'the private

commodity of the city of Norwich.' In 1614 a great improvement took place in the woollen manufacture of the West of England by the invention of what is called medley or mixed cloth, for which Gloucestershire is still famous. During the reign of Charles II. there were many, though unfounded, complaints of the decay of the manufacture; and, by way of encouraging it, an Act was passed (30 Ch. II. st. 1. c. 3) ordering that all persons should be buried in woollen shrouds. This Act, the provisions of which were subsequently enforced, preserved its place on the statute book for more than 130 years.

Towards the end of the 17th century, Mr. Gregory King and Dr. Davenant—(Davenant's *Works*, Whitworth's ed. i. 233)—estimated the value of the wool shorn in England at 2,000,000l. a-year; and they supposed that the value of the wool (including that imported from abroad) was quadrupled in the manufacture; making the entire value of the woollen articles annually produced in England and Wales 8,000,000l. of which about 2,000,000l. were exported. In 1700 and 1701, the official value of the woollens exported amounted to about 3,000,000l. a-year. Owing to the vast increase of wealth and population, the manufacture must have been very greatly extended during last century; but the increase in the amount of exports was comparatively inconsiderable. At an average of the 6 years ending with 1789, the official value of the exports was 3,544,160l. a-year, being only about 540,000l. above the amount exported in 1700. The extraordinary increase of the cotton manufacture soon after 1780, and the extent to which cotton articles then began to be substituted for those of wool, though it did not occasion any absolute decline of the manufacture, no doubt contributed powerfully to check its progress. In 1802 the official value of the exports rose to 7,321,912l., being a larger amount than any to which they attained for several subsequent years. In 1836 the declared value of the exports rose to 7,639,354l., but it again fell back. The exports during the 3 years ending with 1852 were nearly stationary, their average amount being 8,562,688l. a-year. Although, therefore, it be not true, as has sometimes been contended, that the manufacture, taken as a whole, had declined, it had not down to that date increased rapidly; and might, indeed, be regarded as being in a nearly stationary state.

*Value of the Manufacture. Number of Persons employed.*—The most discordant estimates have been given as to both these points. For the most part, however, they have been grossly exaggerated. In a tract published in 1739, entitled *Considerations on the Running (Smuggling) of Wool*, the number of persons engaged in the manufacture is stated at 1,500,000, and their wages at 11,737,500l. a-year. Dr. Campbell, in his *Political Survey of Great Britain*, published in 1774, observes—'Many computations have been made upon this important subject, and, amongst others, one about 30 years since, which, at that time, was thought to be pretty near the truth. According to the best information that can be obtained, there may be from 10,000,000 to 12,000,000 sheep in England—some think more. The value of their wool may, one year with another, amount to 3,000,000l.; the expense of manufacturing this may probably be 9,000,000l., and the total value 12,000,000l. We may expect annually to the value of 3,000,000l., though one year we exported more than 4,000,000l. In reference to the number of persons who are maintained by this manufacture, they are probably upwards of 1,000,000. Sanguine men will judge

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these computations too low, and few will believe them too high.' (ii. 158.) But the moderation displayed in this estimate was very soon lost sight of. In 1800 the woollen manufacturers objected strenuously to some of the provisions in the treaty of union between Great Britain and Ireland, and were allowed to urge their objections at the bar of the House of Lords, and to produce evidence in their support. Mr. Law (afterwards Lord Ellenborough), the counsel employed by the manufacturers on this occasion, stated in his address to their Lordships, on information communicated to him by his clients, that 600,000 packs of wool were annually produced in England and Wales, worth, at 1*l.* per pack, 6,000,000*l.*; that the value of the manufactured goods was 3 times as great, or 19,800,000*l.*; that not less than 1,500,000 persons were immediately engaged in the operative branches of the manufacture; and that the trade collaterally employed about the same number of hands. (*Account of the Proceedings of the Merchants, Manufacturers &c.* p. 31.)

It is astonishing that reasonable men, conversant with the manufacture, should have put forth such ludicrously absurd statements. We have already seen that the quantity of wool produced in England and Wales, in 1800, did not really amount to 400,000 packs; and the notion that three out of the nine millions of people then in the country were directly and indirectly employed in the manufacture is too ridiculous to deserve notice, though it was generally acquiesced in at the time. (Middleton's *Survey of Middlesex*, 2nd ed. p. 64; and Adolphus's *British Empire*, iii. 236 &c.)

Mr. Stevenson, who is one of the very few writers on British statistics to whose statements much deference is due, gave the following estimate of the value of the woollen manufactured goods annually produced in England and Wales, and of the interest &c. of the capital, and the number of persons employed in the manufacture:

Total value of manufactured articles	18,000,000
Value of raw material	26,000,000
Interest on capital, sum to replace its wear and tear, and manufacturers' profits	4,100,000
Wages of workmen	9,000,000
	18,000,000
Number of people employed, 480,000, or perhaps 500,000	

But even this estimate required to be materially

modified. Taking Scotland into account, and allowing for the increase of population and of exportation from the time Mr. Stevenson's estimate was made, the total value of the various descriptions of woollens annually produced in Great Britain might have been moderately estimated in 1858 at from 25,000,000*l.*, to 27,000,000*l.*, or 26,000,000*l.* at a medium. We have further been assured by high practical authorities, that Mr. Stevenson's distribution of the items was essentially erroneous; and that, assuming the value of the manufacture to have been 26,000,000*l.*, it was made up nearly as follows:—

Total value of manufactured articles	26,000,000
Raw material, 110,000,000 lb. British wool at 1 <i>l.</i> 5 <i>s.</i> per lb. and 60,000,000 lb. foreign at 2 <i>s.</i>	12,875,000
Wages	7,725,000
Oil, dye stuffs, soap &c.	1,200,000
Profits, sum to replace wear and tear of capital &c.	4,200,000
	26,000,000

But this estimate is exclusive of the value of shoddy stuffs, which might perhaps have amounted to about 2,000,000*l.*

The wages of the workpeople amounted to about 30*l.* a-year, making the total number employed (ex those in the shoddy trade) about 257,500.

Mr. Baines, M.P., has, in his valuable account of the woollen manufactures of the United Kingdom (*Statistical Journal*, xxiii. p. 33), given the following elaborate estimate of their value (ex the worsted manufactures) in 1858:—

(1.) Raw Material:—	
73,905,566 Foreign and colonial wool	4,717,192
80,000,000 British wool, at 1 <i>l.</i> 5 <i>s.</i> per lb.	57,000,000
	Shoddy and mungo:—
15,000,000 150,000,000 lb. shoddy, at 2 <i>d.</i> per lb.	609,370
15,000,000 150,000,000 lb. mungo, at 3 <i>d.</i> per lb.	206,537
	Cotton and cotton warps, 1-50th of the wool
200,000,566	
(2.) Dye-stuffs, oil, and soap	1,500,000
(3.) Wages—1,010,000 workpeople, at 12 <i>s.</i> 6 <i>d.</i> per week	4,875,000
(4.) Rent, wear and tear of machinery, repairs, coal, interest on capital, and profit, 30 per cent. on the above	5,381,680
Total	20,220,079

Looking to the vast increase in the exports since 1858, as shown in the subjoined table, the gross value of the woollens annually produced in the United Kingdom may now (1863) be set down at from 36,000,000*l.* to 37,000,000*l.*

*An Account of the Quantity and Value of the Woollen and Worsted Manufactures and Woollen Yarn of British Produce Exported from the United Kingdom in each of the 8 Years ending with 1867.*

	1860	1861	1862	1863	1864	1865	1866	1867
<b>Woollen Manufactures.</b>								
Clothes of all kinds, coatings &c. pec.	565,738	568,261	832,668	27,762,256	29,615,556	29,615,689	32,741,558	31,189,209
Mixed stuffs, flannels &c. yd.	87,287,292	71,339,931	76,986,321	16,212,531	16,886,882	15,523,037	13,367,808	11,169,453
Worsted stuffs - pieces	2,019,215	2,083,066	3,883,006	167,818,685	197,287,585	233,677,619	227,275,818	207,015,917
Woollen and worsted yarn lb.	27,535,308	27,512,532	27,821,578	52,512,609	51,821,296	51,711,251	27,100,905	37,334,020
	£	£	£	£	£	£	£	£
Cloths of all kinds, coatings &c.	2,271,566	2,264,402	4,115,122	3,364,910	4,555,519	4,025,954	5,305,602	5,327,375
Mixed stuffs, flannels &c.	3,771,566	3,714,697	415,281	1,318,811	1,295,715	1,074,818	1,059,291	859,119
Worsted stuffs -	4,101,918	5,096,311	5,877,278	8,375,283	10,727,265	13,560,107	13,225,791	12,114,298
Other kinds -	1,545,918	1,935,324	2,150,719	1,870,180	1,805,100	1,615,351	4,159,620	1,759,000
Total	12,156,908	11,118,769	13,152,181	15,189,174	18,553,494	20,101,570	21,796,217	20,140,552
Woollen and worsted yarn	5,813,150	5,552,976	5,822,998	5,087,293	5,117,327	5,129,501	4,712,162	5,822,956

The United States, the Hanse Towns, Holland and Belgium, but especially the first, are by far the largest markets for our woollen and worsted goods. British North America, Australia, and China also, take considerable quantities. Yarn is principally sent to the Hanse Towns, Holland, Russia, Hanover, and Belgium.

In 1820 the total exports of yarn amounted to only 3,224 lb., and in 1825 to 76,961 lb., whereas in 1867 they amounted to no fewer than 37,436,487 lb. of woollen and worsted yarn—an increase all but unparalleled in the history of industry.

*Account of the Declared Value of the Woollen Manufactures, exclusive of Woollen and Worsted Yarn, Exported from the United Kingdom in the under-mentioned Years, ending with 1867.*

Years	Value	Years	Value
1821	£ 5,566,138	1850	£ 8,588,690
1825	6,185,618	1851	8,277,483
1830	4,786,666	1855	7,714,374
1835	6,810,211	1860	12,156,998
1840	5,537,853	1865	20,101,750
1845	7,695,118	1867	20,135,080

The different progress of the exports of manufactured goods and yarn depends, no doubt, on various causes; but principally, we believe, on the change, previously noticed, that has taken place in the character of our wool, which fits it much better than formerly for being made into worsted yarn, which is almost the only description of yarn that is exported. The operation of this change is evinced in a still more striking manner by comparing the export of cloth, properly so called, with that of stuffs, in the under-mentioned years.

	1816	1820	1810	1857
Exports of cloth	636,768	581,508	215,716	695,063
stuffs	595,308	1,158,588	1,718,617	2,558,162

While in 1867, the return being given in yards, 31,189,209 yards of cloth, and 200,167,067 yards of stuffs, were exported.

It is obvious that this declining or stationary amount on the one hand, and continued and rapid increase on the other, must have been occasioned by the operation of some powerful and permanent cause; and none such can be assigned other than the decreasing suitability of British wool for being made into cloth, and its increasing suitability for being made into worsted yarn and stuffs. We do not think that the duty on wool had, when it existed, much influence either one way or the other.

Latterly the stuff trade has made great progress. This has been mainly occasioned by the change of fashion in this and other countries, by which stuffs made of a mixture of cotton and worsted, and cotton and silk, have been largely substituted for cloths, and the home and foreign demand for them proportionally increased. In so far, indeed, as the extraordinary extension of the stuff trade depends on this change, it cannot, perhaps, be regarded as resting on any very solid foundation. But it is on the whole abundantly obvious that the export trade in cloth has declined; and that it is only in the stuff trade and in the production of yarn that we have decided superiority over foreigners. For an account of the recent history of the woollen trade, see the 2nd vol. of Bischoff's *History of the Woollen and Worsted Manufactures*, a useful work formed on the plan of Smith's *Memoir of Wool*, but neither so learned nor so able.

*Shoddy and Mungo Trade.*—The greater number, perhaps, of our readers may never have heard of that branch of the woollen manufacture called the *shoddy and mungo trade*, which has grown up of late years, and is now of very considerable value and importance. It is principally carried on at Batley, where it originated, and at Dewsbury, which has become the head-quarters of the business. Cloths, whether of shoddy or mungo, are made either wholly or in part of old, or worn, wool; the former, or those called shoddy, consisting of the wool of soft goods, such as stockings, flannels &c.; and the latter, or those called mungo, consisting of the wool of hard goods, that is of the different descriptions of cloth. The latter is more valuable than the former, the price of shoddy averaging about 2½d. per lb., whereas the mean price of mungo is about 5d. per lb. The old cloths or rags having been collected, and subjected to various processes, are torn to pieces by the aid of powerful machinery, and reduced to their original state of wool; and this wool, being respun, either with or without an admixture of fresh wool, is again made into cloth. Formerly this sort of cloth was used only for padding and such like purposes; but now it is made into

blankets, flus-hings, druggets, carpets and table covers, cloth for pilot and Petersham great coats &c. The clothing of the army, and the greater proportion of that of the navy, consist in part of the same material, which in fact is occasionally worn by everybody. Large quantities of shoddy cloth are exported. Great improvements have been effected of late years, not only in the fabric of the cloth, but also in the dyes: this is especially seen in the cloth for soldiers' uniforms, which is no longer of a brick-dust colour, but makes a much nearer approach to scarlet. The beautiful woollen table covers are made wholly of old wool, being printed by *aqua fortis* from designs drawn in London and Manchester, and cut on holly and other blocks on the spot.

It must, however, be observed that, though the cloth made from old, may look as well as that made from new wool, it has neither the strength nor tenacity of the latter. It is seldom that old wool is used singly; generally it is mixed up with new wool in proportions varying from 10 to 50 or 60 per cent., according to the purposes to which it is to be applied; and if the old wool be not in excess, the capacity of the cloth for wear is but little affected.

No honest manufacturer will, of course, substitute old for new wool in the manufacture of any sort of goods without apprising his customers of the fact. But this is all that he is required to do; and there cannot be a doubt that, speaking generally, the substitution of old for new wool is, in very many cases, highly advantageous.

The analogy between this manufacture and that of paper is so striking, that it must force itself on the attention of every one; the vilest and most worthless materials being converted in both into the most beautiful and useful fabrics. The shoddy trade is, in fact, one of the triumphs of art and civilisation.

'The manufacture,' says Mr. Baines, 'has forced its way, and made Batley, Dewsbury, and the neighbourhood the most prosperous parts of the woollen district. There are now in Batley alone 50 rag machines in 35 mills, producing no less than 12,000,000 lb. of rag-wool per annum; and I am assured, on good authority, that 3 times this quantity is made in the district. The rags are gathered from all parts of the kingdom, as well as imported regularly from the Continent, America, and Australia. There is now, also, a considerable manufacture of the shoddy, or rag-wool, in Germany, and it is believed that no less than 9 or 10 million lb. weight were imported last year.'

WRECK. In Navigation, is usually understood to mean any ship or goods driven ashore, or found floating at sea in a deserted or unmanageable condition. But in the legal sense of the word in England, *wreck* must have come to land; when at sea, it is distinguished by the barbarous appellations of *flotsam, jetsam, and lagan*. [FLOTSAM.]

In nothing, perhaps, has the beneficial influence of the advance of society in civilisation been more apparent than in the regulations with respect to the persons and property of shipwrecked individuals. In most rude and uncivilised countries their treatment has been cruel in the extreme. Amongst the early Greeks and Romans, strangers and enemies were regarded in the same point of view. (Hostis apud antiquos, peregrinus dicebatur. Pomp. Festus; see also *Civero de Offic. lib. i. c. 12.*) Where such inhospitable sentiments prevailed, the conduct observed towards those who were shipwrecked could not be otherwise than barbarous; and in fact they were, in most in-

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stances, either put to death or sold as slaves. But as law and good order grew up, and commerce and navigation were extended, those who escaped from the perils of the sea were treated in a way less repugnant to the dictates of humanity; and at length the Roman law made it a capital offence to destroy persons shipwrecked, or to prevent their saving the ship; and the stealing even of a plank from a vessel shipwrecked or in distress made the party liable to answer for the whole ship and cargo. (*Pand.* 47, 9, 3.)

During the gloomy period which followed the subversion of the Roman empire, and the establishment of the northern nations in the southern parts of Europe, the ancient barbarous practices with respect to shipwreck were everywhere renewed. Those who survived were in most countries reduced to servitude; and their goods were everywhere confiscated for the use of the lord on whose manor they had been thrown. (Robertson's *Charles V.*, l. note 29.) But nothing, perhaps, can so strongly evince the prevalence and nature of the enormities, as the efforts that were made, as soon as governments began to acquire authority, for their suppression. The regulations as to shipwreck in the Laws of Oleron are, in this respect, most remarkable. The 35th and 38th articles state, that 'pilots, in order to ingratiate themselves with their lords, did, like faithless and treacherous villains, sometimes willingly run the ship upon the rocks &c.;' for which offence they are held to be accused and excommunicated, and punished as thieves and robbers. The fate of the lord is still more severe. 'He is to be apprehended, his goods confiscated and sold, and himself fastened to a post or stake in the midst of his own mansion-house, which being fired at the four corners, all shall be burned together: the walls thereof be demolished; the stones pulled down; and the site converted into a market place, for the sale only of hogs and swine, to all posterity.' The 31st article recites, that when a vessel was lost by running on shore, and the mariners had landed, they often, instead of meeting with help, 'were attacked by people more barbarous, cruel, and inhuman than mad dogs; who, to gain their moneys, apparel, and other goods, did sometimes murder and destroy these poor distressed seamen. In this case, the lord of the country is to execute justice by punishing them in their persons and their estates; and is commanded to plunge them in the sea till they be half dead, and then to have them drawn forth out of the sea and stoned to death.'

Such were the dreadful severities by which it was attempted to put a stop to the crimes against which they were directed! The violence of the remedy shows better than anything else how inveterate the disease had become.

But the fact that divines did not scruple to prostitute religious worship by praying that the adjacent coasts might be enriched with shipwrecks, affords, perhaps, the most striking proof of the barbarism of the times referred to. And incredible as it may seem, this practice was continued down to a comparatively recent epoch. 'Dependant il y a encore en Allemagne des pays où la coutume de confisquer les biens naufragés n'est point encore abolie. Il y a même des endroits où les ministres prédicateurs ne font pas difficulté de prier Dieu en chaire qu'il se fasse bien des naufragés sur leurs côtes. Et ces püres Thomasius a entrepris sérieusement de les justifier; mais par des raisons si singulières, qu'elles ne valaient pas la peine que Barbeyrac a prise de les réfuter.' (Valin, *Commentaire sur l'Ordonnance*

de 1681, ii, 586. See also Puffendorf, *Droit de la Nature et des Gens*, par Barbeyrac, ii, 706.)

The law of England, like that of other modern countries, adjudged wrecks to belong to the king. But the rigour and injustice of this law were modified so early as the reign of Henry I., when it was ruled that if any person escaped alive out of the ship, it should be no wreck. And after various modifications, it was decided, in the reign of Henry III., that if goods were cast on shore, having any marks by which they could be identified, they were to revert to the owners, if claimed any time within a year and a day. By the statute 27 Ed. III. c. 13, if a ship be lost and the goods come to land, they are to be delivered to the merchants, paying only a reasonable reward or SALVAGE to those who saved or preserved them. But these ancient statutes, owing to the confusion and disorder of the times, were very ill enforced; and the disgraceful practices previously alluded to continued to the middle of last century.

A statute of Anne (12 Anne st. 2 c. 18), confirmed by the 4 Geo. I. c. 12, in the view of putting a stop to the atrocities in question, orders all head officers and others of the towns near the sea, upon application made to them, to summon as many hands as are necessary, and send them to the relief of any ship in distress, on forfeiture of 100*l.*; and in case of any assistance given, salvage is to be assessed by 3 justices, and paid by the owners. Persons secreting any goods cast ashore are to forfeit treble their value; and if they wilfully do any act by which the ship is lost or destroyed, they are guilty of felony without benefit of clergy. But even this statute seems not to have been sufficient to accomplish the end in view; and in 1753 a new statute (26 Geo. II. c. 19) was enacted, the preamble of which is as follows: 'Whereas, notwithstanding the good and salutary laws now in being against plundering and destroying vessels in distress, and against taking away shipwrecked, lost, or stranded goods, many wicked enormities have been committed, to the disgrace of the nation, and the grievous damage of merchants and mariners of our own and other countries, be it' &c.; and it is then enacted, that the preventing of the escape of any person endeavouring to save his life, or wounding him with intent to destroy him, or putting out false lights in order to bring any vessel into danger, shall be capital felony. By the same statute, the pilfering of any goods cast ashore is made petty larceny.

We regret, however, to have to state that the plunder of shipwrecked property is still by no means uncommon on the British coasts. The Committee on Shipwrecks in 1843 stated that 'there is on many parts of the coast a want of that moral principle which should inculcate a just regard for the rights of such property. It is looked upon as a chance gift, which every one has a right to scramble for as he can, notwithstanding the laws which have been passed, from the earliest period, to prevent or punish such depredations. The plunder of shipwrecked property on the coasts has been carried on to an enormous extent, and this seems to have arisen from there having been no persons on the spot, when a wreck had taken place, to look after the property.' The Committee state that the establishment of the coast-guard has done much to repress these abuses. The latter, however, cannot legally interfere, except when the cast-away articles are subject to Customs' duties; and the Committee suggest that all abandoned property should be vested in the Government in trust for those to

whom it may belong, as is done in France and Holland. (*Report of Committee of 1843*, p. viii.)

Since this report was published the law in regard to shipwreck and salvage has been twice consolidated and embodied; first in the Act 9 & 10 Vict. c. 99, and more recently in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104, the latter being slightly modified by the 49th sec. of 25 & 26 Vict. c. 63. The reader will find in the art. SALVAGE a full account of the rules and regulations laid down in the 3 last-mentioned statutes in regard to that important subject; and we now beg to subjoin those which have reference to the conduct to be pursued in regard to wrecks.

*Inquiries to be instituted in Cases of Wreck and Casualty.*—In any of the cases following, viz:—

Whenever any ship is lost, abandoned, or materially damaged on or near the coasts of the United Kingdom:

Whenever any ship causes loss or material damage to any other ship on or near such coasts:

Whenever by reason of any casualty happening to or on board of any ship on or near such coasts loss of life ensues:

Whenever any such loss, abandonment, damage, or casualty happens elsewhere, and any competent witnesses thereof arrive or are found at any place in the United Kingdom:

It shall be lawful for the inspecting officer of the coast-guard or the principal officer of Customs residing at or near the place where such loss, abandonment, damage, or casualty occurred, if the same occurred on or near the coasts of the United Kingdom, but if elsewhere at or near the place where such witnesses as aforesaid arrive or are found or can be conveniently examined, or for any other person appointed for the purpose by the Board of Trade, to make inquiry respecting such loss, abandonment, damage, or casualty; and he shall for that purpose have all the powers given by this Act to inspectors appointed by the said Board. (Sec. 432.)

*Formal Investigation before Justices.*—If it appear to such officer or person as aforesaid, either upon or without any such preliminary inquiry, that a formal investigation is necessary or expedient, or if the Board of Trade so directs, he shall apply to any 2 justices or to a stipendiary magistrate to hear the case; and such justices or magistrate shall thereupon proceed to hear and try the same, and shall for that purpose, so far as relates to the summoning of parties, compelling the attendance of witnesses, and the regulation of the proceedings, have the same powers as if the same were a proceeding relating to an offence or cause of complaint upon which they or he have power to make a summary conviction or order, or as near thereto as circumstances permit; and it shall be the duty of such officer or person to superintend the management of the case, and to render such assistance to the said justices or magistrate as is in his power; and, upon the conclusion of the case, the said justices or magistrate shall send a report to the Board of Trade, containing a full statement of the case and of their or his opinion thereon, accompanied by such report of or extracts from the evidence, and such observations (if any) as they or he may think fit. (Sec. 433.)

*Power to appoint Nautical Assessor.*—In cases where nautical skill and knowledge are required, the Board of Trade shall have the power, either at the request of such justices or magistrate, or at its own discretion, to appoint some person of nautical skill and knowledge to act as assessor to such justices or magistrate; and such assessor

shall, upon the conclusion of the case, either signify his concurrence in their report by signing the same, or if he dissent therefrom shall signify such dissent and his reasons therefor to the Board of Trade. (Sec. 434.)

*Stipendiary Magistrate to be Member of Local Marine Board, and to be paid.*—In places where there is a Local Marine Board, and where a stipendiary magistrate is a member of such Board, all such investigations shall, whenever he happens to be present, be made before such magistrate; and there shall be paid to such magistrate in respect of his services under this Act such remuneration, whether by way of annual increase of salary or otherwise, as her Majesty's Secretary of State for the Home Department, with the consent of the Board of Trade, may direct; and such remuneration shall be paid out of the Mercantile Marine Fund. (Sec. 435.)

*Costs of such Investigations.*—The said justices or magistrate may make such order with respect to the costs of any such investigation or any portion thereof as they or he may deem just, and such costs shall be paid accordingly, and shall be recoverable in the same manner as other costs incurred in summary proceedings before them or him; and the Board of Trade may, if in any case it thinks fit so to do, pay the expense of any such investigation, and may pay to such assessor such remuneration as it thinks fit. (Sec. 436.)

*Investigations in Scotland.*—In the case of any such investigation being held in Scotland, the Board of Trade may remit the same to the Lord Advocate to be prosecuted in such manner as he may direct, and in case he so requires, with the assistance of such persons of nautical skill and knowledge as the Board of Trade may appoint for the purpose. (Sec. 437.)

*Master or Mate may be required to deliver Certificate &c.*—Such justices or magistrate as aforesaid may, or in Scotland such person or persons as is or are directed by the Lord Advocate to conduct the investigation may, if they or he think fit, require any master or mate possessing a certificate of competency or service whose conduct is called in question or appears to them or him likely to be called in question in the course of such investigation, to deliver such certificate to them or him, and they or he shall hold the certificate so delivered until the conclusion of the investigation, and shall then either return the same to such master or mate, or, if their report is such as to enable the Board of Trade to cancel or suspend such certificate under the powers given to such Board by this Act, shall forward the same to the Board of Trade, to be dealt with as such Board thinks fit; and if any master or mate fail so to deliver his certificate when so required, he shall incur a penalty not exceeding 50*l.* (Sec. 438.)

*Board of Trade Superintendents of Wreck, with power to appoint Receivers.*—The Board of Trade shall throughout the United Kingdom have the general superintendence of all matters relating to wreck; and it may, with the consent of the Commissioners of her Majesty's Treasury, appoint any officer of Customs, or of the coast-guard, or of the inland revenue, or, when it appears to such Board to be more convenient, any other person, to be a receiver of wreck in any district, and to perform such duties as are herein mentioned, and shall give due notice of every such appointment. (Sec. 439.)

*Admiral not to interfere with Wreck.*—No admiral, vice-admiral, or other person, under whatever denomination, exercising admiralty jurisdiction, shall as such, by himself or his

n of the case, either their report by signing thereon shall signify reasons therefor to the

to be Member of Local Board.—In places where a member of such Board, whenever he happens before such magistrate; to such magistrate in order this Act such re-ay of annual increase her Majesty's Secretary Department, with the Trade, may direct; and paid out of the Mer-

—The said justices in order with respect investigation or any he may deem just, and accordingly, and shall in manner as other costs in- edging before them or ade may, if in any case he expense of any such y to such assessor such fit. (Sec. 436.)

nd.—In the case of any held in Scotland, the t the same to the Lord l in such manner as he e so requires, with the s of nautical skill and of Trade may appoint for

be required to deliver tices or magistrate as outland such person or d by the Lord Advocate ion may, if they or he ter or mate possessing a r service whose conduct appears to them or him ession in the course of iver such certificate to he shall hold the certi- on the conclusion of the in- either return the same , if their report is such of Trade to cancel or nder the powers given shall forward the same e dealt with as such ny master or mate fail e when so required, he exceeding 50*l*. (Sec.

rintendents of Wreck, eivers.—The Board of the United Kingdom endence of all matters may, with the consent er Majesty's Treasury, stoms, or of the coast- venue, or, when it ap- ore convenient, any eiver of wreck in any h duties as are herein e due notice of every 439.)

ere with Wreck.—No other person, under exercising admiralty h, by himself or his

ngents, receive, take, or interfere with any wreck except as herein mentioned. (Sec. 440.)

*Duty of Receiver when any Ship is Stranded or in Distress.*—Whenever any ship or boat is stranded or in distress at any place on the shore of the sea or of any tidal water within the limits of the United Kingdom, the receiver of the district within which such place is situate shall, upon being made acquainted with such accident, forthwith proceed to such place, and upon his arrival there he shall take the command of all persons present, and assign such duties to each person, and issue such directions, as he may think fit with a view to the preservation of such ship or boat, and the lives of the persons belonging thereto, and the cargo and apparel thereof; and if any person wilfully disobeys such directions, he shall forfeit a sum not exceeding 50*l*.; but it shall not be lawful for such receiver to interfere between the master of such ship or boat and his crew in matters relating to the management thereof, unless he is requested so to do by such master. (Sec. 441.)

*Powers of Receiver in Case of Accident to any Ship or Boat.*—The receiver may, with a view to such preservation as aforesaid of the ship or boat, persons, cargo, and apparel, do the following things (that is to say):—

1. Summon such number of men as he thinks necessary to assist him;

2. Require the master or other person having the charge of any ship or boat near at hand to give such aid with his men, ship, or boats, as may be in his power;

3. Demand the use of any waggon, cart, or horses that may be near at hand;

And any person refusing without reasonable cause to comply with any summons, requisition, or demand so made, shall for every such refusal incur a penalty not exceeding 100*l*.; but no person shall be liable to pay any duty of assessed taxes in respect of any such waggon, cart, or horses by reason of the user of the same under this section. (Sec. 442.)

*Articles washed on Shore, or to. &c. to be delivered to Receiver.*—All cargo and other articles belonging to such ship or boat, that may be washed on shore, or otherwise be lost or taken from such ship or boat, shall be delivered to the receiver; and any person, whether he is the owner or not, who secretes or keeps possession of any such cargo or article, or refuses to deliver the same to the receiver or to any person authorized by him to demand the same, shall incur a penalty not exceeding 100*l*.; and it shall be lawful for such receiver or other person as aforesaid to take such cargo or article by force from the person so refusing to deliver the same. (Sec. 443.)

*Receiver to suppress Plunder and Disorder by Force.*—Whenever any such accident occurs to any ship or boat, and any person plunders, creates disorder, or obstructs the preservation of such ship, boat, lives, or cargo, it shall be lawful for the receiver to cause such person to be apprehended, and to use force for the suppression of any such plundering, disorder, or obstruction, with power to command all her Majesty's subjects to assist him in the use of such force; and if any person is killed, maimed, or hurt by reason of his resisting the receiver in the execution of the duties hereby committed to him, or any person acting under his orders, such receiver or other person shall be free and fully indemnified as well against the Queen's Majesty, her heirs and successors, as against all persons so killed, maimed, or hurt. (Sec. 444.)

*Certain Officers to exercise Power of Receiver.*—

During the absence of the receiver from the place where any such accident as aforesaid occurs, or in places where no receiver has been appointed under this Act, the following officers in succession, each in the absence of the other, in the order in which they are named, viz. any principal officer of Customs or of the coast-guard, or of inland revenue, and also any sheriff, justice of the peace, commissioned officer on full pay in the naval service of her Majesty, or commissioned officer on full pay in the military service of her Majesty, may do all matters and things hereby authorized to be done by the receiver, with this exception, that with respect to any goods or articles belonging to any such ship or boat, the delivery up of which to the receiver is herein required, any officer so acting shall be considered as the agent of the receiver, and shall place the same in the custody of the receiver; and no person so acting as substitute for any receiver shall be entitled to any fees payable to receivers, or be deprived by reason of his so acting of any right to salvage to which he would otherwise be entitled. (Sec. 445.)

*Power, in Case of a Ship being in Distress, to pass over adjoining Lands with Carriages.*—Whenever any accident as aforesaid occurs to any ship or boat, all persons may, for the purpose of rendering assistance to such ship or boat, or saving the lives of the persons on board the same, or the cargo or apparel thereof, unless there be some public road equally convenient, pass and re-pass either with or without carriages or horses over any adjoining lands, without being subject to interruption by the owner or occupier, so that they do as little damage as possible, and may also, on the like condition, deposit on such lands any cargo or other article recovered from such ship or boat; and all damage that may be sustained by any owner or occupier in consequence of any such passing or re-passing or deposit as aforesaid shall be a charge on the ship, boat, cargo, or articles in respect of or by which such damage was occasioned, and shall, in default of payment, be recoverable in the same manner as salvage is hereby made recoverable; and the amount payable in respect thereof, if disputed, shall be determined in the same manner as the amount of salvage is hereby in case of dispute directed to be determined. (Sec. 446.)

*Penalty on Owners &c. of Land refusing to allow Carriages &c. to pass over their Land.*—If the owner or occupier of any land over which any person is hereby authorised to pass or re-pass for any of the purposes hereinbefore mentioned does any of the following things (that is to say):—

1. Impedes or hinders any such person from so passing or re-passing, with or without carriages, horses, and servants, by locking his gates, refusing, upon request, to open the same, or otherwise however;

2. Impedes or hinders the deposit of any cargo or other article recovered from any such ship or boat as hereinbefore mentioned;

3. Prevents such cargo or other article from remaining so deposited for a reasonable time, until the same can be removed to a safe place of public deposit;

He shall for every such offence incur a penalty not exceeding 100*l*. (Sec. 447.)

*Power of Receiver to institute Examination &c.*—Any receiver, or in his absence any justice of the peace, shall, as soon as conveniently may be, examine upon oath (which oath they are hereby respectively empowered to administer) any person belonging to any ship which may be or may have been in distress on the coasts of the United

Kingdom, or any other person who may be able to give any account thereof or of the cargo or stores thereof, as to the following matters; viz.:

1. The name and description of the ship.
2. The names of the master and of the owners.
3. The names of the owners of the cargo.
4. The ports or places from and to which the ship was bound.
5. The occasion of the distress of the ship.
6. The services rendered.
7. Such other matters or circumstances relating to such ship, or to the cargo on board the same, as the receiver or justice thinks necessary.

And such receiver or justice shall take the examination down in writing, and shall make two copies of the same, of which he shall send one to the Board of Trade, and the other to the Secretary of the Committee of Lloyd's in London, and such last-mentioned copy shall be placed by the said secretary in some conspicuous situation for the inspection of persons desirous of examining the same; and for the purposes of such examination every receiver or justice as aforesaid shall have all the powers given by this Act to inspectors appointed by the Board of Trade. (Sec. 448.)

*Original or certified Copy of Examination to be prima facie Evidence.*—An examination so taken in writing as aforesaid, or a copy thereof, purporting to be certified under the hand of the receiver or justice before whom such examination was taken, shall be admitted in evidence in any court of justice, or before any person having by law or the consent of parties authority to hear, receive, and examine evidence, as *prima facie* proof of all matters contained in such written examination. (Sec. 449.)

*Rules to be observed by Persons finding Wreck.*—The following rules shall be observed by any person finding or taking possession of wreck within the United Kingdom; viz.:

1. If the person so finding or taking possession of the same is the owner, he shall as soon as possible give notice to the receiver of the district within which such wreck is found, stating that he has so found or taken possession of the same; and he shall describe in such notice the marks by which such wreck is distinguished.

2. If any person not being the owner finds or takes possession of any wreck, he shall as soon as possible deliver the same to such receiver as aforesaid.

And any person making default in obeying the provisions of this section shall incur the following penalties; (that is to say)

3. If he is the owner and makes default in performing the several things, the performance of which is hereby imposed on an owner.

He shall incur a penalty not exceeding 100*l.*

4. If he is not the owner and makes default in performing the several things, the performance of which is hereby imposed on any person not being an owner.

He shall forfeit all claim to salvage.

He shall pay to the owner of such wreck, if the same is claimed, but if the same is unclaimed then to the person entitled to such unclaimed wreck, double the value of such wreck (such value to be recovered in the same way as a penalty of like amount); and

He shall incur a penalty not exceeding 100*l.* (Sec. 450.)

*Receivers to seize concealed Wreck.*—If any receiver suspects or receives information that any wreck is secreted or in the possession of some person who is not the owner thereof, or otherwise improperly dealt with, he may apply to any justice of the peace for a warrant, and such justice shall

have power to grant a warrant, by virtue whereof it shall be lawful for the receiver to enter into any house or other place wherever situate, and also into any ship or boat, and to search for, and to seize and detain any such wreck as aforesaid there found; and if any such seizure is made in consequence of information that may have been given by any person to the receiver, the informer shall be entitled by way of salvage to such sum, not exceeding in any case 5*l.*, as the receiver may allow. (Sec. 451.)

*Notice of Wreck to be given by Receiver.*—Every receiver shall within 48 hours after taking possession of any wreck cause to be posted up in the custom-house of the port nearest to the place where such wreck was found or seized a description of the same and of any marks by which it is distinguished, and shall also, if the value of such wreck exceeds 20*l.*, but not otherwise, transmit a similar description to the Secretary of Lloyd's aforesaid; and such secretary shall post up the description so sent, or a copy thereof, in some conspicuous place, for the inspection of all persons desirous of examining the same. (Sec. 452.)

*Goods perishable or of small Value may be sold immediately.*—In cases where any wreck in the custody of any receiver is under the value of 5*l.*, or is of so perishable a nature or so much damaged that the same cannot, in his opinion, be advantageously kept, or if the value thereof is not sufficient to defray the charge of warehousing, the receiver may sell the same before the expiration of the period after mentioned, and the money raised by such sale, after defraying the expenses thereof, shall be held by the receiver for the same purposes and subject to the same claims for and to which the article sold would have been held and liable if it had remained unsold. (Sec. 453.)

*Where any Lord of the Manor or other Person is entitled to unclaimed Wreck, Receiver to give him Notice.*—In cases where any admiral, vic-admiral, lord of the manor, or other person is entitled for his own use to unclaimed wreck found on any place situate within a district for which a receiver is appointed, such admiral, vic-admiral, lord of the manor, or other person shall deliver to such receiver a statement containing the particulars of his title, and the address to which notices are to be sent; and upon such statement being so delivered, and proof made to the satisfaction of the receiver of the validity of such title, it shall be his duty, whenever he takes possession of any wreck found at any such place, to send within 48 hours thereafter a description of the same and of any marks by which it is distinguished, directed to such address as aforesaid. (Sec. 454.)

*Payments to be made to Receiver.*—There shall be paid to all receivers appointed under this Act the expenses properly incurred by them in the performance of their duties, and also in respect of the several matters specified in the table annexed to this Act, such fees not exceeding the amounts therein mentioned, as may from time to time be directed by the Board of Trade; and the receiver shall have the same lien and be entitled to the same remedies for the recovery of such expenses and fees as a salvor has or is entitled to in respect of salvage due to him; but, save as aforesaid, no receiver appointed under this Act shall, as such, be entitled to any remuneration whatsoever. (Sec. 455.)

*Sums payable to Receiver to be determined by Board of Trade.*—Whenever any dispute arises in any part of the United Kingdom as to the amount payable to any receiver in respect of expenses or fees, such dispute shall be determined

by the Board of Trade, whose decision shall be final. (Sec. 456.)

**Application of Fees.**—All fees received by any receiver appointed under this Act, in respect of any services performed by him as receiver, shall be carried to and form part of the Mercantile Marine Fund, and a separate account thereof shall be kept, and the moneys arising therefrom shall be applied in defraying any expenses duly incurred in carrying into effect the purposes of this Act, and in such manner as the Board of Trade directs. (Sec. 457.)

For the regulations as to salvage see SALVAGE.

**In case of Shipwrecked Property being plundered by a tumultuous Assemblage, Handed to be liable in Damages.**—Whenever any ship or boat is stranded or otherwise in distress on or near the shore of any sea or tidal water in the United Kingdom, and such ship or boat, or any part of the cargo or apparel thereof, is plundered, damaged, or destroyed by any persons riotously and tumultuously assembled together, whether on shore or afloat, full compensation shall be made to the owner of such ship, boat, cargo, or apparel, as follows:—

In England, by the inhabitants of the hundred, wapentake, ward, or district in the nature of a hundred, by whatever name denominated, in or nearest to which the said offence is committed, in manner provided by the 7 & 8 Geo. IV. c. 31, in case of the destruction of churches and other buildings by a riotous assemblage, or as near thereto as circumstances permit;

In Ireland, by the inhabitants of the county, county of a city or town, barony, town or towns, parish or parishes, in or nearest to which such offence is committed, in manner provided by the 3 & 4 Wm. IV. c. 37 s. 72, for the recovery of satisfaction and amends for the malicious demolition of or injury to churches, chapels, and other buildings used for religious worship, according to the usage of the United Church of England and Ireland, or as near thereto as circumstances permit.

In Scotland, by the inhabitants of the county, city, or borough in or nearest to which such offence is committed, in manner provided by the 1 Geo. I. st. 2, c. 5 with respect to prosecutions for repairing the damages of any churches and other buildings, or as near thereto as circumstances permit.

**Penalty for plundering in Cases of Shipwreck &c.**—Every person who does any of the following acts, viz.:

1. Wrongfully carries away or removes any part of any ship or boat stranded or in danger of being stranded or otherwise in distress on or near the shore of any sea or tidal water, or any part of the cargo, or apparel thereof, or any wreck; or

2. Endeavours in any way to impede or hinder the saving of such ship, boat, cargo, apparel, or wreck; or

3. Secretes any wreck, or obliterates or defaces any marks thereon;

Shall, in addition to any other penalty or punishment he may be subject to under this or any other Act or law, for each such offence incur a penalty not exceeding 50*l.*; and every person, not being a receiver or a person hereinbefore authorised to take the command in cases of ships being stranded or in distress, or not acting under the orders of such receiver or person, who, without the leave of the master, endeavours to board any such ship or boat as aforesaid, shall for each offence incur a penalty not exceeding 50*l.*; and it shall be lawful for the master of such ship or boat to repel by force any such person so attempting to board the same. (Sec. 478.)

**Penalty for selling Wreck in Foreign Ports.**—

If any person takes into any foreign port or place any ship or boat stranded, derelict, or otherwise in distress on or near the shore of the sea or of any tidal water situate within the limits of the United Kingdom, or any part of the cargo or apparel thereof, or anything belonging thereto, or any wreck found within such limits as aforesaid, and there sells the same, he shall be guilty of felony, and be subject to penal servitude for a term not exceeding 4 years. (Sec. 479.)

**Regulations to be observed by Dealers in Marine Stores.**—Every person dealing in buying and selling anchors, cables, sails, or old junk, old iron, or marine stores of any description, shall conform to the following regulations, viz.:

1. He shall have his name, together with the words 'Dealer in Marine Stores,' painted distinctly in letters of not less than 6 inches in length on every warehouse or other place of deposit belonging to him.

If he does not, he shall incur a penalty not exceeding 20*l.*

2. He shall keep a book or books fairly written, and shall enter therein an account of all such marine stores as he may from time to time become possessed of, stating, in respect of each article, the time at which and the person from whom he purchased or received the same, adding, in the case of every such last-mentioned person, a description of his business and place of abode.

If he does not, he shall incur for the first offence a penalty not exceeding 20*l.*, and for every subsequent offence a penalty not exceeding 50*l.*

3. He shall not, by himself or his agents, purchase marine stores of any description from any person apparently under the age of sixteen years.

If he does so, he shall incur for the first offence a penalty not exceeding 5*l.*, and for every subsequent offence a penalty not exceeding 20*l.*

4. He shall not cut up any cable, or any similar article, exceeding 5 fathoms in length, or unlay the same into twine or paper stuff, on any pretence whatever, without obtaining such permit and publishing such notice of his having so obtained the same as is after mentioned.

If he does so, he shall incur for the first offence a penalty not exceeding 20*l.*, and for every subsequent offence a penalty not exceeding 50*l.*

**Manner of obtaining Permit to cut up Cables.**—In order to obtain such permit as aforesaid, a dealer in marine stores shall make a declaration before some justice of the peace having jurisdiction over the place where such dealer resides containing the following particulars, viz.:

1. A statement of the quality and description of the cable or other like article about to be cut up or unlay.

2. A statement that he purchased or otherwise acquired the same bona fide and without fraud, and without any knowledge or suspicion that the same had been come by dishonestly.

3. A statement of the name and description of the person from whom he purchased or received the same.

And it shall be lawful for the justice before whom any such declaration is made, or for the receiver of the district in which such dealer in marine stores resides, upon the production of any such declaration as aforesaid, to grant a permit authorising him to cut up or unlay such cable or other like article. (Sec. 481.)

**Permit to be advertised before Dealer proceeds to cut them.**—No dealer in marine stores who has obtained permit as aforesaid shall proceed to cut up or unlay any cable or other like article until

ant, by virtue whereof receiver to enter into wherever situate, and and to search for, and each wreck as aforesaid which seizure is made in that may have been receiver, the Informer salvage to such sum, l., as the receiver may

on by Receiver.—Every rs after taking posses- in be posted up in the nearest to the place and or seized a descri- marks by which it is so, if the value of such otherwise, transmit a Secretary of Lloyd's may shall post up the copy thereof, in some inspection of all persons same. (Sec. 452.)

small Value may be sold ere any wreck in the under the value of 5*l.*, nature or so much mot, in his opinion, be the value thereof is not charge of warehousing, time before the expira- tionated, and the money defraying the expenses receiver for the same the same claims for and would have been held and unsold. (Sec. 453.)

Manner or other Person Wreck, Receiver to give ere any admiral, vic- or, or other person is e to unclaimed wreck te within a district ed, such admiral, vic- or, or other person shall a statement containing e, and the address to sent; and upon such ed, and proof made to iver of the validity of ty, whenever he takes and at any such place, hereafter a description rks by which it is dis- h address as aforesaid.

Receiver.—There shall ounted under this Act urred by them in the s, and also in respect of ed in the table annexed exceeding the amounts y from time to time be ade; and the receiver and be entitled to the ivery of such expenses is entitled to in respect t, save as aforesaid, no his Act shall, as such, uration whatsoever.

er to be determined by ver any dispute arises ver Kingdom as to the receiver in respect of ute shall be determined

he has for the space of one week at the least before doing any such act published in some newspaper published nearest to the place where he resides one or more advertisements notifying the fact of his having obtained a permit, and specifying the nature of the cable or other article mentioned in the permit, and the place where the same is deposited, and the time at which the same is intended to be cut up or unladen; and if any person suspects or believes that such cable or other article is his property, he may apply to any justice of the peace for a warrant; and such justice of the peace may, on the applicant making oath, or, if a person entitled to make an affirmation, making an affirmation in support of such his suspicion or belief, grant a warrant by virtue whereof the applicant shall be entitled to require the production by such dealer as aforesaid of the cable or other article mentioned in the permit, and also of the book of entries before directed to be kept by every dealer in marine stores; and, upon such cable or other article and book of entries being produced, to inspect and examine the same; and if any dealer in marine stores makes default in complying with any of the provisions of this section, he shall for the first offence incur a penalty not exceeding 20*l.*, and for every subsequent offence a penalty not exceeding 50*l.* (Sec. 482.)

**Manufacturers to place Marks on Anchors.**—Every manufacturer of anchors shall, in case of each anchor which he manufactures, mark in legible characters on the crown and also on the shank under the stock his name or initials, with the addition of a progressive number and the weight of such anchor; and if he makes default in doing so, he shall for each offence incur a penalty not exceeding 5*l.* (Sec. 483.) [ANCHORS.]

**Foreign Goods found derelict to be subject to the same Duties as on Importation.**—All wreck, being foreign goods brought or coming into the United Kingdom, or the Isle of Man, shall be subject to the same duties as if the same were imported into the United Kingdom or the Isle of Man respectively; and if any question arises as to the origin of such goods, they shall be deemed to be the produce of such country as the Commissioners of Customs may upon investigation determine. (Sec. 499.)

**Goods saved from Ships wrecked to be forwarded to their original Destination.**—The Commissioners of Customs and Excise shall permit all goods, wares, and merchandise saved from any ship stranded or wrecked on its homeward voyage to be forwarded to the port of its original destination, and all goods, wares, and merchandise saved from any ship stranded or wrecked on its outward voyage to be returned to the port at which the same were shipped; but such commissioners are to take security for the due protection of the revenue in respect of such goods, wares, and merchandise. (Sec. 500.)

**Number of Shipwrecks.**—The loss of property by shipwreck is very great. It appears from an examination of *Lloyd's List* from 1793 to 1829, that the losses in the British mercantile navy only, amounted, at an average of that period, to about 577 vessels a-year, of the aggregate burden of about 66,000 tons, or to above  $\frac{1}{30}$  of its entire amount in ships and tonnage. The following accounts contain notices of late disasters:—

The abstract published by the Government furnishes the following details with regard to losses at sea in some late years. During the 5 years ending with 1867, the wrecks and casualties were:—

Years	Wrecks	Collisions	Total	Total Lives Lost
1863	1,661	331	2,001	620
1864	1,599	351	1,714	516
1865	1,656	354	2,012	608
1866	1,264	122	2,299	296
1867	1,076	111	2,090	1,533

The number of casualties in each month of 1867

WRECKS:—	vessels.	Brought forward	vessels.
January	518	August	49
February	464	September	130
March	291	October	292
April	137	November	253
May	102	December	190
June	59	Total	2,515
July	61		
	1,599		

Representing 461,232 tons, and employing 19,974 hands, of whom 1,333 perished.

In 1867 the wrecks and casualties were:—

	vessels.
Totally wrecked	656
Partially damaged, more or less seriously	1,045
Total	1,676

The number of 1,676 wrecks, other than collisions, is in excess of the wrecks and casualties of any former year, and is at the rate of more than 4 per diem.

The number of wrecks in each month of 1866 is thus given:—

	vessels.	Brought forward	vessels.
January	382	August	1,161
February	295	September	61
March	413	October	159
April	92	November	113
May	60	December	215
June	68	December	211
July	51	Total	1,850
	1,161		

In this year 896 hands perished.

In 1858 there were 1,170 wrecks, of which 104, including 50 sunk by collision, were total losses, happily only 340 lives were lost.

Estimating the vessels totally lost, with those that have been abandoned and broken up, at 600 a-year, and 200 tons burden at an average, and their value, including that of their cargoes, at 20*l.* a ton, the entire loss would amount to 2,400,000*l.*, to which a further and considerable sum must be added to repair the damage done to those ships which have escaped with less, though still serious injury. Hence, apart from the loss of life, which varies from about 500 to 800 and 1,200 hands a-year, the avoidance or diminution of wrecks is a matter of no little importance.

This result might, in some degree, be effected by building better and stronger ships, supplying them with improved compasses &c., and by opening harbours of refuge on the parts of the coast where these disasters mostly occur. No doubt, however, the abuse of insurance, with the carelessness, ignorance, and drunkenness of the masters and crews, are the great sources of loss; and nothing will do so much to obviate these as the plan now adopted of making the grant of a certificate of fitness, after undergoing an examination by a public board, indispensable to enable any individual to be appointed to the command of a ship (ante: MASTER). Provided always that the examination be properly conducted; if not, it will be worse than useless.

During the last war with France, 32 ships of the line went to the bottom, beside 7 fifty-gun ships, 86 frigates, and a vast number of smaller vessels. And the losses sustained by the navies of France, Spain, Holland, Denmark &c., must have very greatly exceeded those of ours. Hence, as Sir Charles Lyell has observed, it is probable that a greater number of monuments of the skill and industry of man will, in the course of ages, be collected together in the bed of the ocean, than will be seen at one time on the surface of the continents. (*Principles of Geology*, 7th ed. p. 728.)

Total	Total Lives Lost
2,001	690
1,744	516
2,012	698
2,222	996
2,099	1,537

in each month of 1867

brought forward	-	vesels.	-	1,390
August	-		-	49
September	-		-	130
October	-		-	97
November	-		-	253
December	-		-	190
Total	-		-	2,313

and employing 19,971 men.

Casualties were:—

seriously	-	vesels.	-	630
	-		-	1,000
	-		-	1,676

wrecks, other than collisions, wrecks and casualties is at the rate of more

in each month of 1866

brought forward	-	vesels.	-	1,161
August	-		-	61
September	-		-	159
October	-		-	113
November	-		-	215
December	-		-	311
Total	-		-	1,950

perished.

wrecks, of which 404, alone, were total losses, were lost.

totally lost, with those and broken up, at 600 men at an average, and of their cargoes, at 297. An amount to 2,100,000, considerable sum must be done to those ships, though still serious the loss of life, which 1,000 and 1,200 hands a continuation of wrecks is a

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## Y

**YARD.** A long measure used in England, of 3 feet, or 36 inches. [WEIGHTS AND MEASURES.]

**YARN** (Ger. garn; Dutch, garen; Fr. fil; Ital.

filato; Span. hilo; Port. fio; Russ. prashia), Wool, cotton, flax, &c., spun into thread. We export very large quantities of yarn. [COTTON; LAXEN; &c.]

## Z

**ZAFFER** or **ZAFRE.** After the sulphur, arsenic, and other volatile parts of cobalt, have been expelled by calcination, the residuum is sold, mixed or unmixed with fine sand, under the above name. When the residuum is melted with siliceous earth and potash, it forms a kind of blue glass, known by the name of smaltz [SMALTZ], of great importance in the arts. When smaltz is ground very fine, it receives in commerce the name of *powder blue.* Zaffer, like smaltz, is employed in the manufacture of earthenware and china, for paluting the surface of the pieces a blue colour. It suffers no change from the most violent fire. It is also employed to tinge the crystal glasses, made in imitation of opaque and transparent precious stones, of a blue colour. It is almost wholly brought from Germany. In 1867 the imports of zaffer amounted to 221 cwt., the exports being only 13 cwt. A duty of 1s. per cwt. on its being imported was repealed in 1846.

**ZEA, INDIAN CORN** or **MAIZE.** [MAIZE.] **ZEALAND, NEW.** [AUCKLAND; COLONIES.] **ZEDDARY** (Ger. zittwer; Fr. zédoaire; Ital. zedoria; Span. celouria; Arab. judwar; Hin. nirhisi). The root of a plant which grows in Malabar, Ceylon, Cochin-China &c., of which there are three distinct species. It is brought home in pieces of various sizes, externally wrinkled, and of an ash colour, but internally of a brownish red. Those roots which are heavy and free from worms are to be chosen; rejecting those which are decayed and broken. The odour of zedoury is fragrant, and somewhat like that of camphor; the taste biting, aromatic, and bitterish, with some degree of acrimony. It was formerly employed in medicine, but is scarcely ever used by modern practitioners. (Milburn's *Orient. Com.*)

**ZINC** or **SPELTER** (Ger. zink; Fr. zinc; Span. zincó, cinco; Russ. schpintser; Lat. zincum). A metal of a brilliant white colour, with a shade of blue, composed of a number of thin plates adhering together. When this metal is rubbed for some time between the fingers, they acquire a peculiar taste, and emit a very perceptible smell. It is rather soft; tinging the fingers, when rubbed upon them, with a black colour. The specific gravity of melted zinc varies from 6.861 to 7.1, the lightest being esteemed the purest. When hammered, it becomes as high as 7.1908. This metal forms, as it were, the limit between the brittle and the malleable metals. Its malleability is by no means to be compared with that of copper, lead, or tin; yet it is not brittle, like antimony or arsenic. When struck with a hammer, it does not break, but yields, and becomes somewhat flatter; and by a cautious and equal pressure, it may be reduced to pretty thin plates, which are supple and elastic, but cannot be folded without breaking. When

heated to about 400°, it becomes so brittle that it may be reduced to powder in a mortar. It possesses a certain degree of ductility, and may, with care, be drawn out into wire. Its tenacity is such that a wire whose diameter is equal to  $\frac{1}{16}$  inch is capable of supporting a weight of about 26 lb. Zinc has never been found in a state of purity. The word zinc occurs for the first time in the writings of Paracelsus, who died in 1541; but the method of extracting it from its ores was not known till the early part of last century. (Thomson's *Chemistry*; see also *Lie's Dictionary* by Hunt.) The compounds of zinc and copper are of great importance. [MIXES.]

**Manufacture of Zinc &c.**—The material used by the English manufacturer is blende, or black jack (sulphuret of zinc); it is commonly found with lead, and is procured of the best quality in Flintshire and the Isle of Man. Besides its employment in the manufacture of brass, bell metal, and other important compounds, zinc has of late years been formed into plates, and applied to many purposes for which lead was formerly used, such as the roofing of buildings, the manufacture of water-spouts, dairy pans &c. Foreign zinc, being less brittle, is better fitted for rolling than that of England.

The duties on spelter, which were formerly prohibitory, were reduced in 1832 to 2l. per ton on that formed into plates or cakes, and to 10s. on what is crude. The duty on the latter, after being further reduced in 1842 to 1s. per ton, was repealed in 1845. In consequence of these reductions, considerable quantities are now imported, partly for home use, and partly for re-exportation to India and other countries. Foreign zinc is principally made in Upper Silesia, whence it is conveyed by internal navigation to Dantzic, Stettin, and Hamburg. The freight from the latter to Hull and London is nominal merely; the wool-ships being glad to take it as ballast. Hainault, near Namur, has also some part of the spelter trade. A good deal of spelter is shipped from Hamburg for France and America.

Zinc is produced in the province of Yunnan in China; and previously to 1820 large quantities of it were exported from that empire to India, the Malay Archipelago &c. But about that time the free traders began to convey European spelter (principally German) to India; and being, though less pure, decidedly cheaper than the Chinese article, it has entirely supplanted the latter in the Calcutta market. In 1867 the exports of foreign and native spelter from this country for India amounted respectively to 421 and 4,910 tons; in addition to which considerable quantities were exported from Amsterdam, Rotterdam &c.

In 1867 we imported 24,332 tons crude, and 9,186 tons rolled spelter. By far the largest portion was brought from Prussia by the channel

of the Hanse Towns, and partly also from Belgium. The exports during the same year amounted to 6,782 tons, principally to the East Indies.

ZOLLVEREIN (literally Customs' Union). As a compound word, it means the association of a number of states for the establishment of a common customs law and customs-line with regard to foreign countries, and the suppression of both for the intercourse of the states with each other within the border line. The compound word, however, has gained the meaning of a proper name for the German Customs' League; this customs' union having obtained a great political importance through its having been for many years the only tie holding together the scattered parts of the Fatherland.

Next to the efforts of the Prussian Government to diffuse the blessings of education, their efforts to introduce a free commercial system into Germany constitute their best claim to the gratitude and esteem of their own subjects and of the world. Germany, as everyone knows, is divided into a vast number of independent, and mostly petty, states. Until a very recent period, every one of these states had its own custom-houses, and its own tariff and revenue laws; which frequently differed very widely indeed from those of its neighbours. The internal trade of the country was, in consequence, subjected to all those vexatious and ruinous restrictions that are usually laid on the intercourse between distant and independent states. Each petty state endeavoured either to procure a revenue for itself, or to advance its own industry, by taxing or prohibiting the productions of those by which it was surrounded; and customs officers and lines of custom-houses were spread all over the country. Instead of being reciprocal and dependent, everything was separate, independent, and hostile: the commodities admitted into Hesse were prohibited in Baden, and those prohibited in Wirtemberg were admitted into Bavaria. It is admitted on all hands that nothing has contributed so much to the growth of industry and wealth in Great Britain as the perfect freedom of internal industry we have so long enjoyed, and that intimate correspondence among the various parts of the empire which has rendered each the best market for the products of the other. How different would have been our present condition had each county been an independent state, jealous of those around it, and anxious to exalt itself at their expense! But, until within these few years, this was the exact condition of Germany; and, considering the extraordinary obstacles such a state of things opposes to the progress of manufactures, commerce, and civilisation, the wonder is, not that they are comparatively backward in that country; but that they should be so far advanced as they really are.

But, thanks to the intelligence and perseverance of Prussia, this anti-social system has been well nigh suppressed, and the most perfect freedom of commerce established among the great bulk of the Germanic nations. The disadvantages of the old system had long been seen and deplored by well-informed men; but so many interests had grown up under its protection, and so many deep-rooted prejudices were enlisted in its favour, that its overthrow seemed to be hopeless, or, at all events, exceedingly distant. The address and resolution of the Prussian Government, however, triumphed over every obstacle. Being fully impressed with a strong sense of the many advantages that would result to Prussia and Germany from the introduction of a free system

of internal intercourse, they pursued the measures necessary to bring it about with an earnestness that produced conviction, and with a determination, *coûte qui coûte*, to carry their point.

The first treaties in furtherance of this object were negotiated by Prussia with the principalities of Schwarzburg-Sondershausen and Schwarzburg-Rudolstadt, in 1818 and 1819, on the principle that there should be a perfect freedom of commerce between these countries and Prussia; that the duties on importation, exportation, and transit, in Prussia and the principalities, should be identical; that these should be charged along the frontier of the dominions of the contracting parties; and that each should participate in the produce of such duties, in proportion to its population. All the treaties subsequently entered into have been founded on this fair and equitable principle; the only exceptions to the perfect freedom of trade in all the countries comprised within the league or tariff alliance being confined, 1st, to articles constituting state monopolies, as salt and cards, in Prussia; 2nd, to articles of native produce, burdened with a different rate of duty on consumption in one state from what they pay in another; and, 3rd, to articles produced under patents conferring on the patentees certain privileges in the dominions of the states granting the patents. With these exceptions, which are not very important, the most perfect freedom of commerce exists among the allied states.

Since 1818, when the foundations of the alliance were laid, it has progressively extended, till it now comprises more than three-fourths of the Germanic states, exclusive of Austria. Ducal Hesse joined the alliance in 1828, and Electoral Hesse in 1831; the kingdoms of Bavaria, Saxony, and Wirtemberg joined it afterwards, as have Baden, Nassau, and almost all the smaller states which have since been annexed to or are still nominally independent of Prussia, with the exception of Mecklenburg-Schwerin and Mecklenburg-Strelitz.

In 1865 the Zollverein or tariff alliance comprised—

	German sq. miles	Population in 1864
Prussia	5,188	19,612,034
Bavaria	1,306	4,813,056
Saxony	274	2,315,094
Hanover	..	1,915,512
Wirtemberg	781	1,783,518
Baden (Duchy of)	226	1,166,218
Hesse (Electoral)	205	716,889
Hesse (Duchy)	134	871,839
The Thuringian States	237	1,105,754
Brunswick (Duchy of)	63	268,325
Oldenburg	..	311,107
Nassau	85	408,711
Frankfurt	2	92,211
Luxemburg	17	202,057
Total	8,507	55,847,022

Throughout the whole extent of this immense country, from Aix-la-Chapelle on the eastern confines of the Netherlands, eastward to Tilsit on the confines of Russia, and from Stettin and Dantzic southwards to Switzerland and Bohemia, there is nothing to interrupt the freedom of commerce. A commodity, whether for consumption or transit, that has once passed the frontier of the league, may be subsequently conveyed, without let or hindrance, throughout its whole extent. Instead of being confined within the narrow precincts of their own territories, the products of each separate country of the alliance may be sent to every one else; so that each may apply itself in preference to those departments in which it has some natural or acquired advantage; and each has to depend for its success, not on the miserable resource of customs regulations, but on its skill

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and industry. The competition thence arising is most salutary; and, should the peace of Europe be preserved, we run little risk in saying that all sorts of industry will make more progress among the states comprised within the tariff alliance, during the next ten years, than they did during the half century previous to its being organised.

An assembly of representatives from the allied states meets annually, to hear complaints, adjust difficulties, and make such new enactments as may seem to be required. The Prussian tariff has been adopted, with certain modifications. The duties are received into a common treasury, and are apportioned according to the population of each of the allied states. In addition to its other advantages, the new system has reduced the cost of collecting the duties to a mere trifle, compared with its former amount; and has enabled hundreds of custom-houses, and thousands of customs officers, to be employed in the different departments of industry.

The discrepancy in weights and measures used in different parts of Germany occasioned considerable inconvenience; and it is important that the equalisation of weights and measures, and their reduction to a common standard in all the allied states, is declared to be one of the objects of the League.

It is also expressly provided that the tolls, or other charges in lieu thereof, shall, in all cases, whether they belong to the public or to private individuals, be limited to the sums required to keep the roads in a proper state of repair; and that the tolls existing in Prussia shall be considered as the highest that are to be levied, and shall not in any case be exceeded.

It was at first supposed by many persons in this country, and the opinion is not yet entirely abandoned, that the Prussian league was in some degree directed against us, and that, at all events, it threatened to be very injurious to our trade with Germany: we do not, however, believe that there is any foundation whatever for either of these opinions. The alliance was planned, and brought to its present advanced state, in the view, and with the intention, of putting down the galling and innumerable restraints by which the intercourse of the German states with each other was formerly interrupted; and not with the intention of throwing any obstacles in the way of the trade of the alliance with foreign countries: it is, indeed, quite absurd to suppose that it should have this effect. The freedom of internal commerce will do ten times more to promote the industry and prosperity of the allied states than any other measure, or system of measures, that their governments could have adopted; and, as population increases, and the inhabitants become more industrious and wealthy, there will, no doubt, be an augmented demand for foreign products. The league is now no new thing. It originated half a century ago, and has been progressively augmented; but, hitherto, it has not had the slightest influence in diminishing our intercourse with Germany; our exports to it, including Holland and Belgium, having been greater on an average of the last five years than at any former period. [IMPORTS AND EXPORTS.] Generally speaking, the duties on imports are reasonable—at least, on all the finer goods. It never, in fact, can be the policy of the alliance to make them oppressive; for, though certain states may erroneously suppose that their interests would be promoted by such means, others would undoubtedly be of a different opinion, and would resist any attempt to carry them beyond a reasonable amount. It is a mistake to suppose that

in such matters Prussia has such an overwhelming influence. She must conciliate the other states, and carry them along with her; and this can only be done by acting on fair principles, and with a view to the common interests of the alliance.

Besides, if any of the existing duties be exorbitant, or if any of them, that are at present moderate, should be subsequently raised to an exorbitant pitch, does any one suppose that the over-taxed articles would not be immediately smuggled into all parts of the league? We, who occupy an island, and have revenue cruisers and coast guards on all the seas and shores most accessible to the smuggler, know from experience that it is not possible to hinder over-taxed commodities from making their way into our markets. But the facilities for smuggling into the territories of the league are incomparably greater. It has a land frontier of several thousand miles; and though the whole Prussian army were employed for that purpose, it would be found that it was utterly impotent to protect the territories of the league from being deluged with such over-taxed commodities as were in demand by the inhabitants.

We are glad to be able to strengthen our view of the influence and objects of the Prussian commercial league by laying before the reader the following extract from a work printed by order of the House of Representatives of the American States. 'Prussia,' it is there said, 'has evidently taken the lead in this wise and important measure, to which the smaller states have gradually acceded. The whole commercial policy of this enlightened power has been distinguished for its liberality, being founded on the desire of placing her intercourse with all nations on the basis of reciprocity. The commercial league of Germany is intended to carry out this principle, and not to be directed, as has been supposed, against any particular nation, as it is well known that Prussia, in her treaties with maritime powers, has invariably adopted the system of reciprocity, to whatever extent those with whom she negotiates are willing to carry it. The establishment of this community of commercial interests forms a part of the fundamental compact, by which the new Germanic Confederation was created, after the dissolution of the Confederation of the Rhine; to be subsequently adopted, however, at the option of such of the co-states as should choose to accede to it. Its effects cannot fail to promote commerce, and every other branch of industry, as it removes all those vexatious and endless difficulties which previously obstructed the freedom of intercourse. Navigable rivers and highways are now opened to the unfettered use of the German people; the customs and toll-houses, with their officers and barriers, have been withdrawn from the interior, and the whole intercourse resembles that of the subjects of any one of the states within its own territories. To these benefits may be added the assured prospect of improvement in the finances of the great and smaller sovereignties composing the league. This advantage will grow out of the simplicity or unity of the new system, a saving in the cost of collection, and from the increased consumption which renovated industry and progressive prosperity so invariably cause.' (*Digest of Customs Laws*, vol. iii, p. 227.)

*Prussian Duty on Cottons.*—The duty on cotton goods being that in which we are most interested, we took (prior to the late alterations in the Zollverein tariff) some pains to ascertain its real influence. This duty amounted to 50 rix-dollars per Prussian quintal on all cotton goods, without respect to quality or price; and, taking the quin-

German sq. miles	Population in 1841
5,188	49,312,251
1,296	4,813,556
372	2,513,294
..	1,915,772
581	17,365,78
226	1,426,218
203	716,889
134	871,839
257	1,005,551
63	208,515
..	211,107
85	408,211
2	32,211
17	202,957
8,507	55,837,922

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tal at 113 lb. avoirdupois, and the six-dollar at 3s., it was equal to 7l. 10s. per 113 lb. Now we learn from statements obligingly furnished to us by a large wholesale house in the City—

1. That a quintal (113 lb.) of *coarse shirting*, worth 4*l.* per yard, contained 497 yards; it consequently cost 8*l.* 6s., and the Prussian or tariff alliance duty of 7*l.* 10s., on it was, therefore, equivalent to an ad valorem duty of 90 per cent.

2. That a quintal of *superior shirting*, worth 1*s.* per yard, contained 457.65 yards; it consequently cost 2*l.* 17*s.* 7*d.*, making the Prussian duty on such goods 32½ per cent.

3. That a quintal of *printed cottons*, worth 1*s.* 6*d.* per yard, contained 633 yards; it consequently cost 4*l.* 9*s.*, making the Prussian duty on such goods 15¾ per cent.

4. That a quintal of *fine printed cottons*, worth 2*s.* 6*d.* per yard, contained 678 yards; it consequently cost 8*l.* 15*s.*, making the Prussian duty on such goods 8¾ per cent.

It is plain, therefore, that, except on the coarsest and cheapest species of goods, the Prussian or tariff alliance duty was very far from being oppressive; and, as the value of coarse goods is principally dependent on the cost of the raw cotton and the wages of labour, being but little influenced by superiority of machinery, it is not very probable that we should export them largely to Prussia, even were the duty materially reduced. No doubt, however, it would conduce greatly to the interests of the people comprised within the league, though we do not know that it would sensibly affect us, were the duty assessed on an ad valorem principle, and made 20 or 30 per cent. on all goods; and we should think that this might be done without any material difficulty.

The subjoined translation of the more important clauses of the Customs Treaty of March 22, 1833, sets the principles on which the alliance is founded in a clear point of view.

*Customs Treaty, concluded March 22, 1833, between the Kings of Bavaria and Wirtemberg, on the one part; and the King of Prussia, the Prince Electoral Co-Regent of Hesse, and the Grand Duke of Hesse on the other part.*

I. The existing Customs' Union between the states above named shall henceforth constitute a General Union, united by a common system of customs and commerce, embracing all the countries comprised therein.

II. In this general re-union are also comprised the states which have already adhered, either for the whole of their territory or for a part, to the system of customs and commerce of one or other of the contracting states, having regard to their special relations, founded upon the conventions of adhesion concluded with the states which have intervened.

III. But there will remain excluded from the general re-union the parts separated from the countries of the contracting states which, because of their situation, are not yet included either in the re-union of the Bavarian or Wirtemberg customs, nor in those of Prussia and Hesse. Nevertheless, the regulations now in force to facilitate the commerce of these territories with the principal country will be maintained. Other favours of this kind cannot be accorded without the unanimous consent of the contracting states.

IV. In the contracting states there shall be established uniform laws for the duties of import, of export, and of transit, except such modifications as, without injury to the common object, result necessarily from the particular legislation of each contracting state, or from local interests.

Thus, exceptions and modifications to the common tariff may take place, as to rates of duties of entry, of export, and of transit (according as the direction of the routes of commerce may require) established upon articles recognised as of minor consequence in extensive commerce; provided always that these modifications be preferred by separate states, and that they shall not be disadvantageous to the general interests of the Association.

The administration of the duties of import, export, and transit, as well as the organisation of the authorities which are engaged therein, in all the states of the Association, shall be established upon a uniform footing, having regard, however, to the particular relations existing in those countries. The laws and ordinances which, according to those principles, ought to be uniform in the contracting states, and which are to constitute the law of the tariff and the regulations of the customs, shall be considered as an integral part of the present treaty, and shall be published at the same time.

V. There can neither be alterations, nor additions, nor exceptions, to the Acts above mentioned (Art. IV.), but by the unanimous consent of all the contracting parties, and in the form required for the making (*confection*) of the laws.

The preceding applies equally to all the ordinances which would establish, for the administration of the customs, dispositions entirely different.

VI. Liberty of commerce, and community of the receipts of customs, as regulated by the following article, will commence simultaneously with the operation of the present treaty.

VII. Dating from this epoch, all duties of import, of export, and of transit shall cease on the common frontier of the Bavaro-Wirtemberg and Prusso-Hessian customs re-unions. All articles of free commerce in one of those territories may be imported freely and without duty into all the others, except only as follows:—

A. Articles monopolised by the states (playing cards and salt) conformable to Articles IX. and X.

B. Indigenous articles, now subject in the interior of the contracting states to different duties, or excepted from all duty in one state, and imported into another, and which according to Article II. ought consequently to be subject to a duty of compensation.

Finally, C. Articles which, without prejudice to patent rights or conceded privileges in one of the contracting states, cannot be imitated or imported, and ought consequently to be excluded during the existence of the patents and privileges from importation into the state which has granted them.

VIII. Notwithstanding the freedom of commerce, and the exemption from duties, established by Article VII., the transport of articles of commerce, subject by the common tariff to duties of import or export on the frontiers of the Association, cannot take place between the states of Bavaria and Wirtemberg, and the states of Prussia, of Electoral Hesse, or of Grand Ducal Hesse, and reciprocally, except by the public roads, military routes, and navigable rivers. For this purpose there shall be established on the interior frontiers common bureaux of verification, to which the conductors of merchandise must, on exhibiting their licenses, declare what are the articles which they are employed to transport from one territory to another.

This disposition will not be applicable to retail commerce in raw materials, nor to the petty commerce of the frontiers or the fairs, nor to the effects of travellers. Process for the verification of merchandise will go no further than is required

for security of the duties of compensation. (See Art. VII. B.)

XIII. The contracting parties reciprocally renew their adhesion to the principle that the tolls, or other charges in lieu thereof, shall only be sufficient to defray the expense of maintenance and repairs of the roads; whether the tax be for the state or for private rights. It was thus that has been approved the supplement to the duty of customs, created in Bavaria and Wirtemberg, to replace the duty of tolls, paving, causeways, bridges, and generally of all analogous taxes.

The tolls &c. now existing in Prussia, according to the general tariff of 1828, shall be considered as the *highest rates*, and shall not be exceeded in any of the contracting states.

In accordance with the principle thus announced, the individual duty for closing the gates of cities shall be abolished; as also the duty of paving of causeways, where it still exists; and all paved roads will be considered as causeways of a description liable only to the duty on causeways established by the general tariff.

XIV. The contracting Governments agree to unite their efforts to introduce into the states a uniform system of coins, weights, and measures, to commence immediately after the requisite negotiations for this purpose; and, subsequently, to direct their efforts towards the adoption of uniform custom-house weights.

The contracting states, in the impossibility of establishing this uniformity before this treaty goes into operation, agree, for facilitating the forwarding of merchandise where it has not already been done, to revise their tariff as to weights and measures, assuming for a basis the tariffs of the other contracting states. They will cause such modifications to be published, for the government of the public and of their custom-house bureaus.

The common tariff (Art. IV.) shall be divided into two principal divisions, according to the system of weights, measures, and moneys of Bavaria, and that of Prussia.

The declaration of the weights and measures of articles subject to duty shall, in Prussia, be according to Prussian weights and measures; in Bavaria and Wirtemberg, according to those of Bavaria; and in the two Hesses, according to the weights and measures there legally established.

In expediting custom-house Acts, the quantity of merchandise must be expressed according to the two principal divisions of the common tariff.

Until the contracting states agree upon a system of common money, the payment of duties in each state shall be made in the same currency as in use for payment of its other taxes.

But from the present time, the gold and silver coins of all the contracting states, with the exception of small money (*schiedennunze*), shall be received in all the bureaus of receipt of the Association; and for this purpose tables of value shall be published.

XV. The duties of navigation upon the rivers, comprising therein those which apply to vessels, shall always be mutually acquitted according to the Acts of the Congress of Vienna, or of special conventions, upon all the rivers to which these regulations apply, unless other determinations be adopted in this respect.

The contracting states agree to enter, without delay, into negotiations for that which particularly regards the navigation upon the Rhine and the neighbouring streams, in order to effect an arrangement by which the import, export, and transit of the productions of all the states of the Union upon said streams shall be, if not absolutely free, at least relieved as far as possible

from duties of navigation, under the reserve of charges of reconnaissance.

All the advantages granted by one state of the Union to its subjects, in the exercise of the navigation upon said streams, shall extend equally to the navigation of the other associated states.

Upon the other streams to which neither the Acts of the Congress of Vienna nor any other treaties apply, the duties of navigation shall be according to the special regulations of the Governments interested. Nevertheless the subjects of the contracting states, their merchandise and vessels, shall throughout be treated on those streams with perfect equality.

XVI. Dating from the day on which the general custom-house regulations of the Union shall come into operation, the duties of public stores (*étapes*) and of transhipments (*umschlagrechte*), which still exist in the territories belonging to the Association, shall cease, and no one shall be liable to forced delay, nor to the discharging and storage of his merchandise, except in cases authorised by the common regulations of the customs or navigation.

XVII. No duties shall be claimed for canals, locks, bridges, ferries, cranes, weighing and storage; and the establishments destined to facilitate commerce shall not be allowed rent, except when actually used. Charges cannot be increased; and the subjects of the other contracting states shall be on a perfect equality with the subjects of the countries having those establishments.

If the establishments for weighing and cranes are only used by the custom-houses, no charge shall be made, if the articles have been previously weighed at a custom-house.

XVIII. The contracting states engage to continue their common efforts for the encouragement of industry by the adoption of uniform regulations, so that the subjects of each state may enjoy, as extensively as possible, the privilege of seeking work and occupation in every other state.

From the coming into operation of the present treaty, the subjects of any one of the contracting states, trading or seeking employ in the territory of any other of those states, shall not be subject to any impost which does not equally affect the native similarly employed. Manufacturers and merchants who are only making purchases for their trade, or travellers who have not goods with them, but simply patterns for the purpose of soliciting commissions, shall not, when thus employed, have any duty to pay in another state, if authorised to carry on such commerce in the state where they have their domicile; or if employed in the service of native manufacturers or merchants.

When trading in the markets and fairs, or when they are selling the produce of the soil and fabrics, in any one of the states of the Association, the subjects of the other contracting states shall be treated in all respects as subjects of the same state.

XIX. The seaports of Prussia shall be open for commerce to all the subjects of the states of the Union, on payment of the same duties as are paid by Prussian subjects, and the consuls of the several states in the seaports or places of foreign commerce shall be bound, in cases of need, to assist with their advice and support the subjects of the other contracting states.

XX. To protect against contraband their common custom-house system, and to insure the regular payment of the duty of consumption in the interior, the contracting states have concluded a reciprocal cartel, which shall be enforced as soon as possible, but, at the furthest, at the same time with the present treaty.

XXI. The community of receipts of the contracting states, stipulated by the present treaty, shall comprehend the product of duties of entry, of export, and of transit, in the Prussian states, the Kingdoms of Bavaria and Wirtemberg, the Electorate, and the Grand Duchy of Hesse, comprising therein those countries which have down to the present time acceded to the custom-house system of the contracting states.

The following are excluded from the community of receipts, and remain reserved for the particular benefit of the respective Governments:—

1. The imposts collected in the interior of each state on indigenous products, comprising therein the compensatory duties reserved in Article XI.

2. The toll on rivers, to which are applicable the regulations of the Acts of the Congress of Vienna, or special conventions. (Article XV.)

3. Duties of paving, of causeways, of bridges, of ferries, of canals, of locks and ports, charges of weighing and storage, as well as similar receipts, whatever may be their name.

4. The fines and confiscations which, beyond the part allowed to informers, remain the property of each Government throughout its territory.

XXII. The produce of the duties received into the common treasury shall be divided among the states of the Association, in proportion to the population which may be found in the Union, subject to deduction, 1st, of the expenses specified in Article XXX.; 2nd, of the restitution of erroneous receipts; 3rd, of the restoration of duties and diminutions made in consequence of special common conventions.

The population of every state which has entered or may enter into the Association, by treaty with one or other of the contracting states, under the engagement made by the latter, to make an annual contribution, for the participation of the former to the common revenue of the customs, shall be added to the population of the states which make this contribution.

There shall be made every 3 years, dating from a period to be hereafter fixed, an exact enumeration of the population of the associated states: the states shall reciprocally communicate the results thereof.

XXIII. All restitutions of duties not authorised by the legislation of the customs shall remain charged to the treasury of the Government which shall have granted it.

Conventions, hereafter to be concluded, will regulate in what cases similar restitution may be accorded.

XXIV. In conformity with the object of this Association of Customs tending to facilitate a freer and more natural commercial intercourse, the favours accorded for the payment of custom-house duties at certain places in which fairs are held, especially the privileges of abatement (*abat privilegien*), cannot be extended to those states of the Association where they do not exist; on the contrary, they shall be restricted and abolished as far as possible, regard being had to the means of subsistence of the places heretofore favoured, and to the commercial relations which they have with foreigners; but others can on no account be granted without the general consent of the contracting parties.

XXXIII. There shall every year, on June 1, be an assembly of plenipotentiaries of the Governments of the Union empowered generally to deliberate; and each state may send thither a duly authorised representative.

The plenipotentiaries will choose from among

themselves a president, who, however, shall have no pre-eminence over the other members.

The first assembly shall be held at Munich. At the close of each annual assembly, the place of next meeting will be determined, having reference to the nature of those subjects which will then come under discussion.

XXXIV. The assembly of plenipotentiaries will have under its consideration in the following subjects:—

A. To consider the complaints which may have arisen in any of the states of the Association concerning the execution of the general treaty, of special conventions, of the law, and of custom-house regulations; also of the tariff, when these shall not have been adjusted during the year by correspondence between the different ministers.

B. The definitive reparation among the states of the Union of the total common receipts, based upon the observations made by the superior authorities, and verified by the central bureau, as may be rendered necessary by the common interest.

C. To deliberate upon propositions and suggestions made by the Governments for the perfection of the administration.

D. Discussions upon alterations, demanded by any of the contracting states, in the laws, tariffs, and custom-house regulations, as well as in the organisation of the administration, and in general upon the development and perfection of the general system of customs and commerce.

XXXV. If, in the course of the year, when the plenipotentiaries are not in session, extraordinary incidents should occur, which require prompt decision on the part of the states of the Union, the contracting parties will consult upon these through their diplomatic agents, or they will order an extra sitting of their plenipotentiaries.

*Recent Changes in the German Customs' Union.*—The discussions in the assemblies of the League were, especially of late years, a good deal influenced by political considerations. A league denominated the *Steuerverein* had been formed in opposition to, or in rivalry with, the Prussian league, by Hanover, Oldenburg, and Brunswick. It was evident, however, inasmuch as the interests of these and the other German states were identical, that it would be a great public advantage were these associations merged into one. But owing to political, commercial, and financial jealousies, this desirable object was of very difficult attainment. At length these difficulties were surmounted; and a treaty negotiated between Hanover and Prussia, on September 7, 1851, provided for the incorporation, from January 1, 1854, of the former, and the other states included in the *Steuerverein*, with the Prussian Union. Some modifications were introduced by the treaty into the basis of the League, but they are of little importance, except to the parties immediately interested.

*Treaties with Austria.*—More recently a great deal of discussion took place between Prussia and the subordinate German states on the one hand, and Austria on the other, in regard to the formation of a Customs' Association which should include the latter; and in order to pave the way for this desirable consummation, Austria issued a new tariff on November 25, 1851, in which she made many important modifications in the prohibitive system on which she had previously acted, at the same time that she established a free commercial intercourse between Hungary (which had previously a separate customs establishment) and the other states of the empire. And though this wise and liberal measure has not yet led to

who, however, shall have the other members.

It will be held at Munich. The annual assembly, the place of which is determined, having reference to those subjects which will concern the plenipotentiaries considered in the following

complaints which may have been made by the superior authority by the central bureau, necessary by the common

propositions and suggestions by the plenipotentiaries of the Governments for the alteration of the laws, tariffs, and regulations, as well as in general administration, and in general and perfection of the general commerce.

alterations, demanded by the plenipotentiaries of the States, in the laws, tariffs, and regulations, as well as in general administration, and in general and perfection of the general commerce.

course of the year, when the plenipotentiaries, which require prompt action on the part of the plenipotentiaries, will consult upon these matters, or they will be consulted by the plenipotentiaries.

of the *German Customs' Union*, and the plenipotentiaries of the League of the States.

years, a good deal of industry has been devoted to the consideration of the League of the States, and in general and perfection of the general commerce.

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the incorporation of Austria into the Customs' Union, it has led to the conclusion by her of several important commercial treaties: the first of these, with Prussia, was dated February 19, 1853.

The contracting parties engaged to suppress, with a few specified exceptions, all prohibitions against importing the products of the one into the territories of the other; they next established a complete freedom of trade between the two countries in all articles of raw produce; and they

further stipulated that the duties to be imposed on manufactured products should be moderate and reasonable. It had a variety of other clauses, all of a liberal character. The duration of the treaty was limited to 12 years, so that it had expired and was renewed before hostilities broke out between Prussia and Austria. The war of 1866 affected the trade of Germany most injuriously, and by way of illustration we subjoin a statement referring to 1865 and 1866.

An Account showing the Proportion of the Revenues of the German Customs' Union Raised in the different States in 1865 and 1866, and the Distribution thereof, according to their Population, from Mr. Secretary of Legation Lowther's Report of July 28, 1866, and July 29, 1867.

States of the Verein	Import Dues				Export Dues		Total	
	1865		1866		1865	1866	1865	1866
	flks.	flks.	flks.	flks.	flks.	flks.	flks.	flks.
1. Prussia	13,681,596	11,608,150	28,555	31,989	15,713,111	11,642,739		
Hanover	1,916,319	1,884,253	2,601	4,832	1,919,010	1,889,165		
Electoral Hesse	575,603	557,781	2,601	..	578,204	557,581		
Nassau	98,677	91,713	82	..	98,759	91,713		
Frankfort-on-the-Maine	822,207	715,713	16,813	882	839,020	746,591		
Lauenburg	125,165	119,013	1,040	202	126,205	118,215		
2. Bavaria	1,361,083	1,265,261	2,909	210	1,364,292	1,265,660		
3. Saxony	2,669,651	2,385,742	5,881	21	2,675,532	2,385,553		
4. Württemberg	4,35,815	507,223	813	..	4,36,628	507,523		
5. Baden	1,061,198	997,681	4,293	5,498	1,066,122	1,003,279		
6. Grand Duchy Hesse	516,559	487,648	1,040	1	517,599	487,648		
7. Thuringia	512,222	505,226	159	6	512,381	505,292		
8. Brunswick	255,557	241,719	16	..	255,573	241,719		
9. Oldenburg	239,159	206,116	107	1,563	239,266	207,579		
Total	32,925,765	21,501,155	67,720	15,596	32,991,083	21,546,751		

*Renewal of the Zollverein.*—The German States lying to the south of the river Meine having preserved their independence after the war of 1866, were not under any obligation to unite themselves either politically or commercially with Prussia, or even to renew the Zollverein which the war had dissolved. However, a sense of their own interest subsequently induced the Southern States not only to enter into military conventions with the Prussian Crown, but to continue members of the Zollverein upon an enlarged basis. On July 8, 1867, a new Zollverein treaty for a further term of years was concluded between the states of the North German Confederation and the South German States, viz.—Havaria, Württemberg, Baden, and Hesse-Darmstadt—the scope of which extends to the whole of Germany, except Austria, inasmuch as the two Mecklenburgs, and the three Hanse Towns, as members of the Northern Confederation, are parties to the last-mentioned treaty, and are represented in the Zollverein councils. Under the old system, questions were settled in the Zollverein conferences, in which unanimity was required; whereas, under the new treaty, the legislative power is given to a federal council of 58 members, in conjunction with a Customs Parliament. In the council, Prussia has 17 votes, and a veto upon all alterations of existing laws; in other cases the majority of the council decides, Prussia having a casting vote. The Customs Parliament (which met for the first time in Berlin on April 27, 1868) is chosen upon the principle of universal suffrage by the people of the Southern States, as well as of the States of the North German Confederation, and in it all resolutions are passed by an absolute majority. There is, therefore, every reason to believe that Prussia and the commercial States of the North will enjoy their due influence in the council of the new Customs' Union, and that the public opinion of the nation will be fully and fairly represented in the Customs Parliament.

A difficulty in the way of the accession of the two Mecklenburgs to the Zollverein system was found to exist in their treaty of 1865 with France, by the 18th Article of which the Mecklenburgs had engaged not to raise their customs duties above the

rate of 1 dollar per centner, and not to introduce any new duties whatever. This difficulty has been removed. Prussia has consented to a reduction of the customs tariff on French wines, and some other articles; and the two Mecklenburgs are left at liberty to enter the customs frontier of the North German Confederation, and to fulfil all their engagements as members of that alliance. The arrangements for that purpose are expected to be soon completed by the Federal Council, and the early admission of the two Mecklenburgs within the customs line may now be anticipated.

Schleswig and Holstein retained their old tariff for some time after their annexation to the Prussian Monarchy, but towards the end of April 1867 a royal ordinance put the Zollverein tariff into force within both Duchies; and on November 15 they were formally included within the limits of the Zollverein itself. The town of Altona was, however, excepted, and has been allowed for the present to remain a free port, with similar privileges to those enjoyed by the neighbouring territory of Hamburg. The transit duties formerly levied on goods passing through these Duchies are now entirely abolished.

The tariff and regulations of the Zollverein were likewise applied to the Duchy of Lauenburg as a part of the Prussian Monarchy on January 5, 1868, and the transit duties long charged on the passage of goods through that Duchy were then abolished. By these several extensions the Zollverein frontier has been brought down to the Elbe, subject to the exemptions temporarily granted to Hamburg and Altona as ports of free importation.

*Commercial Treaties.*—Among the commercial treaties lately concluded by the Zollverein, that with Austria, dated March 9, 1868, stands prominent on account of the reductions of duties and the increased facilities of traffic, for which it stipulates. The provisions of the former commercial treaty between the same parties of April 11, 1865, are much enlarged; and in return for numerous reductions to be made by Austria the Zollverein pledges itself to lower its customs tariff as regards the importation of pig iron, linen yarn, wine, horses, and various other articles. The export duties (with 2 or 3 exceptions), as well as the

transit duties, are on both sides abolished. Of the advantages of the last treaty with the Zollverein, the United Kingdom will partake in consequence of the 'most favoured nation clause' in our treaty with Austria. [TREATIES (AUSTRIA).] A treaty of navigation with Italy had been previously concluded on October 14, 1867; and more recently, March 30, 1868, a treaty of commerce and navigation with Spain has been announced, whereby the Zollverein has the right of trading on the most favoured footing with the European portion of the Spanish monarchy, and has conceded reciprocal privileges to Spain in the states of the Union. The differential duties which have hitherto existed in Spain in favour of certain articles of French produce and manufacture have likewise been abolished in favour of the Zollverein.

In consequence of these and other changes, the

duties in the tariff of the German Customs' Union have undergone many modifications. But except on coarse and heavy goods, they continue, speaking generally, to be moderate. A declaration of April 1, 1869, for the admission duty free into Great Britain and the Zollverein of patterns and samples imported by commercial travellers, has been published in the *London Gazette*.

The overtures made to Russia on behalf of the Zollverein have hitherto been unsuccessful. (*Report of Mr. Ward, minister resident at Hamburg, of May 15, 1868.*)

We have little doubt, should peace be preserved, that the advantages of which the Zollverein must be productive will be so many and so great, that it will lay the foundations of a lasting intercourse, of which we can neither foresee the extent nor the beneficial influence.

THE END.

man Customs' Union cautious. But except they continue, speak-ate. A declaration-ission duty free into-erin of patterns and-ereial travellers, has a Gazette.

Russia on behalf of er been unsuccessful, er resident at Ham-

d pnce be preserved, the Zollverein must y and so great, that a lasting intercourse, ee the extent nor the

## SUPPLEMENT.

### ADMIRALTY COURT JURISDICTION, [COUNTY COURTS.]

**ALE AND BEER.** By the Wine and Beer-house Act of 1869, 32 & 33 Vict. c. 27, the licensing of refreshment houses in England, and of the retailing of beer, cider, and wine, is transferred from the excise to the justices assembled at the general annual licensing meeting, and the provisions of 9 Geo. IV. c. 61 are declared to be applicable to grants of certificates under the new Act; stipulating, however, that such certificates are not, except under extraordinary circumstances, to be refused where the liquors are *not* to be consumed on the premises.

The 32 & 33 Vict. c. 11 substitutes for the customs' duties chargeable on beer and ale in the tariff, on importation into the United Kingdom, the following duties after June 1, 1869, viz. :—

Beer and ale, namely—	£ s. d.
Main, the barrel of thirty-six gallons	1 1 0
Spruce, the worts of which were, before fermentation, of a specific gravity not exceeding one thousand and six hundred and ninety degrees, the barrel of thirty-six gallons	1 1 0
Exceeding one thousand and ninety degrees, the barrel of thirty-six gallons	1 4 0
Other sorts, viz.—	
Beer, the worts of which were, before fermentation, of a specific gravity not exceeding one thousand and six hundred and ninety degrees, the barrel of thirty-six gallons	0 8 6
Exceeding one thousand and six hundred and ninety degrees, the barrel of thirty-six gallons	0 11 0
Exceeding one thousand and ninety degrees, the barrel of thirty-six gallons	0 16 0

And in charging the above rates of duty upon the importation of beer, the specific gravity of the worts from which the same was made shall be ascertained and determined in the manner prescribed by 19 & 20 Vict. c. 34 s. 16, for ascertaining and determining the rates of drawback on the exportation of beer.

### ALEXANDRIA. [SEZAR CANAL.]

**ALICANTE.** The values of imports and exports in BRITISH VESSELS at Alicante in 1867 and 1868 were :—

Years	Ships	Tons	Value of Imports	Value of Exports
1867	108	21,039	31,853	45,514
1868	86	21,869	81,631	47,051

The increase in the value of imports was caused by the arrival of some British vessels with wheat from the Black Sea. During 1868 the trade at this port did not increase, but the duties on goods imported, and port duties, which in 1867 amounted to 70,752*l.*, were, in 1868, 88,283*l.*, exclusive of railway material and fuel, imported free.

The exportation of esparto grass, chiefly to England, has largely increased, 10,425 tons having been shipped in 1868 against 2,513 in 1867. The system is now generally adopted of pressing the esparto to reduce its bulk. The average price of this article, free on board, has

been 4*l.* per ton. (Report by Mr. Consul Barrie of March 16, 1869.) [SPAIN.]

**AMSTERDAM.** The following statistics in relation to the trade of this port and of the Netherlands are extracted, the first table from the Report of Mr. Consul Newnham of May 27, 1869, and the last two from that of January 7, 1869, by Mr. Thurlow, second secretary to our Legation at the Hague :—

### I.—Account of the Arrivals and Departures of Netherlands and Foreign Vessels at Amsterdam during 1867 and 1868.

	Arrivals			
	1867		1868	
	Vessels	Tons	Vessels	Tons
Netherlands	770	199,159	727	206,535
Foreign	696	195,825	758	221,261
Totals	1,466	394,975	1,485	427,796

	Departures			
	1867		1868	
	Vessels	Tons	Vessels	Tons
Netherlands	827	208,055	759	207,426
Foreign	755	196,061	719	211,110
Totals	1,582	404,116	1,478	418,536

Of the 738 foreign arrivals in 1868, 200 were steamers of 78,000 tons, and of these 189 were British of 71,965 tons.

### II.—Table showing General Imports and Exports of the Netherlands from 1861 to 1867.

Years	General Importation	Import for Consumption	General Exportation	Duty-free Exports	In Transit
	florins	florins	florins	florins	florins
1861	37,155,775	280,376,261	153,116,570	311,162,216	89,231,571
1865	506,598,778	105,535,281	138,391,127	514,810,050	91,210,677
1866	528,071,709	121,191,211	136,299,752	5,857,266	98,035,456
1867	522,081,795	122,025,079	119,417,611	5,008,871	109,150,207

Referring to the convention for the free navigation of the Rhine entered into in 1868 by the Netherlands, Prussia, France, Bavaria, Baden &c., Mr. Thurlow gives the following among other particulars, showing the extent of commerce passing Lobith, on the Dutch portion of the Rhine, at different periods from 1832 downwards, and in the 3 years ending with 1867.

### III.

Years	Up Rhine	Down Rhine	Total
	cwt.	cwt.	cwt.
1832 to 1834	1,605,594	5,455,435	7,061,029
1835	2,018,608	6,965,169	8,983,777
1840	3,227,391	5,881,559	9,108,911
1845	4,171,375	6,661,750	10,833,125
1850	5,010,028	6,267,210	11,277,238
1855	6,074,513	10,358,169	16,432,682
1860	6,082,868	18,027,248	24,110,116
1865	5,792,221	21,918,681	27,710,902
1866	5,988,715	36,007,304	41,996,019
1867	6,618,657	39,091,410	45,710,067

**ARCHANGEL.** The following table, taken from Mr. Consul Renny's Report of March 31, 1869, exhibits the values of the exports from Archangel in each of the five years ending with

1868, and the proportion of these to Great Britain:—

*Values of Exports.*

	1861	1865	1866	1867	1868
Total	£ 948,358	£ 1,029,002	£ 1,306,641	£ 1,240,952	£ 1,501,211
To Great Britain	581,818	669,701	857,129	725,608	960,958

ARROWROOT. Customs' duty on, repealed, 1869.

AUSTRIA. See article TRIESTE in Dictionary, edition 1869.

BALTIMORE. In illustration of the rapid growth of this port, Mr. Consul Rainalds, in his Report of April 10, 1869, mentions that the population, which was 212,000 in 1860, had increased to 352,000 in 1868. The following table exhibits the increase of our trade with Baltimore since 1866:—

*British Shipping.*

Years	Entered			Cleared		
	Number of Vessels	Tons	Value of Cargoes	Number of Vessels	Tons	Value of Cargoes
1866	188	48,423	2,478,000	191	49,781	805,500
1867	210	60,158	2,308,110	209	60,501	2,019,562
1868	261	63,631	2,957,000	257	61,119	2,725,741

BANGKOK. The following is an abridgment of a table given by Mr. Knox, our Consul-General for Siam, in his Report of March 25, 1869:—

*Account of British and Foreign Shipping Entered and Cleared at the Port of Bangkok in 1868, and of the Values of their Cargoes.*

Nationality of Vessels	Entered			Cleared		
	Vessels	Tons	Value of Cargoes	Vessels	Tons	Value of Cargoes
British	107	47,237	61,266	96	41,560	293,411
French	7	2,913	5,500	5	1,621	12,112
American	11	9,205	1,251	13	8,711	42,110
North German	63	23,591	59,137	60	24,735	156,913
Portuguese	6	1,197	2,541	5	750	3,500
Sweden and Norway	3	1,178	..	3	1,178	7,425
Dutch	16	6,508	31,000	14	4,204	24,882
South American	1	1,100	..	..	..	..
Hawaiian	..	..	..	2	1,076	6,326
Danish	4	994	300	4	994	6,700
Russian	1	557	..	1	557	2,490
Siamese	126	47,017	550,501	114	45,479	397,778
Junks to China	..	..	..	..	..	50,000
Total	346	142,375	772,898	317	135,655	999,817

It would appear from the same Report that since 1867 the export of rice, formerly our principal trade from this port, had ceased in great measure, but that new markets have been found, and that in 1868 sixty-nine vessels cleared their cargo with full cargoes for Europe, and others sailed for Mauritius, California, and Australia.

BANK OF ENGLAND. An Act (32 & 33 Vict. c. 104) for facilitating the payments of dividends on the public stocks, passed in 1869, makes the following regulations with respect thereto, viz:—

2. *Power to send dividend warrants by post.*—It shall be lawful for the governor and company of the Bank of England, hereinafter called the Bank, from time to time, with the sanction of the Commissioners of the Treasury, to make arrangements for payment of dividends on any stocks by sending warrants through the post. Every such warrant shall be deemed to be a cheque on the said governor and company within the intent and meaning of the statute of 21 & 22 Vict. c. 79.

3. *Effect of posting a warrant.*—Every stockholder desirous of having his dividend warrants sent to him by post shall make a request accord-

ingly in writing to the Bank, such writing to be signed by him, and to be in a form approved by the Bank and by the said commissioners, and shall give to the Bank an address in the United Kingdom to which the letters containing such warrants are from time to time to be sent, and the posting by the Bank of any letter addressed to a stockholder at his request at the address given by him to the Bank, and containing a dividend warrant, shall, as respects the liability of the Bank, be equivalent to the delivery of such warrant to the stockholder himself.

4. *Change of day on which dividends on stocks fall due.*—The half-yearly dividends due on any public stocks which at the time of the passing of this Act fall due on October 10 in each year, shall from and after the passing of this Act become due on October 5, instead of October 10.

5. *Audit of dividends.*—The Treasury may from time to time make regulations as to the mode in which the audit of the accounts relating to dividends on public stocks is to be held by the commissioners for auditing the public accounts, and may, if they think fit, dispense with such audit altogether.

6. *Definition of terms.*—In this Act 'public stocks' shall mean and include any stock forming part of the national debt, and transferable in the books of the Bank:

'Stockholder' shall mean the proprietor of any share in the public stocks;

'Person' shall include corporation;

'United Kingdom' shall include the Channel Islands, the Isle of Man, and any other islands adjacent to any part of the United Kingdom;

'Warrant' shall include draft, order, cheque, or any other document used as a medium for payment of dividends.

BANKRUPTCY. In the articles BANKRUPT AND BANKRUPTCY, and INSOLVENCY AND BANKRUPTCY, in this Dictionary, the history and policy of the laws affecting bankrupts in the United Kingdom, and the progress of opinion and legislation on the subject, have been shortly traced, down to the session of 1868. We have now, by way of supplement, to give a short abstract of the more important clauses of the Bankruptcy Act of 1869 (32 & 33 Vict. c. 71), entitled An Act to consolidate and amend the Law of Bankruptcy.

The Act is divided into a preliminary and eight other parts.

In the preliminary portion the 2nd clause declares it inapplicable to Scotland or Ireland, except when expressly provided.

The 3rd dates its operation from January 1, 1870.

The 4th defines various terms used in its provisions; and

The 5th excludes from its operation companies or partnerships registered under the Companies Act of 1862.

In Part I., relating to the adjudication and vesting of property, clause 6 provides for the adjudication of a bankrupt owing 50*l.* to one or more creditors, and defines six acts of bankruptcy, on any one of which that may have occurred within the previous six months, his or their petition must be founded.

7-9 refer to the proceedings on debtors' summons and petition, proof of debt and of trading when necessary, and act of bankruptcy, and to contested debts.

10 to the advertisement of adjudication.

12 binds creditors not holding securities.

18 empowers the court to restrain suits and appoint receiver.

14, 17, and 18 provide for the appointment, by

bank, such writing to be in a form approved by the commissioners, and address in the United Kingdom, and containing such particulars as to the time to be sent, and of any letter addressed to the address, and containing a dividers respects the liability of the trustee to the delivery of such dividends.

**14** describes the property of a bankrupt divisible among his creditors, and specially exempts—1st, property held in trust; and 2nd, tools of trade, and family wearing apparel and bedding, to the value in all of 20*l*.

**15** lays down regulations as to the first meeting of creditors.

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**100-105** refer to joint and separate estates.

**106-109** specify the nature of the evidence necessary in proceedings in bankruptcy.

**110-119** are of a miscellaneous kind, 118 enacting that no person not being a trader shall be adjudged a bankrupt in respect of a debt contracted prior to the Bankruptcy Act of 1861.

**120-124** relate to persons having privilege of Parliament, 120-124 enact that this privilege is not to prevent adjudication on bankruptcy; that the seat of a bankrupt member of the House of Commons shall be vacated; and that the Speaker shall issue a new writ.

**125** makes regulations for the liquidation by arrangement of the affairs of the debtor.

**126, 127** contain regulations for the payment by a debtor to his creditors of a composition, without any proceedings in bankruptcy.

**128-136** make temporary provision for transfer of officers from old to new Court of Bankruptcy, the abolition of the County District Courts, compensation to, and reappointment of officers &c.

**Schedule 1** appended to the Act gives the following list of, and description of Traders:—

Alum makers, apothecaries, auctioneers, bankers, bleachers, brokers, brickmakers, builders, calendarers, carpenters, carriers, cattle or sheep salesmen, coach proprietors, cowkeepers, dyers, fullers, keepers of inns, taverns, hotels, or coffee houses, lime-burners, livery stable keepers, market gardeners, millers, packers, printers, sharebrokers, shipowners, shipwrights, stockbrokers, stock-jobbers, victuallers, warehousemen, wharfingers, persons using the trade or profession of a scrivener, receiving other men's moneys or estates into their trust or custody, persons insuring ships or their freight or other matters against perils of the sea, persons using the trade of merchandise by way of bargaining, exchange, bartering, commission, consignment, or otherwise, in gross or by retail, and persons who, either for themselves or as agents or factors for others, seek their living by buying and selling or buying and letting for hire goods or commodities, or by the workmanship or the conversion of goods or commodities; but a farmer, grazier, common labourer, or workman for hire shall not, nor shall a member of any partnership, association, or company which cannot be adjudged bankrupt under this Act, be deemed as such a trader for the purposes of this Act.

**31-40** describe debts, distinguishing as preferential, certain local rates, assessed and other taxes, and wages of clerks and servants, and deal with allowance to debtors, set off and secured debts.

**41-50** apply to the distribution of dividends, appropriation of the surplus, if any, by the bankrupt after payment of creditors and costs, the close of the bankruptcy, discharge of the bankrupt (mainly depending on the payment of 10*s*. in the pound), and effect of the discharge.

**51-53** relate to the release of the trustee and its effects.

**54** explains the status of an undischarged bankrupt.

**55-58** provide for the appointment of a comptroller or auditor of trustee's accounts, and define his duties and powers.

**Part III.**—Clauses 59-72 constitute the Court of Bankruptcy and Court of Appeal, and specify their general powers.

**73-77** provide for the enforcement of warrants and orders of the court, and enjoin that the Bankruptcy Courts in England, Scotland, and Ireland, and every British court elsewhere, shall be auxiliary to each other in bankruptcy cases.

**78, 79** empower the Lord Chancellor to revoke or alter rules of court, and to effect change of jurisdiction in county courts.

**Part IV.**, consisting of supplemental provisions, clause 80 makes additional regulations as to proceedings in bankruptcy.

**81, 82** state the consequences of annulling of adjudication.

**83, 84** lay down rules as to the trustee and committee of inspection.

**85, 86** relate to the power over the bankrupt.

**87-95** to the property devolving on the trustee.

**96-99** to the discovery and seizure of the bankrupt's property.

**100-105** refer to joint and separate estates.

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**In the article BANKRUPT AND BANKRUPTCY** in this Dictionary the author expressed an opinion on the impolicy of imprisonment for debt where the debtor had acted honestly and had done all that should be required of him. By Act 32 & 33 Viet. c. 62 the Legislature have adopted this view, and may be said to have abolished imprisonment for debt in England, except for the punishment of fraudulent debtors and of contempt of court.

The 32 & 33 Viet. c. 83 provides for the winding up of the business of the late Insolvent Debtors' Court in England, and repeals a number of enactments relating to insolvency, bankruptcy, imprisonment for debt &c.

**BARLEY AND BARLEY MEAL, and BARLEY PEARLED.** Import duty on, repealed, 1869.

**BEANS AND BEAN MEAL.** Customs' duty on, repealed, 1869.

**BEAR or BIGG.** Customs' duty on, repealed, 1869.

**BEER.** [ALE AND BEER.] BELGIUM. See article on AXTWENT in the Dictionary, edition 1869.

**BIGG.** [BEAR.]  
**BIRDS.** [SEA BIRDS.]  
**BISCUIT AND BREAD.** Customs' duty on, repealed, 1869.

**BOSTON.** The rocks called Touser and Corwin in the main channel near Fort Warren, which caused much trouble to the shipping, have been removed to the depth of twenty-three feet at low water, and these and other operations for widening and deepening the approaches to this harbour have rendered it one of the most secure on the coast, and will soon make it one of the most accessible.—Consul Lonsada's Report of February 8, 1869.

**BRAZIL.** [SLAVES AND SLAVE TRADE.]  
 In the Dictionary of 1869 will be found articles on the undermentioned Brazilian ports; viz. BAHIA, PARA, PERNAMBUCO, and RIO DE JANEIRO.

**BRISTOL.** For an account of the harbour, docks &c., of this port, see the article Docks in the Dictionary, edition of 1869; sub-head *Bristol Docks, Shipping, &c.*

**BUCKWHEAT AND MEAL.** Customs' duty on, repealed, 1869.

**CANADA. COLONIES; HUDSON'S BAY COMPANY.** in this Supplement. See also articles HALIFAX and QUEBEC, in the Dictionary, ed. 1869.  
**CANAL.** [SUEZ CANAL.]

**CARDIFF.** For an account of this port and its docks, see the article Docks in the Dictionary, edition 1869. Sub-head *Cardiff.*

**CARRIAGES.** The 32 & 33 Viet. c. 11 abolishes (from January 1, 1870): 1. The duties upon licenses to keep, use, and let to hire hackney carriages in the metropolis, and the weekly duties payable in respect of them; and 2, the duties upon licenses to keep, use, and employ stage carriages in Great Britain, and also the milnage duty in respect of the same, and imposes the following duties:—

For every male servant	£	s.	d.
For every carriage—	0	15	0
If such carriage shall have four or more wheels, and shall be of the weight of four hundredweight or upwards.	2	2	0
If such carriage shall have less than four wheels, or, having four or more wheels, shall be of a less weight than four hundredweight.	0	15	0

For every horse or mule	£	s.	d.
For annual licence—	0	10	6
If such annual licence shall be painted, marked, or affixed on or to any carriage	2	2	0
If such annual licence shall not be so painted, marked, or affixed, but shall be otherwise worn or used	1	1	0
For every horse dealer	12	10	0

[HACKNEY CARRIAGES.]

**CASSAVA POWDER.** Customs' duty on, repealed, 1869.

**CATTLE.** An Act passed in 1869 (32 & 33 Viet. c. 70) consolidates, amends, and makes perpetual the Acts for preventing the introduction or spreading of contagious or infectious diseases among cattle and other animals in Great Britain. It is divided into 10 parts: the 1st preliminary, the 2nd referring to local authorities, the 3rd to the import of foreign animals, the 4th to the discovery and prevention of disease, the 5th to slaughter of cattle &c. in cattle plague, and compensation to be awarded to the owners, the 6th to Orders in Council &c., the 7th to the acquisition &c. of land for the burying or slaughtering of animals &c., the 8th to the expenses of local authorities, the 9th to offences and legal proceedings, and the 10th to Scotland; and appended to the Act are 9 Schedules, chiefly containing regulations; the 5th stating the maximum tolls, dues, and payments in the Metropolitan market after the opening of the Foreign Cattle market; viz.

Sheep	£	s.	d.
Beasts	6	11	per head
Calves	5	11	"
Pigs	11	"	"

An Order in Council of August 10, 1869, applicable to the Metropolis, revokes all previous orders on the subject of contagious and infectious diseases of cattle, and regulates the import of cattle into the port of London, the moving of cattle, and their sale, exhibition, slaughter &c.

**CHILE.** See VALPARAISO in Dictionary, edition 1869.

**CHINA.** The following tables, and that given under Shanghai, are extracted from the *Annals of Trade* printed at the Customs' Press of Shanghai in 1869. See also articles AMOY, CANTON, FOOCHOW, HONG KONG, MACAO, NINGPO, SHANGHAI &c. in the Dictionary, edition 1869.

Shipping at Chinese Ports in the following Years.

Flag	1861		1865		1866		1867		1868	
	Vessels (entered and cleared)	Tons								
American	5,026	2,689,390	4,721	2,615,906	5,602	1,957,687	4,926	1,675,751	5,623	2,257,737
Australian	55	129,266	19	5,681	10	2,811	8	2,990	2	1,208
Belgian	22	5,520	8	4,264	2	622	2	1,600	..	..
British	7,915	2,862,211	7,798	3,167,980	8,276	3,921,851	7,964	3,711,080	7,165	3,252,092
Chinese	1,021	64,988	574	39,548	516	35,721	561	54,609	571	32,573
Danish	767	164,802	670	111,917	216	37,058	159	45,870	155	257
Dutch	197	59,171	176	56,090	191	69,885	222	82,638	121	35,106
French	247	95,099	295	91,687	251	108,918	247	112,587	219	159,165
Hawaiian	2	912	25	4,660	19	2,920	12	2,200	12	1,920
Italian	2	839	15	9,217	6	3,097	13	11,593	1	1,642
Japanese	2	756	..	..	4	1,069	1	809	12	4,168
North German	..	..	..	..	2,218	629,722	2,252	611,811	1,772	467,087
Bromo	292	85,321	428	122,869	..	..	..	..	..	..
Hamburg	1,109	380,135	1,020	308,102	..	..	..	..	..	..
Hanover	157	30,926	154	21,891	..	..	..	..	..	..
Lubeck	21	7,452	14	5,751	..	..	..	..	..	..
Mecklenburg	53	10,518	50	7,501	..	..	..	..	..	..
Odenburg	79	22,972	51	11,611	..	..	..	..	..	..
Prussian	187	46,143	205	45,278	..	..	..	..	..	..
Norway and Sweden	110	58,195	118	26,877	62	15,927	82	22,171	106	26,165
New Greenland	1	466	..	..	..	..	..	..	..	..
Portuguese	21	1,232	21	4,232	50	5,679	..	400	..	..
Peruvian	8	6,286	2	1,668	..	..	..	..	..	..
Russian	21	9,198	29	11,152	19	4,172	51	8,987	52	12,099
Siamese	156	68,595	115	64,177	137	67,662	166	71,024	222	91,312
Spanish	69	20,559	85	21,621	18	25,350	71	24,863	44	11,447
San Salvador	102	34,867	54	21,994	..	..	..	986	..	1,608
Total	17,966	6,635,485	16,628	7,136,501	15,672	6,877,582	14,704	6,396,815	14,075	6,418,503



## Revenue of each Port—1868 and 1867.

Ports	Import		Export		Tonnage dues		Coast Trade Duty		Total 1868		Total 1867	
	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>	<i>Tls. m.c.c.</i>
Shanghai	1,671,701.22.3	251,069.8.6	108,966.7.0	112,107.5.2	2,301,165.5.3	2,301,165.5.3	3,701,318.2.1	3,701,318.2.1	3,701,318.2.1	3,701,318.2.1	3,701,318.2.1	3,701,318.2.1
Canton	947,011.4.5.9	385,915.3.0	172,665.0.0	185,265.3.8	1,509,292.8.1	1,509,292.8.1	1,509,292.8.1	1,509,292.8.1	1,509,292.8.1	1,509,292.8.1	1,509,292.8.1	1,509,292.8.1
Swatow	187,130.6.0	134,146.3.0.8	14,800.0.0	26,536.6.5.0	281,613.6.8	281,613.6.8	449,865.1.1.9	449,865.1.1.9	449,865.1.1.9	449,865.1.1.9	449,865.1.1.9	449,865.1.1.9
Amoy	435,671.0.6.1	158,307.4.7.9	14,662.5.0.0	17,215.9.1.5	426,041.7.6.8	426,041.7.6.8	503,327.8.0.1	503,327.8.0.1	503,327.8.0.1	503,327.8.0.1	503,327.8.0.1	503,327.8.0.1
Foochow	214,030.4.4.5	1,337,474.1.5.7	18,115.7.0.0	25,347.1.5.0	1,708,648.1.9.8	1,708,648.1.9.8	1,708,648.1.9.8	1,708,648.1.9.8	1,708,648.1.9.8	1,708,648.1.9.8	1,708,648.1.9.8	1,708,648.1.9.8
Takow	9,285.6.2.2	39,805.0.0.0	1,001.0.0.0	1,571.8.5.1	68,171.1.8.8	68,171.1.8.8	19,037.1.1.7	19,037.1.1.7	19,037.1.1.7	19,037.1.1.7	19,037.1.1.7	19,037.1.1.7
Tamsui	25,821.0.9.3	41,766.5.6.5	1,984.0.0.0	1,717.0.0.3	69,347.5.5.9	69,347.5.5.9	19,037.1.1.7	19,037.1.1.7	19,037.1.1.7	19,037.1.1.7	19,037.1.1.7	19,037.1.1.7
Ningpo	132,187.5.1.2	377,596.0.2.0	5,735.6.0.0	10,927.2.2.8	467,098.1.1.1	467,098.1.1.1	469,601.7.1.4	469,601.7.1.4	469,601.7.1.4	469,601.7.1.4	469,601.7.1.4	469,601.7.1.4
Chinglong	1,000.0.0.0	17,000.0.0.1	0.0.0.0	0.0.0.0	93,918.8.2.3	93,918.8.2.3	93,918.8.2.3	93,918.8.2.3	93,918.8.2.3	93,918.8.2.3	93,918.8.2.3	93,918.8.2.3
Kiukiang	218.1.1.3	292,225.9.5.5	2,952.0.0.0	21,649.6.6.8	45,099.5.9.1	45,099.5.9.1	496,507.1.7.5	496,507.1.7.5	496,507.1.7.5	496,507.1.7.5	496,507.1.7.5	496,507.1.7.5
Hankow	301.7.2.3	1,041,593.9.0.9	5,366.7.0.0	43,706.8.1.5	1,139,560.1.1.7	1,139,560.1.1.7	813,897.0.7.5	813,897.0.7.5	813,897.0.7.5	813,897.0.7.5	813,897.0.7.5	813,897.0.7.5
Chifu	155,430.3.0.0	7,542.7.8.3	13,003.0.0.0	44,006.1.8.8	204,369.1.1.0	204,369.1.1.0	206,011.1.1.0	206,011.1.1.0	206,011.1.1.0	206,011.1.1.0	206,011.1.1.0	206,011.1.1.0
Tientsin	241,619.9.3.5	51,088.2.1.9	3,838.5.0.0	66,028.6.3.0	300,605.9.8.1	300,605.9.8.1	411,297.8.2.9	411,297.8.2.9	411,297.8.2.9	411,297.8.2.9	411,297.8.2.9	411,297.8.2.9
Newchwang	105,954.1.5.5	81,511.5.1.9	5,092.1.0.0	27,738.3.1.0	219,797.4.1.7	219,797.4.1.7	219,797.4.1.7	219,797.4.1.7	219,797.4.1.7	219,797.4.1.7	219,797.4.1.7	219,797.4.1.7
<b>Total</b>	<b>5,987,679.0.5.5</b>	<b>5,311,600.2.1.8</b>	<b>203,766.5.5.5</b>	<b>474,591.6.6.8</b>	<b>9,307,547.4.7.6</b>	<b>9,307,547.4.7.6</b>	<b>8,718,141.1.7.3</b>	<b>8,718,141.1.7.3</b>	<b>8,718,141.1.7.3</b>	<b>8,718,141.1.7.3</b>	<b>8,718,141.1.7.3</b>	<b>8,718,141.1.7.3</b>
<b>Add</b>	<b>Fravit Dues, at Shanghai</b>	..	..	..	6,798.5.1.6	6,798.5.1.6	6,558.8.6.7	6,558.8.6.7	6,558.8.6.7	6,558.8.6.7	6,558.8.6.7	6,558.8.6.7
<b>Do. do.</b>	<b>Foochow</b>	..	..	..	5,773.5.6.7	5,773.5.6.7	5,771.1.7.5	5,771.1.7.5	5,771.1.7.5	5,771.1.7.5	5,771.1.7.5	5,771.1.7.5
<b>Do. do.</b>	<b>Swatow</b>	..	..	..	..	..	..	..	..	..	..	..
<b>Do. do.</b>	<b>Chikiang</b>	..	..	..	..	..	..	..	..	..	..	..
<b>Do. do.</b>	<b>Kiukiang</b>	..	..	..	..	..	..	..	..	..	..	..
<b>Do. do.</b>	<b>Hankow</b>	..	..	..	..	..	..	..	..	..	..	..
<b>Total, 1868</b>	<b>5,157,413.0.0.1</b>	<b>4,879,015.5.0.2</b>	<b>203,653.5.5.6</b>	<b>474,300.6.1.1</b>	<b>8,783,336.2.7.0</b>							

## CHOCOLATE. [LICENSES; TEA.]

CHRISTIANIA. In Consul-General Crowe's Report of March 31, 1869, on the Spring Herring Fishery on the South-West Coast of Norway, he gives the annexed table, showing the catch for the last six years ending with 1869, and the exports for the five years ended 1868:—

Years	Catch	Exported
1861	687,000	559,000
1865	785,000	631,500
1866	742,000	598,000
1867	599,000	479,100
1868	612,000	485,000
1869	681,000	..

The above figures merely refer to the spring herring fishery, and not to what is caught during the season to the north, and exported from the northern provinces.

## CIDER. [ALE AND BEER.]

COASTING TRADE. The Merchant Shipping (Colonial) Act of 1869 (32 Vict. c. 11) places, on certain conditions, the regulation of the coasting trade of our colonial possessions under their respective Legislatures, and empowers them to grant, after due examination, certificates of qualification to persons intending to act as masters, mates, or engineers on board British ships.

## COCOA NUTS. [LICENSES; TEA.]

## COFFEE. [LICENSES; TEA.]

COINS. By Order in Council of August 7, 1869, gold coins made at the branch mint of Melbourne, Victoria, are declared legal tender in all parts of the empire.

Considerable discussion has been excited by the proposal of Mr. Lowe (Chancellor of the Exchequer) to levy seignorage on our gold coinage by giving in return for every 123.274 grains of bullion delivered at the Mint a sovereign of the reduced weight of 122.274 grains. As the views of the author of the Commercial Dictionary on the subject of seignorage are given in the article on COINS, p. 332, edition 1869, they need not be repeated here.

COLLISION. The County Courts Admiralty jurisdiction is extended by 32 & 33 Vict. c. 51 to all claims not exceeding 300*l.* each on account of damage to ships, whether by collision or otherwise.

COLONIES. The Canada Rupert's Land Loan Act of 1869 guarantees a loan of 300,000*l.* by the Canadian Government for payment to the Hudson's Bay Company of the price of the

surrender of Rupert's Land to the Canadian Dominion.

The Merchant Shipping Colonial Act of 1869 gives power to Colonial Legislatures to regulate their coasting trade, and to grant, after examination, certificates of qualification to persons intending to act as masters, mates, or engineers in British ships.

196,325 persons emigrated from the United Kingdom in 1868, of whom 155,632 went to the United States, 21,206 to our North American colonies, and 12,899 to the Australian colonies and New Zealand.

COMPANIES. The 32 & 33 Vict. c. 19, passed 1869, regulates partnerships for working mines in the stannaries of Devon and Cornwall. [PARTNERSHIPS; RAILWAYS; STOCKS.]

CORK. See account of its dock in article Docks in the Dictionary, edition 1869, sub-head Cork.

CORN LAWS AND CORN TRADE. Mr. Lowe (Chancellor of the Exchequer) carried out his intention referred to under WHEAT TARIFF &c. in this Dictionary, and on June 1, 1869, by 32 & 33 Vict. c. 14, the customs' duties ceased on the import of corn, grain, meal and flour, and articles of the like character, viz.,

Wheat, barley, oats, rye, pease, beans, maize or Indian corn, buck wheat, bear or bigg, wheat meal and flour, barley meal, oat meal and grouts, rye meal and flour, pea meal, bean meal, maize or Indian corn meal, buckwheat meal, meal not otherwise enumerated or described, arrowroot, barley, pearled, biscuit and bread, cassava powder, macaroni, mandioca flour, manna croup, potato flour, powder, viz. hair, powder perfumed, powder not otherwise enumerated or described, that will serve the same purpose as starch, rice dust and meal, sago, semolina, starch, starch gun of, torrifed or calcined, tapioca, vermicelli.

COUNTY COURTS. The Admiralty jurisdiction of the county courts is extended by 32 & 33 Vict. c. 51 to any claims not exceeding 300*l.* each, relating to the use or hire of any ship, or the carriage of goods in any ship, or any claim in tort in respect of goods carried in any ship, and to all claims for damage to ships whether by collision or otherwise, and also, if the parties agree, to claims of higher amount referring to all the above claims except those for damage. It provides, too, that the judge may be assisted by two mercantile assessors. (See also BANKRUPTCY in this Supplement.)



**GREAT GRIMSBY.** For an account of this port see article *Docks*, sub-head *Grimsby*, in the Dictionary, edition 1869.

**GRECE.** See articles *IONIAN ISLANDS*, *PATRAS*, and *SYRA* in the Dictionary, edition 1869.

**GROATS.** [*OATS AND OATMEAL.*]

**HACKNEY CARRIAGES.** The 32 & 33 Vict. c. 14 s. 17 (to operate from January 1, 1870) repealed the duties on licenses to keep, use, and let hackney carriages within the limits of the metropolitan district and the City of London, and also the weekly duties payable in respect of such hackney carriages; the duties on licenses to keep, use, and employ stage carriages in Great Britain, and also the mileage duty payable in respect of such stage carriages. [*CARRIAGES; HORSES.*]

**HAIR POWDER.** [*POWDER.*]

**HAYTI.** [*PORT AU PRINCE* in Dictionary.]

**HOLLAND.** [*See AMSTERDAM* in this Supplement, and *AMSTERDAM; BATAVIA; ROTTERDAM*; in the Dictionary, edition 1869.]

**HORSES.** The duties on licenses to be taken out by persons who shall let horses for hire in Great Britain, and the duties on licenses to let to hire horses for travelling post by the mile, or from stage to stage, in Ireland, were repealed, from January 1, 1870, by 32 & 33 Vict. c. 11 s. 17; and the same Act imposes a license duty of 10s. 6d. after that date for every horse or mule kept in Great Britain and used for draught or riding.

**HUDSON'S BAY COMPANY.** The Canada Rupert's Land Loan Act, 32 & 33 Vict. c. 101, guarantees a loan to be raised by the Government of Canada for payment of 300,000*l.* to the Hudson's Bay Company for the surrender of Rupert's Land to the Dominion of Canada.

**HULL.** For an account of her docks, shipping, &c., see article *Docks*, sub-head *Hull*, in the Dictionary, edition 1869.

**IMPORTS AND EXPORTS.** (See pp. 9, 10, and 11 of this Supplement.)

**INDIA.** [*EAST INDIES.*]

**INDIAN CORN.** [*MAIZE.*]

**INSURANCE.** On June 25, 1869, the stamp duty at the rate of 1s. 6d. per cent. per annum on insurances against loss or damage by fire ceased in terms of sec. 12 of 32 & 33 Vict. c. 11.

**ITALY.** Embodied in the Report of January 30, 1869, by Mr. Herries, our Secretary of Legation at Florence, is the following table, showing the extent of the navigation for 1867 in each of the maritime districts into which the coasts of the kingdom of Italy are divided:—

Maritime Districts	Entered inwards		Cleared outwards	
	Foreign Trade		Coasting Trade	
	Ships	Tons	Ships	Tons
Genoa	5,663	1,299,905	18,657	1,557,577
Messina	4,219	953,165	15,837	1,025,600
Leghorn	2,811	615,661	17,211	1,257,219
Naples	2,839	625,310	11,397	907,749
Palermo	672	594,131	7,369	465,931
Venice	8,767	672,110	2,318	138,718
Catania	1,566	375,924	11,055	604,516
Farano	1,914	268,721	7,632	436,659
Porto Empedocle	2,581	295,975	6,070	339,782
Cagliari	1,511	211,212	3,786	329,765
Catet anzure	1,907	216,210	11,283	329,365
Ancona	2,145	258,512	8,597	161,417
Bari	1,610	155,185	6,918	359,751
Spezia	1,722	86,159	10,221	366,871
Trapani	637	98,161	6,788	290,251
Cos	601	6,909	6,035	559,105
S. Maddalena	1,033	121,161	2,538	291,892
Porto Maurizio	2,259	182,898	2,475	143,682
Porto Cerraio	783	66,772	5,613	156,166
Imperia	1,567	816,670	6,118	125,821
Genoa	92	8,593	3,557	108,212
Total	12,657	6,926,211	169,219	9,361,089

See articles *CIVITA VECCHIA*, *GALLIPOLI*, *GENOA*,

*LEGHORN*, *MESSINA*, *NAPLES*, *PALEOMO*, and *VENICE*, in Dictionary, edition 1869.

**LEITH.** For an account of this port see article *Docks* in the Dictionary, edition 1869, sub-head *Leith*.

**LICENSES.** The 32 & 33 Vict. c. 11 s. 17 (to operate from January 1, 1870) repealed—

The duties on licenses to keep, use, and let hackney carriages within the limits of the Metropolitan district and the City of London, and also the weekly duties payable in respect of such hackney carriages.

The duties on licenses to keep, use, and employ stage carriages in Great Britain, and also the mileage duty payable in respect of such stage carriages. [*CARRIAGES; HORSES.*]

The excise licenses for selling tea, coffee, cocoa nuts, chocolate, or pepper.

The duties on licenses to be taken out by persons who shall let horses for hire in Great Britain; and the duties on licenses to let to hire horses for the purpose of travelling post by the mile, or from stage to stage, in Ireland; and the same Act imposes a license duty of 10s. 6d. after that date for every horse or mule kept in Great Britain and used for draught or riding, as well as other license duties for male servants, carriages, and armorial bearings.

**LIGHTHOUSE.** The 32 & 33 Vict. c. 77 provides for the erection of a lighthouse on the Great Basses Rock in Ceylon.

**LIQUEURS, BRITISH.** [*WAREHOUSING.*]

**LIVERPOOL.** For an account of her port, docks &c., see article *Docks*, sub-head *Liverpool*, in Dictionary, edition 1869.

**LONDON.** For a description of the various docks on the Thames, see article *Docks* in the Dictionary.

**MACCARONI.** Customs' duty on, repealed, 1869.

**MAIZE or INDIAN CORN, and MEAL.** Customs' duty on, repealed, 1869.

**MALT.** Extracts and essences or other concentrations of malt may now be imported into the United Kingdom, in transit or to be warehoused for exportation only, under 32 & 33 Vict. c. 11 s. 3. [*ALE AND BEER.*]

**MANDIOCA FLOUR.** Customs' duty on, repealed, 1869.

**MANILLA.** The Board of Trade gave notice (July 5, 1869) in the *London Gazette*, that the Spanish Government has issued two decrees, of which translations are published, the one reforming the customs' duties in the Philippines, and the other relating to the introduction and repairs of vessels in those islands.

**MANNA CROUP.** Customs' duty on, repealed, 1869.

**MASTERS.** Colonial Legislatures have, under 32 Vict. c. 11, power to grant, after examination, certificates of qualification to persons intending to act as masters, mates, or engineers, on board British ships.

**MATES.** [*MASTERS.*]

**MEAL, of all kinds.** Customs' duty on, repealed, 1869.

**MECKLENBURG.** See article *Rostock*, in Dictionary, edition 1869.

**METHYLATED SPIRIT.** The 32 & 33 Vict. c. 103 explains the 18 & 19 Vict. c. 33 as to the excess or deficiency in the stocks of makers of this spirit which would be forfeited or charged with duty under this Act.

**MEXICO.** See articles *ACAPULCO*, and *VERA CRUZ*, in Dictionary, edition 1869.

I.—Account of the Real or Declared Value of the various Articles of the Manufacture and Produce of the United Kingdom Exported to Foreign Countries during each of the 5 Years ending with 1868, specifying the Countries to which they were Exported, and the Value of those Annually Shipped for each; and showing also the Average Amount of Exports during the said 5 Years to each Country and to each of the 5 great Divisions of the Globe; and the Average Proportion Exported to each, supposing the whole Exports to be 1,000.

Countries	1864	1865	1866	1867	1868	Average Annual Amount of Exports 1864-68	Average Annual Proportion Exported to each, supposing the whole Exports to be 1,000
<b>EUROPE</b>							
Russia	2,846,409	2,923,006	3,176,656	3,914,035	4,200,110	3,428,019	19,570
Sweden	751,994	905,507	825,188	617,685	617,685	741,618	4,631
Norway	772,937	674,007	854,118	858,845	774,910	756,419	4,181
Denmark	1,152,767	1,294,152	1,302,811	1,282,359	1,150,559	1,270,546	7,253
Prussia	1,133,339	2,099,530	1,800,499	2,879,580	3,090,257	2,419,567	15,555
Germany	41,538,784	43,809,354	43,067,103	47,665,525	49,365,180	46,294,837	3,653
Holland	6,884,037	8,137,755	8,999,173	9,122,112	10,303,098	8,708,018	60,945
Belgium	2,301,291	2,035,533	2,691,065	2,816,181	3,150,105	2,815,065	16,009
France	8,485,761	9,062,003	11,570,400	12,312,000	10,665,754	10,714,668	8,953
Portugal Proper	2,091,514	2,096,057	2,001,101	1,827,582	1,534,119	1,977,296	10,888
Azores	106,967	82,211	129,786	108,221	95,108	104,139	596
Madeira	71,900	61,932	87,575	74,156	74,959	75,042	483
Spain	5,081,678	2,577,446	2,093,829	2,257,362	2,208,992	2,360,581	15,176
Gratiar	1,206,168	1,190,817	1,151,697	745,318	706,298	97,206	598
Italy	5,898,794	5,474,440	5,872,355	4,881,733	5,016,786	5,407,509	39,845
Austrian Territories	792,419	754,648	912,698	907,363	1,077,459	869,867	5,014
Alta	755,115	631,901	655,301	498,796	501,992	607,811	3,170
Ionian Islands	490,755	456,191	454,001	434,178	428,011	450,002	2,852
Greece	433,887	582,399	417,645	414,885	418,855	490,468	2,950
Turkey	6,137,580	5,840,068	6,530,603	5,914,318	6,917,739	6,247,057	50,847
Channel Islands	1,016,900	757,659	490,951	553,140	469,725	676,828	5,750
<b>Total</b>	<b>40,271,989</b>	<b>63,732,583</b>	<b>66,029,911</b>	<b>70,270,023</b>	<b>73,777,865</b>	<b>66,834,441</b>	<b>381,944</b>
<b>ASIA</b>							
Serica and Palestine	1,366,608	1,751,969	1,599,569	1,415,315	1,215,755	1,529,795	7,594
Arabic and Persia	5,405	1,017	99,871	39,811	48,111	72,959	416
East Indies and Ceylon	21,950,690	20,787,729	27,079,265	1,616,959	25,694,147	22,758,177	1,989,910
China and Japan	5,353,991	6,763,911	1,976,066	9,018,299	6,611,151	7,575,591	45,002
Java and Sumatra	79,859	92,755	1,279,887	1,729,887	87,874	1,122,501	6,144
Philippine Islands	76,719	955,500	917,841	1,012,468	967,410	927,973	5,295
<b>Total</b>	<b>30,275,215</b>	<b>70,451,783</b>	<b>36,394,010</b>	<b>55,229,968</b>	<b>56,369,699</b>	<b>31,159,975</b>	<b>194,875</b>
<b>AFRICA</b>							
Egypt	6,045,764	6,093,090	7,028,172	8,265,219	6,105,870	6,885,715	39,881
Morocco	162,332	270,171	191,258	189,477	193,745	212,874	1,132
Western Coast of Africa	14,088,128	12,445,465	1,413,578	1,714,416	1,761,767	4,151,531	2,889
Cape of Good Hope and Natal	2,274,016	1,701,060	1,599,024	1,895,011	1,930,171	1,771,176	10,111
Eastern Coast of Africa	56,051	60,788	67,122	39,574	38,812	52,459	289
St. Helena and Ascension	45,774	55,887	51,083	42,646	35,270	45,751	261
Mauritius	658,549	297,754	59,882	377,149	883,299	518,232	2,950
Algeria	1,222,929	145,665	157,435	24,664	25,697	17,523	100
<b>Total</b>	<b>10,265,221</b>	<b>11,850,231</b>	<b>11,335,642</b>	<b>12,571,401</b>	<b>10,136,870</b>	<b>10,868,578</b>	<b>62,016</b>
<b>AMERICA</b>							
British North American Colonies	5,205,941	4,707,727	6,844,060	5,862,101	4,817,688	5,597,694	31,785
West Indies	5,511,299	2,169,500	2,100,000	1,838,261	1,968,566	2,529,547	15,500
Gulana	8,122,999	775,608	706,251	651,829	707,629	716,706	4,265
Hvay	1,942,111	335,711	417,681	294,223	297,869	319,147	1,994
Foreign West Indies	5,883,180	2,987,875	3,179,811	3,624,631	2,914,360	3,296,246	18,501
United States of America	16,608,405	21,225,906	28,193,011	24,827,605	24,451,052	24,258,602	152,211
Mexico	1,809,675	1,808,965	2,253,315	3,129,498	3,183,888	1,309,206	7,525
Central America	271,794	1,844,142	155,461	245,560	160,000	185,362	1,017
Colombia	9,514,577	2,757,192	3,402,032	2,609,259	2,800,109	2,818,181	16,200
Brazil	6,249,260	5,051,020	4,924,253	5,216,357	5,251,988	6,055,092	34,155
States of La Plata and Uruguay	9,575,509	2,678,818	4,655,230	4,270,429	2,874,400	3,529,298	19,923
Chili	1,683,800	1,001,287	1,832,982	2,441,585	1,997,211	1,929,140	10,991
Peru	1,559,492	1,486,255	1,505,568	1,425,904	1,452,588	1,490,155	7,532
Falkland Islands	1,682	9,282	17,027	7,611	15,111	16,033	989
<b>Total</b>	<b>47,593,729</b>	<b>48,245,689</b>	<b>51,396,791</b>	<b>51,201,598</b>	<b>47,270,581</b>	<b>51,142,152</b>	<b>291,860</b>
<b>AUSTRALIA</b>							
West and South Australia, Victoria, New South Wales, Queensland, Tasmania, and New Zealand	11,857,215	15,350,211	15,645,726	9,615,750	12,075,610	14,107,526	69,116
South Sea Islands	181,815	36,976	137,229	19,888	17,987	86,538	457
<b>Total</b>	<b>12,039,030</b>	<b>15,387,187</b>	<b>15,782,955</b>	<b>9,635,638</b>	<b>12,193,597</b>	<b>14,194,064</b>	<b>69,573</b>
<b>RECAPITULATION</b>							
Europe	60,271,989	63,732,583	66,029,911	70,270,023	73,777,865	66,834,441	381,944
Asia	30,275,215	70,451,783	36,394,010	55,229,968	56,369,699	31,159,975	194,875
Africa	10,265,221	11,850,231	11,335,642	12,571,401	10,136,870	10,868,578	62,016
America	47,593,729	48,245,689	51,396,791	51,201,598	47,270,581	51,142,152	291,860
Australia	12,039,030	15,387,187	15,782,955	9,635,638	12,193,597	14,194,064	69,573
<b>Grand Total</b>	<b>160,419,035</b>	<b>163,835,723</b>	<b>188,917,536</b>	<b>180,961,925</b>	<b>179,677,812</b>	<b>173,168,410</b>	<b>1,000,000</b>

APLES, PALEHMO, and  
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& 33 Vict. c. 14 s. 17  
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I. [WAREHOUSING.]  
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CORN, and MEAL,  
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c. 11.]

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ACAPULCO, and VERA  
1869.

II.—Account of the Real or Declared Value of the various Articles of the Manufacture and Produce of the United Kingdom Exported to Foreign Countries during each of the 5 Years ending with 1867, specifying the Countries to which they were Exported, and the Value of those Annually Shipped for each; and showing also the Average Amount of Exports during the said 5 Years to each Country and to each of the 5 great Divisions of the Globe; and the Average Proportion Exported to each, supposing the whole Exports to be 1,000.

Countries	1863	1864	1865	1866	1867	Average Annual Amount of Exports 1863-67	Average Annual Proportion to each Country, supposing the total Exports to be 1,000
<b>EUROPE</b>							
Russia	2,691,276	2,316,109	2,923,006	3,176,656	3,914,033	3,117,078	18.193
Sweden	606,987	731,291	903,307	823,188	617,318	742,479	4.105
Norway	536,979	772,097	677,007	834,318	918,313	741,851	4.401
Denmark	890,687	1,172,767	1,304,132	1,306,811	1,282,539	1,156,611	6.902
Prussia	1,911,348	1,131,399	2,085,320	1,809,199	2,679,540	1,965,589	11.358
Germany	11,125,915	13,338,381	15,809,351	13,967,193	17,663,273	14,679,085	87.988
Holland	6,574,696	6,831,937	8,137,753	9,099,713	9,192,742	7,655,964	47.190
Belgium	2,107,352	2,301,291	2,935,833	2,861,665	2,618,180	2,601,520	15.434
France	8,675,309	8,187,361	5,402,093	11,790,149	12,131,011	9,949,782	59.925
Portugal Proper	2,125,777	2,091,511	2,068,037	2,001,401	1,835,588	2,011,522	12.132
Azores	85,288	106,967	84,211	129,786	108,221	102,194	.608
Madeira	63,924	71,500	61,592	82,575	71,105	71,105	.423
Spain	3,585,636	3,084,778	2,777,146	3,993,959	2,929,992	2,929,992	17.517
Gibraltar	1,267,900	1,406,168	1,220,817	1,139,697	725,318	1,090,586	6.470
Italy	6,965,173	5,809,591	6,174,410	5,872,875	4,881,333	5,612,686	33.001
Austrian Territories	804,538	792,119	721,618	912,658	965,952	851,505	5.092
Sardinia	622,608	753,113	631,291	653,304	498,736	631,943	3.719
Malta	405,118	429,333	436,191	331,001	431,438	426,016	2.527
Greece	311,991	433,887	782,299	1,176,115	514,686	456,109	2.718
Turkey	5,672,130	6,137,330	5,310,068	6,570,603	9,011,818	6,659,000	39.917
Channel Islands	897,776	1,016,900	792,259	430,551	496,523	719,368	4.308
<b>Total</b>	<b>57,579,806</b>	<b>60,271,989</b>	<b>63,752,383</b>	<b>66,099,941</b>	<b>70,270,026</b>	<b>63,591,829</b>	<b>377.298</b>
<b>ASIA</b>							
Syria and Palestine	1,046,568	1,366,608	1,331,902	1,359,362	1,143,315	1,286,156	7.628
Arabia and Persia	1,406	33,095	62,167	91,079	59,831	67,078	.308
East Indies and Ceylon	2,300,121	21,939,650	29,387,799	23,079,265	24,840,916	22,322,499	136.635
China and Japan	4,049,109	4,066,168	4,120,817	8,226,603	9,111,818	6,073,666	36.473
Java and Sumatra	630,424	796,580	927,755	1,729,527	1,829,185	1,086,271	6.415
Philippine Islands	561,458	765,719	935,500	917,841	1,043,168	819,078	4.908
<b>Total</b>	<b>28,859,999</b>	<b>30,275,913</b>	<b>30,431,785</b>	<b>36,301,010</b>	<b>37,279,568</b>	<b>32,638,176</b>	<b>193.637</b>
<b>AFRICA</b>							
Egypt	4,111,219	6,053,361	6,093,037	7,628,172	8,265,315	6,490,218	38.506
Morocco	174,551	164,532	270,171	191,238	399,367	292,532	1.473
Western Coast of Africa	1,129,413	1,008,128	1,212,165	1,113,578	1,174,116	1,107,636	6.552
Capo of Good Hope and Natal	1,353,285	2,274,616	1,701,080	1,399,021	1,893,011	1,757,599	10.427
Eastern Coast of Africa	39,271	36,031	60,398	67,422	39,574	50,346	.299
St. Helena and Ascension	401,610	45,574	63,887	61,099	46,616	46,739	.277
Mauritius	511,813	655,850	507,354	569,385	577,150	512,570	3.027
Algeria	15,732	12,229	12,363	15,713	12,625	15,539	.091
<b>Total</b>	<b>7,835,427</b>	<b>14,205,221</b>	<b>10,030,951</b>	<b>11,335,612</b>	<b>14,671,101</b>	<b>10,407,889</b>	<b>61.715</b>
<b>AMERICA</b>							
British North American Colonies	4,813,482	5,595,691	4,707,727	6,824,960	5,862,102	5,560,832	32.992
West Indies	5,329,637	5,111,209	2,169,390	2,110,300	1,858,261	2,614,315	15.611
Guiana	911,019	923,396	775,068	769,531	631,829	713,115	4.352
Haiti	528,614	436,611	335,314	417,281	391,623	410,709	2.436
Foreign West Indies	2,929,221	3,890,190	2,987,875	3,179,211	3,090,331	3,203,232	19.005
Central States of America	15,311,290	16,798,505	23,287,956	28,339,514	21,826,703	20,721,211	122.935
Mexico	1,678,572	1,809,763	1,806,895	1,423,213	812,918	1,196,276	6.827
United States of America	11,069,999	12,191,791	13,842,142	13,526,261	11,560,114	11,974,114	106.5
Colombia	1,979,715	2,511,717	2,799,452	3,402,932	2,699,739	2,630,425	15.902
Brazil	2,061,261	6,219,069	5,651,040	7,224,733	6,691,537	5,737,306	34.159
States of La Plata and Uruguay	1,893,932	2,792,299	2,765,818	4,253,739	2,999,632	5,181,114	38.873
Chil	1,131,211	1,083,580	1,601,081	1,839,382	2,221,138	1,818,960	10.791
Peru	1,027,316	1,335,302	1,186,253	1,568,868	1,425,961	1,568,826	7.283
Falkland Islands	11,505	14,832	9,282	17,027	7,611	11,611	.069
<b>Total</b>	<b>39,649,860</b>	<b>47,593,799</b>	<b>48,215,989</b>	<b>61,386,791</b>	<b>51,201,598</b>	<b>49,618,027</b>	<b>291.576</b>
<b>AUSTRALIA</b>							
West and South Australia, Victoria, New South Wales, Queensland, Tasmania, and New Zealand	12,098,334	11,857,213	12,359,211	13,645,326	9,613,739	12,190,111	72.382
South Sea Islands	111,116	181,515	36,276	137,826	19,838	101,984	.619
<b>Total</b>	<b>12,639,650</b>	<b>12,042,028</b>	<b>12,375,517</b>	<b>13,781,152</b>	<b>9,633,627</b>	<b>12,292,195</b>	<b>72.941</b>
<b>RECAPITULATION.</b>							
Europe	57,579,806	60,271,989	63,752,383	66,099,941	70,270,026	63,591,829	377.298
Asia	28,859,999	30,275,913	30,431,785	36,301,010	37,279,568	32,638,176	193.637
Africa	7,835,427	14,205,221	10,030,951	11,335,612	14,671,101	10,407,889	61.715
America	39,649,860	47,593,799	48,215,989	61,386,791	51,201,598	49,618,027	291.576
Australia	12,639,650	12,042,028	12,375,517	13,781,152	9,633,627	12,292,195	72.941
<b>Grand Total</b>	<b>116,902,542</b>	<b>160,419,068</b>	<b>165,835,725</b>	<b>188,917,556</b>	<b>180,961,923</b>	<b>168,533,316</b>	<b>1,000.000</b>

IMPORTS AND EXPORTS

III.—Account of the Real Value of the various Articles Imported from Foreign Countries into the United Kingdom during each of the 5 Years ending with 1867, specifying the Countries from which they were Imported, and the Value of those Annually received from each; and showing also the Average Amount of our Imports during the said 5 Years from each Country and from each of the 5 great Divisions of the Globe; and the Average Proportion Imported from each, supposing the whole Imports to be 1,000.

	Average Annual Amount of Exports, 1863-67	Average Annual Proportion Exported to each of the whole Exports to be 1,000	Countries	1863	1864	1865	1866	1867	Average Annual Amount of Imports, 1863-67	Average Annual Proportion Imported from each of the whole Imports to be 1,000
<b>EUROPE</b>										
	£			£	£	£	£	£		
	18,493		Russia - - -	14,419,263	11,742,630	17,385,697	19,621,680	22,286,926	17,285,439	63,997
	4,405		Sweden - - -	3,549,079	5,292,336	4,199,791	4,001,836	4,756,505	5,913,365	1,114
	4,401		Norway - - -	1,231,085	1,075,511	1,481,902	1,611,539	1,741,862	1,518,164	5,366
	6,802		Denmark - - -	1,025,291	1,728,205	2,281,287	2,291,909	2,588,991	2,403,723	7,705
	11,660		Prussia - - -	6,451,305	5,963,919	6,126,205	6,866,751	7,283,619	6,491,109	23,781
	87,988		Germany - - -	8,459,701	9,286,904	10,185,692	12,221,876	11,929,291	10,521,674	37,879
	47,199		Holland - - -	6,661,211	11,660,180	12,413,401	11,726,913	10,922,528	11,406,290	40,590
	13,432		Belgium - - -	5,174,221	6,410,951	7,351,815	7,906,867	7,553,203	6,888,118	25,193
	59,225		France - - -	91,095,517	95,619,775	91,698,621	97,018,754	95,723,805	90,166,381	311,553
	12,112		Portugal Proper - - -	2,535,900	2,205,506	2,417,801	2,517,828	2,521,511	2,375,007	8,674
	908		Azores - - -	331,611	172,652	357,784	368,571	372,564	312,616	1,236
	921		Madeira - - -	457,279	419,661	407,669	370,000	380,996	377,665	1,401
	15,517		Spain - - -	4,841,524	5,879,705	4,739,227	5,575,335	6,088,580	5,438,966	19,873
	6,470		Gibraltar - - -	69,150	117,059	149,729	167,790	167,790	101,131	366
	33,500		Italy - - -	2,783,617	2,693,192	2,291,253	5,825,535	5,106,711	3,090,616	11,281
	9,092		Austrian Territories - - -	451,048	369,222	477,291	1,369,831	1,200,600	811,857	2,984
	3,743		Malta - - -	158,565	128,015	85,995	81,177	114,136	111,318	418
	2,927		Ionian Islands - - -	192,879	183,259	375,176	295,635	366,890	241,968	897
	2,718		Turkey - - -	5,806,057	6,014,745	5,751,073	4,377,411	5,091,291	4,815,239	17,383
	33,917		Channel Islands - - -	618,508	837,258	441,451	430,700	401,083	346,588	2,003
	377,298		<b>Total - - -</b>	<b>89,500,575</b>	<b>99,962,720</b>	<b>112,092,483</b>	<b>121,425,981</b>	<b>121,832,281</b>	<b>109,526,368</b>	<b>401,073</b>
<b>ASIA</b>										
			Syria and Palestine - - -	121,875	360,569	74,212	150,811	150,811	149,087	516
	7,528		Arabia and Persia - - -	31,586	76	17,955	28,427	35,892	23,353	986
	133,653		East Indies and Ceylon - - -	54,016,633	67,657,214	43,360,333	41,813,376	50,159,066	45,430,616	167,874
	49,425		China and Japan - - -	15,556,322	17,178,865	12,130,616	11,445,755	9,865,927	13,256,889	48,172
	415		Java and Sumatra - - -	32,417	16,749	926	8,152	13,773	12,365	915
	5,038		Philippine Islands - - -	1,398,198	8,443	1,253,391	1,196,537	760,214	1,091,161	3,996
	193,637		<b>Total - - -</b>	<b>71,188,939</b>	<b>75,967,878</b>	<b>66,779,676</b>	<b>64,633,071</b>	<b>64,253,581</b>	<b>59,918,981</b>	<b>219,416</b>
<b>AFRICA</b>										
			Egypt - - -	16,505,806	19,607,500	21,778,742	15,568,821	15,512,436	17,751,667	65,016
	1,123		Morocco - - -	427,831	372,213	432,889	506,082	411,592	311,988	1,240
	7,738		West Coast of Africa - - -	1,750,891	1,186,996	1,989,085	5,761,386	9,159,727	2,006,272	7,517
	104,47		Capo of Good Hope and Natal - - -	1,919,813	1,275,873	2,115,483	8,749,323	4,741,885	2,569,562	8,645
	797		East Coast of Africa - - -	341,665	378,233	411,857	1,010,420	711,118	811,415	2,998
	2,527		St. Helena and Ascension - - -	16,287	10,685	47,618	15,499	97,405	47,492	170
	3,217		Mauritius - - -	1,986,270	1,589,799	1,216,299	1,530,410	889,812	1,408,173	5,158
	901		Algeria - - -	101,201	137,167	99,565	48,405	33,357	82,788	303
	61,713		<b>Total - - -</b>	<b>22,745,615</b>	<b>25,153,658</b>	<b>28,132,380</b>	<b>26,517,108</b>	<b>29,096,880</b>	<b>24,075,088</b>	<b>88,160</b>
<b>AMERICA</b>										
			British North America Colonies - - -	8,211,564	6,939,508	6,481,050	6,992,667	6,861,225	7,102,743	26,009
	15,511		West Indies - - -	7,092,758	9,341,965	3,429,024	4,685,980	4,375,838	6,117,713	22,512
	3,232		Guatemala - - -	1,619,739	1,985,270	1,769,484	1,730,229	1,580,762	1,711,571	6,377
	2,336		Haiti - - -	276,610	291,240	250,287	218,158	245,669	219,287	915
	122,953		Foreign West Indies - - -	4,471,919	6,441,933	5,219,541	5,105,237	4,175,051	4,742,319	17,366
	8,577		United States of America - - -	19,579,838	17,465,678	21,621,001	16,814,518	14,015,272	20,803,918	107,767
	8,577		Mexico - - -	2,129,337	3,129,331	5,216,924	5,154,278	5,151,168	4,855,848	6,759
	15,903		Central America - - -	785,291	800,417	938,804	800,293	901,627	861,425	3,016
	23,139		Columbia - - -	806,086	1,892,335	1,829,019	1,865,889	1,176,878	1,516,162	5,889
	18,735		Brazil - - -	4,191,000	7,021,121	6,797,241	7,237,758	5,590,011	6,289,833	25,635
	10,791		La Plata and Uruguay - - -	2,402,552	2,285,486	2,265,540	2,615,265	2,134,079	2,531,789	8,912
	7,929		Chili - - -	2,288,962	3,192,211	3,738,545	2,915,215	4,117,568	3,522,091	12,165
	669		Peru - - -	3,823,241	3,909,475	4,435,176	5,102,872	5,811,105	5,661,890	12,451
	12,911		Falkland Islands - - -	17,114	14,887	21,081	25,858	10,659	17,516	664
	291,376		<b>Total - - -</b>	<b>58,305,160</b>	<b>63,810,371</b>	<b>63,767,803</b>	<b>82,650,522</b>	<b>77,367,927</b>	<b>69,176,027</b>	<b>253,514</b>
<b>AUSTRALIA</b>										
			West and South Australia, Victoria, New South Wales, Queensland, Tasmania, and New Zealand South Sea Islands - - -	7,160,666	10,039,372	10,273,115	11,465,268	12,581,311	10,576,458	57,225
	619			19,967	18,249	96,243	62,331	67,655	30,773	113
	72,911		<b>Total - - -</b>	<b>7,180,633</b>	<b>10,057,621</b>	<b>10,299,913</b>	<b>11,485,589</b>	<b>12,610,846</b>	<b>10,586,911</b>	<b>58,056</b>
<b>RECAPITULATION.</b>										
			Europe - - -	89,500,575	99,962,720	112,092,483	124,923,981	121,832,281	109,526,368	401,073
	195,657		Asia - - -	71,188,939	75,967,878	66,779,676	64,633,071	64,253,581	59,918,981	219,416
	61,713		Africa - - -	22,745,615	25,153,658	28,132,380	26,517,108	29,096,880	24,075,088	88,160
	10,791		America - - -	58,305,160	63,810,371	63,767,803	82,650,522	77,367,927	69,176,027	253,514
	7,929		Australia - - -	7,180,633	10,057,621	10,299,913	11,485,589	12,610,816	10,586,911	58,056
	1,925		<b>Grand Total - - -</b>	<b>148,919,020</b>	<b>174,952,172</b>	<b>171,072,285</b>	<b>208,290,274</b>	<b>205,185,157</b>	<b>177,085,378</b>	<b>1,000,000</b>

**MOROCCO.** See article **MOGADORE**, in Dictionary, edition 1869.

**MUM.** [**ALE AND BEER.**]

**NEWCASTLE.** For an account of this port see the article **Docks** in the Dictionary, sub-head *Newcastle*.

**NITRO-GLYCERINE.** On account of its dangerously explosive nature, its importation and exportation have been forbidden by 32 & 33 Vict. c. 113 s. 3. [**GLYCERINE.**]

**NORWAY.** See articles **BERGEN** and **CHRISTIANIA**, in the Dictionary, edition 1869.

**OATS** and **OATMEAL**, and **GROATS.** Customs' duty on, repealed, 1869.

**OYSTERS.** Power to make oyster beds, on written license of the inspectors of Irish fisheries, is granted to certain persons by 32 & 33 Vict. c. 92.

**PARTNERSHIPS.** The 32 & 33 Vict. c. 39, passed 1869, is for regulating the proceedings of companies for working mines in the stannaries of Devon or Cornwall, and refers to the calls, accounts &c. connected with them.

**PEASE**, and **PEA MEAL.** Customs' duty on, repealed, 1869.

**PEPPER.** [**LICENSES; TEA.**]

**PORTUGAL.** See separate articles in the Dictionary, edition 1869, on **LISSON**, **MACAO**, and **OPONTO**.

**POTATO FLOUR.** Customs' duty on, repealed, 1869.

**POWDER.** Hair, powder perfumed, and any powder suitable for starch, Customs' duty on import of and assessed tax on the use of both, abolished, 1869.

**PRUSSIA.** See separate articles in the Dictionary, edition 1869, on the undermentioned Prussian ports, viz. **DANTZIG**, **KÖNIGS-BERG**, **MEMEL**, and **STETTIN**.

**RAILWAYS.** The 32 & 33 Vict. c. 6 (Railways Companies Meetings Act 1869) repeals so much of the Regulation of Railways Act of 1868 as relates to the approval, by meeting of incorporated Railway Companies, of bills and certificates for conferring further powers on those companies. The Railways Abandonment Act of 1869 (32 & 33 Vict. c. 111) makes special provision for the abandonment of Railways and the dissolution of Railway Companies.

By the Telegraphs Act of 1869 it would appear that the estimated cost to the public of buying the interest of our Railway Companies in telegraphic business will not exceed 700,000*l.* The interest of the Telegraph Companies will cost a much larger sum.

According to the *Railway News*, the traffic receipts of the railways of the United Kingdom on a mileage of 13,544 amount to 815,736*l.*, or 60*l.* 5*s.* per mile for the week ended October 29, 1869; and for the corresponding week of 1868 the receipts were 789,968*l.* on 13,335 miles, or 59*l.* 5*s.* per mile.

**RICE.** [**BANGKOK.**]

**RICE DUST** and **MEAL.** Customs' duty on, repealed, 1869.

**REPERF'S LAND.** [**COLONIES; HUDSON'S BAY COMPANY.**]

**RUSSIA.** See separate articles **ARCHANGEL**, **ODESSA**, **PETERSBURG**, **RIGA**, **TAGANROG**, in the Dictionary, edition 1869.

**RYE** and **RYE MEAL**, and **FLOUR.** Duty on, repealed, 1869.

**SAGO.** Customs' duty on, repealed, 1869.

**SALMON.** The appointment by the Lord Lieutenant of 2 inspectors of salmon fisheries in

Ireland is sanctioned by the 32 Vict. c. 9, and certain powers are conferred on them by 32 & 33 Vict. c. 92.

**SALT.** [**SPAIN.**]

**SALVADOR.** [**TALLOW.**]

**SEA BIRDS.** An Act, 32 & 33 Vict. c. 17, has been passed for the preservation of sea birds during the breeding season, April 1 to August 1.

**SEAMEN.** The Seamen's Clothing Act of 32 & 33 Vict. c. 57, for the protection of seamen's clothing and property, refers exclusively to seamen belonging to her Majesty's navy, or borne on the books of any of her Majesty's ships in commission, or any hired vessels in her Majesty's service in time of war.

**SEEDS.** In consequence of the growing practice of adulterating seeds, the Government have, by 32 & 33 Vict. c. 112 (coming into force on May 1, 1870), imposed penalties, not exceeding 5*l.* for the first, and 50*l.* for any subsequent offence, on every person who, with intent to defraud, or to enable another person to defraud—

1. 'Kills or causes to be killed any seeds' (destroying by artificial means their vitality or germinating power);

2. 'Dyes or causes to be dyed any seeds' (giving to them, by any process of colouring, dyeing, sulphur-smoking, or other artificial means, the appearance of seeds of another kind);

3. Sells or causes to be sold any killed or dyed seeds.

**SEIGNORAGE.** [**CORNS.**]

**SEMOLINA.** Customs' duty on, repealed, 1869.

**SHANGHAI.** (See Table, p. 13 of this supplement.)

**SHIPS, SHIPPING.** The Merchant Shipping Colonial Act of 1869 places the regulation of our colonial coasting trade under the Colonial Legislatures, and empowers them to grant, after due examination, certificates of qualification to persons intending to act as masters, mates, or engineers on board British ships.

By 32 and 33 Vict. c. 51, the Admiralty jurisdiction of the County Courts is extended to any claims not exceeding 300*l.* each, relating to the use or hire of any ship, or the carriage of goods in any ship, or any claim in tort in respect of goods carried in any ship, and to all claims for damage to ships whether by collision or otherwise, and also, if the parties agree, to claims of higher amount referring to all the above claims except those for damage. It provides, too, that the judge may be assisted by two mercantile assessors.

**SIAM.** [**BANGKOK.**]

**SLAVES** and **SLAVE TRADE.** The good feeling that formerly existed between Brazil and this country having been sensibly weakened by our mode of carrying out, under 8 & 9 Vict. c. 122, a convention between the two countries for the final abolition of the African Slave Trade, this Act has been repealed by the 32 Vict. c. 2, on the ground that the circumstances which led to the passing of the first-mentioned Act no longer exist, by reason of the cessation of the importation of slaves into Brazil from Africa. See **ZANZIBAR** for notice of jurisdiction in slave trade cases given by 32 & 33 Vict. c. 75 to British consul there.

**SOUTHAMPTON.** See, for account of this port, article **Docks**, sub-head *Southampton*, in Dictionary, edition 1869.

**SOUTH SHIELDS.** See article **Docks** in Dictionary, edition 1869.

**SPAIN.** As intimated by Board of Trade notices of July 28 and August 25, 1869, the Spanish Government have abolished their mo-

y the 32 Viet. c. 9, and  
rred on them by 32 & 33

Special Table for Shanghai.—Annual Value of the whole Trade in Foreign Goods and in Chinese Produce Carried in Foreign Vessels—1865 to 1868.

	1865		1866		1867		1868	
	Taels	Re-exported Taels	Taels	Re-exported Taels	Taels	Re-exported Taels	Taels	Re-exported Taels
<b>FOREIGN GOODS</b>								
Imported	58,397,777		17,922,995		16,570,531		59,297,413	
Re-exported to Foreign Countries, chiefly to Japan		5,171,812		2,251,479		2,759,161		2,086,796
Re-exported to Chinese Ports, chiefly to Ningpo, the Northern, and the Yangtze Ports		21,991,691		55,295,050		51,805,157		35,065,767
		28,163,503		57,546,529		54,564,318		37,152,563
<b>CHINESE PRODUCE:</b>								
Imported, chiefly from Hankow, Kiang, and Suifu	25,816,578		27,080,252		53,870,571		31,827,182	
Re-exported to Foreign Countries		15,155,795		11,455,793		16,916,851		19,266,255
Re-exported to Chinese Ports		4,760,988		6,911,597		8,527,222		8,413,351
		20,292,755		18,367,390		25,444,073		27,679,606
Chinese Produce of local origin Exported to Foreign Countries	11,125,827		11,968,877		12,511,220		19,897,076	
Chinese Produce of local origin Exported to Chinese Ports	7,702,551		6,118,592		7,982,051		7,815,110	
Gross Value of the Trade of the Port	86,060,556		91,629,716		97,035,159		112,215,111	
<b>Approximate Net Value.</b>								
Foreign Goods — less Re-exported Abroad and to Chinese Ports	10,617,005		11,862,595		12,857,565		12,151,859	
Chinese Goods received — less Re-exported Abroad and to Chinese Ports	7,617,593		5,887,962		5,626,175		6,057,875	
Chinese Goods of Local Origin Exported Abroad	11,125,827		11,968,877		12,511,220		19,897,076	
Do. do. do. to Chinese Ports	7,702,551		6,118,592		7,982,051		7,815,110	
Total	38,066,981		35,965,035		38,975,101		46,827,921	

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Act, 32 & 33 Viet. c. 17,  
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COINS.]  
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Table, p. 13 of this Sup-

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See article Docks in

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Extracts from Spanish Tariff of Aug. 1, 1869.  
—Import Duties levied in the Peninsula and  
Balearic Islands on Foreign and Colonial Mer-  
chandise.

Tariff.—Import Duties &c.—continued.

	Unit	Duties in			Unit	Duties in	
		Escds.	Ms.			Escds.	Cts.
ornaments of other metals, and fine steel articles not otherwise specified	100 kilos.	11	000	27	50		
Iron and steel in useless pieces, including rails (barras carriles)	"	2	000	5	00		
Tin plate manufactured	"	7	500	18	75		
Needles, pens, pieces for watches, and other similar articles of iron or steel	"	25	000	0	50		
Knives, large do., razors, and penknives	kilo.	1	200	5	00		
Scissors	"	0	400	1	00		
Sidearms, and blades for the same	"	0	500	2	25		
Firearms, and barrels and other finished pieces for the same	"	0	800	2	00		
Copper of the first casting, and old copper	100 kilos.	2	000	5	00		
Copper and brass in bars and lumps	"	5	000	12	50		
Do. do. in sheets and nails, and copper wire	"	9	000	22	50		
Do. do. in tubes, large pieces half-finished, such as coarse parts of chafing-dishes, &c., and the bottoms of boilers	"	20	000	50	00		
Brass wire	"	28	000	70	00		
Bronze not manufactured	"	12	000	50	00		
The same metals when manufac- tured, and all mixtures of com- mon metals with copper and tin	"	1	000	10	00		
Gold plating, in sheets	kilo.	5	200	8	75		
Do. in manufactured ar- ticles	"	11	400	35	00		
Silver plating, in sheets	"	0	450	1	10		
Do. in manufactured ar- ticles	"	5	700	9	25		
Tin, in lumps	100 kilos.	5	000	12	50		
Do. manufactured	"	20	000	50	00		
Pig-lead, or lead in lumps, sheets, plates, tubes, balls, or small shot	"	3	200	1	50		
Do. manufactured	"	2	400	6	00		
Zinc, in bars, lumps, or cakes	"	6	000	15	00		
Do. in sheets, nails, or wire	"	10	000	23	00		
Do. manufactured	"	10	000	23	00		
All other metals and mixtures not mentioned, in sheets, lumps, nails, &c.	"	0	600	1	50		
Do. manufactured	"	15	000	37	50		
Wire gauze	kilo.	0	200	0	50		
Do. in manufactured ar- ticles	"	0	400	1	00		
Common salt	100 kilos.	1	200	3	25		
Glaue and alburnum	"	4	000	10	00		
Phosphorus	kilo.	0	200	0	50		
Nitrate of potash (saltpetre)	100 kilos.	1	500	3	75		
Do. soda	"	0	400	1	00		
Oxide of lead	"	2	000	5	00		
Sulphate and pyrolignite of iron	"	0	600	1	50		
Chemical articles not mentioned	kilo.	0	010	0	10		
Pharmaceutical articles for medi- cinal use exclusively	ad val.	20	p.c.	20	p.c.		

Tariff.—Import Duties &c.—continued.

Tariff.—Import Duties &c.—continued.

	Unit	Duties in					Unit	Duties in				
		Escds.	Mils.	Pests.	Cts.			Escds.	Mils.	Pests.	Cts.	
Starch	100 kilos.	4	0 00	80	00	Common paper, without size, or	100 kilos.	4	0 00	10	00	
Plants for industrial purposes, dextrine, and sugar not made from the sugar cane	"	0	5 00	1	25	Do. for printing, lithography, and for prints	"	10	0 00	25	00	
Soaps	"	0	5 00	18	75	Cue paper, paper made by hand, mixed paper, and cardboard	"	20	0 00	50	00	
Paraffine, stearine, and whale sperm in masses	"	10	0 00	25	00	Books, bound or unbound, or other printed papers in Spanish	"	16	0 00	40	00	
Do. do. manufactured	"	20	0 00	50	00	Do. do. in foreign languages	"	4	0 00	10	00	
Perfumery and essences	kilo.	0	6 00	1	50	Engravings, maps, and designs	kilo.	0	5 00	1	25	
Blasting powder	"	0	1 25	0	50	Paper, stamped on a natural ground	100 kilos.	11	0 00	27	50	
Powder for sporting, and matches for lighting	"	0	5 00	1	25	Do. on dull or lustrous ground	"	20	0 00	50	00	
Explosive mixtures, used in the same way as powder	"	0	0 05	0	95	Do. with gold, silver, wool, and crystal	"	80	0 00	200	00	
Raw cotton	100 kilos.	0	6 00	1	50	Books, blotting, and common packing paper, shagreen, and pasteboard	"	5	0 00	12	50	
Spun cotton, and cotton twisted in one or two strands for weaving, unbleached, white, or dyed, up to No. 35 inclusive	kilo.	0	5 00	1	25	Others not mentioned in the Tariff	"	16	0 00	40	00	
Do. do. do. from No. 36 upwards	"	0	7 00	1	25	Straws	per 1,000	3	0 00	7	50	
Do. twisted in 3 or more strands for sewing or embroidery, unbleached, white, or dyed	"	3	0 00	2	50	Large and small planks and beams	per cubic metre	0	6 00	1	50	
Plain close pressed woven goods, unbleached, white, or dyed, in pieces or handkerchiefs, up to 25 threads in loom, counted in the wool and warp, in a square of 6 millimetres	"	1	2 00	3	00	Roundwood and shaped wood for ship-building	"	1	p.c.	ad val.	1	p.c.
Do. do. of 26 threads and upwards	"	1	2 00	3	00	Joiners' wood, on trunks or pieces on to planks	100 kilos.	1	0 00	0	50	
Do. printed and twilled and figured in the loom, up to 25 threads inclusive in the wool and warp	"	1	6 00	4	00	Do. made up or not	"	4	0 00	10	00	
Do. do. of 26 threads and upwards	"	1	4 75	5	70	Common wood, made into all sorts of articles, whether turned, pointed, or varnished, or not, and lathes, moulded or varnished, or prepared for gluing	"	7	0 00	17	50	
Do. do. transparent, such as muslin, cambric, lawn, and gauze of all kinds	"	1	2 00	3	00	Fine wood, made into furniture and other articles, turned, carved, polished, and varnished	"	14	0 00	35	00	
Quilted stuffs, and "plique"	"	1	8 00	4	50	Articles of ordinary wood veneered with thin sorts of upholstery, except articles covered with silk and gilded laths	"	14	0 00	35	00	
Shag, plush, and other double fabrics for making clothes	"	2	0 00	5	00	Do. in the same articles gilded, those covered with mother-of-pearl or other fine materials, and with mouldings of metal, and those covered with silk	"	30	0 00	100	00	
Tulle	"	1	4 00	3	50	Uanned hides and skins	kilo.	0	5 00	1	25	
Crochet in any form, including crochet lace	"	2	5 00	3	00	Patent leathers	"	1	0 00	2	50	
Lace of all sorts, except crochet lace	"	2	2 00	6	25	Skins for covering and for ornament	"	0	2 00	0	50	
Knitted wares (tejidos de punto) in the piece, in shirts, or stockings	"	1	0 50	2	60	Gloves	"	8	0 00	20	00	
Do. in stockings, socks, gloves, &c.	"	2	1 00	5	25	Boots and shoes	"	3	2 00	8	25	
"Alpaca," shawl, and jute	100 kilos.	0	4 00	1	00	Articles used by saddlers, &c.	"	1	0 00	2	50	
Raw hemp, and dressed do.	"	4	0 00	10	00	Pianos	each	100	0 00	250	00	
Raw and dressed flax	"	1	0 00	2	50	Trick wares	"	5	0 00	7	50	
Yarn of "Alpaca," shawl, and jute	"	5	0 00	7	50	Articles of silver or other metals	"	0	8 00	2	00	
Hemp or flax	"	11	0 00	27	50	Clocks of all other sorts	"	30	p.c.	30	p.c.	
Thread twisted in two or more strands	"	49	0 00	100	50	Instruments of science and art	"	ad val.	ad val.	ad val.	ad val.	
Rigging and cordage	"	8	0 00	20	00	Agricultural machines	100 kilos.	1	p.c.	1	p.c.	
Plain woven articles up to 10 threads inclusive	kilo.	0	5 00	1	25	Locomotive engines	"	2	p.c.	2	p.c.	
Do. from 11 to 20 inclusive	"	1	0 00	2	50	Other machinery complete for manufactures	"	6	p.c.	6	p.c.	
Do. of 25 and upwards	"	1	7 00	4	25	Detached parts of machines	"	10	p.c.	10	p.c.	
Do. twilled and worked	"	0	8 00	2	00	Insulating apparatus, stretchers, wires, posts, and other articles for the electric telegraph	"	3	p.c.	3	p.c.	
Lacework	"	5	0 00	12	50	Carrriages and chaises, with two "fabrics," with or without hussals, new, second-hand, or mended	each	400	0 00	1000	00	
Knitted wares (tejidos de punto)	"	2	0 00	5	00	Broughams, with or without a folding seat, omnibuses holding more than 15 persons, diligences, new, second-hand, or mended	"	300	0 00	750	00	
Carpets	"	0	1 00	0	25	Two or four wheeled carriages, without "fabrics," "calashes," with or without hussals, whatever may be the number of seats, omnibuses up to 15 seats inclusive, and carriages unmounted, new, second-hand, or mended	"	125	0 00	312	50	
Common wool	100 kilos.	33	2 00	28	00	Refrigerating carriages, trucks or vans for railways, and carts and waggons for merchandise, &c.	"	25	p.c.	25	p.c.	
Wool of other kinds, and long wool for twisting	"	5	0 00	12	50	Wooden ships, up to 100 tons of a cubic metre each	metrical ton	15	0 00	32	50	
Do. combed and prepared for do.	"	12	0 00	50	00	Ships from 101 to 300 tons 201 upwards	"	10	0 00	25	00	
Worsted, spun and twisted in the rough, or in the grease	kilo.	0	7 50	1	85	Do. iron, no matter of what form	"	5	0 00	12	50	
Do. cleaned or bleached	"	1	0 50	2	60	Timbers, &c. (despues de what from wrecks	100 kilos.	8	p.c.	8	p.c.	
Do. dyed	"	1	3 00	0	00	Salt cod and stock fish	"	7	0 00	17	50	
Carpets	100 kilos.	70	0 00	175	00	Fish, fresh, or with the salt indispensable for its preservation	"	0	4 00	1	00	
Blankets	kilo.	0	9 00	2	25							
Woven goods of pure wool, or mixed with cotton, plain and twilled, even if with pile, such as halizes and flannels, plushes or velvets	"	2	0 00	5	00							
Thin cloths, kerseymeres, and soft wool and tissue shawls	"	3	2 00	8	00							
Thick common cloths, and other woven articles of clothwork	"	2	5 00	6	25							
Coarse, napped goods, containing or not a mixture of cotton	"	0	6 00	1	50							
Do. do. of hosiery and horsehair	"	1	0 00	2	05							
Knitted goods (tejidos de punto)	"	1	6 00	4	00							
Silk, raw or spun, but un-twilled	"	0	6 00	1	50							
Twisted, up to 4 strands inclusive	"	2	5 00	6	25							
Do. do. beyond 4 strands	"	5	5 00	8	75							
Waste silk, spun, but not twisted	"	0	2 00	0	50							
Do. twisted up to 3 strands, inclusive	"	0	6 00	1	50							
Do. do. beyond 4 strands	"	1	8 00	4	50							
Plain or twilled woven goods	"	7	0 00	17	50							
Velvets and plushes	"	10	5 00	26	25							
Woven goods mixed with silk and worsted, waste silk, raw silk, or mixed silk and waste silk	"	3	6 00	9	00							
Tulle of silk or waste silk	"	9	0 00	22	50							
Lace and point do. do.	"	11	0 00	27	50							
Knitted goods (tejidos de punto) do. do.	"	6	0 00	15	00							

Duties &c.—continued.

Tariff.—Import Duties &c.—continued.

Unit	Duties in	
	Exchs. Mths.	Pct s. Cts.
100 kilos.	4 000	10 00
"	10 000	25 00
"	30 000	50 00
"	16 000	40 00
"	3 000	10 00
"	0 500	1 25
100 kilos.	11 000	27 50
"	30 000	50 00
"	80 000	200 00
"	5 000	12 50
per 1,000	16 000	40 00
"	5 000	7 50
per cubic metre	0 500	1 50
1 p.c. ad val.	1 p.c. ad val.	
100 kilos.	0 200	0 50
"	1 000	2 50
"	4 000	10 00
"	7 000	17 50
"	14 000	35 00
"	30 000	100 00
"	7 000	7 50
"	1 500	1 25
"	1 000	2 50
"	0 300	0 50
"	8 000	20 00
"	3 500	8 75
"	1 000	2 50
"	100 000	250 00
"	5 000	7 50
"	0 800	2 00
"	30 p.c. ad val.	30 p.c. ad val.
"	10 p.c. ad val.	10 p.c. ad val.
"	1 p.c. ad val.	1 p.c. ad val.
"	3 p.c. ad val.	3 p.c. ad val.
"	6 p.c. ad val.	6 p.c. ad val.
"	10 p.c. ad val.	10 p.c. ad val.
"	5 p.c. ad val.	5 p.c. ad val.
each	400 000	1000 00
"	300 000	750 00
"	125 000	312 50
"	25 p.c. ad val.	25 p.c. ad val.
metrical ton	15 000	32 50
"	10 000	25 00
"	5 000	12 50
"	5 000	12 50
100 kilos.	8 p.c. ad val.	8 p.c. ad val.
"	7 000	17 50
"	0 400	1 00

Description	Unit	Duties in	
		Exchs. Mths.	Pct s. Cts.
Salted, smoked, and pickled fish	100 kilos.	5 200	8 00
Shellfish	"	1 000	2 50
Unrefined sugar, produced in, or coming directly from, the Spanish Provinces in America	"	7 600	19 00
Do. from any foreign country	"	9 450	23 65
Do. refined, and candy, produced in, and coming directly from, the Spanish Provinces in America	"	10 800	27 00
The same, from foreign countries	"	12 900	32 25
Cacaca, cocoa, and those similar thereto	"	22 500	56 25
Guayaquil do. do. do.	"	21 500	61 25
Waxes, produced in, and proceeding directly from, the Spanish Provinces in America	"	7 400	18 50
Do. from foreign countries	"	10 000	25 00
The so-called Chinese cinnamon, and those similar thereto	kilo.	0 500	1 25
Cinnamon of other sorts	"	0 210	0 60
Vanilla	"	0 300	0 50
Pepper	"	0 100	0 25
Tea	"	0 600	1 50
Spirits (aguardiente), made in, and proceeding directly from, the Spanish Provinces in America	litre.	3 000	7 50
Do. from foreign countries	"	7 500	18 75
Liquors	litre	0 400	1 00
Beer and cider	litre.	5 000	12 50
Edifying wines	"	0 400	1 00
All other wines	"	0 200	0 50
Chocolate	kilo.	0 400	1 00
Sweets	"	0 300	0 50
Olives	100 kilos.	1 500	3 75
Preparations for soups, alimentary plants, breads, and biscuits	"	5 600	11 60
Flour	kilo.	0 100	0 25
Honey	100 kilos.	1 900	4 75
Ammunition or caps for firearms allowed to be used	"	70 000	175 00
Brushes of fine and coarse hair	kilo.	0 800	2 00
Felts of all sorts	litre	0 300	0 75
India rubber and gutta percha, raw	100 kilos.	2 000	5 00
Do. in slabs, threads, and tubes	kilo.	0 400	1 00
Do. made into articles of any shape	"	0 750	1 85
Linoleum and woad cloths for floors and packing	100 kilos.	13 000	32 50
Do. of all other sorts	kilo.	0 400	1 00
Games and toys, except those of tortoise shell, ivory, mother-of-pearl, gold and silver	"	0 600	1 50
Ivory, amber, jet, tortoise-shell, and coral, worked into any shape not hitherto mentioned	"	5 000	12 50
Paste imitations of the foregoing articles, articles of oenostachium, and of similar substances	"	1 000	2 50
Silk covered umbrellas and parasols	each	1 000	2 50
Parasols and umbrellas covered with other textures	"	0 600	1 50
Silk hosiery	kilo.	5 000	12 50
Hosiery of other sorts	"	1 800	4 50
Hats and caps:			
Of straw	"	6 000	15 00
Hats of other sorts	each	0 800	2 00
Caps do. do.	"	0 400	1 00
Hats and caps of all sorts, worked and trimmed by a milliner	"	3 000	7 50
India rubber textures, with a mixture of other materials	kilo.	1 200	3 00
Straw textures	"	0 800	2 00
All articles of hardware and mercury not mentioned	"	20 p.c. ad val.	25 p.c. ad val.

EXPORATION TARIFF.  
Lumps of cork, or cork sheets from the province of Sierra.  
Old rags of linen, cotton, or hemp, and other second hand articles of the same materials.  
Glasses (sulphate of lead).  
Argentinean lead ores.  
Litharge.

nopoly of salt after January 1, 1870. A new Spanish Customs Tariff of import duties &c. came into operation on August 1, 1869; and the prefixed are its chief features. (See pp. 13-15 of this Supplement.) [ALICANTE; MANILLA.]  
SPIRITS. [EAU DE COLOGNE; METHYLATED SPIRIT; WAREHOUSING.]  
SPRUCE. [ALE AND BEER.]  
STARCH, and GUM OF, TORRIFIED OR CALCINED. Customs' duty on, repealed, 1863.  
STOCKS. The Com. Law's Clause Amendment

Act of 1869 removes certain limitations on the interest to be paid on debenture stock, and gives facilities for borrowing money to meet debentures falling due, and for issuing shares or stock at discount. See also BANK OF ENGLAND, for facilities now given to holders of Government stock for receipt of their dividends.

SUEZ CANAL. M. de Lesseps having brought his great work well nigh to completion, the canal was formally opened on Wednesday, November 17, 1869, and fleets from the Mediterranean and the Gulf of Suez met and saluted on Lake Timsah. The length of the canal from Port Said on the Mediterranean to Suez is about 87 miles, the major part lying within the Menzaleh, Ballah, Timsah, and Bitter Lakes.

The surface or waterline width of the maritime canal is for the most part 328 feet, a reduced width of 196 feet being adopted for cuttings where the channel traverses certain elevations. The depth of water will be 26 feet.

Until it be in thorough working order and completely at the service of commerce, and has stood the test of use by practical seamen for a year or two, it would be premature to pronounce the canal a complete success, or to attempt any precise calculation of the saving to be effected by the adoption of this route to India in lieu of that by the Cape. But when it is recollected that the length of voyage from this country to Bombay via Suez is little more than 6,000 miles, while that by the Cape is nearly 10,000, the economy in navigation to be effected by an efficient canal, with moderate tolls, between Port Said and Suez, must be very great.

The passing tolls, as fixed for the present, seem to be moderate for passengers at ten francs per head, and somewhat heavy on shipping at ten francs per ton measurement. This charge is exclusive, 1. Of pilotage, which varies with the ships' draft of water; 2. Of towage, which is two francs per ton, and is exclusive also of port charges if a vessel passing through chances to touch at any of the three ports, viz. Port Said, Ismailia, in Lake Timsah, or opposite the new embankment near Suez. The charge for berthing and anchoring at any of these after twenty-four hours' stay is five centimes per ton per day.

For a history and description of the canal, and of the operations requisite to complete it, we beg to refer to two articles by Captain Clerk in the numbers of the *Fortnightly Review* for January and February 1869; the 20th number of *Engineering*, November 25, 1869; and the Notice to Mariners in the *London Gazette*, December 17, 1869. The last, embodying the information received from Commander G. S. Nares, of H. M. surveying vessel *Newport*, which passed through at the opening of the canal, describes shortly the outer anchorage, approach to, lights, and harbour of Port Said; the current off the coast, and in the canal at the north end; the depth of water at various points (18 ft. being the minimum, and 29 the maximum); the lights at the entrance of Suez Lagoon; the Suez dock; the tidal influence at the Suez end of the canal; the effect of sand drifts, &c. Commander Nares states that a single ship could pass through in from 14 to 16 hours, but that it is impossible to carry a train of large ships through in one day.

SWEDEN. See articles GOTTEBURG and STOCKHOLM, in Dictionary, edition 1869.

TALLOW. By Board of Trade notice of July 5, 1869, it would appear that the Government of Salvador has abolished the duty of 20 per cent. hitherto levied upon leaf and cake tallow.

**TAPIOCA.** Customs' duty on, repealed, 1869.  
**TARIFF.** The 32 & 33 Vict. c. 14 abolishes the Customs' duties on corn, grain, meal and flour, and articles of the like character (for list of them see Conn.). It provides that the Customs' duty on Eau de Cologne shall be 14s. per gallon, whether imported in flasks or otherwise. It admits extracts and essences of malt in transit or to be warehoused for exportation only, and alters the Customs' duties on beer and ale. [ALE.]

The same Act abolishes the excise licenses for selling tea, coffee, chocolate &c., and for letting horses and hackney carriages for hire, the stamp duty of 1s. 6d. per cent. per annum on the insurance, and assessed tax for hair powder, and substitutes licenses for assessed taxes on male servants, carriages, horses and mules, and armorial bearings. [SPAIN.]

**TEA.** The duty on licenses for trading in or selling tea, coffee, cocoa nuts, chocolate, or pepper, abolished from July 5, 1869, by 32 & 33 Vict. c. 14.

**TELEGRAPHS.** The Telegraph Act of 1868 has been amended by the 32 & 33 Vict. c. 73, which, after defining a *telegraph* as 'any apparatus for transmitting messages or other communications by means of electric signals,' and a *telegram* as 'any message or other communication transmitted or intended for transmission by a telegraph,' gives the Postmaster General the exclusive privilege, with certain exceptions, of sending messages; with power to purchase undertakings of telegraph companies within the United Kingdom; to transmit and make arrangements for foreign messages, and to raise 7,000,000, on terminable annuities. Annual accounts, and copies of all regulations, in relation to the Government Telegraphic system, are to be laid before Parliament, and messages are to be deemed post letters in the meaning of the Act 1 Vict. c. 36. [RAILWAYS.]

**TIMBER.** An export duty of 1 cent per cubic foot has been imposed by the Costa Rican Government on timber the natural production of Limon on the Atlantic. See Board of Trade notice of June 17, 1869.

*Estimated Import of Wood into the United Kingdom in 1869, from Messrs. Churchill & Sim's Circular of January 4, 1870.*

	Loads
Colonial Sawm Wood (Deals, Battens &c.)	735,000
Heven " (Timber and Hardwoods)	457,000
Foreign Sawm " (Deals, Battens, Boards &c.)	1,516,000
Heven " (Timber and Hardwoods)	780,000
Colonial and Foreign Staves	62,000
Total	3,566,000

**TRADERS.** See, for definition of a trader, the article BANKRUPTCY in this Supplement.

**TREATIES.** In this article in the Dictionary, edition 1869, under the sub-head *Japan*, it should have been stated that a summary of our treaty with the Emperor of Japan of August 26, 1858, would be found embodied in the article on NAGASAKI.

**TURKEY.** See articles in Dictionary, edition 1869, viz. CONSTANTINOPLE, SALONICA, SMYRNA, and TRENIZOND.

**TYNE.** See article DOCKS, in Dictionary, edition 1869.

**VERMICELLI.** Customs' duty on, repealed, 1869.

**WAREHOUSING.** The Customs and Excise Warehousing Act of 1869 (32 & 33 Vict. c. 103) after explaining the terms 'foreign spirits,' 'wine,' and 'British spirits,' and distinguishing 'Excise warehouses' from 'Customs warehouses' provides, by clause 4, for the warehousing of foreign spirits, and wine in bond in Excise warehouses, and for the moving the same from one Customs or Excise warehouse to another, or for exportation or for ships' stores, or on payment of customs for home consumption.

The following is a new scale of charges on delivery of goods for home consumption, the old scale having been repealed, viz. :—

*Scale of Charges on Delivery of Goods for Home Consumption from Customs and Excise Warehouses.*—There shall be charged upon the goods hereinafter mentioned upon the delivery of the same for home consumption from any customs or excise warehouse, in addition to the duties of customs or excise payable in respect of such goods, and any other charges thereon, the rate following for every full sum of one hundred pounds, and in proportion for any fractional part of one hundred pounds of the amount of such duties, namely :—

*For Goods liable to Duties of Customs.*

In respect of tobacco	£ s. d.
In respect of other goods	0 2 6
	0 5 0

*For Goods liable to Duties of Excise.*

In respect of British compounded spirits	£ s. d.
	0 5 0

and such rates shall be deemed to be duties of customs or excise according as the same become payable in respect of goods delivered from a customs or excise warehouse.

Clause 13 makes special provision for the warehousing and testing of British liquors, whereof the strength cannot be ascertained by the hydrometer.

**WHEAT.** Duty on, repealed, 1869.  
**WINE.** The Wine and Beerhouse Act of 1869 transfers the granting or renewing of licenses for the sale, by retail, of beer, cider, or wine, and the regulation of refreshment houses, from the Excise to the justices at their licensing meetings. [ALE AND BEER.]

See also, under WAREHOUSING, the provisions of the Customs and Excise Warehousing Act of 1869, for the warehousing of foreign wine in Customs or Excise warehouses, and moving the same from one to the other, for exportation, or as ships' stores, or for home consumption.

**ZANZIBAR.** By the Slave Trade Jurisdiction (Zanzibar) Act of 1869, the British consul at Zanzibar is granted such jurisdiction as ordinarily belongs to our Colonial Vice-Admiralty Courts in regard to vessels captured on suspicion of being engaged in or equipped for the slave trade, in the following cases, viz. :—

1. When a Zanzibar vessel shall have been captured, in pursuance of any treaty with the Sultan of Zanzibar, either within or beyond the dominions of Zanzibar; and

2. When the vessel captured shall not be entitled to claim the protection of the flag of any state or nation.

ZANZIBAR

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*On Delivery of Goods for Home*

*Customs and Excise Ware-*

shall be charged upon the goods  
 when upon the delivery of the  
 assumption from any customs or  
 In addition to the duties of  
 payable in respect of such  
 other charges thereon, the rates  
 the full sum of one hundred  
 proportion for any fractional part  
 pounds of the amount of such

*Table to Duties of Customs.*

per cwt	£	s.	d.
100	0	2	6
500	0	5	0

*Table to Duties of Excise.*

per gallon	£	s.	d.
100	0	5	0

shall be deemed to be duties of  
 according as the same become  
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